

**Report on Task 2: *Developing a Deeper
Understanding of the Labor Market Dynamics of
Recently Discharged Veterans***

Presented to:

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1. Introduction

In our previous report, “The Labor Market Trajectories of 20-24 Year Old Veterans,” we used a well-known dataset, the 1997 National Longitudinal Survey of Youth, to examine the labor market outcomes of 20-24 year old veterans 1, 13, 26 and 39 weeks after they exit the military. That study found that employment rates increase and unemployment rates decrease over time, which provides some evidence that the high reported levels of unemployment result from job search.

Although the previous study shed a great deal of light into the dynamics of the labor market behavior of veterans, it is also important to see whether their outcomes immediately after leaving the military differ from that of their civilian counterparts. The core challenge is that veterans who leave military employment are, by definition, transitioning either from one employment to another, or moving out of the labor market. The appropriate civilian counterparts, then, are individuals undergoing similarly significant labor market transitions, either to another employer or out of the labor market.

Therefore, in this report, we examine how veterans move into employment after leaving the military by comparing them to three sets of civilians. The labor market outcomes of veterans are first compared to those of each civilian comparison group in turn, and then are analyzed relative to the outcomes all three comparison groups. The first comparison group is comprised of 20-24 year old civilians who become unemployed after a relatively long period of continuous employment. The second group consists of civilians who had left a single job that was held for a substantial period of time. The third and final civilian comparison group, which most closely mirrors a Current Population Survey cohort, is made up of a random sample of civilians in a particular week, whose outcomes are compared to those of a group of young veterans in the same

week. In this way the outcomes of veterans and civilians can be compared during the same calendar time, which means that they are facing common macroeconomic conditions, such as unemployment rates, job creation, and labor market demand.

Of course, in order to correctly make the comparisons, it is important to control as much as possible for the differences in the characteristics of veterans relative to civilians. Thus, after making straightforward comparisons of veterans to those of the three civilian cohort groups, we assess the labor market outcomes of veterans relative to those of our civilian comparison groups, controlling for important demographic and labor market characteristics, such as race, gender, ability¹ and receipt of unemployment compensation benefits. We apply these controls beginning in Section 4 of this study, entitled “Labor Market Dynamics.”

In Section 5, we differentiate veteran outcomes by type of military service, whether in the regular military, National Guard or Reserves. Section 6 analyzes the impact of Unemployment Compensation benefits. Finally, we compare the post-separation earnings of veterans to those of their civilian cohorts.

Our core findings are as follows:

- Discharged veterans are more likely to be employed than their civilian counterparts. They are also less likely to be out of the labor force.
- These results are consistent, but differ in magnitude, depending on whether the veterans were regular military or in the National Guard or Reserves. By and large, both employment and labor market participation are higher, and unemployment is lower, for those whose service was in the Guard or Reserves.

¹ The measure of ability is derived from a standard test, called the Armed Services Vocational Aptitude Battery (ASVAB), that was administered to all respondents in 1997.

- The financial returns to military service are significant. Former service members earn more than any of the civilian groups to which they were compared.

2. Dataset

The 1997 cohort of the National Longitudinal Survey of Youth (NLSY97) is a random sample of 8,984 youths who were 12 to 16 years old as of December 31, 1996. Of these, 6,748 youths were from a representative sample of youths resident in the United States and another 2,236 were from an over sample of blacks and Hispanics. As a result of the over sample of blacks and Hispanics, the NLSY97 has 2,335 blacks and 1,901 Hispanic youths.

The sample has been interviewed annually since 1997, largely with computer assisted personal interviews. The sample is clustered with 147 primary sampling units and 1,748 segments. Households were asked about all age eligible youth. 4,957 households had one age eligible respondent and another 1,862 resulted in another 4,027 respondents. In addition, there are about 8,000 parental interviews (primarily the youth's mothers), two school surveys that account for over 70 percent of the high schools that the youth attended, and high school transcripts for about 6,250 of the youth. From the summer of 1997 to the spring of 1998, 7,127 of the youth were given computer adaptive form of the Armed Services Vocational Aptitude Battery (CAT-ASVAB)². The NLS staff normalized these test scores by grouping respondent in 3 month birth cohorts and using scores from the mathematical knowledge, arithmetic reasoning, word knowledge, and paragraph comprehension based on the weighted number of respondents scoring below each score. Within each group NLS staff computed a percentile score, using the weights, on this aggregate score, yielding a final value between zero and 99.

² The ASVAB was given mostly at testing centers that required the respondents to actually go to the centers; this resulted in a relatively high nonresponse rate. Although the respondents were offered \$75 for the testing, this was less than that offered to the 1979 cohort, which was offered about \$90 in comparable dollars

The data contain an immensely rich set of covariates on the respondents' demographic characteristics, the family structure in which they grew up, detailed characteristics of their parents and grandparents, and their educational histories. In addition, the data contain rich event histories on the respondents' enrollment in school, employment, labor market status, cohabitation and marriage, and program participation. The employment event history is of critical importance for this study because it allows us to examine both the respondents' spells of military employment and their employment experience after their exits from the military. Indeed the primary problem in dealing with these data is that their complexity makes it difficult to determine precisely what exit we wish to focus on.

Reservists and National Guard often have several "exits" from military service because they are often called up for training or brief periods of services in times of emergencies. Thus, we face a question of which exit event to analyze. Our approach is to focus on the exit that follows longest single period of military service for each respondent.

This study uses data from Rounds 1-8 of the survey, which means that the respondents are aged 20-24 in the last round (2005). There were a total of 423 individuals identified who had any type of military service. Of these, 152 were in the army, 81 in the Navy, 66 in the Air Force, 71 in the Marine Corps, 14 in the Reserves, 33 in the National Guard, 5 in the Coast Guards, and one individual who did not report a branch of service.

Our analysis identified 173 individuals who had exited the military during the period, of whom 47 were black and 39 Hispanic. There were a total of 21,222 weekly data points on the respondents' labor market outcomes in the time since their exit, including 5,172 data points for the black respondents and 5,120 for Hispanic respondents.

Table 1a: Describing the Population of Interest – Sample Sizes

Year	Military Exiters			
	All Military	All	More than one year service	More than two years service
1998	3	3		
1999	6	6	2	
2000	12	11	3	1
2001	19	17	11	4
2002	33	28	18	14
2003	58	42	31	19
2004	133	47	40	26
2005	129	19	17	15
Total	393	173	122	79

Table 1 provides a description of the sample sizes by year of exit. Of the 393 individuals reporting some military service at some point between 1998 and 2005, 173 also reported exiting at some point. Two points are worth noting. First, most of the exits occurred in 2004 and 2005, which practically limits our ability to track their subsequent outcomes for long periods of time. Second, the military sample has higher noninterview rates than their civilian counterparts: only 156 of the 173 exiters provided information about their status in the period subsequent to exiting. Although we speculate that this is due to deployment, this is not verified, so we define them as “missing” during the non interview spells. A summary of the sample sizes by type of labor market activity in the weeks subsequent to their exit is provided in Table 1b.

Table 1b: Sample Sizes in the Weeks After Exit from Military

Weeks after Exit	1	13	26	39
Unemployed	36	21	9	5
Out of Labor Force	44	27	23	24
Military	0	8	15	14
Employed	76	83	76	71
Total Count	156	140	123	114
Unemployment rate	32%	20%	11%	6%

The simple statistics in Tables 1a and b do not provide a sense of the complexity of the trajectories evident from the data analysis. An illustrative example of this complexity is the experience of the respondent whose public identifier is 8224. He reported exiting the military in week 45 of 1998. He was then employed every week from week 46 in 1998 to week 13 of 2000. He returned to the military from week 14 of 2000 to week 29, and returned to employment from week 30 of 2000 to week 50. He returned to the military in week 51 of 2000, and stayed until week 12 of 2001. He was employed from weeks 13 to 44 for 2001, and then was out of the labor force from week 45 to week 48 of 2001. This was followed by a spell of unemployment from week 49 of 2001 to week 40 of 2002. The respondent was then out of the labor force for 10 weeks, and then was employed from week 52 of 2002 week 52 to week 49 of 2004. He was not interviewed in Round 8. Figure 1 describes the timeline more visually, as well as a timeline for another individual (public identifier 7839)

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Figure 1: Describing the Population of Interest
Individual Trajectories over Time



In our previous report³, we used the same dataset to provide a basic set of facts describing the labor market outcomes of 20-24 year old veterans 1, 13, 26 and 39 weeks after they exit the military.

The study documented what proportion of veterans were employed, unemployed, out of the labor force or had returned to military service at each of these points after discharge, and then described in detail the labor market trajectories of those who were unemployed in the first week after discharge. The report provided some indication of the value of looking at longitudinal data

³ “The Labor Market Trajectories of 20-24 year old Veterans” U.S. Department of Labor, Veterans Employment and Training Service, http://www.dol.gov/vets/research/trajectories_rev.pdf

to examine the labor market trajectories of returning veterans. It demonstrated that veterans' employment rates increased and unemployment rates decreased over time. The results were consistent with the view that veterans were successfully searching for new jobs after their exit from military service. The study did not, however, examine whether the duration of the veterans' job searches differed substantially from those of their civilian counterparts.

3. Creating Comparison Groups

Creating a group of individuals whose labor market outcomes can reasonably be compared to those of recently discharged veterans poses a conceptual challenge. There are two core issues. The first has to do with matching workers with similar points in labor market histories. This required setting the "clock" for civilian counterparts at time zero, as we did for veterans in Figure 1, so as to match recently discharged veterans with workers who have also just undergone a significant labor market transition. The second has to do with matching the timing of discharge to ensure a similar macroeconomic search environment. This involves setting the "clock" at time zero to a particular point in calendar time so that both civilian workers and veterans are facing the same level of economic activity in terms of unemployment rates and job creation. Since no perfect solution was available, we compared outcomes with three different groups whose experiences mirror those of the discharged veterans in one these dimensions. We discuss each in turn below.

Comparison Group One: Civilians who have completed their longest spell of continuous employment. This comparison group attempts to control for the disruption associated with leaving the military by looking at respondents who have recently become unemployed. A disadvantage of this comparison group is that everyone in the group must be unemployed at time zero to be included. Separated service members, on the other hand, could have returned to a

previous job, and thus be employed, or could have decided not to immediately participate in the labor market, thus be out of the labor force.

In assigning individuals to this group, we treated spells of employment identically for the civilians in the sample as we treated military service for the veterans, and examined the outcomes of civilians after they had completed their longest spell of continuous employment, with the restriction that the spell had to last at least 13 weeks. Table 2 summarizes the sample size of this comparison group⁴.

Table 2: Sample Size

		Comparison Group 1		
		Employed	Unemployed	Out of Labor Force
Week 1	No	4,907	3,685	1,374
	Yes	76	1,298	3,609
	Total	4,983	4,983	4,983
Week 13	No	2,594	4,015	2,901
	Yes	2,161	740	1,854
	Total	4,755	4,755	4,755
Week 26	No	2,105	3,843	2,812
	Yes	2,275	537	1,568
	Total	4,380	4,380	4,380
Week 39	No	1,895	3,572	2,589
	Yes	2,133	456	1,439
	Total	4,028	4,028	4,028

Comparison Group Two: Civilians who have completed their longest spell of employment with any employer: This comparison group looks at respondents who left a job that they had held for a substantial period of time. This group does not necessarily have a spell of unemployment – they could have gone immediately to another job or could have chosen to drop out of the labor force. Thus they might have unemployment rates and other labor market outcomes more in line with the military sample. A disadvantage of this comparison group is that it is much easier for

⁴ If employment status was unclear, we coded the response as missing. This affected 290, 175, 136 and 125 observations in weeks 1 – 39.

people residing in the United States to find a new job than it is for military personnel who had been stationed abroad. The sample size for the comparison group is described in Table 3⁵.

Table 3: Comparison Group 2				
		Employed	Unemployed	Out of Labor Force
Week 1	No	4,390	4,984	2,608
	Yes	1,601	1,007	3,383
	Total	5,991	5,991	5,991
Week 13	No	2,708	4,972	3,622
	Yes	2,943	679	2,029
	Total	5,651	5,651	5,651
Week 26	No	2,329	4,590	3,385
	Yes	2,823	562	1,767
	Total	5,152	5,152	5,152
Week 39	No	2,147	4,264	3,097
	Yes	2,607	490	1,657
	Total	4,754	4,754	4,754

Comparison Group Three: A random sample of civilians taken at a particular date:

The final comparison group examines the labor market activity of both veterans and civilians at a given point in time. This group is most like a Current Population Survey sample, the source for national unemployment statistics, which surveys households in a given week. This approach has the advantage that it describes the labor market outcomes of both groups as they face common macroeconomic conditions. However, the approach has a major disadvantage. Unlike the military exiters, many of the civilians in the comparison group will have had no recent disruption in employment. Furthermore, the labor market experiences of the military exiters are now described at different distances from their exit, since the “clock” in Figure 1 is set at a calendar time, rather than at the time of their exit from the military⁶.

Another challenge in implementing this approach is that there is a tension in the data between having enough recently discharged veterans to constitute a sufficiently large sample and

⁵ As before, unclear responses were coded as missing, affecting 273, 230, 198 and 186 observations in weeks 1 – 39.

⁶ Also note that the group of civilians includes both employed and unemployed individuals at time zero, in contrast to Group 1.

also having sufficient weeks of data to track their outcomes subsequent to their discharge. The best balance between these two conflicting goals was achieved by selecting week 5 of 2004 for the point in time comparison. The sample sizes for this comparison group are reported in Table

		Table 4: Comparison Group 3		
		Employed	Unemployed	Out of Labor Force
Week 1	No	2,403	6,789	5,568
	Yes	4,977	591	1,812
	Total	7,380	7,380	7,380
Week 13	No	2,180	6,646	5,606
	Yes	5,036	570	1,610
	Total	7,216	7,216	7,216
Week 26	No	1,977	6,614	5,749
	Yes	5,193	556	1,421
	Total	7,170	7,170	7,170
Week 39	No	2,040	6,671	5,543
	Yes	5,087	456	1,584
	Total	7,127	7,127	7,127

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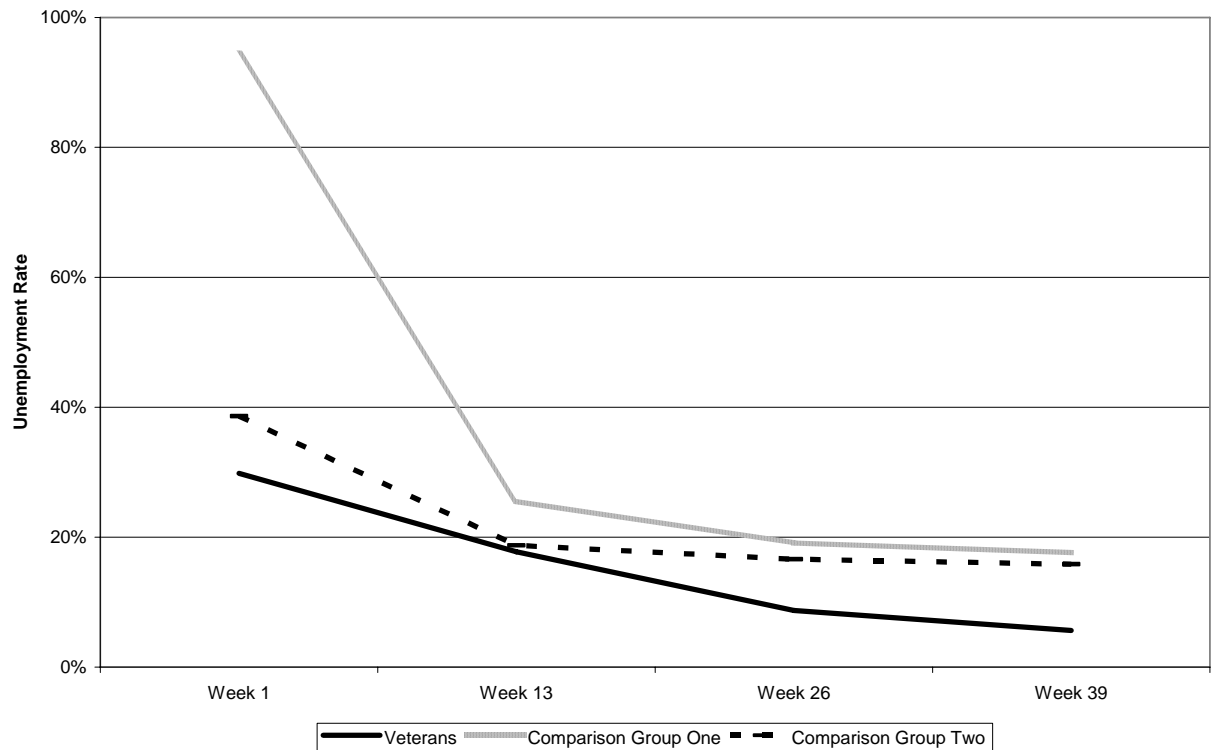
While none of these comparison groups is ideal, collectively we believe that comparisons with each different group will help us better understand the labor market experiences of young veterans.

Figure 2a compares the unemployment rates for the veterans and the first two comparison groups in weeks 1, 13, 26 and 39. Their demographic characteristics are summarized in the appendix⁸.

⁷ As before, the affected responses were 80, 77, 79 and 92 respectively

⁸ In interpreting the results for weeks 1, 13, 26 and 39, it is important to pay attention to the selection and truncation issues apparent in the changes in the sample size for the veteran group. Because most of the veterans exit between 2003 and 2005, fewer individuals in this group have observable labor market outcomes by week 39, and a greater proportion of the veterans represent individuals who left the military prior to 2003.

Figure 2a: Unemployment Rate of Veterans, Comparison Groups One and Two



Not surprisingly, the unemployment rate for each group declines over time as individuals search for and find work. As Figure 2a shows, the unemployment rate of recently discharged veterans in week one is 32%⁹. The selection of Group 1 civilians required that they be unemployed in week zero, and by week one there was still a 94% unemployment rate in comparison Group 1. Comparison Group 2 had a 39% unemployment rate in week one.

The evolution of unemployment is then tracked for each of the four weeks for the three groups. By week 39, the unemployment rate of veterans is reduced to 6%, while that of comparison Group 1 had dropped to 18% and unemployment among individuals in comparison Group 2 had fallen to 16%.

⁹ The unemployment rate is calculated as the ratio of the number of employed to the sum of the employed and the unemployed. From Table 1b, 36 veterans were unemployed; 76 were employed, and 32% is the ratio of 36 to 112.

When we examine the data to learn more about the underlying dynamics, we find several interesting results¹⁰. The first finding is that the proportion of veterans employed in week one is substantially higher than that of individuals in comparison Groups 1 and 2. The same pattern holds for the subsequent weeks, although the gap between the veterans groups and the comparison groups does close over time. We also find substantial differences in the out of the labor force status of the different groups: fewer veterans are out of the labor force than their comparable civilian counterparts. There are also substantial differences in demographic and other background characteristics across groups¹¹. Not surprisingly, veterans are much more likely to be male, black or Hispanic. Their AFQT scores are higher, and family poverty rates lower, than those of individuals in comparison Groups 1 and 2, although their mother's education is not discernably different.

A slightly different picture is painted by comparing veterans to comparison Group 3. Recall that in this comparison, both veterans and civilians are selected at the same point in time (week 5 in 2004), and their labor market outcomes are compared 1, 13, 26 and 39 weeks later. Therefore, veterans in this comparison are at different distances from their military exit, and civilians might not have experienced a recent labor market transition. The results of this comparison are reported in Figure 2b, and demonstrate that the unemployment rate of veterans quite rapidly converges to the civilian level. When we examine the underlying sources of these dynamics¹² we find that the veterans are only slightly more likely to be both employed and unemployed than this comparison group, at all weeks in the outcome period. The greater difference is in the proportions of the two groups who are out of the labor force. As will be

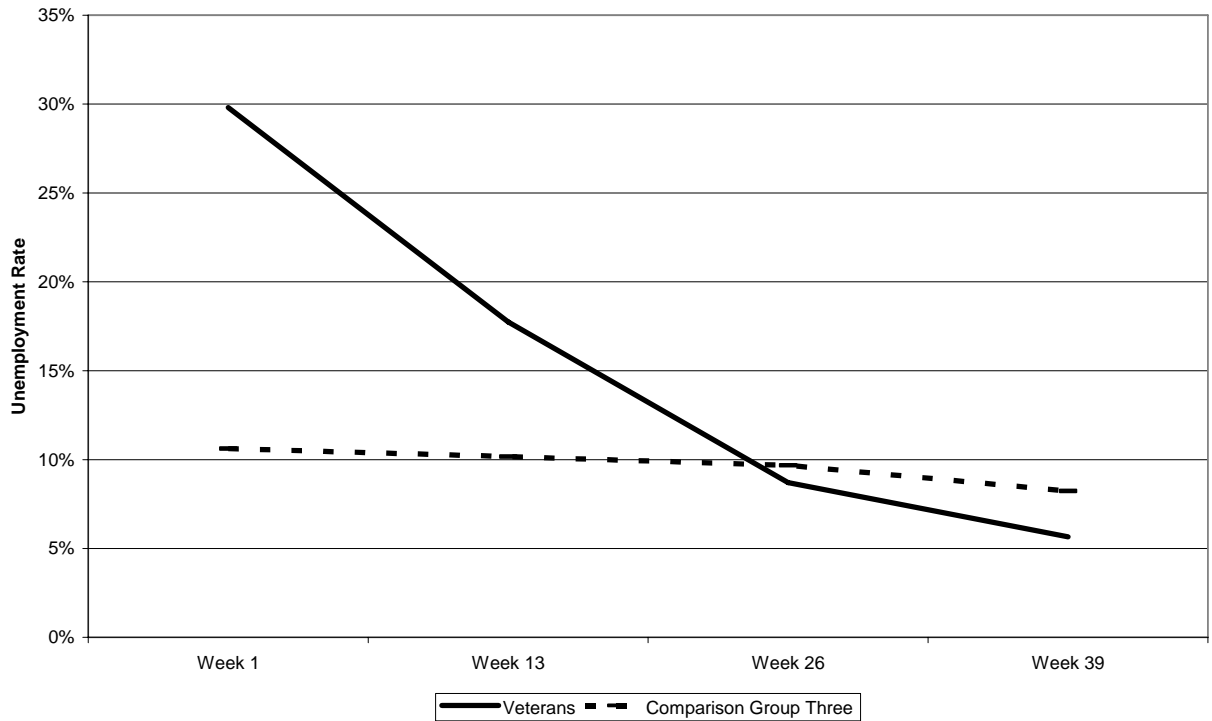
¹⁰ See Table 1 in appendix 3

¹¹ See appendix 3 for details

¹² Again, see appendix 3

examined in the subsequent section, this results from the fact that civilians of this group are significantly more likely to be out of the labor force than are their veteran counterparts.

Figure 2b: Unemployment Rate of Veterans and Comparison Group Three



The finding that all of these civilian comparison groups are more likely than veterans to be out of the labor force is very likely due to that fact that many civilian youth are still in the educational system. The following section examines whether this and other apparent differences in labor market outcomes between veterans and their civilian counterparts are statistically significant, once we control for factors likely to affect their labor market participation.

4. Labor Market Dynamics

The most appropriate way to compare the labor market outcomes of discharged veterans with those of the different comparison groups is to use straightforward regression techniques, but give more weight to those civilian respondents that are most similar to the veterans to whom they are

being compared. Conceptually, the approach involves controlling for factors that might affect both employability and military status, such as age, race, ethnicity, sex, residence (both county and urban/rural), ability (as measured by AFQT scores), parental education, household structure, and income level¹³.

The complexity of the analysis means that there are at least two different ways of looking at the results. The first of these is to compare labor market outcomes for each comparison group over time. This approach provides an insight into how different veterans' labor market experiences are relative to their civilian counterparts, as well the relationship across outcomes. The second is to examine the differences in each set of outcomes across comparison groups over time. This approach demonstrates the importance of the choice of the comparison group in describing the relative experience of veterans. We take each of these approaches in turn in what follows.

a). Comparison of labor market outcomes for each comparison group

The first set of comparisons is graphically represented in Figure 3. This summarizes the differences in the outcomes of discharged veterans relative to the baseline of civilian comparison Group 1. In other words, the baseline in this figure is the outcome in each period of individuals who have just completed their longest spell of employment (and who are by definition, unemployed). The bars above the 0% line indicate that veterans are more likely than the comparison group to have a particular outcome. Bars below the line indicate that veterans are less likely than those of the comparison group to have that outcome. At the baseline, represented by the x axis, or 0%, there would be no difference between the two groups in a particular

¹³ The technical details are provided in the appendix, as well as the full set of regression results.

outcome. It is important to note that in this section of the report the analysis controls for variations in the observable characteristics of individuals in the groups¹⁴.

Figure 3 highlights the differences between veterans and civilian comparison Group 1 in three separate sets of outcomes – the proportion employed, the proportion unemployed and the proportion out of the labor force – for each of the four points in time.

The first set of bars in the graphical depiction shows that, not surprisingly, in week 1, controlling for other factors that might contribute to an individual's employment status, the fact that they were a discharged veteran meant that they were 52% more likely to be employed than individuals in this comparison group (who are, by definition, unemployed in week 0); by week 39 the impact of being a military veteran has dropped but is still significantly higher, at 15%. Looking at the second set of bars, controlling for factors that affect an individual's likelihood of being unemployed, the fact that an individual had been discharged from the military resulted in an individual being 13% less likely to be unemployed in week 1 than an individual in comparison group 1. This likelihood drops to 6% less likely to be unemployed in week 39. The third set of bars show that the veterans are also much less likely to be out of the labor force (whether this be in education, or simply not participating), and that the lower likelihood drops from 39% less likely in week 1 to 10% less likely by week 39¹⁵.

¹⁴ It is worth noting that comparison Group 1 might be most comparable to veterans of regular military service, who are also looking for a job de novo, as opposed to guard and reservists who often have a job to which to return. This possibility is further investigated later in this report.

¹⁵ Note that significance levels are not visually apparent from the graph, but are reported in the relevant appendix table.

Figure 3:
Labor Market Outcomes of Discharged Veterans Relative to Comparison Group 1

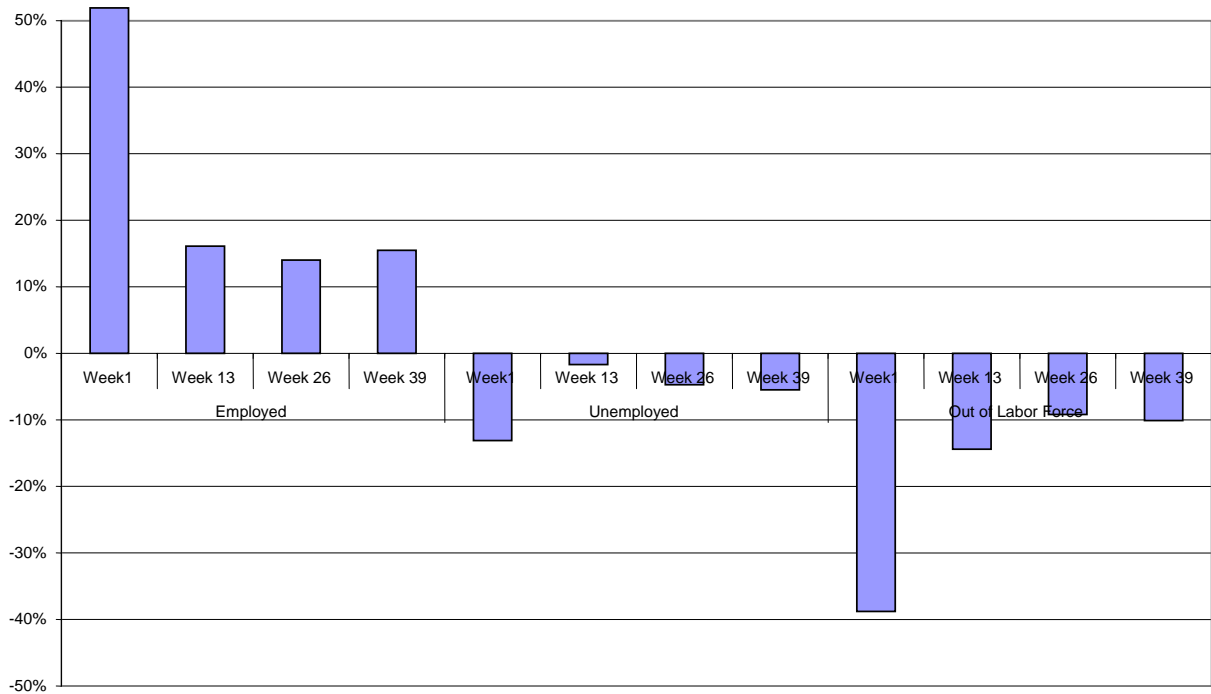
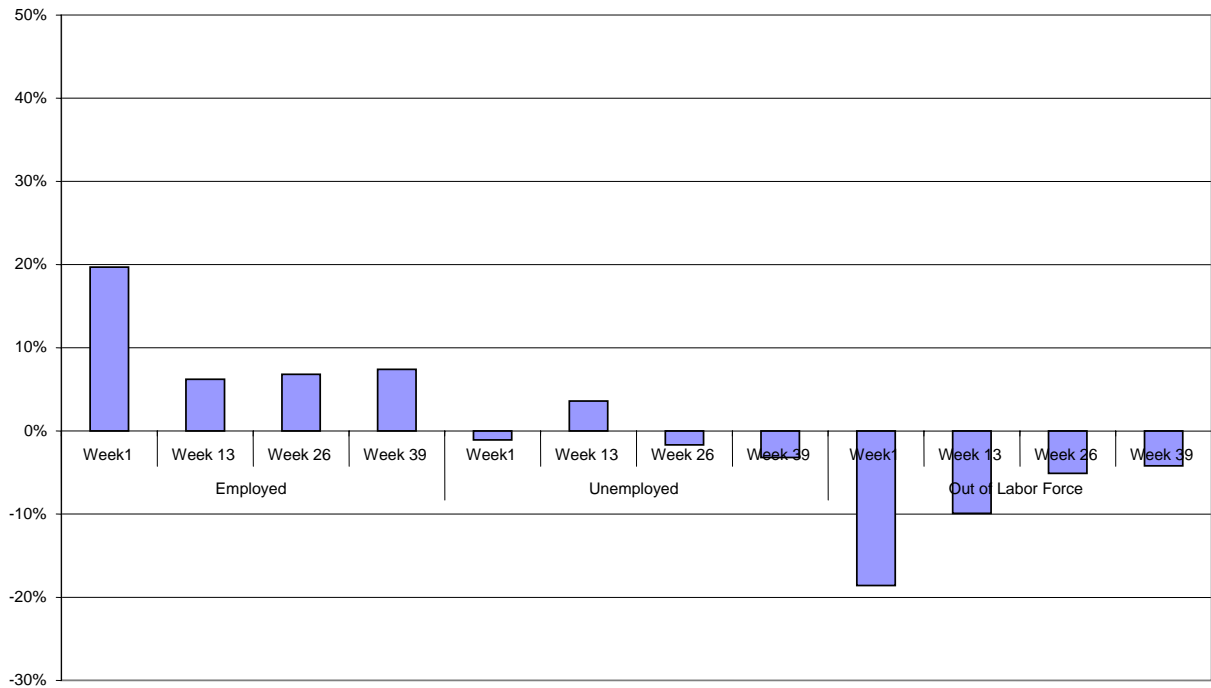


Figure 4 compares veterans' outcomes with those who have ended their employment with their longest-term employer. This group, obviously, can have transitioned to unemployment, out of the labor force, or to another employer by week 1. In other words, the baseline in this figure is the outcome in each period of individuals who have just completed their longest spell of employment with any one employer. Just as before, the baseline, which would represent a situation in which there was no difference between the two groups in a particular outcome, is represented by the x axis, or 0%.

The first set of bars in the graphical depiction shows that in week 1, controlling for all other factors that affect their employability, discharged veterans are 20% more likely to be employed than their civilian counterparts; by week 39 their likelihood of being employed is just 7% higher than the comparison group. Looking at the second set of bars, veterans are no

less likely to be unemployed in week 1, and the differences in unemployment are insignificant across all weeks. Finally, the third set of bars show that the veterans are significantly less likely to be out of the labor force in weeks 1 and 13, but that the difference is no longer significant by weeks 26 and 39.

**Figure 4:
Differences in Labor Market Outcomes Relative to Comparison Group 2**



The last set of comparisons is to compare the outcomes of discharged veterans with a randomly selected civilian group in the 39 weeks following week 5, 2004. We do not illustrate this comparison in a graph, because after controlling for many factors, we found only 1 difference in the outcomes of these point-in-time groups over the 39 week period of analysis. Discharged veterans were more likely to be unemployed in week 39 – differences were not statistically significant in any other week. There was no significant difference in the

likelihood of being employed or out of the labor force between the two groups in any of weeks 1 through 39.

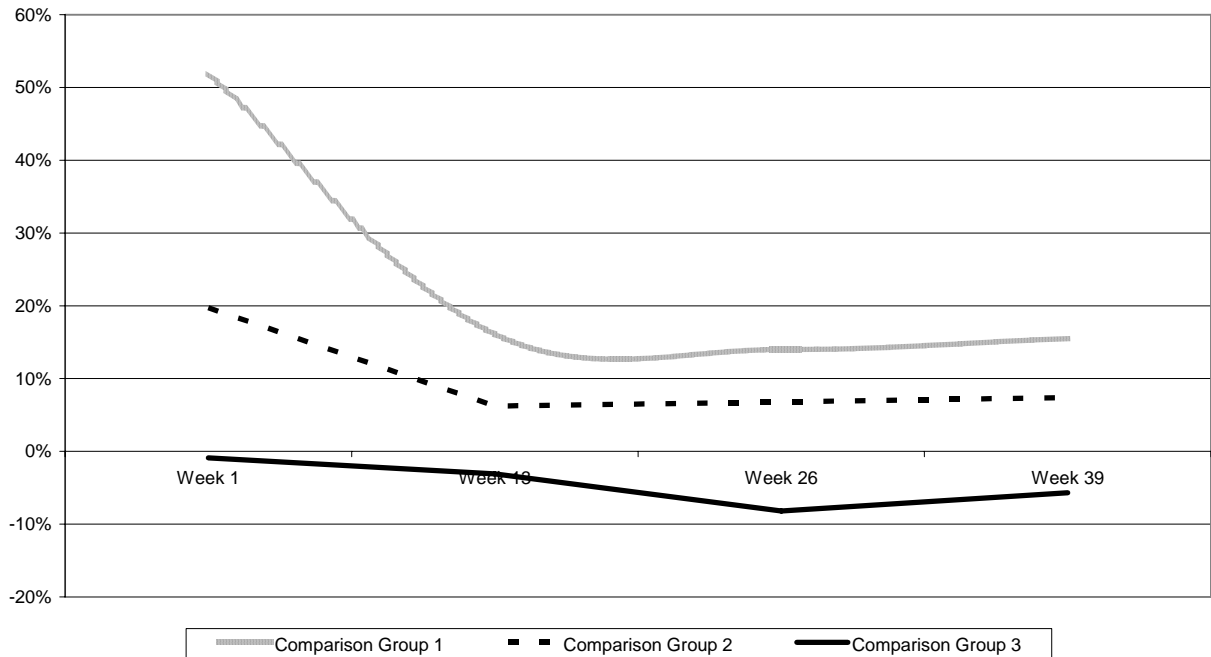
In sum, when we hold constant factors such as gender, ability, income and receipt of unemployment compensation benefits, we find that veterans do better than their civilian counterparts that have similarly undergone a significant labor market transition, in that they are more likely to be employed, and less likely to be either unemployed or out of the labor force. Furthermore, the labor market outcomes of veterans do not differ significantly from those of a random sample of civilians, many of whom have had no recent disruption in employment. In the following subsection, we will illustrate this finding outcome-by-outcome across all three civilian comparison groups.

b) Comparing Sets of Outcomes across Comparison Groups

The previous analyses described differences, controlling for certain characteristics, in labor market outcomes one comparison group at a time. We will now report the same set of results albeit present them in a different way. This approach highlights two of the interesting findings from this research: the importance of the comparison group as a reference point, and the attenuation of differences over time. The 0% x-axis in figures 5 – 7 represents the point at which veterans' outcomes are the same as those of the relevant comparison group.

Figure 5 shows how much veterans' likelihood of employment differs from that of each of the three civilian comparison groups.

Figure 5
Likelihood of Veterans Having a Job:
Compared to Each Group



As is clear from examining the graph, veterans are more likely to be employed in each of weeks 1, 13, 26 and 39 than are civilians in comparison Groups 1 and 2. Discharged veterans appear slightly less likely to be employed than a randomly selected subset of civilians, but these differences are not statistically significant. The veterans are 52% more likely to be employed in the first week after exit from employment than are civilians whose their longest spell of continuous employment has ended (Group 1). They are about 20% more likely than those civilians who have simply left their longest-term with a single employer (Group 2): as noted before, some of these civilians will have gone directly to another employer. In all cases the probabilities trend to little difference across groups in the later weeks.

The differences across comparison groups in terms of unemployment probabilities are highlighted in Figure 6. Veterans are significantly less likely to be unemployed in weeks 1

and 39 relative to individuals in comparison Group 1, who are, by definition, unemployed in week 1. They are not significantly more or less likely to be unemployed than civilians in comparison groups 2 and 3, with the exception of week 39 for comparison Group 3.

Figure 6:
Likelihood of Veterans' Being Unemployed:
Compared to Each Group

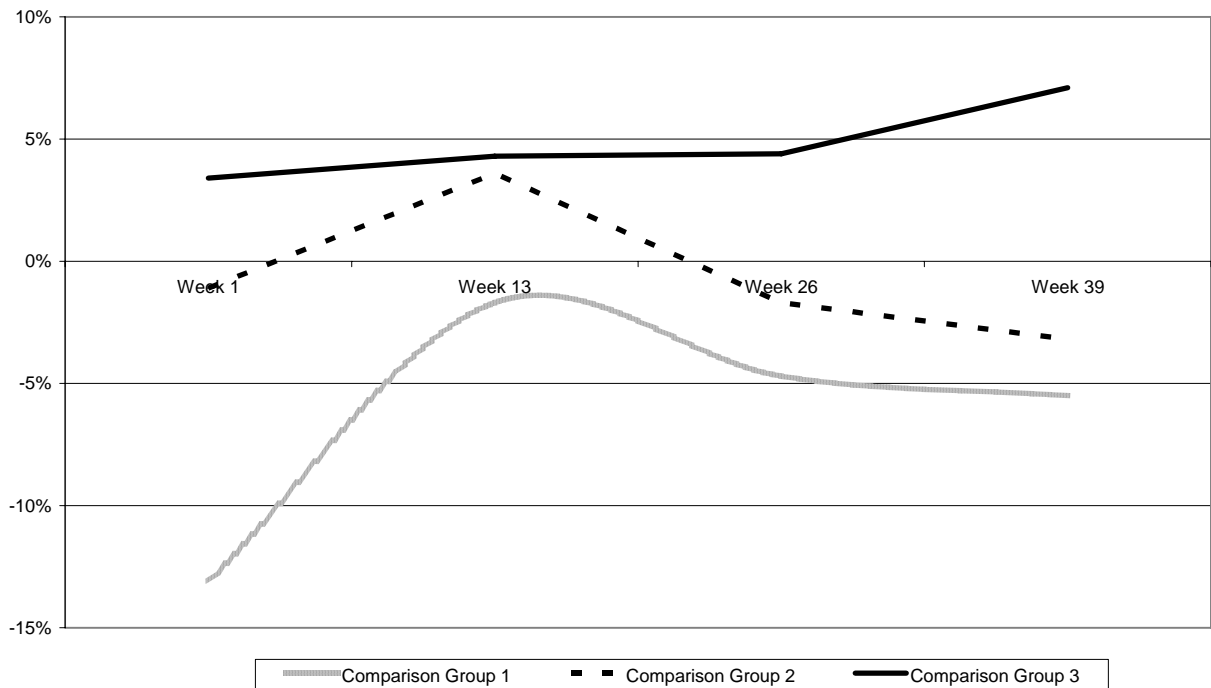
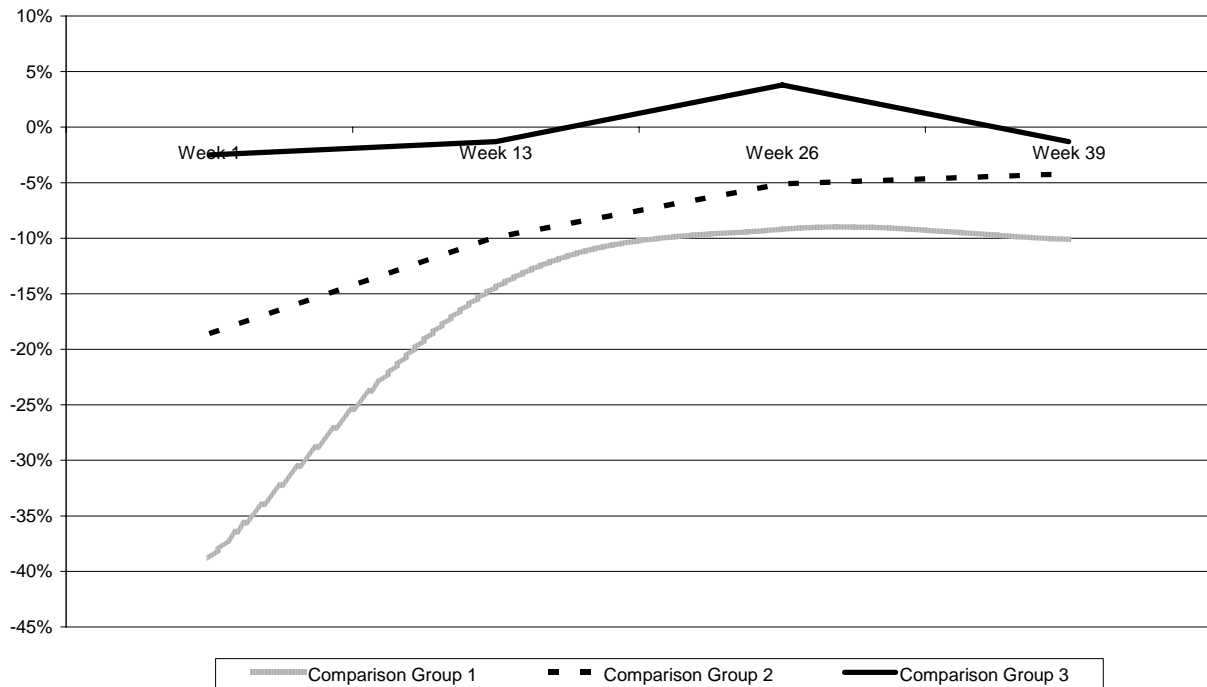


Figure 7 illustrates the final comparison of outcomes across groups. It shows the differences in the Out of the Labor Force status of veterans relative to each of the three comparison groups. Veterans are significantly less likely to be out of the labor force in all weeks than civilians in comparison Group 1, and in weeks 1 and 13 relative to comparison Group 2. The difference becomes insignificant by week 39 for the latter group. There is no discernable difference relative to Group 3.

**Figure 7:
Likelihood of Veterans Being Out of the Labor Force
Compared to Each Group**



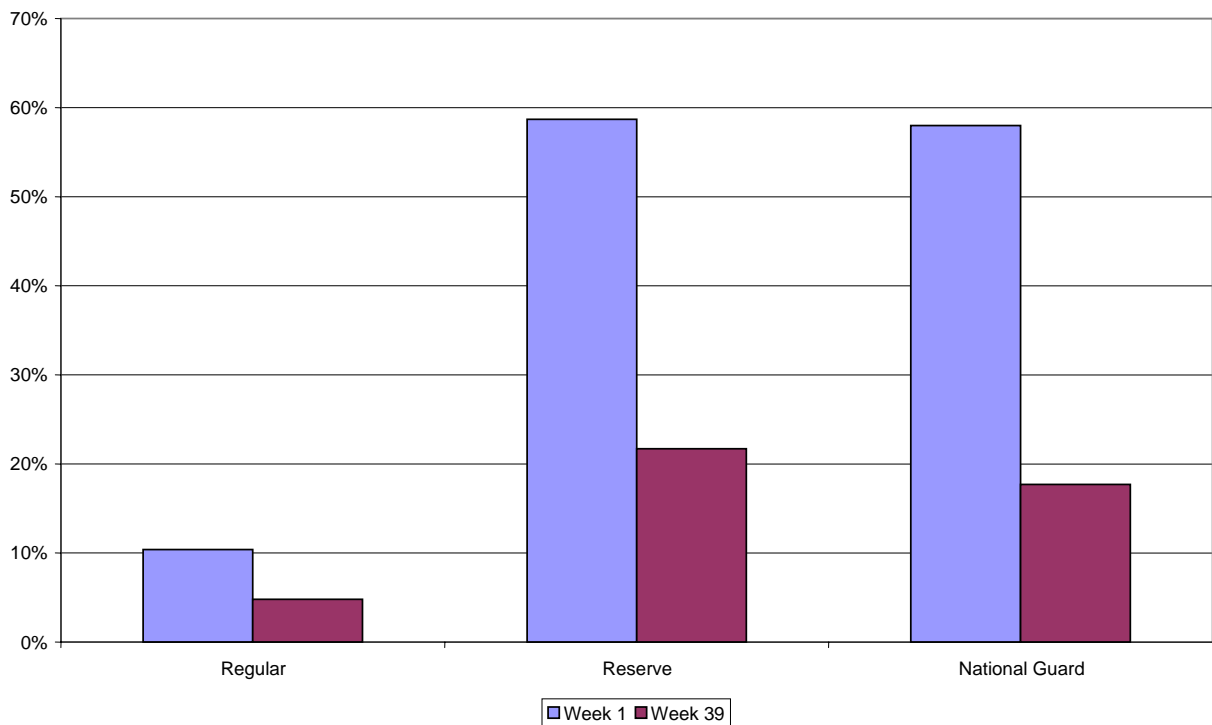
5. Differences by Type of Service

As mentioned in the previous section, we were able to control for type of service: most importantly whether a veteran’s service was in the regular military or in the Reserve or National Guard.

The relative employment results are consistent across comparison groups, so for ease of exposition we display only the comparison to Group 2 in Figure 8. This shows that although all discharged veterans fare better in terms of employment than this group of civilian counterparts, the group that fares the best are the Reserves; the next best the National Guard, and the regular military veterans fare the least well. This is not surprising, since National Guard and Reservists are much more likely to have left an existing job for military service, which is not the case for

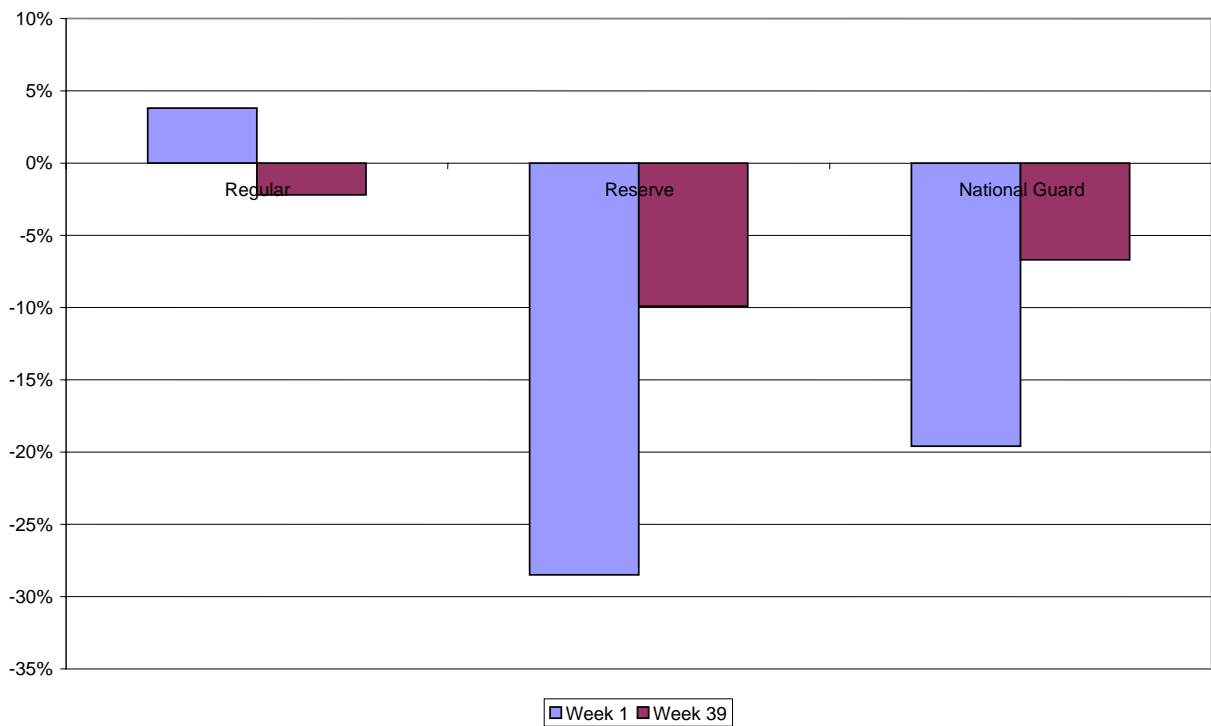
regular services personnel. However, the graph also makes it clear that in all three cases, the differences in employment probabilities relative to their civilian counterparts are reduced by week 39. In fact, the differences in employment probabilities in week 39 are only statistically significant in the case of the Reserves.

Figure 8: Differences in Employment Probabilities by Type of Service (Veterans Compared to Group 2)



A similar pattern is clear when we examine unemployment probabilities (shown graphically in Figure 9). The Reserve/National Guard are significantly less likely to be unemployed in weeks 1 through 39; there is no significant difference between the regular army veterans and the civilians in Group 2, who have all left a long term employer.

**Figure 9: Differences in Unemployment Probabilities by Type of Service
(Veterans Compared to Group 2)**



The differences in the likelihood of separated Reservists, regular military and National Guard troops being out of the labor force relative to civilians in comparison Group 2 are typically not statistically significant, and so we do not show them in a graph. We again find that the veterans are less likely to be out of the labor force than are the civilians. The strongest differences are for Reservists and National Guard in week 1. By week 39 there is no statistically significant difference between Group 2 civilians and any of the service categories.

6. Impact of Unemployment Compensation Benefits

The regression analysis used in this report controlled for a variety of characteristics, such as race, gender, and ability, that might impact labor market outcomes for veterans and civilians alike. One factor that was held constant was the receipt of unemployment compensation

benefits. An important factor to consider when comparing the employment outcomes of newly discharged veterans to civilians who have changed jobs is that ex-service persons are most likely eligible for unemployment compensation for ex-service members (UCX) for the first 26 weeks after discharge. Civilians, on the other hand, might not meet the eligibility requirements for unemployment compensation (UC). Indeed, about 10% of veterans in our sample received some type of unemployment compensation, compared with about 3% of their civilian counterparts¹⁶.

We examined the impact of the receipt of unemployment compensation on the likelihood of both veterans and Group 2 civilians being employed, unemployed or out of the labor force. The results of this analysis are shown in Table 5. This shows, not surprisingly, that civilians and former service members who received unemployment compensation after leaving a long-term employer or leaving the military, respectively, were significantly less likely to be employed -- at least in weeks 13 and 26. Those who received unemployment compensation benefits were 24% less likely to be employed in week 13, and 23% less likely to be employed in week 26, than those who did not collect benefits. By week 39, by which time the benefits are likely to have expired, the effect is not significant¹⁷. It is worth noting, however, that this outcome may reflect productive search, or productive investment in education¹⁸. In other words, those who collect unemployment compensation benefits might be taking some extra time to be more selective in finding the right job, or to improve their skills, in order to make themselves more attractive to employers.

¹⁶ The reverse proportions are true for food stamp receipt.

¹⁷ Note that the direction and order of magnitude of the estimates for week 39 are consistent with a priori expectations (i.e. individuals receiving unemployment compensation are more likely to be unemployed and out of the labor force), but the sample size is too small to provide precise enough estimates to statistically differentiate the results from zero.

¹⁸ Since we are working with Rounds 1-8 of the NLSY, there is not yet sufficient information on veterans' educational activities post exit to examine this question. As additional rounds of the survey continue, the sample size and amount of follow on information will increase.

	Week 1	Week 13	Week 26	Week 39
Employed	-14.1% *	-23.7% *	-23.4% *	-16.4%
Unemployed	4.9%	8.7%	11.2%	5.3%
Out of Labor Force	9.2%	15.0%	12.3%	11.1%
* statistically significant at 90% confidence level				

7. Examining Earnings Outcomes

The previous sections showed that, by and large, military service had a positive effect on employment outcomes. Former military members are more likely to be employed, less likely to be unemployed, and less likely to be out of the labor force than are their civilian counterparts. It is equally interesting to examine the quality of the jobs that they get once they become employed. Of course, one of the best measures of job quality is the earnings associated with the job. As a result, we examined the impact of military service on earnings in 2003¹⁹ in the same way as we examined the impact on employment and unemployment: by means of regression analysis with a rich set of control variables.

Our analysis reveals that veterans earn more than civilians who have similarly undergone a labor market transition. The results reported in Table 6 show that, everything else equal, veterans earn some \$4,100 more than do civilians in comparison Group 1, \$4,100 more than those in comparison Group 2, and not significantly more than the randomly selected comparison group. Although National Guardsmen appear to make substantially more than all the civilian groups, this is not statistically significant. However, both regular military and Reservists make between \$3,000 and \$5,000 more a year than comparison Groups 1 and 2; and this premium remains significant for the reservists when compared with Group 3.

¹⁹ The regressions were estimated for all civilians employed in 2003, and for discharged veterans who had civilian earnings in 2003. The dependent variable is annual earnings.

Table 6: Veterans' Annualized Earnings Premia relative to Comparison Groups			
	Group 1	Group 2	Group 3
Overall	\$4,104*	\$4,154*	\$1,234
- Regular	\$4,173*	\$4,220*	-\$39
- Reserve	\$3,607*	\$3,737*	\$3,634*
- National Guard	\$6,113	\$6,162	\$10,690
* statistically significant at 90% confidence level			

8. Summary

Understanding what happens to veterans after they are discharged from the military is of great policy importance. But since both individual labor market histories and current conditions have an enormous impact on outcomes, a simple comparison of age adjusted employment and unemployment rates provides insufficient information to make such important policy judgements. This report provides a context within which veterans' outcomes can be interpreted. We do this by examining the labor market dynamics of discharged veterans in relation to those of three civilian comparison groups.

Common sense dictates that two important factors need to be controlled for before informed decisions can be made. First, we need to adjust for the disruption in labor market experience that military veterans have experienced. We attempted to mirror the disruption associated with leaving the military with two alternative civilian comparison groups. Comparison Group 1 consists of respondents who had recently become unemployed. Comparison Group 2 is made up of civilian respondents who, similar to those who exited the military, had left a job that was held for a substantial period of time.

Secondly, the economic environment needs to be considered. It is easier to get jobs in some periods than in others. So we compare the labor market outcomes of veterans with those of a third group of individuals, namely a random sample of civilians taken at a particular date.

We find that recently discharged young veterans are more likely to be employed than their civilian counterparts. They are also less likely to be out of the labor force in general. We also find that these results hold, but vary in degree, between veterans of the regular military or those who separated from the National Guard or Reserve. By and large, outcomes are better for those who were in Guard or Reserves.

We find that the effect of unemployment compensation benefits is to reduce the likelihood of employment, and increase the likelihood of being out of the labor force for both veterans and civilians – at least in the 13th and 26th weeks after separating from the military or leaving an long-term employer. We also find that veterans’ earnings are substantially greater than those of all the civilian groups with which they were compared.

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Appendix 1: Approach used for the matching procedure

The analysis followed standard techniques for comparing outcomes for one group (a “treatment” group – in this case, military service) with a “control” group – in this case, civilian respondents. We created an appropriate comparison group by creating propensity scores for being in the military and predicted probabilities for each respondent in the survey of being in the military. For each outcome of interest we dropped controls (i.e. civilians) and of necessity their associated treatment group members (i.e. veterans) who had a predicted probability less than 0.001 (or 1 in a 1000). We then assigned weights to treatment and control group members as follows:

Treatment Group Weight = the 1997 survey weight from the NLS survey

Control Group Weight = 1997 weight*(predicted probability/(1- predicted probability))

This strategy routinely gave us more comparison group members at every percentile of the propensity score than veterans. Most importantly, at the highest observed values of the propensity score there were at least as many control group members (civilians) as treatment group members (veterans). At lower values there were frequently twice as many. This is important because it ensures that there are corresponding members of the comparison group at all points of the distribution, so that all veterans are being compared to someone similar to them.

We then ran regressions of the outcome of interest on the military status dummy variable using these weights (for the statistical justification, see Appendix 2). Each regression included all the controls included in the probit used to estimate the propensity score. The estimated coefficient on the military status dummy was our estimate of the effect of military service on each of the outcomes.

Appendix 2: Description of Weight Creation

First, consider the model:

$$y = \alpha + \gamma D + \varepsilon$$

where D is an indicator variable for military service and y is the outcome. The parameter γ is the coefficient of interest. The literature considers three parameters of interest: the average of treatment effect or Δ_{ATE} , the average impact of treatment on the treated or Δ_{TT} , and the average impact of treatment on the nontreated or Δ_{TN} . We let $p(x^j)$ be the propensity score at $x = x^j$, where x is our vector of covariates. The weights that allow γ to estimate the various Δ 's are given in Table A1 under the assumption that we have a probability sample of the relevant population. For this project, we are concerned with the performance of those in the military so we wish to focus the parameter Δ_{TT} . In this case, we weight observations in the comparison group with the weight $\frac{p(x^j)}{[1-p(x^j)]}$. The role of these weights in the regression is to ensure that the distribution of covariates in the comparison group is identical to the distribution of covariates in the treatment group. This means, of course, that our covariates are statistically independent to our indicator for military service, D .

Now, when one has covariates that are statistically independent of the military indicator, they do not need to be entered into the regression, since they will have no effect on the estimate of γ . (They might be entered into the regression to reduce residual variance, but that will be discussed later.)

This is a remarkable result, and it is a bit difficult to explain in general. If we let the covariates be discrete, we can make the intuition a bit easier. Thus, assume the data are discrete so that the data forms cells and there will be a p_j associated with each cell that tells us the

fraction of individuals within the cells that are in the military. The least squares objective function is:

$$L = \sum_{i=1}^N \left(\frac{1}{N_{tot,w}} w_i (y - \alpha - \gamma D) \right)^2$$

where w_i is the weight and $N_{tot,w}$ is the sum of the weights. Some algebra shows that

$$\gamma_W^{OLS} = \bar{Y}_{1,w} - \bar{Y}_{0,w}$$

where $\bar{Y}_{D,w}$ is the weighted mean conditional on whether the respondent was in the military or not. This may be rewritten as:

$$\gamma_W^{OLS} = \frac{1}{N_{tot,w}} \sum_{\forall p_j} \sum_{\forall i:p(x)=p_j} (w_{j,D=1} D_i Y_{1,i} - w_{j,D=0} (1 - D_i) Y_{0,i})$$

where i indexes the individual, or

$$\gamma_W^{OLS} = \frac{1}{N_{tot,w}} \sum_{\forall p_j} (w_{j,D=1} n_{j,D=1} \bar{Y}_{1,j} - w_{j,D=0} n_{j,D=0} \bar{Y}_{0,j})$$

For Δ_{TT} , the weights are $w_{j,D=1} = 1$ and $w_{j,D=0} = \frac{n_{j,D=1}}{n_{j,D=0}}$ and $N_{tot,w} = \sum_{\forall p_j} n_{j,D=1}$ so we may write:

$$\gamma_W^{OLS} = \frac{1}{\sum_{\forall p_j} n_{j,D=1}} \sum_{\forall p_j} (n_{j,D=1}) (\bar{Y}_{1,j} - \bar{Y}_{0,j})$$

where the subscript j indexes the data cell. For a particular cell, we simply compare $(\bar{Y}_{1,j} - \bar{Y}_{0,j})$

the outcomes of those in the military with the comparison group. To obtain the average impact

of treatment, we then weight each cell by its relative size among the military sample $\frac{(n_{j,D=1})}{\sum_{\forall p_j} n_{j,D=1}}$.

Because the estimator compares only people with identical values of the covariates, the covariates have no impact on the estimation.

Of course, with continuous data, we cannot formally express the estimator as a simple difference of means but the intuition still holds: we have made the covariates independent of the indicator for military service so we are assured they do not confound our estimation.

There are three other important differences in our estimation than the simple model we have outlined here. First, the NLSY is not a probability sample, but it is stratified and hence the data need to be weighted to obtain population estimates. Let w_i^{NLSY} be the weights from the NLSY. All we need to do to is to multiply our current weights by the NLSY weights to reflect the sampling strategy of the NLSY. (For instance, the NLSY oversamples African Americans and Hispanics so the failure to use these weights would mean the estimates have too many African Americans and Hispanics to reflect the actual population of the US.)

Second, we do not have the true value of the propensity score $p(x)$, but rather we have an estimate of the propensity score $\hat{p}(x)$. Interestingly, Hirano, Imbens, and Ridder (2003) show that the use of the estimated propensity score $\hat{p}(x)$ actually achieves the efficiency bounds while the true propensity score $p(x)$ does not. Thus, even if we had the true propensity score $p(x)$, we would improve our estimator by using the estimated propensity score $\hat{p}(x)$.

Finally, because we are interested in reducing the residual variation to improve the power of our statistical tests, we do not estimate the model

$$y = \alpha + \gamma D + \varepsilon$$

but estimate the more standard looking regression model

$$y = x\beta + \gamma D + \varepsilon .$$

Because the covariates x are independent of the military indicator D by construction, we do not have to worry whether we have specified the regression model correctly. All we wish to do by

including our covariates is to reduce the variance of our regression error and make our various hypotheses tests more powerful.

Table A1:
Weights for Nonparametric Estimates of Evaluation Parameters when Data are a Probability Sample

Parameter	Weights for treated	Weights for nontreated
Δ_{ATE}	$\frac{1}{p(x^j)}$	$\frac{1}{[1-p(x^j)]}$
Δ_{TT}	1	$\frac{p(x^j)}{[1-p(x^j)]}$
Δ_{TN}	$\frac{[1-p(x^j)]}{p(x^j)}$	1

Appendix 3: Summary Information

Table 1: Table of Summary Statistics for Veterans and Comparison Groups

	Veteran Group			Comparison Group 1			Comparison Group 2		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
Employed or not?									
Week 1	51.1%	0.502	152	0.1%	0.024	4,831	27.9%	0.448	5,839
Week 13	68.6%	0.466	137	46.5%	0.499	4,618	53.9%	0.499	5,514
Week 26	73.5%	0.443	122	53.7%	0.499	4,258	57.5%	0.494	5,030
Week 39	75.2%	0.434	114	54.7%	0.498	3,914	57.5%	0.494	4,640
Unemployed or not?									
Week 1	21.7%	0.414	152	25.0%	0.433	4,831	15.3%	0.36	5,839
Week 13	14.8%	0.357	137	14.6%	0.353	4,618	10.9%	0.311	5,514
Week 26	7.0%	0.257	122	11.2%	0.315	4,258	9.6%	0.295	5,030
Week 39	4.5%	0.208	114	10.3%	0.304	3,914	9.1%	0.288	4,640
Out of Labor Force or not?									
Week 1	27.2%	0.447	152	74.9%	0.434	4,831	56.8%	0.495	5,839
Week 13	16.6%	0.374	137	38.9%	0.488	4,618	35.2%	0.478	5,514
Week 26	19.4%	0.397	122	35.1%	0.477	4,258	32.9%	0.47	5,030
Week 39	20.3%	0.404	114	35.0%	0.477	3,914	33.4%	0.472	4,640
Program Participation									
Food Stamps	2.8%	0.166	152	9.1%	0.288	4,567	8.5%	0.278	5,338
Unemployment Insurance	10.0%	0.3	152	3.4%	0.181	4,567	2.8%	0.166	5,338
Branch of Military									
Regular ^a	81.4%	0.39	156	0.0%	0.02	5,031	0.1%	0.024	6,015
Reserve ^b	5.7%	0.232	156	0.1%	0.023	5,031	0.1%	0.023	6,015
Guard ^c	12.6%	0.333	156	0.1%	0.023	5,031	0.0%	0.021	6,015
Demographic Characteristics									
Male	80.6%	0.397	156	48.0%	0.5	5,031	48.9%	0.5	6,015
Married	28.1%	0.451	156	11.7%	0.322	5,031	11.2%	0.316	6,015
Urban	67.4%	0.47	156	69.4%	0.461	5,031	69.4%	0.461	6,015
Black	15.7%	0.365	156	15.8%	0.365	5,031	16.2%	0.369	6,015
Hispanic	16.1%	0.369	156	12.3%	0.329	5,031	12.6%	0.332	6,015
Mixed-Race	0.8%	0.089	156	1.4%	0.119	5,031	1.4%	0.118	6,015
Non-Black/Non-Hispanic	67.4%	0.47	156	70.4%	0.457	5,031	69.8%	0.459	6,015
Age	22.318	1.262	156	21.456	1.487	5,031	21.465	1.474	6,015

Table 1 (contd): Table of Summary Statistics for Veterans and Comparison Groups

	Veteran Group			Comparison Group 1			Comparison Group 2		
Educational Characteristics									
AFQT Score	42.243	30.292	156	41.47	32.957	5,031	40.293	32.976	6,015
Mother's Education	12.327	3.218	156	11.938	4.331	5,031	11.892	4.335	6,015
Earnings and Income									
Earnings	20,520	12,389	127	11,359	10,528	3,292	12,128	10,992	3,801
Poverty (NAS measure)	11.8%	0.324	156	20.8%	0.406	5,031	20.7%	0.405	6,015
Household Size	4.389	1.408	156	4.46	1.445	5,031	4.468	1.464	6,015
Family Income (NAS measure)	29,025	21,192	156	30,108	27,782	5,031	29,649	27,316	6,015
Dummies for Missing Values									
AFQT missing	20.4%	0.404	156	18.3%	0.386	5,031	19.6%	0.397	6,015
Married missing	7.7%	0.267	156	13.4%	0.341	5,031	15.9%	0.365	6,015
Urban missing	3.3%	0.179	156	4.5%	0.207	5,031	4.4%	0.206	6,015
Mother's Education missing	3.5%	0.185	156	7.4%	0.263	5,031	7.6%	0.265	6,015
Poverty missing	15.8%	0.366	156	14.9%	0.356	5,031	15.6%	0.363	6,015
Family Income missing	15.8%	0.366	156	16.2%	0.368	5,031	16.8%	0.374	6,015

Table 1 (contd) Summary Statistics for Veterans and Comparison Groups

	Veteran Group			Comparison Group 3		
	Mean	SD	N	Mean	SD	N
Employed or not?						
Week 1	75.3%	0.433	104	69.1%	0.462	7,276
Week 13	77.5%	0.42	97	71.8%	0.45	7,119
Week 26	75.3%	0.433	97	75.0%	0.433	7,073
Week 39	73.9%	0.441	97	73.0%	0.444	7,030
Unemployed or not?						
Week 1	9.6%	0.295	104	7.2%	0.259	7,276
Week 13	9.3%	0.292	97	6.8%	0.252	7,119
Week 26	8.4%	0.279	97	6.6%	0.247	7,073
Week 39	13.1%	0.339	97	5.6%	0.229	7,030
Out of Labor Force or not?						
Week 1	15.2%	0.36	104	23.6%	0.425	7,276
Week 13	13.2%	0.34	97	21.4%	0.41	7,119
Week 26	16.2%	0.371	97	18.5%	0.388	7,073
Week 39	13.0%	0.338	97	21.4%	0.41	7,030
Program Participation						
Food Stamps	4.0%	0.198	104	7.4%	0.263	7,308
Unemployment Insurance	9.6%	0.296	104	2.5%	0.155	7,308
Branch of Military						
Regular ^a	84.3%	0.365	104	0.1%	0.025	7,309
Reserve ^b	5.4%	0.228	104	0.0%	0.016	7,309
Guard ^c	10.2%	0.305	104	0.0%	0.019	7,309
Demographic Characteristics						
Male	79.7%	0.404	104	49.0%	0.5	7,309
Married	26.6%	0.444	104	12.7%	0.333	7,309
Urban	63.3%	0.484	104	69.0%	0.463	7,309
Black	13.2%	0.34	104	15.8%	0.365	7,309
Hispanic	13.2%	0.34	104	12.9%	0.336	7,309
Mixed-Race	1.2%	0.108	104	1.3%	0.114	7,309
Non-Black/Non-Hispanic	72.5%	0.449	104	70.0%	0.458	7,309
Age	22.507	1.177	104	21.423	1.5	7,309
Educational Characteristics						
AFQT Score	44.544	29.447	104	41.941	32.931	7,309
Mother's Education	12.199	3.262	104	12.011	4.243	7,309
Financial Characteristics						
Earnings	20,126	13,463	82	13,504	12,155	5,527
Poverty (NAS measure)	10.5%	0.309	104	20.6%	0.404	7,309
Household Size	4.461	1.476	104	4.474	1.464	7,309
Family Income (NAS measure)	29,196	21,599	104	30,161	27,326	7,309
Dummies for Missing Values						
AFQT missing	17.8%	0.384	104	17.6%	0.381	7,309
Married missing	6.2%	0.242	104	2.7%	0.163	7,309
Urban missing	1.4%	0.118	104	4.3%	0.202	7,309
Mother's Education missing	3.7%	0.191	104	6.9%	0.254	7,309
Poverty missing	17.9%	0.385	104	14.5%	0.352	7,309
Family Income missing	17.9%	0.385	104	15.8%	0.364	7,309

Note that the measure of income that is used in the regressions is not the standard income measure, but is derived from the National Academy of Sciences/National Research Council's (NAS/NRC) approach. The reason for using the NRC measure is described as follows.

“The two concepts of poverty, the official measure and the NRC Panel's measure, are quite distinct: both the poverty thresholds and the measures of income differ. While the weighted mean poverty threshold is about \$16,800 for both measures, the official poverty threshold has a smaller variance. The measures of income differ much more: the official poverty measure uses before-tax family money income and its mean and standard deviation are \$52,337 and \$50,024, while the NRC Panel's poverty measure uses after-tax and transfer family income, adjusted for costs of child care, work-related expenses and medical expenses, and its comparable mean and standard deviation are \$38,146 and \$34,305.

The prevalence of poverty as measured by these two concepts differs as well. By the official poverty measure, 17.9 percent of the youths in the NLSY97 lived in impoverished families in 1996, whereas by the NRC poverty measure, 23.4 percent of the youths did so. The higher rate of poverty in the NRC measure is partly attributable to the higher poverty threshold suggested by the NRC Panel. More important, the ranking of the youth's family's income and the ranking of poverty status are very different in the two measures. For the bottom 20 percent of the youths, for example, the two measures of income are correlated only 0.65 and the two poverty ratios (income-to-needs) are correlated only 0.61. The two measures are not consistent indicators of which youths are poorer than others. This inconsistency is not limited to the bottom quintile: in the second and third quintiles the correlation of the two income measures are 0.83 and 0.85 respectively, and the correlation of the two poverty ratios are 0.60 and 0.52²⁰." pp. 746-747

²⁰ Hill, Carolyn J and Robert T Michael, 2001. Measuring Poverty in the NLSY97, *Journal of Human Resources*, Vol. 36, No.4, 727-761.

Appendix 4: Full Set of Regression Results

Table 1a: Differences in Outcomes between Veterans and Comparison Group 1

	Employed				Unemployed				Out of Labor Force			
	Week1	Week 13	Week 26	Week 39	Week1	Week 13	Week 26	Week 39	Week1	Week 13	Week 26	Week 39
Ever in Military	0.519*	0.161*	0.140*	0.155*	-0.131*	-0.017	-0.047	-0.055***	-0.388*	-0.144*	-0.092**	-0.101**
	(0.043)	(0.048)	(0.049)	(0.050)	(0.036)	(0.033)	(0.032)	(0.028)	(0.046)	(0.039)	(0.044)	(0.047)
Age	0.325	0.146	-0.070	0.246	-0.501	-0.309	-0.269	-0.407	0.177	0.162	0.339	0.161
	(0.421)	(0.534)	(0.683)	(0.630)	(0.536)	(0.561)	(0.383)	(0.322)	(0.434)	(0.396)	(0.463)	(0.493)
Age Squared	-0.009	-0.003	0.002	-0.005	0.012	0.007	0.006	0.009	-0.003	-0.004	-0.008	-0.004
	(0.010)	(0.012)	(0.015)	(0.014)	(0.012)	(0.013)	(0.009)	(0.007)	(0.010)	(0.009)	(0.011)	(0.011)
Black	-0.022	-0.065	-0.042	0.049	0.091	0.079	0.039	0.006	-0.070	-0.014	0.004	-0.056
	(0.053)	(0.062)	(0.073)	(0.069)	(0.067)	(0.055)	(0.053)	(0.025)	(0.055)	(0.046)	(0.047)	(0.066)
Hispanic	0.065	-0.001	-0.010	0.061	-0.048	-0.071	-0.034	0.012	-0.017	0.072	0.044	-0.072
	(0.053)	(0.065)	(0.057)	(0.061)	(0.057)	(0.045)	(0.024)	(0.029)	(0.053)	(0.058)	(0.053)	(0.055)
Mixed Race	0.223	(dropped)	(dropped)	(dropped)	-0.219**	(dropped)	(dropped)	(dropped)	-0.004	(dropped)	(dropped)	(dropped)
	(0.134)				(0.106)				(0.131)			
Male	0.046	0.037	0.115**	0.101***	0.087***	0.105*	0.078*	0.050**	-0.132*	-0.141*	-0.194*	-0.152**
	(0.047)	(0.051)	(0.053)	(0.060)	(0.044)	(0.024)	(0.025)	(0.024)	(0.046)	(0.047)	(0.054)	(0.065)
Married	0.028	0.109**	0.030	0.023	-0.026	-0.086**	-0.035	-0.039	-0.002	-0.023	0.005	0.016
	(0.045)	(0.054)	(0.053)	(0.053)	(0.047)	(0.034)	(0.029)	(0.025)	(0.051)	(0.046)	(0.044)	(0.049)
Urban	0.013	-0.028	0.065	0.026	-0.010	-0.032	-0.047	-0.048	-0.003	0.061	-0.018	0.022
	(0.049)	(0.064)	(0.063)	(0.063)	(0.047)	(0.048)	(0.035)	(0.034)	(0.055)	(0.044)	(0.053)	(0.054)
AFQT Score	-0.004	0.008***	0.011**	0.006	0.006***	-0.001	-0.002	0.001	-0.002	-0.006***	-0.008**	-0.007
	(0.003)	(0.004)	(0.005)	(0.005)	(0.003)	(0.004)	(0.002)	(0.002)	(0.004)	(0.003)	(0.004)	(0.005)
AFQT Score ²	0.000	-0.000**	-0.000**	-0.000	-0.000***	0.000	0.000	-0.000	0.000	0.000**	0.000*	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Mother's Education	-0.002	-0.007	-0.007	-0.007	-0.008	0.003	0.001	-0.007	0.010	0.004	0.006	0.014
	(0.008)	(0.012)	(0.011)	(0.011)	(0.008)	(0.009)	(0.008)	(0.006)	(0.011)	(0.013)	(0.009)	(0.011)
Poverty (NAS)	-0.022	-0.113	0.003	0.009	-0.081	-0.012	-0.048	-0.074	0.103	0.125***	0.045	0.065
	(0.071)	(0.077)	(0.080)	(0.091)	(0.074)	(0.056)	(0.042)	(0.048)	(0.077)	(0.069)	(0.082)	(0.099)
Household Size	-0.004	0.021	0.003	-0.009	0.010	-0.000	0.006	0.009	-0.005	-0.021	-0.009	0.000
	(0.013)	(0.015)	(0.016)	(0.017)	(0.016)	(0.012)	(0.009)	(0.010)	(0.015)	(0.014)	(0.015)	(0.016)
Family Income (NAS)	0.002***	-0.000	-0.000	0.003***	-0.001	-0.001	-0.000	-0.002**	-0.002	0.001	0.000	-0.002
	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.002)	(0.002)
Food Stamps	-0.019	-0.110	-0.136	-0.072	-0.055	0.004	0.033	-0.015	0.074	0.105	0.102	0.086
	(0.070)	(0.111)	(0.115)	(0.124)	(0.058)	(0.051)	(0.058)	(0.038)	(0.099)	(0.114)	(0.109)	(0.117)
Unemp. Insurance	-0.093	-0.230**	-0.200***	-0.138	0.066	0.141	0.113	0.042	0.028	0.090	0.087	0.096
	(0.078)	(0.099)	(0.107)	(0.115)	(0.081)	(0.090)	(0.073)	(0.067)	(0.100)	(0.096)	(0.096)	(0.106)
Constant	-2.966	-1.271	0.838	-2.452	5.423	3.582	3.120	4.604	-1.457	-1.311	-2.957	-1.152
	(4.568)	(5.881)	(7.589)	(6.950)	(5.849)	(6.252)	(4.305)	(3.607)	(4.672)	(4.267)	(5.027)	(5.307)
N	2,385	2,130	1,817	1,557	2,385	2,130	1,817	1,557	2,385	2,130	1,817	1,557
Adjusted R2	0.421	0.091	0.080	0.076	0.063	0.064	0.071	0.052	0.203	0.086	0.087	0.072

note: .01 - ***, .05 - **, .1 - *; Dummy controls included for missing variables. 1997 weights used..

Table 1b: Differences in 2003 Earnings between Veterans and Comparison Group 1

Ever in Military	4,104.424*
	(962.749)
Age	-5,454.703
	(11,737.330)
Age Squared	170.109
	(268.541)
Black	-2,631.971*
	(999.422)
Hispanic	-1,045.012
	(1,193.720)
Mixed Race	-2,895.023
	(3,146.902)
Male	2,436.129*
	(898.135)
Married	4,808.811*
	(1,350.526)
Urban	1,605.593
	(1,057.743)
AFQT Score	188.078**
	(82.844)
AFQT Score Squared	-1.872**
	(0.814)
Mother's Years of Education	-305.725
	(217.983)
Poverty according to NAS measure	-1,423.895
	(1,319.081)
Household Size	-88.144
	(279.533)
Family Income (NAS) / 1000	-40.373
	(33.322)
Food Stamps	-5,268.264*
	(1,475.162)
Unemployment Insurance	342.842
	(1,964.067)
Constant	53,362.840
	(128,347.900)
Number of observations	3,567
Adjusted R2	0.151

note: .01 - ***; .05 - **; .1 - *; Earnings are for those who were not in the military in 2003. 1997 weights used

Table 1c: Differences in Outcomes between Veterans and Comparison Group 1 – By Branch of Service

	Employed				Unemployed				Out of Labor Force			
	Week1	Week 13	Week 26	Week 39	Week1	Week 13	Week 26	Week 39	Week1	Week 13	Week 26	Week 39
Regular	0.428*	0.112**	0.104***	0.129**	-0.086**	0.004	-0.032	-0.046	-0.343*	-0.116*	-0.072	-0.083
	(0.046)	(0.050)	(0.054)	(0.055)	(0.042)	(0.035)	(0.035)	(0.030)	(0.049)	(0.042)	(0.050)	(0.051)
Reserve	0.909*	0.195	0.291*	0.315*	-0.421*	-0.001	-0.145*	-0.126*	-0.488*	-0.193*	-0.146***	-0.189**
	(0.066)	(0.156)	(0.080)	(0.092)	(0.053)	(0.156)	(0.044)	(0.034)	(0.084)	(0.072)	(0.086)	(0.089)
National Guard	0.874*	0.434*	0.292*	0.257**	-0.290*	-0.164*	-0.109*	-0.084*	-0.584*	-0.270*	-0.182**	-0.174
	(0.069)	(0.092)	(0.097)	(0.106)	(0.038)	(0.044)	(0.036)	(0.024)	(0.071)	(0.077)	(0.082)	(0.106)
Age	0.279	0.057	-0.056	0.246	-0.518	-0.259	-0.282	-0.413	0.239	0.202	0.338	0.167
	(0.417)	(0.525)	(0.645)	(0.605)	(0.524)	(0.554)	(0.371)	(0.321)	(0.452)	(0.406)	(0.447)	(0.481)
Age Squared	-0.007	-0.001	0.002	-0.005	0.012	0.006	0.006	0.009	-0.005	-0.005	-0.008	-0.004
	(0.010)	(0.012)	(0.014)	(0.014)	(0.012)	(0.012)	(0.008)	(0.007)	(0.010)	(0.009)	(0.010)	(0.011)
Black	-0.034	-0.074	-0.049	0.047	0.100	0.084	0.041	0.007	-0.066	-0.009	0.008	-0.054
	(0.047)	(0.060)	(0.070)	(0.067)	(0.065)	(0.055)	(0.053)	(0.025)	(0.055)	(0.045)	(0.047)	(0.065)
Hispanic	0.058	0.007	-0.021	0.049	-0.039	-0.078	-0.027	0.017	-0.019	0.070	0.048	-0.066
	(0.054)	(0.071)	(0.058)	(0.062)	(0.056)	(0.048)	(0.024)	(0.029)	(0.055)	(0.060)	(0.053)	(0.055)
Mixed Race	0.014	(dropped)	(dropped)	(dropped)	-0.124	(dropped)	(dropped)	(dropped)	0.110	(dropped)	(dropped)	(dropped)
	(0.066)				(0.105)				(0.113)			
Male	0.044	0.038	0.115**	0.100***	0.087**	0.103*	0.079*	0.051**	-0.131*	-0.141*	-0.194*	-0.151**
	(0.045)	(0.051)	(0.053)	(0.058)	(0.042)	(0.025)	(0.025)	(0.024)	(0.047)	(0.046)	(0.054)	(0.064)
Married	0.026	0.096***	0.023	0.025	-0.030	-0.078**	-0.034	-0.041	0.004	-0.018	0.011	0.016
	(0.045)	(0.052)	(0.053)	(0.055)	(0.047)	(0.033)	(0.030)	(0.025)	(0.052)	(0.048)	(0.045)	(0.052)
Urban	0.003	-0.035	0.060	0.022	-0.005	-0.029	-0.045	-0.047	0.002	0.064	-0.015	0.025
	(0.046)	(0.064)	(0.062)	(0.063)	(0.046)	(0.048)	(0.035)	(0.034)	(0.055)	(0.044)	(0.052)	(0.054)
AFQT Score	-0.002	0.010**	0.011**	0.006	0.005	-0.003	-0.003	0.001	-0.003	-0.007**	-0.009**	-0.007
	(0.003)	(0.004)	(0.005)	(0.005)	(0.003)	(0.004)	(0.002)	(0.002)	(0.004)	(0.003)	(0.004)	(0.005)
AFQT Score Squared	0.000	-0.000*	-0.000*	-0.000	-0.000	0.000	0.000	-0.000	0.000	0.000**	0.000*	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Mother's Education	-0.001	-0.005	-0.007	-0.007	-0.008	0.002	0.001	-0.007	0.009	0.003	0.006	0.014
	(0.008)	(0.012)	(0.011)	(0.011)	(0.008)	(0.009)	(0.008)	(0.006)	(0.011)	(0.013)	(0.009)	(0.011)
Poverty (NAS)	-0.020	-0.126***	-0.002	0.010	-0.087	-0.004	-0.047	-0.075	0.107	0.130***	0.049	0.065
	(0.062)	(0.073)	(0.079)	(0.089)	(0.073)	(0.054)	(0.043)	(0.050)	(0.074)	(0.068)	(0.082)	(0.098)
Household Size	-0.005	0.022	0.003	-0.010	0.011	-0.001	0.006	0.009	-0.006	-0.021	-0.009	0.001
	(0.013)	(0.014)	(0.015)	(0.016)	(0.015)	(0.012)	(0.009)	(0.010)	(0.015)	(0.014)	(0.015)	(0.016)
Family Income (NAS)	0.002	-0.000	-0.000	0.003***	-0.001	-0.001	-0.000	-0.002**	-0.001	0.001	0.000	-0.001
	(0.001)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.002)	(0.002)
Food Stamps	-0.013	-0.102	-0.129	-0.068	-0.058	-0.000	0.030	-0.016	0.071	0.102	0.099	0.084
	(0.060)	(0.107)	(0.114)	(0.124)	(0.058)	(0.053)	(0.059)	(0.038)	(0.095)	(0.111)	(0.108)	(0.117)
Unemployment Insurance	-0.094	-0.223**	-0.195***	-0.128	0.066	0.138	0.111	0.039	0.028	0.085	0.084	0.089
	(0.068)	(0.094)	(0.104)	(0.115)	(0.081)	(0.089)	(0.073)	(0.067)	(0.095)	(0.095)	(0.094)	(0.107)
Constant	-2.642	-0.443	0.577	-2.491	5.684	3.129	3.311	4.683	-2.042	-1.686	-2.888	-1.192
	(4.549)	(5.771)	(7.177)	(6.666)	(5.716)	(6.178)	(4.171)	(3.595)	(4.881)	(4.376)	(4.860)	(5.166)
Number of observations	2,385	2,130	1,817	1,557	2,385	2,130	1,817	1,557	2,385	2,130	1,817	1,557
Adjusted R2	0.486	0.108	0.089	0.081	0.085	0.072	0.076	0.054	0.210	0.089	0.089	0.074

note: .01 - ***; .05 - **; .1 - *; Dummy controls included for missing variables. 1997 weights used.

Table 1d: Differences in Earnings Between Veterans and Comparison Group 1: By Branch of Service

	Earnings
Regular	5,751.937*
	(1,283.038)
Reserve	3,004.030
	(2,529.248)
National Guard	7,732.276
	(4,747.259)
Controls included	
Age	-15,289.050
	(19,005.630)
Age Squared	403.893
	(434.025)
Black	-2,766.612**
	(1,252.490)
Hispanic	-660.779
	(1,113.953)
Mixed Race	(dropped)
Male	1,191.499
	(1,124.503)
Urban	2,411.327**
	(1,115.809)
AFQT Score	157.055***
	(84.318)
AFQT Score Squared	-1.571***
	(0.806)
Mother's Years of Education	-263.537
	(239.293)
Poverty (NAS)	-1,440.261
	(1,525.853)
Household Size	-20.018
	(311.663)
Family Income according to NAS measure	-0.038
	(0.037)
Food Stamps or UI Received	-2,957.036***
	(1,602.065)
Constant	156,275.900
	(207,821.000)

Table 2a: Differences in Outcomes between Veterans and Comparison Group 2

	Employed				Unemployed				Out of Labor Force			
	Week1	Week 13	Week 26	Week 39	Week1	Week 13	Week 26	Week 39	Week1	Week 13	Week 26	Week 39
Ever in Military	0.197*	0.062	0.068	0.074***	-0.011	0.036	-0.017	-0.032	-0.186*	-0.099*	-0.051	-0.042
	(0.048)	(0.044)	(0.049)	(0.044)	(0.039)	(0.032)	(0.026)	(0.023)	(0.043)	(0.034)	(0.046)	(0.041)
Age	0.368	0.346	-0.058	0.493	-0.249	-0.084	0.046	-0.193	-0.119	-0.262	0.012	-0.301
	(0.496)	(0.489)	(0.649)	(0.601)	(0.489)	(0.462)	(0.266)	(0.247)	(0.440)	(0.384)	(0.497)	(0.519)
Age Squared	-0.009	-0.008	0.002	-0.011	0.006	0.002	-0.001	0.005	0.003	0.006	-0.001	0.007
	(0.011)	(0.011)	(0.015)	(0.014)	(0.011)	(0.010)	(0.006)	(0.006)	(0.010)	(0.009)	(0.011)	(0.012)
Black	-0.031	-0.068	-0.066	-0.006	0.078	0.059	0.068	0.024	-0.046	0.009	-0.002	-0.018
	(0.065)	(0.060)	(0.066)	(0.060)	(0.061)	(0.049)	(0.049)	(0.024)	(0.052)	(0.046)	(0.047)	(0.057)
Hispanic	0.074	0.051	0.015	0.042	-0.049	-0.099*	-0.025	0.012	-0.025	0.048	0.009	-0.054
	(0.059)	(0.060)	(0.050)	(0.059)	(0.052)	(0.034)	(0.021)	(0.027)	(0.051)	(0.054)	(0.046)	(0.051)
Mixed Race	0.162	(dropped)	(dropped)	(dropped)	-0.223*	(dropped)	(dropped)	(dropped)	0.061	(dropped)	(dropped)	(dropped)
	(0.183)				(0.067)				(0.165)			
Male	0.020	0.066	0.137*	0.120**	0.050	0.077*	0.052*	0.028	-0.069	-0.144*	-0.189*	-0.148**
	(0.051)	(0.049)	(0.050)	(0.055)	(0.045)	(0.027)	(0.017)	(0.018)	(0.043)	(0.043)	(0.050)	(0.058)
Married	0.037	0.074	0.069	0.048	-0.040	-0.072***	-0.058**	-0.052**	0.003	-0.002	-0.011	0.004
	(0.061)	(0.061)	(0.051)	(0.053)	(0.047)	(0.037)	(0.025)	(0.026)	(0.053)	(0.046)	(0.043)	(0.048)
Urban	-0.022	-0.079	0.004	0.008	-0.008	-0.001	-0.018	-0.029	0.030	0.080***	0.014	0.021
	(0.058)	(0.058)	(0.060)	(0.063)	(0.046)	(0.040)	(0.030)	(0.029)	(0.059)	(0.042)	(0.051)	(0.057)
AFQT Score	0.001	0.008***	0.009**	0.007	0.005	-0.000	0.000	0.001	-0.005	-0.008**	-0.009**	-0.008***
	(0.004)	(0.004)	(0.004)	(0.006)	(0.003)	(0.004)	(0.002)	(0.002)	(0.004)	(0.003)	(0.003)	(0.005)
AFQT Score Squared	0.000	-0.000**	-0.000**	-0.000	-0.000	0.000	-0.000	-0.000	0.000	0.000*	0.000*	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Mother's Years of Education	-0.006	0.003	-0.003	-0.002	-0.000	0.000	0.003	-0.008	0.006	-0.003	0.000	0.009
	(0.010)	(0.012)	(0.011)	(0.012)	(0.007)	(0.008)	(0.007)	(0.006)	(0.011)	(0.012)	(0.008)	(0.010)
Poverty (NAS)	-0.077	-0.083	-0.031	-0.082	-0.039	0.019	0.001	-0.045	0.117	0.065	0.030	0.127
	(0.085)	(0.081)	(0.073)	(0.079)	(0.075)	(0.057)	(0.045)	(0.049)	(0.076)	(0.065)	(0.069)	(0.081)
Household Size	0.002	0.025***	0.003	0.000	-0.003	-0.010	0.006	0.005	0.001	-0.015	-0.009	-0.006
	(0.017)	(0.013)	(0.016)	(0.018)	(0.015)	(0.011)	(0.009)	(0.009)	(0.014)	(0.012)	(0.016)	(0.016)
Family Income (NAS)	0.002	-0.001	-0.001	0.002	-0.001	-0.001	0.000	-0.001***	-0.001	0.001	0.001	-0.000
	(0.002)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)
Food Stamps	-0.092	-0.146	-0.099	0.010	-0.099**	-0.010	-0.002	-0.023	0.191***	0.156	0.100	0.013
	(0.099)	(0.120)	(0.129)	(0.131)	(0.038)	(0.032)	(0.026)	(0.027)	(0.104)	(0.124)	(0.127)	(0.128)
Unemployment Insurance	-0.141***	-0.237**	-0.234**	-0.164	0.049	0.087	0.112	0.053	0.092	0.150	0.123	0.111
	(0.082)	(0.098)	(0.103)	(0.111)	(0.084)	(0.085)	(0.071)	(0.072)	(0.094)	(0.094)	(0.099)	(0.104)
Constant	-3.330	-3.530	0.805	-5.075	2.781	1.113	-0.480	2.238	1.550	3.417	0.675	3.837
	(5.377)	(5.354)	(7.193)	(6.632)	(5.314)	(5.119)	(2.945)	(2.751)	(4.744)	(4.156)	(5.436)	(5.652)
Number of observations	2,793	2,479	2,118	1,807	2,793	2,479	2,118	1,807	2,793	2,479	2,118	1,807
Adjusted R2	0.097	0.081	0.080	0.058	0.033	0.056	0.066	0.036	0.092	0.086	0.086	0.063

note: .01 - ***; .05 - **; .1 - *; Dummy controls included for missing variables. 1997 weights used.

Table 2b: Differences in Earnings between Veterans and Comparison Group 2

	Earnings in 2003
Ever in Military	4,153.618*
	(974.876)
Age	-7,009.698
	(11,883.570)
Age Squared	207.380
	(271.768)
Black	-2,730.455*
	(1,007.422)
Hispanic	-1,018.978
	(1,207.263)
Mixed Race	-2,607.577
	(2,890.167)
Male	2,333.712**
	(906.763)
Married	4,894.173*
	(1,368.318)
Urban	1,702.221
	(1,057.838)
AFQT Score	184.345**
	(82.777)
AFQT Score Squared	-1.832**
	(0.815)
Mother's Years of Education	-271.669
	(217.414)
Poverty (NAS)	-1,456.197
	(1,324.059)
Household Size	-64.513
	(280.187)
Family Income (NAS)	-44.256
	(33.213)
Food Stamps	-5,126.364*
	(1,514.659)
Unemployment Insurance	73.471
	(1,951.670)
Constant	69,140.570
	(129,983.700)
Number of observations	3,553
Adjusted R2	0.152

Table 2c: Differences in Outcomes between Veterans and Comparison Group 2 - By Branch of Service

	Employed				Unemployed				Out of Labor Force			
	Week1	Week 13	Week 26	Week 39	Week1	Week 13	Week 26	Week 39	Week1	Week 13	Week 26	Week 39
Regular	0.104** (0.051)	0.013 (0.047)	0.032 (0.054)	0.048 (0.050)	0.038 (0.045)	0.056 (0.035)	-0.001 (0.030)	-0.022 (0.026)	-0.141* (0.045)	-0.069*** (0.036)	-0.030 (0.050)	-0.025 (0.046)
Reserve	0.587* (0.067)	0.097 (0.152)	0.219* (0.066)	0.217* (0.081)	-0.285* (0.051)	0.070 (0.147)	-0.110* (0.035)	-0.099* (0.026)	-0.302* (0.076)	-0.167** (0.069)	-0.109 (0.081)	-0.118 (0.080)
National Guard	0.580* (0.073)	0.353* (0.093)	0.221** (0.097)	0.177 (0.107)	-0.196* (0.033)	-0.121* (0.035)	-0.081* (0.026)	-0.067* (0.017)	-0.384* (0.078)	-0.231* (0.079)	-0.141 (0.088)	-0.110 (0.106)
Age	0.343 (0.480)	0.259 (0.485)	-0.040 (0.614)	0.489 (0.576)	-0.264 (0.483)	-0.032 (0.459)	0.032 (0.260)	-0.195 (0.249)	-0.078 (0.444)	-0.227 (0.386)	0.008 (0.478)	-0.294 (0.508)
Age Squared	-0.008 (0.011)	-0.005 (0.011)	0.002 (0.014)	-0.011 (0.013)	0.006 (0.011)	0.000 (0.010)	-0.001 (0.006)	0.005 (0.006)	0.002 (0.010)	0.005 (0.009)	-0.001 (0.011)	0.006 (0.012)
Black	-0.047 (0.060)	-0.078 (0.058)	-0.074 (0.064)	-0.009 (0.060)	0.087 (0.059)	0.064 (0.049)	0.071 (0.048)	0.025 (0.024)	-0.041 (0.052)	0.014 (0.045)	0.003 (0.047)	-0.016 (0.056)
Hispanic	0.068 (0.059)	0.059 (0.065)	0.003 (0.052)	0.030 (0.058)	-0.042 (0.051)	-0.106* (0.037)	-0.018 (0.021)	0.017 (0.027)	-0.026 (0.052)	0.047 (0.056)	0.015 (0.046)	-0.047 (0.050)
Mixed Race	-0.064 (0.127)	(dropped)	(dropped)	(dropped)	-0.113 (0.081)	(dropped)	(dropped)	(dropped)	0.178 (0.135)	(dropped)	(dropped)	(dropped)
Male	0.024 (0.047)	0.070 (0.048)	0.138* (0.049)	0.118** (0.054)	0.048 (0.044)	0.074* (0.027)	0.052* (0.018)	0.029 (0.018)	-0.072*** (0.042)	-0.144* (0.042)	-0.189* (0.050)	-0.147** (0.057)
Married	0.034 (0.061)	0.061 (0.059)	0.062 (0.051)	0.049 (0.055)	-0.042 (0.047)	-0.063*** (0.036)	-0.056** (0.025)	-0.053** (0.026)	0.008 (0.053)	0.002 (0.046)	-0.006 (0.044)	0.004 (0.050)
Urban	-0.032 (0.056)	-0.086 (0.058)	-0.001 (0.059)	0.005 (0.063)	-0.003 (0.045)	0.003 (0.040)	-0.016 (0.030)	-0.028 (0.029)	0.035 (0.059)	0.083*** (0.042)	0.017 (0.051)	0.023 (0.057)
AFQT Score	0.003 (0.003)	0.010** (0.004)	0.010** (0.004)	0.007 (0.006)	0.004 (0.003)	-0.001 (0.004)	-0.000 (0.002)	0.001 (0.002)	-0.006*** (0.004)	-0.009* (0.003)	-0.009* (0.003)	-0.008*** (0.005)
AFQT Score Squared	-0.000 (0.000)	-0.000* (0.000)	-0.000* (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000*** (0.000)	0.000* (0.000)	0.000* (0.000)	0.000 (0.000)
Mother's Years of Education	-0.005 (0.009)	0.005 (0.012)	-0.003 (0.010)	-0.001 (0.012)	-0.001 (0.007)	-0.001 (0.008)	0.002 (0.007)	-0.008 (0.006)	0.006 (0.011)	-0.004 (0.012)	0.000 (0.008)	0.009 (0.011)
Poverty (NAS)	-0.076 (0.079)	-0.097 (0.075)	-0.036 (0.071)	-0.082 (0.080)	-0.043 (0.074)	0.027 (0.056)	0.002 (0.045)	-0.046 (0.051)	0.120 (0.074)	0.070 (0.063)	0.034 (0.069)	0.128 (0.082)
Household Size	0.001 (0.016)	0.025*** (0.013)	0.003 (0.016)	-0.000 (0.017)	-0.002 (0.015)	-0.010 (0.011)	0.006 (0.009)	0.006 (0.009)	0.001 (0.014)	-0.015 (0.012)	-0.009 (0.016)	-0.005 (0.016)
Family Income (NAS)	0.002 (0.002)	-0.001 (0.001)	-0.001 (0.001)	0.002 (0.002)	-0.001 (0.001)	-0.001 (0.001)	0.000 (0.001)	-0.001 (0.001)	-0.001 (0.002)	0.002 (0.001)	0.001 (0.001)	-0.000 (0.001)
Food Stamps	-0.081 (0.090)	-0.136 (0.115)	-0.090 (0.128)	0.014 (0.130)	-0.105* (0.039)	-0.015 (0.033)	-0.006 (0.028)	-0.025 (0.028)	0.186*** (0.099)	0.151 (0.121)	0.096 (0.126)	0.011 (0.127)
Unemployment Insurance	0.143*** (0.073)	-0.229** (0.092)	-0.228** (0.100)	-0.154 (0.111)	0.050 (0.084)	0.084 (0.083)	0.109 (0.070)	0.049 (0.072)	0.093 (0.089)	0.145 (0.092)	0.119 (0.098)	0.105 (0.104)
Constant	-3.255 (5.211)	-2.733 (5.300)	0.509 (6.804)	-5.071 (6.349)	3.051 (5.243)	0.632 (5.080)	-0.282 (2.865)	2.284 (2.775)	1.204 (4.784)	3.101 (4.185)	0.773 (5.232)	3.787 (5.518)
Number of observations	2,793	2,479	2,118	1,807	2,793	2,479	2,118	1,807	2,793	2,479	2,118	1,807

Table 2d: Differences in 2003 Earnings between Veterans and Comparison Group 2 - By Branch of Service

Regular	4,220.173*
	(1,046.243)
Reserve	3,737.065**
	(1,743.776)
National Guard	6,161.927
	(4,024.115)
Age	-7,550.279
	(11,852.970)
Age Squared	220.562
	(270.994)
Black	-2,723.682*
	(1,014.577)
Hispanic	-992.546
	(1,221.456)
Mixed Race	-2,571.133
	(2,899.922)
Male	2,335.580**
	(903.336)
Married	4,864.318*
	(1,397.514)
Urban	1,706.081
	(1,049.511)
AFQT Score	190.412**
	(78.388)
AFQT Score Squared	-1.903**
	(0.766)
Mother's Years of Education	-280.646
	(214.124)
Poverty (NAS)	-1,541.771
	(1,327.695)
Household Size	-72.736
	(279.309)
Family Income (NAS)	-44.336
	(32.791)
Food Stamps	-5,095.699*
	(1,529.819)
Unemployment Insurance	-8.718
	(1,994.134)
Constant	74,640.210

Table 3a: Differences in Outcomes between Veterans and Comparison Group 3

	Employed				Unemployed				Out of Labor Force			
	Week1	Week 13	Week 26	Week 39	Week1	Week 13	Week 26	Week 39	Week1	Week 13	Week 26	Week 39
Ever in Military	-0.009 (0.043)	-0.031 (0.042)	-0.082*** (0.046)	-0.057 (0.046)	0.034 (0.029)	0.043 (0.029)	0.044 (0.029)	0.071*** (0.038)	-0.025 (0.035)	-0.013 (0.033)	0.038 (0.036)	-0.013 (0.035)
Age	-0.073 (0.652)	0.317 (0.626)	0.338 (0.584)	0.495 (0.616)	-0.553 (0.579)	-0.128 (0.262)	-0.014 (0.251)	-0.349 (0.356)	0.626*** (0.372)	-0.189 (0.548)	-0.324 (0.514)	-0.146 (0.560)
Age Squared	0.002 (0.015)	-0.007 (0.014)	-0.008 (0.013)	-0.011 (0.014)	0.012 (0.013)	0.003 (0.006)	0.001 (0.006)	0.008 (0.008)	-0.014*** (0.009)	0.004 (0.012)	0.007 (0.012)	0.003 (0.013)
Black	-0.118*** (0.068)	-0.058 (0.069)	-0.015 (0.048)	0.027 (0.050)	0.017 (0.043)	-0.021 (0.034)	0.020 (0.033)	-0.064 (0.042)	0.101 (0.062)	0.079 (0.066)	-0.005 (0.045)	0.037 (0.050)
Hispanic	0.095** (0.047)	0.059 (0.051)	0.039 (0.059)	0.080 (0.059)	-0.046*** (0.025)	-0.031 (0.035)	-0.026 (0.039)	-0.048 (0.041)	-0.049 (0.042)	-0.028 (0.040)	-0.013 (0.048)	-0.031 (0.047)
Mixed Race	0.220 (0.239)	(dropped)	(dropped)	(dropped)	-0.086 (0.148)	(dropped)	(dropped)	(dropped)	-0.135 (0.126)	(dropped)	(dropped)	(dropped)
Male	0.045 (0.054)	0.038 (0.048)	0.070 (0.057)	0.053 (0.058)	-0.020 (0.032)	0.041** (0.018)	0.016 (0.028)	0.072** (0.027)	-0.025 (0.041)	-0.079*** (0.045)	-0.086*** (0.048)	-0.125** (0.054)
Married	0.065 (0.057)	0.045 (0.050)	0.035 (0.054)	0.042 (0.068)	-0.052*** (0.029)	-0.057*** (0.029)	-0.068** (0.027)	-0.044 (0.045)	-0.013 (0.048)	0.011 (0.039)	0.033 (0.043)	0.002 (0.049)
Urban	-0.040 (0.050)	-0.018 (0.051)	0.078 (0.053)	0.032 (0.065)	-0.040 (0.036)	-0.008 (0.033)	-0.047 (0.036)	-0.014 (0.045)	0.080*** (0.040)	0.026 (0.038)	-0.031 (0.043)	-0.017 (0.046)
AFQT Score	0.004 (0.005)	0.011 (0.007)	0.010 (0.007)	0.014** (0.006)	0.000 (0.002)	-0.005 (0.005)	-0.004 (0.005)	-0.004 (0.005)	-0.004 (0.004)	-0.006 (0.005)	-0.006 (0.005)	-0.010** (0.005)
AFQT Score Squared	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000** (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000** (0.000)
Mother's Years of Education	0.002 (0.009)	-0.008 (0.009)	-0.008 (0.010)	-0.021*** (0.011)	0.003 (0.007)	0.006 (0.007)	-0.001 (0.005)	0.013 (0.009)	-0.005 (0.008)	0.001 (0.006)	0.009 (0.008)	0.009 (0.007)
Poverty (NAS)	-0.090 (0.090)	-0.115 (0.086)	-0.034 (0.086)	-0.039 (0.090)	0.013 (0.067)	-0.056 (0.048)	-0.125* (0.044)	-0.073 (0.065)	0.076 (0.062)	0.171** (0.069)	0.160** (0.072)	0.112 (0.076)
Household Size	-0.004 (0.015)	0.002 (0.016)	-0.003 (0.017)	-0.017 (0.017)	0.020*** (0.012)	0.024** (0.011)	0.033** (0.013)	0.011 (0.012)	-0.016 (0.014)	-0.026** (0.012)	-0.029** (0.013)	0.006 (0.016)
Family Income (NAS)	-0.000 (0.001)	-0.002 (0.002)	-0.001 (0.002)	0.000 (0.002)	-0.001 (0.001)	-0.001 (0.001)	-0.002** (0.001)	-0.002*** (0.001)	0.001 (0.002)	0.003** (0.001)	0.003** (0.001)	0.002 (0.001)
Food Stamps	-0.080 (0.093)	-0.226** (0.101)	-0.175*** (0.091)	-0.194*** (0.106)	-0.037 (0.033)	-0.029 (0.029)	-0.013 (0.030)	-0.001 (0.072)	0.117 (0.087)	0.255** (0.105)	0.188*** (0.097)	0.195*** (0.108)
Unemployment Insurance	-0.444* (0.106)	-0.352* (0.109)	-0.264** (0.122)	-0.108 (0.115)	0.257** (0.104)	0.219*** (0.111)	0.046 (0.090)	0.070 (0.108)	0.187 (0.123)	0.133 (0.091)	0.218** (0.102)	0.037 (0.085)
Constant	1.356 (7.232)	-2.979 (6.979)	-3.150 (6.453)	-4.904 (6.809)	6.191 (6.503)	1.279 (2.893)	0.133 (2.796)	3.776 (3.929)	-6.547 (3.953)	2.700 (6.088)	4.017 (5.680)	2.127 (6.227)
Number of observations	2,752	2,504	2,488	2,484	2,752	2,504	2,488	2,484	2,752	2,504	2,488	2,484
Adjusted R2	0.122	0.120	0.098	0.084	0.130	0.145	0.098	0.098	0.065	0.103	0.120	0.081

note: .01 - ***; .05 - **; .1 - *; Dummy controls included for missing variables. 1997 weights used.

Table 3b: Differences in 2003 Earnings between Veterans and Comparison Group 3

Ever in Military	1,234.132 (1,855.078)
Age	-17,835.080 (24,000.570)
Age Squared	442.035 (545.517)
Black	-2,612.334 (1,776.195)
Hispanic	854.830 (1,800.227)
Mixed Race	(dropped)
Male	2,949.782 (1,920.237)
Married	5,489.845** (2,471.006)
Urban	-310.318 (2,047.837)
AFQT Score	-38.292 (197.732)
AFQT Score Squared	-0.331 (1.955)
Mother's Years of Education	282.899 (420.691)
Poverty (NAS)	1,751.192 (2,635.521)
Household Size	-277.767 (632.599)
Family Income (NAS)	21.824 (61.848)
Food Stamps	-5,639.029*** (2,834.634)
Unemployment Insurance	8,157.905 (5,322.255)
Constant	192,462.600 (261,190.100)
Number of observations	1,646
Adjusted R2	0.132

note: .01 - ***; .05 - **; .1 - *;

Table 3c: Differences in Outcomes between Veterans and Comparison Group 3 - By Branch of Service

	Employed				Unemployed				Out of Labor Force			
	Week1	Week 13	Week 26	Week 39	Week1	Week 13	Week 26	Week 39	Week1	Week 13	Week 26	Week 39
Regular	-0.044 (0.048)	-0.060 (0.048)	-0.104** (0.050)	-0.080 (0.050)	0.054 (0.034)	0.059*** (0.034)	0.045 (0.032)	0.073*** (0.040)	-0.010 (0.039)	0.000 (0.037)	0.060 (0.041)	0.007 (0.040)
Reserve	0.112** (0.047)	0.093 (0.062)	-0.159 (0.188)	-0.095 (0.200)	-0.104** (0.051)	-0.103** (0.045)	0.134 (0.199)	0.108 (0.202)	-0.007 (0.075)	0.011 (0.086)	0.025 (0.079)	-0.014 (0.086)
National Guard	0.207* (0.057)	0.129* (0.047)	0.141* (0.039)	0.146** (0.056)	-0.061** (0.028)	-0.009 (0.020)	-0.023 (0.020)	0.021 (0.061)	-0.146* (0.048)	-0.120* (0.041)	-0.119* (0.033)	-0.167* (0.035)
Age	-0.090 (0.620)	0.312 (0.596)	0.246 (0.572)	0.422 (0.599)	-0.575 (0.555)	-0.163 (0.263)	0.036 (0.272)	-0.321 (0.370)	0.666*** (0.372)	-0.149 (0.539)	-0.282 (0.494)	-0.100 (0.543)
Age Squared	0.003 (0.014)	-0.007 (0.013)	-0.005 (0.013)	-0.009 (0.014)	0.013 (0.012)	0.004 (0.006)	-0.000 (0.006)	0.008 (0.008)	-0.015*** (0.009)	0.003 (0.012)	0.006 (0.011)	0.002 (0.012)
Black	-0.126*** (0.066)	-0.063 (0.067)	-0.023 (0.046)	0.019 (0.048)	0.020 (0.042)	-0.019 (0.033)	0.023 (0.033)	-0.062 (0.042)	0.106*** (0.061)	0.083 (0.066)	0.001 (0.044)	0.043 (0.049)
Hispanic	0.084*** (0.046)	0.049 (0.049)	0.047 (0.060)	0.085 (0.060)	-0.034 (0.023)	-0.019 (0.034)	-0.034 (0.042)	-0.052 (0.045)	-0.051 (0.041)	-0.031 (0.040)	-0.013 (0.047)	-0.033 (0.046)
Mixed Race	0.086 (0.188)	(dropped)	(dropped)	(dropped)	-0.025 (0.126)	(dropped)	(dropped)	(dropped)	-0.062 (0.104)	(dropped)	(dropped)	(dropped)
Male	0.041 (0.052)	0.034 (0.047)	0.066 (0.055)	0.050 (0.056)	-0.018 (0.030)	0.043** (0.019)	0.017 (0.027)	0.072** (0.028)	-0.023 (0.041)	-0.077*** (0.044)	-0.083*** (0.047)	-0.122** (0.052)
Married	0.055 (0.056)	0.039 (0.050)	0.021 (0.054)	0.030 (0.068)	-0.050*** (0.028)	-0.057*** (0.029)	-0.062** (0.025)	-0.040 (0.045)	-0.006 (0.048)	0.018 (0.040)	0.041 (0.044)	0.010 (0.049)
Urban	-0.043 (0.049)	-0.022 (0.051)	0.074 (0.052)	0.028 (0.065)	-0.039 (0.035)	-0.006 (0.033)	-0.046 (0.035)	-0.014 (0.045)	0.081** (0.040)	0.028 (0.038)	-0.028 (0.042)	-0.014 (0.046)
AFQT Score	0.004 (0.005)	0.012 (0.007)	0.010 (0.007)	0.015** (0.006)	-0.000 (0.002)	-0.005 (0.005)	-0.004 (0.005)	-0.004 (0.005)	-0.004 (0.004)	-0.006 (0.005)	-0.006 (0.005)	-0.010** (0.005)
AFQT Score Squared	-0.000 (0.000)	-0.000*** (0.000)	-0.000 (0.000)	-0.000** (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000** (0.000)
Mother's Years of Education	0.004 (0.009)	-0.006 (0.009)	-0.005 (0.010)	-0.019 (0.011)	0.003 (0.007)	0.006 (0.007)	-0.002 (0.005)	0.012 (0.009)	-0.007 (0.008)	-0.000 (0.006)	0.008 (0.008)	0.007 (0.007)
Poverty (NAS)	-0.104 (0.086)	-0.124 (0.084)	-0.066 (0.086)	-0.065 (0.088)	0.013 (0.065)	-0.061 (0.048)	-0.111** (0.045)	-0.064 (0.063)	0.091 (0.061)	0.185* (0.069)	0.177** (0.071)	0.130*** (0.075)
Household Size	-0.004 (0.015)	0.001 (0.016)	-0.002 (0.017)	-0.016 (0.017)	0.021*** (0.012)	0.025** (0.011)	0.032** (0.013)	0.011 (0.013)	-0.017 (0.014)	-0.026** (0.012)	-0.029** (0.013)	0.006 (0.016)
Family Income (NAS)	-0.001 (0.001)	-0.002 (0.002)	-0.001 (0.002)	-0.000 (0.002)	-0.001 (0.001)	-0.001 (0.001)	-0.002** (0.001)	-0.002 (0.001)	0.001 (0.002)	0.003** (0.001)	0.003** (0.001)	0.002 (0.001)
Food Stamps	-0.072 (0.100)	-0.219** (0.103)	-0.173*** (0.089)	-0.191** (0.107)	-0.043 (0.034)	-0.034 (0.030)	-0.012 (0.033)	-0.001 (0.074)	0.115 (0.091)	0.253** (0.105)	0.185*** (0.095)	0.192*** (0.105)
Unemployment Insurance	-0.445* (0.106)	-0.345* (0.109)	-0.254** (0.121)	-0.099 (0.115)	0.258** (0.104)	0.217*** (0.109)	0.043 (0.091)	0.069 (0.109)	0.187 (0.123)	0.128 (0.090)	0.211** (0.102)	0.030 (0.084)
Constant	1.470 (6.872)	-2.995 (6.640)	-2.209 (6.322)	-4.170 (6.631)	6.477 (6.231)	1.698 (2.898)	-0.406 (3.021)	3.489 (4.079)	-6.947*** (3.962)	2.297 (5.998)	3.615 (5.465)	1.682 (6.032)
Number of observations	2,752	2,504	2,488	2,484	2,752	2,504	2,488	2,484	2,752	2,504	2,488	2,484
Adjusted R2	0.138	0.131	0.114	0.095	0.144	0.157	0.104	0.099	0.070	0.107	0.130	0.090

Table 3d: Differences in 2003 Earnings between Veterans and Comparison Group 3 - By Branch of Service

Regular	-38.627 (1,872.392)
Reserve	3,634.036*** (1,980.977)
National Guard	10,690.470 (8,247.646)
Age	-16,723.790 (21,002.720)
Age Squared	423.423 (479.851)
Black	-2,745.826 (1,787.801)
Hispanic	866.325 (1,787.677)
Mixed Race	(dropped)
Male	3,136.269*** (1,776.913)
Married	5,286.726** (2,190.222)
Urban	-843.429 (1,963.276)
AFQT Score	-45.177 (187.977)
AFQT Score Squared	-0.328 (1.777)
Mother's Years of Education	404.189 (397.455)
Poverty (NAS)	99.141 (3,059.647)
Household Size	-269.447 (615.454)
Family Income (NAS)	10.365 (57.653)
Food Stamps	-5,570.407*** (3,008.372)
Unemployment Insurance	8,663.436 (5,206.888)
Constant	176,271.400