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Report on Task 1: The Labor Market Trajectories of 20-24 year old veterans

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1. Introduction

Recent statistics reporting high rates of unemployment for 20-24 year old veterans have been a source of substantial concern. Since high levels of unemployment can result from multiple causes, including lack of job opportunities or lengthened search for jobs, with different policy responses, it is important to analyze the phenomenon in more detail.

In this study we use 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. We begin by describing the dataset, and then document what proportion of veterans are employed, unemployed, out of the labor force and in military service at each point in time. This examination includes an analysis of how much veterans' experiences vary by their characteristics, such as race and ASVAB scores. We conclude by describing the labor market trajectories of unemployed veterans.

This report represents the first part of a two part study. The second part will expand on this snapshot analysis by providing a more detailed analysis of the factors contributing to unemployment, and the pathways taken to work. Since recent veterans may be productively using unemployment compensation to search for the best possible job, or to engage in additional study, the analysis of outcomes will be expanded to include a study of the educational attainment, and earnings of veterans, as well as a comparison of the outcomes of veterans to observationally similar non-veterans. The study will also examine, to the extent possible, veterans' use of training programs. In addition, since the unemployment surge coincided with a surge in Reserve/National Guard deployments[i], the second part will also examine, to the extent possible, the variation in outcomes for regular military versus Reserve/National Guard service members.

2. Dataset

The 1997 cohort of the National Longitudinal Survey of Youth (NLSY97) is a random sample of 8984 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 2335 blacks and 1901 Hispanic youths.

The sample has been interviewed annually since 1997, largely with computer assisted personal interviews. The sample is clustered with 147 PSU 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)[ii]. 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.

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). 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 n the time since their exit,

5,172 data points for the black respondents, and 5,120 for Hispanic respondents.

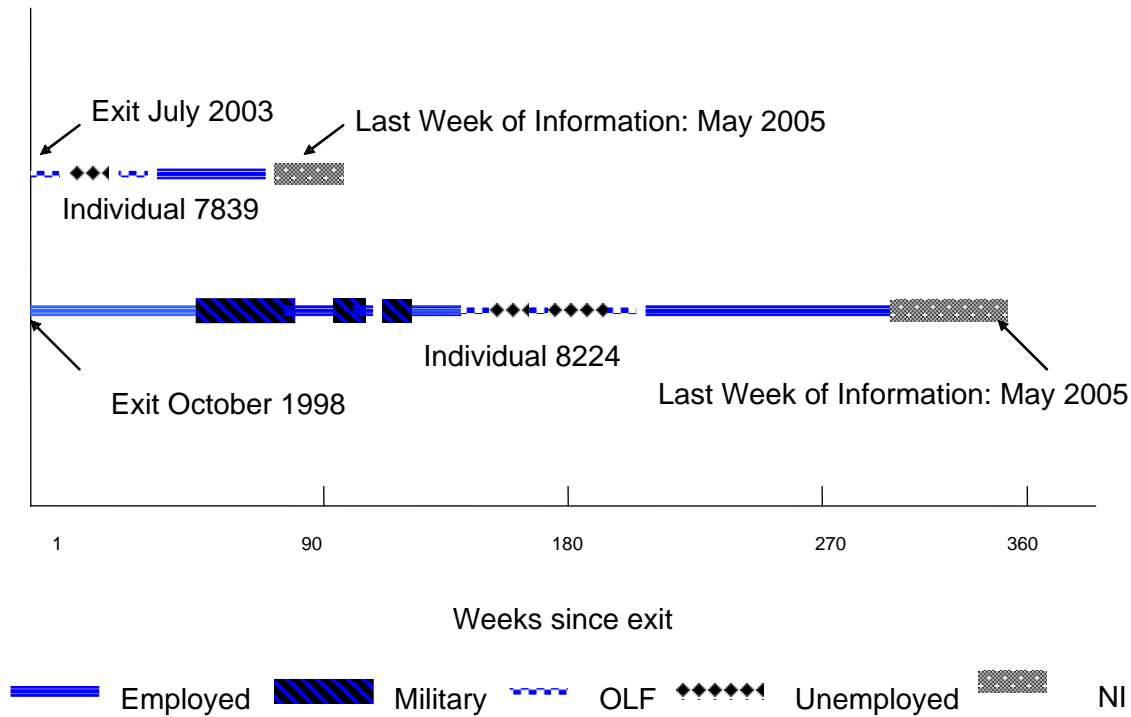**Table 1: Describing the Population of Interest – Sample Sizes**

Year	All Military		Military Exiters	
		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 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. Although we speculate that this is due to deployment, this is not verified, so we define them as "missing" during the non interview spells.

The simple statistics in Table 1 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
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Exit July 2003

Last Week of Information: May 2005

Individual 7839

Individual 8224

Exit October 1998

Last Week of Information: May 2005

| 1 | 90 | 180 | 270 | 360 |

Weeks since exit

Employed   Military   OLF   Unemployed   NI

3. Basic Facts

Looking at Outcomes

There are four key labor market outcomes of interest in this part of the study: whether the respondent is employed, unemployed, out of the labor force, or in military service in the weeks after they exit the military Table 2 reports these outcomes for each of four snapshots: week 1, 13, 26 and 39 after exit[iii]. A brief examination of the table reveals that of the 156 respondents who were interviewed subsequent to military exit, 22% were unemployed in the first week after exit, 28% were out of the labor force, 0% were in the military and 47% were employed. This represents a 32% unemployment rate on the part of military veterans[iv]. Of the 114 respondents with information on their activities 39 weeks after exit[v], only 4% are unemployed, reflecting a

6% unemployment rate. As many as 12% have returned to military service, and 62% are

employed.

Table 2: Looking at Outcomes:
Distribution of Activities By Weeks After Exit from Military

Weeks after Exit	1	13	26	39
Unemployed	22%	15%	7%	4%
Out of Labor Force	28%	19%	18%	21%
Military	0%	6%	12%	12%
Employed	47%	59%	61%	62%
Total Count	156	140	123	114
Unemployment rate	32%	20%	11%	6%

Figure 2 provides a more visual description of these patterns 1, 13, 26 and 39 weeks

subsequent to exit.

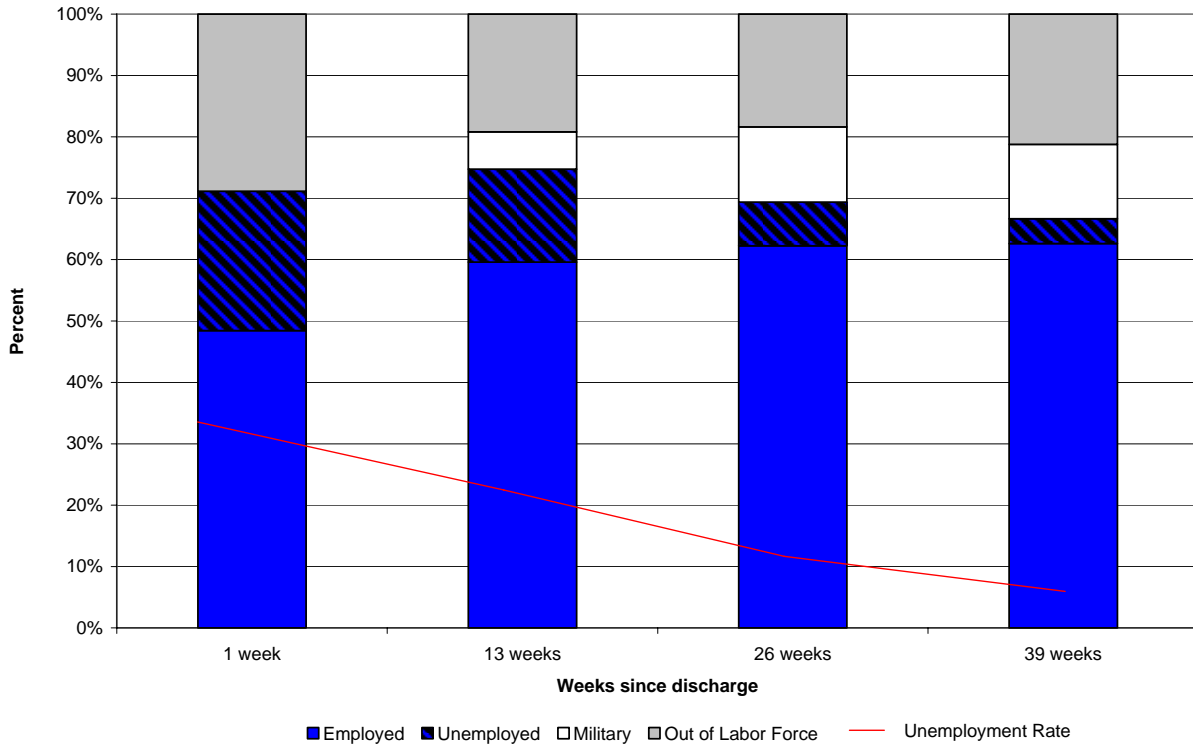**Figure 2: Post Military Trajectories**

Figure 3 examines the outcomes for each week, and reveals the same essential pattern,

which is one of increasing employment and decreasing unemployment for all veterans over time.

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Figure 3:
Veteran Activities in Weeks Since Exit from Military
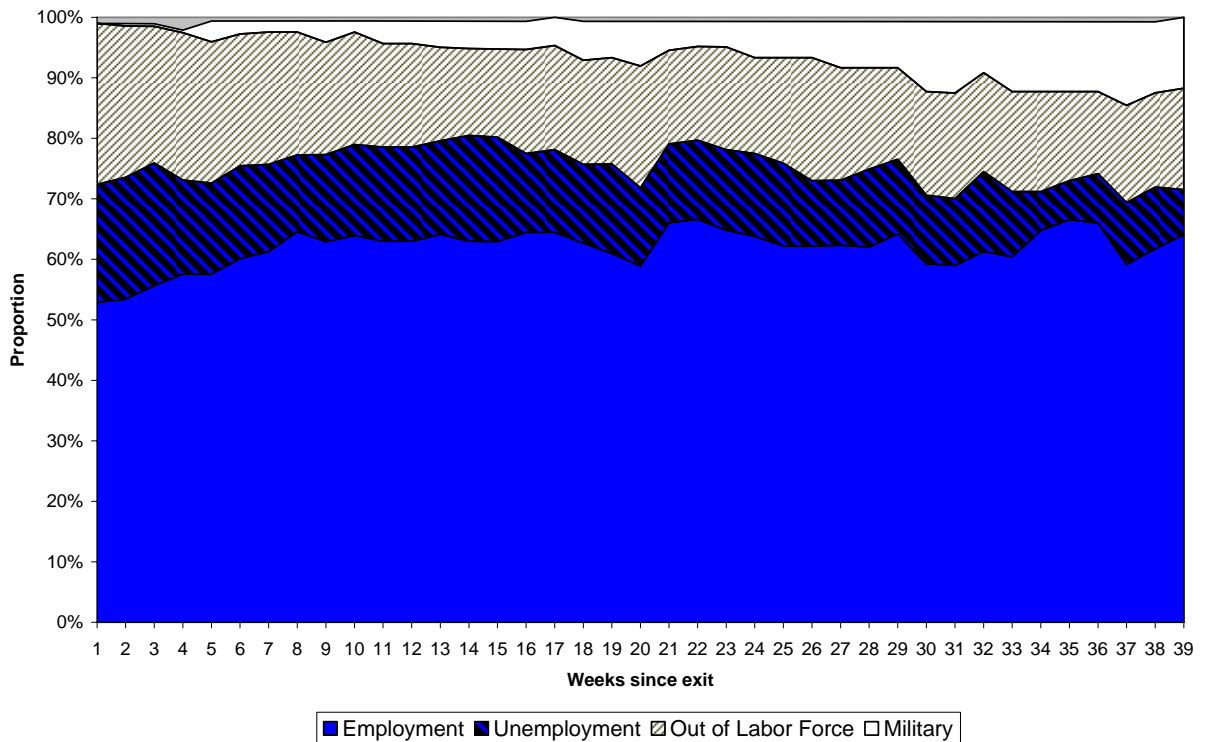
A separate analysis of outcomes for black veterans and veterans with ASVAB scores both above

and below the survey median, revealed very similar patterns[vi]. Of particular interest is the fact

that many exiters return to the military as main employer, which leads to some question about

the role of the Iraq war and recalls to active service. Another area of interest is what activities

are reflected in the "Out of Labor Force" categories: whether respondents are engaged in further

education, participating in training programs, or are discouraged workers.

Outcomes for Unemployed Veterans

We then turned to examining outcomes for unemployed veterans in the 39 weeks subsequent to

their exit from military. This substantially reduces the sample size only to 35 workers, reflecting

3,350 weekly observations, of which 15 are black (1,045 weekly data points) and 5 are Hispanic

(572 weekly data points). Of course, further analysis is required to identify which civilian

groups form a useful comparison groups to these veterans. A very obvious open question is the

reasons for exit: whether these veterans were discharged for non performance or whether there is

a disability related reason, particularly given that none of this subsample returns to the military in

the 39 week period.

Table 3: Drilling Down:
Distribution of Activities of Unemployed Veterans By Weeks After Exit from Military

Weeks after Exit	1	13	26	39
Unemployed	100%	29%	22%	6%
Out of Labor Force	0%	10%	27%	23%
Military	0%	0%	0%	0%
Employed	0%	61%	51%	71%
Total Count	32	29	26	24
Unemployment rate	100%	32%	30%	6%

Figure 4
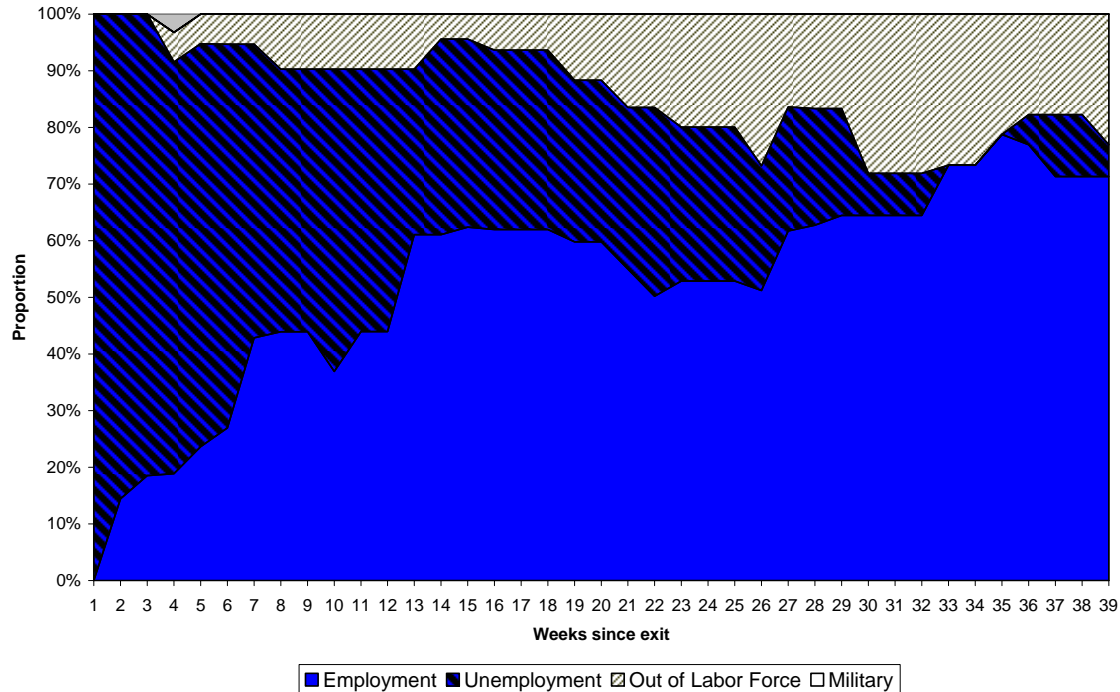**Unemployed Veteran Activities in Weeks Since Exit from Military**

Figure 4 shows the same patterns on a week by week basis. Although sample sizes are too small

to state definitively that unemployment is decreasing, the trends are consistent with a priori

expectations of declining unemployment over time. The increase in proportion of respondents

who are out of the labor force remains a focus of interest and an area for further research.

4. Summary

In summary, this report provides some indication of the value of looking at longitudinal

data to examine the labor market trajectories of returning veterans. It provides some evidence

that the high reported levels of unemployment result from job search, since employment rates

increase and unemployment rates decrease over time. This suggests that veterans are

successfully searching for new jobs after their exit from military service.

It is not clear, however, whether veterans' search is substantially greater than those of

their civilian counterparts. Our subsequent research will examine not only the employment but

also the earnings outcomes of veterans controlling for other observable characteristics to capture

the changing composition of the sample. In addition, since this initial study approach represents

series of cross-sections, we will provide a more systematic description of the longitudinal

outcomes of military exiters. Particular attention will be paid to understanding potential reasons

for veterans' unemployment, notably their reasons for leaving military, their out of labor force

status, and the role of unemployment insurance benefits. In order to provide a reasonable

counterfactual, it will be critical to construct a viable comparator group from the civilian

population. For the next stage of the project, we will define three such comparator groups:

1. Civilians who have completed their longest spell of 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 in week one in order to be eligible. As a significant portion of the

military sample has no period of unemployment after exiting the military, this group obviously will have higher unemployment rates, at least initially;

2. Civilians who have completed their longest spell of with an employer: This comparison group looks at respondents who have left a job that was held for a substantial period of time. Because this group does not necessarily have a spell of unemployment, they might have unemployment rates more in line with the military sample. A disadvantage of this comparison group is that it is much easier for people residing in the United States to find employment than military personnel stationed abroad;

3. A random sample of civilians taken at a particular date: This comparison group would probably most closely mirror a CPS sample. A major disadvantage of such a comparison group is that, unlike the military exiters, many in this group will have had no disruption in employment.

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

In the longer term, repeating the analysis with a greater sample size, with additional years of data, will provide increasingly robust results.

Endnotes

[i] The Department of Defense reports that the number of reserve component members on active duty grew from below 40,000 in 2002 to well over 140,000 in 2003, 2004 and much of 2005.

[ii] 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 responsents were offered $75 for the testing, this was less than that offered to the 1979 cohort, which was offered about $90 in comparable dollars

[iii] Note that these events are all reported in the weeks subsequent to exit. Since the date of exit is different for each respondent, the chronological time is different for each, and hence the estimates are not comparable to Current Population Survey estimates. The latter reflect reports at the same chronological date.

[iv] The unemployment rate is calculated as the number of employed as a proportion of the civilian labor force (employed plus unemployed). An individual is classified as unemployed if s/he was actively seeking work in the reference week.

[v] There are fewer data points further out in time for two reasons: one is the noninterview phenomenon mentioned earlier; the other is that, as observed in Table 1, many respondents exited the military in 2005. As a result, fewer than 39 weeks of information are collected.

[vi] The results are not reported because of the small sample sizes associated with these subgroups.