



**Evaluation of the Transition
Assistance Program (TAP)
*Technical Supplement for the
Impact Study***

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List of Acronyms

AFQSC	Armed Forces Qualification Test Percentile Score
AIC	Akaike Information Criterion
BAU	Business-As-Usual
BIC	Bayesian Information Criterion
CLEAR	Clearinghouse for Labor Evaluation and Research
CI	Confidence Interval
DOD	U.S. Department of Defense
DOL	U.S. Department of Labor
DOL EW	Department of Labor Employment Workshop
FEIN	Federal Employer Identification Number
ITP	Individual Transition Plan
MOC	Military Occupational Classification
MOS	Military Occupational Specialty
NDNH	National Directory of New Hires
OEMA	Office of Economic and Manpower Analysis
PSM	Propensity Score Matching
SD	Standard Deviation
SE	Standard Error
SMD	Standardized Mean Difference
SSN	Social Security Number
QW	Quarterly Wages
TAP	Transition Assistance Program
TGPS	Transition Goals, Plans, Success
TSM	Transitioning Service Member
UI	Unemployment Insurance
VA	U.S. Department of Veterans Affairs
VEI	Veterans Employment Initiative
ZINB	Zero-Inflated Negative Binomial
ZIP	Zero-Inflated Poisson

Appendix A. Propensity Score Matching

This appendix details the propensity score matching technique that was used to form the groups for the impact study.

Absent random assignment, a drawback to conducting studies with quasi-experimental designs is the potential influence of pre-existing differences between the intervention (treatment) and comparison groups. Propensity score matching (PSM; Rosenbaum & Rubin, 1983) attempts to address this shortcoming through matching treatment and comparison units based on a scalar representation of observed pre-treatment characteristics. The success of PSM yielding causal inferences is related to the tenability of the strongly ignorable treatment assumption (Rosenbaum & Rubin, 1983)¹:

$$(Y_0, Y_1) \perp TX|X$$

where Y_0 is the outcome for an individual in the absence of the treatment, Y_1 is the outcome for that individual in the presence of the treatment, TX is the treatment (coded as 0 or 1), and X is a vector of control variables. In words, the outcome for an individual that would occur with or without the treatment is independent of whether they were treated, conditional on the control variables. To the extent that all relevant control variables are “not” included in the estimation process, or contain non-random measurement error, the strongly ignorable treatment assumption does not hold. Conversely, if any unobservable or unmeasured factors not included in the estimation process are independent of the outcome, then PSM is as good as random assignment.

More formally, the propensity score is the conditional probability of receiving the treatment intervention, given the measured pre-treatment characteristics. Thus, a treated and untreated individual with similar propensity scores have, on average, similar pre-treatment characteristics. A logistic regression model is often used to estimate the probability of being in the treatment group as predicted by a set of variables (the potential confounders) as (Austin, 2008; Stuart, 2010):

$$\eta_j = \frac{e^{(\beta_0 + \beta_1 X_1 + \beta_2 X_2 \dots \beta_i X_i)}}{1 + e^{(\beta_0 + \beta_1 X_1 + \beta_2 X_2 \dots \beta_i X_i)}}$$

Here η_j represents the probability of outcome j (i.e., the probability of being in the treatment group), β_0 is the intercept representing the log of the odds when all predictors/potential confounders (X_i) are equal to zero, and the remaining coefficients (β_i) represent the (adjusted) impact of each variable on the probability (odds) of the outcome. The probability of membership in the treatment group can be utilized in different matching/analytic methods to yield groups that are comparable on the observed covariates. As part of this process, it is also important to ensure that the comparison group be constructed of units that have a non-zero probability of

¹ For example, soldiers dishonorably discharged or released for medical reasons would not have the opportunity to partake in the DOL Employment Workshop and would therefore have a zero probability of TGPS participation. These units would have to be removed from the comparison pool prior to matching to ensure treatment is ignorable.

inclusion in the treatment group, adhering to the strongly ignorable treatment assumption (Rosenbaum & Rubin, 1983).

Estimation of the predicted probability of membership in the treatment group will be based on the inclusion of the covariates in Exhibit A-1 that are believed to be, based on veterans' research literature, related to both the choice to participate in the DOL Employment Workshop and/or the proposed outcomes of interest (Stuart, 2010; Stuart & Rubin, 2008).

Exhibit A-1. Propensity Score and Logistic Regression Model Variables

Dependent (Outcome) Variables
TAP Condition: TGPS Participant, TGPS Non-participant
Independent (Predictor) Variables
Demographic & Personal Characteristics
Gender
Race
Marital Status and Children Under Age 18
Civilian Education Level
Military Career Characteristics
Pay Grade
Duration of Service
Months Deployed
AFQSC (Armed Forces Qualification Test Percentile Score)
Department of Defense Occupation Code
Census Division or Internationally Based
Separation Characteristics
Character of Separation
Post-Military Goal
Employability
Separation Program Designator Group: Disability
Age at Separation
Year of Separation

To develop the matched comparison group, we constructed a logistic regression model with a dependent variable of whether the TSM was a TGPS participant or non-participant. The probabilities were estimated with baseline covariates identified above. Estimated probabilities of treatment membership were used in a greedy matching PSM that incorporated a 0.2 standard deviation (SD; Austin, 2009b) caliper requirement. If the greedy algorithm did not find an adequate comparison unit match, the resulting number of treatment units in the final matched sample would be smaller than the originally available sample.

Categorical covariates were represented in the logistic regression model using dummy variables where the total number of categories present in a single covariate were represented by k-1 dummy variables. Methodological literature suggests a minimum of 10 outcome events per

covariate included in the model (e.g., Peduzzi et al., 1995; Cepeda et al., 2003). Thus, with 17 covariates (represented with 65 total variables in the model) of interest, the analysis would need to observe $65 \times 10 = 650$ units assigned to treatment. Given the available data, model over-fit was not an issue. Based on literature recommendations, the exploration of the covariates was informed by subject-matter knowledge and an iterative model fitting approach based on subsequent balance assessment (Austin, 2009a; Rosenbaum & Rubin, 1984) and less on the use of p-values and fit statistics (Weitzen et al., 2004).

After estimating a 1:1 match, we found several variables had standardized mean differences (SMD) greater than 0.20. After several iterations of the model were explored, we selected a 2:1 match with exact match on two variables: an indicator variable for civilian education level of high school student and an indicator variable for DoD Occupation Code in the 190s.

All of the TGPS participants and 42,670 (86 percent) of the non-participants were included in our outcome evaluation. Exhibit A-2 provides a summary of the model variable distributions after matching, displaying the post-matching standardized mean difference between the TGPS and non-TGPS groups. The matching results resulted in no SMDs greater than 0.25. However, there were two systematic differences greater than 0.20 – the unemployable indicator and base location in the East South Central Census Division. About half of variables had a SMD less than 0.05 and another quarter of the variables are less than 0.10. To avoid bias from the larger mean differences, we controlled for the matching variables in the outcome regression models.

Exhibit A-2. Baseline Equivalence for the Participant and Non-Participant Group Samples for the Preferred Model

Model Variable	Pre-Matching			Post-Matching		
	Mean Non-TGPS (n = 50,139)	Mean TGPS (n = 238,819)	SMD	Mean Non-TGPS (n = 42,670)	Mean TGPS (n = 238,819)	SMD
Male	0.867	0.856	0.057	0.857	0.856	0.005
White	0.551	0.586	0.085	0.582	0.586	0.008
Black	0.246	0.214	0.11	0.23	0.214	0.055
Hispanic	0.133	0.131	0.012	0.123	0.131	0.047
Other race	0.069	0.069	0.001	0.065	0.069	0.036
Married with children	0.459	0.354	0.265	0.348	0.354	0.015
Married with no children	0.2	0.219	0.068	0.227	0.219	0.028
Unknown marriage status with children	0.001	0.001	0.068	0.001	0.001	0.049
Unknown marriage status with no children	0.001	0.001	0.16	0.001	0.001	0.177
Not married, with children	0.075	0.062	0.125	0.065	0.062	0.025
Not married, without children	0.264	0.364	0.283	0.359	0.364	0.013
High school student at entry	0.001	0.001	0.155	0.001	0.001	0
Some college at entry	0.062	0.065	0.028	0.069	0.065	0.041
High school graduate at entry	0.753	0.762	0.03	0.742	0.762	0.064
High school dropout at entry	0.003	0.003	0.103	0.004	0.003	0.121
Alternative high school program at entry	0.03	0.029	0.023	0.03	0.029	0.018
Associate degree at entry	0.019	0.019	0.016	0.018	0.019	0.05
Bachelor degree at entry	0.092	0.091	0.006	0.1	0.091	0.066
Graduate degree at entry	0.023	0.011	0.454	0.013	0.011	0.089
Education attainment at entry missing	0.017	0.019	0.057	0.023	0.019	0.13
E-1 to E-4	0.302	0.546	0.617	0.526	0.546	0.048
E-5 to E-6	0.492	0.26	0.615	0.244	0.26	0.049
E-7 to E-9	0.091	0.088	0.02	0.1	0.088	0.084
O-1 to O-3	0.044	0.054	0.134	0.063	0.054	0.1
O-4 to O-10	0.056	0.035	0.305	0.045	0.035	0.163
W-1 to W-5	0.015	0.018	0.099	0.022	0.018	0.121
Years of service	8.65	7.74	0.132	8.22	7.74	0.069
Months deployed	10.16	29.92	0.023	10.65	9.86	0.061
AFQSC percentile 0-33	0.073	0.066	0.063	0.063	0.066	0.029
AFQSC percentile 34-66	0.519	0.513	0.014	0.496	0.513	0.041

Model Variable	Pre-Matching			Post-Matching		
	Mean Non-TGPS (n = 50,139)	Mean TGPS (n = 238,819)	SMD	Mean Non-TGPS (n = 42,670)	Mean TGPS (n = 238,819)	SMD
AFQSC percentile 67-100	0.408	0.421	0.032	0.441	0.421	0.049
AFQSC percentile missing	0.118	0.11	0.049	0.134	0.11	0.135
DoD occupation code 10	0.243	0.262	0.061	0.258	0.262	0.015
DoD occupation code 11	0.045	0.048	0.033	0.045	0.048	0.033
DoD occupation code 12	0.118	0.11	0.045	0.109	0.11	0.01
DoD occupation code 13	0.072	0.074	0.02	0.074	0.074	0.004
DoD occupation code 14	0.029	0.028	0.023	0.027	0.028	0.01
DoD occupation code 15	0.126	0.116	0.058	0.111	0.115	0.03
DoD occupation code 16	0.109	0.119	0.059	0.112	0.119	0.039
DoD occupation code 17	0.024	0.024	0.009	0.022	0.024	0.053
DoD occupation code 18	0.118	0.112	0.034	0.112	0.112	0.001
DoD occupation code 19	0.002	0.001	0.444	0.001	0.001	0
DoD occupation code 20	0.112	0.105	0.042	0.128	0.105	0.135
DoD occupation code missing	0.003	0.001	0.433	0.002	0.001	0.103
Base in New England Census Division	0.002	0.0003	1.071	0.0003	0.0004	0.077
Base in Middle Atlantic Census Division	0.035	0.052	0.25	0.042	0.052	0.132
Base in South Atlantic Census Division	0.316	0.243	0.216	0.275	0.243	0.099
Base in East South Central Census Division	0.053	0.092	0.354	0.065	0.092	0.224
Base in West South Central Census Division	0.209	0.242	0.115	0.235	0.242	0.023
Base in Mountain Census Division	0.076	0.081	0.036	0.089	0.081	0.063
Base in Pacific Census Division	0.15	157	0.035	0.167	0.157	0.044
Base in East North Central Census Division	0.01	0.004	533	0.003	0.004	0.109
Base in West North Central Census Division	0.067	0.064	0.029	0.061	0.064	0.03
International Base	0.082	0.065	0.155	0.062	0.065	0.027
Honorable discharge	0.823	0.983	1.516	0.98	0.983	0.102
Dishonorable discharge	0.032	0.007	0.919	0.008	0.007	0.056
Uncharacterized discharge	0.142	0.009	1.74	0.012	0.009	0.141
Character of Discharge missing	0.002	0.001	0.692	0.001	0.001	0.004
Goal is to attend school	0.264	0.337	0.134	0.311	0.337	0.072

Model Variable	Pre-Matching			Post-Matching		
	Mean Non-TGPS (n = 50,139)	Mean TGPS (n = 238,819)	SMD	Mean Non-TGPS (n = 42,670)	Mean TGPS (n = 238,819)	SMD
Goal is to find employment	0.414	0.477	0.56	0.503	0.477	0.063
Goal is to start a business	0.047	0.038	0.21	0.04	0.038	0.025
Already employed	0.1	0.042	0.154	0.047	0.042	0.067
Goal is to retire	0.01	0.004	0.514	0.005	0.004	0.081
Other goal	0.165	0.102	0.333	0.095	0.102	0.047
Unemployable	0.022	0.027	0.125	0.038	0.027	0.215
Employable	0.926	0.837	0.645	0.143	0.136	0.034
Employable value missing	0.051	0.136	0.545	0.819	0.837	0.077
Disabled	0.089	0.199	0.563	0.223	0.199	0.086
Age at separation	29.92	29.76	0.019	30.61	29.76	0.094
2014 Separation	0.04	0.005	1.225	0.006	0.005	0.025
2015 Separation	0.151	0.191	0.171	0.225	0.191	0.123
2016 Separation	0.192	0.272	0.272	0.268	0.272	0.012
2017 Separation	0.254	0.228	0.088	0.218	0.228	0.036
2018 Separation	0.257	0.219	0.128	0.207	0.219	0.044
2019 Separation	0.105	0.085	0.144	0.077	0.085	0.062

Source: U.S. Army Office of Economic and Manpower Analysis, 2014–2019

Appendix B. Study Sample

This section documents details related to the final sample for this study. The treatment group includes 238,819 TSMs while the comparison group includes 50,139 TSMs, for a total of 288,958 TSMs prior to analysis. Exhibit B-1 provides details on the parameters used to create these two research groups.

The sample excludes TSMs with missing post-military goal (itp_nr). While this does not capture formal exemptions for non-participants, this variable reflects intrinsic and extrinsic motivation to participate in Transition GPS. By limiting the sample to TSMs with a post-military goal, we reduced these differences between the treatment and comparison groups. Further, the fact that this group of Transition GPS non-participants has an ITP variable available at all indicates that this group participated in transition assistance activities to some degree, even if they did not participant in the DOL Employment Workshop.

Exhibit B-1. Parameters for Analytic Group Creation

	TGPS Participants (attended TAP and separated)	TGPS Non-participants (did not attend TAP and separated)
Parameters	<ul style="list-style-type: none"> DOL Employment Workshop Completion Date is between October 1, 2014 and June 30, 2019 Separation Date is between October 1, 2014 and June 30, 2019 Records where DOL Employment Workshop Completion Date is <i>after</i> Separation Date are removed (5,218 individuals) Records where Military Service Start Date is <i>blank</i> are removed (12 individuals) Records where DOL Employment Workshop Completion Date is <i>before</i> Military Service Start Date (58 individuals) Records where Military Service Start Date was <i>after</i> Separation Date (143 individuals) Records where itp_nr (post-military goals variable) was missing were removed (10 individuals) Records where TSM separated more than 18 months after taking TAP (8,125 individuals) Records where TSM took TAP less than 12 months after military entry (6,194 individuals) Records where TSM served less than 12 months (137 individuals) Records where TSM has missing value for a continuous variable (282 individuals) 	<ul style="list-style-type: none"> No DOL Employment Workshop Completion Date Separation Date is between October 1, 2014 and June 30, 2019 Records where Military Service Start Date is <i>blank</i> are removed (15 individuals) Records where Military Service Start Date was <i>after</i> Separation Date (28 individuals) Records where itp_nr (post-military goals variable) was missing were removed (163,372 individuals) Records where TSM served less than 12 months (946 individuals) Records where TSM has missing value for a continuous variable (54 individuals)
Sub-Total	238,819	50,139
Total	288,958	

Exhibit B-2 delineates the distribution of baseline demographic and military characteristics of TSMs in both research groups. Statistical analyses (e.g., chi-square analyses) indicate that there are significant differences between groups ($p < 0.0001$) for all variables listed, though effect size measures were generally small (Marital/Dependent status was of a medium size, Character of Service and Pay Grade at Separation were large). We did not use imputation or weights to deal with instances of missing data, given the large sample sizes associated with non-missing data.

Exhibit B-2. Demographic and Military Characteristics of Army TSMs at Baseline, 2014–2019

	N	All TSMs	TGPS	Non-TGPS	Difference between TGPS and Non-TGPS	Effect Size
Demographic Characteristics						
Gender						.0120
Men	247,863	86%	86%	87%	-1	
Women	41,095	14%	14%	13%	1	
Age at Separation						.0578
17 to 24 years old	100,363	35%	36%	30%	6	
25 to 34 years old	121,788	42%	41%	48%	-7	
35 to 44 years old	41,296	14%	14%	13%	1	
45 years old or older	25,511	9%	9%	8%	1	
Race/Ethnicity						.0312
White	167,459	58%	59%	55%	4	
Black	63,521	22%	21%	25%	-4	
Hispanic	38,003	13%	13%	13%	0	
Other	19,975	7%	7%	7%	0	
Marital and Dependent Status (Dependents < 18 Years of Age)						.0949
No Dependents, Not Married	100,158	35%	36%	26%	10	
No Dependents, Married	62,226	22%	22%	20%	2	
No Dependents, Unknown Marriage Status	205	0%	0%	0%	0	
Has Dependents, Not Married	18,593	6%	6%	1%	5	
Has Dependents, Married	107,503	37%	35%	46%	-11	
Has Dependents, Unknown Marriage Status	253	0%	0%	0%	0	
Disability Status						.1081
With reported disabilities	52,022	18%	20%	9%	11	
No reported disabilities	236,936	82%	80%	91%	-11	
Unemployable at Separation						.1000
Yes	7,553	3%	3%	2%	1	
No	35,154	12%	14%	5%	9	
Missing	246,251	85%	84%	93%	-9	

	N	All TSMs	TGPS	Non-TGPS	Difference between TGPS and Non-TGPS	Effect Size
Education Level at Entry						.0409
High School Student	196	0%	0%	0%	0	
Completed High School/High School Graduate/Equivalent	219,642	76%	76%	75%	1	
Alternative Program	8,522	3%	3%	3%	0	
High School Dropout	883	0%	0%	0%	0	
Associate's Degree/Technical Degree/Occupational Certificate	5,515	2%	2%	2%	0	
Some College Coursework	18,673	6%	7%	6%	1	
Bachelor's Degree	26,361	9%	9%	9%	0	
Graduate Degree	3,838	1%	1%	2%	-1	
Missing	5,328	2%	2%	2%	0	
Year of Separation						.1468
2014	3,292	1%	1%	4%	-3	
2015	53,283	18%	19%	15%	4	
2016	74,513	26%	27%	19%	8	
2017	67,229	23%	23%	25%	-2	
2018	65,201	23%	22%	26%	-4	
2019	25,440	9%	8%	10%	-2	
Military Service Characteristics						
Years of Service						.1798
Less than 6 years	151,965	53%	56%	36%	20	
6 to 19 years	104,782	36%	32%	55%	-23	
More than 20 years	32,211	11%	12%	9%	3	
Time Deployed						.0462
Not deployed (0 months)	128,700	45%	45%	40%	5	
1 to 5 months	15,167	5%	5%	6%	-1	
6 to 11 months	48,862	17%	17%	18%	-1	
12 - 23 months	51,374	18%	17%	20%	-3	
2 years or more	44,834	16%	16%	15%	1	
Negative values	21	0%	0%	0%	0	
Character of Service						.3004
Honorable Separation	275,956	96%	98%	82%	16	
Dishonorable Separation	3,363	1%	1%	3%	-2	
Uncharacterized Separation	9,356	3%	1%	14%	-13	
Missing	283	0%	0%	0%	0	

	N	All TSMs	TGPS	Non-TGPS	Difference between TGPS and Non-TGPS	Effect Size
AFQSC Percentile at Separation						.0199
1% to 33%	19,386	7%	7%	7%	0	
34% to 66%	148,577	51%	51%	52%	-1	
67% to 99%	88,820	31%	31%	29%	2	
Missing	32,175	11%	11%	12%	-1	
Pay Grade at Separation						.2114
E-1 to E-4	145,436	50%	55%	30%	25	
E-5 to E-6	86,684	30%	26%	49%	-23	
E-7 to E-9	25,663	9%	9%	9%	0	
O-1 to O-3	15,024	5%	5%	4%	1	
O-4 to O-10	11,048	4%	3%	6%	-3	
W-1 to W-5	5,103	2%	2%	2%	0	
Base Census Division						.0961
New England	187	0%	0%	0%	0	
Middle Atlantic	14,053	5%	5%	3%	2	
South Atlantic	73,986	26%	24%	32%	-8	
East South Central	24,658	9%	9%	5%	4	
West South Central	68,267	24%	24%	21%	3	
Mountain	23,087	8%	8%	8%	0	
Pacific	45,076	16%	16%	15%	1	
East North Central	1,431	0%	0%	1%	-1	
West North Central	18,532	6%	6%	7%	-1	
International	19,681	7%	7%	8%	-1	
Military Occupation Code						.0311
10X – Infantry, Gun Crews, and Seamanship Specialists	74,860	26%	26%	24%	2	
11X – Electronic Equipment Repairers	13,661	5%	5%	5%	0	
12X – Communications and Intelligence Specialists	32,278	11%	11%	12%	-1	
13X – Health Care Specialists	21,288	7%	7%	7%	0	
14X – Other Allied Professions	8,105	3%	3%	3%	0	
15X – Functional Support and Administration	33,888	12%	12%	13%	-1	
16X – Electrical/Mechanical Equipment Repairers	33,768	12%	12%	11%	1	
17X – Craftworkers	6,972	2%	2%	2%	0	
18X – Service and Supply Handlers	32,664	11%	11%	12%	-1	
19X – Unassigned Occupation Group	302	0%	0%	0%	0	
200+ - Officer Occupation Group	30,686	11%	10%	11%	-1	
Military Occupation Code Missing	486	0%	0%	0%	0	

	N	All TSMs	TGPS	Non-TGPS	Difference between TGPS and Non-TGPS	Effect Size
Post-Military Goal						.1370
I already have post-military employment	15163	5%	4%	10%	-6	
I plan to get a job and start work as soon as possible	134586	47%	48%	41%	7	
I plan to go to school and use my VA education benefits	93621	32%	34%	26%	8	
I plan to start a business	11435	4%	4%	5%	-1	
I plan to retire and not work	1515	1%	0%	1%	-1	
Other post-military goal	32638	11%	10%	16%	-6	
Number of participants	-	288,958	238,819	50,139	-	-

Source: U.S. Army Office of Economic and Manpower Analysis, 2014–2019

Notes: Totals may not sum to 100% due to rounding. “Other” in the Race/Ethnicity category includes Native American, Asian, Pacific Islander, and other races.

TSM = Transitioning Service Member; TGPS = Transition Goals, Plans and Success program; Pay Grades (E = Enlisted, O = Officer, W = Warrant Officer).

Appendix C. Data Elements and Sources

This appendix details the data sources that were used in the impact study analyses. Our analyses relied on service member data collected by the U.S. Army Office of Economic and Manpower Analysis (OEMA), which was merged with wage and employment data from the National Directory of New Hires (NDNH). The U.S. Department of Health and Human Services (HHS) Administration for Children and Families (ACF) matched the records of separated service members based upon Social Security number (SSN).

Exhibit C-1 lists the variables in each dataset that we used for creating the comparison groups, conducting regression analyses, and exploring subgroups.

Exhibit C-1. Data Elements for PSM Model, Regression Analysis, and Subgroup Analysis

Variable Description	Variable Operational Details	Analysis Variable Name (Data Source)	Used in PSM / Regression Model	Subgroup Analyses
Military Separation Date	Continuous (MM/DD/YYYY)	sep_date (OEMA)	No	Yes
TGPS Study Group	Categorical: <ul style="list-style-type: none"> • 2 = TGPS Participants (Treatment) • 3 = TGPS Non-Participants (Comparison) 	tap_grp (OEMA)	PSM/Regression	No
Gender	Categorical: <ul style="list-style-type: none"> • 0 = Female • 1 = Male 	male (OEMA)	PSM/Regression	Yes
Marital & Dependent Status (Dependents < 18 Years of Age)	Categorical: <ul style="list-style-type: none"> • 1 = No Dependents, Not Married • 2 = No Dependents, Married • 3 = No Dependents, Unknown Marriage Status • 4 = Has Dependents, Not Married • 5 = Has Dependents, Married • 6 = Has Dependents, Unknown Marriage Status 	marst_kids (OEMA)	PSM/Regression	No
Race/Ethnicity	Categorical: <ul style="list-style-type: none"> • 1 = White • 2 = Black 	race4 (OEMA)	PSM/Regression	Yes

Variable Description	Variable Operational Details	Analysis Variable Name (Data Source)	Used in PSM / Regression Model	Subgroup Analyses
	<ul style="list-style-type: none"> • 3 = Hispanic • 4 = Other 			
Age at Separation	Continuous in years (18-79)	age_sep (OEMA)	PSM/Regression	Yes
Military Occupational Specialty (MOS)	Categorical, with 10 aggregated DOD Occupation Codes and one for missing MOS: <ul style="list-style-type: none"> • 1 = 10X - Infantry, Gun Crews, and Seaman Specialists • 2 = 11X – Electronic Equipment Repairers • 3 = 12X – Communications and Intelligence Specialists • 4 = 13X – Health Care Specialists • 5 = 14X – Other Allied Professions • 6 = 15X – Functional Support and Administration • 7 = 16X – Electrical/Mechanical Equipment Repairers • 8 = 17X - Craftworkers • 9 = 18X – Service and Supply Handlers • 10 = 19X - Unclassified • 11 = 200+ – Officer MOS • -1 = MOS missing 	dodocc (OEMA)	PSM/Regression	Yes (dichotomized into combat and non-combat)
Disabled at Separation	Categorical: <ul style="list-style-type: none"> • 1 = Disabled according to separation program designator (SPD) values • 0 = Not disabled • -1 = Missing 	disabled (OEMA)	PSM/Regression	Yes
Unemployable at Separation	Categorical: <ul style="list-style-type: none"> • 0 = employable based on US Army Physical Disability Agency (USAPDA) combined rating 	unemployable (OEMA)	PSM/Regression	No

Variable Description	Variable Operational Details	Analysis Variable Name (Data Source)	Used in PSM / Regression Model	Subgroup Analyses
	<ul style="list-style-type: none"> • 1 = unemployable based on USAPDA combined rating • -1 = Missing 			
Education Level at Entry	Categorical: <ul style="list-style-type: none"> • 1 = High school student • 2 = Completed high school or High School graduate/equivalent • 3 = Alternative program (e.g., job corps, adult education diploma, national youth challenge, etc.) • 4 = High school dropout • 5 = Associate's degree, technical degree, or occupational certificate • 6 = Some college coursework • 7 = Bachelor's degree • 8 = Graduate degree • -1 = Education missing 	preedu_cat (OEMA)	PSM/Regression	No
Years of Service	Continuous in years (0 – 31)	yos (OEMA)	PSM/Regression	Yes
Time Deployed Since 2002	Continuous in months (-2 to 97)	p2002_hfpdur (OEMA)	PSM/Regression	No
Year of Separation	Categorical: <ul style="list-style-type: none"> • 1 = 2014 • 2 = 2015 • 3 = 2016 • 4 = 2017 • 5 = 2018 • 6 = 2019 	loss_ym (OEMA)	PSM/Regression	No
Character of Service/Discharge Status	Categorical: <ul style="list-style-type: none"> • 1 = Honorable/under honorable separation • 2 = Bad conduct/dishonorable/other than honorable separation • 3 = Uncharacterized separation 	char_discharge (OEMA)	PSM/Regression	Yes

Variable Description	Variable Operational Details	Analysis Variable Name (Data Source)	Used in PSM / Regression Model	Subgroup Analyses
	<ul style="list-style-type: none"> • 4 = Other separation • -1 = Missing 			
Armed Forces Qualification Test Percentile Score (AFQSC) Percentile at Separation	Categorical: <ul style="list-style-type: none"> • 1 = 1-33% • 2 = 34-66% • 3 = 67-99% • -1 = missing 	afqsc1 (OEMA)	PSM/Regression	No
Pay Grade at Separation	Categorical: <ul style="list-style-type: none"> • 1 = E-1, E-2, E-3, or E-4 • 2 = E-5 or E-6 • 3 = E-7, E-8, or E-9 • 4 = O-1, O-2, or O-3 • 5 = O-4, O-5, O-6, O-7, O-8, O-9, or O-10 • 6 = W-1, W-2, W-3, W-4, or W-5 	grade_cat (OEMA)	PSM/Regression	Yes
Post-Military Goal (Proxy for TAP Waiver)	Categorical: <ul style="list-style-type: none"> • 1 = I already have post-military employment • 2 = I plan to go to school and use my VA education benefits • 3 = I plan to get a job and start work as soon as possible • 4 = I plan to start a business • 5 = I plan to retire and not work • 6 = Other 	itp_nr (OEMA)	PSM/Regression	Yes
Census Division	Categorical: <ul style="list-style-type: none"> • 1 = New England • 2 = Middle Atlantic • 3 = South Atlantic • 4 = South Central • 5 = West South Central • 6 = Mountain • 7 = Pacific • 8 = East North Central • 9 = West North Central • 10 = International 	stateasgn (OEMA)	PSM/Regression	No

Variable Description	Variable Operational Details	Analysis Variable Name (Data Source)	Used in PSM / Regression Model	Subgroup Analyses
Pre-“Intervention Time Period” Monthly Basic Wage Pay	Monthly basic wage pay one year prior to separation date. Calculated by determining date for 1 year prior to separation date and comparing to dates of prior paygrade promotions (promo_[ym]_ym). Used military pay wage tables available on the internet. ¹ Used in analysis as control variable in regression model to control for earnings greater than one year before program participation. ² During the period under observation, DOD policy directed TSMs to participate in TAP one year prior to separation. Variable created by ICF based on OEMA data. Continuous \$1,529.60-\$7,844.13	preTAP_wage (OEMA)	Regression	No
Employee Hire Date	Continuous (MM/DD/YYYY)	emp_hire_dt_s (NDNH – W4)	Regression	No
Time Between Military Separation Date and Hire Date	Continuous (number of days)	sep2hire (OEMA & NDNH – W4)	Regression	No

Notes: ¹Pay rates for 2013-2020: <https://militarypay.defense.gov/Pay/Basic-Pay/Active-Duty-Pay/>. Pay rates for 2012: <https://militarybenefits.info/historical-military-pay-rates/>

²DOL CLEAR. (October 2020). Review Protocol for the Employment and Training Topic Area, Version 2.1. https://clear.dol.gov/sites/default/files/CLEAR_ETA_ReviewProtocolOct20_0.pdf

Exhibit C-2 describes our data transformation process (i.e., how we got from “Source Variable Name” to “Analysis Variable Name”) for the variables we used.

Exhibit C-2. Data Transformation

Analysis Variable Name	Source Data Variable Name	Transformation Steps
age_sep	age (OEMA)	<ul style="list-style-type: none"> • Add 7 to age (initial specification was 7 less than actual) • Subtract separation date from entry date and add the difference to age
race4	race9 (OEMA)	<ul style="list-style-type: none"> • Consolidate “Asian,” “Native American,” and “Pacific Islander” categories to “Other”
preedu_cat	Entry_civedcatd (OEMA)	<ul style="list-style-type: none"> • Consolidate “high school senior” and “currently in hs” into “High School Student” • Consolidate “ged,” “high school grad, failed exit exam,” “high school certificate of attendance,” and “high school grad” into “High School Graduate” • Consolidate “home school,” “national youth challenge,” “distance learning,” “adult education diploma,” “other non-traditional credential,” and “job corps” into “Alternative Program” • Consolidate “current enrolled or completed 15 semester hours of college” and “22 or greater semester hours of college” into “Some College” • Consolidate “associates degree” and “professional nursing degree” into “Associate’s Degree”
marst_kids	nrdepc & marst (OEMA)	<ul style="list-style-type: none"> • If nrdepc is 0 and marst is 1, 3, 4, or 5, then “no kids, not married” • If nrdepc is 0 and marst is 2, then “no kids, married” • If nrdepc is 0 and marst is missing, then “no kids, unknown marriage status” • If nrdepc is greater than 0 and marst is 1, 3, 4, or 5, then “kids, not married” • If nrdepc is greater than 0 and marst is 2, then “kids, married” • If nrdepc is greater than 0 and marst is missing, then “kids, unknown marriage status”
disabled	spd (OEMA)	<ul style="list-style-type: none"> • If SPD is 'JEA', 'JEB', 'JEE', 'KEE', 'SEJ', 'VEJ', 'WEJ', 'SEK', 'VEK', 'WEK', 'JEN', 'KEN', 'JEP', 'JEQ', 'WEQ', 'JER', 'LER', 'JFI', 'SFJ', 'VFJ', 'WFJ', 'SFK', 'VFK', 'WFK', 'JFL', 'JFM', 'KFM', 'JFN', 'KFN', 'JFO', 'JFP', 'JFQ', 'WFQ', 'JFR', 'LFR', then disabled is 1. All else disabled is 0.
afqsc1	afqsc (OEMA)	<ul style="list-style-type: none"> • If afqsc is 0 to 33 then afqsc1 is 1 • If afqsc is 34 to 66 then afqsc1 is 2 • If afqsc is 67 to 100 then afqsc1 is 3 • If afqsc is missing, then afqsc1 is -1
unemployable	usapda_combined_rating (OEMA)	<ul style="list-style-type: none"> • If usapda_combined_rate is less than or equal to 60, then unemployable is 0.

Analysis Variable Name	Source Data Variable Name	Transformation Steps
		<ul style="list-style-type: none"> • If usapda_combined_rate is greater than or equal to 70, then unemployable is 1 • If usapda_combined_rate is missing, then unemployable is -1
grade_cat	grade (OEMA)	<ul style="list-style-type: none"> • If grade is E-1, E-2, E-3, or E-4, then grade_cat is 1 • If grade is E-5 or E-6, then grade_cat is 2 • If grade is E-7, E-8, or E-9, then grade_cat is 3 • If grade is O-1, O-2, O-3, then grade_cat is 4 • If grade is O-4, or O-5, O-6, O-7, O-8, O-9, or O-10, then grade_cat is 5 • If grade is W-1, W-2, W-3, W-4, or W-5, then grade_cat is 6
census_div	loc_country and stateasgn (OEMA)	<ul style="list-style-type: none"> • If stateasgn is "US-ME", "US-NH", "US-VT", "US-CT", "US-RI", or "US-MA", then census_div is 1 • If stateasgn is "US-NY", "US-PA", or "US-NJ", then stateasgn is 2 • If stateasgn is "US-DE", "US-MD", "US-WV", "US-DC", "US-VA", "US-NC", "US-SC", "US-GA", or "US-FL" then census_div is 3 • If stateasgn is "US-KY", "US-TN", "US-MS", or "US-AL" then census_div is 4 • If stateasgn is "US-TX", "US-OK", "US-AR", or "US-LA" then census_div is 5 • If stateasgn is "US-ID", "US-MT", "US-WY", "US-NV", "US-UT", "US-CO", "US-AZ", or "US-NM" then census_div is 6 • If stateasgn is "US-AK", "US-HI", "US-CA", "US-OR", or "US-WA" then census_div is 7 • If stateasgn is "US-WI", "US-MI", "US-IL", "US-IN", or "US-OH" then census_div is 8 • If stateasgn is "US-ND", "US-SD", "US-MN", "US-NE", "US-IA", "US-MO", or "US-KS" • If loc_country is not "US", then census_div is 10
char_discharge	chrsvc (OEMA)	<ul style="list-style-type: none"> • If chrsvc is 'A' or 'B', then char_discharge is 1 (honorable separation) • If chrsvc is 'D' 'E' or 'F', then char_discharge is 2 (dishonorable separation) • If chrsvc is 'Y', then char_discharge is 3 (uncharacterized discharge) • If chrsvc is not the above values, then char_discharge is 4 (other discharge) • If chrsvc is missing, then char_discharge is -1 (missing)
dodocc	mos (OEMA)	<ul style="list-style-type: none"> • Converted the MOS to DoD Occupation codes using http://www.onetcenter.org/dl_files/2010/military_crosswalk.zip. • Consolidated DoD Occupations codes with first two digits, following the example of Hahn et al. (2020).

Appendix D. Data Analyses

This appendix documents the analytic activities conducted in the study. It reviews the confirmatory analyses (descriptive and inferential) as well as subgroup analyses, including the analytic approach and model specifications for each research question.

Impact Analyses

Exhibit D-1 presents the analyses used to assess the impact of Transition GPS on employment and wage outcomes.

Exhibit D-1. Impact Analyses

Outcome	Data Sources	Analysis
Time Between separation and employment	<p>NDNH:</p> <ul style="list-style-type: none"> Date of Hire (w4) / Wage Quarter (QW) Employee Wage Amount (QW) <p>OEMA:</p> <ul style="list-style-type: none"> Separation Date TGPS Participation 	<p>Primary:</p> <ul style="list-style-type: none"> Compare between groups the average time from separation to first hire
Employment	<p>NDNH:</p> <ul style="list-style-type: none"> Date of Hire (w4) / Wage Quarter (QW) Employee Wage Amount (QW) <p>OEMA:</p> <ul style="list-style-type: none"> Separation Date TGPS Participation 	<p>Primary:</p> <ul style="list-style-type: none"> Compare between groups the percent employed by 6 months and 12 months post-separation
Wages	<p>NDNH:</p> <ul style="list-style-type: none"> Employee Wage Amount (QW) <p>OEMA:</p> <ul style="list-style-type: none"> Separation Date TGPS Participation Pay Grade at Separation 	<p>Primary:</p> <ul style="list-style-type: none"> Compare between groups the wage amounts, at 6 months and 12 months post-separation Compare between groups the size of wage increase from 1st quarter post-separation to 5th quarter post-separation (for those with data available for that time period) Compare between groups the wage amounts, at 24 months and 36 months post-separation <p>Secondary:</p> <ul style="list-style-type: none"> Compare between groups the size of wage increase from military wage at separation to wage at 4th quarter post-separation
Time spent without employment	<p>NDNH:</p> <ul style="list-style-type: none"> Employment Status (w4/QW) 	<p>Primary:</p> <ul style="list-style-type: none"> Compare between groups the number of quarters spent without employment at 12 months post-separation

Outcome	Data Sources	Analysis
	<ul style="list-style-type: none"> Quarters received unemployment insurance benefits (UI) <p>OEMA:</p> <ul style="list-style-type: none"> Separation Date TGPS Participation 	<ul style="list-style-type: none"> Compare between groups the number of quarters spent without employment at 36 months post-separation For those not employed at 6 months and 12 months post-separation, look descriptively at the proportion who received UI and how much they received on average
Employment retention	<p>NDNH:</p> <ul style="list-style-type: none"> Pseudo FEIN (w4) Employment Status (w4/QW) <p>OEMA:</p> <ul style="list-style-type: none"> Separation Date TGPS Participation 	<p>Primary:</p> <ul style="list-style-type: none"> For those who got a job by 6 months post-separation, compare between groups the percentage who are employed at the <i>same</i> job at 12 months post-separation For those who got a job by 6 months post-separation, compare between groups the percentage who are still employed <i>at any job</i> at 12 months post-separation

NDNH = National Directory of New Hires; OEMA = Office of Economic and Manpower Analysis; TGPS = Transition Goals, Plans, and Success

Descriptive Analyses

Analysis of the data began with simple tabulation and descriptive statistics by groups of interest, including Transition GPS participants versus non-participants, as well as the subgroups of interest (see the listing below in the Inferential Analysis section). We compiled summary statistics for main outcomes and subgroups in crosstabulation tables. We used graphical displays (e.g., clustered bar graphs, multi-group line plots, etc.) and tables to highlight interesting trends or relationships. To the extent possible, quantitative descriptions were made of (a) those individuals who did *not* participate in TAP and (b) those individuals who did supply responses to their post-military goals (as these are a subset of the individuals who did not participate in TAP).

Inferential Analyses

Generalized Linear Model (GLM) analyses were used to conduct the primary impact analyses necessary to answer the two primary research questions. For each of the research questions, a number of dependent variable outcomes were explored, including (1) the difference between the date of separation from the military and the first date of hire as time spent seeking employment; (2) an indicator denoting employment status (based on NDNH wage data) at 6, 12, 24 and 36 months post-separation; (3) wage amounts and 12, 24 and 36 months post-separation among those employed and (4) the difference between the date of separation from the military and most recent date associated with unemployment insurance as time spent unemployed. The first research question of interest was

1. What is the impact of the Transition GPS program on employment-related outcomes for Army TSMs who participated in Transition GPS compared to Army TSMs who did not participate in Transition GPS?

$$\eta = \beta_0 + \beta_{TX}TX + \sum_{p=1}^P \beta_{Cov}Cov_p + \beta_{pwage}PWage + \varepsilon$$

This is specified as a generalized linear model to flexibly handle the different scales of the various outcome variables of interest. Here η is the linear predictor for the outcome variable of interest (e.g., wages earned at 12 months), β_0 is the intercept, β_{TX} is the coefficient associated with the treatment indicator TX (i.e., the indicator variable denoting whether a record was a participant in the Transition GPS or a non-participant), and β_{Cov} represents a matrix of coefficients associated with each of the pre-treatment covariates included in the Cov_p data matrix², β_{pwage} is the coefficient associated with prior wage and ε is the error term. The outcome is modeled via a link function $g(\mu)$ that describes how the mean, $E(Y) = \mu$ depends on the linear predictor η . In addition to the link function a variance function, $var(Y) = \phi V(\mu)$ describes how the variance in the outcome depends on the mean. This is necessary to accommodate outcome variables taking different forms (i.e., continuous outcomes such as wages or binary outcomes such as indicators denoting employment/unemployment status). For linear outcomes like wage, the link function is $g(\mu) = \mu$ and $V(\mu) = 1$, while for binomial outcomes (e.g., binary) the link function is $log(\mu/(1 - \mu))$ and $V(\mu) = \mu(1 - \mu)$.

The second research question of interest was

2. Among participants and non-participants of Transition GPS, are there specific subgroups, such as women, racial/ethnic minorities, persons with disabilities, or combat/infantrymen for whom employment-related outcomes differed following separation?

The exploration of whether participation in Transition GPS differentially impacted certain subgroups involved the detection of moderator variables (i.e., whether the relationship between the Transition GPS intervention and our outcomes depends upon a third variable). In this case, the moderators were the subgroups of interest (e.g., gender, combat versus non-combat position, etc.)

$$\eta = \beta_0 + \beta_{TX}TX + \beta_{Sub}Sub + \beta_{TXSub}(TX * Sub) + \sum_{p=1}^P \beta_{Cov}Cov_p + \beta_{pwage}PWage + \varepsilon$$

This model is like the specification associated with the first research question but includes an indicator for the subgroup(s) of interest and the interaction between the subgroup indicator and the treatment indicator. Here the estimate β_{TX} is now conditional (dependent) on the value of Sub . Effectively, this means that the effect of the intervention, on the outcome, depends on the

² Pre-treatment covariates that exhibit remaining imbalance after the matching process were included in the inferential outcome models as a doubly-robust approach (Rubin & Thomas, 2000). In addition to the pre-test covariates used in matching that remain imbalanced, a variable representing the pre-TAP participation wage (*preTAP_wage*) was included to align with the Clearinghouse for Labor Evaluation and Research (CLEAR) review criteria for this topic area. In addition, a categorical indicator representing geographic region (e.g., Southeast U.S., Western U.S., international) at time of separation was included to adjust for between-region difference in employment opportunities and wages.

value of *Sub*. The estimate associated with the interaction, β_{TXSub} represents the degree to which the slopes representing the relationship between the intervention and the outcome diverge. Stated differently, β_{TXSub} represents the difference in the outcome between two cases that differ by their membership in the treatment or comparison group changes as *Sub* changes by one unit. Should the results of an inferential assessment of β_{TXSub} find that it is significantly different from zero (the null hypothesis), then we learn that participation in Transition GPS has a different effect on employment outcomes depending on membership in the subgroup(s) of interest.

Because we conducted multiple analyses on the same outcomes, across multiple levels of the same subgroup variable (e.g., categories of race), multiple comparison adjustments were necessary to maintain a reasonable Type I error rate (rejecting the null hypothesis when it is true). We used the Benjamini-Hochberg (1995) method for controlling the false discovery rate of significant findings (as non-significant results will remain non-significant). Significant results associated with outcomes within a single domain (i.e., wages or unemployment) were rank-ordered in ascending order of significance. Once ordered, critical, adjusted p-values were calculated following formula F.2.1 of the What Works Clearinghouse Procedures Handbook 4.1. The cutoff point satisfying condition F.2.2 was used to determine which results will remain significant.

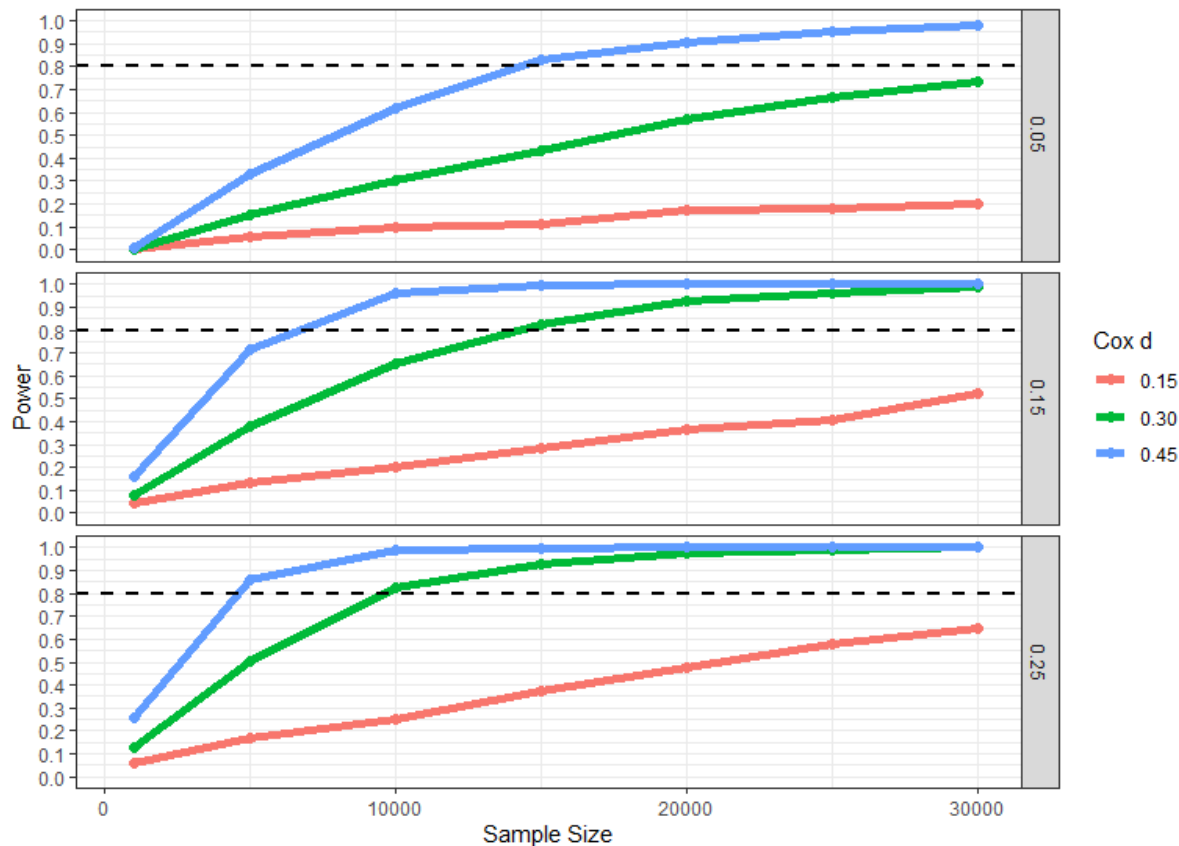
Unfortunately, subgroup analyses are often under-powered (meaning they have less ability to detect a true significant effect). Power analysis is often undertaken to determine how large a sample size is needed to detect a true effect if it exists in the population, based on a sample. The fact that we possess such a large sample nearly representing the population of interest could render power analysis moot. However, we chose to explore some minimal statistical power analytic strategies to provide rough estimates of our ability to detect differences among our subgroups of interest.

We simulated data making use of characteristics present in our actual data, including the proportion of Transition GPS participants to non-participants (.5 with our PSM-based sample), the proportion of a potential moderator variable (with values .05, .15 and .25) and the proportion of units employed (versus not employed; .8 to .2, respectively) across sample sizes ranging from 500 to 30,000 (with 30,000 representing the smallest categories in subgroups of interest). We manipulated the relationship between the interaction term and the outcome to vary in size, converting the log-odds coefficient into a Cox's d effect size (see the What Works Clearinghouse Procedures Handbook 4.1 for details).

We can see in Exhibit D-2 below that statistical power increases as the effect size (colored lines) associated with the interaction term increases, and as our sample size increases. The three panels each represent the probability of the moderator variable being a '1', and each has a dotted black line where power equals 0.8. Thus, the lower the probability associated with the moderator variable, the lower our statistical power (i.e., power increases from the top panel to the lower panel where the probability is higher). Note that in all models, the outcome variable probability was set at 0.05, meaning a relatively rare prevalence, to align with the sample percentage (5%) of service members with 20 or more years of service that were not employed.

Overall, these analyses present a likely worst-case scenario, as most categories reflected greater probabilities and continuous outcomes (i.e., wages) will have more variability to model.

Exhibit D-2. Power Analysis



All employment-related outcomes were analyzed by subgroup (Exhibit D-3). Gender-related employment outcomes were analyzed for men and women. Racial and ethnic-related employment outcomes were analyzed between White, African American, Hispanic, and other race categories. The “other” race category includes Native American, Asian, Pacific Islander, and other races. For age at separation, we developed categories based on the Bureau of Labor Statistics. Categories for military separation date were developed based on the Department of Veteran’s Affairs Post-Separation Transition Assistance Program (TAP) Assessment (PSTAP) study (Economic Systems and Westat, 2021). Groups were formed in reference to the end range of the separation dates. For MOS, paygrade, and AFQSC percentile, we developed categories based on Hahn et al. (2020) and used the MOS designations to identify those serving as combat arms/infantrymen.

Exhibit D-3. Subgroup Analyses

Characteristic	Subgroups
Gender	Men; Women
Race and ethnicity	Black; Hispanic; Other races; White
Disability status	With reported disabilities; No reported disabilities
Age at separation	Under 20; 20–24; 25–34; 35–44; 45–54; 55–64; 65 or older
Years of service	0–5 years; 6–20 years; 20 or more years
Pay grade at separation	E–1 to E–4; E–5 to E–6; E–7 to E–9; O–1 to O–3; O–4 to O–10; W–1 to W–5
Post-military goal	Have employment; Plan to get a job; Plan to go to school; Plan to start a business; Retiring; Other
Character of service	Honorable discharge; Dishonorable discharge; Uncharacterized; Missing
Combat arms/infantrymen	Combat; Non-combat
Military separation date	2014; 2015; 2016; 2017; 2018; 2019

For each of the outcome models specified above, standard diagnostic analyses were used to assess the tenability of the different OLS assumptions being made, including the distribution of model errors, identification of outliers, and the exploration of observation influence. Any decisions to include/exclude or alter observations based upon these analyses were documented.

Associational Analyses

In addition to the inferential and descriptive analyses outlined above, we conducted associational/correlational analysis to explore the relationships between outcomes of interest (e.g., employment status and wages) and the separate Army Career and Alumni Program (ACAP) TAP components completed by program participants:

- DOL Employment Workshop (DOL EW)
- Transition Overview
- MOC Crosswalk
- Personal Finance
- Post Service Budget
- VA Benefits Briefing (I & II)
- Education Track
- Entrepreneur Track
- Career Technical Track
- Individual Transition Plan (ITP)

Outcome regression models included dummy variable representations of completing each of the components above to determine if any components are more/less related to outcomes. We examined the relationship between completing *all* components of Transition GPS (DOL EW, Transition Overview, MOC Crosswalk, Personal Finance/Budget, VA Briefings, ITP) and employment and earnings. We also examined the relationship between outcomes and the completion of the optional tracks in addition to all the components of Transition GPS. Finally, we

investigated the relationship between the outcomes and when a TSM completed Transition GPS.

Appendix E. Labor Market Context

This appendix provides additional information about the labor market conditions during the time period of the study, including follow-up (2014–2022). It includes tables of percentages for unemployment and labor participation rates by veteran status³, gender, race, and ethnicity. It also includes the breakdown of employment by industry sector.

Unemployment

Exhibit E-1. National Unemployment Rate, 2014–2022 (reported in percentages)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
National Rate	6.2	5.3	4.9	4.4	3.9	3.7	8.1	5.3	3.6

Source: U.S. Bureau of Labor Statistics, 2014–2022

Exhibit E-2. Annual Average Unemployment Rate by Veteran Status, 2014–2022 (reported in percentages)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total Veterans	5.3	4.6	4.3	3.7	3.7	3.1	6.5	4.4	2.8
Gulf War-era II Veterans	7.2	5.8	5.1	4.5	4.5	3.5	7.3	4.6	3.1
Nonveterans	6.0	5.2	4.7	4.2	4.2	3.6	8.0	5.3	3.6

Source: U.S. Bureau of Labor Statistics *Employment Situation of Veterans, 2014–2022*

Note: Annual average unemployment rate of the civilian noninstitutional population, 18 years of age and older, by Veteran status and period of service. Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated.

³ Definitions based on the U.S. Bureau of Labor Statistics: Veterans are those who served on active duty anywhere in the world during these periods of service: Gulf War-era II (September 2001–present), Gulf War-era I (August 1990–August 2001), Vietnam era (August 1964–April 1975), Korean War (July 1950–January 1955), World War II (December 1941–December 1946), and other service periods (all other time periods). Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated. Nonveterans never served on active duty in the U.S. Armed Forces.

Unemployment by Gender

Exhibit E-3. Annual Average Unemployment Rate by Veteran Status and Gender, 2014–2022
(reported in percentages)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Men									
Total Veterans	5.2	4.5	4.2	3.6	3.5	3.0	6.5	4.4	2.8
Gulf War-era II Veterans	6.9	5.7	5.1	4.3	3.9	3.4	7.4	4.6	3.1
Nonveterans	6.2	5.3	4.8	4.3	3.8	3.7	7.8	5.5	3.7
Women									
Total Veterans	6.0	5.4	5.0	4.1	3.0	3.7	6.7	4.2	2.8
Gulf War-era II Veterans	8.5	6.4	5.0	5.5	3.5	4.7	7.2	4.9	2.9
Nonveterans	5.9	5.0	4.8	4.1	3.7	3.5	8.2	5.1	3.5

Source: U.S. Bureau of Labor Statistics *Employment Situation of Veterans, 2014–2022*

Note: Annual average unemployment rate of the civilian noninstitutional population, 18 years of age and older, by Veteran status and period of service. Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated.

Unemployment by Race/Ethnicity

Exhibit E-4. Annual Average Unemployment Rate by Veteran Status and Race/Ethnicity, 2014–2022
(reported in percentages)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Asian									
Total Veterans	4.7	3.1	2.1	1.6	2.6	3.6	5.1	3.8	2.8
Gulf War-era II Veterans	7.4	2.1	1.8	1.6	3.9	3.9	6.7	4.9	2.9
Nonveterans	4.9	3.8	3.6	3.4	3.0	2.6	8.7	5.0	3.5
Black or African American									
Total Veterans	7.7	7.6	5.5	5.1	4.3	4.9	7.5	5.0	3.9
Gulf War-era II Veterans	9.5	9.3	5.1	6.5	5.5	6.8	6.8	4.6	3.7
Nonveterans	11.3	9.4	8.4	7.4	6.4	5.9	11.5	8.7	6.1
Hispanic or Latino									
Total Veterans	6.3	6.2	4.9	3.8	3.8	2.4	7.4	6.0	3.3
Gulf War-era II Veterans	7.6	6.5	4.5	4.0	3.4	3.2	8.7	6.0	4.1
Nonveterans	7.2	6.4	5.6	5.0	4.5	4.2	10.4	6.7	4.1
White									
Total Veterans	4.8	4.0	4.1	3.4	3.3	2.8	6.1	4.2	2.5
Gulf War-era II Veterans	6.4	5.1	5.2	4.1	3.5	3.0	7.0	4.5	2.9
Nonveterans	5.1	4.5	4.1	3.7	3.3	3.2	7.2	4.7	3.2

Source: U.S. Bureau of Labor Statistics *Employment Situation of Veterans, 2014–2022*

Note: Annual average unemployment rate of the civilian noninstitutional population, 18 years of age and older, by Veteran status and period of service. Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated. Hispanic or Latino includes any race.

Labor Force Participation Rate

Exhibit E-5. National Labor Force Participation Rate, 2014–2022 (reported in percentages)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
National Rate	62.9	62.7	62.8	62.9	62.9	63.1	61.7	61.7	62.2

Source: U.S. Bureau of Labor Statistics, 2014–2022

Exhibit E-6. Annual Average Labor Force Participation Rate by Veteran Status, 2014–2022 (reported in percentages)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total Veterans	50.6	50.7	50.6	49.7	49.2	49.2	48.3	47.7	47.9
Gulf War-era II Veterans	79.6	81.0	81.5	80.6	80.9	80.1	78.7	78.7	79.9
Nonveterans	65.7	65.4	65.5	65.6	65.5	65.7	64.2	64.1	64.7

Source: U.S. Bureau of Labor Statistics *Employment Situation of Veterans, 2014–2022*

Notes: Annual average labor force participation rate of the civilian noninstitutional population, 18 years of age and older, by Veteran status and period of service. Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated.

Labor Force Participation by Gender

Exhibit E-7. Annual Average Labor Force Participation Rate by Veteran Status and Gender, 2014–2022 (reported in percentages)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Men									
Total Veterans	49.2	49.5	49.4	48.6	48.0	48.2	47.2	46.4	46.6
Gulf War-era II Veterans	82.2	83.2	83.1	82.9	82.8	82.6	80.8	80.7	81.3
Nonveterans	75.4	75.1	75.1	74.9	74.7	74.5	72.8	72.7	73.0
Women									
Total Veterans	62.8	62.1	61.9	59.6	60.7	58.4	57.4	58.2	58.7
Gulf War-era II Veterans	69.2	71.0	73.7	69.6	71.7	68.1	68.6	69.0	73.8
Nonveterans	58.1	57.8	57.9	58.1	58.1	58.5	57.2	57.0	57.8

Source: U.S. Bureau of Labor Statistics *Employment Situation of Veterans, 2014–2022*

Note: Annual average labor force participation rate of the civilian noninstitutional population, 18 years of age and older, by Veteran status and period of service. Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated.

Labor Force Participation by Race/Ethnicity

Exhibit E-8. Annual Average Labor Force Participation Rate by Veteran Status and Race/Ethnicity, 2014–2022 (reported in percentages)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Asian									
Total Veterans	64.9	63.6	63.6	60.1	57.5	57.8	58.0	56.6	59.7
Gulf War-era II Veterans	82.7	78.3	86.5	81.3	78.7	80.1	78.6	78.6	82.3
Nonveterans	65.1	64.3	64.6	65.2	65.2	65.6	64.4	65.4	65.9
Black or African American									
Total Veterans	57.4	58.1	58.3	56.6	54.4	54.8	52.4	53.7	54.2
Gulf War-era II Veterans	74.6	77.3	79.6	78.9	75.2	75.7	71.8	72.7	75.0
Nonveterans	63.8	64.1	64.1	65.0	65.0	65.1	62.9	63.4	64.8
Hispanic or Latino									
Total Veterans	64.3	65.3	63.3	62.8	63.1	63.0	65.8	64.1	62.5
Gulf War-era II Veterans	78.2	82.3	80.9	79.7	80.1	81.4	82.8	80.9	80.2
Nonveterans	68.9	68.6	68.5	68.7	68.9	69.4	68.0	67.9	68.8
White									
Total Veterans	49.0	49.0	49.0	48.0	48.0	48.0	47.2	46.3	46.4
Gulf War-era II Veterans	81.0	82.0	82.0	81.0	82.0	81.0	80.4	80.6	80.8
Nonveterans	66.0	66.0	66.0	66.0	66.0	66.0	64.3	64.0	64.5

Source: U.S. Bureau of Labor Statistics *Employment Situation of Veterans, 2014–2022*

Note: Annual average labor force participation rate of the civilian noninstitutional population, 18 years of age and older, by Veteran status and period of service. Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated. Hispanic or Latino includes any race.

Employment by Industry Sector

Exhibit E-9. Composition of Employment by Industry and Veteran Status, 2022 (reported in percentages)

	Total Veterans	Gulf War-era II Veterans	Nonveterans
Private Industries	70.3	70.0	79.6
Government	22.8	25.8	13.1
Self-employed	5.4	3.5	5.8
Agriculture and Related Industries	1.4	0.7	1.4

Source: U.S. Bureau of Labor Statistics *Employment Situation of Veterans, 2022*

Note: Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated.

Exhibit E-10. Composition of Public Sector Employment by Veteran Status, 2022 (reported in percentages)

	Total Veterans	Gulf War-era II Veterans	Nonveterans
Local Government	7.4	7.4	6.4
State Government	4.6	4.5	4.6
Federal Government	10.8	13.9	2.1

Source: U.S. Bureau of Labor Statistics *Employment Situation of Veterans, 2022*

Notes: Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated.

Exhibit E-11. Worker Composition by Industry and Veteran Status, 2014 and 2022 (reported in percentages)

	Veterans		Gulf War-era II Veterans		NonVeterans	
	2014	2022	2014	2022	2014	2022
Agriculture and related industries	1.7	1.4	0.4	0.7	1.5	1.4
Wage and salary workers	0.7	0.7	0.3	0.5	1	1.0
Self-employed workers, unincorporated	0.9	0.7	0.2	0.1	0.5	0.5
Nonagricultural industries	98.3	98.6	99.6	99.3	98.5	98.6
Wage and salary workers	91.8	93.1	96.8	95.8	92.6	92.7
Private industries	71.1	70.3	71.7	70.0	79.1	79.6
Mining, quarrying, and oil and gas extraction	1.4	0.6	1.9	0.8	0.7	0.4
Construction	5.6	6.5	5.5	6.5	5.3	6.1
Manufacturing	12.5	12.0	10.6	11.5	10	9.3
Wholesale trade	2.7	2.0	2.4	2.0	2.4	2.0
Retail trade	8.9	8.3	8.8	7.3	10.8	9.8
Transportation and utilities	7	7.6	6.3	7.0	3.9	5.0
Information	2	1.7	2.3	1.6	1.9	1.6
Financial activities	4.4	4.6	3.6	4.2	6.3	6.5
Professional and business services	10.6	11.3	12.8	12.5	10	11.7
Education and health services	8.7	8.9	9	9.4	15.3	15.8
Leisure and hospitality	4	3.7	5.4	4.3	8.3	7.5
Other services	3.3	3.0	3.1	3.0	4.2	4.1
Government	20.7	22.8	25.1	25.8	13.5	13.1
Federal	8.7	10.8	13.8	13.9	2	2.1
State	4.6	4.6	4.4	4.5	4.3	4.6
Local	7.4	7.4	6.9	7.4	7.2	6.4
Self-employed workers, unincorporated	6.5	5.4	2.8	3.5	5.9	5.8
Total employed (in thousands)	10,171	8,557	2,353	3,796	134,589	147,523

Source: U.S. Bureau of Labor Statistics Employment Situation of Veterans, 2014 and 2022

Notes: Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated.

Industry Composition by Gender

Exhibit E-12. Composition of Employment by Industry, Veteran Status, and Gender, 2022 (reported in percentages)

	Total Veterans	Gulf War-era II Veterans	Nonveterans
Men			
Private Industries	70.9	70.4	81.3
Government	21.9	25.5	10.1
Self-employed	5.7	3.4	6.6
Agriculture and Related Industries	1.5	0.7	2.0
Women			
Private Industries	66.3	68.3	77.8
Government	29.0	27.3	16.2
Self-employed	3.7	3.9	5.0
Agriculture and Related Industries	1.0	0.5	0.9

Source: U.S. Bureau of Labor Statistics *Employment Situation of Veterans, 2022*

Notes: Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated.

Exhibit E-13. Composition of Public Sector Employment by Veteran Status and Gender, 2022 (reported in percentages)

	Total Veterans	Gulf War-era II Veterans	Nonveterans
Men			
Local Government	7.2	7.2	4.8
State Government	4.3	4.1	3.3
Federal Government	10.4	14.1	2.0
Women			
Local Government	8.9	7.9	8.1
State Government	6.7	6.4	5.9
Federal Government	13.4	13.0	2.2

Source: U.S. Bureau of Labor Statistics *Employment Situation of Veterans, 2022*

Notes: Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated.

Exhibit E-14. Worker Composition by Industry, Veteran Status, and Gender, 2022 (reported in percentages)

	Veterans		Gulf War-era II Veterans		Non-Veterans	
	Men	Women	Men	Women	Men	Women
Agriculture and related industries	1.5	1.0	0.7	0.5	2.0	0.9
Wage and salary workers	0.7	0.4	0.6	0.3	1.3	0.6
Self-employed workers, unincorporated	0.8	0.6	0.1	0.3	0.6	0.3
Nonagricultural industries	98.5	99.0	99.3	99.5	98.0	99.1
Wage and salary workers	92.8	95.3	95.9	95.6	91.4	94.0
Private industries	70.9	66.3	70.4	68.3	81.3	77.8
Mining, quarrying, and oil and gas extraction	0.7	0.1	1.0	0.0	0.6	0.1
Construction	7.3	1.9	7.5	2.0	10.5	1.5
Manufacturing	12.9	5.6	12.7	5.4	12.5	5.9
Wholesale trade	2.1	1.3	2.1	1.6	2.6	1.2
Retail trade	8.3	8.4	7.3	7.3	9.6	10.0
Transportation and utilities	8.3	3.0	7.7	3.2	7.2	2.7
Information	1.8	0.7	1.7	1.1	2.0	1.2
Financial activities	4.4	5.9	3.5	7.3	5.9	7.2
Professional and business services	11.6	9.5	12.9	10.5	12.7	10.5
Education and health services	6.8	21.9	6.8	22.1	7.0	25.0
Leisure and hospitality	3.5	4.8	4.1	5.3	7.1	8.0
Other services	3.0	3.3	3.1	2.6	3.7	4.4
Government	21.9	29.0	25.5	27.3	10.1	16.2
Federal	10.4	13.4	14.1	13.0	2.0	2.2
State	4.3	6.7	4.1	6.4	3.3	5.9
Local	7.2	8.9	7.2	7.9	4.8	8.1
Self-employed workers, unincorporated	5.7	3.7	3.4	3.9	6.6	5.0
Total employed (in thousands)	7,400	1,158	3,155	641	75,756	71,768

Source: U.S. Bureau of Labor Statistics Employment Situation of Veterans, 2022

Notes: Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated.

Industry Composition by Race/Ethnicity

Exhibit E-15. Composition of Employment by Industry, Veteran Status, and Race/Ethnicity, 2022
(reported in percentages)

	Total Veterans	Gulf War-era II Veterans	Nonveterans
Asian			
Private Industries	66.2	66.4	86.3
Government	31.5	33.6	9.6
Self-employed	1.0	0.0	3.9
Agriculture and Related Industries	1.3	0.0	0.2
Black or African American			
Private Industries	59.8	61.7	79.4
Government	34.2	30.3	16.2
Self-employed	4.8	5.0	4.0
Agriculture and Related Industries	1.2	3.0	0.5
Hispanic or Latino			
Private Industries	81.1	76.7	81.9
Government	13.8	21.2	9.2
Self-employed	4.7	2.2	6.7
Agriculture and Related Industries	0.5	0.0	2.2
White			
Private Industries	72.9	75.4	79.3
Government	19.9	20.5	13.3
Self-employed	5.6	3.4	6.0
Agriculture and Related Industries	1.6	0.7	1.5

Source: Current Population Survey Veteran Supplement, U.S. Census Bureau, 2022

Notes: Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated. Hispanic or Latino includes any race.

Exhibit E-16. Composition of Public Sector Employment by Veteran Status and Race/Ethnicity, 2022 (reported in percentages)

	Total Veterans	Gulf War-era II Veterans	Nonveterans
Asian			
Local Government	9.5	7.6	3.5
State Government	3.6	7.4	3.6
Federal Government	18.4	18.5	2.4
Black or African American			
Local Government	9.8	8.1	7.1
State Government	8.3	8.0	5.7
Federal Government	16.2	14.2	3.4
Hispanic or Latino			
Local Government	4.8	7.8	5.2
State Government	3.4	4.3	2.7
Federal Government	5.5	9.2	1.3
White			
Local Government	6.9	7.5	6.7
State Government	4.0	3.2	4.6
Federal Government	9.0	9.8	1.9

Source: *Current Population Survey Veteran Supplement, U.S. Census Bureau, 2022*

Notes: *Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated. Hispanic or Latino includes any race.*

Exhibit E-17. Worker Composition by Industry, Veteran Status and Race/Ethnicity, 2022 (reported in percentages)

Industry	Veterans				Gulf War-era II Veterans				Non-Veterans			
	Asian	Black	Hispanic	White	Asian	Black	Hispanic	White	Asian	Black	Hispanic	White
Agriculture and related industries	1.3	1.2	0.5	1.6	0.0	3.0	0.0	0.7	0.2	0.5	2.2	1.5
Wage and salary workers	0.0	0.6	0.5	0.5	0.0	1.4	0.0	0.7	0.2	0.4	2.1	0.9
Self-employed workers, unincorporated	0.0	0.6	0.0	1.0	0.0	1.6	0.0	0.0	0.0	0.1	0.1	0.6
Nonagricultural industries	98.7	98.8	99.5	98.4	100.0	97.0	100.0	99.3	99.8	99.5	97.8	98.5
Wage and salary workers	97.7	94.0	94.8	92.8	100.0	91.9	97.8	95.9	95.9	95.6	91.1	92.6
Private industries	66.2	59.8	81.1	72.9	66.4	61.7	76.7	75.4	86.3	79.4	81.9	79.3
Mining, quarrying, and oil and gas extraction	0.0	0.3	1.1	0.5	0.0	0.5	5.6	0.4	0.4	0.1	0.3	0.4
Construction	4.1	4.3	8.5	7.5	8.5	2.3	8.3	9.4	1.5	2.8	12.0	5.6
Manufacturing	9.1	8.7	8.2	13.1	9.3	15.6	7.1	13.0	10.5	8.8	9.0	9.6
Wholesale and retail trade	3.5	8.4	13.8	10.9	0.8	8.7	15.8	10.0	11.0	11.8	12.0	11.5
Transportation and utilities	15.6	7.8	5.5	7.4	14.7	6.1	6.4	7.4	4.0	8.3	5.4	4.1
Information	2.7	2.0	1.8	2.0	5.6	2.1	3.3	2.3	2.3	1.1	1.2	1.7
Financial activities	0.3	4.6	3.8	4.4	0.0	6.9	4.4	3.8	7.8	5.4	4.2	6.8
Professional and business services	18.1	9.5	11.2	11.7	19.7	9.9	6.6	12.5	19.5	9.1	10.3	12.2
Education and health services	3.3	7.6	12.2	7.6	0.0	4.5	9.1	7.5	17.3	20.8	10.9	15.8
Leisure and hospitality	3.4	5.1	10.4	3.9	2.6	5.1	8.0	5.3	8.0	7.8	11.5	7.3

Industry	Veterans				Gulf War-era II Veterans				Non-Veterans			
	Asian	Black	Hispanic	White	Asian	Black	Hispanic	White	Asian	Black	Hispanic	White
Other services	6.2	1.5	4.5	4.0	5.2	0.0	1.9	3.6	4.1	3.5	5.2	4.2
Government	31.5	34.2	13.8	19.9	33.6	30.3	21.2	20.5	9.6	16.2	9.2	13.3
Federal	18.4	16.2	5.5	9.0	18.5	14.2	9.2	9.8	2.4	3.4	1.3	1.9
State	3.6	8.3	3.4	4.0	7.4	8.0	4.3	3.2	3.6	5.7	2.7	4.6
Local	9.5	9.8	4.8	6.9	7.6	8.1	7.8	7.5	3.5	7.1	5.2	6.7
Self-employed workers, unincorporated	1.0	4.8	4.7	5.6	0.0	5.0	2.2	3.4	3.9	4.0	6.7	6.0
Total employed (in thousands)	155	1,342	2,309	6,130	74	522	465	2,238	10,533	18,563	28,563	92,871

Source: Current Population Survey Veteran Supplement, U.S. Census Bureau, 2022

Notes: Gulf War-era II Veterans are those who served on active duty in the U.S. Armed Forces between September 2001 and the present and have separated. Hispanic or Latino includes any race.

Appendix F: Outcomes of Overall Sample

The purpose of this appendix is to provide the employment and earnings outcomes for the overall study sample.

Exhibit F-1. Outcomes by Gender

Outcomes	Mean	Median	SD	N
Number of quarters to employment post-separation				
Men	0.7	0	2.264	247,863
Women	1.3	0	4.807	41,095
Employed at 6 months (%)				
Men	71	na	na	247,863
Women	61	na	na	41,095
Employed at 12 months (%)				
Men	73	na	na	247,863
Women	63	na	na	41,095
Employed at 24 months (%)				
Men	71	na	na	237,122
Women	63	na	na	38,955
Employed at 36 months (%)				
Men	69	na	na	184,510
Women	62	na	na	29,788
Employed at 6 months at same job at 12 months (%)				
Men	54	na	na	247,863
Women	46	na	na	41,095
Employed at 6 months at any job at 12 months post-separation (%)				
Men	61	na	na	247,863
Women	51	na	na	41,095
Wages at 6 months post-separation (\$)				
Men	12,133	9,299	13,016.79	175,696
Women	10,751	7,910	11,603.50	25,272
Wages at 12 months post-separation (\$)				
Men	13,061	10,038	13,781.54	180,053
Women	11,230	8,318	11,773.70	26,012
Wages at 24 months post-separation (\$)				
Men	14,079	11,045	14,679.31	168,071
Women	12,214	8,984	40,178.14	24,530
Wages at 36 months post-separation (\$)				
Men	14,817	11,810	15,025.44	126,972
Women	12,544	9,437	14,448.36	18,573
Wage change from 1st to 5th quarter post-separation (\$)				

Outcomes	Mean	Median	SD	N
Men	1,025	629	9,421.78	146,180
Women	-531	-436	9,287.99	20,678
Wage change from Military to 4th quarter post-separation (\$)				
Men	945	87	8,684.25	179,169
Women	-890	-2,550	8,430.87	25,915
Number of quarters not employed during 1st year post-separation				
Men	1.1	0	1.316	247,863
Women	1.4	1	1.455	41,095
Number of quarters not employed subsequent to first post-separation hire				
Men	2.8	2	3.000	247,863
Women	3.3	2	3.382	41,095
Receiving UI benefits at 6 months post-separation (%)				
Men	6	na	na	247,863
Women	9	na	na	41,095
UI benefit at 6 months post-separation (\$)				
Men	4,205	4,082	2,504.52	15,572
Women	4,058	3,876	2,418.58	3,575
Receiving UI benefits at 12 months post-separation (%)				
Men	2	na	na	247,863
Women	2	na	na	41,095
UI benefit at 12 months post-separation (\$)				
Men	3,230	2,467	2,849.44	4,527
Women	3,256	2,543	2,868.87	724

Source: *National Directory of New Hires, 2014–2021*

Exhibit F-2. Outcomes by Race and Ethnicity

Outcomes	Mean	Median	SD	N
Number of quarters to employment post-separation				
Black	0.70	0	2.435	63,521
Hispanic (any race)	1.02	0	2.693	38,003
Other races	1.11	0	3.012	19,975
White	0.74	0	2.421	167,459
Employed at 6 months (%)				
Black	72	na	na	63,521
Hispanic (any race)	62	na	na	38,003
Other races	62	na	na	19,975
White	72	na	na	167,459
Employed at 12 months (%)				
Black	74	na	na	63,521
Hispanic (any race)	64	na	na	38,003
Other races	64	na	na	19,975
White	73	na	na	167,459
Employed at 24 months (%)				
Black	72	na	na	60,604
Hispanic (any race)	62	na	na	35,992
Other races	63	na	na	19,005
White	71	na	na	160,476
Employed at 36 months (%)				
Black	71	na	na	46,596
Hispanic (any race)	60	na	na	26,985
Other races	61	na	na	14,446
White	69	na	na	126,271
Employed at 6 months at same job at 12 months (%)				
Black	53	na	na	63,521
Hispanic (any race)	45	na	na	38,003
Other races	48	na	na	19,975
White	54	na	na	167,459
Employed at 6 months at any job at 12 months post-separation (%)				
Black	62	na	na	63,521
Hispanic (any race)	50	na	na	38,003
Other races	51	na	na	19,975
White	62	na	na	167,459
Wages at 6 months post-separation (\$)				
Black	10,502	8,546	9,622.02	45,831
Hispanic (any race)	10,336	8,591	8,931.64	23,731
Other races	13,183	10,066	13,749.20	12,458

Outcomes	Mean	Median	SD	N
White	12,712	9,457	14,335.43	119,843
Wages at 12 months post-separation (\$)				
Black	11,283	9,047	10,148.40	46,751
Hispanic (any race)	10,954	9,007	9,422.80	24,451
Other races	14,198	10,721	14,762.46	12,803
White	13,655	10,248	15,091.34	122,060
Wages at 24 months post-separation (\$)				
Black	12,081	9,803	10,826.62	43,786
Hispanic (any race)	12,253	10,081	40,874.48	22,422
Other races	15,446	11,858	16,506.51	11,932
White	14,659	11,286	16,120.66	114,461
Wages at 36 months post-separation (\$)				
Black	12,612	10,303	10,960.88	33,130
Hispanic (any race)	12,874	10,856	10,501.99	16,258
Other races	16,095	12,630	17,089.69	8,843
White	15,402	12,041	16,584.86	87,314
Wage change from 1st to 5th quarter post-separation (\$)				
Black	-94	34	9,254.44	39,513
Hispanic (any race)	-75	107	8,615.04	17,922
Other races	1,284	550	10,323.97	9,516
White	1,318	772	9,492.08	99,907
Wage change from Military to 4th quarter post-separation (\$)				
Black	-63	-1,451	7,814.70	46,689
Hispanic (any race)	113	-746	7,662.03	24,419
Other races	866	-740	9,891.80	12,714
White	1,117	297	9,010.33	121,262
Number of quarters not employed during 1st year post-separation				
Black	1.021	0	1.282	63,521
Hispanic (any race)	1.392	1	1.412	38,003
Other races	1.387	1	1.434	19,975
White	1.057	0	1.323	167,459
Number of quarters not employed subsequent to first post-separation hire				
Black	2.7	2	2.984	63,521
Hispanic (any race)	3.5	3	3.084	38,003
Other races	3.4	3	3.234	19,975
White	2.8	2	3.037	167,459
Receiving UI benefits at 6 months post-separation (%)				
Black	8	na	na	63,521
Hispanic (any race)	8	na	na	38,003
Other races	8	na	na	19,975
White	6	na	na	167,459

Outcomes	Mean	Median	SD	N
UI benefit at 6 months post-separation (\$)				
Black	3,788	3,560	2,411.97	5,275
Hispanic (any race)	4,496	4,626	2,429.19	2,930
Other races	4,570	4,640	2,576.94	1,518
White	4,233	4,053	2,507.36	9,424
Receiving UI benefits at 12 months post-separation (%)				
Black	2	na	na	63,521
Hispanic (any race)	2	na	na	38,003
Other races	2	na	na	19,975
White	2	na	na	167,459
UI benefit at 12 months post-separation (\$)				
Black	2,933	2,152	2,662.03	1,339
Hispanic (any race)	3,293	2,498	2,845.09	757
Other races	4,001	3,289	3,353.04	399
White	3,252	2,498	2,842.76	2,756

Source: *National Directory of New Hires, 2014–2021*

Exhibit F-3. Outcomes by Disability Status

Outcomes	Mean	Median	SD	N
Number of quarters to employment post-separation				
With disabilities	0.730	0	2.516	52,022
No reported disabilities	0.804	0	2.508	236,936
Employed at 6 months (%)				
With disabilities	70	na	na	52,022
No reported disabilities	70	na	na	236,936
Employed at 12 months (%)				
With disabilities	72	na	na	52,022
No reported disabilities	71	na	na	236,936
Employed at 24 months (%)				
With disabilities	74	na	na	50,466
No reported disabilities	69	na	na	225,611
Employed at 36 months (%)				
With disabilities	72	na	na	40,300
No reported disabilities	67	na	na	173,998
Employed at 6 months at same job at 12 months (%)				
With disabilities	55	na	na	52,022
No reported disabilities	52	na	na	236,936
Employed at 6 months at any job at 12 months post-separation (%)				
With disabilities	60	na	na	52,022
No reported disabilities	59	na	na	236,936
Wages at 6 months post-separation (\$)				
With disabilities	9,325	7,095	8,119.50	36,597
No reported disabilities	12,544	9,687	13,616.67	165,266
Wages at 12 months post-separation (\$)				
With disabilities	10,169	7,688	8,860.74	37,578
No reported disabilities	13,423	10,361	14,331.07	168,487
Wages at 24 months post-separation (\$)				
With disabilities	10,999	8,389	9,750.10	37,475
No reported disabilities	14,528	11,425	21,536.30	155,126
Wages at 36 months post-separation (\$)				
With disabilities	11,576	9,029	9,759.69	29,091
No reported disabilities	15,264	12,183	15,926.50	116,454
Wage change from 1st to 5th quarter post-separation (\$)				
With disabilities	-137	-242	8,723.60	31,752
No reported disabilities	1,060	608	9,561.17	135,106
Wage change from Military to 4th quarter post-separation (\$)				
With disabilities	-768	-2,682	7,500.37	37,552
No reported disabilities	1,045	451	8,882.18	167,532

Outcomes	Mean	Median	SD	N
Number of quarters not employed during 1st year post-separation				
With disabilities	1.062	1	1.309	52,022
No reported disabilities	1.128	1	1.348	236,936
Number of quarters not employed subsequent to first post-separation hire				
With disabilities	2.6	1	2.952	52,022
No reported disabilities	3.0	2	3.081	236,936
Receiving UI benefits at 6 months post-separation (%)				
With disabilities	9	na	na	52,022
No reported disabilities	6	na	na	236,936
UI benefit at 6 months post-separation (\$)				
With disabilities	4,226	4,004	2,542.91	4,476
No reported disabilities	4,162	4,055	2,472.61	14,671
Receiving UI benefits at 12 months post-separation (%)				
With disabilities	2	na	na	52,022
No reported disabilities	2	na	na	236,936
UI benefit at 12 months post-separation (\$)				
With disabilities	334	2,498	2,885.25	1,202
No reported disabilities	3,204	2,468	2,841.56	4,049

Source: *National Directory of New Hires, 2014–2021*

Exhibit F-4. Outcomes by Age at Separation

Outcomes	Mean	Median	SD	N
Number of quarters to employment post-separation				
Under 20	0.8	0	2.283	2,724
20–24	0.9	0	2.569	97,639
25–34	0.9	0	2.724	121,788
35–44	0.6	0	2.175	41,296
45–54	0.4	0	1.533	20,014
55–64	0.4	0	1.317	4,906
65 or older	0.4	0	0.888	591
Employed at 6 months (%)				
Under 20	65	na	na	2,724
20–24	65	na	na	97,639
25–34	68	na	na	121,788
35–44	78	na	na	41,296
45–54	84	na	na	20,014
55–64	85	na	na	4,906
65 or older	87	na	na	591
Employed at 12 months (%)				
Under 20	66	na	na	2,724
20–24	67	na	na	97,639
25–34	69	na	na	121,788
35–44	80	na	na	41,296
45–54	86	na	na	20,014
55–64	88	na	na	4,906
65 or older	89	na	na	591
Employed at 24 months (%)				
Under 20	67	na	na	2,603
20–24	66	na	na	92,684
25–34	68	na	na	116,144
35–44	76	na	na	39,928
45–54	83	na	na	19,401
55–64	84	na	na	4,744
65 or older	83	na	na	573
Employed at 36 months (%)				
Under 20	69	na	na	2,018
20–24	64	na	na	70,421
25–34	66	na	na	90,950
35–44	74	na	na	31,834
45–54	80	na	na	14,979
55–64	81	na	na	3,668

Outcomes	Mean	Median	SD	N
65 or older	80	na	na	428
Employed at 6 months at same job at 12 months (%)				
Under 20	28	na	na	2,724
20–24	42	na	na	97,639
25–34	52	na	na	121,788
35–44	67	na	na	41,296
45–54	73	na	na	20,014
55–64	76	na	na	4,906
65 or older	77	na	na	591
Employed at 6 months at any job at 12 months post-separation (%)				
Under 20	51	na	na	2,724
20–24	54	na	na	97,639
25–34	57	na	na	121,788
35–44	70	na	na	41,296
45–54	76	na	na	20,014
55–64	78	na	na	4,906
65 or older	79	na	na	591
Wages at 6 months post-separation (\$)				
Under 20	4,418	3,816	3,281.29	1,778
20–24	6,965	6,004	5,267.73	63,869
25–34	11,111	9,737	9,741.60	82,354
35–44	15,930	12,186	16,494.33	32,407
45–54	23,763	17,826	20,050.50	16,767
55–64	28,328	21,725	23,096.73	4,176
65 or older	26,640	22,508	16,859.14	512
Wages at 12 months post-separation (\$)				
Under 20	5,087	4,433	3,752.33	1,790
20–24	7,574	6,690	5,953.87	65,098
25–34	11,885	10,496	11,135.85	84,035
35–44	16,864	13,261	16,058.07	33,063
45–54	25,601	19,367	20,911.82	17,220
55–64	29,817	24,659	22,317.65	4,331
65 or older	28,932	24,031	19,485.91	528
Wages at 24 months post-separation (\$)				
Under 20	6,037	5,242	4,447.24	1,740
20–24	8,610	7,830	6,278.48	61,288
25–34	13,142	11,642	11,376.75	78,529
35–44	17,810	13,860	38,223.20	30,544
45–54	26,041	20,043	24,257.55	16,051
55–64	30,310	23,930	28,275.09	3,972
65 or older	28,001	22,781	18,658.57	477

Outcomes	Mean	Median	SD	N
Wages at 36 months post-separation (\$)				
Under 20	6,703	6,014	4,879.94	1,383
20–24	9,445	8,656	6,928.82	45,396
25–34	14,043	12,327	13,021.75	59,887
35–44	18,165	14,429	18,389.42	23,607
45–54	25,599	19,659	21,377.02	11,968
55–64	30,411	23,946	30,750.44	2,963
65 or older	29,234	23,738	19,913.57	341
Wage change from 1st to 5th quarter post-separation (\$)				
Under 20	413	372	4,707.45	1,389
20–24	41	225	6,591.84	52,036
25–34	158	321	9,038.79	67,873
35–44	1,293	938	10,934.38	27,673
45–54	4,760	3,025	13,395.02	14,086
55–64	5,984	4,133	13,936.98	3,402
65 or older	5,686	4,778	14,528.84	399
Wage change from Military to 4th quarter post-separation (\$)				
Under 20	-1,221	-1,667	3,777.00	1,790
20–24	-230	-811	5,384.37	65,093
25–34	1,175	793	8,109.85	83,920
35–44	853	-1,027	10,430.33	32,711
45–54	1,772	-1,600	13,799.44	16,841
55–64	1,513	-3,409	15,491.98	4,213
65 or older	1,234	-3,448	15,091.97	516
Number of quarters not employed during 1st year post-separation				
Under 20	1.3	1	1.314	2,724
20–24	1.3	1	1.372	97,639
25–34	1.2	1	1.375	121,788
35–44	0.8	0	1.210	41,296
45–54	0.6	0	1.041	20,014
55–64	0.6	0	1.006	4,906
65 or older	0.7	0	0.969	591
Number of quarters not employed subsequent to first post-separation hire				
Under 20	3.3	3	3.087	2,724
20–24	3.3	3	3.195	97,639
25–34	3.1	2	3.198	121,788
35–44	2.2	1	2.553	41,296
45–54	1.6	1	1.918	20,014
55–64	1.6	1	1.712	4,906
65 or older	1.6	1	1.552	591
Receiving UI benefits at 6 months post-separation (%)				

Outcomes	Mean	Median	SD	N
Under 20	4	na	na	2,724
20–24	6	na	na	97,639
25–34	8	na	na	121,788
35–44	6	na	na	41,296
45–54	2	na	na	20,014
55–64	1	na	na	4,906
65 or older	1	na	na	591
UI benefit at 6 months post-separation (\$)				
Under 20	3,883	4,082	2,118.77	97
20–24	4,122	4,057	2,365.97	6,088
25–34	4,234	4,104	2,498.22	10,233
35–44	4,108	3,840	2,711.44	2,304
45–54	4,103	3,808	2,750.61	386
55–64	3,376	2,819	2,902.23	35
65 or older	4,042	3,128	4,064.21	4
Receiving UI benefits at 12 months post-separation (%)				
Under 20	1	na	na	2,724
20–24	0	na	na	97,639
25–34	2	na	na	121,788
35–44	2	na	na	41,296
45–54	1	na	na	20,014
55–64	0	na	na	4,906
65 or older	0	na	na	591
UI benefit at 12 months post-separation (\$)				
Under 20	3,171	1,985	3,191.50	32
20–24	3,261	2,543	2,744.66	1,781
25–34	3,220	2,467	2,805.50	2,589
35–44	3,246	2,402	3,178.16	707
45–54	3,102	1,950	3,300.91	121
55–64	2,694	2,151	2,597.23	20
65 or older	8,491	8,491	-	1

Source: National Directory of New Hires, 2014–2021

Exhibit F-5. Outcomes by Years of Service

Outcomes	Mean	Median	SD	N
Number of quarters to employment post-separation				
0–5 years	0.9	0	2.684	126,486
6–20 years	0.8	0	2.562	130,261
20 or more years	0.3	0	1.185	32,211
Employed at 6 months (%)				
0–5 years	64	na	na	126,486
6–20 years	72	na	na	130,261
20 or more years	86	na	na	32,211
Employed at 12 months (%)				
0–5 years	66	na	na	126,486
6–20 years	73	na	na	130,261
20 or more years	88	na	na	32,211
Employed at 24 months (%)				
0–5 years	66	na	na	120,000
6–20 years	70	na	na	124,822
20 or more years	84	na	na	31,255
Employed at 36 months (%)				
0–5 years	65	na	na	91,619
6–20 years	67	na	na	98,659
20 or more years	82	na	na	24,020
Employed at 6 months at same job at 12 months (%)				
0–5 years	41	na	na	126,486
6–20 years	58	na	na	130,261
20 or more years	76	na	na	32,211
Employed at 6 months at any job at 12 months post-separation (%)				
0–5 years	52	na	na	126,486
6–20 years	62	na	na	130,261
20 or more years	78	na	na	32,211
Wages at 6 months post-separation (\$)				
0–5 years	7,100	5,720	6,275.41	85,036
6–20 years	12,666	10,988	12,123.39	93,654
20 or more years	23,719	18,109	19,621.23	27,673
Wages at 12 months post-separation (\$)				
0–5 years	7,861	6,516	9,163.52	83,143
6–20 years	13,402	11,794	11,620.43	94,549
20 or more years	25,481	19,893	20,138.15	28,373
Wages at 24 months post-separation (\$)				
0–5 years	9,025	7,749	8,624.88	79,083
6–20 years	14,576	12,847	23,866.63	87,171

Outcomes	Mean	Median	SD	N
20 or more years	25,867	20,346	23,588.59	26,347
Wages at 36 months post-separation (\$)				
0–5 years	9,913	8,670	8,224.66	59,593
6–20 years	15,345	13,412	14,921.64	66,318
20 or more years	25,765	20,240	22,609.93	19,634
Wage change from 1st to 5th quarter post-separation (\$)				
0–5 years	564	442	6,878.25	66,141
6–20 years	-120	166	9,684.83	77,185
20 or more years	4,709	3,089	13,049.17	23,532
Wage change from Military to 4th quarter post-separation (\$)				
0–5 years	-79	-1,031	6,053.98	83,115
6–20 years	1,124	960	8,653.26	94,157
20 or more years	1,686	-1,871	13,725.77	27,812
Number of quarters not employed during 1st year post-separation				
0–5 years	1.3	1	1.388	126,486
6–20 years	1.0	0	1.326	130,261
20 or more years	0.5	0	0.972	32,211
Number of quarters not employed subsequent to first post-separation hire				
0–5 years	3.3	3	3.320	126,486
6–20 years	2.9	2	2.964	130,261
20 or more years	1.5	1	1.605	32,211
Receiving UI benefits at 6 months post-separation (%)				
0–5 years	8	na	na	126,486
6–20 years	7	na	na	130,261
20 or more years	1	na	na	32,211
UI benefit at 6 months post-separation (\$)				
0–5 years	4,163	4,190	2,338.24	9,729
6–20 years	4,223	3,969	2,632.40	9,243
20 or more years	2,512	1,978	2,279.18	175
Receiving UI benefits at 12 months post-separation (%)				
0–5 years	2	na	na	126,486
6–20 years	2	na	na	130,261
20 or more years	0	na	na	32,211
UI benefit at 12 months post-separation (\$)				
0–5 years	3,251	2,523	2,790.34	2,632
6–20 years	3,254	2,468	2,916.52	2,521
20 or more years	2,237	1,557	2,646.48	98

Source: National Directory of New Hires, 2014–2021

Exhibit F-6. Outcomes by Military Pay Grade

Outcomes	Mean	Median	SD	N
Number of quarters to employment post-separation				
E-1 to E-4	0.9	0	2.765	145,436
E-5 to E-6	0.7	0	2.371	86,684
E-7 to E-9	0.4	0	1.463	25,663
O-1 to O-3	0.5	0	1.697	5,103
O-4 to O-10	1.0	0	2.813	15,024
W-1 to W-5	0.4	0	1.430	11,048
Employed at 6 months (%)				
E-1 to E-4	64	na	na	145,436
E-5 to E-6	72	na	na	86,684
E-7 to E-9	84	na	na	25,663
O-1 to O-3	84	na	na	5,103
O-4 to O-10	71	na	na	15,024
W-1 to W-5	85	na	na	11,048
Employed at 12 months (%)				
E-1 to E-4	66	na	na	145,436
E-5 to E-6	72	na	na	86,684
E-7 to E-9	85	na	na	25,663
O-1 to O-3	87	na	na	5,103
O-4 to O-10	77	na	na	15,024
W-1 to W-5	88	na	na	11,048
Employed at 24 months (%)				
E-1 to E-4	65	na	na	138,540
E-5 to E-6	70	na	na	82,747
E-7 to E-9	82	na	na	24,937
O-1 to O-3	82	na	na	4,896
O-4 to O-10	74	na	na	14,355
W-1 to W-5	85	na	na	10,602
Employed at 36 months (%)				
E-1 to E-4	64	na	na	108,381
E-5 to E-6	68	na	na	63,240
E-7 to E-9	78	na	na	19,480
O-1 to O-3	79	na	na	3,623
O-4 to O-10	73	na	na	11,294
W-1 to W-5	80	na	na	8,280
Employed at 6 months at same job at 12 months (%)				
E-1 to E-4	43	na	na	145,436
E-5 to E-6	57	na	na	86,684
E-7 to E-9	73	na	na	25,663

Outcomes	Mean	Median	SD	N
O-1 to O-3	75	na	na	5,103
O-4 to O-10	61	na	na	15,024
W-1 to W-5	76	na	na	11,048
Employed at 6 months at any job at 12 months post-separation (%)				
E-1 to E-4	53	na	na	145,436
E-5 to E-6	61	na	na	86,684
E-7 to E-9	75	na	na	25,663
O-1 to O-3	77	na	na	5,103
O-4 to O-10	64	na	na	15,024
W-1 to W-5	78	na	na	11,048
Wages at 6 months post-separation (\$)				
E-1 to E-4	6,903	5,710	5,561.36	93,338
E-5 to E-6	11,598	11,120	8,847.87	62,698
E-7 to E-9	16,853	15,192	10,072.03	21,472
O-1 to O-3	24,626	21,602	15,186.67	4,263
O-4 to O-10	19,391	18,638	12,768.54	10,725
W-1 to W-5	39,295	30,921	31,808.52	9,367
Wages at 12 months post-separation (\$)				
E-1 to E-4	7,611	6,495	6,196.74	95,944
E-5 to E-6	12,246	11,863	10,259.29	62,475
E-7 to E-9	17,865	16,424	10,756.20	21,936
O-1 to O-3	26,489	23,982	16,236.65	4,420
O-4 to O-10	20,353	19,435	13,456.07	11,555
W-1 to W-5	41,535	34,482	30,632.85	9,735
Wages at 24 months post-separation (\$)				
E-1 to E-4	8,677	7,666	7,606.08	90,640
E-5 to E-6	13,344	13,008	26,094.45	58,013
E-7 to E-9	18,391	16,910	11,254.22	20,396
O-1 to O-3	26,332	23,409	16,680.50	4,007
O-4 to O-10	22,616	21,266	15,584.19	10,566
W-1 to W-5	42,958	35,072	38,013.25	8,979
Wages at 36 months post-separation (\$)				
E-1 to E-4	9,609	8,652	7,258.11	69,635
E-5 to E-6	13,911	13,484	9,033.90	42,926
E-7 to E-9	18,622	17,028	11,621.83	15,240
O-1 to O-3	26,985	23,795	17,487.50	2,866
O-4 to O-10	24,296	22,344	17,886.33	8,257
W-1 to W-5	43,235	34,900	41,193.00	6,621
Wage change from 1st to 5th quarter post-separation (\$)				
E-1 to E-4	310	331	6,913.51	77,574
E-5 to E-6	-475	87	8,987.74	51,233

Outcomes	Mean	Median	SD	N
E-7 to E-9	1,835	1,595	10,767.23	18,961
O-1 to O-3	5,807	4,104	13,909.56	3,427
O-4 to O-10	2,215	2,061	12,673.36	8,810
W-1 to W-5	9,478	6,578	16,826.92	6,853
Wage change from Military to 4th quarter post-separation (\$)				
E-1 to E-4	-93	-1,032	5,841.05	95,933
E-5 to E-6	1,234	1,275	7,709.03	62,453
E-7 to E-9	840	-1,260	10,396.06	21,897
O-1 to O-3	4,080	2,549	14,481.87	4,387
O-4 to O-10	950	1,052	12,659.11	11,517
W-1 to W-5	3,471	1,104	18,716.56	8,897
Number of quarters not employed during 1st year post-separation				
E-1 to E-4	1.3	1	1.388	145,436
E-5 to E-6	1.0	0	1.313	86,684
E-7 to E-9	0.6	0	1.041	25,663
O-1 to O-3	0.7	0	1.089	5,103
O-4 to O-10	1.1	0	1.374	15,024
W-1 to W-5	0.6	0	1.043	11,048
Number of quarters not employed subsequent to first post-separation hire				
E-1 to E-4	3.3	3	3.339	145,436
E-5 to E-6	2.9	2	2.850	86,684
E-7 to E-9	1.7	1	1.957	25,663
O-1 to O-3	1.7	1	2.058	5,103
O-4 to O-10	2.4	1	2.941	15,024
W-1 to W-5	1.5	1	1.843	11,048
Receiving UI benefits at 6 months post-separation (%)				
E-1 to E-4	8	na	na	145,436
E-5 to E-6	7	na	na	86,684
E-7 to E-9	2	na	na	25,663
O-1 to O-3	1	na	na	5,103
O-4 to O-10	3	na	na	15,024
W-1 to W-5	1	na	na	11,048
UI benefit at 6 months post-separation (\$)				
E-1 to E-4	4,116	4,052	2,362.15	12,304
E-5 to E-6	4,335	4,104	2,677.97	5,749
E-7 to E-9	3,784	3,294	2,794.30	464
O-1 to O-3	4,567	4,620	2,640.33	71
O-4 to O-10	4,197	3,606	2,856.99	501
W-1 to W-5	3,901	3,765	2,331.07	58
Receiving UI benefits at 12 months post-separation (%)				
E-1 to E-4	2	na	na	145,436

Outcomes	Mean	Median	SD	N
E-5 to E-6	2	na	na	86,684
E-7 to E-9	1	na	na	25,663
O-1 to O-3	1	na	na	5,103
O-4 to O-10	1	na	na	15,024
W-1 to W-5	0	na	na	11,048
UI benefit at 12 months post-separation (\$)				
E-1 to E-4	2,842	2,041	2,537.93	233
E-5 to E-6	3,399	2,692	2,788.89	2,007
E-7 to E-9	3,091	2,321	2,807.01	2,209
O-1 to O-3	3,444	2,584	3,023.14	208
O-4 to O-10	3,139	3,215	2,634.11	19
W-1 to W-5	3,289	2,517	3,244.25	575

Source: National Directory of New Hires, 2014–2021

Exhibit F-7. Outcomes by Post-Military Goal

Outcomes	Mean	Median	SD	N
Number of quarters to employment post-separation				
Have employment	0.7	0	2.243	15,163
Plan to get a job	0.6	0	2.060	134,586
Plan to go to school	1.0	0	2.997	93,621
Plan to start a business	0.9	0	2.763	11,435
Retiring	1.2	0	0.529	1,515
Other	0.8	0	2.630	32,638
Employed at 6 months (%)				
Have employment	74	na	na	15,163
Plan to get a job	75	na	na	134,586
Plan to go to school	61	na	na	93,621
Plan to start a business	68	na	na	11,435
Retiring	82	na	na	1,515
Other	71	na	na	32,638
Employed at 12 months (%)				
Have employment	75	na	na	15,163
Plan to get a job	76	na	na	134,586
Plan to go to school	63	na	na	93,621
Plan to start a business	69	na	na	11,435
Retiring	80	na	na	1,515
Other	72	na	na	32,638
Employed at 24 months (%)				
Have employment	74	na	na	14,433
Plan to get a job	74	na	na	128,665
Plan to go to school	63	na	na	89,478
Plan to start a business	68	na	na	10,855
Retiring	75	na	na	1,501
Other	70	na	na	31,145
Employed at 36 months (%)				
Have employment	71	na	na	10,996
Plan to get a job	72	na	na	99,060
Plan to go to school	62	na	na	70,479
Plan to start a business	66	na	na	8,220
Retiring	69	na	na	1,397
Other	67	na	na	24,146
Employed at 6 months at same job at 12 months (%)				
Have employment	56	na	na	15,163
Plan to get a job	57	na	na	134,586
Plan to go to school	44	na	na	93,621

Outcomes	Mean	Median	SD	N
Plan to start a business	51	na	na	11,435
Retiring	69	na	na	1,515
Other	55	na	na	32,638
Employed at 6 months at any job at 12 months post-separation (%)				
Have employment	64	na	na	15,163
Plan to get a job	65	na	na	134,586
Plan to go to school	50	na	na	93,621
Plan to start a business	57	na	na	11,435
Retiring	71	na	na	1,515
Other	60	na	na	32,638
Wages at 6 months post-separation (\$)				
Have employment	18,804	11,837	25,236.30	11,197
Plan to get a job	13,686	10,656	13,091.38	101,082
Plan to go to school	7,729	6,144	8,060.07	57,253
Plan to start a business	11,304	9,131	10,121.26	7,774
Retiring	13,508	11,638	9,694.83	1,239
Other	11,724	9,963	10,188.61	23,318
Wages at 12 months post-separation (\$)				
Have employment	19,790	12,601	25,560.17	11,433
Plan to get a job	14,701	11,523	14,381.81	102,720
Plan to go to school	8,397	8,431	6,866.46	59,243
Plan to start a business	12,139	9,681	11,224.87	7,915
Retiring	13,947	12,120	9,961.54	1,210
Other	12,529	10,553	10,821.60	23,544
Wages at 24 months post-separation (\$)				
Have employment	21,082	13,490	27,364.82	10,625
Plan to get a job	15,599	12,491	15,378.64	95,102
Plan to go to school	9,755	8,005	26,336.52	56,720
Plan to start a business	13,092	10,472	12,255.87	7,348
Retiring	14,412	12,430	10,097.91	1,131
Other	13,496	11,456	11,911.61	21,675
Wages at 36 months post-separation (\$)				
Have employment	21,873	14,139	28,577.18	7,798
Plan to get a job	16,307	13,143	16,008.14	71,239
Plan to go to school	10,662	9,027	8,807.17	43,939
Plan to start a business	13,589	10,926	12,322.73	5,393
Retiring	14,454	12,126	10,321.16	970
Other	13,958	11,799	12,068.55	16,206
Wage change from 1st to 5th quarter post-separation (\$)				
Have employment	2,172	1,284	10,921.11	8,760
Plan to get a job	1,988	1,327	9,924.68	83,778

Outcomes	Mean	Median	SD	N
Plan to go to school	-895	-533	7,803.59	47,856
Plan to start a business	-441	-191	9,418.69	6,329
Retiring	-987	-470	9,359.02	1,075
Other	-4	46	9,276.02	19,060
Wage change from Military to 4th quarter post-separation (\$)				
Have employment	3,132	1,899	11,285.18	11,031
Plan to get a job	1,989	1,240	9,207.46	102,223
Plan to go to school	-1,409	-2,533	6,408.82	59,232
Plan to start a business	-944	-2,516	8,801.72	7,894
Retiring	-3,014	-4,159	8,786.36	1,208
Other	125	-579	8,450.68	23,496
Number of quarters not employed during 1st year post-separation				
Have employment	1.0	0	1.298	15,163
Plan to get a job	0.9	0	1.264	134,586
Plan to go to school	1.4	1	1.420	93,621
Plan to start a business	1.2	1	1.354	11,435
Retiring	0.7	0	1.059	1,515
Other	1.1	1	1.317	32,638
Number of quarters not employed subsequent to first post-separation hire				
Have employment	2.5	2	2.895	15,163
Plan to get a job	2.5	2	2.769	134,586
Plan to go to school	3.5	3	3.398	93,621
Plan to start a business	3.0	2	3.149	11,435
Retiring	2.5	2	2.498	1,515
Other	2.9	2	2.959	32,638
Receiving UI benefits at 6 months post-separation (%)				
Have employment	4	na	na	15,163
Plan to get a job	5	na	na	134,586
Plan to go to school	9	na	na	93,621
Plan to start a business	7	na	na	11,435
Retiring	5	na	na	1,515
Other	6	na	na	32,638
UI benefit at 6 months post-separation (\$)				
Have employment	3,950	3,876	2,513.45	611
Plan to get a job	4,031	3,851	2,472.55	7,116
Plan to go to school	4,331	4,332	2,458.18	8,494
Plan to start a business	4,124	4,077	2,537.35	821
Retiring	4,160	4,312	2,343.10	75
Other	4,140	3,995	2,616.75	2,030
Receiving UI benefits at 12 months post-separation (%)				
Have employment	2	na	na	15,163

Outcomes	Mean	Median	SD	N
Plan to get a job	2	na	na	134,586
Plan to go to school	2	na	na	93,621
Plan to start a business	2	na	na	11,435
Retiring	1	na	na	1,515
Other	2	na	na	32,638
UI benefit at 12 months post-separation (\$)				
Have employment	2,842	2,041	2,537.93	233
Plan to get a job	3,091	2,321	2,807.01	2,209
Plan to go to school	3,399	2,692	2,788.89	2,007
Plan to start a business	3,444	2,584	3,023.14	208
Retiring	3,139	3,215	2,634.11	19
Other	3,289	2,517	3,244.25	575

Source: *National Directory of New Hires, 2014–2021*

Exhibit F-8. Outcomes by Character of Service

Outcomes	Mean	Median	SD	N
Number of quarters to employment post-separation				
Honorable discharge	0.8	0	2.485	275,956
Dishonorable discharge	2.0	0	4.597	3,363
Uncharacterized	0.5	0	1.865	9,356
Employed at 6 months (%)				
Honorable discharge	70	na	na	275,956
Dishonorable discharge	62	na	na	3,363
Uncharacterized	79	na	na	9,356
Employed at 12 months (%)				
Honorable discharge	71	na	na	275,956
Dishonorable discharge	62	na	na	3,363
Uncharacterized	74	na	na	9,356
Employed at 24 months (%)				
Honorable discharge	70	na	na	263,491
Dishonorable discharge	61	na	na	3,188
Uncharacterized	63	na	na	9,122
Employed at 36 months (%)				
Honorable discharge	68	na	na	204,509
Dishonorable discharge	59	na	na	2,579
Uncharacterized	61	na	na	6,950
Employed at 6 months at same job at 12 months (%)				
Honorable discharge	52	na	na	275,956
Dishonorable discharge	31	na	na	3,363
Uncharacterized	63	na	na	9,356
Employed at 6 months at any job at 12 months post-separation (%)				
Honorable discharge	59	na	na	275,956
Dishonorable discharge	50	na	na	3,363
Uncharacterized	64	na	na	9,356
Wages at 6 months post-separation (\$)				
Honorable discharge	11,990	8,978	13,101.37	192,177
Dishonorable discharge	6,448	5,497	5,159.53	2,080
Uncharacterized	12,286	12,583	3,559.76	7,379
Wages at 12 months post-separation (\$)				
Honorable discharge	12,876	9,693	13,805.10	196,808
Dishonorable discharge	7,259	6,329	5,721.15	2,087
Uncharacterized	12,736	13,048	3,897.74	6,939
Wages at 24 months post-separation (\$)				
Honorable discharge	13,900	10,733	20,211.02	184,732
Dishonorable discharge	8,060	7,206	6,038.02	1,930
Uncharacterized	13,357	13,670	5,140.45	5,717
Wages at 36 months post-separation (\$)				

Outcomes	Mean	Median	SD	N
Honorable discharge	14,597	11,464	15,192.22	139,567
Dishonorable discharge	9,106	7,956	7,496.21	1,531
Uncharacterized	13,568	14,036	6,284.02	4,238
Wage change from 1st to 5th quarter post-separation (\$)				
Honorable discharge	938	560	9,501.90	159,289
Dishonorable discharge	1,225	1,010	6,130.94	1,555
Uncharacterized	-2,066	210	7,130.04	5,966
Wage change from Military to 4th quarter post-separation (\$)				
Honorable discharge	637	-558	8,784.64	195,836
Dishonorable discharge	1	-610	5,781.37	2,086
Uncharacterized	3,014	4,083	4,950.78	6,939
Number of quarters not employed during 1st year post-separation				
Honorable discharge	1.1	1	1.342	275,956
Dishonorable discharge	1.5	1	1.488	3,363
Uncharacterized	0.7	0	1.193	9,356
Number of quarters not employed subsequent to first post-separation hire				
Honorable discharge	2.9	2	3.087	275,956
Dishonorable discharge	3.1	2	3.312	3,363
Uncharacterized	3.1	3	1.955	9,356
Receiving UI benefits at 6 months post-separation (%)				
Honorable discharge	7	na	na	275,956
Dishonorable discharge	1	na	na	3,363
Uncharacterized	0	na	na	9,356
UI benefit at 6 months post-separation (\$)				
Honorable discharge	4,179	4,041	2,488.29	19,104
Dishonorable discharge	2,305	1,943	2,185.59	27
Uncharacterized	4,668	4,877	1,723.47	6
Receiving UI benefits at 12 months post-separation (%)				
Honorable discharge	2	na	na	275,956
Dishonorable discharge	2	na	na	3,363
Uncharacterized	0	na	na	9,356
UI benefit at 12 months post-separation (\$)				
Honorable discharge	3,244	2,498	2,850.50	5,182
Dishonorable discharge	2,260	1,500	2,588.57	56
Uncharacterized	3,463	1,596	4,233.46	10

Source: National Directory of New Hires, 2014–2021

Exhibit F-9. Outcomes by Combat Arms

Outcomes	Mean	Median	SD	N
Number of quarters to employment post-separation				
Combat	0.7	0	2.309	74,860
Non-Combat	0.8	0	2.576	214,098
Employed at 6 months (%)				
Combat	69	na	na	74,860
Non-Combat	70	na	na	214,098
Employed at 12 months (%)				
Combat	70	na	na	74,860
Non-Combat	72	na	na	214,098
Employed at 24 months (%)				
Combat	69	na	na	71,571
Non-Combat	70	na	na	204,506
Employed at 36 months (%)				
Combat	67	na	na	55,161
Non-Combat	68	na	na	159,137
Employed at 6 months at same job at 12 months (%)				
Combat	49	na	na	74,860
Non-Combat	54	na	na	214,098
Employed at 6 months at any job at 12 months post-separation (%)				
Combat	57	na	na	74,860
Non-Combat	60	na	na	214,098
Wages at 6 months post-separation (\$)				
Combat	9,060	7,712	8,816.06	51,337
Non-Combat	12,950	9,827	13,831.32	150,526
Wages at 12 months post-separation (\$)				
Combat	9,810	8,432	7,997.45	52,404
Non-Combat	13,860	10,514	14,850.25	153,661
Wages at 24 months post-separation (\$)				
Combat	10,923	9,481	9,351.28	49,446
Non-Combat	14,850	11,432	22,269.90	143,155
Wages at 36 months post-separation (\$)				
Combat	11,651	10,213	8,727.36	37,079
Non-Combat	15,510	12,130	16,461.11	108,466
Wage change from 1st to 5th quarter post-separation (\$)				
Combat	237	332	7,864.10	42,659
Non-Combat	1,036	561	9,888.95	124,199
Wage change from Military to 4th quarter post-separation (\$)				
Combat	15	-612	6,680.67	52,374
Non-Combat	952	-104	9,247.33	152,710

Outcomes	Mean	Median	SD	N
Number of quarters not employed during 1st year post-separation				
Combat	1.152391	1	1.335	74,860
Non-Combat	1.103303	1	1.344	214,098
Number of quarters not employed subsequent to first post-separation hire				
Combat	3.0	2	3.097	74,860
Non-Combat	2.8	2	3.045	214,098
Receiving UI benefits at 6 months post-separation (%)				
Combat	7	na	na	74,860
Non-Combat	7	na	na	214,098
UI benefit at 6 months post-separation (\$)				
Combat	4,308	4,360	2,485.83	4,938
Non-Combat	4,132	3,969	2,488.97	14,209
Receiving UI benefits at 12 months post-separation (%)				
Combat	2	na	na	74,860
Non-Combat	2	na	na	214,098
UI benefit at 12 months post-separation (\$)				
Combat	3,198	2,354	2,975.43	1,500
Non-Combat	3,248	2,517	2,801.21	3,751

Source: National Directory of New Hires, 2014–2021

Exhibit F-10. Outcomes by Year of Separation

Outcomes	Mean	Median	SD	N
Number of quarters to employment post-separation				
2014	1.2	0	3.48	3,292
2015	0.7	0	3.05	54,383
2016	0.6	0	2.56	74,513
2017	0.5	0	2.14	67,229
2018	1.2	0	2.36	65,201
2019	1.4	1	1.93	25,440
Employed at 6 months (%)				
2014	59	na	na	3,292
2015	72	na	na	53,283
2016	80	na	na	74,513
2017	78	na	na	67,229
2018	43	na	na	65,201
2019	83	na	na	25,440
Employed at 12 months (%)				
2014	77	na	na	3,292
2015	77	na	na	53,283
2016	82	na	na	74,513
2017	61	na	na	67,229
2018	63	na	na	65,201
2019	76	na	na	25,440
Employed at 24 months (%)				
2014	79	na	na	3,292
2015	81	na	na	53,283
2016	60	na	na	74,513
2017	65	na	na	67,229
2018	72	na	na	65,201
2019	97	na	na	25,440
Employed at 36 months (%)				
2014	78	na	na	3,292
2015	55	na	na	53,283
2016	66	na	na	74,513
2017	73	na	na	67,229
2018	98	na	na	65,201
Employed at 6 months at same job at 12 months (%)				
2014	41	na	na	3,292
2015	55	na	na	53,283
2016	68	na	na	74,513
2017	52	na	na	67,229

Outcomes	Mean	Median	SD	N
2018	30	na	na	65,201
2019	63	na	na	25,440
Employed at 6 months at any job at 12 months post-separation (%)				
2014	52	na	na	3,292
2015	64	na	na	53,283
2016	75	na	na	74,513
2017	56	na	na	67,229
2018	37	na	na	65,201
2019	70	na	na	25,440
Wages at 6 months post-separation (\$)				
2014	8,499	5,722	27,258.63	1,956
2015	10,883	7,581	12,833.66	38,588
2016	11,835	8,984	12,335.51	59,301
2017	12,174	9,739	12,153.05	52,723
2018	12,559	9,996	12,847.59	28,306
2019	13,276	10,564	13,731.23	20,989
Wages at 12 months post-separation (\$)				
2014	12,495	8,070	15,118.56	2,536
2015	11,884	8,600	13,307.31	41,001
2016	12,617	9,655	12,530.88	61,033
2017	12,848	10,259	12,355.54	41,022
2018	13,586	10,747	15,498.78	41,180
2019	13,904	10,403	14,783.84	19,293
Wages at 24 months post-separation (\$)				
2014	13,249	8,812	18,813.98	2,587
2015	13,216	9,815	14,491.58	43,037
2016	13,363	10,433	13,511.91	44,596
2017	14,450	11,596	31,692.96	43,484
2018	14,450	11,589	14,730.06	46,674
2019	13,430	10,761	17,922.46	12,223
Wages at 36 months post-separation (\$)				
2014	13,826	10,180	14,264.95	2,569
2015	13,870	10,515	14,776.70	29,254
2016	14,717	11,765	14,320.06	49,255
2017	15,141	12,128	14,998.12	48,787
2018	13,355	11,174	17,102.85	15,680
2019	13,826	10,180	14,264.95	2,569
Wage change from 1st to 5th quarter post-separation (\$)				
2014	-2,142	-1,251	8,709.14	1,861
2015	-58	51	9,449.31	36,123
2016	1,161	660	9,097.46	56,279

Outcomes	Mean	Median	SD	N
2017	278	170	9,262.57	38,614
2018	1,395	820	9,578.85	26,706
2019	4,339	2,874	10,845.97	7,275
Wage change from Military to 4th quarter post-separation (\$)				
2014	975	-968	8,627.68	2,509
2015	-243	-1,260	8,443.57	40,808
2016	1,088	-61	8,100.76	60,789
2017	1,591	930	8,103.46	40,840
2018	-650	-1,769	9,631.59	41,007
2019	2,573	1,419	9,258.05	19,131
Number of quarters not employed during 1st year post-separation				
2014	1.4	1	1.378	3,292
2015	1.0	0	1.228	53,283
2016	0.8	0	1.202	74,513
2017	0.8	0	1.197	67,229
2018	1.9	2	1.445	65,201
2019	1.3	1	1.219	25,440
Number of quarters not employed subsequent to first post-separation hire				
2014	2.5	1	3.478	3,292
2015	2.7	1	3.313	53,283
2016	3.4	3	3.213	74,513
2017	3.6	4	3.129	67,229
2018	2.5	2	2.623	65,201
2019	1.0	1	1.384	25,440
Receiving UI benefits at 6 months post-separation (%)				
2014	12	na	na	3,292
2015	12	na	na	53,283
2016	8	na	na	74,513
2017	6	na	na	67,229
2018	2	na	na	65,201
2019	4	na	na	25,440
UI benefit at 6 months post-separation (\$)				
2014	4,523	4,891	2,634.94	383
2015	4,240	4,104	2,465.99	6,239
2016	4,208	4,068	2,504.25	6,104
2017	4,132	3,996	2,444.08	3,809
2018	3,994	3,808	2,504.23	1,591
2019	3,938	3,803	2,594.58	1,021
Receiving UI benefits at 12 months post-separation (%)				
2014	3	na	na	3,292
2015	3	na	na	53,283

Outcomes	Mean	Median	SD	N
2016	2	na	na	74,513
2017	1	na	na	67,229
2018	1	na	na	65,201
2019	4	na	na	25,440
UI benefit at 12 months post-separation (\$)				
2014	2,981	2,241	2,424.37	104
2015	3,083	2,462	2,438.07	1,346
2016	3,218	2,630	2,522.97	1,442
2017	2,923	2,346	2,385.35	751
2018	2,868	2,080	2,888.95	597
2019	3,929	2,646	3,854.57	1,011

Source: National Directory of New Hires, 2014–2021

Appendix G. Main Impact Analyses

Time from Separation to First Hire

The operational definition of first hire was based on whether a TSM had a recorded wage in a particular quarter. If no wages were present in the first quarter after separation, that person would have been considered not employed; if a wage was present, they were considered employed. Because quarters were the most granular form of the passage of time available, the metric for this outcome was a count of the number of quarters passing until hired.

The crosstabulation of the number of quarters to hire by intervention group shows that 80.9% of the TGPS group was employed in the first quarter after separation while 80.0% of the non-TGPS (business-as-usual; BAU) was employed in the first quarter (Exhibit G-1). The stacked histograms in Exhibit G-2 show a nearly equivalent distribution of the outcome variable by intervention group. The large take-away from the graphs, however, is that we have an extremely large number of zeroes relative to the rest of the graph (as evidenced by at least 80% of TSMs finding employment in the first quarter after separation).

Exhibit G-1. Crosstabulation of Quarters From Separation to Hire by Intervention Group

Quarters to hire	TGPS	Non-TGPS	Total
0	80.9%	80.0%	384,164
1	6.0%	6.7%	30,191
2	3.4%	3.7%	16,902
3	2.8%	3.3%	14,554
4	2.1%	2.1%	10,165
5	0.7%	0.5%	2,811
6	0.5%	0.3%	1,935
NA	3.6%	3.4%	447

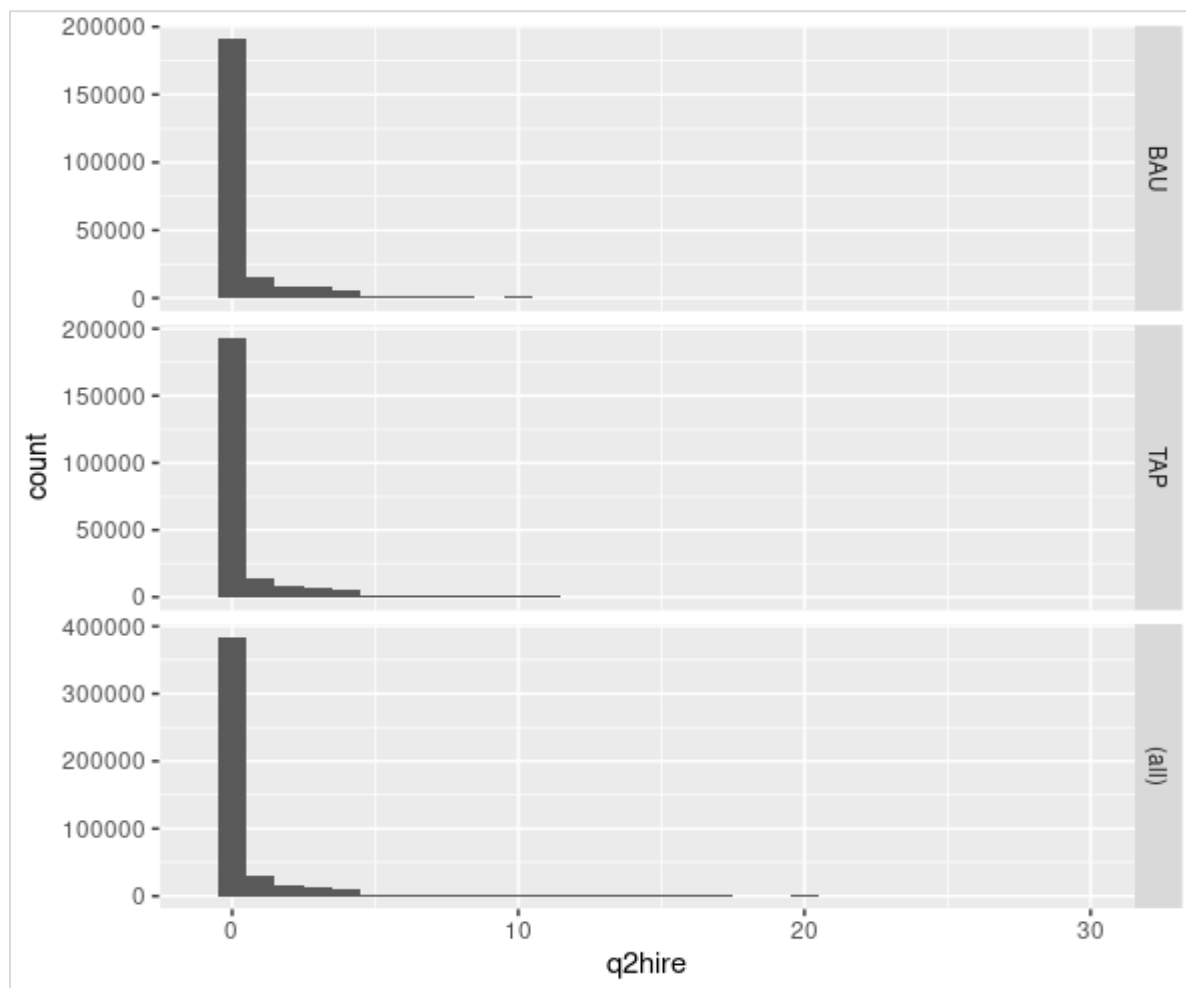
Source: National Directory of New Hires, 2014–2021

Note: NA includes TSMs who had not found jobs after six quarters.

The large number of zeroes in the distribution of the outcome complicates the modeling required to inferentially compare the time to hire for the two intervention groups. This is because the inflated number of zeroes prevents the outcome from conforming to the available distributions necessary for analysis (Lambert, 1992). A zero-inflated Poisson/Negative Binomial (ZIP/ZINB) regression analysis addresses this by modeling the count data and separately modeling the excess zeroes via a logistic regression. Both model specifications included an indicator for the intervention group (TGPS versus non-TGPS) and a contingent of covariates to control for

remaining differences not addressed through the PSM routine.⁴ The choice between the ZIP and ZINB models is largely defined by the ratio of the variance in the outcome to the mean of the outcome; a larger variance lends support for the use of the ZINB model. The mean of the quarters-to-hire outcome was 0.8 and the variance was 6.71, yielding a ratio of 8.38, suggesting the use of the ZINB model.

Exhibit G-2. Distribution of Separation to Hire by Intervention Group



Source: National Directory of New Hires, 2014–2021

⁴ The covariates entered to control for remaining differences included: gender, marital & dependent status, race/ethnicity, DOD occupation codes, disability status at separation, unemployable status at separation, education level at time of entry to service, year of separation, character of service/discharge status, AFQSC, pay grade at separation, post-military goal, census division (geographic area), age at separation (standardized), years of service (standardized), months in deployment since 2002 (standardized), pre-TGPS wage (standardized).

The model including the covariates and intervention indicator was compared to a null model with no covariates to validate the inclusion of predictors. Model fit was significantly improved. Before proceeding with the use of the ZINB model, we compare the model fit of the traditional negative binomial regression (not accounting for excess zeroes) with the ZINB model fit using the Vuong test (Vuong, 1989). Results revealed that, despite the obvious excess zeroes present in the outcome, the traditional negative binomial model fit the data better than the ZINB model (raw, AIC and BIC-corrected tests all significant at $p = 0.000$). Despite these results, we chose to also model the data using the ZINB specification as a sensitivity test.

The negative binomial model for count of the number of quarters between separation and employment yielded a negative, significant coefficient for the intervention indicator ($p = 0.000$). Though significant, the exponentiated coefficient yields an incident risk ratio of 0.958 [0.940, 0.975] suggesting that the TGPS outcome mean count is only slightly lower than the non-TGPS outcome (a value of 1 indicates no effect/difference). The standardized mean difference (SMD) is -0.064 [-0.099, -0.034], suggesting the TGPS outcome mean is about one-fifth of a standard deviation smaller than the non-TGPS outcome mean. This means that TGPS participants, on average, take less time to gain employment than did the non-TGPS participants.

As a sensitivity test, the results from the count portion of the ZINB model yielded a positive, non-significant coefficient for the intervention indicator ($p = 0.066$). The exponentiated coefficient yields an incident risk ratio of 1.014 [1.001, 1.029] suggesting that the TGPS outcome mean count is only slightly higher than the non-TGPS outcome (a value of 1 indicates no effect/difference). Effectively the TGPS mean outcome is 0.958 times larger than the non-TGPS mean outcome. The standardized mean difference (SMD) is 0.032 [0.001, 0.0073], suggesting the TGPS outcome mean is nearly equivalent to the non-TGPS outcome mean. The zero portion of the model yielded a positive and significant coefficient for the intervention indicator ($p = 0.000$), suggesting that TGPS participants were significantly more likely to obtain employment immediately after separation. These results also make sense: TGPS participants were more likely to have zero quarters pass between separation and employment (the zero portion of the model), and when that is considered, the count portion yielded a larger mean count for TGPS participants.

Employment

Percent Employed by 6 Months

The operational definition of employed at six months was based on whether a TSM had a recorded wage within the quarter during which the six-month time period occurred. If no wage was present during the quarter in question, that person would have been considered not employed; if a wage was present, they were considered employed.

Exhibit G-3 is a crosstabulation of the indicator outcome variable denoting whether a TSM was employed at 6 ('1') or not employed ('0') by intervention group. Examining the percentages associated with 6-month outcome values of '1' for each intervention group, we can see that 70.9% of non-TGPS participants were employed at 6 months, while 69.0% of TGPS participants were employed at 6 months. Note that these rates of employment are calculated using the

PSM-based weights but remain analytically unadjusted (i.e., are not modeled controlling for remaining variance due to background characteristics).

Exhibit G-3. Crosstabulation of Employed at 6 Months Indicator by Intervention Group.

Employed at 6 months	TGPS	Non-TGPS	N
1	69.0%	70.9%	384,164
0	31.0%	29.1%	30,191
Total	100%	100%	477,638

Source: National Directory of New Hires, 2014–2021

We used a logistic regression model to inferentially assess the intervention indicators’ relationship to the binary outcome of 6 month employment status, controlling for the remaining variance among all of the background characteristics. Exhibit G-4 provides the impact estimates for the 6-month employment outcomes. TGPS participants had a significantly smaller proportion of participants employed relative to participants in the non-TGPS group (-0.031), though the odds ratio (.969) and the Cox *d* effect size of -0.019 [-0.027, -0.012] were both very small.

Exhibit G-4. Impact Estimates of TGPS for 6 Month Employment Status

Outcome	Coefficient	Odds Ratio	p-value	Cox <i>d</i>	Cox <i>d</i> CI
Employed at 6 months	-0.031	0.969	.000	-0.019	-0.027; -0.012

Source: National Directory of New Hires, 2014–2021

Percent Employed by 12 Months

The operational definition of employed at 12 months was based on whether a TSM had a recorded wage within the quarter during which the 12-month time periods occurred. If no wage was present during the quarter in question, that person would have been considered not employed; if a wage was present, they were considered employed.

Exhibit G-5 is a crosstabulation of the indicator outcome variable denoting whether a TSM was employed at 12 months ('1') or not employed ('0') by intervention group. We can see that 71.9% of non-TGPS participants were employed at 12 months, while 71.1% of TGPS participants were employed at 12 months. Note that these rates of employment are calculated using the PSM-based weights but remain analytically unadjusted (i.e., are not modeled controlling for remaining variance due to background characteristics).

Exhibit G-5. Crosstabulation of Employed at 12-Month Indicator by Intervention Group

Employed at 12 months	TGPS	Non-TGPS	N
1	71.1%	71.9%	341,377
0	28.9%	28.1%	136,261
Total	100%	100%	477,638

Source: National Directory of New Hires, 2014–2021

We used a logistic regression model to inferentially assess the intervention indicators' relationship to the binary outcome of 12 month employment status, controlling for the remaining variance among all of the background characteristics. Exhibit G-6 provides the impact estimates for the 12-month employment outcome. TGPS participants had a significantly larger proportion of participants employed relative to participants in the non-TGPS group (0.035), though the odds ratio (1.035) and the Cox *d* effect size of -0.021 [0.013, 0.029] were both very small.

Exhibit G-6. Impact Estimates of TGPS for 12 Month Employment Status

Outcome	Coefficient	Odds Ratio	p-value	Cox <i>d</i>	Cox <i>d</i> CI
Employed at 12 months	0.035	1.035	.000	0.021	0.013; 0.029

Source: National Directory of New Hires, 2014–2021

Wages

Wage at 6 Months Post-Separation

The wages reported during the quarter at 6 months post-separation for TGPS participants were compared to the wages for participants in the previous TGPS program. Basic descriptive statistics, by intervention group, are displayed in Exhibit G-7. We can see that non-TGPS participants were earning a higher wage at 6 months post-separation (\$13,274.55) than were participants in the new TGPS program (\$11,132.12). Note, however, the large maximum wage value associated with the TGPS group. As expected, when examining wage outcomes, the data are positively skewed (i.e., the median is higher than the mean), because we have extreme, higher wage values to the right of the distribution. To appropriately model these data, a transformation is necessary to approximate a more normal distribution. After graphical inspection, a cubed-root transformation was applied to wages prior to inferential analysis.

Exhibit G-7. Weighted Descriptive Statistics of Wages at 6 Months Post-Separation

	Mean	SD	Min	Max
TGPS	\$11,132.12	11,846.73	1.06	698,803.31
Non-TGPS	\$13,274.55	13,335.21	1.13	290,177.31
All	\$12,218.02	12,668.49	1.06	698,803.31

Source: National Directory of New Hires, 2014–2021

The transformed wages were distributed approximately normal, allowing the use of a weighted linear regression model including the background covariates (Exhibit G-8). The coefficient associated with the intervention indicator was statistically significant ($p = 0.000$) and negative in favor of non-TGPS participants, and the standardized effect size (Hedges' *g*) was of a medium size at -0.171 [-0.178, -0.164]. On average, TGPS participants' wages were approximately \$2154.26 less than non-TGPS participants at 6 months post-separation.

Exhibit G-8. Impact Estimates of TGPS for 6 Month Wages

Outcome	Coefficient	p-value	Hedges' <i>g</i>	Hedges' <i>g</i> CI
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Wages at 6 months	-1.222	.000	-0.171	-0.178; -0.164
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Source: National Directory of New Hires, 2014–2021

We trimmed the upper 0.5% of the 6-month wage distribution in the non-TGPS and TGPS groups (Exhibit G-9).

Exhibit G-9. Trimmed Descriptive Statistics of Wages at 6 Months Post-Separation

	Mean	SD	Min	Max
TGPS	\$10,712.03	9,729.96	1.06	67,273.77
Non-TGPS	\$12,929.87	11,422.98	1.13	105,175.80
All	\$11,837.44	10,680.55	1.06	105,175.80

Source: National Directory of New Hires, 2014–2021

When we model the trimmed 6-month wage outcome, we obtain a slightly larger (more negative and still significant) estimate associated with the intervention indicator, with a slightly larger effect size (Exhibit G-10). Thus, despite trimming some outlying 6-month wage values, the inferential results remain consistently in favor of participants of the non-TGPS program.

Exhibit G-10. Impact Estimates of TGPS for 6 Month Wages (Trimmed)

Outcome	Coefficient	p-value	Hedges' g	Hedges' g CI
Wages at 6 months	-1.277	.000	0.021	-0.231; -0.217

Source: National Directory of New Hires, 2014–2021

Wages at 12 Months Post-Separation

The wages reported at 12 months post-separation for TGPS participants were compared to the wages for participants in the previous TGPS program. Basic descriptive statistics, by intervention group, are displayed in Exhibit G-11. We can see that non-TGPS participants were earning a higher wage at 12 months post-separation (\$13,782.74) than were participants in the new TGPS program (\$12,075.24). We again transformed the wage data using a cubed-root transformation based upon graphical inspection.

Exhibit G-11. Weighted Descriptive Statistics of Wages at 12 Months Post-Separation

	Mean	SD	Min	Max
TGPS	\$12,075.24	12,888.65	1.05	1,718,259.88
Non-TGPS	\$13,782.74	13,705.63	3.33	336,657.50
All	\$12,933.69	13,333.02	1.05	1,718,259.88

Source: National Directory of New Hires, 2014–2021

We again used a weighted linear regression model including the background covariates (Exhibit G-12). The coefficient associated with the intervention indicator was statistically significant ($p = 0.000$) and negative in favor of non-TGPS participants, and the standardized effect size (Hedges' g) was of a medium size at -0.132 $[-0.139, -0.125]$. On average, TGPS participants'

wages were approximately \$1748.15 less than non-TGPS participants at 12-months post-separation.

Exhibit G-12. Impact Estimates of TGPS for 12 Month Wages

Outcome	Coefficient	p-value	Hedges' g	Hedges' g CI
Wages at 12 months	-0.847	.000	-0.132	-0.139; -0.125

Source: National Directory of New Hires, 2014–2021

We trimmed the upper 0.5% of the 12-month wage distribution in the non-TGPS and TGPS groups (Exhibit G-13).

Exhibit G-13. Trimmed Descriptive Statistics of Wages at 12 Months Post-Separation

	Mean	SD	Min	Max
TGPS	\$11,631.91	10,319.94	1.05	71,324.28
Non-TGPS	\$13,460.58	12,046.77	3.33	109,211.80
All	\$12,552.42	11,259.63	1.05	109,211.80

Source: National Directory of New Hires, 2014–2021

When we model the trimmed 12-month wage outcome, we obtain a slightly larger (more negative and still significant) estimate associated with the intervention indicator, with a slightly larger effect size (Exhibit G-14). Thus, despite trimming some outlying 12-month wage values, the inferential results remain consistently in favor of participants of the non-TGPS program.

Exhibit G-14. Impact Estimates of TGPS for 12 Month Wages (Trimmed)

Outcome	Coefficient	p-value	Hedges' g	Hedges' g CI
Wages at 12 months	-1.003	.000	-0.178	-0.185; -0.171

Source: National Directory of New Hires, 2014–2021

Wage at 24 Months Post-Separation

The wages reported at 24 months post-separation for TGPS participants were compared to the wages for participants in the previous TGPS program. Basic descriptive statistics, by intervention group, are displayed in Exhibit G-15. We can see that non-TGPS participants were earning a higher wage at 24 months post-separation (\$14,666.14) than were participants in the new TGPS program (\$13,129.35). As expected, when examining wage outcomes, the data are positively skewed (i.e., the median is higher than the mean), because we have extreme, higher wage values to the right of the distribution. To appropriately model these data, a transformation is necessary to approximate a more normal distribution. After graphical inspection, a cubed-root transformation was applied to wages prior to inferential analysis.

Exhibit G-15. Weighted Descriptive Statistics of Wages at 24 Months Post-Separation

	Mean	SD	Min	Max
TGPS	\$13,219.35	20,229.84	1.05	5,949,265.56

Non-TGPS	\$14,666.14	16,282.96	2.10	758,777.82
All	\$13,898.15	18,377.79	1.05	5,949,265.56

Source: National Directory of New Hires, 2014–2021

The transformed wages were distributed approximately normal, allowing the use of a weighted linear regression model including the background covariates (Exhibit G-16). The coefficient associated with the intervention indicator was statistically significant ($p = 0.000$) and negative in favor of non-TGPS participants, and the standardized effect size (Hedges' g) was medium at 0.094 [-0.101, 0.087]. On average, non-TGPS participants' wages were approximately \$1,728.32 more than TGPS participants at 24 months post-separation.

Exhibit G-16. Impact Estimates of TGPS for 24 Month Wages

Outcome	Coefficient	p-value	Hedges' g	Hedges' g CI
Wages at 24 months	-0.750	.000	-0.094	-0.101; -0.087

Source: National Directory of New Hires, 2014–2021

We trimmed the upper 0.5% of the 24-month wage distribution in the non-TGPS and TGPS groups (Exhibit G-17).

Exhibit G-17. Trimmed Descriptive Statistics of Wages at 24 Months Post-Separation

	Mean	SD	Min	Max
TGPS	\$12,601.74	10,644.97	1.05	74,725.76
Non-TGPS	\$14,248.76	12,830.33	2.10	115,766.34
All	\$13,426.71	11,819.05	1.05	115,766.34

Source: National Directory of New Hires, 2014–2021

When we model the trimmed 24-month wage outcome, we obtain a slightly larger, negative estimate associated with the intervention indicator, with a larger effect size (Exhibit G-18). Thus, trimming some outlying 24-month wage values, the inferential results remain consistently significant and in favor of non-TGPS.

Exhibit G-18. Impact Estimates of TGPS for 24 Month Wages (Trimmed)

Outcome	Coefficient	p-value	Hedges' g	Hedges' g CI
Wages at 24 months	-0.864	.000	-0.161	-0.168; -0.154

Source: National Directory of New Hires, 2014–2021

Wage at 36 Months Post-Separation

The wages reported at 36 months post-separation for TGPS participants were compared to the wages for participants in the previous TGPS program. Basic descriptive statistics, by intervention group, are displayed in Exhibit G-19. We can see that non-TGPS participants were earning a higher wage at 36 months post-separation (\$15,385.98) than were participants in the new TGPS program (\$13,895.56). As expected, when examining wage outcomes, the data are positively skewed (i.e., the median is higher than the mean), because we have extreme, higher

wage values to the right of the distribution. To appropriately model these data, a transformation is necessary to approximate a more normal distribution. After graphical inspection, a cubed-root transformation was applied to wages prior to inferential analysis.

Exhibit G-19. Weighted Descriptive Statistics of Wages at 36 Months Post-Separation

	Mean	SD	Min	Max
TGPS	\$13,895.56	13,185.58	1.05	528,814.60
Non-TGPS	\$15,385.98	19,308.93	4.32	1,552,096.00
All	\$14,632.52	16,516.68	1.05	1,552,096.00

Source: National Directory of New Hires, 2014–2021

The transformed wages were distributed approximately normal, allowing the use of a weighted linear regression model including the background covariates (Exhibit G-20). The coefficient associated with the intervention indicator was statistically significant ($p = 0.000$) and negative in favor of non-TGPS participants, and the standardized effect size (Hedges' g) was medium at -0.116 $[-0.124, -0.108]$. On average, non-TGPS participants' wages were approximately \$1,907.06 more than TGPS participants at 36 months post-separation.

Exhibit G-20. Impact Estimates of TGPS for 36 Month Wages

Outcome	Coefficient	p-value	Hedges' g	Hedges' g CI
Wages at 36 months	-0.805	.000	-0.116	-0.124; -0.108

Source: National Directory of New Hires, 2014–2021

We trimmed the upper 0.5% of the 36-month wage distribution in the non-TGPS and TGPS groups (Exhibit G-21).

Exhibit G-21. Trimmed Descriptive Statistics of Wages at 36 Months Post-Separation

	Mean	SD	Min	Max
TGPS	\$13,410.95	10,811.00	1.05	75,496.00
Non-TGPS	\$14,897.63	13,631.66	4.32	123,262.64
All	\$14,147.07	12,311.28	1.05	123,262.64

Source: National Directory of New Hires, 2014–2021

When we model the trimmed 36-month wage outcome, we obtain a similar estimate with a larger effect size (Exhibit G-22). Thus, trimming some outlying 36-month wage values, the inferential results remain consistently significant and in favor of non-TGPS.

Exhibit G-22. Impact Estimates of TGPS for 36 Month Wages (Trimmed)

Outcome	Coefficient	p-value	Hedges' g	Hedges' g CI
Wages at 36 months	-0.801	.000	-0.151	-0.159; -0.143

Source: National Directory of New Hires, 2014–2021

Wage Change from 1st to 5th Quarter Post-Separation

The increase in wages from 1st to 5th quarter post-separation was defined analytically by calculating the difference in inflation-adjusted wages between the two quarters. Resulting values could be positive or negative, depending on whether a separated individual experienced an increase or decrease in their wage across that time period. Exhibit G-23 shows the descriptive statistics, by intervention group, of the change in wages between the 1st and 5th quarter post-separation. The TGPS group posted a lower mean wage change (\$12,075.24) than did the non-TGPS group (\$13,782.74), though the TGPS group had some extreme values (a gain of \$1,718,259.88).

Exhibit G-23. Weighted Descriptive Statistics of Wage Change From 1st to 5th Quarter Post-Separation

	Mean	Median	SD	Min	Max
TGPS	\$12,075.24	8,977.05	12,888.65	1.05	1,718,259.88
Non-TGPS	\$13,782.74	11,105.07	13,705.63	3.33	336,657.50

Source: National Directory of New Hires, 2014–2021

The difference in wages was distributed approximately normal, allowing the use of a weighted linear regression model including the background covariates (Exhibit G-24). The coefficient associated with the intervention indicator was statistically significant ($p = 0.000$) and negative in favor of non-TGPS participants. The effect size was of small size (-0.036) [-0.043, -0.029], suggesting that on average, non-TGPS participants experienced a greater increase in wages when comparing wages in the 1st quarter post-separation to their wages in the 5th quarter post-separation.

Exhibit G-24. Impact Estimates on Wage Change From 1st to 5th Quarter Post-Separation

Outcome	Coefficient	p-value	Hedges' <i>g</i>	Hedges' <i>g</i> CI
Wage change Q1–Q5	-483.32	.000	-0.036	-0.043; -0.029

Source: National Directory of New Hires, 2014–2021

Wage Change from Military to 4th Quarter Post-Separation

As a secondary exploration, we examined the increase between participants' military wages and the 4th quarter post-separation and inflation-adjusted wages. Resulting values could be positive or negative, depending on whether a separated individual experienced an increase or decrease in their wage across that time period relative to the military wages. Exhibit G-25 shows the descriptive statistics, by intervention group, of the change in wages through the 4th quarter post-separation. The non-TGPS group posted a higher mean wage change (\$13,540.21) than did the TGPS group (\$11,603.58). For this analysis, the TGPS groups extreme values were not as prevalent, as the minimum was like the non-TGPS minimum, while the maximum increase was still much larger than the non-TGPS groups, but not by as large a factor.

Exhibit G-25. Weighted Descriptive Statistics of Wage Change From Military to 4th Quarter Post-Separation

	Mean	Median	SD	Min	Max
TGPS	\$11,603.58	8,566.53	12,084.89	1.05	662,065.94
Non-TGPS	\$13,540.21	10,995.14	13,573.58	1.06	377,405.31

Source: National Directory of New Hires, 2014–2021

The coefficient for the intervention indicator when modeling wages changes between military and the 4th quarter after separation was statistically significant ($p = 0.000$) and negative in favor of non-TGPS participants (Exhibit G-26). The effect size was of moderate size (-0.096) [-0.103, -0.089], suggesting that on average, TGPS participants experienced a *greater* decline in wages when comparing the military wage to their 4th quarter post-separation wage.

Exhibit G-26. Impact Estimates on Wage Change From Military to 4th Quarter Post-Separation

Outcome	Coefficient	p-value	Hedges' g	Hedges' g CI
Wage change military – Q4	-1239.30	.000	-0.096	-0.103; -0.089

Source: National Directory of New Hires, 2014–2021

Time Spent Without Employment

Number of Quarters Not Employed During 1st Year Post-Separation

The crosstabulation of the number of quarters not employed by intervention group shows that 49.0% of the TGPS group was employed every quarter in the first year post-separation and 48.2% of the non-TGPS (business-as-usual; BAU) was employed every quarter in the first year post-separation (Exhibit G-27). Generally, the distributions appear roughly equivalent, with slightly more non-TGPS participants (21.0%) not being employed for one quarter during the first year and slightly more TGPS participants not being employed for three (15.8%) and four (7.0%) quarters during the first year.

The stacked histograms in Exhibit G-28 show a nearly equivalent distribution of the outcome variable by intervention group. The large take-away from the graphs, however, is that we have an extremely large number of zeroes relative to the rest of the graph (as evidenced by at least 49% of TSMs having no quarters without employment during the first year after separation).

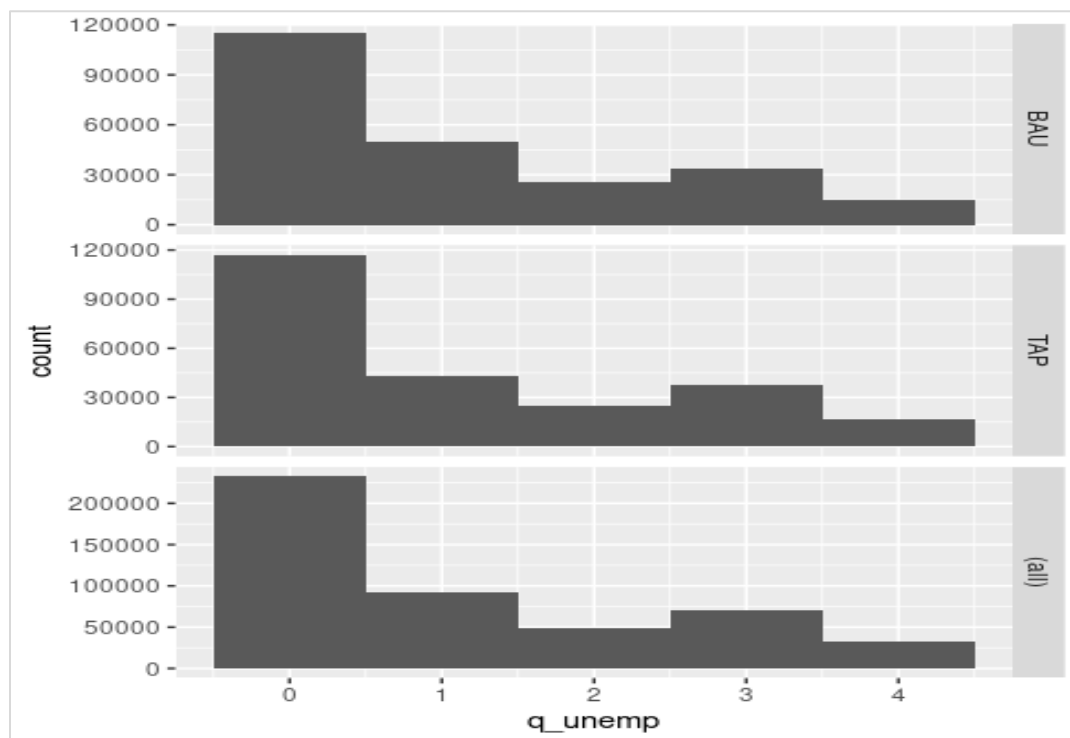
Exhibit G-27. Crosstabulation of Quarters Without Employment During 1st Year Post-Separation

Quarters not employed	TGPS	Non-TGPS	Total
0	49.0%	48.2%	232,280
1	17.9%	21.0%	92,978
2	10.3%	10.5%	49,687
3	15.8%	13.9%	70,867
4	7.0%	6.3%	31,827
Total	100%	99.9%	477,639

Source: National Directory of New Hires, 2014–2021

Note: Percentages may not sum to 100 due to rounding.

Exhibit G-28. Distribution of Quarters Without Employment by Intervention Group



Source: National Directory of New Hires, 2014–2021

The large number of zeroes in the distribution of the outcome again complicates the modeling required to inferentially compare the time to hire for the two intervention groups. The choice between the ZIP and ZINB models is largely defined by the ratio of the variance in the outcome to the mean of the outcome; a larger variance lends support for the use of the ZINB model. The mean of the number of quarters not employed outcome was 1.11 and the variance was 1.77, yielding a ratio of 1.59, suggesting the ZIP model may be adequate to model these count data.

The model including the covariates and intervention indicator was compared to a null model with no covariates to validate the inclusion of predictors. Model fit was significantly improved. Before proceeding with the use of the ZIP model, we compare the model fit of the traditional Poisson regression (not accounting for excess zeroes) with the ZIP model fit using the Vuong test. Results provided evidence for use of the zero-inflated model (raw, AIC and BIC-corrected tests all significant at $p = 0.000$).

The zero-inflated Poisson for count of the number of quarters without employment during the first year of separation yielded a positive, significant coefficient for the intervention indicator ($p = 0.000$). Though significant, the exponentiated coefficient yields an incident risk ratio of 1.036 [1.030, 1.043] suggesting that the TGPS outcome mean count is only slightly higher than the non-TGPS outcome (a value of 1 indicates no effect/difference). The standardized mean difference (SMD) is 0.052 [0.041, 0.065], suggesting the TGPS outcome mean is about one-fifth of a standard deviation larger than the non-TGPS outcome mean. This means that TGPS participants, on average, spent more time without employment during their first year after

separation *after* accounting for the inflated zero portion of the model. When modeling the presence of zeroes, the logistic model yielded a significant, positive coefficient associated with the intervention indicator ($p = 0.000$), suggesting that TGPS participants were significantly more likely to obtain employment immediately after separation. Here again, TGPS participants were more likely to have zero quarters spent without employment during the first year after separation (the zero portion of the model) and when accounted for, the count portion of the model suggested a slightly larger mean count for TGPS participants.

As a sensitivity test, the same data were analyzed using a traditional Poisson regression not accounting for zero inflation. The results yielded a negative, significant coefficient for the intervention indicator ($p = 0.004$). Though significant, the exponentiated coefficient yields an incident risk ratio of 0.992 [0.986, 0.997] suggesting that the TGPS outcome mean count is only slightly lower than the non-TGPS outcome (a value of 1 indicates no effect/difference). Effectively the TGPS mean outcome is 0.992 times larger than the non-TGPS mean outcome. The standardized mean difference (SMD) is -0.012 [-0.020, -0.004], suggesting the TGPS outcome mean is nearly equivalent to the non-TGPS outcome mean. This corresponds with the results of the zero-inflation model: the predicted mean number of quarters without employment is slightly lower for the TGPS group because they had a larger proportion of individuals who were immediately employed (i.e., a count equal to zero).

Quarters Without Wages After First Employment from First 3 Years Post-Separation

To better understand the impact of TGPS participation on long-term employment stability, we created a variable of the number of quarters without wages after a TSM’s first reported employment in the NDNH data. This variable was defined by totaling the number of quarters without reported wages during the first three years post-separation. TSMs who never received wages were excluded from this analysis.

Basic descriptive statistics, by intervention group, are displayed in Exhibit G-29. We can see that non-TGPS participants had a higher number of quarters without wages after their first reported employment.

Exhibit G-29. Weighted Descriptive Statistics of Quarters Without Wages After First Employment

	Mean	SD	Min	Max
TGPS	3.106	3.180	0	12
Non-TGPS	3.220	5.224	0	12
All	3.163	3.619	0	12

Source: National Directory of New Hires, 2014–2021

We again used a weighted linear regression model including the background covariates (Exhibit G-30). The coefficient associated with the intervention indicator was statistically significant ($p = 0.000$) and negative, meaning non-TGPS participants had more quarters without wages than TGPS participants. The standardized effect size (Hedges’ g) was of a small size at -.039 [-.048,

-.029]. On average, non-TGPS participants had .114 more quarters without wages than TGPS participants after their first employment.⁵

Exhibit G-30. Impact Estimate on Quarters Without Wages After First Employment

Outcome	Coefficient	p-value	Hedges' g	Hedges' g CI
Quarters without wages	-0.114	.000	-0.039	-0.048; 0.029

Source: National Directory of New Hires, 2014–2021

Proportion Receiving UI/Mean UI Benefit at 6 Months Post-Separation

A total of 143,635 participants were not employed at 6 months post-separation. Exhibit G-31 below shows the number participants with valid UI wages (and those missing any UI wages), along with the mean UI wages. Approximately 1.4% of TGPS participants that were unemployed at six months had some amount of UI wage benefits, while less than 1% of non-TGPS participants were unemployed at the same point collected some amount of UI wage benefits. The table also shows that the mean amount of UI benefits collected at 6 months post-separation by TGPS participants was \$3,833.63 while the mean amount for non-TGPS participants was \$3,491.16.

Exhibit G-31. Descriptives of UI Benefits Among Those Unemployed at 6 Months Post-Separation

	Mean	SD	Min	Max	N (%)
TGPS	\$3,833.63	3,408.26	7.77	25,729.20	1,023 (1.4)
Non-TGPS	\$3,491.16	3,126.23	2.12	21,975.45	614 (0.9)
All	\$3,705.18	3,309.45	2.12	25,729.20	1,637 (1.1)

Source: National Directory of New Hires, 2014–2021

Proportion Receiving UI/Mean UI Benefit at 12 Months Post-Separation

A total of 136,261 participants were unemployed at 12-months post-separation. Exhibit G-32 below shows the number participants with valid UI wages (and those missing any UI wages), along with the mean UI wages. Approximately 3.2% of TGPS participants that were unemployed at 12 months had some amount of UI wage benefits, while 2.9% of non-TGPS participants unemployed at the same point collected some amount of UI wage benefits. The table also shows that the mean amount of UI benefits collected at 12 months post-separation by TGPS participants was \$3,089.26 while the mean amount for non-TGPS participants was \$3,430.73.

Exhibit G-32. Descriptives of UI Benefits Among Those Unemployed at 12 Months Post-Separation

	Mean	SD	Min	Max	N (%)
TGPS	\$3,089.26	3,055.60	2.10	28,652.00	2,178 (3.2)
Non-TGPS	\$3,430.73	3,006.08	21.00	16,417.80	1,915 (2.9)
All	\$3,249.05	3,037.31	2.10	28,652.00	4,093 (3.0)

⁵ An alternative way to view the effect is to convert -.114 into number of days (10.4). Thus, non-TGPS TSMs had 10.4 more days without wages compared to TGPS, TSMs.

Source: National Directory of New Hires, 2014–2021

Employment Retention

Percent Employed at 6 Months Still at Same Job at 12 Months Post-Separation

The operational definition of employed at six and still at the same job at 12 months post-separation was based on whether a TSM had a recorded wage with the same employer (pseudo-FEIN) within the quarter during which the 6- and 12-month time periods occurred.

Exhibit G-33 is a crosstabulation of the indicator outcome variable denoting whether a TSM was still employed at the same job at 12 months that they occupied at 6 months. Examining the percentages, we can see that 51.5% of non-TGPS participants were employed at the same job at 12 months, while 51.8% of TGPS participants were employed at the same job. Note that these rates of employment are calculated using the PSM-based weights but remain analytically unadjusted (i.e., are not modeled controlling for remaining variance due to background characteristics).

Exhibit G-33. Crosstabulation of Employed at Same Job at 12-Months Indicator by Intervention Group

Employed at same job at 12 months	TGPS	Non-TGPS	N
1	51.8%	51.5%	246,770
0	48.2%	48.5%	230,868
Total	100%	100%	477,638

Source: National Directory of New Hires, 2014–2021

We used a logistic regression model to inferentially assess the intervention indicators' relationship to the binary outcome (i.e., 6 and 12 month employment status at the same job), controlling for the remaining variance among all of the background characteristics. Exhibit G-34 provides the impact estimate for this outcome. TGPS participants had a significantly higher proportion of adjusted participants (59.0) employed at the same job at 6 and 12 months relative to participants in the non-TGPS group (56.0), though the odds ratio (1.090) and the Cox *d* effect size of 0.052 [0.045, 0.059] were both small.

Exhibit G-34. Impact Estimates of TGPS for Employment in Same Job at 6 and 12 Months

Outcome	Coefficient	Odds Ratio	p-value	Cox <i>d</i>	Cox <i>d</i> CI
Same job at 6 months	0.086	1.090	.000	0.052	0.045; 0.059

Source: National Directory of New Hires, 2014–2021

Percent Employed at 6 Months at Any Job at 12 Months Post-Separation

The operational definition of employed at six and at any job at 12 months post-separation was based on whether a TSM had a recorded wage with any employer (based on pseudo-FEIN) within the 2nd quarter (6 months post separation) and 4th quarter (12 months post-separation).

Exhibit G-35 is a crosstabulation of the indicator outcome variable denoting whether a TSM was employed at any job at 12 months. Examining the percentages, we can see that 59.3% of TGPS participants were employed at 12 months, while 59.2% of non-TGPS participants were employed. Note that these rates of employment are calculated using the PSM-based weights but remain analytically unadjusted (i.e., are not modeled controlling for remaining variance due to background characteristics).

Exhibit G-35. Crosstabulation of Employed at Any Job at 12-Months Indicator by Intervention Group

Employed at any job at 12 months	TGPS	Non-TGPS	N
1	59.3%	59.2%	282,261
0	40.8%	40.7%	194,678
Total	100%	100%	477,638

Source: National Directory of New Hires, 2014–2021

We used a logistic regression model to inferentially assess the intervention indicator’s relationship to the binary outcome (i.e., 6 and 12 month employment status at any job), controlling for the remaining variance among all of the background characteristics. Exhibit G-36 provides the impact estimates for the 6 and 12-month employment status at any job. TGPS participants had a significantly larger adjusted proportion of participants employed (67.4) relative to participants in the non-TGPS group (65.3), though the odds ratio (1.075) and the Cox *d* effect size of 0.044 [0.037, 0.051] were both very small.

Exhibit G-36. Impact Estimates of TGPS for Employment in Any Job at 6 and 12 Months

Outcome	Coefficient	Odds Ratio	p-value	Cox <i>d</i>	Cox <i>d</i> CI
Any job at 6 months	0.072	1.075	.000	0.044	0.037; 0.051

Source: National Directory of New Hires, 2014–2021

Appendix H. Subgroup Analyses

This appendix provides the impact estimates for all outcomes in the subgroups analysis.

Exhibit H-1. Program Impacts by Gender

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Number of quarters to employment post-separation							
Men	204,396	204,655	.663	.694	.046	-.032	.000
Women	34,423	34,165	1.379	1.426	.034	-.042	.152
Employed at 6 months (%)							
Men	204,396	204,655	86.6	86.7	.006	.004	.405
Women	34,423	34,165	80.1	82.6	.161	.098	.000
Employed at 12 months (%)							
Men	204,396	204,655	81.1	80.4	-.043	-.026	.000
Women	34,423	34,165	73.2	74.9	.086	.052	.000
Employment retention – at same job at 12 months (%)							
Men	204,396	204,655	76.0	74.0	-.099	-.060	.000
Women	34,423	34,165	67.6	69.4	.081	.049	.000
Wages at 6 months post-separation (\$)							
Men	143,570	146,271	11,206	13,114	1,907.85	.178	.000
Women	20,584	21,969	9,826	12,615	2,789.18	.283	.000
Wages at 12 months post-separation (\$)							
Men	147,718	148,206	11,234	12,728	1,493.73	.132	.000
Women	21,453	22,343	9,583	11,586	2,003.01	.195	.000
Wages at 24 months post-separation (\$)							
Men	138,294	136,934	12,164	13,476	1,311.68	.110	.000
Women	20,279	21,296	10,292	12,382	2,092.07	.189	.000
Wages at 36 months post-separation (\$)							
Men	105,907	103,029	11,926	13,163	1,237.62	.148	.000
Women	15,685	15,414	9,917	11,572	1,655.65	.100	.000
Wage change from 1st to 5th quarter post-separation (\$)							
Men	122,671	121,131	16,684	17,837	1,152.94	.085	.000
Women	17,349	18,179	14,756	16,462	1,705.93	.147	.000

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Number of quarters not employed at 12 months							
Men	204,396	204,655	.846	.859	.015	-.013	.000
Women	34,423	34,165	1.10	1.04	-.060	.056	.000
Number of quarters not employed at 36 months							
Men	204,396	204,655	3.014	3.188	-.174	-.051	.000
Women	34,423	34,165	3.674	3.419	.255	.632	.000

Source: National Directory of New Hires, 2014–2021

Exhibit H-2. Program Impacts by Race and Ethnicity

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p-value
Number of quarters to employment post-separation							
Black	51,167	54,886	.768	.938	.200	-.176	.000
Hispanic (any race)	31,319	29,278	1.055	1.109	.050	-.048	.050
Other races	16,502	15,618	1.242	1.073	-.146	.153	.000
White	139,831	139,038	.850	.856	.008	-.007	.536
Employed at 6 months (%)							
Black	51,167	54,886	86.8	86.8	-.001	-.001	.933
Hispanic (any race)	31,319	29,278	81.3	82.1	.057	.035	.002
Other races	16,502	15,618	79.6	82.0	.156	.094	.000
White	139,831	139,038	86.4	86.7	.022	.013	.018
Employed at 12 months (%)							
Black	51,167	54,886	81.5	79.7	-.116	-.070	.000
Hispanic (any race)	31,319	29,278	74.6	75.6	.053	.032	.003
Other races	16,502	15,618	72.2	76.5	.221	.134	.000
White	139,831	139,038	80.1	79.5	-.035	-.021	.000
Employment retention – at same job at 12 months (%)							
Black	51,167	54,886	76.9	74.2	-.143	-.087	.000
Hispanic (any race)	31,319	29,278	68.3	67.5	-.036	-.022	.042
Other races	16,502	15,618	66.8	68.4	.073	.044	.002
White	139,831	139,038	76.3	75.0	-.070	-.042	.000
Wages at 6 months post-separation (\$)							
Black	36,377	39,018	10,059	12,094	2,034.35	.219	.000
Hispanic (any race)	19,162	18,820	10,537	12,823	2,286.30	.260	.000
Other races	10,022	10,212	10,650	13,400	2,749.66	.247	.000
White	98,593	100,190	11,072	12,908	1,836.01	.163	.000
Wages at 12 months post-separation (\$)							
Black	37,586	29,016	10,040	11,542	1,501.71	.154	.000
Hispanic (any race)	20,056	19,535	10,257	12,159	1,902.20	.205	.000
Other races	10,429	10,893	10,753	12,359	1,606.30	.136	.000
White	101,100	101,105	10,802	12,245	1,443.52	.121	.000
Wages at 24 months post-separation (\$)							

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p-value
Black	35,403	36,649	10,927	11,953	1,025.85	.102	.000
Hispanic (any race)	18,326	17,756	11,217	13,176	1,959.68	.201	.000
Other races	9,714	9,676	11,583	13,106	1,522.76	.123	.000
White	95,130	94,150	11,644	13,006	1,361.81	.109	.000
Wages at 36 months post-separation (\$)							
Black	27,269	27,998	10,593	11,410	817.15	.077	.000
Hispanic (any race)	13,499	12,585	11,024	13,036	2,012.42	.195	.000
Other races	7,327	6,660	11,171	12,136	964.99	.079	.000
White	73,497	71,201	11,266	12,553	1,286.77	.099	.000
Wage change from 1st to 5th quarter post-separation (\$)							
Black	32,175	32,739	15,090	16,392	1,302.38	.125	.000
Hispanic (any race)	14,952	14,773	15,625	17,201	1,576.39	.163	.000
Other races	8,017	8,163	16,014	17,408	1,393.93	.100	.000
White	84,876	83,635	16,309	17,417	1,108.16	.076	.000
Number of quarters not employed at 12 months							
Black	51,167	54,886	.844	.868	.028	-.025	.000
Hispanic (any race)	31,319	29,278	1.058	1.044	-.013	.012	.157
Other races	16,502	15,618	1.111	1.026	-.080	.077	.000
White	139,831	139,038	.863	.869	.008	-.007	.102
Number of quarters not employed at 36 months							
Black	51,167	54,886	2.855	3.038	-.183	-.048	.000
Hispanic (any race)	31,319	29,278	3.805	3.800	.006	.002	.931
Other races	16,502	15,618	3.868	3.657	.211	.062	.017
White	139,831	139,038	2.968	3.117	-.149	.042	.000

Source: National Directory of New Hires, 2014–2021

Exhibit H-3. Program Impacts by Disability Status

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Number of quarters to employment post-separation							
With disabilities	47,539	53,140	1.000	1.048	.047	-.045	.024
No reported disabilities	191,280	185,680	.909	.950	.044	-.041	.000
Employed at 6 months (%)							
With disabilities	47,539	53,140	85.9	86.5	.044	.027	.004
No reported disabilities	191,280	185,680	82.1	81.7	.028	.017	.000
Employed at 12 months (%)							
With disabilities	47,539	53,140	83.2	83.7	.037	.022	.015
No reported disabilities	191,280	185,680	70.7	70.0	-.037	-.022	.008
Employment retention – at same job at 12 months (%)							
With disabilities	47,539	53,140	76.1	76.4	.016	.010	.247
No reported disabilities	191,280	185,680	68.0	65.9	-.095	-.057	.000
Wages at 6 months post-separation (\$)							
With disabilities	33,259	38,036	10,462	11,118	655.42	.074	.000
No reported disabilities	130,895	130,204	11,655	14,004	2,348.88	.214	.000
Wages at 12 months post-separation (\$)							
With disabilities	34,091	39,573	10,444	10,801	357.88	.038	.000
No reported disabilities	135,080	130,976	11,181	12,984	1,802.25	.155	.000
Wages at 24 months post-separation (\$)							
With disabilities	33,986	39,975	10,839	11,353	514.15	.049	.000
No reported disabilities	124,587	118,256	12,375	14,007	1,631.03	.135	.000
Wages at 36 months post-separation (\$)							
With disabilities	26,464	29,342	10,288	10,719	430.63	.040	.000
No reported disabilities	95,128	89,101	12,083	13,579	1,496.36	.118	.000
Wage change from 1st to 5th quarter post-separation (\$)							
With disabilities	28,906	33,573	15,597	15,542	-55.79	-.005	.579
No reported disabilities	111,114	105,737	16,537	18,107	1,570.00	.112	.000
Number of quarters not employed at 12 months							
With disabilities	47,539	53,140	.903	.892	-.012	.011	.118
No reported disabilities	191,280	185,680	1.013	1.019	.006	-.005	.119

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Number of quarters not employed at 36 months							
With disabilities	47,539	53,140	2.232	2.322	-.089	-.007	.149
No reported disabilities	191,280	185,680	3.487	3.318	.168	.016	.000

Source: *National Directory of New Hires, 2014–2021*

Exhibit H-4. Program Impacts by Age at Separation

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Number of quarters to employment post-separation							
Under 20	2,225	3,809	.606	.736	.195	-.171	.022
20–24	82,957	76,653	.823	.967	.161	-.145	.000
25–34	97,573	98,048	1.170	1.085	-.076	.076	.000
35–44	34,626	32,499	1.152	1.267	.096	-.089	.000
45–54	17,005	18,680	0.988	.972	-.016	.016	.672
55–64	3,989	7,783	.902	1.457	.480	-.374	.000
65 or older	444	1,347	.936	1.003	.069	-.065	.723
Employed at 6 months (%)							
Under 20	2,225	3,809	86.9	84.2	-.224	-.136	.000
20–24	82,957	76,653	85.9	84.7	-.092	-.056	.000
25–34	97,573	98,048	82.2	84.1	.136	.082	.000
35–44	34,626	32,499	81.7	82.5	.056	.034	.006
45–54	17,005	18,680	82.9	83.4	.039	.024	.210
55–64	3,989	7,783	82.2	82.0	-.011	-.007	.853
65 or older	444	1,347	84.1	84.7	.048	.029	.791
Employed at 12 months (%)							
Under 20	2,225	3,809	78.2	81.2	.186	.113	.002
20–24	82,957	76,653	78.3	77.1	-.069	-.042	.000
25–34	97,573	98,048	75.5	76.6	.057	.035	.000
35–44	34,626	32,499	79.2	76.6	-.148	-.090	.000
45–54	17,005	18,680	80.7	79.1	-.098	-.059	.002
55–64	3,989	7,783	82.2	76.6	-.348	-.211	.000
65 or older	444	1,347	84.0	80.5	-.238	-.144	.177
Employment retention – at same job at 12 months (%)							
Under 20	2,225	3,809	74.1	73.3	-.042	-.025	.464
20–24	82,957	76,653	74.6	72.0	-.131	-.079	.000
25–34	97,573	98,048	71.1	70.8	-.014	-.008	.154
35–44	34,626	32,499	70.7	69.1	-.076	-.046	.000
45–54	17,005	18,680	71.0	68.7	-.109	-.066	.000
55–64	3,989	7,783	70.2	66.4	-.175	-.106	.000

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
65 or older	444	1,347	70.5	66.5	-.187	-.113	.191
Wages at 6 months post-separation (\$)							
Under 20	1,457	50,021	8,934	7,786	-1,148.10	-.389	.037
20–24	53,273	68,311	10,827	11,416	588.58	.116	.000
25–34	64,525	24,845	11,172	13,750	2,577.48	.309	.000
35–44	27,092	15,201	9,898	12,138	2,240.64	.203	.000
45–54	14,101	6,323	9,671	11,258	1,586.85	.102	.000
55–64	3,319	1,131	9,015	10,503	1,487.65	.090	.000
65 or older	387	168,199	7,635	9,469	1,833.66	.117	.000
Wages 12–months post-separation (\$)							
Under 20	1,445	2,716	8,949	7,448	-1,500.46	-.462	.004
20–24	54,930	51,159	10,593	10,850	256.54	.047	.003
25–34	66,823	68,813	10,992	13,155	2,162.35	.244	.000
35–44	27,733	24,773	9,718	11,428	1,710.46	.149	.000
45–54	14,420	15,391	9,396	10,618	1,221.79	.073	.000
55–64	3,434	6,452	8,587	9,447	859.83	.052	.000
65 or older	386	1,145	7,516	8,439	923.44	.056	.001
Wages at 24 months post-separation (\$)							
Under 20	1,435	2,306	9,831	8,667	-1,163.54	-.275	.033
20–24	51,996	47,784	11,627	11,539	-87.78	-.014	.349
25–34	62,689	63,069	12,058	14,002	1,943.54	.198	.000
35–44	25,531	23,309	10,373	12,022	1,649.38	.133	.000
45–54	13,436	14,492	10,187	11,087	899.50	.052	.000
55–64	3,138	6,079	9,066	10,702	1,636.20	.095	.000
65 or older	348	1,116	8,385	10,038	1,652.82	.089	.000
Wages at 36 months post-separation (\$)							
Under 20	1,114	2,055	9,816	7,747	-2,069.60	-.454	.001
20–24	38,550	36,702	11,512	11,269	-243.43	-.035	.023
25–34	49,227	46,655	11,864	13,453	1,588.58	.148	.000
35–44	20,045	16,600	9,851	11,542	1,690.60	.133	.000
45–54	10,071	10,898	9,289	10,443	1,154.26	.066	.000
55–64	2,342	4,602	8,448	9,913	1,465.91	.078	.000
65 or older	243	834	7,841	10,242	2,400.88	.123	.000

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Wage change from 1st to 5th quarter post-separation (\$)							
Under 20	1,138	2,057	16,070	15,177	-882.01	-.272	.044
20–24	43,740	41,428	16,841	16,953	111.34	.020	.180
25–34	55,148	55,280	16,703	18,309	1,606.48	.155	.000
35–44	24,084	21,061	14,095	16,401	2,305.46	.158	.000
45–54	12,622	13,095	13,449	15,281	1,832.10	.090	.000
55–64	2,965	5,297	12,223	13,459	1,235.92	.054	.000
65 or older	323	928	8,500	8,221	-279.24	-.016	.721
Number of quarters not employed at 12 months							
Under 20	2,225	3,809	.837	.972	.149	-.126	.000
20–24	82,957	76,653	.879	.931	.057	-.05	.000
25–34	97,573	98,048	1.038	.979	-.058	.055	.000
35–44	34,626	32,499	1.040	1.045	.005	-.005	.623
45–54	17,005	18,680	.958	.985	.028	-.025	.080
55–64	3,989	7,783	.995	1.173	.165	-.141	.000
65 or older	444	1,347	1.060	1.074	.012	-.011	.880
Number of quarters not employed at 36 months							
Under 20	2,225	3,809	2.947	3.158	-.210	-.062	.347
20–24	82,957	76,653	3.053	3.209	-.156	-.024	.001
25–34	97,573	98,048	3.293	3.305	-.012	-.003	.762
35–44	34,626	32,499	2.925	3.207	-.282	-.057	.000
45–54	17,005	18,680	2.817	2.959	-.142	-.027	.007
55–64	3,989	7,783	2.799	3.031	-.232	-.066	.007
65 or older	444	1,347	2.831	2.592	.239	.126	.180

Source: National Directory of New Hires, 2014–2021

Exhibit H-5. Program Impacts by Years of Service

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Number of quarters to employment post-separation							
0–5 years	134,019	112,949	1.110	1.324	.176	-.156	.000
6–20 years	77,198	98,540	1.248	.972	-.250	.273	.000
20 or more years	27,602	27,330	.482	.685	.351	-.279	.000
Employed at 6 months (%)							
0–5 years	134,019	112,949	79.5	77.9	-.093	-.056	.000
6–20 years	77,198	98,540	79.2	83.6	.295	.179	.000
20 or more years	27,602	27,330	88.7	86.8	-.177	-.107	.000
Employed at 12 months (%)							
0–5 years	134,019	112,949	74.7	73.8	-.050	-.030	.000
6–20 years	77,198	98,540	74.4	75.8	-.284	-.172	.000
20 or more years	27,602	27,330	84.3	80.1	.073	.044	.000
Employment retention – at same job at 12 months (%)							
0–5 years	134,019	112,949	67.5	64.6	-.130	-.079	.000
6–20 years	77,198	98,540	67.4	69.1	.076	.046	.000
20 or more years	27,602	27,330	77.2	72.9	-.233	-.141	.000
Wages at 6 months post-separation (\$)							
0–5 years	85,543	72,094	10,484	10,888	404.33	.062	.000
6–20 years	55,121	73,767	10,246	13,262	3,015.10	.337	.000
20 or more years	23,490	22,338	11,116	12,721	1,604.69	.104	.000
Wages at 12 months post-separation (\$)							
0–5 years	88,599	75,479	10,391	10,707	316.13	.045	.000
6–20 years	56,601	72,182	10,015	12,457	2,441.40	.259	.000
20 or more years	23,971	22,788	10,824	11,947	1,122.16	.068	.000
Wages at 24 months post-separation (\$)							
0–5 years	84,132	70,061	11,614	11,644	29.21	.004	.677
6–20 years	52,240	66,382	11,085	13,415	2,329.47	.226	.000
20 or more years	22,201	21,710	11,303	12,480	1,177.74	.069	.000
Wages at 36 months post-separation (\$)							
0–5 years	63,442	54,271	11,337	10,917	-419.95	-.051	.000
6–20 years	41,570	47,856	10,743	13,005	2,261.49	.196	.000

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
20 or more years	16,580	16,217	10,452	11,792	1,339.39	.077	.000
Wage change from 1st to 5th quarter post-separation (\$)							
0–5 years	70,965	60,585	15,639	15,620	-19.37	-.002	.776
6–20 years	47,918	58,884	18,728	20,212	1,484.19	.072	.000
20 or more years	21,137	19,677	15,978	18,418	2,439.40	.219	.000
Number of quarters not employed at 12 months							
0–5 years	134,019	112,949	1.151	1.230	.066	-.058	.000
6–20 years	77,198	98,540	1.165	1.001	-.152	.146	.000
20 or more years	27,602	27,330	.670	.792	.166	-.133	.000
Number of quarters not employed at 36 months							
0–5 years	134,019	112,949	3.176	3.361	-.185	-.028	.000
6–20 years	77,198	98,540	3.205	3.207	-.003	-.001	.934
20 or more years	27,602	27,330	2.507	2.790	-.283	-.041	.000

Source: National Directory of New Hires, 2014–2021

Exhibit H-6. Program Impacts by Pay Grade at Separation

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Number of quarters to employment post-separation							
E-1 to E-4	130,280	125,614	1.287	1.597	.216	-.189	.000
E-5 to E-6	62,021	58,356	1.251	.833	-.406	.474	.000
E-7 to E-9	21,101	23,926	.667	.838	.229	-.193	.000
O-1 to O-3	12,841	14,989	1.265	1.330	.050	-.047	.191
O-4 to O-10	8,247	10,672	.615	.608	-.013	.012	.804
W-1 to W-5	4,329	5,262	.769	1.089	.347	-.281	.000
Employed at 6 months (%)							
E-1 to E-4	130,280	125,614	70.2	67.4	-.131	-.079	.000
E-5 to E-6	62,021	58,356	73.6	82.1	.493	.299	.000
E-7 to E-9	21,101	23,926	83.2	84.0	.058	.035	.039
O-1 to O-3	12,841	14,989	83.6	82.8	-.058	-.035	.046
O-4 to O-10	8,247	10,672	90.2	89.7	-.065	-.040	.145
W-1 to W-5	4,329	5,262	89.2	89.4	.023	.014	.710
Employed at 12 months (%)							
E-1 to E-4	130,280	125,614	67.6	65.7	-.086	-.052	.000
E-5 to E-6	62,021	58,356	71.3	74.5	.161	.098	.000
E-7 to E-9	21,101	23,926	79.7	77.7	-.117	-.071	.000
O-1 to O-3	12,841	14,989	78.6	80.1	.090	.055	.003
O-4 to O-10	8,247	10,672	83.8	79.4	-.294	-.178	.000
W-1 to W-5	4,329	5,262	84.6	82.6	-.147	-.089	.017
Employment retention – at same job at 12 months (%)							
E-1 to E-4	130,280	125,614	54.0	50.0	-.162	-.098	.000
E-5 to E-6	62,021	58,356	57.0	60.2	.135	.082	.000
E-7 to E-9	21,101	23,926	65.0	64.1	-.038	-.023	.103
O-1 to O-3	12,841	14,989	79.1	77.6	-.089	-.054	.001
O-4 to O-10	8,247	10,672	86.5	85.0	-.118	-.072	.002
W-1 to W-5	4,329	5,262	83.1	80.6	-.168	-.102	.001
Wages at 6 months post-separation (\$)							
E-1 to E-4	83,457	79,956	6,673	6,865	192.13	.034	.000
E-5 to E-6	43,524	44,854	8,454	11,722	3,268.64	.484	.000

Outcomes	TGPS N	Non-TGPS N	TGPS mean	Non-TGPS mean	Impact estimate	Effect size	p-value
E-7 to E-9	17,702	20,110	9,989	11,793	1,803.93	.191	.000
O-1 to O-3	9,205	10,715	12,719	14,531	1,811.60	.144	.000
O-4 to O-10	6,634	8,260	13,297	15,425	2,127.72	.112	.000
W-1 to W-5	3,632	4,344	14,831	17,542	2711	.175	.000
Wages at 12 months post-separation (\$)							
E-1 to E-4	85,954	83,083	6,775	6777	1.45	.000	.976
E-5 to E-6	44,745	42,751	8,529	11,221	2,692.56	.377	.000
E-7 to E-9	18,072	19,988	9,918	11,245	1,326.83	.133	.000
O-1 to O-3	9,827	11,904	11,943	13,493	1,549.08	.118	.000
O-4 to O-10	6,855	8,305	12,613	14,463	1,850.65	.090	.000
W-1 to W-5	3,718	4,519	14,934	16,754	1,820.16	.122	.000
Wages at 24 months post-separation (\$)							
E-1 to E-4	81,394	77,243	7,933	7,599	-334.16	-.050	.000
E-5 to E-6	41,745	39,582	10,031	12,457	2,425.98	.313	.000
E-7 to E-9	16,831	18,598	11,531	13,083	1,551.66	.141	.000
O-1 to O-3	8,960	10,676	12,300	14,515	2,214.32	.154	.000
O-4 to O-10	6,263	7,920	12,424	14,491	2,066.97	.096	.000
W-1 to W-5	3,380	4,213	15,034	15,932	898.02	.060	.000
Wages at 36 months post-separation (\$)							
E-1 to E-4	62,577	60,159	7,635	7,089	-546.39	-.076	.000
E-5 to E-6	32,262	27,091	9,712	11,740	2,027.67	.234	.000
E-7 to E-9	12,684	13,924	10,880	12,529	1,648.85	.140	.000
O-1 to O-3	7,015	8,466	12,218	14,676	2,457.56	.161	.000
O-4 to O-10	4,614	5,934	11,716	14,535	2,818.73	.127	.000
W-1 to W-5	2,440	2,870	14,996	15,186	190.42	.012	.429
Wage change from 1st to 5th quarter post-separation (\$)							
E-1 to E-4	69,628	67,364	6,658	6,637	-21.33	-.003	.747
E-5 to E-6	37,587	34,508	7,940	10,872	2,932.12	.315	.000
E-7 to E-9	15,893	17,440	9,553	11,606	2,052.63	.182	.000
O-1 to O-3	7,742	9,215	17,910	19,536	1,625.78	.117	.000
O-4 to O-10	6,128	7,493	30,047	31,928	1,880.79	.064	.000
W-1 to W-5	3,042	3,291	21,570	23,470	1,899.90	.119	.000
Number of quarters not employed at 12 months							

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
E-1 to E-4	130,280	125,614	1.504	1.632	.082	-.071	.000
E-5 to E-6	62,021	58,356	1.429	1.128	-.236	.233	.000
E-7 to E-9	21,101	23,926	1.061	1.063	.002	-.002	.897
O-1 to O-3	12,841	14,989	.802	.846	.053	-.043	.000
O-4 to O-10	8,247	10,672	.526	.593	.120	-.09	.000
W-1 to W-5	4,329	5,262	.702	.868	.212	-.161	.000
Number of quarters not employed at 36 months							
E-1 to E-4	130,280	125,614	3.423	3.635	-.211	-.014	.000
E-5 to E-6	62,021	58,356	3.064	2.943	.121	.012	.000
E-7 to E-9	21,101	23,926	2.499	2.666	-.167	-.022	.000
O-1 to O-3	12,841	14,989	2.319	2.418	-.099	-.003	.005
O-4 to O-10	8,247	10,672	2.230	2.404	-.174	-.007	.276
W-1 to W-5	4,329	5,262	2.204	2.464	-.259	-.014	.007

Source: National Directory of New Hires, 2014–2021

Exhibit H-7. Program Impacts by Post-Military Goal

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Number of quarters to employment post-separation							
Have employment	10,136	11,264	.813	.720	-.122	.126	.006
Plan to get a job	80,380	74,159	.737	.858	.153	-.138	.000
Plan to go to school	113,819	120,046	1.207	1.077	-.114	.118	.000
Plan to start a business	9,080	9,450	1.219	1.190	-.024	.024	.602
Retiring	1,018	1,163	1.178	.696	-.526	.669	.000
Other	24,386	22,737	.960	1.151	.182	-.163	.000
Employed at 6 months (%)							
Have employment	10,136	11,264	86.8	87.3	.036	.022	.291
Plan to get a job	80,380	74,159	87.3	86.8	-.039	-.024	-.024
Plan to go to school	113,819	120,046	78.9	80.6	.106	.064	.064
Plan to start a business	9,080	9,450	80.2	82.1	.119	.072	.072
Retiring	1,018	1,163	81.6	87.9	.494	.299	.299
Other	24,386	22,737	83.7	84.0	.020	.012	.012
Employed at 12 months (%)							
Have employment	10,136	11,264	81.0	80.7	-.020	-.012	.541
Plan to get a job	80,380	74,159	82.3	80.6	-.114	-.069	.000
Plan to go to school	113,819	120,046	72.9	74.7	.093	.056	.000
Plan to start a business	9,080	9,450	74.3	72.7	-.079	-.048	.017
Retiring	1,018	1,163	74.1	78.4	.239	.145	.037
Other	24,386	22,737	78.2	77.9	-.018	-.011	.402
Employment retention – at same job at 12 months (%)							
Have employment	10,136	11,264	76.7	77.0	.015	.009	.619
Plan to get a job	80,380	74,159	77.8	75.3	-.143	-.087	.000
Plan to go to school	113,819	120,046	66.3	66.4	.007	.004	.533
Plan to start a business	9,080	9,450	68.1	67.0	-.051	-.031	.114
Retiring	1,018	1,163	67.5	73.3	.283	.172	.005
Other	24,386	22,737	72.7	71.3	-.066	-.040	.001
Wages at 6 months post-separation (\$)							
Have employment	7,248	8,208	13,356	16,506	3,150.05	.223	.000
Plan to get a job	48,040	47,407	12,740	14,475	1,734.83	.149	.000

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Plan to go to school	84,920	88,834	9,171	11,969	2,797.53	.407	.000
Plan to start a business	6,037	6,542	9,531	11,732	2,201.66	.219	.000
Retiring	818	1,011	8,393	10,027	1,633.62	.174	.000
Other	17,091	16,239	10,254	12,523	2,268.64	.245	.000
Wages at 12 months post-separation (\$)							
Have employment	7,396	8,382	12,978	15,945	2,966.48	.200	.000
Plan to get a job	50,287	49,151	12,784	14,063	1,279.11	.104	.000
Plan to go to school	86,911	98,173	9,301	11,482	2,181.32	.301	.000
Plan to start a business	6,238	6,493	9,511	10,838	1,326.98	.127	.000
Retiring	794	965	8,032	8,603	570.63	.064	.123
Other	17,545	16,386	10,238	12,148	1,910.14	.188	.000
Wages at 24 months post-separation (\$)							
Have employment	6,926	7,412	13,895	16,359	2,463.83	.158	.000
Plan to get a job	48,361	46,630	13,569	14,783	1,214.22	.094	.000
Plan to go to school	80,563	82,079	10,604	12,475	1,871.19	.225	.000
Plan to start a business	5,784	6,216	10,457	11,636	1,179.13	.110	.000
Retiring	753	907	8,341	9,574	1,232.54	.126	.004
Other	16,186	14,987	11,285	12,797	1,511.42	.140	.000
Wages at 36 months post-separation (\$)							
Have employment	5,091	6,068	13,340	15,768	2,428.16	.153	.000
Plan to get a job	38,065	34,630	12,970	14,099	1,129.11	.085	.000
Plan to go to school	60,859	62,140	10,820	12,205	1,385.59	.152	.000
Plan to start a business	4,347	4,445	9,991	11,004	1,012.72	.095	.000
Retiring	664	716	8,070	8,618	548.45	.058	.247
Other	12,566	10,445	10,927	12,787	1,860.20	.159	.000
Wage change from 1st to 5th quarter post-separation (\$)							
Have employment	6,147	7,176	19,783	21,590	1,806.72	.084	.000
Plan to get a job	40,966	39,799	17,906	18,798	892.47	.061	.000
Plan to go to school	72,420	73,453	15,266	16,850	1,583.67	.196	.000
Plan to start a business	5,111	5,086	14,612	15,557	945.06	.085	.000
Retiring	744	843	11,659	12,045	386.55	.042	.549
Other	14,632	12,954	15,496	17,273	1,777.28	.157	.000
Number of quarters not employed at 12 months							

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Have employment	10,136	11,264	.833	.813	-.024	.022	.153
Plan to get a job	80,380	74,159	.815	.858	.051	-.045	.000
Plan to go to school	113,819	120,046	1.129	1.069	-.055	.052	.000
Plan to start a business	9,080	9,450	1.096	1.090	-.005	.005	.767
Retiring	1,018	1,163	1.027	.889	-.144	.141	.019
Other	24,386	22,737	.961	.977	.016	-.014	.159
Number of quarters not employed at 36 months							
Have employment	10,136	11,264	2.858	2.943	-.085	-.024	.315
Plan to get a job	80,380	74,159	2.731	2.952	-.220	-.070	.000
Plan to go to school	113,819	120,046	3.638	3.568	.069	.018	.171
Plan to start a business	9,080	9,450	3.539	3.678	-.139	-.041	.202
Retiring	1,018	1,163	3.370	3.320	.050	.789	.018
Other	24,386	22,737	3.166	3.352	-.186	-.053	.005

Source: National Directory of New Hires, 2014–2021

Exhibit H-8. Program Impacts by Character of Service

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Number of quarters to employment post-separation							
Honorable discharge	234,685	233,941	.530	.553	.041	-.035	.000
Dishonorable discharge	1,744	1,912	1.001	2.736	1.006	-.613	.000
Uncharacterized	2,220	2,796	.417	.272	-.427	.407	.000
Employed at 6 months (%)							
Honorable discharge	234,685	233,941	83.3	83.7	.033	.020	.000
Dishonorable discharge	1,744	1,912	82.0	73.5	-.496	-.301	.000
Uncharacterized	2,220	2,796	88.3	91.2	.319	.194	.000
Employed at 12 months (%)							
Honorable discharge	234,685	233,941	78.5	78.2	-.021	-.013	.002
Dishonorable discharge	1,744	1,912	75.6	67.6	-.397	-.241	.000
Uncharacterized	2,220	2,796	83.2	86.2	.236	.143	.000
Employment retention – at same job at 12 months (%)							
Honorable discharge	234,685	233,941	71.8	70.2	-.074	-.045	.000
Dishonorable discharge	1,744	1,912	68.1	58.8	-.402	-.244	.000
Uncharacterized	2,220	2,796	76.0	81.6	.337	.204	.000
Wages at 6 months post-separation (\$)							
Honorable discharge	161,290	164,823	10,758	12,759	2,000.82	.187	.000
Dishonorable discharge	1,141	1,091	8,904	10,796	1,892.25	.358	.001
Uncharacterized	1,595	2,194	14,204	14,534	329.56	.087	.381
Wages at 12 months post-separation (\$)							
Honorable discharge	166,370	167,213	10,777	12,323	1,546.03	.137	.000
Dishonorable discharge	1,129	1,117	8,841	10,269	1,428.56	.259	.010
Uncharacterized	1,534	2,089	13,905	14,168	263.20	.062	.500
Wages at 24 months post-separation (\$)							
Honorable discharge	156,157	155,424	11,773	13,176	1,403.17	.118	.000
Dishonorable discharge	1,025	974	10,226	10,863	636.35	.107	.310
Uncharacterized	1,260	1,705	14,137	14,673	536.30	.101	.251
Wages at 36 months post-separation (\$)							
Honorable discharge	119,803	116,098	11,766	13,071	1,305.29	.106	.000
Dishonorable discharge	770	962	10,049	11,110	1,060.15	.159	.121

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Uncharacterized	897	1,265	13,219	13,132	-86.69	-.015	.875
Wage change from 1st to 5th quarter post-separation (\$)							
Honorable discharge	137,840	136,636	16,430	17,670	1,239.39	.093	.000
Dishonorable discharge	851	840	14,914	15,776	862.04	.156	.130
Uncharacterized	1,296	1,814	19,038	19,163	125.62	.030	.781
Number of quarters not employed at 12 months							
Honorable discharge	234,685	233,941	.802	.803	.001	-.001	.733
Dishonorable discharge	1,744	1,912	.940	1.263	.295	-.221	.000
Uncharacterized	2,220	2,796	.550	.458	-.185	.146	.000
Number of quarters not employed at 36 months							
Honorable discharge	234,685	233,941	3.143	2.982	-.120	-.036	.000
Dishonorable discharge	1,744	1,912	3.742	3.543	.138	.039	.356
Uncharacterized	2,220	2,796	3.398	3.091	.245	.098	.000

Source: National Directory of New Hires, 2014–2021

Exhibit H-9. Program Impacts by Combat Arms

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Number of quarters to employment post-separation							
Combat	62,656	177,272	.921	.998	.080	-.067	.000
Non-Combat	176,163	61,547	.974	1.010	.036	-.031	.001
Employed at 6 months (%)							
Combat	62,656	177,272	83.0	82.6	-.031	-.019	.018
Non-Combat	176,163	61,547	82.6	83.4	.055	.033	.000
Employed at 12 months (%)							
Combat	62,656	177,272	76.9	75.7	-.065	-.039	.000
Non-Combat	176,163	61,547	76.9	76.8	-.007	-.004	.406
Employment retention – at same job at 12 months (%)							
Combat	62,656	177,272	72.0	69.8	-.105	-.063	.000
Non-Combat	176,163	61,547	71.8	70.5	-.060	-.036	.000
Wages at 6 months post-separation (\$)							
Combat	42,411	42,901	9,354	11,132	1777.49	.244	.000
Non-Combat	121,743	125,338	10,182	12,102	1920.80	.168	.000
Wages at 12 months post-separation (\$)							
Combat	43,816	43,262	9,359	10,579	1219.54	.161	.000
Non-Combat	125,355	127,287	10,097	11,612	1514.18	.125	.000
Wages at 24 months post-separation (\$)							
Combat	41,499	40,122	10,567	11,722	1155.01	.138	.000
Non-Combat	117,074	118,108	11,121	12,501	1379.31	.109	.000
Wages at 36 months post-separation (\$)							
Combat	31,383	30,653	10,372	11,289	917.01	.102	.000
Non-Combat	90,209	87,790	10,819	12,118	1298.98	.099	.000
Wage change from 1st to 5th quarter post-separation (\$)							
Combat	36,016	35,348	15,017	15,921	903.63	.106	.000
Non-Combat	104,004	103,962	15,529	16,862	1332.93	.092	.000
Number of quarters not employed at 12 months							
Combat	62,656	177,272	.950	.981	.032	-.027	.000
Non-Combat	176,163	61,547	.960	.951	-.009	.007	.031
Number of quarters not employed at 36 months							

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Combat	62,656	177,272	3.165	3.378	-.214	-.021	.000
Non-Combat	176,163	61,547	3.085	3.164	-.079	-.012	.004

Source: National Directory of New Hires, 2014–2021

Exhibit H-10. Program Impacts by Military Separation Date

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
Number of quarters to employment post-separation							
2014	1,301	1,354	.507	1.826	1.282	-.708	.000
2015	45,694	53,650	.693	.980	.345	-.282	.000
2016	64,867	63,974	.626	.627	.002	-.002	.906
2017	54,467	52,028	.539	.483	-.109	.108	.000
2018	52,303	49,428	1.662	1.570	.057	.058	.003
2019	20,187	18,385	1.705	1.770	.031	-.036	.229
Employed at 6 months (%)							
2014	1,301	1,354	82.5	78.9	-.227	-.137	.007
2015	45,694	53,650	84.0	84.2	.017	.010	.248
2016	64,867	63,974	88.3	87.7	-.056	-.034	.000
2017	54,467	52,028	86.3	89.5	.306	.185	.000
2018	52,303	49,428	58.1	55.0	-.126	-.076	.000
2019	20,187	18,385	89.3	92.2	.352	.214	.000
Employed at 12 months (%)							
2014	1,301	1,354	80.7	84.2	.239	.145	.011
2015	45,694	53,650	81.9	81.1	-.050	-.030	.001
2016	64,867	63,974	85.4	86.0	.052	.032	.000
2017	54,467	52,028	64.7	68.6	.176	.106	.000
2018	52,303	49,428	68.2	66.6	-.072	-.044	.000
2019	20,187	18,385	82.3	70.4	-.672	-.407	.000
Employment retention – at same job at 12 months (%)							
2014	1,301	1,354	73.9	71.3	-.132	-.080	.105
2015	45,694	53,650	76.2	74.9	-.071	-.043	.000
2016	64,867	63,974	83.6	83.2	-.027	-.017	.037
2017	54,467	52,028	66.4	70.5	.190	.115	.000
2018	52,303	49,428	49.3	43.0	-.252	-.153	.000
2019	20,187	18,385	82.5	73.9	-.513	-.311	.000
Wages at 6 months post-separation (\$)							
2014	866	858	8,862	10,746	1,883.53	.264	.002
2015	32,591	38,415	10,401	12,109	1,707.74	.160	.000

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
2016	50,836	49,857	11,020	12,767	1,747.22	.164	.000
2017	41,119	42,283	10,832	13,075	2,242.95	.216	.000
2018	22,655	21,068	11,272	13,609	2,337.47	.219	.000
2019	16,087	15,720	12,036	14,340	2,304.41	.217	.000
Wages at 12 months post-separation (\$)							
2014	949	1,067	9,424	11,904	2,479.31	.245	.000
2015	34,827	40,499	10,295	11,269	974.27	.088	.000
2016	52,410	52,316	10,562	11,986	1,424.49	.128	.000
2017	32,167	33,034	10,182	11,908	1,726.17	.157	.000
2018	32,997	31,163	10,826	12,726	1,899.28	.169	.000
2019	15,821	12,372	11,292	12,875	1,582.55	.134	.000
Wages at 24 months post-separation (\$)							
2014	970	1,107	10,236	12,198	1,962.21	.196	.000
2015	36,621	42,531	11,628	12,473	845.15	.072	.000
2016	38,163	38,874	11,027	12,357	1,330.61	.116	.000
2017	35,005	33,342	11,908	13,286	1,378.11	.116	.000
2018	38,319	33,487	12,143	13,975	1,831.30	.150	.000
2019	9,495	8,813	10,903	12,702	1,799.43	.168	.000
Wages at 36 months post-separation (\$)*							
2014	957	1,103	10,379	12,077	1,697.37	.163	.002
2015	24,533	31,345	10,910	11,467	557.34	.046	.000
2016	42,866	40,284	11,296	12,641	1,345.58	.112	.000
2017	40,708	34,677	11,847	13,372	1,524.52	.117	.000
2018	12,528	10,937	10,366	11,908	1,542.27	.139	.000
Wage change from 1st to 5th quarter post-separation (\$)							
2014	869	811	15,032	16,443	1,410.57	.122	.019
2015	31,647	34,551	15,473	16,068	594.55	.045	.000
2016	48,593	48,845	15,633	16,720	1,087.03	.087	.000
2017	30,377	31,868	15,447	17,027	1,580.35	.123	.000
2018	21,874	19,560	16,322	18,050	1,728.17	.120	.000
2019	6,660	3,512	16,860	18,259	1,398.93	.096	.000
Number of quarters not employed at 12 months							
2014	1,301	1,354	.883	1.060	.182	-.152	.000

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p- value
2015	45,694	53,650	.793	.870	.093	-.079	.000
2016	64,867	63,974	.676	.681	.007	-.006	.321
2017	54,467	52,028	.768	.640	-.182	.172	.000
2018	52,303	49,428	1.668	1.748	.047	-.043	.000
2019	20,187	18,385	1.138	1.148	.009	-.026	.447
Number of quarters not employed at 36 months							
2014	1,301	1,354	3.048	2.357	.691	.176	.000
2015	45,694	53,650	2.769	2.753	.016	.005	.783
2016	64,867	63,974	3.548	3.575	-.027	-.008	.601
2017	54,467	52,028	3.722	3.829	-.107	-.031	.031
2018	52,303	49,428	2.843	3.120	-.277	-.090	.000
2019	20,187	18,385	1.163	1.624	-.462	-.217	.000

Source: National Directory of New Hires, 2014–2021

Note: *We did not have wage data at 36 months post-separation for TSMs who separated in 2019.

Exhibit H-11. Program Impacts by Gender, Race, and Ethnicity

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p-value
Number of quarters to employment post-separation							
Black men	38,640	43,197	.516	.624	.108	-.162	.000
Hispanic men (any race)	26,498	23,789	.736	.784	.048	-.058	.031
Men of other races	13,568	12,773	.871	.738	-.133	.171	.000
White men	125,690	124,895	.584	.598	.014	-.022	.070
Black women	12,527	11,689	1.177	1.505	.328	-.212	.000
Hispanic women (any race)	4,821	5,489	1.408	1.434	.026	-.018	.758
Women of other races	2,934	2,845	1.627	1.547	-.080	.051	.528
White women	14,141	14,142	1.241	1.096	-.146	.128	.001
Employed at 6 months (%)							
Black men	38,640	43,197	89.0	88.9	-.001	-.008	.416
Hispanic men (any race)	26,498	23,789	84.2	84.8	.006	.029	.019
Men of other races	13,568	12,773	82.5	83.8	.013	.057	.001
White men	125,690	124,895	88.8	88.7	-.001	-.004	.455
Black women	12,527	11,689	84.1	84.6	.005	.022	.213
Hispanic women (any race)	4,821	5,489	77.7	79.4	.017	.060	.022
Women of other races	2,934	2,845	77.5	84.0	0.65	.255	.000
White women	14,141	14,142	81.9	85.1	.032	.142	.000
Employed at 12 months (%)							
Black men	38,640	43,197	85.3	83.1	-.022	-.100	.000
Hispanic men (any race)	26,498	23,789	79.8	80.0	.002	.006	.606
Men of other races	13,568	12,773	77.2	80.7	.035	.126	.000
White men	125,690	124,895	84.5	83.7	-.008	-.038	.000
Black women	12,527	11,689	80.0	80.4	.003	.012	.510
Hispanic women (any race)	4,821	5,489	71.3	74.2	.029	.088	.001
Women of other races	2,934	2,845	71.9	75.2	.033	.103	.003
White women	14,141	14,142	75.8	77.0	.012	.042	.008
Employment retention – at same job at 12 months (%)							

Outcomes	TGPS N	Non-TGPS N	TGPS mean	Non-TGPS mean	Impact estimate	Effect size	p-value
Black men	38,640	43,197	71.6	66.9	-.047	-.133	.000
Hispanic men (any race)	26,498	23,789	66.9	64.6	-.024	-.063	.000
Men of other races	13,568	12,773	65.4	66.1	.007	.019	.248
White men	125,690	124,895	73.1	71.0	-.021	-.064	.000
Black women	12,527	11,689	66.9	68.7	.018	.051	.003
Hispanic women (any race)	4,821	5,489	59.9	61.3	.013	.034	.195
Women of other races	2,934	2,845	60.6	65.0	.044	.114	.001
White women	14,141	14,142	64.6	68.0	.033	.091	.000
Wages at 6 months post-separation (\$)							
Black men	28,300	31,211	10,532	12,406	1874.29	.198	.000
Hispanic men (any race)	16,663	15,731	11,068	13,176	2108.31	.237	.000
Men of other races	8,405	8,334	11,129	13,723	2593.95	.229	.000
White men	90,202	90,958	11,564	13,396	1831.18	.163	.000
Black women	8,077	7,805	9,462	12,252	2790.61	.327	.000
Hispanic women (any race)	2,499	3,089	9,372	13,149	3776.55	.465	.000
Women of other races	1,617	1,875	9,973	13,845	3872.70	.388	.000
White women	8,391	9,198	10,061	12,423	2362.36	.210	.000
Wages at 12 months post-separation (\$)							
Black men	29,086	30,886	10,695	12,160	1,464.85	.139	.000
Hispanic men (any race)	17,452	16,272	10,982	12,776	1,794.28	.185	.000
Men of other races	8,728	9,036	11,449	12,955	1,506.11	.123	.000
White men	92,452	91,923	11,536	12,999	1,463.49	.116	.000
Black women	8,500	8,122	9,432	11,256	1,823.40	.026	.000
Hispanic women (any race)	2,604	3,260	9,169	12,223	3,054.46	.352	.000
Women of other races	1,701	1,851	10,042	12,493	2,451.82	.217	.000
White women	8,648	9,101	9,613	11,441	1,828.43	.147	.000
Wages at 24 months post-separation (\$)							
Black men	27,317	29,140	11,630	12,533	903.59	.080	.000

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p-value
Hispanic men (any race)	15,863	14,713	12,006	13,860	1,854.34	.185	.000
Men of other races	8,151	7,979	12,291	13,845	1,553.66	.104	.000
White men	86,963	85,035	12,452	13,775	1,322.79	.094	.000
Black women	8,086	7,504	9,984	13,101	1,633.33	.173	.000
Hispanic women (any race)	2,463	3,040	10,277	11,910	3,116.35	.031	.000
Women of other races	1,563	1,692	10,998	12,627	1,629.52	.134	.000
White women	8,167	9,051	10,068	12,409	2,341.01	.174	.000
Wages at 36 months post-separation (\$)							
Black men	20,949	22,336	11,405	12,258	852.50	.072	.000
Hispanic men (any race)	11,691	10,503	11,976	13,946	1,970.15	.176	.000
Men of other races	6,141	5,560	12,051	12,841	789.47	.053	.000
White men	67,126	64,544	12,230	13,516	1,285.62	.077	.000
Black women	6,320	5,653	9,974	10,804	830.84	.085	.000
Hispanic women (any race)	1,808	2,079	9,724	12,604	2,880.32	.296	.000
Women of other races	1,186	1,092	10,393	12,678	2,284.48	.176	.000
White women	6,371	6,579	9,697	11,656	1,958.52	.143	.000
Wage change from 1st to 5th quarter post-separation (\$)							
Black men	24,999	25,923	9,289	9,814	525.48	.049	.000
Hispanic men (any race)	13,039	12,417	9,629	10,073	443.27	.046	.005
Men of other races	6,720	6,652	10,304	10,274	-29.53	-.002	.892
White men	77,913	75,986	10,405	10,763	357.80	.024	.000
Black women	7,176	6,804	7,847	8,852	1,004.84	.112	.000
Hispanic women (any race)	1,913	2,349	8,070	10,676	2,606.14	.285	.000
Women of other races	1,297	1,500	8,258	9,775	1,517.28	.125	.001
White women	6,963	7,518	8,378	10,763	849.48	.058	.000
Number of quarters not employed at 12 months							
Black men	38,640	43,197	.749	.787	.037	-.042	.000
Hispanic men (any race)	26,498	23,789	.946	.936	-.010	.010	.283

Outcomes	TGPS N	Non- TGPS N	TGPS mean	Non- TGPS mean	Impact estimate	Effect size	p-value
Men of other races	13,568	12,773	1.004	.953	-.052	.049	.000
White men	125,690	124,895	.762	.776	.014	-.016	.000
Black women	12,527	11,689	.957	.923	-.034	.034	.013
Hispanic women (any race)	4,821	5,489	1.173	1.512	-.021	.017	.371
Women of other races	2,934	2,845	1.183	.967	-.216	.202	.000
White women	14,141	14,142	1.043	.974	.069	.064	.000
Number of quarters not employed at 36 months							
Black men	38,640	43,197	3.73	4.05	-.320	-.045	.000
Hispanic men (any race)	26,498	23,789	4.18	4.33	-.149	-.025	.038
Men of other races	13,568	12,773	4.38	4.30	.078	.013	.446
White men	125,690	124,895	3.37	3.63	-.260	-.039	.000
Black women	12,527	11,689	3.93	3.96	-.027	-.004	.832
Hispanic women (any race)	4,821	5,489	5.14	4.91	.233	.027	.249
Women of other races	2,934	2,845	5.06	4.63	.435	.072	.034
White women	14,141	14,142	4.51	4.24	.277	-.033	.026

Source: National Directory of New Hires, 2014–2021

Appendix I. Associational Analyses

This appendix contains the results tables all associational analyses. The analyses explored the relationship between the labor market outcomes and the time in the last year of service when the TSM completed Transition GPS (less than 3 months before separation, 3–6 months before separation, or more than 6 months before separation).

The associational analyses also explored the relationship between outcomes and completion of separate Army Career and Alumni Program (ACAP) Transition GPS components, including the optional supplemental tracks:

- DOL Employment Workshop (DOL EW)
- Transition Overview
- MOC Crosswalk
- Personal Finance
- Post Service Budget
- VA Benefits Briefing (I & II)
- Education Track
- Entrepreneur Track
- Career and Technical Track
- Individual Transition Plan (ITP)

Time to Separation and Transition GPS Completion

Exhibit I-1. Completion of Transition GPS by Time to Separation

Time to Separation	TGPS Completion	
	Count	Percent
< 3 Months	57,274	24
3–6 Months	86,448	36
6+ Months	95,097	40
Total Number of TSMs	238,819	100

Source: U.S. Army Office of Economic and Manpower Analysis, 2014–2019

Note: Time to separation categories are based on the milestones outlined in Fisher (2022)

Exhibit I-2. Completion of Transition GPS by Time to Separation, Gender, Race/Ethnicity, Pay Grade, and Combat Arms

	< 3 Months	3–6 Months	6+ Months	N
Gender				
Men	24%	36%	40%	204,396
Women	26%	37%	37%	34,423
Race				
Black	27%	34%	39%	51,167
Hispanic (any race)	24%	37%	40%	31,319
Other Races	20%	36%	44%	16,502
White	23%	37%	40%	139,831
Pay Grade				
E–1 to E–4	31%	37%	32%	130,280

	< 3 Months	3–6 Months	6+ Months	N
E–5 to E–6	18%	38%	44%	62,021
E–7 to E–9	7%	25%	68%	21,101
Officers	14%	40%	46%	25,417
Combat Arms				
Combat	27%	37%	36%	62,656
Non-Combat	23%	36%	41%	176,163

Source: U.S. Army Office of Economic and Manpower Analysis, 2014–2019

Exhibit I-3. Average and Median Monthly Wages by Time From Transition GPS Completion to Separation

	Mean			Median		
	< 3 Months	3–6 Months	6+ Months	< 3 Months	3–6 Months	6+ Months
6 Months	\$2,668	\$3,485	\$4,215	\$2,051	\$2,613	\$3,242
12 Months	\$2,913	\$3,802	\$4,564	\$2,315	\$2,934	\$3,515
18 Months	\$3,145	\$3,990	\$4,733	\$2,536	\$3,117	\$3,711
24 Months	\$3,273	\$4,152	\$4,862	\$2,661	\$3,284	\$3,877
36 Months	\$3,574	\$4,460	\$5,077	\$2,946	\$3,604	\$4,160

Source: National Directory of New Hires, 2014–2021

Exhibit I-4. Average Employment Rates by Time From Transition GPS Completion to Separation

	< 3 Months	3–6 Months	6+ Months
6 Months	65%	68%	72%
12 Months	68%	71%	73%
18 Months	69%	71%	71%
24 Months	68%	69%	71%
36 Months	65%	67%	71%

Source: National Directory of New Hires, 2014–2021

Participation in Transition GPS Components

More than 280,000 enlisted soldiers and officers separated from the U.S. Army from 2014 to 2019. Note that 2014 is low due to the selection criteria for analysis.⁶

Exhibit I-5. Number of Army Separations, October 2014 to July 2019

Year	Separations
2014	3,292
2015	53,283
2016	74,513
2017	67,229
2018	65,201
2019	25,440
Total	288,958

Source: U.S. Army Office of Economic and Manpower Analysis, 2014–2019

Note: 2014 only includes October 1 through December 31 and 2019 only includes January 1 through June 30.

Completion of the DOL Employment Workshop

Exhibit I-6. DOL Employment Workshop Completion by Year

Year	Completed DOL EW	Did Not Complete DOL EW	Total Separations
2014	39.5%	60.5%	3,292
2015	85.8%	14.2%	53,283
2016	87.1%	12.9%	74,513
2017	81.0%	19.0%	67,229
2018	80.2%	19.8%	65,201
2019	79.4%	20.6%	25,440
2014–2019	82.6%	17.4%	288,958

Source: U.S. Army Office of Economic and Manpower Analysis, 2014–2019

Note: 2014 only includes October 1 through December 31 and 2019 only includes January 1 through June 30.

Exhibit I-7. DOL Employment Workshop Participation by Year, Demographic Characteristics and Military Characteristics

	2014	2015	2016	2017	2018	2019	2014–2019
Gender							

⁶ TGPS was implemented in the 4th quarter of 2014. For our selection criteria, the TSM needed to complete the DOL Employment Workshop after this date. To be included in the sample, a TAP participant separating in 2014 would have needed to attend the Employment Workshop and separate in the 4th quarter of 2014. At most, a TSM would have 90 days between DOL EW and separation, which is more rapid separation than most TGPS participants. Non-TGPS participants would simply need to separate in the 4th quarter, without a similar constraint on completing a workshop within 90 days of separation.

	2014	2015	2016	2017	2018	2019	2014–2019
Women	49%	88%	88%	83%	81%	79%	84%
Men	38%	85%	87%	81%	80%	79%	82%
Race							
Black	40%	84%	85%	79%	78%	77%	81%
Hispanic (all races)	45%	87%	87%	80%	80%	79%	82%
Other Races	34%	85%	87%	81%	81%	79%	83%
White	39%	86%	88%	82%	81%	80%	84%
Pay Grade							
E-1	43%	72%	78%	78%	81%	82%	76%
E-2	53%	79%	84%	86%	87%	89%	84%
E-3	50%	86%	90%	89%	92%	92%	88%
E-4	51%	93%	94%	91%	90%	91%	92%
E-5	42%	89%	84%	70%	70%	69%	76%
E-6	26%	76%	72%	60%	54%	48%	63%
E-7	12%	75%	82%	84%	82%	80%	80%
E-8	4%	84%	88%	91%	88%	89%	88%
E-9	14%	81%	86%	83%	85%	79%	83%
Officers	16%	79%	86%	82%	81%	80%	82%
Education (Entry Level)							
HS/GED/Some College	42%	87%	87%	81%	80%	79%	83%
College Graduate	20%	82%	87%	82%	82%	81%	82%
Graduate Degree	8%	69%	73%	72%	70%	67%	70%
Other	33%	85%	86%	87%	77%	79%	84%
Unknown	12%	80%	88%	86%	81%	82%	84%
Age at Separation							
17-24	50%	87%	87%	81%	85%	88%	85%
25-34	40%	86%	86%	78%	75%	73%	80%
35-44	23%	84%	88%	85%	82%	76%	84%
45+	13%	80%	88%	86%	84%	81%	84%
Total Participation	40%	86%	87%	81%	80%	79%	83%
Total Separations (N)	3,292	53,283	74,513	67,229	65,201	25,440	288,958

Source: U.S. Army Office of Economic and Manpower Analysis, 2014–2019

Completion of the DOD and VA Core Components

The following exhibits include the percentage of TSMs who completed each of the core components of Transition GPS. The percentages include all TSMs, not only those who completed the DOL Employment Workshop.

Exhibit I-8. Transition Overview Participation by Year

Year	Transition Overview Completed	Transition Overview Not Completed	Total Separations
2014	11.4%	88.6%	3,292
2015	10.0%	90.0%	53,283
2016	8.1%	91.9%	74,513
2017	9.1%	90.9%	67,229
2018	10.8%	89.2%	65,201
2019	10.5%	89.5%	25,440
2014–2019	9.5%	90.5%	288,958

Source: U.S. Army Office of Economic and Manpower Analysis, 2014–2019

Exhibit I-9. MOC Crosswalk Overview Completion by Year

Year	MOC Crosswalk Completed	MOC Crosswalk Not Completed	Total Separations
2014	37.5%	62.5%	3,292
2015	83.1%	16.9%	53,283
2016	84.8%	15.2%	74,513
2017	77.0%	23.0%	67,229
2018	75.8%	24.2%	65,201
2019	76.1%	23.9%	25,440
2014–2019	79.3%	20.7%	288,958

Source: U.S. Army Office of Economic and Manpower Analysis, 2014–2019

Exhibit I-10. Personal Finance or Post-Service Budgeting Completion by Year

Year	DOD Finance Course Completed	DOD Finance Course Not Completed	Total Separations
2014	36.8%	63.2%	3,292
2015	82.1%	17.9%	53,283
2016	83.8%	16.2%	74,513
2017	76.6%	23.4%	67,229
2018	72.4%	27.6%	65,201
2019	72.9%	27.1%	25,440
2014–2019	77.7%	22.3%	288,958

Source: U.S. Army Office of Economic and Manpower Analysis, 2014–2019

Exhibit I-11. VA Benefits Briefing Completion by Year

Year	VA Benefits Briefing Completed	VA Benefits Briefing Not Completed	Total Separations
2014	38.8%	61.2%	3,292
2015	85.2%	14.8%	53,283
2016	86.6%	13.4%	74,513
2017	80.4%	19.6%	67,229
2018	79.7%	20.3%	65,201
2019	78.9%	21.1%	25,440
2014–2019	82.1%	17.9%	288,958

Source: U.S. Army Office of Economic and Manpower Analysis, 2014–2019

Completion of Supplemental Workshops

Exhibit I-12. Number of Supplemental Workshops Completed by Year

Year	No Tracks	One Track	Two Tracks	Three Tracks	Total Separations
2014	70.7%	27.7%	1.5%	0.1%	3,292
2015	66.7%	32.0%	1.2%	0.1%	53,283
2016	73.8%	25.4%	0.8%	< 0.1%	74,513
2017	79.9%	19.7%	0.4%	< 0.1%	67,229
2018	81.3%	18.2%	0.4%	0.1%	65,201
2019	81.9%	17.5%	0.5%	0.1%	25,440
2014–2019	76.3%	23.0%	0.7%	0.1%	288,958

Source: U.S. Army Office of Economic and Manpower Analysis, 2014–2019

Exhibit I-13. Completion of Individual Career-Specific Tracks and Combinations of Tracks by Year

Year	Tech. Only	Ed. Only	Entre. Only	Ed. & Tech.	Entre. & Tech.	Entre. & Ed.	Total separations
2014	2.95%	22.66%	2.13%	0.67%	0.18%	0.64%	3,292
2015	2.74%	27.41%	1.87%	0.57%	0.09%	0.56%	53,283
2016	2.14%	21.65%	1.62%	0.34%	0.07%	0.34%	74,513
2017	1.71%	16.67%	1.28%	0.18%	0.03%	0.22%	67,229
2018	1.84%	15.18%	1.19%	0.19%	0.03%	0.17%	65,201
2019	2.02%	14.30%	1.13%	0.34%	0.04%	0.16%	25,440
2014–2019	2.08%	19.46%	1.45%	0.32%	0.05%	0.30%	288,958

Source: U.S. Army Office of Economic and Manpower Analysis, 2014–2019

Note: Tech. = Career Technical Track; Ed. = Higher Education Track; Entre. = Entrepreneur Track

Relationship Between Completion of Components and Outcomes

Exhibit I-14. Logistic Regression – Relationship Between Core Components and Employment Outcomes

Core Components	Coefficient	SE	p-value
<i>Employed at 6 months</i>			
VA Benefits	-0.166	0.056	.003
Transition Overview	-0.156	0.014	.000
MOC Crosswalk	-0.035	0.025	.167
Financial Planning	0.171	0.021	.000
<i>Employed at 12 months</i>			
VA Benefits	0.054	0.055	.324
Transition Overview	-0.149	0.014	.000
MOC Crosswalk	0.040	0.026	.123
Financial Planning	0.109	0.021	.000
<i>Employed at 18 months</i>			
VA Benefits	0.205	0.054	.000
Transition Overview	-0.059	0.014	.000
MOC Crosswalk	0.005	0.026	.839
Financial Planning	-0.064	0.022	.003
<i>Employed at 24 months</i>			
VA Benefits	0.276	0.056	.000
Transition Overview	-0.004	0.014	.769
MOC Crosswalk	-0.115	0.027	.000
Financial Planning	-0.191	0.023	.000
<i>Employed at 36 months</i>			
VA Benefits	0.282	0.060	.000
Transition Overview	0.019	0.016	.235
MOC Crosswalk	-0.116	0.031	.000
Financial Planning	-0.055	0.028	.047

Source: National Directory of New Hires, 2014–2021

Note: sample size for employment at 6 months = 238,819; 12 months = 238,819; 18 months = 238,819; 24 months = 228,487; 36 months = 179,151

Exhibit I-15. Logistic Regression – Relationship Between Core Components and Employment Retention Outcomes

Core Components	Coefficient	SE	p-value
<i>Employed at same employer at 12 months</i>			
VA Benefits	0.025	0.051	.622
Transition Overview	-0.279	0.013	.000
MOC Crosswalk	-0.030	0.024	.206
Financial Planning	0.214	0.020	.000
<i>Employed at any employer at 12 months</i>			
VA Benefits	-0.032	0.052	.539
Transition Overview	-0.174	0.013	.000
MOC Crosswalk	0.006	0.024	.792
Financial Planning	0.184	0.020	.000

Source: National Directory of New Hires, 2014–2021

Note: sample size for both outcomes = 238,819

Exhibit I-16. Ordinary Least Squares (OLS) Regression – Relationship Between Core Components and Earnings Outcomes

Core Components	Coefficient	SE	p-value
Wages at 6 months			
VA Benefits	170.93	303.26	.573
Transition Overview	-805.99	78.97	.000
MOC Crosswalk	-837.46	144.29	.000
Financial Planning	433.14	122.42	.000
Wages at 12 months			
VA Benefits	737.40	326.63	.024
Transition Overview	-844.35	82.26	.000
MOC Crosswalk	-946.93	151.59	.000
Financial Planning	175.25	127.16	.168
Wages at 18 months			
VA Benefits	1157.83	337.98	.001
Transition Overview	-910.07	83.45	.000
MOC Crosswalk	-937.69	153.65	.000
Financial Planning	137.98	128.04	.281
Wages at 24 months			
VA Benefits	875.04	351.64	.013
Transition Overview	-929.95	86.62	.000
MOC Crosswalk	-1214.92	155.82	.000
Financial Planning	425.93	131.43	.001
Wages at 36 months			
VA Benefits	536.57	404.63	.185
Transition Overview	900.09	102.18	.000
MOC Crosswalk	-600.87	190.18	.002
Financial Planning	535.74	170.10	.002

Source: National Directory of New Hires, 2014–2021

Note: sample size for wages at 6 months = 164,154; 12 months = 169,171; 18 months = 168,024; 24 months = 158,573; 36 months = 121,592

Exhibit I-17. Logistic Regression – Relationship Between Supplemental Tracks, TGPS Completion, and Employment Outcomes

Supplemental Tracks	DOL EW + ITP Only			ALL TGPS Components		
	Coefficient	SE	p-value	Coefficient	SE	p-value
Employed at 6 months						
Higher Education	-0.379	0.010	.000	-0.332	0.034	.000
Career and Technical	0.008	0.027	.776	0.059	0.098	.549
Entrepreneurship	-0.068	0.032	.033	-0.061	0.105	.560
Employed at 12 months						
Higher Education	-0.359	0.011	.000	-0.323	0.035	.000
Career and Technical	0.054	0.028	.057	-0.020	0.099	.841
Entrepreneurship	0.012	0.033	.744	0.016	.0108	.881
Employed at 18 months						
Higher Education	-0.330	0.011	.000	-0.262	0.035	.000
Career and Technical	0.140	0.029	.000	0.087	0.102	.392
Entrepreneurship	0.042	0.033	.203	0.128	0.015	.251
Employed at 24 months						
Higher Education	-0.333	0.011	.000	-0.281	0.036	.000
Career and Technical	0.123	0.029	.000	0.251	0.107	.020
Entrepreneurship	-0.012	0.033	.711	-0.081	0.109	.459
Employed at 36 months						
Higher Education	-0.407	0.012	.000	-0.384	0.039	.000
Career and Technical	-0.055	0.031	.077	-0.156	0.108	.148
Entrepreneurship	-0.129	0.035	.000	-0.125	0.117	.288

Source: National Directory of New Hires, 2014–2021

Note: DOL EW and ITP Only sample size: employment at 6 months = 238,819; 12 months = 238,819; 18 months = 238,819; 24 months = 228,487; 36 months = 179,151; All TGPS sample size: employment at 6 months = 26,059; 12 months = 26,059; 18 months = 26,059; 24 months = 24,730; 36 months = 18,759

Exhibit I-18. Logistic Regression – Relationship Between Supplemental Tracks, TGPS Completion, and Employment Retention Outcomes

Supplemental Tracks	DOL EW + ITP Only			ALL TGPS Components		
	Coefficient	SE	p-value	Coefficient	SE	p-value
<i>Employed at same employer at 12 months</i>						
Higher Education	-0.284	0.010	.000	-0.230	0.034	.000
Career and Technical	-0.036	0.025	.157	-0.030	0.092	.747
Entrepreneurship	0.110	0.030	.000	0.210	0.100	.036
<i>Employed at any employer at 12 months</i>						
Higher Education	-0.347	0.010	.000	-0.298	0.033	.000
Career and Technical	0.023	0.026	.368	-0.006	0.093	.949
Entrepreneurship	-0.019	0.030	.525	0.009	0.101	.927

Source: National Directory of New Hires, 2014–2021

Note: DOL EW and ITP Only sample size = 238,819; All TGPS sample size = 26,059

Exhibit I-19. Ordinary Least Squares (OLS) Regression – Relationship Between Supplemental Tracks, TGPS Completion, and Earnings Outcomes

Supplemental Tracks	DOL EW + ITP Only			ALL TGPS Components		
	Coefficient	SE	p-value	Coefficient	SE	p-value
Wages at 6 months						
Higher Education	-4393.49	61.14	.000	-4031.76	211.16	.000
Career and Technical	-2610.23	149.02	.000	-2106.60	552.95	.000
Entrepreneurship	585.82	178.66	.001	193.52	614.53	.753
Wages at 12 months						
Higher Education	-4473.64	63.64	.000	-3893.89	220.05	.000
Career and Technical	-2627.85	154.91	.000	-2225.71	584.66	.000
Entrepreneurship	220.24	184.73	.233	319.00	634.95	.615
Wages at 18 months						
Higher Education	-4413.94	65.14	.000	-3822.09	219.59	.000
Career and Technical	-2513.33	157.19	.000	-1893.90	580.18	.001
Entrepreneurship	384.05	188.38	.041	45.53	628.82	.942
Wages at 24 months						
Higher Education	-4140.17	67.75	.000	-3356.06	229.95	.000
Career and Technical	-2333.02	164.25	.000	-2243.68	595.62	.000
Entrepreneurship	290.16	197.16	.141	-9.74	677.92	.989
Wages at 36 months						
Higher Education	-3634.93	77.49	.000	-3223.47	267.38	.000
Career and Technical	-2005.46	192.59	.000	-1141.56	717.43	.112
Entrepreneurship	-101.35	226.95	.655	562.22	772.86	.467

Source: National Directory of New Hires, 2014–2021

Note: DOL EW and ITP Only sample size: wages at 6 months = 164,154; 12 months = 169,171; 18 months = 168,024; 24 months = 158,573; 36 months = 121,592; All TGPS sample size: employment at 6 months = 17,217; 12 months = 17,817; 18 months = 18,042; 24 months = 17,035; 36 months = 12,720

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