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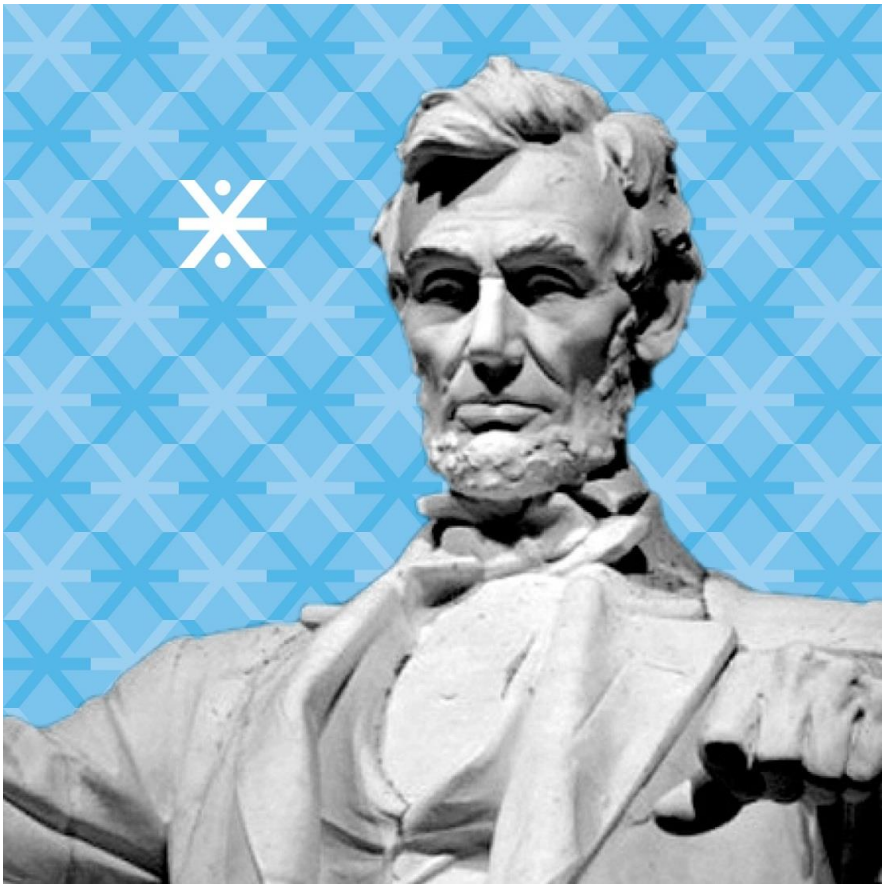
January 30, 2015

Veteran and Non-Veteran Job Seekers

Exploratory analysis of services and outcomes for customers of federally-funded employment services



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ABSTRACT

This exploratory investigation contrasts the experiences of Jobs for Veterans State Grants (JVSG) veterans, non-JVSG veterans, and non-veterans who participated in federally-funded employment services. It examines employment rates, earnings, duration in employment services, and how quickly customers receive staff-assisted services. Comparisons were also made across gender, age, and military separation status.

The data used in the study encompass nine quarters, from January 2011 to March 2013, which were the most complete customer-level data available at the time of this report. Job seekers, who are customers of employment services, were tracked from quarter to quarter while they were enrolled in employment services and for three quarters after they exited. The nine quarters of data contain over 28 million unduplicated customer enrollments.

Previous analyses of these data have typically focused on the overall differences in outcomes between populations without controlling for the demographic differences between populations. This analysis improves upon those simple comparisons by using regression-adjusted comparisons.

Regression-adjusted comparisons account for the differences in gender, age, race, education, and disability status that exist between two populations, say veterans and non-veterans, before comparing them. For example, the veteran and non-veteran populations in the data have different education levels. A simple comparison of the earnings differences between the two would not account for those education differences. By contrast, regression-adjusted comparisons hold the education level constant across groups, effectively equalizing veteran and non-veteran education levels, before comparing outcomes.

Results of the analysis suggest that the JVSG veterans exhibit higher rates of employment and higher earnings after exiting the program compared to non-JVSG veterans and non-veterans. JVSG veterans also exhibit smaller gender wage gaps. JVSG veterans generally receive staff-assisted services more quickly than non-veterans do, which may be an indicator of success for priority of service (POS) legislation. Further research is needed to determine impacts.

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EXECUTIVE SUMMARY

The Department of Labor's (DOL) Wagner-Peyser (W-P) Employment Service and Jobs for Veterans State Grants (JVSG) Program are integral programs within American Job Centers (AJC).[1,2] Through these programs, job seekers, who are customers of employment services, are able to access a range of services, such as job search assistance, job referrals, and job placement. Under the Jobs for Veterans Act (JVA), AJCs implemented priority of service (POS), which gives veterans and eligible spouses precedence over non-veterans in obtaining all employment and training services.[3]

The data in this study are comprised of over 28 million unduplicated customers – two million of which are veterans – and cover employment services enrollments for nine quarters from January 2011 to March 2013. These are the most complete customer-level data available at the time of this report.[4]

This is the first study to analyze the W-P and JVSG data. Findings from this study will inform DOL's understanding of the veteran experience at AJCs and potentially identify any underserved customer subgroups.

Previous analyses of these data have typically focused on the overall differences in outcomes between populations without controlling for the demographic differences between populations. This analysis improves upon those simple comparisons by using regression-adjusted comparisons.

Regression-adjusted comparisons account for the differences in gender, age, race, education, and disability status that exist between two populations, say veterans and non-veterans, before comparing them. For example, the veteran and non-veteran populations in the data have different education levels. A simple comparison of the earnings differences between the two would not account for those education differences. By contrast, regression-adjusted comparisons hold the education level constant across groups, effectively equalizing veteran and non-veteran education levels, before comparing outcomes.

The study examines the following aspects of federally-funded employment services:

After-exit outcomes:

- After exiting AJCs, how do employment outcomes differ for JVSG veterans, non-JVSG veterans, and non-veterans?

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[1] The W-P Act of 1933 established a nationwide system of public employment offices. It was amended in 1998 to make employment services part of a one-stop services delivery system. These one-stop services are now collectively referred to as American Job Centers.

[2] JVSG veterans have been identified as having significant barriers to employment. They are more likely to receive intensive services than non-JVSG veterans. These services are provided by Disabled Veteran Outreach Program (DVOP) specialists and Local Veteran Employment Representatives (LVERs).

[3] Priority of Service (POS) legislation requires providers of federally-funded employment services within W-P and WIA to give preference to veterans. It was originally signed into law in 2002, but the Final Rule took effect in 2009. Veterans are to be served before non-veterans, and if a particular service has time or staff constraints, veterans are to be served ahead of non-veterans. Spouses of veterans are also eligible for POS under certain conditions, but are rare in the data. See Appendix A for a definition of eligible spouses. The implementation and effectiveness of POS are examined in Boraas, Roemer, and Bodenlos (2013) and Barnow and Trutko (2010).

[4] Data are available from all states except North Carolina. Data from all states must go through a data validation system before they are included in the national data file. Generally, when state data are missing, it is due to a late submission into the data validation system.

- If employed, how do after-exit earnings differ for JVSG veterans, non-JVSG veterans, and non-veterans?

Program duration and timeliness of staff-assisted services:

- How does duration in employment services differ for JVSG veterans, non-JVSG veterans, and non-veterans?
- How does time-to-first staff-assisted service differ for JVSG veterans, non-JVSG veterans, and non-veterans?

Demographic and geographic differences in outcomes:

- How do gender, age, and military separation status influence the results for these outcomes?
- How do these outcomes differ across states?

Since the data are observational, the analysis is exploratory in nature. Multivariate regression analyses are used to examine the relationship between veteran status and the outcomes of interest, such as employment, earnings, AJC duration, and timeliness of staff-assisted services.

The large sample size ensures that almost all differences between customer subgroups, such as JVSG veterans vs. non-JVSG veterans, male JVSG veterans vs. female JVSG veterans, etc., are statistically significant.[5] However, these differences found across subgroups are descriptive and should not be construed as causal effects. Further research would be needed to determine program impacts.

Highlight of Findings

JVSG veterans, compared to non-JVSG veterans and non-veterans, exhibited the highest employment rates, highest earnings, and quickest time-to-first staff-assisted service.

- JVSG veterans have higher entered employment rates (48%) than non-JVSG veterans (46%) and non-veterans (47%).
- JVSG veterans have higher earnings ($20,625) in the first nine months after exit than non-JVSG veterans ($20,297) and non-veterans ($19,654).[6]
- On average, JVSG veterans receive their first staff-assisted services more quickly (8 days) than non-JVSG veterans (10 days) and non-veterans (10 days).

JVSG veterans have smaller gender earnings gaps and smaller military-separation-time earnings gaps.

- In the first nine months after exit, male-female gender earnings gaps for JVSG veterans ($2,386) are 19% smaller than gender earnings gaps for non-JVSG veterans ($2,942) and 34% smaller than gender earnings gaps for non-veterans ($3,638).
- In the first nine months after exit, the earnings gap between Pre-9/11 and Recently Separated JVSG veterans is roughly $825; this earnings gap is $2,711 for Pre-9/11 and Recently Separated non-JVSG veterans.

[5] This analysis frequently compares the outcomes for two subgroups of customers. Due to the number of customers in the dataset, the estimated differences between any two groups are almost always statistically significant. To simplify table appearance and to avoid redundancy, results tables do not label the statistical significance of estimates.
[6] Average wages do not include the unemployed. Thus, zero-wages are not counted in the average.

Program outcomes at the state level can vary substantially from national outcomes. More research is needed at the state-level to understand the association between the implementation of employment services and outcomes.

- A preliminary state-level analysis on a subset of demographically diverse states revealed that program outcomes can differ substantially by state.
- A state-by-state comparative analysis is an important next step to examine the administration of employment services, the relative strengths and weaknesses of AJCs, and the regional influence on customer outcomes.

I. BACKGROUND, DATA, AND METHODOLOGY

Background

Publicly-funded employment services, or labor exchange services, are administered by partners of American Job Centers (AJCs). These services were initially authorized under the Wagner-Peyser (W-P) Act of 1933 and amended in 1998 as part of the Workforce Investment Act (WIA).[7] AJCs are one-stop career centers that offer training referrals, career counseling, and job search activities. Customers can access employment services online or in person, and services can be self-directed or staff-assisted. There are no maximum or minimum required lengths of participation for customers. Millions of customers are served each year at AJCs.[8]

American Job Centers and Veterans

The Jobs for Veterans Act (JVA) of 2002 established priority of service (POS) for veteran customers at federally-funded AJCs. Priority of service requires AJCs to serve veteran customers before non-veteran customers. Barnow and Trutko (2010) found inconsistent implementation of POS until 2009, when it was clarified and reinforced in the Federal Register. Boraas, Roemer, and Bodenlos (2013) found improved implementation of POS after the Final Rule, but its administration continued to vary across states.

Veterans are eligible for POS if they served on active duty in the military and were discharged or released from military service under conditions other than dishonorable. The spouse of any person who died on active duty or any veteran who sustained a service-connected total permanent disability qualifies for POS.

The JVA also established the Jobs for Veterans State Grants (JVSG) program. This program identifies veterans with significant barriers to employment (SBE) and assigns them to receive more intensive services with specialized staff.[9] Physical disabilities, educational disadvantages, and homelessness are some examples of SBEs that may qualify veterans for JVSG services. Disabled Veteran Outreach Program (DVOP) specialists and Local Veterans' Employment Representatives (LVERs) provide JVSG services to veterans that are identified to have SBEs. DVOP specialists are intended to directly serve veterans that have SBEs. LVERs conduct outreach to employers to encourage the hiring of veterans and generally assist veterans in gaining and retaining employment.[10]

Background of the Study

The Department of Labor (DOL) contracted with Summit Consulting to examine the AJC experience of veterans, from registration to post-exit outcomes. Specifically, the study examines the following aspects of federally-funded employment services:

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[7] This report focuses on W-P services, but some customers are co-enrolled in services authorized by the Workforce Investment Act (WIA).
[8] Over 28 million unique customers received employment services during the nine quarters of observation for this study.
[9] For the time period of these data, there was neither a standardized definition of significant barriers to employment, nor a standardized process for referring eligible veterans and spouses to the JVSG program. States varied in how they assigned veterans to these services, which resulted in wide variation in the percentage of JVSG veterans across states. Nationally, the study finds that minorities, males, disabled veterans, and older veterans are more likely than their respective counterparts to be assigned to JVSG services. Recently Separated veterans and non-campaign veterans are also more likely to receive JVSG services. Homeless veterans are much more likely than veterans with a permanent home to be assigned to JVSG services.
[10] Given that these data are from 2011-2013, both DVOP specialists and LVER staff may have provided direct services to customers. However, the Department of Labor released guidance in FY 2014 clarifying that only DVOP specialists will provide direct services.

After-exit outcomes:

- After exiting AJCs, how do employment outcomes differ for JVSG veterans, non-JVSG veterans, and non-veterans?
- If employed, how do after-exit earnings differ for JVSG veterans, non-JVSG veterans, and non-veterans?

Program duration and timeliness of staff-assisted services:

- How does duration in employment services differ for JVSG veterans, non-JVSG veterans, and non-veterans?
- How does time-to-first staff-assisted service differ for JVSG veterans, non-JVSG veterans, and non-veterans?

Demographic and geographic differences in outcomes:

- How do gender, age, and military separation status influence the results for these outcomes?
- How do these outcomes differ across states?

This study is the first to examine the W-P and JVA data and the first to provide extensive analyses of JVSG veterans. Findings from this study will inform DOL's understanding of the veteran experience at AJCs and potentially identify any underserved customer subgroups.

Data

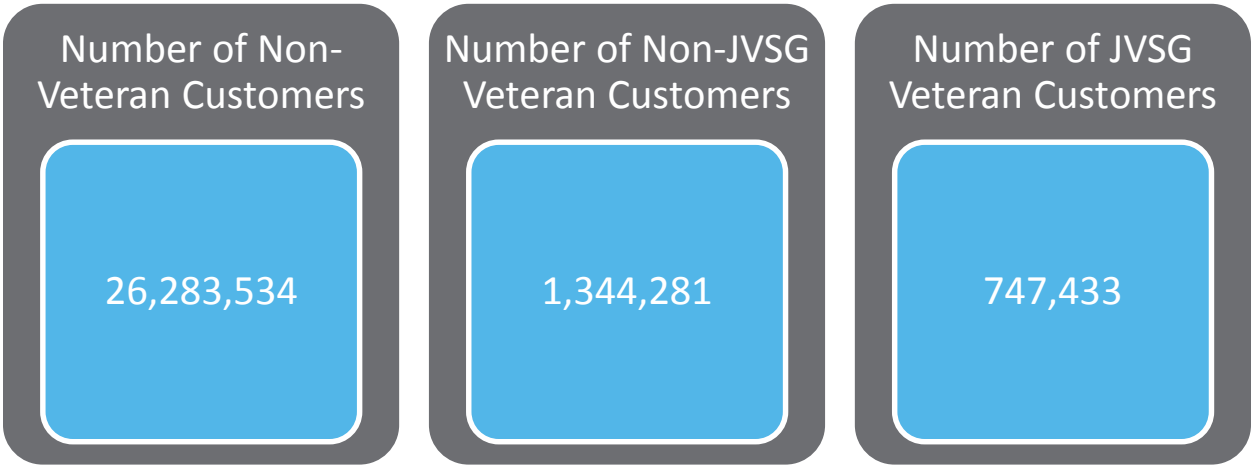
The W-P and JVA data are comprised of over 28 million unique customer enrollments at AJCs for a period of nine quarters, from January 2011 to March 2013. Figure 1 depicts numbers of JVSG Veteran Customers, Non-JVSG Veteran Customers, and Non-Veteran Customers. The data are at the customer-level and contain information on customer age, gender, race, education, disability status, and veteran status. Services received by each customer are tracked from registration to exit.[11] Employment and earnings data for each customer are tracked for three quarters after exit.[12]

These customer-level data are collected by states and submitted to the Employment and Training Administration (ETA) at DOL. The data are processed through the Enterprise Data Reporting and Validation System (EDRVS), where they undergo general validation and error checks.[13] After this procedure, state data are combined into a national, customer-level data file.[14] Data files include the nine

[11] Exit dates for customers are defined as the last day on which they received employment services. Customers are not considered exiters until they have had a break in service of 90 consecutive days. At this point, the date of exit is retroactively assigned to the date of last service received.
[12] Data are either self-reported by customers or recorded by AJC staff. Employment outcomes for job seekers who exit labor exchange programs are derived primarily from unemployment insurance (UI) wage records. Employment outcomes from the UI records include employment rates and quarterly earnings.
[13] The EDRVS performs basic data validation checks. The analysis in this report required additional data quality checks and cleaning procedures. This process is documented in Appendix F.
[14] Data are available from all states except North Carolina. Data from all states must go through a data validation system before they are included in the national data file. Generally, when state data are missing, it is due to a late submission into the data validation system.

most recent quarters of AJC data. Data elements, definitions, and descriptions are found in ETA Handbook No. 406.[15]

Figure 1. Numbers of JVSG Veteran Customers, Non-JVSG Veteran Customers, and Non-Veteran Customers



Descriptive Statistics

Descriptive statistics of AJC customers are provided in Table 1.1 and are categorized by veteran status: JVSG veterans, non-JVSG veterans, and non-veterans. These three groups are mutually exclusive; customers can only be in one group.

The descriptive statistics in Table 1.1 show the distribution of characteristics by veteran status. It shows:

- *Gender*: Veterans are much more likely than non-veterans to be male. Male veterans are slightly more likely than female veterans to be assigned to JVSG services. Roughly 38% of male veterans receive JVSG services compared to 36% of female veterans.

- *Age*: JVSG veteran customers are generally older than non-JVSG veterans, and both are older than non-veterans.

- *Race*: Veterans are more likely than non-veterans to be white.

- *Education*: Education levels differ considerably across veteran status. 96% of veterans have at least a high school diploma or GED, compared to 85% of non-veterans. 53% of veterans have at least some college experience, compared to 38% of non-veterans.

[15] http://www.doleta.gov/performance/guidance/WIA/406_handbook.pdf

Table 1.1: Population Characteristics by Veteran Status

Background Characteristics	JVSG Veterans		Non-JVSG Veterans		Non-Veterans	
	Number of Customers	Percent	Number of Customers	Percent	Number of Customers	Percent
Gender						
Male	622,436	83%	1,027,908	76%	12,367,877	47%
Female	94,976	13%	171,155	13%	11,914,159	45%
Missing	30,021	4%	145,218	11%	2,001,498	8%
Age at Participation						
18 to 24	56,852	8%	105,379	8%	4,825,981	18%
25 to 34	144,431	19%	271,093	20%	6,858,186	26%
35 to 44	144,791	19%	257,761	19%	5,400,146	21%
45 to 54	198,166	27%	321,133	24%	5,100,657	19%
55 to 64	154,207	21%	272,357	20%	2,807,295	11%
65+	47,088	6%	93,229	7%	562,216	2%
Missing	1,898	<1%	23,329	2%	729,053	3%
Race						
Native American	15,142	2%	29,647	2%	519,758	2%
Asian	9,122	1%	15,747	1%	596,223	2%
Black	167,977	22%	219,022	16%	5,461,897	21%
Hawaiian	3,172	<1%	5,843	<1%	131,785	1%
White	461,170	62%	835,819	62%	14,416,004	55%
Multi	4,691	1%	9,876	1%	143,784	1%
Missing	86,159	12%	228,327	17%	5,014,083	19%
Education						
Less than High School (HS)	29,834	4%	58,060	4%	4,070,220	15%
GED	35,974	5%	59,205	4%	1,442,293	5%
HS Diploma	282,538	38%	493,327	37%	9,474,221	36%
Some College[a]	277,805	37%	500,068	37%	6,565,967	25%
Bachelor's Degree	86,276	12%	150,736	11%	2,748,890	10%
More than Bachelor's	27,838	4%	54,987	4%	899,014	3%
Missing	7,168	1%	27,898	2%	1,082,929	4%
Total	**747,433**	**100%**	**1,344,281**	**100%**	**26,283,534**	**100%**

[a] Includes technical and vocational schools

Source: Wagner-Peyser Data Files, Program Year (PY) 2010 Quarter 3 (Q3) through PY 2012 Q3 (nine quarters, Jan 2011 through March 2013)

Note: Due to rounding, the percentages for some variables do not sum to 100%.

Table 1.2 compares AJC customer characteristics for the entire period of observation, January 2011 through March 2013, to the characteristics of those who registered in program year (PY) 2011 (July 1, 2011 to June 30, 2012). This may identify shifts in the demographic composition of AJC customers over time or other time trends that might influence the results. The differences between the full dataset and the PY 2011 subset are minor:

- The demographic composition of customers, in terms of gender, age, race, and education, are virtually identical between the full dataset and PY 2011.

- The largest differences between the two datasets exist for exiting customers. The percent of exiters is higher for the full dataset, and entered employment and employment retention rates are lower.

- Average duration is considerably longer in the full dataset, but this is explained by how the datasets for each time period was constructed. The full dataset includes all customers who participated sometime between January 2011 and March 2013. They may have registered before January 2011. The PY 2011 data only include those who registered sometime in PY 2011. As such, the full dataset may include a disproportionate amount of customers who have been enrolled in the program for long durations.

Tables 1.3 and 1.4 make the same comparisons between the full dataset and the PY 2011 dataset for veteran customers and for non-veteran customers, respectively. In both cases, the results coincided with those in Table 1.2. There were no significant differences in demographic characteristics between the full dataset and the PY 2011 dataset.

Table 1.2: Population Characteristics for the Full Dataset and for PY 2011, All Customers

All Customers	Full Data Set (01/11-3/13)	%	PY 2011 (07/11-06/12)	%
Number of Customers	28,375,248	100.0%	10,831,628	100.0%
Number who received a staff-assisted service	19,945,926	70.3%	7,491,058	69.2%
Number who exited	24,928,292	87.9%	8,787,579	81.1%
Number who entered employment	9,538,665	38.3%	3,775,371	43.0%
Number who retained employment for 6 mos.	7,438,602	29.8%	3,016,325	34.3%
Average six-month earnings[a]	$14,023	--	$13,990	--
Average duration in system (in days)	69	--	32	--
Gender				
Male	14,018,221	49.4%	5,286,553	48.8%
Female	12,180,290	42.9%	4,659,971	43.0%
Missing	2,176,737	7.7%	885,104	8.2%
Age at participation				
18-24	4,988,212	17.6%	1,972,224	18.2%
25-34	7,273,710	25.6%	2,816,844	26.0%
35-44	5,802,698	20.5%	2,187,847	20.2%
45-54	5,619,956	19.8%	2,094,347	19.3%
55-64	3,233,859	11.4%	1,209,881	11.2%
65+	702,533	2.5%	271,317	2.5%
Missing	754,280	2.7%	279,168	2.6%
Race				
Native American	564,547	2.0%	218,718	2.0%
Asian	621,092	2.2%	241,040	2.2%
Black	5,848,896	20.6%	2,267,426	20.9%
Hawaiian	140,800	0.5%	53,835	0.5%
White	15,712,993	55.4%	5,858,147	54.1%
Multi	158,351	0.6%	69,664	0.6%
Missing	5,328,569	18.8%	2,122,798	19.6%
Education				
Less than High School	4,158,114	14.7%	1,639,534	15.1%
GED	1,537,472	5.4%	576,066	5.3%
High School Diploma	10,250,086	36.1%	3,874,048	35.8%
Some College[b]	7,343,840	25.9%	2,797,028	25.8%
Bachelor's Degree	2,985,902	10.5%	1,145,100	10.6%
More than Bachelor's	981,839	3.5%	383,251	3.5%
Missing	1,117,995	3.9%	416,601	3.9%

[a] Six-month earnings are the sum of reported earnings in quarters two and three after exit. Observations are included for those who reported positive earnings in all three quarters after exit.

[b] Includes technical and vocational schools

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Due to rounding, the percentages for some variables do not sum to 100%. Differences in how the datasets are constructed may explain some of the differences between the full dataset and the PY 2011 data, especially regarding average duration. The full dataset includes all customers who participated sometime between January 2011 and March 2013. They may have registered before January 2011. The PY 2011 data only include those who registered sometime in PY 2011. As such, the full dataset may include a disproportionate amount of customers who have been enrolled in the program for long durations.

Table 1.3: Population Characteristics for the Full Data Set and for PY 2011, Veterans Only

Veteran Customers Only	Full Data Set (01/11-3/13)	%	PY 2011 (07/11-06/12)	%
Number of Customers	2,091,714	100.0%	755,532	100.0%
Number who received a staff-assisted service	1,651,747	79.0%	587,246	77.7%
Number who exited	1,841,079	88.0%	587,427	77.8%
Number who entered employment	678,577	36.9%	239,976	40.9%
Number who retained employment for 6 mos	531,300	28.9%	186,676	31.8%
Average six-month earnings[a]	$16,783	--	$17,079	--
Average duration in system (in days)	106	--	46	--
Gender				
Male	1,650,344	78.9%	590,431	78.2%
Female	266,131	12.7%	96,945	12.8%
Missing	175,239	8.4%	68,156	9.0%
Age at participation				
18-24	162,231	7.8%	64,258	8.5%
25-34	415,524	19.9%	159,164	21.1%
35-44	402,552	19.3%	144,217	19.1%
45-54	519,299	24.8%	180,446	23.9%
55-64	426,564	20.4%	147,813	19.6%
65+	140,317	6.7%	52,051	6.9%
Missing	25,227	1.2%	7,583	1.0%
Race				
Native American	44,789	2.1%	16,119	2.1%
Asian	24,869	1.2%	9,231	1.2%
Black	386,999	18.5%	141,017	18.7%
Hawaiian	9,015	0.4%	3,372	0.5%
White	1,296,989	62.0%	459,394	60.8%
Multi	14,567	0.7%	6,680	0.9%
Missing	314,486	15.0%	119,719	15.9%
Education				
Less than High School	87,894	4.2%	32,105	4.3%
GED	95,179	4.6%	33,444	4.4%
High School Diploma	775,865	37.1%	278,796	36.9%
Some College[b]	777,873	37.2%	282,915	37.5%
Bachelor's Degree	237,012	11.3%	85,310	11.3%
More than Bachelor's	82,825	4.0%	30,923	4.1%
Missing	35,066	1.7%	12,039	1.6%

[a] Six-month earnings are the sum of reported earnings in quarters two and three after exit. Observations are included for those who reported positive earnings in all three quarters after exit.

[b] Includes technical and vocational schools

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Due to rounding, the percentages for some variables do not sum to 100%. Differences in how the datasets are constructed may explain some of the differences between the full dataset and the PY 2011 data, especially regarding average duration. The full dataset includes all customers who participated sometime between January 2011 and March 2013. They may have registered before January 2011. The PY 2011 data only include those who registered sometime in PY 2011. As such, the full dataset may include a disproportionate amount of customers who have been enrolled in the program for long durations.

Table 1.4: Population Characteristics for the Full Data Set and for PY 2011, Non-Veterans Only

Non-Veteran Customers Only	Full Data Set (01/11-3/13)	%	PY 2011 (07/11-06/12)	%
Number of participants	26,283,534	100.0%	10,076,096	100.0%
Number who received a staff-assisted service	18,294,179	69.6%	6,903,812	68.5%
Number who exited	23,087,213	87.8%	8,200,152	81.4%
Number who entered employment	8,860,088	38.4%	3,535,395	43.1%
Number who retained employment for 6 mos.[a]	6,907,302	29.9%	2,829,649	34.5%
Average six-month earnings	$13,810	--	$13,790	--
Average duration in system (in days)	66	--	30	--
Gender				
Male	12,367,877	47.1%	4,696,122	46.6%
Female	11,914,159	45.3%	4,563,026	45.3%
Missing	2,001,498	7.6%	816,948	8.1%
Age at participation				
18-24	4,825,981	18.4%	1,907,966	18.9%
25-34	6,858,186	26.1%	2,657,680	26.4%
35-44	5,400,146	20.6%	2,043,630	20.3%
45-54	5,100,657	19.4%	1,913,901	19.0%
55-64	2,807,295	10.7%	1,062,068	10.5%
65+	562,216	2.1%	219,266	2.2%
Missing	729,053	2.8%	271,585	2.7%
Race				
Native American	519,758	2.0%	202,599	2.0%
Asian	596,223	2.3%	231,809	2.3%
Black	5,461,897	20.8%	2,126,409	21.1%
Hawaiian	131,785	0.5%	50,463	0.5%
White	14,416,004	54.9%	5,398,753	53.6%
Multi	143,784	0.6%	62,984	0.6%
Missing	5,014,083	19.1%	2,003,079	19.9%
Education				
Less than High School	4,070,220	15.5%	1,607,429	16.0%
GED	1,442,293	5.5%	542,622	5.4%
High School Diploma	9,474,221	36.1%	3,595,252	35.7%
Some College[b]	6,565,967	25.0%	2,514,113	25.0%
Bachelor's Degree	2,748,890	10.5%	1,059,790	10.5%
More than Bachelor's	899,014	3.4%	352,328	3.5%
Missing	1,082,929	4.1%	404,562	4.0%

[a] Six-month earnings are the sum of reported earnings in quarters two and three after exit. Observations are included for those who reported positive earnings in all three quarters after exit.

[b] Includes technical and vocational schools

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Due to rounding, the percentages for some variables do not sum to 100%. Differences in how the datasets are constructed may explain some of the differences between the full dataset and the PY 2011 data, especially regarding average duration. The full dataset includes all customers who participated sometime between January 2011 and March 2013. They may have registered before January 2011. The PY 2011 data only include those who registered sometime in PY 2011. As such, the full dataset may include a disproportionate amount of customers who have been enrolled in the program for long durations.

Methodology

The objective of this exploratory analysis is to gain a better understanding of the veteran experience at AJCs. Veterans are divided into two subgroups – those who receive JVSG services (JVSG veterans) and those who do not (non-JVSG veterans).

In addition to comparisons by veteran status, each outcome is also broken down by gender, age, and military separation status (for veterans). Age groups are constructed to coincide with those used by the Bureau of Labor Statistics.

- *Age groups*: 18-24, 25-34, 35-44, 45-54, 55-64, and 65 and older.

Military separation status is defined as the length of time since a veteran separated from the military. This analysis uses three military separation classifications:

- *Recently Separated* veterans are veterans that separated within the last three years prior to registering at an AJC.
- *Post-9/11* veterans separated on or after September 1, 2001, but not within the last three years.
- *Pre-9/11* veterans separated before September 1, 2001.

Customers are compared on the following outcome variables:

- *Entered employment rate*: Rate of all customers who were not employed during AJC participation that obtained employment within the first quarter after exiting the program.[16]

- *Employment retention rate*: Rate of all customers employed in the first quarter after exit who are employed in the second and third quarters after exit.[17]

- *9-month earnings*: The sum of all earnings received in the first nine months after exiting the program. Customers are only included in this measure if they had positive (non-zero) earnings in all three quarters after exit.[18]

- *6-month earnings*: The sum of all earnings received in the second and third quarters (months 4-9) after exiting the program. Customers are only included in this measure if they had positive (non-zero) earnings in all three quarters after exit.

- *Program duration*: Total number of continuous days that a customer participated in program services, calculated as the difference between registration date and exit date.

- *Time-to-first staff-assisted service*: This outcome is calculated in two different ways. First, as the number of continuous days that have elapsed between a customer's registration date and their first

[16] A customer is defined as employed in a given quarter if s/he has positive (non-zero) earnings during that quarter. Employment rates are derived from earnings, so it is impossible to determine the nature of the job (temporary/permanent) or the industry.
[17] Employment retention does not imply that a customer retained the *same* job for all three quarters after exit. It means that s/he had positive earnings from some source in all three quarters after exit. Thus, employment may not be continuous for those who retained employment.
[18] Employment and earnings data do not contain information on customer occupation.

recorded staff service. Second, as a rate of customers who receive staff-assisted services within one week of registration.

The analysis concludes with an examination of how state-level AJC outcomes compare to national outcomes. A small subset of demographically diverse states was chosen for the analysis: New York, Texas, Virginia, Ohio, California, Maryland, Kentucky, and Connecticut. These states provide diversity in geographic location and demographic characteristics, and also wide variation in JVSG assignment for veterans.

Research Questions

1. **Descriptive Background**
    a. Who are the customers of federally-funded employment services?
    b. What is the proportion of veterans receiving JVSG services in each state?

2. **Employment Outcomes**
    a. How do entered employment rates and employment retention rates differ for JVSG veterans, non-JVSG veterans, and non-veterans?
    b. How do entered employment rates and employment retention rates differ by gender?
    c. How do entered employment rates and employment retention rates differ by age?
    d. How do entered employment rates and employment retention rates differ by military separation status?

3. **Earnings (9-month and 6-month)**
    a. How do after-exit earnings differ for JVSG veterans, non-JVSG veterans, and non-veterans?
    b. How do after-exit earnings differ by gender?
    c. How do after-exit earnings differ by age?
    d. How do after-exit earnings differ by military separation status?

4. **Duration**
    a. How does duration in employment services differ for JVSG veterans, non-JVSG veterans, and non-veterans?
    b. How does duration in employment services differ by gender?
    c. How does duration in employment services differ by age?
    d. How does duration in employment services differ by military separation status?

5. **Time-to-First Staff-Assisted Service**
    a. How does time-to-first staff-assisted service differ for JVSG veterans, non-JVSG veterans, and non-veterans?
    b. How does time-to-first staff-assisted service differ by gender?
    c. How does time-to-first staff-assisted service differ by age?
    d. How does time-to-first staff-assisted service differ by military separation status?

6. **Preliminary State Analysis (conducted on a subset of demographically diverse states)**
    a. How do entered employment rates and employment retention rates differ across states for JVSG veterans, non-JVSG veterans, and non-veterans?
    b. How do after-exit earnings differ by state for JVSG veterans, non-JVSG veterans, and non-veterans?

c. How does duration in employment services differ by state for JVSG veterans, non-JVSG veterans, and non-veterans?
d. How does time-to-first staff-assisted service differ by state for JVSG veterans, non-JVSG veterans, and non-veterans?

Multivariate Analysis

As presented in Table 1.1, JVSG veterans, non-JVSG veterans, and non-veterans are different customer populations. The study uses multivariate regression analysis to control for these observable differences before making comparisons between groups. Multivariate analyses control for several factors simultaneously, including differences across subpopulations. The resulting estimates of veteran status on outcomes are not causal effects, but the influence of other customer characteristics is removed.

Some customer characteristics are used as controls in every regression equation. These are customer age, gender, race, education, disability status, and veteran status.[19] Depending on the outcome of interest, other independent variables are added to the equation. The equations for after-exit outcomes, such as employment and earnings, include indicators for the types of services customers received: self-directed, staff-assisted, or both. Earnings equations also include prior earnings as an independent variable. A complete list of variables used in each regression equation is included in Appendix B.

State Fixed Effects

Although employment services are federally-funded and legislated, they are administered by states. As such, there are systematic differences in how customers receive services across states. The regression models include state fixed effects to account for the unobservable state-specific idiosyncrasies that do not change over time.

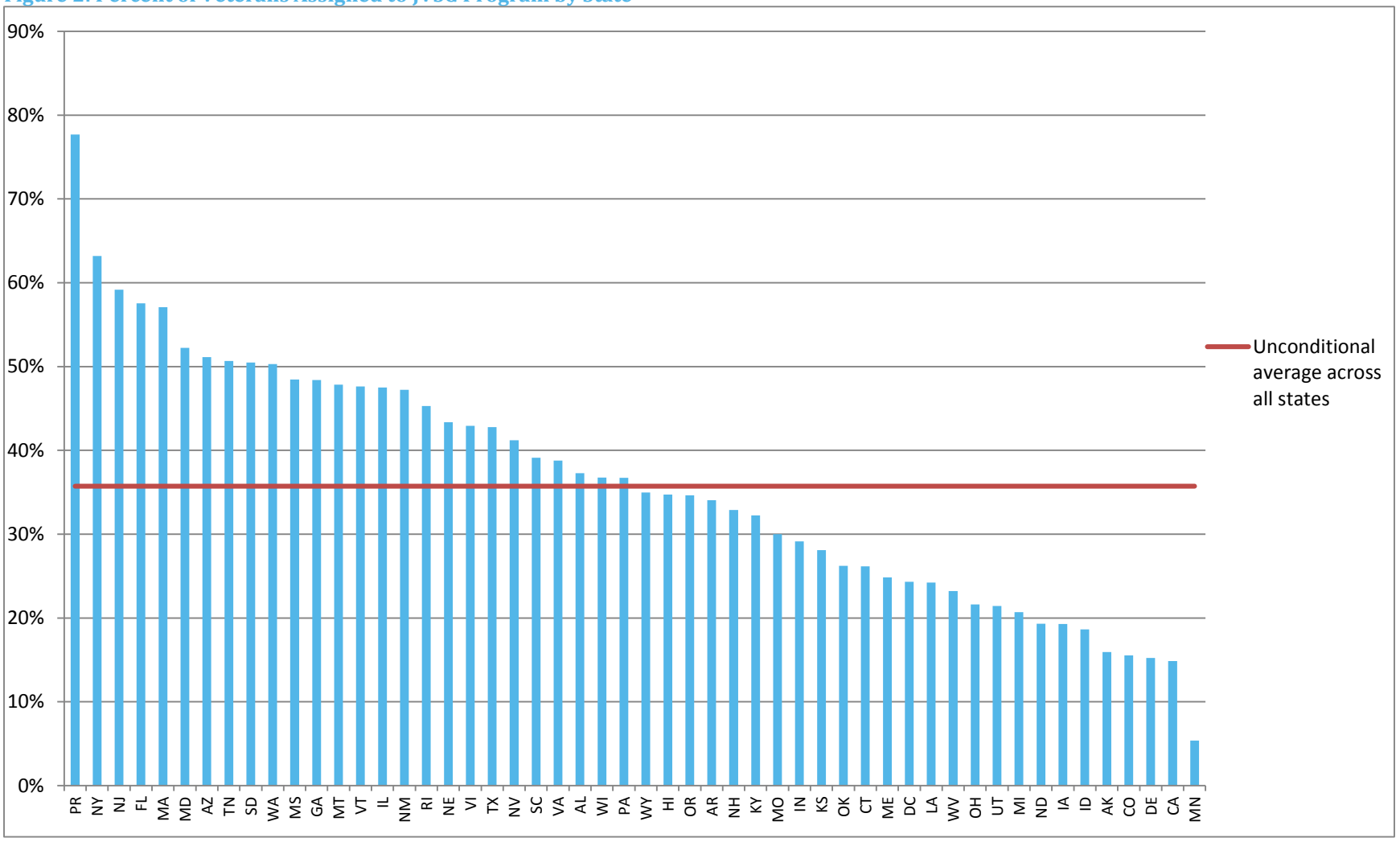
For example, after-exit employment outcomes by state may vary widely. These results could be largely driven by systematic differences in how each state administers the AJC program. State fixed effects control for the differences in AJC administration across states and mitigate estimation bias in the parameter of interest, veteran status.

In addition, states assign veterans to JVSG services at very different rates. Figure 2 displays the percentage of veterans that are assigned to JVSG services within each state. Wide variation exists across states in JVSG assignment. For example, over 50% of veterans are assigned to JVSG services in New York, New Jersey, and Florida. By contrast, less than 15% of veterans are assigned to JVSG services in California and Minnesota.[20]

[19] To estimate marginal effects from the regression equations, observable characteristics are held fixed at their mean values. For binary variables with 0/1 outcomes, this means holding the variable fixed at the proportion of 1s in the dataset. For instance, if 51% of customers are males, the gender variable is held fixed at 0.51. The only covariate that changes is veteran status, which allows separate estimates for JVSG-, non-JVSG, and non-veterans.

[20] It is unclear what drives the differences in JVSG assignment across states. It seems that states may have different criteria for what qualifies as significant barriers to employment. The proportion of veterans in each state closely matched the proportion of veteran customers at employment services. For all states, these proportions were within five percentage points.

Figure 2: Percent of Veterans Assigned to JVSG Program by State



Multivariate Linear Regression and Linear Probability Models

Multivariate linear regression models are used to estimate the parameters of interest. To ease computational burden, linear probability models are used for binary variables with 0/1 outcomes.[21] The following model specification is a generalizable example of the regression equations used to address the research questions.

$$y_{is} = \boldsymbol{\alpha}'\boldsymbol{s}_i + \boldsymbol{\beta}'\boldsymbol{x}_{is} + \boldsymbol{\gamma}'\boldsymbol{w}\text{-}_{is} + \delta VET_{is} + \varepsilon_{is}$$

y represents the outcome variable. This could be discrete, such as employment status (i.e., employed = 1; unemployed = 0), or continuous, such as earnings. The subscripts index individuals (i) and states (s). State fixed effects are given by the vector $\boldsymbol{\alpha}$. $\boldsymbol{x}$ is a vector of covariates (gender, age, etc.) that represents the characteristics of customer i in state s.[22] $\boldsymbol{w}$ is a vector of services (self-directed, staff-assisted, or both) received by customer i. VET is the variable of interest, and indicates whether the customer is a JVSG veteran, non-JVSG veteran, or non-veteran. The coefficient δ gives the estimated difference between veteran (and non-veteran) subgroups, while controlling for the influence of the other customer characteristics. ε is a customer-specific, idiosyncratic error term comprised of unobservable factors. A brief technical description of multivariate regression analysis is included in Appendix D.

Correlation vs. Causation

Results from the multivariate analysis only provide correlational relationships between variables and do not imply causal relationships. This is because veteran status is not randomly assigned.[23] Differences in outcomes between veterans and non-veterans are not necessarily a measure of the labor market effects of being a veteran.

Veteran status may be correlated with characteristics that influence outcomes, which could introduce bias in the regression coefficients. The same holds true within the veteran population. The differences estimated between JVSG veterans and non-JVSG veterans are not the causal effects of being one or the other.[24] They are best interpreted as the mean differences between veteran/non-veteran groups after removing the influence of the demographic differences between those groups.

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[21] Regression equations cluster standard errors at the state level to account for heteroscedastic errors across states.

[22] LaLonde (1986) provides a framework for experimental and non-experimental evaluations of training programs. Analyses of job training programs typically include demographic characteristics like gender, age, and race. In this case, variables that have plausible influence on outcomes, like education, disability status, and veteran status are included.

[23] Veterans self-selected into military service for various reasons, and while researchers may be able to explain part of that decision with observable characteristics (like race, gender, and education), there are likely to be several other characteristics, unobservable to the researcher, that also factored into that decision. Military selection goes in both directions; not only do veterans select into the military *non*-randomly, but the military uses discretion in who they accept. The military imposes minimum standards for physical and mental fitness. Also, throughout many of the periods of service for veterans who are still alive, getting into the military required a high school diploma or GED and/or a minimum score on the Armed Services Vocational Aptitude Battery (ASVAB) test.

[24] The selection problem among veterans and non-veterans could be overcome if military service were randomly assigned, which would ensure that unobservable characteristics were balanced across veterans and non-veterans. Military service is rarely randomly assigned, but the Vietnam War draft lottery provides one such instance. Angrist (1991) exploited the random nature of military assignment during this period to mitigate selection bias. For general selection corrections, see Heckman (1979).

Statistical Significance

This analysis frequently compares the outcomes of two different subgroups of customers. Due to the number of customers in the dataset, the estimated differences between any two groups are almost always statistically significant. To simplify table appearance and to avoid redundancy, results tables do not label the statistical significance of estimates.

II. OUTCOMES

EMPLOYMENT OUTCOMES

Overview

One of the major objectives of federally-funded employment services is to help job seekers find employment.[25] This section of the report analyzes the rate at which customers that have exited from employment services successfully obtain and/or retain employment. In the W-P data, customers are counted as having entered employment if they were unemployed at the time of registration at AJCs, but have positive earnings in the first quarter after exiting. Employment retention measures those customers employed in the first quarter after exiting who have positive earnings in the second and third quarters after exiting, regardless of their employment status during AJC participation.[26]

Table 2.1 shows the population percentages of entered employment rates and employment retention rates for JVSG veterans, non-JVSG veterans, and non-veterans. These percentages are unconditional summary statistics that do not control for customer characteristics. Findings include:

- JVSG veterans have the highest entered employment rates at 47%, followed by non-veterans at 46%, and non-JVSG veterans at 43%.
- Employment retention rates have almost no variation, as veterans and non-veterans exhibit employment retention rates of 70% compared to JVSG veterans at 68%.

Table 2.1: Population Percentages of Employment and Employment Retention by Veteran Status

Employment Outcome	Number of Customers	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Entered Employment	20,609,481	47%	43%	4%	46%	-3%
Employment Retention	10,697,818	68%	70%	-2%	70%	0%

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Customers who enter employment are those who were not employed at registration, but were employed or reported positive wages in the first quarter after exit. Customers who retain employment are those who reported employment or positive earnings in the first, second, and third quarters after exit. Observation counts for entered employment are comprised of all customers who have at least one quarter of after-exit employment data. Observation counts for employment retention are comprised of all customers who have at least three quarters of after-exit employment data.

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[25] Customers need not be unemployed to participate in employment services. Some 12% of customers that register for employment services are already employed at registration. These customers may be seeking to improve their current employment situation.

[26] Employment rates are derived from earnings, so it is impossible to determine the nature of the job (temporary/permanent) or the industry. Also, employment retention does not necessarily mean that a customer retained the *same* job for all three quarters after exit. Retention indicates that s/he had positive earnings in all three quarters after exit. Thus, employment may not necessarily be continuous for those who retained employment.

Table 2.2 shows the regression estimates for entered employment rates and employment retention rates after controlling gender, age, race, education, disability status, and veteran status. Holding these characteristics constant, it is found that:

- JVSG veterans have the highest entered employment rates at 48%. Non-veterans have the next highest entered employment rates at 47%, followed by non-JVSG veterans at 46%.
- JVSG veterans have the highest employment retention rates at 69%, followed by non-JVSG veterans and non-veterans at 68%.

Table 2.2: Employment and Employment Retention by Veteran Status, Regression Estimates

Employment Outcome	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Entered Employment	48%	46%	2%	47%	-1%
Employment Retention	69%	68%	1%	68%	0%

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Customers who enter employment are those who were not employed at registration, but were employed or reported positive wages in the first quarter after exit. Customers who retain employment are those who reported employment or positive earnings in the first, second, and third quarters after exit. Observation counts for entered employment are comprised of all customers who have at least one quarter of after-exit employment data. Observation counts for employment retention are comprised of all customers who have at least three quarters of after-exit employment data.

The multivariate regression results from Table 2.2 are similar to the unconditional population averages in Table 2.1, but there is an important difference. The reported statistics are now regression estimates that control for observable characteristics such as age, gender, race, and education, among other things. As long as those variables have some influence on the outcome of interest, regression estimates are likely to differ from their unconditional population averages in the descriptive tables.

Employment Outcomes by Gender

Table 2.3 shows the regression estimates of entered employment and employment retention rates by gender. Findings include:

Entered Employment

- Regardless of veteran classification, males enter employment at a higher rate than females by 3 to 4 percentage points.

Employment Retention

- Gender gaps in employment retention vary by veteran status.
    - Male JVSG and non-JVSG veterans retain employment at a slightly higher rate than their female counterparts.
    - Female non-veterans have higher employment retention rates than male non-veterans.

Table 2.3: Employment and Employment Retention by Gender, Regression Estimates

Gender	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Entered Employment					
Males	50%	47%	3%	48%	-1%
Females	47%	43%	4%	45%	-2%
(Males)-(Females)	**3%**	**4%**			
Employment Retention					
Males	69%	68%	1%	68%	0%
Females	68%	67%	1%	69%	-2%
(Males)-(Females)	**1%**	**1%**		**-1%**	

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Customers who enter employment are those who were not employed at registration, but were employed or reported positive wages in the first quarter after exit. Customers who retain employment are those who reported employment or positive earnings in the first, second, and third quarters after exit. Observation counts for entered employment are comprised of all customers who have at least one quarter of after-exit employment data. Observation counts for employment retention are comprised of all customers who have at least three quarters of after-exit employment data.

In the table above, columns and rows are included to denote the differences between subgroups. The column differences are shaded in blue and denote the differences between JVSG veterans, non-JVSG veterans, and non-veterans. These columns are labeled "(JVSG) – (Non-JVSG)" and "(Non-JVSG Vets) – (Non-Vets)." The row differences are shaded in green and correspond to differences across gender, age, and military separation cohorts. These rows are labeled "(Males)-(Females)."All tables with shaded columns and rows follow this format.

Employment Outcomes by Age

Table 2.4 shows regression estimates of entered employment and employment retention rates by customer age. It is found that:

Entered Employment

- For the youngest customers, aged 18 to 24, non-veterans have the highest entered employment rates (51%), followed by JVSG veterans (48%), then non-JVSG veterans (44%). As age increases up to age 54, entered employment rates decrease for non-veterans, but increase for JVSG and non-JVSG veterans.
- The highest entered employment rates for any type of customer and any age group is for 35- to 44-year-old JVSG veterans, at 53%.
- JVSG veterans surpass non-JVSG veteran entered employment rates for every age group from 18 to 64; the rates are equal within the veteran population for customers who are 65 and older.

Employment Retention

- As with entered employment rates, the youngest customers with the highest employment retention rates are non-veterans (65%), followed by JVSG veterans (64%) and non-JVSG veterans (62%).
- Unlike entered employment rates, employment retention rates tend to increase with age for all customers, up to age 44.

- The highest employment retention rates are achieved by 35- to 44-year-old JVSG veterans at 72%, followed closely by the 45- to 54-year-old JVSG veterans and the 35- to 44-year-old non-JVSG veterans (71%).
- For all age groups, JVSG and non-JVSG veterans have similar employment retention rates.

Table 2.4: Employment and Employment Retention by Age, Regression Estimates

Age	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Entered Employment					
18-24	48%	44%	4%	51%	-7%
25-34	49%	46%	3%	49%	-3%
35-44	53%	49%	4%	48%	1%
45-54	50%	47%	3%	46%	1%
55-64	39%	37%	2%	39%	-2%
65+	25%	25%	0%	26%	-1%
Employment Retention					
18-24	64%	62%	2%	65%	-3%
25-34	67%	66%	1%	69%	-3%
35-44	72%	71%	1%	70%	1%
45-54	71%	70%	1%	70%	0%
55-64	67%	67%	0%	68%	-1%
65+	60%	60%	0%	62%	-2%

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Customers who enter employment are those who were not employed at registration, but were employed or reported positive wages in the first quarter after exit. Customers who retain employment are those who reported employment or positive earnings in the first, second, and third quarters after exit. Observation counts for entered employment are comprised of all customers who have at least one quarter of after-exit employment data. Observation counts for employment retention are comprised of all customers who have at least three quarters of after-exit employment data.

Employment Outcomes by Separation Status

Table 2.5 displays regression estimates for entered employment rates and retention rates by military separation cohorts. Time-from-military-separation is classified into three non-overlapping categories: (1) Recently Separated veterans, (2) Post-9/11 veterans, and (3) Pre-9/11 veterans.[27] Findings include:

Entered Employment

- Pre-9/11 veterans have the highest entered employment rate.
- JVSG veterans have higher entered employment rates than non-JVSG veterans regardless of separation cohort.

[27] Recently Separated veterans are those who separated from the military within the last three years. Post-9/11veterans are those who separated after 9/1/2001, but not within the last three years. Pre-9/11 veterans are those who separated before 9/1/2001.

- The differences of entered employment rates among subgroups for JVSG veterans are smaller than those for non-JVSG veterans. For example, the entered employment gap for Post-9/11 and Recently Separated JVSG veterans is nine percentage points. For non-JVSG veterans, this gap is 10 percentage points.

Employment Retention

- The highest employment retention rates are experienced by Pre-9/11 veterans, followed by Post-9/11 veterans, and then Recently Separated veterans.
- Employment retention rates between JVSG and non-JVSG veterans are the same for all separation cohorts.

Table 2.5: Employment Outcomes by Separation Status, Regression Estimates

Separation Status	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)
Entered Employment			
Recently Separated (Recent)	37%	33%	4%
Post 9/11, Other (Post)	46%	43%	3%
Pre 9/11 (Pre)	49%	47%	2%
(Post)-(Recent)	**9%**	**10%**	
(Pre)-(Post)	**3%**	**4%**	
(Pre)-(Recent)	**12%**	**14%**	
Employment Retention			
Recently Separated (Recent)	64%	64%	0%
Post 9/11, Other (Post)	67%	67%	0%
Pre 9/11 (Pre)	70%	70%	0%
(Post)-(Recent)	**3%**	**3%**	
(Pre)-(Post)	**3%**	**3%**	
(Pre)-(Recent)	**6%**	**6%**	

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Customers who enter employment are those who were not employed at registration, but were employed or reported positive wages in the first quarter after exit. Customers who retain employment are those who reported employment or positive earnings in the first, second, and third quarters after exit. Observation counts for entered employment are comprised of all customers who have at least one quarter of after-exit employment data. Observation counts for employment retention are comprised of all customers who have at least three quarters of after-exit employment data.

III. EARNINGS

NINE-MONTH EARNINGS

Overview

The earnings exhibited by customers after exiting employment services are another outcome of interest. The analysis on earnings is conditional on employment, so only customers who have positive earnings are included. Earnings are tracked in the first three quarters after program exit and are collected from unemployment insurance wage records. Note that these wage records exclude self-employment income and "under-the-table" earnings. The analysis does not control for customer occupations after exit.

Table 3.1 shows the population average earnings in the first three quarters after exit for JVSG veterans, non-JVSG veterans, and non-veterans. Before controlling for age, gender, race, education, disability status, services received, and prior earnings, veterans have higher three-quarter earnings than non-veterans after exiting employment services. Within the veteran population, JVSG veterans have lower earnings than non-JVSG veterans.

Table 3.1: Population Average Nine-Month Earnings

	Number of Customers	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
9-mo. Earnings	7,203,794	$22,800	$24,146	-$1,346	$19,420	$4,726

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Earnings are the sum of reported earnings in the first three quarters after exit. Observations are included for customers who reported positive earnings in all three quarters after exit.

The multivariate regression results from Table 3.2 are similar to the unconditional population averages in Table 3.1, but there is an important difference. The reported statistics are now regression estimates that control for observable characteristics such as age, gender, race, and education, among other things. As long as those variables have some influence on the outcome of interest, regression estimates are likely to differ from their unconditional population averages in the descriptive tables.

Table 3.2 shows the regression estimates of average earnings in the first three quarters after exit for customers after controlling for observable characteristics. Holding these characteristics constant, it is found that:

- Veterans have higher total earnings than non-veterans in the first three quarters after exit.
- JVSG and non-JVSG veterans have similar earnings; JVSG veterans have slightly higher total earnings in the first three quarters after exit.

Table 3.2: Nine-Month Earnings, Regression Estimates

	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
9-mo. Earnings	$20,625	$20,297	$328	$19,654	$643

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Earnings are the sum of reported earnings in the first three quarters after exit. Observations are included for customers who reported positive earnings in all three quarters after exit.

Nine-Month Earnings by Gender

Table 3.3 shows regression estimates of earnings outcomes by gender. Findings include:

- JVSG veterans, non-JVSG veterans, and non-veterans all have large gender earnings gaps that favor male customers.
- In three quarters (nine months) after exit, male veterans earn $2,942 more than female veterans and male non-veterans earn $3,638 more than female non-veterans.
- For those who received JVSG services, the gender earnings gap still exists, but it is considerably smaller ($2,386).
- Earnings for males are fairly consistent across veteran classifications, and the closing gender earnings gap for JVSG veterans is due to substantially higher earnings for JVSG females relative to female non-JVSG veterans and non-veterans.

Table 3.3: Nine-Month Earnings by Gender, Regression Estimates

Gender	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Males	$22,131	$21,863	$268	$21,321	$542
Females	$19,745	$18,921	$824	$17,683	$1,238
Males - Females	**$2,386**	**$2,942**		**$3,638**	

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Earnings are the sum of reported earnings in the first three quarters after exit. Observations are included for customers who reported positive earnings in all three quarters after exit.

Nine-Month Earnings by Age

Table 3.4 shows regression estimates for after-exit earnings by customer age. The results show:

- For all age groups from 18 to 44, JVSG veterans have the highest earnings, followed by non-JVSG veterans, then non-veterans.
- The JVSG advantage over non-JVSG veterans is greatest for those aged 18 to 44. The three-quarter earnings difference is between $700 and $1,500 for these age groups.
- Overall, earnings are highest for exiters aged 25 to 44.
- The earnings relationships between veterans and non-veterans change directions for older customers. For age groups from 45-64, non-JVSG veterans have higher earnings than JVSG veterans. For those over 55, non-veterans have higher earnings than veterans.

Table 3.4: Nine-Month Earnings by Age, Regression Estimates

Age	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
18-24	$18,968	$17,443	$1,525	$17,348	$95
25-34	$22,020	$20,855	$1,165	$19,540	$1,315
35-44	$22,903	$22,199	$704	$20,861	$1,338
45-54	$21,602	$21,659	-$57	$20,871	$788
55-64	$19,347	$19,515	-$168	$19,542	-$27
65+	$15,755	$15,696	$59	$15,774	-$78

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Earnings are the sum of reported earnings in the first three quarters after exit. Observations are included for customers who reported positive earnings in all three quarters after exit.

Nine-Month Earnings by Separation Status

Table 3.5 displays regression estimates of after-exit earnings by military separation status. Time-from-military-separation is classified into three categories: Recently Separated veterans, Post-9/11 veterans, and Pre-9/11 veterans.[28] Key findings are as follows:

- The highest earnings are experienced by Pre-9/11 veterans, then Post-9/11 veterans, and then Recently Separated veterans.
- JVSG veterans have higher earnings than non-JVSG veterans if they are Recently Separated or Post-9/11.
    - However, non-JVSG veterans have higher earnings if they separated from the military before 9/11.
- The separation cohort earnings gaps that exist for JVSG veterans are much smaller than those for non-JVSG veterans.
    - For example, the earnings gap for Post-9/11 and Recently Separated JVSG veterans is $737. For non-JVSG veterans, this gap is $1,779.
- JVSG services are associated with even smaller gaps for Pre-9/11 veterans compared to Post-9/11 veterans; this gap is $88 for JVSG veterans and $932 for non-JVSG veterans.

[28] Recently Separated veterans separated from the military within the last three years. Post-9/11veterans are those who separated after 9/1/2001, but not within the last three years. Pre-9/11 veterans are those who separated before 9/1/2001.

Table 3.5: Nine-Month Earnings by Separation Status, Regression Estimates

Separation Status	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)
Recently Separated (Recent)	$22,600	$20,821	$1,779
Post 9/11, Other (Post)	$23,337	$22,600	$737
Pre 9/11 (Pre)	$23,425	$23,532	-$107
(Post)-(Recent)	**$737**	**$1,779**	
(Pre)-(Post)	**$88**	**$932**	
(Pre)-(Recent)	**$825**	**$2,711**	

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Earnings are the sum of reported earnings in the first three quarters after exit. Observations are included for customers who reported positive earnings in all three quarters after exit.

SIX-MONTH EARNINGS

Overview

Earnings in the second and third quarters after exiting employment services are a common performance metric for employment services. The analysis on six-month earnings that follows is conditional on employment in all three quarters after exit, so customers who do not have earnings in one or more of the quarters are excluded. Note that these earnings records exclude self-employment income and "under-the-table" earnings. The analysis does not control for customer occupations after exit.

Table 3.6 shows the population average six-month earnings for JVSG veterans, non-JVSG veterans, and non-veterans. Before controlling for age, gender, race, education, disability status, services received, and prior wages, veterans have higher earnings than non-veterans after exiting employment services. Within the veteran population, JVSG veterans have lower earnings than non-JVSG veterans.

Table 3.6: Population Average Six-Month Earnings

	Number of Customers	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
6-mo. Earnings	6,140,430	$15,831	$16,931	-$1,100	$13,634	$3,297

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Earnings are the sum of reported earnings in the first three quarters after exit. Observations are included for customers who reported positive earnings in all three quarters after exit.

The multivariate regression results from Table 3.7 are similar to the unconditional population averages in Table 3.6, but there is an important difference. The reported statistics are now regression estimates that control for observable characteristics such as age, gender, race, and education, among other things. As long as those variables have some influence on the outcome of interest, regression estimates are likely to differ from their unconditional population averages in the descriptive tables.

Table 3.7 shows the regression estimates for six-month earnings after controlling for observable customer characteristics. Holding these characteristics constant, it is found that:

- Veterans have higher total earnings than non-veterans in the second and third quarters after exit.
- JVSG and non-JVSG veterans have similar six-month earnings; JVSG veterans earn $154 more than non-JVSG veterans.

Table 3.7: Six-Month Earnings, Regression Estimates

	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
6-mo. Earnings	$14,414	$14,260	$154	$13,864	$396

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Earnings are the sum of reported earnings in the first three quarters after exit. Observations are included for customers who reported positive earnings in all three quarters after exit.

Six-Month Earnings by Gender

Table 3.8 shows the regression estimates for earnings outcomes by gender. It is found that:

- JVSG veterans, non-JVSG veterans, and non-veterans all exhibit large gender earnings gaps that favor male customers.
- During the six months after exit, male veterans earn $2,255 more than female veterans and male non-veterans earn $2,692 more than female non-veterans.
- For those who received JVSG services, the gender wage gap still exists, but is considerably smaller ($1,794).
- Earnings for males are fairly consistent across veteran classifications, and the closing gender wage gap for JVSG veterans is due to substantially higher earnings for JVSG females relative to non-JVSG female veterans and non-veterans.

Table 3.8: Six-Month Earnings by Gender, Regression Estimates

Gender	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Males	$15,540	$15,437	$103	$15,105	$332
Females	$13,746	$13,182	$564	$12,413	$769
Males - Females	**$1,794**	**$2,255**		**$2,692**	

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Earnings are the sum of reported earnings in the first three quarters after exit. Observations are included for customers who reported positive earnings in all three quarters after exit.

Six-Month Earnings by Age

Table 3.9 shows regression estimates for earnings differ by customer age. Findings include:

- For all age groups from 18 to 44, JVSG veterans have the highest earnings, followed by non-JVSG veterans, then non-veterans.
- The earnings gap between JVSG veterans and non-JVSG veterans decreases as the age groups get older. It reverses for the age group from 45 to 65+.
- For veterans, earnings are highest for customers aged 25 to 44.

Table 3.9: Six-Month Earnings by Age, Regression Estimates

Age	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
18-24	$13,595	$12,449	$1,146	$12,311	$138
25-34	$15,443	$14,728	$715	$13,754	$974
35-44	$15,973	$15,469	$504	$14,686	$783
45-54	$15,039	$15,123	-$84	$14,722	$401
55-64	$13,448	$13,626	-$178	$13,764	-$138
65+	$10,861	$11,057	-$196	$11,106	-$49

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Earnings are the sum of reported earnings in the first three quarters after exit. Observations are included for customers who reported positive earnings in all three quarters after exit.

Six-Month Earnings by Separation Status

Table 3.10 displays regression estimates for six-month earnings by military separation. Time-from-military-separation is classified into three categories: Recently Separated veterans, Post-9/11 veterans, and Pre-9/11 veterans.[29] It is found that:

- In the non-JVSG population, the highest earnings are earned by Pre-9/11 veterans, then Post-9/11 veterans, and then Recently Separated veterans. For JVSG veterans, Post 9/11 veterans earn the most, followed by Pre-9/11 and Recently Separated veterans.
- JVSG veterans have higher earnings than non-JVSG veterans if they are Recently Separated or Post-9/11.
    - However, non-JVSG veterans have higher earnings if they separated from the military before 9/11.
- The separation cohort wage gaps that exist for JVSG veterans are much smaller than those for non-JVSG veterans.
    - For example, the wage gap for Post-9/11 and Recently Separated JVSG veterans is $154. For non-JVSG veterans, this gap is $771.
- JVSG services are associated with even smaller gaps for Recently Separated veterans compared to Pre-9/11 veterans; this gap is $137 for JVSG veterans and $1,389 for non-JVSG veterans.

[29] Recently Separated veterans separated from the military within the last three years. Post-9/11veterans are those who separated after 9/1/2001, but not within the last three years. Pre-9/11 veterans are those who separated before 9/1/2001.

Table 3.10 Six-Month Earnings by Separation Status, Regression Estimates

Separation Status	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG Vets)
Recently Separated (Recent)	$16,234	$15,169	$1,065
Post 9/11, Other (Post)	$16,388	$15,940	$448
Pre 9/11 (Pre)	$16,371	$16,558	-$187
(Post)-(Recent)	**$154**	**$771**	
(Pre)-(Post)	**-$17**	**$618**	
(Pre)-(Recent)	**$137**	**$1,389**	

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Earnings are the sum of reported earnings in the first three quarters after exit. Observations are included for customers who reported positive earnings in all three quarters after exit.

IV. DURATION IN EMPLOYMENT SERVICES

DURATION IN EMPLOYMENT SERVICES

Overview

Program duration is defined as the number of days a customer participates in employment services from registration to exit. The W-P data do not provide reasons for exit, so it is unknown whether a customer exited because he or she obtained employment or for other reasons.

Table 4.1 shows the unconditional average program duration for JVSG veterans, non-JVSG veterans, and non-veterans. Before controlling for age, gender, race, education, disability status, and services received, JVSG veterans remain in employment services longer than non-JVSG veterans and non-veterans.

Table 4.1: Population Average Duration in Employment Services

	Number of Customers	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Days	24,752,099	146	56	90	56	0

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Duration in employment services is measured as the number of days from registration to exit. Observations are included for customers who received services for less than 1,000 days.

The multivariate regression results from Table 4.2 are similar to the unconditional population averages in Table 4.1, but there is an important difference. The reported statistics are now regression estimates that control for observable characteristics such as age, gender, race, and education, among other things. As long as those variables have some influence on the outcome of interest, regression estimates are likely to differ from their unconditional population averages in the descriptive tables.

Table 4.2 shows the regression estimates of the average customer duration in employment services after controlling for observable customer characteristics. Holding these characteristics constant, it is found that:

- JVSG veterans remain in employment services roughly twice as long as non-JVSG veterans and non-veterans.
- JVSG veterans stay in employment services for roughly four months, compared to about two months for the other groups.
- Duration is similar for non-JVSG veterans and non-veterans.

Table 4.2: Duration in Employment Services, Regression Estimates

	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Days	126	62	64	65	-3

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Duration in employment services is measured as the number of days from registration to exit. Observations are included for customers who received services for less than 1,000 days.

Duration by Gender

Table 4.3 shows regression estimates of program duration by gender. Findings include:

- Female veterans, regardless of veteran classification, remain in employment services longer than male customers.
- JVSG veteran females remain in employment services about one week longer than their male counterparts.
- The gap for non-JVSG veterans and non-veterans is smaller; female customers stay in employment services about five days longer than male customers.

Table 4.3: Duration in Employment Services by Gender, Regression Estimates

Gender	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Males	124	60	64	63	-3
Females	131	65	66	68	-3
(Males)-(Females)	**-7**	**-5**		**-5**	

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Duration in employment services is measured as the number of days from registration to exit. Observations are included for customers who received services for less than 1,000 days.

Duration by Age

Table 4.4 shows regression estimates for customer duration by age. Findings include:

- For JVSG veterans, duration in employment services increases with age. The youngest JVSG customers stay in employment services for about three months, compared to roughly five months for JVSG veterans aged 45 and older.
- Duration for non-JVSG veterans is relatively stable across age groups, between 55 and 72 days. As such, the duration gap between JVSG and non-JVSG veterans increases with age. There is a 39-day gap for the youngest veterans, compared to an 81-day gap in duration for the oldest veterans.
- Compared to non-veterans, veterans stay in employment services longer for the age group 18-24, but shorter for older ages.

Table 4.4: Duration in Employment Services by Age, Regression Estimates

Age	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
18-24	94	55	39	52	3
25-34	101	56	45	60	-4
35-44	131	65	66	68	-3
45-54	146	70	76	74	-4
55-64	150	72	78	77	-5
65+	142	61	81	72	-11

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Duration in employment services is measured as the number of days from registration to exit. Observations are included for customers who received services for less than 1,000 days.

Duration by Separation Status

Table 4.5 shows regression estimates for customer duration by separation status. Time-from-military-separation is classified into three categories: Recently Separated veterans, Post-9/11 veterans, and Pre-9/11 veterans.[30] It is found that:

- Overall, as time-from-military-separation increases, the number of days spent in employment services increases.
- In all separation cohorts, JVSG veterans stay in employment services longer than non-JVSG veterans.
- The difference between the two types of veterans is greatest for the Pre-9/11 cohort at 82 days.

Table 4.5: Duration in Employment Services by Separation Status, Regression Estimates

Separation Status	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)
Recently Separated (Recent)	115	64	51
Post 9/11, Other (Post)	117	66	51
Pre 9/11 (Pre)	155	73	82
(Post)-(Recent)	**2**	**2**	
(Pre)-(Post)	**38**	**7**	
(Pre)-(Recent)	**40**	**9**	

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Duration in employment services is measured as the number of days from registration to exit. Observations are included for customers who received services for less than 1,000 days

Duration by After-Exit Employment

Table 4.6 shows the correlation between customer duration and entered employment.

- Overall, customers who entered employment in the first quarter after exit had been in employment services slightly longer than customers who did not enter employment.
- The largest gap in duration between customers who entered employment and those who did not is among non-veterans. Those who entered employment stayed in employment services seven days longer than those who did not enter employment.

[30] Recently Separated veterans separated from the military within the last three years. Post-9/11veterans are those who separated after 9/1/2001, but not within the last three years. Pre-9/11 veterans are those who separated before 9/1/2001.

Table 4.6: Duration in Employment Services by Employment Status, Regression Estimates

Entered Employment in Q1	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Yes	129	64	65	68	-4
No	126	58	68	61	-3
(Yes)-(No)	**3**	**6**		**7**	

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Duration in employment services is measured as the number of days from registration to exit. Observations are included for customers who received services for less than 1,000 days and had at least one quarter of after-exit employment data.

V. TIME-TO-FIRST STAFF-ASSISTED SERVICE

TIME-TO-FIRST STAFF-ASSISTED SERVICE

Overview

The time until customers receive their first staff-assisted service is one potential measure of POS legislation.[31] This law requires federally-funded employment service centers to provide services more quickly to veterans, and when resources are constrained, to prioritize services to veterans.

Table 5.1 shows the unconditional average time-to-first staff-assisted service for JVSG veterans, non-JVSG veterans, and non-veterans. Before controlling for age, gender, race, education, disability status, and services received, it is found that non-JVSG veterans and non-veterans have the same time-to-first staff-assisted service. Among veterans, JVSG veterans receive their first staff-assisted service three days later than non-JVSG veterans, on average.

Table 5.1: Population Average for Time-to-First Staff-Assisted Service

	Number of People	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Days	20,162,819	12	9	3	9	0

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Time-to-first staff-assisted service is measured as the number of days from registration to first staff-assisted service received. Observations are included for customers who receive a staff-assisted service within the first year of participation.

The multivariate regression results in Table 5.2 are similar to the unconditional population averages in Table 5.1, but there is an important difference. The reported statistics are now regression estimates that control for observable characteristics such as age, gender, race, and education, among other things. As long as those variables have some influence on the outcome of interest, regression estimates are likely to differ from their unconditional population averages in the descriptive tables.

Table 5.2 shows the regression estimates for time-to-first staff-assisted service after controlling for observable customer characteristics. Holding these characteristics constant, it is found that:

- Veterans and non-veterans receive their first staff-assisted service in 10 days.
- Within the veteran population, we see that JVSG veterans receive their first staff-assisted service two days faster than non-JVSG veterans.

[31] Time-to-first staff-assisted service is calculated by counting the number of continuous days that elapsed between a customer's registration date and their first recorded staff service. The analysis limited time-to-first staff-assisted service to spans of time up to 365 days and did not include repeat visitors.

Table 5.2: Time-to-First Staff-Assisted Service, Regression Estimates

	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Days	8	10	-2	10	0

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Time-to-first staff-assisted service is measured as the number of days from registration to first staff-assisted service received. Observations are included for customers who receive a staff-assisted service within the first year of participation.

Time-to-First Staff-Assisted Service by Gender

Table 5.3 shows the regression estimates for time-to-first staff-assisted service by gender and veteran status. Overall, it is found that:

- Males are receiving their first staff-assisted service faster than females; male JVSG veterans have the shortest time-to-first staff-assisted service (8 days).
- For the veteran population, the gender gap within the JVSG population is 2 days, while the gender gap for non-JVSG veterans is 1 day.
- JVSG males are receiving their first staff-assisted service 1 day sooner than non-JVSG male veterans, while JVSG females are receiving their first staff-assisted service in the same number of days as non-JVSG female veterans.
- The size of the gender gap for non-veterans is 1 day. Male non-veterans received their first staff-assisted service in 10 days and females in 11 days.
- Female veterans receive staff-assisted services 1 day faster than female non-veterans.

Table 5.3 Time-to-First Staff-Assisted Service by Gender, Regression Estimates

Gender	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Males	8	9	-1	10	-1
Females	10	10	0	11	-1
(Males)-(Females)	**-2**	**-1**		**-1**	

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Time-to-first staff-assisted service is measured as the number of days from registration to first staff-assisted service received. Observations are included for customers who receive a staff-assisted service within the first year of participation.

Time-to-First Staff-Assisted Service by Age

Table 5.4 shows the regression estimates for time-to-first staff-assisted service by age and veteran status. It is found that:

- In all cases, JVSG veterans receive their first staff-assisted service before or at the same time as non-JVSG veterans.
- In all age groups, non-JVSG veterans receive staff-assisted service before non-veterans.
- Time-to-first staff-assisted service generally increases with age until customers reach 55 years old, at which point the time-to-first staff-assisted service stays the same or decreases.

Table 5.4: Time-to-first Staff-Assisted Service by Age, Regression Estimates

Age	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
18-24	8	8	0	9	-1
25-34	8	9	-1	10	-1
35-44	9	10	-1	11	-1
45-54	10	10	0	11	-1
55-64	9	10	-1	11	-1
65+	7	9	-2	11	-2

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Time-to-first staff-assisted service is measured as the number of days from registration to first staff-assisted service received. Observations are included for customers who receive a staff-assisted service within the first year of participation.

Time-to-First Staff Service by Separation Status

Table 5.5 displays the regression estimates for time-to-first staff-assisted service by military separation cohorts. Time-from-military-separation is classified into three categories: Recently Separated veterans, Post-9/11 veterans, and Pre-9/11 veterans.[32] It is found that:

- For Recently Separated and Post-9/11 veterans, JVSG veterans receive their first staff-assisted service faster than non-JVSG veterans.
- For Pre-9/11 veterans, JVSG veterans receive their first staff-assisted service one day later than non-JVSG veterans.

Table 5.5: Time-to-First Staff-Assisted Service by Separation Status, Regression Estimates

Separation Status	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)
Recently Separated (Recent)	10	12	-2
Post 9/11, Other (Post)	10	11	-1
Pre 9/11 (Pre)	12	11	1
(Post)-(Recent)	**0**	**-1**	
(Pre)-(Post)	**2**	**0**	
(Pre)-(Recent)	**2**	**-1**	

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Time-to-first staff-assisted service is measured as the number of days from registration to first staff-assisted service received. Observations are included for customers who receive a staff-assisted service within the first year of participation.

[32] Recently Separated veterans separated from the military within the last three years. Post-9/11veterans are those who separated after 9/1/2001, but not within the last three years. Pre-9/11 veterans are those who separated before 9/1/2001.

STAFF-ASSISTED SERVICES RECEIVED IN FIRST WEEK

Overview

This section explores the prevalence of customers receiving staff-assisted services within their first week of registration for employment services. This metric may also be useful when considering the "priority of service" legislation. This law requires federally-funded employment service centers to provide services more quickly to veterans, and when resources are constrained, to prioritize services to veterans.

Table 5.6 shows the unconditional percentage of JVSG veterans, non-JVSG veterans, and non-veterans who receive their first staff-assisted service within one week of registration. Before controlling for age, gender, race, education, disability status, and services received, it is found that a higher percentage of non-veterans receive their first staff-assisted service within one week of registration than non-JVSG veterans. Within the veteran population, a higher percentage of non-JVSG veterans than JVSG veterans receive their first staff-assisted service within one week of registration.

Table 5.6: Population Percentages of Staff-Assisted Services Received within One Week of Registration

	Number of Customers	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Staff-Assisted Service in First Week	20,360,766	78%	83%	-5%	84%	-1%

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Time-to-first staff-assisted service is measured as the number of days from registration to first staff-assisted service received. Observations are included for customers who receive a staff-assisted service within the first year of participation.

Table 5.7 shows the percentage of customers receiving staff-assisted services within the first week after registration after controlling for observable customer characteristics.[33] Holding these characteristics constant, the results show:

- The percentages do not vary greatly among the three cohorts.
- A lower percentage of non-JVSG veterans and non-veterans receive staff-assisted services within one week of registration compared to JVSG veterans.

[33] Time-to-first staff-assisted services has a bimodal distribution. Over 80% of customers, regardless of veteran status, receive staff-assisted services within seven days of registration. For those who *do not* receive staff-assisted services within the first week, the average number of days to their first staff-assisted service is much higher: 69 days for JVSG veterans, 71 days for non-JVSG veterans, and 85 days for non-veterans.

Table 5.7: Customer Receipt of Staff-Assisted Services Controlling for Observable Characteristics, Regression Estimates

	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Staff-Assisted Service in First Week	85%	84%	1%	84%	0%

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Time-to-first staff-assisted service is measured as the number of days from registration to first staff-assisted service received. Observations are included for customers who receive a staff-assisted service within the first year of participation.

Staff-Assisted Services Received in First Week by Gender

Table 5.8 shows the regression estimates for receipt of staff-assisted services in the first week by gender and veteran status. Overall, the results show:

- A greater percentage of males receive staff-assisted services within the first week after registration.
- The gender gap is the largest within the JVSG veteran population and smallest in the non-veteran population.

Table 5.8: Customer Receipt of Staff-Assisted Services by Gender, Regression Estimates

Gender	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Males	86%	85%	1%	84%	1%
Females	82%	83%	-1%	83%	0%
(Males)-(Females)	**4%**	**2%**		**1%**	

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Time-to-first staff-assisted service is measured as the number of days from registration to first staff-assisted service received. Observations are included for customers who receive a staff-assisted service within the first year of participation.

Staff-Assisted Services Received in First Week by Age

Table 5.9 shows the regression estimates for receipt of staff-assisted services by age and veteran status. The results show:

- In all cases except the age groups ranging from 18-24, the same or a higher percentage of JVSG veterans receive staff-assisted services within one week of registration than non-JVSG veterans.
- JVSG veterans ages 65 and over are most likely to receive staff-assisted services within one week of registration.

Table 5.9: Customer Receipt of Staff-Assisted Services by Age, Regression Estimates

Age	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
18-24	84%	85%	-1%	86%	-1%
25-34	84%	84%	0%	84%	0%
35-44	84%	83%	1%	83%	0%
45-54	83%	83%	0%	82%	1%
55-64	84%	83%	1%	82%	1%
65+	87%	85%	2%	83%	2%

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Time-to-first staff-assisted service is measured as the number of days from registration to first staff-assisted service received. Observations are included for customers who receive a staff-assisted service within the first year of participation.

Staff-Assisted Services Received in First Week by Separation Status

Table 5.10 displays the regression estimates for receipt of staff-assisted service by military separation cohorts. Time-from-military-separation is classified into three categories: Recently Separated veterans, Post-9/11 veterans, and Pre-9/11 veterans.[34] The results show:

- For Post-9/11 and Recently Separated veterans, a higher percentage of JVSG veterans received staff-assisted services in their first week of participation, compared to non-JVSG veterans.
- The percentage of those who received staff-assisted services in the first week increased for non-JVSG veterans as time away from the military increased.
- JVSG Post-9/11 veterans experienced the highest percentage of staff-assisted services in the first week.

[34] Recently Separated veterans separated from the military within the last three years. Post-9/11veterans are those who separated after 9/1/2001, but not within the last three years. Pre-9/11 veterans are those who separated before 9/1/2001.

Table 5.10: Customer Receipt of Staff-Assisted Services by Separation Status, Regression Estimates

Separation Status	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)
Recently Separated (Recent)	81%	78%	3%
Post 9/11, Other (Post)	82%	80%	2%
Pre 9/11 (Pre)	80%	81%	-1%
(Post)-(Recent)	**1%**	**2%**	
(Pre)-(Post)	**-2%**	**1%**	
(Pre)-(Recent)	**-1%**	**3%**	

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Time-to-first staff-assisted service is measured as the number of days from registration to first staff-assisted service received. Observations are included for customers who receive a staff-assisted service within the first year of participation.

VI. STATE ANALYSIS

STATE ANALYSIS

Overview

This section examines employment outcomes, earnings, duration, and time-to-first staff-assisted service by state. This analysis is intended to highlight the difference in results that may occur if the analysis were to take place at the state level. A small subset of demographically diverse states was chosen for the analysis: New York, Texas, Virginia, Ohio, California, Maryland, Kentucky, and Connecticut. These states provide diversity in geographic location and demographic characteristics, and also a wide variation in JVSG assignment for veterans.

Figure 3 below shows the percentage of veterans that were assigned to the JVSG program within each of the eight states chosen for this analysis. In this subset of states, New York assigns the highest percentage of veterans to the JVSG program (60%), while California assigns the lowest percentage (14%).

Figure 3: Percentage of Veterans Assigned to JVSG Program by State

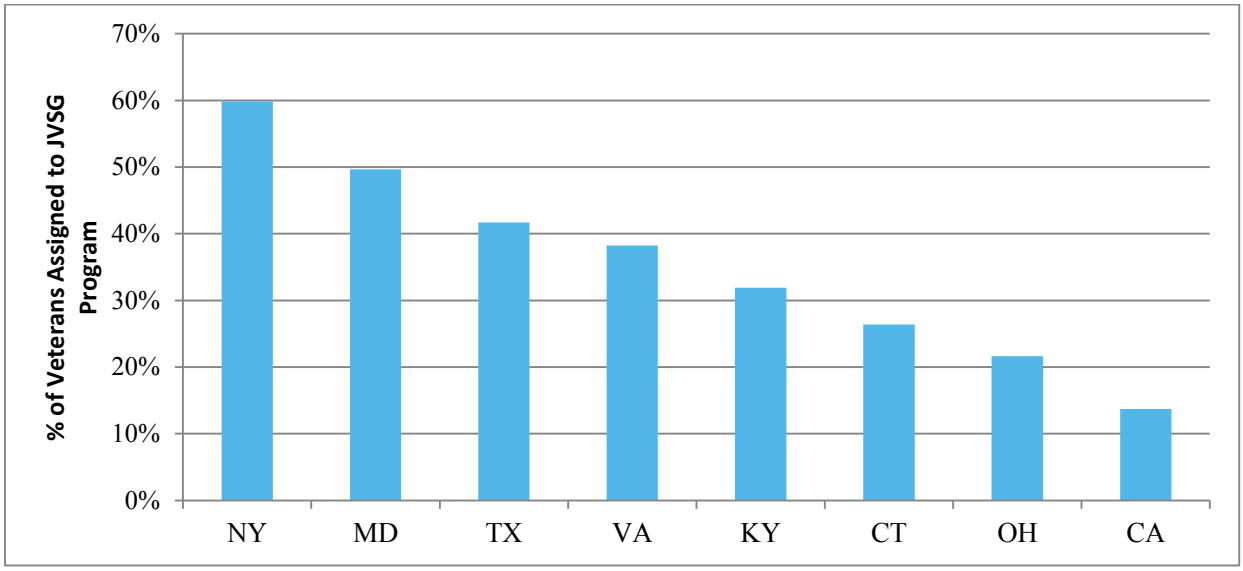

Table 6.1 shows the number and percentage of JVSG veterans, non-JVSG veterans, and non-veterans within each state. All percentages are relative to the total number of customers in each state. It is unclear what drives the differences in JVSG assignment across states as each state may have different criteria for assessing significant barriers to employment.[35]

Table 6.1: Population Percentages of Veteran Status by State

State	JVSG		Non-JVSG Veterans		Non-Veterans	
	Number of People	Percent	Number of People	Percent	Number of People	Percent
New York	50,210	4%	29,261	3%	1,049,054	93%
Texas	105,252	4%	140,771	5%	2,457,122	91%
Virginia	23,647	4%	37,348	6%	548,087	90%
Ohio	26,301	1%	95,406	5%	1,775,851	94%
California	30,203	1%	172,894	6%	2,927,749	94%
Maryland	12,245	4%	11,198	4%	287,838	92%
Kentucky	15,237	4%	32,020	8%	373,362	89%
Connecticut	2,800	1%	7,901	2%	325,407	97%
National	**747,436**	**3%**	**1,344,358**	**5%**	**26,283,454**	**93%**

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)
Note: Due to rounding, the percentages for some variables do not sum to 100%

Employment Outcomes by State

Table 6.2 shows the employment outcomes by state for JVSG veterans, non-JVSG veterans, and non-veterans. The values shown in Table 6.2 are the results of multivariate regressions and are conditional outcomes that control for observable characteristics such as age, gender, race, education, and disability status.

In some instances, state outcomes vary considerably from the national entered employment rate averages. For example:

Entered Employment

- Texas veterans are entering employment at much higher rates than the national average. However, non-veteran entered employment rates are similar to the national average.
- California, on the other hand, has entered employment rates well below the national averages regardless of veteran status.

Employment Retention

- Texas veterans also retained employment at much higher rates than the national average. Virginia and Maryland veterans also had higher retained employment rates than the national averages.

[35] Census data show that the proportion of veterans in each state closely matched the proportion of veteran customers at employment services. For all states, these proportions were within five percentage points.

- Conversely, veterans in California and Ohio had employment retention rates below national averages.

Table 6.2: Employment Outcomes by State

State	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
Entered Employment					
New York	48%	51%	-3%	50%	1%
Texas	62%	55%	7%	49%	6%
Virginia	59%	56%	3%	57%	-1%
Ohio	50%	44%	6%	47%	-3%
California	35%	30%	5%	36%	-6%
Maryland	55%	51%	4%	48%	3%
Kentucky	49%	49%	0%	45%	4%
Connecticut	41%	45%	-4%	44%	1%
National	**48%**	**46%**	**2%**	**47%**	**-1%**
Employment Retention					
New York	65%	67%	-2%	68%	-1%
Texas	81%	83%	-2%	75%	8%
Virginia	71%	76%	-5%	76%	0%
Ohio	62%	66%	-4%	68%	-2%
California	66%	65%	1%	68%	-3%
Maryland	72%	70%	2%	70%	0%
Kentucky	68%	62%	6%	60%	2%
Connecticut	66%	71%	-5%	70%	1%
National	**69%**	**68%**	**1%**	**68%**	**0%**

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Customers who enter employment are those who were not employed at registration, but were employed or reported positive wages in the first quarter after exit. Customers who retain employment are those who reported employment or positive earnings in the first quarter after exit and in the second and third quarters after exit. Observation counts for entered employment are comprised of all customers who have at least one quarter of after-exit employment data. Observation counts for employment retention are comprised of all customers who have at least three quarters of after-exit employment data.

Nine-Month Earnings by State

Table 6.3 shows the average total earnings for the three quarters after exit by state. The analysis on earnings is conditional on employment, so unemployed customers who do not have positive earnings are excluded. Earnings are tracked in the first three quarters after program exit and are collected from unemployment insurance wage records.

There is large variation among the states in terms of the earnings that customers exhibited after-exit.

- The average nine-month earnings are higher in all of these states than the national average, except for JVSG veterans in New York.

- Unlike the national trend, JVSG veterans in New York, Texas, and California earned less than non-JVSG veterans.
- Unlike the national trend, veterans in Kentucky and Connecticut earned less than non-veterans.

Table 6.3: Nine-Month Earnings by State

State	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
New York	$20,000	$20,460	-$460	$20,125	$335
Texas	$24,683	$25,260	-$577	$21,193	$4,067
Virginia[a]	--	--	--	--	--
Ohio	$30,235	$30,071	$164	$29,634	$437
California	$21,385	$23,062	-$1,677	$21,404	$1,658
Maryland[a]	--	--	--	--	--
Kentucky	$21,926	$21,049	$877	$21,557	-$508
Connecticut	$22,957	$21,066	$1,891	$21,133	-$67
National	**$20,625**	**$20,297**	**$328**	**$19,654**	**$643**

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Earnings are the sum of reported earnings in the first three quarters after exit. Observations are included for those who reported positive earnings in all three quarters after exit.

[a] Virginia and Maryland did not have prior earnings data in the dataset. Their average earnings were excluded for this reason.

Six-Month Earnings by State

Table 6.4 shows the average total earnings for the second and third quarters after exit by state. The analysis on earnings is conditional on employment, so unemployed customers who do not have positive earnings are excluded. Earnings are tracked in the first three quarters after program exit and are collected from unemployment insurance wage records.

There is large variation among states in terms of six-month earnings customers exhibited after exit.

- Ohio customers' earnings are much higher than the national average.
- Unlike the national trend, JVSG veterans in New York, Texas, and California earn less than non-JVSG veterans.
- Unlike the national trend, veterans in Ohio, Kentucky and Connecticut earn less than non-veterans.

Table 6.4: Six-Month Earnings by State

State	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
New York	$14,337	$14,480	-$143	$14,477	$3
Texas	$17,678	$18,546	-$868	$15,486	$3,060
Virginia[a]	--	--	--	--	--
Ohio	$21,665	$21,223	$442	$21,250	-$27
California	$15,551	$16,563	-$1,012	$15,604	$959
Maryland[a]	--	--	--	--	--
Kentucky	$15,313	$14,981	$332	$15,553	-$572
Connecticut	$16,330	$15,327	$1,003	$15,480	-$153
National	**$14,414**	**$14,260**	**$154**	**$13,864**	**$396**

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Six-month earnings are the sum of reported earnings in quarters two and three after exit. Observations are included for those who reported positive earnings in all three quarters after exit.

[a] Virginia and Maryland did not have prior earnings data in the dataset. Their average earnings were excluded for this reason.

Duration by State

Program duration for customers is defined as the number of days from registration to exit. The W-P data do not provide reasons for exit, so it is unknown whether a customer exited because he or she obtained employment or for other reasons. In addition to large variation in employment outcomes and earnings, there is also large variation among the states in terms of how long customers stay in employment services.

- Customers in New York stay in employment services much longer than the national average.
- Customers in Texas, Kentucky, and Maryland stay in employment services shorter than the national average.
- Contrary to the national trends, non-JVSG veterans stay in employment services longer than JVSG veterans in Ohio and Connecticut.

Table 6.5: Duration by State

State	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
New York	178	83	95	124	-41
Texas	60	18	42	29	-11
Virginia	92	33	59	40	-7
Ohio	114	118	-4	76	42
California	160	47	113	45	2
Maryland[a]	103	0	103	11	-11
Kentucky	76	1	75	3	-2
Connecticut	55	79	-24	90	-11
National	**126**	**62**	**64**	**65**	**-3**

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Duration in employment services is measured as the number of days from registration to exit. Observations are included for customers who received services for less than 1,000 days.

[a] Linear regression predictions are not constrained to be greater than zero and in some cases can be negative. Maryland "non-JVSG veterans" had predicted durations less than zero when calculating predictions at the means of the explanatory variables. Model predictions less than zero were standardized to zero.

Time-to-First Staff-Assisted Service by State

The time until customers receive their first staff-assisted service is another outcome of interest and may be one way to measure the effectiveness of "priority of service" legislation.[36] This law requires federally-funded employment service centers to provide services more quickly to veterans, and when resources are constrained, to prioritize services to veterans. Table 6.6 shows wide variation in time-to-first staff-assisted service across states when compared to the national average.

- Veteran customers in Ohio receive staff-assisted services more quickly than the national average.
- Veteran customers in Virginia veterans receive staff-assisted services much later than the national average.
- In California, Virginia, and Maryland, non-JVSG veterans receive staff-assisted services faster than JVSG veterans. This contradicts with findings at the national level, where JVSG veterans are served more quickly than non-JVSG veterans.
- In all states examined, non-veterans receive services faster than non-JVSG veterans. In contrast, non-JVSG veterans and non-veterans at the national level both receive their first staff-assisted services in 10 days, on average.

[36] Time-to-first staff-assisted service is calculated by counting the number of continuous days that elapsed between a customer's registration date and their first recorded staff service. The analysis limited time-to-first staff-assisted service to spans of time up to 365 days and did not include repeat visitors.

Table 6.6: Time-to-First Staff-Assisted Service by State

State	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
New York	8	8	0	<1	8
Texas	16	22	-6	11	11
Virginia	30	29	1	21	8
Ohio[a]	6	6	0	0	6
California	31	10	21	3	7
Maryland	17	16	1	12	4
Kentucky	13	16	-3	9	7
Connecticut	22	30	-8	26	4
National	**8**	**10**	**-2**	**10**	**0**

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Time-to-first staff-assisted service is measured as the number of days from registration to first staff-assisted service received. Observations are included for those who receive a staff-assisted service within the first year of participation.

[a] Linear regression predictions are not constrained to be greater than zero and in some cases can be negative. Ohio non-veterans had predicted time-to-first staff-assisted service less than zero when calculating predictions at the means of the explanatory variables. Model predictions less than zero are standardized to zero.

Staff-Assisted Services Received in First Week by State

Another outcome of interest is the percentage of customers that receive their first staff-assisted service within one week of registration. Table 6.7 shows the percentage of customers receiving staff-assisted services within the first week after registration when controlling for observable customer characteristics. Holding these characteristics constant, the results show:

- In Ohio and New York, the percentage of customers receiving staff-assisted services in their first week exceeds the national average.
- Compared to findings at the national level, there is greater variation in the percentage of individuals served within their first week across veteran status types, except in Ohio and New York where the range is one percentage point or less.
- In Virginia, California, and Maryland, a lower percentage of JVSG veterans received staff-assisted services than non-JVSG veterans in the first week. This contradicts the national findings, where a higher percentage of JVSG veterans received services in their first week.

Table 6.7: Receipt of Service in First Week by State

State	JVSG Veterans	Non-JVSG Veterans	(JVSG) – (Non-JVSG)	Non-Veterans	(Non-JVSG Vets) – (Non-Vets)
New York	98%	98%	0%	98%	0%
Texas	75%	64%	11%	73%	-9%
Virginia	58%	62%	-4%	64%	-2%
Ohio	100%	100%	0%	100%	0%
California	51%	93%	-42%	93%	0%
Maryland	75%	79%	-4%	74%	5%
Kentucky	83%	80%	3%	80%	0%
Connecticut	57%	51%	6%	44%	7%
National	**85%**	**84%**	**1%**	**84%**	**0%**

Source: Wagner-Peyser Data Files, PY 2010 Q3 through PY 2012 Q3 (nine quarters, January 2011 through March 2013)

Note: Observations are included for those who receive a staff-assisted service within the first year of participation.

VII. CONCLUSION AND RESEARCH EXTENSIONS

CONCLUSION

This was the first study to analyze the W-P and JVSG data. The exploratory analysis examined over 28 million unduplicated AJC customers for nine quarters from January 2011 to March 2013. These were the most complete customer-level data available at the time of this report.

The main focus of the analysis was on the veteran experience with AJCs. Comparisons were made within veteran groups (JVSG vs. non-JVSG) and also between veterans and non-veterans. In particular, the study focused on after-exit employment and earnings, AJC duration, and timeliness of staff-assisted services. A preliminary analysis on state differences in AJCs was also conducted. Highlights of these analyses include:

JVSG veterans, compared to non-JVSG veterans and non-veterans, exhibited the highest employment rates, highest earnings, and quickest time-to-first staff-assisted service.

- JVSG veterans have higher entered employment rates (48%) than non-JVSG veterans (46%) and non-veterans (47%).
- JVSG veterans have higher earnings ($20,625) in the first nine months after exit than non-JVSG veterans ($20,297) and non-veterans ($19,654).
- On average, JVSG veterans receive their first staff-assisted services more quickly (8 days) than non-JVSG veterans (10 days) and non-veterans (10 days).

JVSG veterans have smaller gender earnings gaps and smaller military-separation-time earnings gaps.

- In the first nine months after exit, male-female gender earnings gaps for JVSG veterans ($2,386) are 19% smaller than gender earnings gaps for non-JVSG veterans ($2,942) and 34% smaller than gender earnings gaps for non-veterans ($3,638).
- In the first nine months after exit, the earnings gap between Pre-9/11 and Recently Separated JVSG veterans is roughly $825; this earnings gap is $2,711 for Pre-9/11 and Recently Separated non-JVSG veterans.

Program outcomes at the state level can vary substantially from national outcomes. More research is needed at the state-level to understand the association between the implementation of employment services and outcomes.

- A state-by-state comparative analysis is an important next step to examine the administration of employment services, the relative strengths and weaknesses of AJCs, and the regional influence on customer outcomes.

RESEARCH EXTENSIONS

The W-P data provide several possible research extensions. A few examples are discussed briefly below.

State-by-State Analysis

- State variation in AJC administration provides an opportunity for a comparative analysis across states. A multivariate analysis of state-by-state outcomes, after controlling for observable characteristics, would yield a more comprehensive examination of AJCs.

Subgroup Analysis

- This study showed that outcomes differ substantially across subgroups. Future research projects could take a more focused, targeted approach to certain veteran subgroups, such as female veterans, recently separated veterans, minority veterans, college-educated veterans, etc. These analyses could also be extended to non-veteran subgroups.

Priority of Service

- This analysis provided some preliminary evidence that veterans may be receiving staff-assisted services more quickly and for longer durations of time than non-veterans. Priority of service legislation and data collection are relatively new and require more rigorous analysis.

Types of Employment Services Received

- This study examined staff-assisted services at an aggregated level. There is a wide array of distinct staff-assisted services that could be examined in greater depth to better understand how customers respond to specific types of services.

Data Merging

- The W-P dataset has potential to be merged with other military data sources that can provide additional information at the customer-level (i.e. military rank, active duty/reserve/National Guard information, and additional military and demographic characteristics). This new information would make possible an abundance of new, detailed research possibilities.

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IX. APPENDICES

Appendix A. Definitions

Term	Definition	Source[37]
Campaign Veterans	A veteran who served on active duty in the U.S. armed forces during a war or in a campaign or expedition for which a campaign badge or expeditionary medal has been authorized.	SELF
Disabled Veterans	A veteran who is entitled to compensation due to a service-connected disability; or would be entitled to compensation under law if not receiving military retirement pay; or was discharged or released from active duty because of a service-connected disability.	SELF
Duration	Total number of continuous days that a customer participated in program services, calculated as the difference between registration date and exit date. This is limited to spans of time up to 1,000 days and does not include repeat visitors.	STAFF
Earnings, Nine Month	The sum of all earnings received in the first nine months after exiting the program. Customers are only included in this measure if they had positive (non-zero) earnings in all three quarters after exit.	UI
Earnings, Six Month	The sum of all earnings received in the second and third quarters (months 4-9) after exiting the program. Customers are only included in this measure if they had positive (non-zero) earnings in all three quarters after exit.	UI
Education	Number of years of education that a customer has acquired. For interpretation purposes, 12 years would constitute a completed high school education or GED equivalent, for example.	SELF
Employment Retention	Rate of all customers employed in the first quarter after exit who are employed in the second and third quarters after exit. Employment in a given quarter is defined as having non-zero wages in that quarter. A customer does not need to keep the *same* job for all three quarters after exit to be counted in this measure. A customer who changes jobs several times but earns wages in all three quarters is defined as having Employment Retention.	CALC

[37] Denotes how the data are generated: self-reported by customer and staff-verified (SELF), staff-reported (STAFF), unemployment insurance wage records (UI), or calculated from existing Wagner-Peyser fields (CALC).

Term	Definition	Source[37]
Eligible Spouses	The spouse of any person who died on active duty of a service-connected disability; or, the spouse of any member of the Armed Forces serving on active duty who has been listed for more than 90 days as missing in action, captured in the line of duty, or forcibly detained or interned in the line of duty by a foreign government or power. Also includes the spouse of any person who has a total disability that is permanent in nature resulting from a service-connected disability, or the spouse of a veteran who died while such a disability was in existence.	SELF
Entered Employment	Rate of all customers who were not employed during AJC participation that obtained employment within the first quarter after exiting the program.	CALC
ETA 9002 Data	Labor exchange performance measurement data related to all Wagner-Peyser Act funded services. These data, together with the VETS 200 data, comprise the entire data under analysis.	N/A
Exiters	A customer who exits a program and is no longer receiving federally-funded employment services. Once a customer has not received any services for 90 consecutive calendar days and has no planned gap in service and is not scheduled for future services, then the date of exit is applied retroactively to the last day on which the individual received a service.	CALC
Homeless Veterans	A veteran who lacks a fixed, regular, and adequate nighttime residence. This does not include incarcerated individuals.	SELF
Jobs for Veterans State Grants (JVSG) Veterans	A veteran who is identified as having one or more significant barriers to employment, such as homelessness, disability, or educational disadvantages. Such customers are denoted in the data as JVSG veterans if they have been served by either Disabled Veterans' Outreach Program (DVOP) specialists or Local Veterans' Employment Representatives (LVERs). DVOP specialists are intended to directly serve veterans that have significant barriers to employment. LVERs conduct outreach to employers to encourage the hiring of veterans and generally assist veterans in gaining and retaining employment.	CALC
Pre-9/11 Veteran	A veteran who separated from the military before September 1, 2001.	SELF
Post-9/11 Veteran	A veteran who served for at least one day on or after September 1, 2001 in active service. To avoid double counting in the analysis, these veterans do not include Recently Separated veterans (see Recently Separated Veteran).	SELF
Recently Separated Veteran	A veteran who was discharged or released from active service no more than 36 months before program participation. To avoid double counting in the analysis, these veterans do not include Post-9/11 veterans (see Post-9/11 Veteran).	SELF

Term	Definition	Source[37]
Repeat Visitors	Any customer that enrolls in Wagner-Peyser-funded programs two or more times to seek job services. A customer must register with employment services, exit the program, and then re-register to be considered a repeat visitor in the data. *(See definition of "exiters" above.)*	CALC
Self-Directed Services	Services that are provided to a customer without substantial staff assistance or involvement. This could include customers using a computer to conduct a self-directed job search or to complete an online job application.	STAFF
Staff-Assisted Services	Services that require substantial staff assistance or involvement. This could include activities such as: (a) referral to a job, (b) placement in training, (c) reemployment services, (d) assessment services, including an assessment interview, testing, counseling, or employability planning, (e) case management, (f) career guidance, (g) job search activities, (h) federal bonding program, (i) job development contacts, (j) tax credit eligibility determination, (k) referral to other services, including skills training, educational services, and supportive services, or (l) any other service requiring significant expenditure of staff time.	STAFF
Time-to-first Staff Service	This outcome is calculated in two different ways. First, as the number of continuous days that have elapsed between a customer's registration date and their first recorded staff service. Second, as a rate of customers who receive staff-assisted services within one week of registration. This is limited to spans of time up to 365 days and does not include repeat visitors.	CALC
Transitioning Service Members (TSMs)	A service member in active duty status (including separation or retirement leave) who participates in employment services and is within 24 months of retirement or 12 months of separation. (Note: Data does not provide the specific number of months until or since the service member is/was retired or separated.)	SELF
Veteran	A person who served on active duty in the military, naval, or air services and was discharged or released under conditions other than dishonorable.	SELF
VETS 200 Data	Subset of the ETA 9002 data, which contains similar elements found in the ETA 9002, but only apply to the activities of customers who received one or more services from LVERs and DVOP staff. The VETS 200 reports are the data source for JVSG data. *(See JVSG definition above.)*[38]	N/A

[38] In PY 2012, several additional statutorily required data elements were added, including: priority of service information; a credentials field; the Post-9/11 veteran designation; a homeless veteran indicator; participation in the Transition Assistance

Term	Definition	Source[37]
Wagner-Peyser	The W-P Act of 1933 provides public labor exchange services. Data from the W-P-funded programs include national, regional and state totals on types of jobseekers and the types of services they received. Outcomes data are also available for all jobseekers, eligible unemployment insurance claimants, and veterans. [39]	N/A

Program (TAP); and median earnings information at the three and sixth month intervals, as required. (Source: ETA Handbook No. 406)

[39] Source: Department of Labor (http://www.doleta.gov/programs/wagner_peyser.cfm)

Appendix B. Model Descriptions for Research Questions

Table Number	Outcome(s)[40]	Independent Variables	Parameter(s) of Interest[41]	Subpopulation
1.1	Age, race, gender, education level	N/A	Veteran Status	All first enrollments
2.1	1. Entered employment rate 2. Employment retention rate	N/A	Veteran status	All first enrollments
2.2	1. Entered employment rate 2. Employment retention rate	Age, race, gender, education level, disability status, services received (self and staff)	Veteran status	All first enrollments
2.3	1. Entered employment rate 2. Employment retention rate	Age, race, education level, disability status, services received (self and staff)	Gender (by veteran status)	All first enrollments
2.4	1. Entered employment rate 2. Employment retention rate	Race, gender, education level, disability status, services received (self and staff)	Age group (by veteran status)	All first enrollments
2.5	1. Entered employment rate 2. Employment retention rate	Age, race, gender, education level, disability status, services received (self and staff)	Separation status (by JVSG status)	Veteran first enrollments
3.1	3-quarter earnings after exit	N/A	Veteran status	All first enrollments where customers were reported as having positive earnings in each of the first three quarters after exit

[40] Outcomes are numbered when a research topic has more than one outcome of interest.

[41] A "veteran dummy" is used to perform analysis on the three veteran subpopulations: 1) JVSG; 2) non-JVSG; and 3) non-veterans.

Table Number	Outcome(s)[40]	Independent Variables	Parameter(s) of Interest[41]	Subpopulation
3.2	3-quarter earnings after exit	Age, race, gender, education level, disability status, services received (self and staff), prior wages	Veteran status	All first enrollments where customers were reported as having positive earnings in each of the first three quarters after exit
3.3	3-quarter earnings after exit	Age, race, education level, disability status, services received (self and staff), prior wages	Gender (by veteran status)	All first enrollments where customers were reported as having positive earnings in each of the first three quarters after exit
3.4	3-quarter wages after exit	Race, gender, education level, disability status, services received (self and staff), prior wages	Age (by veteran status)	All first enrollments where customers were reported as having positive earnings in each of the first three quarters after exit
3.5	3-quarter wages after exit	Age, race, gender, education level, disability status, services received (self and staff), prior wages	Separation status (by JVSG status)	Veteran first enrollments where customers were reported as having positive earnings in each of the first three quarters after exit
3.6	Six-month earnings	N/A	Veteran status	All first enrollments where customers were reported as having positive earnings in each of the first three quarters after exit
3.7	Six-month earnings	Age, race, gender, education level, disability status, services received (self and staff), prior wages	Veteran status	All first enrollments where customers were reported as having positive earnings in each of the first three quarters after exit
3.8	Six-month earnings	Age, race, education level, disability status, services received (self and staff), prior wages	Gender (by veteran status)	All first enrollments where customers were reported as having positive earnings in each of the first three quarters after exit

Table Number	Outcome(s)[40]	Independent Variables	Parameter(s) of Interest[41]	Subpopulation
3.9	Six-month earnings	Race, gender, education level, disability status, services received (self and staff), prior wages	Age (by veteran status)	All first enrollments where customers were reported as having positive earnings in each of the first three quarters after exit
3.10	Six-month earnings	Age, race, gender, education level, disability status, services received (self and staff), prior wages	Separation status (by JVSG status)	Veteran first enrollments where customers were reported as having positive earnings in each of the first three quarters after exit
4.1	Duration of participation in employment services (number of days)	N/A	Veteran status	All first enrollments for periods of 1,000 days or less
4.2	Duration of participation in employment services (number of days)	Age, race, gender, education level, disability status, services received (self and staff)	Veteran status	All first enrollments for periods of 1,000 days or less
4.3	Duration of participation in employment services (number of days)	Age, race, education level, disability status, services received (self and staff)	Gender (by veteran status)	All first enrollments for periods of 1,000 days or less
4.4	Duration of participation in employment services (number of days)	Race, gender, education level, disability status, services received (self and staff)	Age (by veteran status)	All first enrollments for periods of 1,000 days or less
4.5	Duration of participation in employment services (number of days)	Age, race, gender, education level, disability status, services received (self and staff)	Separation status (by JVSG status)	Veteran first enrollments for periods of 1,000 days or less
4.6	Duration of participation in employment services (number of days)	Age, race, gender, education level, disability status, services received (self and staff)	Entered employment status	All first enrollments for periods of 1,000 days or less

Table Number	Outcome(s)[40]	Independent Variables	Parameter(s) of Interest[41]	Subpopulation
5.1	Time-to-first staff-assisted service (number of days)	N/A	Veteran status	All first enrollments who received a staff-assisted service within one year of registration
5.2	Time-to-first staff-assisted service (number of days)	Age, race, gender, education level, disability status	Veteran status	All first enrollments who received a staff-assisted service within one year of registration
5.3	Time-to-first staff-assisted service (number of days)	Age, race, education level, disability status	Gender (by veteran status)	All first enrollments who received a staff-assisted service within one year of registration
5.4	Time-to-first staff-assisted service number of days)	Race, gender, education level, disability status	Age (by veteran status)	All first enrollments who received a staff-assisted service within one year of registration
5.5	Time-to-first staff-assisted service (number of days)	Age, race, gender, education level, disability status	Separation status (by JVSG status)	Veteran first enrollments who received a staff-assisted service within one year of registration
5.6	Rate of customers that received a staff-assisted service within the first week after registration	N/A	Veteran status	All first enrollments who received a staff-assisted service within one year of registration
5.7	Rate of customers that received a staff-assisted service within the first week after registration	Age, race, gender, education level, disability status	Veteran status	All first enrollments who received a staff-assisted service within one year of registration
5.8	Rate of customers that received a staff-assisted service within the first week after registration	Age, race, education level, disability status	Gender (by veteran status)	All first enrollments who received a staff-assisted service within one year of registration
5.9	Rate of customers that received a staff-assisted service within the first week after registration	Race, gender, education level, disability status	Age (by veteran status)	All first enrollments who received a staff-assisted service within one year of registration
5.10	Rate of customers that received a staff-assisted service within the first week after registration	Age, race, gender, education level, disability status	Separation status (by JVSG status)	All first enrollments who received a staff-assisted service within one year of registration

Table Number	Outcome(s)[40]	Independent Variables	Parameter(s) of Interest[41]	Subpopulation
6.1	(Descriptive Statistics)	N/A	Veteran Status (by state)	All first enrollments in the states analyzed[42]
6.2	1. Entered employment rate 2. Employment retention rate	Age, race, gender, education level, disability status, services received (self and staff)	Veteran Status (by state)	All first enrollments in the states analyzed[iii]
6.3	3-quarter earnings after exit	Age, race, gender, education level, disability status, services received (self and staff), prior wages	Veteran Status (by state)	All first enrollments in the states analyzed where customers were reported as having positive earnings in each of the first three quarters after exit[iii]
6.4	Duration of participation in employment services (number of days)	Age, race, gender, education level, disability status, services received (self and staff)	Veteran Status (by state)	All first enrollments in the states analyzed for periods of 1,000 days or less[iii]
6.5	Time-to-first staff-assisted service (number of days)	Age, race, gender, education level, disability status	Veteran Status (by state)	All first enrollments in the states analyzed who received a staff-assisted service within one year of registration[iii]
6.6	Rate of customers that received a staff-assisted service within the first week after registration	Age, race, gender, education level, disability status	Veteran Status (by state)	All first enrollments in the states analyzed who received a staff-assisted service within one year of registration[iii]

[42] The states analyzed were: New York, Texas, Virginia, Ohio, California, Maryland, Kentucky, and Connecticut.

Appendix C. Summary of Analysis Results by Subgroup

This appendix provides a summary of the study results and key takeaways organized by subpopulations of interest. Notable findings by gender, age, and military separation status are included below.

Key Findings by Gender

- Regardless of veteran classification, **female customers are less likely to enter employment** after exiting employment services than male customers. This gender gap in entered employment is small, estimated at 2-4 percentage points.
- **Female veterans have the same employment retention rates as male veterans, regardless of JVSG status**. Female non-veterans have slightly higher employment retention rates than male non-veterans.
- **Gender earnings gaps are substantial, but are the smallest for those customers who received JVSG services**. In the first nine months after exit, female customers have significantly lower earnings than male customers.
    - In the first nine months after exit, the gender earnings gap for JVSG veterans is $2,368. For non-JVSG veterans, the gap is $2,929; for non-veterans, it is $3,617.
- On average, **female customers remain in employment services about one week longer** than male customers.
- **Male customers receive staff-assisted services quicker than female customers**. JVSG male customers receive staff-assistance roughly two days faster than female customers. This gap is about one day for non-JVSG veterans and non-veterans.

Key Findings by Age

- In general, **JVSG veterans have higher entered employment rates** than non-JVSG veterans for all age groups.
- For most age groups, **non-veterans tend to have slightly higher employment retention rates** than veterans.
    - JVSG veterans ages 35-44 experience the highest employment retention rates at 71%.
    - For all customers, employment retention rates tend to increase up to age 55, at which point they decrease.
- For all **age groups from 18 to 44, JVSG veterans have the highest earnings**, followed by non-JVSG veterans, then non-veterans.
    - The earnings gaps between veterans and non-veterans are much smaller for customers over 55.
- For all age groups, **JVSG veterans stay in employment services the longest**.
    - For JVSG veterans, duration in employment services increases with age.
    - Duration in employment services for non-JVSG veterans is relatively stable across age groups, between 55 and 72 days.

- For every age group, **veterans receive their first staff-assisted service quicker than non-veterans**. Generally, JVSG veterans receive staff-assisted services faster than non-JVSG veterans.

Key Findings by Military Separation Status

- Regardless of JVSG status, **Pre-9/11 veterans enter employment at the highest rate,** followed by Post-9/11 veterans, followed by Recently Separated veterans.
- **JVSG and non-JVSG veterans have similar employment retention rates across all separation statuses**. Pre-9/11 veterans are most likely to retain employment, followed by Post-9/11 veterans, and then Recently Separated veterans.
- **JVSG veterans have higher earnings than non-JVSG veterans if they are Recently Separated veterans or Post-9/11 veterans**. They have slightly lower earnings than non-JVSG veterans if they are Pre-9/11 veterans.
    - The earnings gaps between each separation status are smaller for JVSG veterans. For example, the earnings gap between Pre-9/11 and Recently Separated veterans is $878 for JVSG veterans, but it is $2,736 for non-JVSG veterans.
- **JVSG veterans remain in employment services longer for all separation statuses**.
    - Pre-9/11 veterans stay in the longest, followed by Post-9/11 veterans and then Recently Separated veterans.
- **Recently Separated and Post-9/11 JVSG veterans receive staff-assisted services quicker than non-JVSG veterans**, by roughly 1-2 days.
    - Pre-9/11 non-JVSG veterans receive staff-assisted services quicker than JVSG veterans by about one day.

Appendix D. Technical Description of Regression Models

Linear Probability Model (LPM) versus Other Model Specifications

Outcomes in this report are both continuous (wages, days) and binary (employment, indicator for services received in the first week). Several model possibilities exist to model these outcomes. Multivariate linear regression models are used to estimate the parameters of interest. For binary variables with 0/1 outcomes, linear probability models are used.

Although LPMs were eventually chosen over non-linear estimation techniques (like logistic regressions), both were used originally. Sensitivity analyses showed that the results from each type of models were similar. LPMs can be problematic when predicted outcomes fall near zero or one, but for this analysis, most binary outcomes examined had mean values between 40% and 70%. Another consideration for LPMs are heteroskedastic errors. The analysis corrected for this with heteroskedasticity-robust standard errors.

Finally, the exploratory nature of this study resulted in constant revisions for research questions and regression equations, so estimation time was an important consideration. Linear probability models are significantly faster to calculate, revise, and re-estimate than non-linear regressions. Given that the results of both models coincided, and given the data under examination, LPMs were the best model choice.

Linear Probability Model

Linear specifications plot outcomes as a function of observable, explanatory variables. In the W-P data, the explanatory variables are a combination of individual characteristics, services received, and state and time fixed effects. The following model is a general specification that could be used for several outcomes of interest:[43]

$$y_{is} = \alpha s_i + \boldsymbol{\beta x}_{is} + \boldsymbol{\gamma w}_{is} + \varepsilon_{is}$$

Here, y represents the outcome variable. This could be discrete, such as employment status, or continuous, such as wages. The subscripts index individuals (i) and states (s). State fixed effects are given by α. $\boldsymbol{x}$ is a vector of covariates that represents the characteristics of individual i in state s.[44] $\boldsymbol{w}$ is a vector of services received by customers in the program. ε is an individual-specific, idiosyncratic error term comprised of unobservable factors.

State fixed effects control for unobserved factors that do not vary by state. A researcher is unlikely to have access to state-level differences in program administration; however, as long as those differences remain constant over time, the state fixed effect controls for them.

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[43] This basic framework has many possible extensions. Interaction terms, squared variables, and logistic transformations are all examples of how the specification might be altered to better approximate the data generating process.

[44] LaLonde (1986) provides a framework for experimental and non-experimental evaluations of training programs. Analyses of job training programs typically include demographic characteristics like gender, age, and race. In this case, variables that have plausible influence on outcomes, like education, disability status, and veteran status are included.

Appendix E. Unconditional Population Averages versus Conditional Means

Multivariate outcomes are likely to differ from unconditional population averages. This occurs because the multivariate analysis controls for the age, gender, race, education, disability status, and prior wage differences that exist across populations. The following tables serve as a concise reference for comparison of the population averages to their conditional averages after the multivariate analysis.

Table E.1.1 Average Employment Rates, Population and Conditional Averages

	JVSG Veterans		Non-JVSG Veterans		Non-Veterans	
	Population Average	Conditional Average	Population Average	Conditional Average	Population Average	Conditional Average
Entered Employment	47%	49%	43%	46%	47%	47%
Employment Retention	68%	68%	69%	68%	69%	68%

Table E.2.1 Average Nine-Month Earnings After-Exit, Population and Conditional Averages

	JVSG Veterans		Non-JVSG Veterans		Non-Veterans	
	Population Average	Conditional Average	Population Average	Conditional Average	Population Average	Conditional Average
Earnings	$22,706	$20,549	$24,006	$20,215	$19,339	$19,580

Table E.2.2 Average Six-Month Earnings After-Exit, Population and Conditional Averages

	JVSG Veterans		Non-JVSG Veterans		Non-Veterans	
	Population Average	Conditional Average	Population Average	Conditional Average	Population Average	Conditional Average
Earnings	$15,830	$14,250	$16,930	$14,111	$13,634	$13,724

Table E.3.1 Average Duration in Employment Services, Population and Conditional Averages

	JVSG Veterans		Non-JVSG Veterans		Non-Veterans	
	Population Average	Conditional Average	Population Average	Conditional Average	Population Average	Conditional Average
Days	146	126	56	62	56	65

Table E.4.1 Average Time-to-First Staff-Assisted Service Population and Conditional Averages

	JVSG Veterans		Non-JVSG Veterans		Non-Veterans	
	Population Average	Conditional Average	Population Average	Conditional Average	Population Average	Conditional Average
Days	12	8	9	10	9	10

Table E.5.1 Average Rate of Customers Receiving Staff-Assisted Services within First Week, Population and Conditional Averages

	JVSG Veterans		Non-JVSG Veterans		Non-Veterans	
	Population Average	Conditional Average	Population Average	Conditional Average	Population Average	Conditional Average
Staff-Assisted Service in First Week	79%	86%	84%	85%	85%	85%

Appendix F. Data Cleaning Procedures

This appendix describes the data cleaning procedures used to change the raw data file into an analysis file. The procedures outlined in this appendix are specific to the analysis in this report and are not generalizable data validation or data cleaning procedures for W-P data. The variables detailed in this appendix are those that are relevant to this study. Comprehensive variable details and descriptions can be found in ETA Handbook No. 406.[45]

DOL originally provided the data in CSV format. Summit used Stata software to clean, prepare, and analyze the data. The steps of this process included:

1) Labeling variables and values
2) Reformatting variables for analysis
3) Addressing missing values and dropping observations
4) Creating new variables for analysis
5) Performing state quality checks

Labeling

Table F.1 describes the variables for which variable labels or value labels were added.

[45] http://www.doleta.gov/performance/guidance/WIA/406_handbook.pdf

Table F.1 Variable and Value Labels

Variable Name	Variable Label	Value Labels
disable	Disabled person	No, Yes
earn6	Average earnings	
empq1		Employed; Not employed; Information not yet available
empq2		Employed; Not employed; Information not yet available
empq3		Employed; Not employed; Information not yet available
exit_dt	Exit Date	
gender		Male, Female
hispanic		Hispanic, Not Hispanic
labor	Employment Status at Participation	Employed, Received Termination Notice, Not Employed
othterm	Reasons for Exit	Institutionalized; Health Medical; Deceased; Family Care; Reserve Called to Active Duty; Retirement; Other
reg_dt	Date of program participation	
self_dt	Date of 1st Self Service	
staff_dt	Date of 1st Staff Service	
vet911	Post 911 Vet	Veteran >= 9/11/01, Veteran < 9/11/01
vetcamp	Campaign Vet	
vetdis	Disabled Veteran	No for PA and TX; Yes; Yes, Special Disabled; No
vetelig	Eligible Veteran Status	Yes, <=180 days; Yes Eligible Vet; Yes Other Eligible; No
vethomeless	Homeless Vet	
vetrecent	Recent Vet	
vettap	TAP Workshop Vet	
vettrans	Transitioning Service Member	
wagep2	Wages 2nd Qtr Prior to Participation	
wagep3	Wages 3rd Qtr Prior to Participation	
wagex1	Wages 1st Qtr After Exit	
wagex2	Wages 2nd Qtr After Exit	
wagex3	Wages 3rd Qtr After Exit	

Formatting

The variables listed below were reformatted using the "destring" command in Stata.

New variables were created for those that end in "*_dt*." The new variables are in date format and are named "*var_dt2*."

- age
- asian
- black
- career_dt
- careerdvop_dt
- careerlver_dt
- disable
- earn6
- empq1
- empq2
- empq3
- exit_dt
- fcontjob_dt
- fcontjobdvop_dt
- fcontjoblver_dt
- fedjob_dt
- fedjobdvop_dt
- fedjoblver_dt
- gender
- hawaiian
- higrade
- hispanic
- int_dt
- intdvop_dt
- intlver_dt
- jsearch_dt
- jsearchdvop_dt
- jsearchlver_dt
- labor
- matchq1
- matchq2
- matchq3
- multi
- nativeam
- othterm
- rempdvop_dt
- remplver_dt
- rfcont_dt
- rfcontdvop_dt
- rfcontlver_dt
- rfedjob_dt
- rfedjobdvop_dt
- rfedjoblver_dt
- rfedtrn_dt
- rfedtrndvop_dt
- rfedtrnlver_dt
- self_dt
- selfmr_dt
- staff_dt
- staffdvop_dt
- stafflver_dt
- staffmr_dt
- tapdvop_dt
- taplver_dt
- trn_dt trndvop_dt
- trnlver_dt
- vet
- vet911
- vetcamp
- vetdis
- vetelig
- vethomeless
- vetrecent
- vettap
- vettrans
- wagep2
- wagep3
- wagex1
- wagex2
- wagex3
- wfself_dt
- wfstaff_dt
- white
- wia_dt remp_dt

Missing and Dropped Values

Missing values for wages and earnings variables were coded as "9998" or "9999" in the raw data. These values were recoded to ".", which indicates that they are missing in Stata data files. Infeasible or unusually extreme values were also changed to missing, as described in Table F.2.

The analysis was performed on each customer's first enrollment within the observational period of the data.[46] Subsequent enrollments were dropped from the analysis file so as to avoid double-counting customers.

Table F.2 Values recoded to Missing or dropped

Variable Name	Cleaning Procedures
age	Code as missing if less than 18 or greater than 100
wagep3	Code as missing if equal to 9998 or 9999, or if greater than or equal to five standard deviations from the mean
wagep2	Code as missing if equal to 9998 or 9999, or if greater than or equal to five standard deviations away from the mean
wagex1	Code as missing if equal to 9998 or 9999, or if greater than or equal to five standard deviations away from the mean
wagex2	Code as missing if equal to 9998 or 9999, or if greater than or equal to five standard deviations away from the mean
wagex3	Code as missing if equal to 9998 or 9999, or if greater than or equal to five standard deviations away from the mean
earn6	Code as missing if equal to 9998 or 9999, or if greater than or equal to five standard deviations away from the mean
first_visit_tag	Tag the first enrollment for each customer and drop all enrollments that are not tagged. Drop first_visit_tag when complete.

[46] An enrollment encompasses all services received by a customer until he or she exits the program. One enrollment may include many different visits to AJCs.

New Variables

Variables shown in Table F.3 were created for the analysis.

Table F.3 Variables Created for Analysis

Variable Name	Description	Variable Label	Value Labels
agebls	Categorical that indicates the age range of the customer	Categorical Age Variable	18 to 24; 25 to 34; 35 to 44; 45 to 54; 55 to 64; 65 and older
dur	Number of days from registration to exit		
duration	Categorical variable of the duration in program	Duration in Program (Days)	1; 2-7; 8-30; 31-90; 91-180; 181-365; 365+
educ	Continuous education variable using variable "higrade"		
eerate	Entered employment rate, generated according to code book		
ent_emp	Binary indicating whether customer entered employment or showed positive earnings in Q1 after exit, conditional on the customer being unemployed at participation		
jvsg	Categorical indicating the JVSG status of the participant	JVSG Status	JVSG Veteran; Non-JVSG Veteran; Non-Veteran
nonwhite	Binary that indicates if participant is nonwhite or white derived from race_single variable		
race_single	Categorical variable that indicates only one race per customer	Categorical Race Variable	Native American, Asian, Black, Hawaiian, White, Multi
recent_911	Categorical that indicates separation status	Categorical recent, pre/post 911	Post-9/11, recently separated; Post-9/11, not recently separated; Pre-9/11
rerate	Employment retention rate, generated according to code book		

Variable Name	Description	Variable Label	Value Labels
ret_emp	Binary indicating whether customer retained employment in quarters 2 and 3 after exit, conditional on having positive earnings or a job in Q1 after exit		
schooling	Categorical variable using variable "higrade"	Categorical Education Variable	Less than high school; GED; HS Diploma; Some College, Technical, or Vocational School; Bachelor's Degree or Equivalent; Education Beyond Bachelor's
self_services	Binary that indicates whether self-directed services were received	Received Self Services	No, Yes
staff_serve	Binary indicating whether staff-assisted services were received		No, Yes
staff_services	Categorical that indicates the staff-assisted services that were received	Received Staff Services	General Staff Services; DVOP Staff Services; LVER Staff Services; DVOP and LVER Services
ttfss	Time to first staff-assisted service		
ttfss_week1	Binary indicating whether a staff-assisted service was received within one week of registration		
twagex	Sum of the wages in the first three quarters after exit, conditional on having non-zero wages in all three quarters		
veteran	Binary that indicates whether an individual is a veteran	Veteran Identifier	No, Yes

State Quality Checks

Raw W-P data files are generated every quarter. They include the nine most recent quarters of customer-level data from all states. Each quarterly submission by states may present unique data quality issues. As such, there is not a comprehensive, systematic process for cleaning or validating state data in every quarter. Quality checks should be conducted by state for each new data extract.

In the W-P data file used for this report, PY 2012 Q3, Michigan, Minnesota, and Pennsylvania exhibited infeasible proportions of veterans or JVSG veterans. The following steps were taken to correct the data quality issues for this analysis.

Michigan

- In Michigan's data file, the variable "vet" indicated that 1,223,271 customers were veterans, and 6 customers had missing values. When the "jvsg" variable was created, there were 16,950 JVSG veterans, 1,206,321 non-JVSG veterans, and 6 non-veterans.
- It was highly unlikely that only six customers in Michigan were non-veterans. Customers were coded as non-veterans (variable "jvsg" equal to 3) if the eligible veteran variable was 4, or "not eligible."
- After correcting the veteran status, the JVSG breakdown for Michigan is:
    - 16,911 (1.4%) JVSG veterans,
    - 64,772 (5.3%) non-JVSG veterans, and
    - 1,141,594 (93.3%) non-veterans.

Minnesota

- In Minnesota's data file, the variable "vet" indicated that 253,011 (or about 45%) of the customers were veterans.
- Customers were coded as non-veterans (variable "jvsg" equal to 3) if the eligible veteran variable was 4, or "not eligible."
- After correcting the veteran status, the JVSG breakdown for Minnesota is:
    - 1,831 (0.5%) JVSG veterans,
    - 32,287 (8.1%) non-JVSG veterans, and
    - 364,843 (91.5%) non-veterans.

Pennsylvania

- In Pennsylvania's data file, all customers were coded as veterans who separated after September 11, 2001, indicated by a value of 1 for the variable "vet911".
- Customers were changed to non-veterans (variable "jvsg" equal to 3) if the veteran entry date was missing. Veteran entry dates are recorded for customers who are eligible for POS, i.e. veterans. The veteran eligibility variable was not used in this case because it did not have any observations with the value 4, or "not eligible."
- After correcting the veteran status, the JVSG breakdown for Pennsylvania is:
    - 18,802 (2.1%) JVSG veterans,
    - 32,393 (3.7%) non-JVSG veterans, and
    - 825,508 (94.2%) non-veterans.