

Are male veterans at greater risk for nonemployment than nonveterans?

Veterans as a group do not have a higher risk of nonemployment than their nonveteran peers; however, the risk varies greatly by age cohort and ethnicity

Greg A. Greenberg,
and
Robert A. Rosenheck

Are veterans at greater risk than others for “nonemployment”—unemployment, disability, or dropping out of the labor force—after their military service? It has been hypothesized that military service facilitates post-service employment because it offers skills training, on-the-job experience, and educational benefits¹ as well as preferential treatment for some available jobs.² However, it has also been argued that military service hinders employment due to the negative health effects of military service,³ foregone civilian training, lost seniority,⁴ and the interruptions in the development of vocational and social networks.⁵ Selection processes for military service may play an even more important role than post-military factors in determining post-discharge labor market experiences.⁶

Clarification of the effects of these factors is difficult, in part, because of differences in circumstances across military cohorts and racial/ethnic groups. While 75 percent of all eligible men served in World War II, there is evidence that deferments and exemptions allowed men with more education to avoid service during the Vietnam era, as only 40.5 percent of eligible men served.⁷ The advent of the all-volunteer force (AVF) in the 1970s may have initially encouraged enlistment among disadvantaged youth, but as the size of the Armed Forces has declined and pay has increased, selectivity may also have increased.⁸ The value of government benefits from military service also varies over time.⁹ During the Vietnam era, nonveterans could often obtain virtually the same government educational benefits as veterans,¹⁰ but

civilian benefits have become less available in recent years.

The association of military service and employment status may also vary by racial/ethnic groups. Although employment opportunities in the United States are generally poorer for minorities (blacks and Hispanics) than for whites,¹¹ minority enlistees have been reported to generally have better vocational experiences than their minority nonenlistee peers, while white enlistees have been found to have poorer vocational experiences than their white nonenlistee peers in some studies.¹² In addition, minorities have historically taken greater advantage of their educational benefits upon discharge.¹³ Military service may be of special benefit to many minority individuals because it serves as a “bridging environment” from home communities with limited resources into the civilian labor market.¹⁴ Debates over the effect of veteran status on employment must thus consider the effect of both the era of military service and racial/ethnic group membership.

There have been few studies of the differences between veterans and nonveterans in employment status, and findings have been mixed. Joshua Angrist studied a cohort of early enlistees in the all-volunteer force (enlisted from 1976 to 1982) and used Social Security data to compare their earnings to that of a control group that consisted of military applicants who did not enlist.¹⁵ Several years after discharge, both black male and white male veterans were less likely to be “nonemployed” than their nonveteran peers. As used

Greg A. Greenberg is project director and Robert A. Rosenheck is director of Northeast Program Evaluation Center, Veterans Administration. Both are on the faculty of Yale University. E-mail: greg.greenberg@yale.edu

here, nonemployment refers to individuals unable to find work but still are searching for employment (that is, the unemployed) and individuals who are disabled, retired, and/or who have given up searching for employment. A survey from the mid-1980s comparing the employment status of Vietnam-theater veterans and civilians found no significant differences in employment between black Vietnam-theater veterans and their civilian peers, but found that white Vietnam-theater veterans were slightly less likely to be nonemployed than their nonveteran peers.¹⁶

This study uses data from the Current Population Survey for 1989, 1999, and 2003 to explore differences between male veterans and their nonveteran peers in the risk of nonemployment across age and racial/ethnic groups in the United States. After July 1, 2001, there was a substantial increase in the number of Vietnam-era veterans awarded Veterans Administration (VA) disability compensation, possibly in part because veterans diagnosed with diabetes who served in Vietnam became eligible for disability compensation without having to prove exposure to Agent Orange.¹⁷ In addition, there has been an unexplained increase in the number of Vietnam-era veterans receiving disability compensation for post traumatic stress disorder in the past 5 years.¹⁸ Both of these trends possibly resulted in increasing numbers of disabled veterans from the Vietnam era withdrawing from the labor force. To investigate the generational and racial/ethnic differences in nonemployment, along with the potential impact of recent changes in the receipt of VA compensation among Vietnam veterans, we examined data from three time points—1989, 1999, and 2003—the last two time points representing the period immediately before and after the observed increase in receipt of compensation by Vietnam-era veterans.

Methods

Data source. The data presented here are derived from the September 1989, September, 1999, and August 2003 Current Population Survey (CPS). The CPS is conducted by the Census Bureau for the Bureau of Labor Statistics and, since 1985, there has been a congressional mandate for the survey to include detailed information on veterans' employment status on a biennial basis. The CPS is the primary source of information on employment and unemployment in the United States.¹⁹

The sample design for the CPS is a stratified two-stage selection with geographic areas, called primary sampling units (PSUs), selected first, and then households chosen within each selected PSUs. A total of 729 PSUs were se-

lected from 1,973 PSUs in 1989; and 754 from 2,007 PSUs in both 1999 and 2003. The selected PSUs in each survey year covered more than 1,900 counties, minor civil divisions, and cities across the United States.²⁰

Of the 60,000 to 70,000 households selected to be interviewed in the second stage of each survey, 17 percent to 20 percent were found to be ineligible because the housing unit had been destroyed, was vacant, converted to nonresidential use, or included persons whose usual residence was elsewhere. Of the remaining 50,000 to 60,000 households, approximately 5 percent more could not be interviewed.²¹

The CPS is weighted to account for sampling design and nonresponse. The weights were utilized to estimate population-level numbers of male veterans and male nonveterans within each age-race/ethnic category.²² Due to their low numbers, women who had served in the military were excluded from the analyses, along with individuals under age 18. Applying these restrictions and the population weights, our 1989 sample represented 85,429,557 males (50,076 cases), of whom 30.9 percent were veterans; the 1999 sample represented 95,777,699 males (42,871 cases), of whom 24.4 percent were veterans; and the 2003 sample represented 102,260,000 males (49,258 cases), of whom 21.3 percent were veterans.

Three measures were used in our analysis: age, race/ethnicity, and an indicator of past service in the Armed Forces. Age was summarized in six categories. To facilitate examination of cohorts over 3 years of the CPS, 10-year age categories are used, except for the youngest and oldest categories. Additionally, the 2003 survey age categories are 4 years later than those for 1989 and 1999 so that cohorts remained comparable over time, that is, so that the cohorts continue to overlap with particular service eras. Thus, age was summarized in the following categories in both 1989 and 1999—18 to 22, 23 to 32, 33 to 42, 43 to 52, 53 to 62, and older than 62; but age was categorized somewhat differently in 2003—18 to 26, 27 to 36, 37 to 46, 47 to 56, 57 to 66, and older than 66. A result of this change is that the first cohort expanded from being 5 years long to 8 years long in 2003. These age categories were also constructed to represent the highest proportion possible of veterans who served in the following specific service periods: the World War II and Korean eras (1955 and earlier), interwar (1956–65), Vietnam (1966–75), early AVF (1976–85), mid AVF (1986–95), and recent AVF (1996–2003). We based this categorization on the assumption that veterans were typically 19 years of age on average when they enlisted and that the periods of enlistment for each era were as follows: World War II

from 1940 to 1947, the Korean War from 1950 to 1955, the Vietnam era from 1964 to 1975, and the first two decades of the AVF following 1973 (early and middle period) plus the most recent 9 years, 1996–2003 (late period).²³ The later periods of the AVF differ from the early AVF in that the military had more experience and skill at recruiting for an all-volunteer military, and had both devoted more resources to recruiting and offered increased pay and benefits.²⁴

Two rules were used to classify individuals into each of four race and ethnic categories: whites, blacks, Hispanics, and other. First, respondents who reported more than one racial category were classified as “other.” Second, Hispanics, regardless of their racial category, were classified as Hispanic. The first rule was only applied to the 2003 data because the 1989 and 1999 data did not specify more than one racial category for an individual.

Data analysis. There were several steps to the analysis. First, we calculated the percentage of male veterans who were not employed for each age-race/ethnicity category. Similar calculations were then conducted for male nonveterans. Finally, we calculated the risk ratio for each age-race/ethnicity category, that is, the ratio of the percentage of nonemployed among veterans to the percentage of nonemployed among nonveterans. Ratios higher than 1 indicate that more veterans are nonemployed in that group than might be expected based upon their proportions in the general population. Fisher’s exact test was then utilized to determine whether the risk ratio was significantly different from 1. All analyses were conducted using the SAS® software system Version 9.1.3 (SAS Institute, Cary, NC). We did not report any results that used a population estimate that was based on less than 10 cases.

The results

Rates of nonemployment. The nonemployment rates by age and race/ethnicity for each of the three survey years are shown in tables 1 and 2. The most consistent and expected finding is higher levels of nonemployment for older age groups among both veterans and nonveterans. Another consistent result was that the youngest age group among veterans and the two youngest nonveteran age groups had higher nonemployment rates than the age groups that followed. Higher levels of nonemployment were also observed among both veteran and nonveteran minorities, especially blacks.

Veteran to nonveteran rate of nonemployment. The risk ratio

of nonemployment among veterans compared with nonveterans for specific age-race/ethnic categories are shown in table 3. Older veterans who had served in the World War II (WWII) or Korean eras differed little from nonveterans in their relative risk of nonemployment. While white WWII veterans in the 1989 CPS were 11 percent less likely to be nonemployed than were nonveterans, white veterans of the Korean War era were 19 percent more likely to be nonemployed. None of these differences were significant in the 1999 or 2001 surveys, when most of these men were likely to have transitioned into retirement.

Among veterans who served during the interwar period (between the Korean and Vietnam eras), black veterans were at significantly lower risk of nonemployment than their black nonveteran peers in the 1989 survey, but not in later surveys. Hispanic veterans and veterans classified as “other” from this cohort were at significantly greater risk of nonemployment in the 2003 survey but in earlier surveys, either the differences from nonveterans were nonsignificant or the data were inadequate to support analyses.

In the 1989 survey, among white veterans of the Vietnam-era generation, the relative risk of nonemployment was not statistically significant, but the risk of nonemployment in comparison to nonveterans became larger and statistically significant among white veterans in the 1999 and 2003 surveys. There were no significant differences among blacks. Considering all ethnic groups together, there was a significantly greater risk of nonemployment among Vietnam-era veterans than among nonveterans in the 2003 survey, but not in earlier surveys, perhaps reflecting the increasing participation of Vietnam-era veterans in the VA compensation program in recent years.

With respect to veterans who served in the early period of the AVF, white veterans across all three survey years were significantly more likely than their nonveteran peers to have been nonemployed. In contrast, black veterans of the same service period in both the 1989 and 2003 surveys, were significantly less likely than black nonveterans to have been nonemployed.

Black veterans of the mid AVF generation (1986–95) were also less likely than their black nonveterans to have been nonemployed in both the 1999 and 2003 surveys. In contrast to white veterans who served in the early AVF, those who served in the mid AVF were less likely than their white nonveteran peers to be nonemployed in 1999, but did not significantly differ from their peers in either 1989 or 2003. Among all ethnicities of the generation who entered military service in the mid AVF period, the likelihood of nonemployment was lower among veterans than among nonveterans in 1999 and there were no significant

Table 1. Percentage of nonemployed men among U.S. veterans by age and race and ethnicity 1989, 1999, and 2003

Race and ethnic origin	Predominant era of service					
	Mid all-volunteer force ¹ (ages 18–22)	Early all-volunteer force ² (ages 23–32)	Vietnam ³ (ages 33–42)	Interwar ⁴ (ages 43–52)	Korean ⁵ (ages 53–62)	wwii ⁶ (63 and older)
1989 (number = 15,487)						
All males.....	29.6	11.8	9.2	8.4	27.6	77.1
Whites.....	24.8	11.2	7.8	7.8	26.4	76.6
Blacks.....	—	14.2	16.5	14.9	39.7	81.7
Other.....	—	—	—	—	25.9	83.7
Hispanic.....	—	14.5	15.3	—	32.3	80.4
	Late all-volunteer force ⁷ (ages 18–22)	Mid all-volunteer force ⁸ (ages 23–32)	Early all-volunteer force ² (ages 33–42)	Vietnam ³ (ages 43–52)	Interwar ⁴ (ages 53–62)	Korean and wwii ⁹ (63 and older)
1999 (number = 10,449)						
All males.....	40.7	6.9	10.0	13.5	24.7	79.0
Whites.....	34.2	5.3	9.4	12.3	24.5	79.0
Blacks.....	—	11.8	14.6	23.3	29.7	81.4
Other.....	—	—	—	25.1	—	71.4
Hispanic.....	—	—	—	—	22.5	79.4
	Late all-volunteer force ¹⁰ (ages 18–26)	Mid all-volunteer force ⁸ (ages 27–36)	Early all-volunteer force ² (ages 37–46)	Vietnam ³ (ages 47–56)	Interwar ⁴ (ages 57–66)	Korean and wwii ⁹ (67 and older)
2003 (number = 10,501)						
All males.....	19.4	11.4	12.8	20.8	43.0	84.2
Whites.....	16.4	11.9	13.2	19.3	41.8	83.9
Blacks.....	—	9.7	13.1	32.8	46.1	87.9
Other.....	—	—	—	21.4	43.3	91.3
Hispanic.....	—	—	—	20.1	61.9	81.0

¹ Served during 1986 to 1989.
² Served during 1976 to 1985.
³ Served during 1966 to 1975.
⁴ Served during 1956 to 1965.
⁵ Served during 1946 to 1955.

⁶ Served during 1945 and earlier.
⁷ Served during 1996 to 1999.
⁸ Served during 1986 to 1995.
⁹ Served during 1955 and earlier.
¹⁰ Served during 1996 to 2003.

differences in the 1989 and 2003 surveys.

Finally, among the late AVF generation, adequate data are available only for whites and veterans of all ethnicities for 1999 and 2003. Table 3 shows that significant differences existed only in 2003, with white veterans (and veterans of all ethnicities) significantly less likely to be nonemployed than nonveterans.

Discussion of the results

This study investigated the relative risk of nonemployment among veterans, as compared with nonveterans, through a comparison of the proportion of veterans and

nonveterans who were nonemployed among specified age and race/ethnic subgroups in the 1989, 1999, and 2003 national CPS. There were few significant differences between veterans and nonveterans of the older generations. In the 1989 survey, members of the oldest generation of white veterans (Korean and World War II) were at a relatively lower risk of nonemployment compared with nonveterans, as were black veterans of the interwar period. The absence of substantial differences in nonemployment between veterans and their nonveteran peers in the older generations is likely due to the high proportion of men from these generations who served. As a result, veterans from these cohorts are generally more similar in back-

Table 2. Percentage of nonemployed men among nonveterans by age and race and ethnic origin, 1989, 1999, and 2003

Race and ethnic origin	Predominant era					
	Mid all-volunteer force ¹ (ages 18–22)	Early all-volunteer force ² (ages 23–32)	Vietnam ³ (ages 33–42)	Interwar ⁴ (ages 43–52)	Korean ⁵ (ages 53–62)	wwii ⁶ (63 and older)
1989 (number = 34,590)						
All males.....	34.7	10.9	8.4	10.9	25.8	85.6
Whites.....	32.7	8.9	6.7	8.9	22.2	85.7
Blacks.....	50.9	20.8	18.9	21.8	40.1	86.6
Other.....	45.0	17.6	9.4	14.4	24.4	79.9
Hispanic.....	25.8	12.2	11.9	14.3	33.2	85.2
	Late all-volunteer force ⁷ (ages 18–22)	Mid all-volunteer force ⁸ (ages 23–32)	Early all-volunteer force ² (ages 33–42)	Vietnam ³ (ages 43–52)	Interwar ⁴ (ages 53–62)	Korean and wwii ⁹ (63 and older)
1999 (number = 32,422)						
All males.....	36.3	11.9	9.1	12.1	26.2	78.5
Whites.....	33.6	9.6	7.2	9.5	24.5	78.0
Blacks.....	48.7	23.0	19.5	26.8	34.2	82.8
Other.....	59.7	18.1	14.3	11.9	23.1	76.7
Hispanic.....	30.1	10.7	9.1	16.8	33.0	78.3
	Late all-volunteer force ¹⁰ (ages 18–26)	Mid all-volunteer force ⁸ (ages 27–36)	Early all-volunteer force ² (ages 37–46)	Vietnam ³ (ages 47–56)	Interwar ⁴ (ages 57–66)	Korean and wwii ⁹ (67 and older)
2003 (number = 38,757)						
All males.....	30.1	13.2	12.7	15.8	43.7	85.6
Whites.....	25.9	11.6	10.7	13.7	43.0	84.4
Blacks.....	49.7	24.2	23.2	27.5	56.5	87.2
Other.....	41.1	15.3	14.6	17.8	30.1	87.8
Hispanic.....	27.4	11.4	13.8	19.6	44.4	90.6

¹ Reached age 19 between 1986 and 1989.
² Reached age 19 between 1976 and 1985.
³ Reached age 19 between 1966 and 1975.
⁴ Reached age 19 between 1956 and 1965.
⁵ Reached age 19 between 1946 and 1955.

⁶ Reached age 19 between 1945 and earlier.
⁷ Reached age 19 between 1996 and 1999.
⁸ Reached age 19 between 1986 and 1995.
⁹ Reached age 19 between 1955 and earlier.
¹⁰ Reached age 19 between 1996 and 2003.

ground and qualifications to their nonveteran peers. Even fewer differences between veterans and their nonveteran peers were evident in later surveys, presumably because of the increasing retirement among most members of these generations.

In all survey years, white veterans who served in the Vietnam era had a greater relative risk of nonemployment as compared with similarly aged white nonveterans, and this risk increased over the survey years. In contrast, the nonemployment rate among black and Hispanic veterans of the Vietnam-era generation was not significantly different from that of their nonveteran peers. These results would be readily explained if there was evidence that white Vietnam-era veterans had a particularly high prevalence of psychiatric or substance abuse disorders, especially war-related post traumatic stress disorder (PTSD). However, a

major national study found that both black and Hispanic Vietnam-theater veterans had more severe combat exposure in Vietnam and higher rates of resultant PTSD than did white Vietnam-theater veterans.²⁵ In addition, Robert Rosenheck and associates found that while Vietnam-era veterans had higher levels of substance abuse disorders, they did not significantly differ from their peers with regard to psychiatric disorders.²⁶ That study also found that Vietnam-era generation minority veterans had a greater prevalence of substance abuse disorders than nonveterans.²⁷

A more likely explanation is that white Vietnam-era veterans had a more socioeconomically disadvantaged background than equivalently aged white civilians at the time of their entry into the military, while minority Vietnam-era veterans were better off socioeconomically than

Table 3. Relative risk ratio of not working for male veterans as compared to nonveterans by age and race and ethnic origin 1989, 1999, and 2003

Race and ethnic origin	Predominant era of service					
	Mid all-volunteer force ¹ (ages 18–22)	Early all-volunteer force ² (ages 23–32)	Vietnam ³ (ages 33–42)	Interwar ⁴ (ages 43–52)	Korean ⁵ (ages 53–62)	WWII ⁶ (63 and older)
1989 (number = 50,076)						
All males.....	0.85	1.09	1.09	0.77***	1.07	0.90***
Whites.....	.76	1.25*	1.17	.89	1.19**	.89***
Blacks.....	—	.69*	.87	.68*	.99	.94
Other.....	—	—	—	—	1.06	1.05
Hispanic.....	—	1.19	1.28	—	.97	.94
1999 (number = 42,871)						
All males.....	1.12	0.58***	1.10	1.11	0.94	1.01
Whites.....	1.02	.56***	1.30*	1.30**	1.00	1.01
Blacks.....	—	.51**	.75	.87	.87	.98
Other.....	—	—	—	2.11*	—	.93
Hispanic.....	—	—	—	—	.68	1.01
2003 (number = 49,258)						
All males.....	0.64*	0.87	1.01	1.31***	0.98	0.98
Whites.....	.63*	1.03	1.23*	1.40***	.97	.99
Blacks.....	—	.40**	.57**	1.19	.82	1.01
Other.....	—	—	—	1.21*	1.44*	1.04
Hispanic.....	—	—	—	1.03	1.39*	.89

¹ Served during 1986 to 1989.
² Served during 1976 to 1985.
³ Served during 1966 to 1975.
⁴ Served during 1956 to 1965.
⁵ Served during 1946 to 1955.
⁶ Served during 1945 and earlier.

⁷ Served during 1996 to 1999.
⁸ Served during 1986 to 1995.
⁹ Served during 1955 and earlier.
¹⁰ Served during 1996 to 2003.
 NOTE: *P< .05. ** P< .01. ***P< .001.

their minority civilians. In the years preceding the Vietnam era (1950 to 1966), 54 percent of blacks were rejected by the military because of low scores on the Armed Forces Qualification Test, while only 19 percent of the whites were rejected.²⁸ During the Vietnam era, white recruits were poorer than other white males, while black recruits had higher family incomes than comparable black civilians.²⁹ In addition, fathers of white Vietnam-era veterans were more likely to have had blue-collar jobs and to be less well educated than fathers of white civilians of the same age, while the fathers of black Vietnam-era veterans had roughly similar occupations as, and were better educated than, the fathers of equivalently aged black nonveterans.³⁰

Additionally, in 1977, white Vietnam-era veterans were less educated than their nonveteran peers, while black Vietnam-era veterans were better educated than their nonveteran peers, primarily because black Vietnam veterans took greater advantage of their veterans educational benefits.³¹ Thus, socioeconomic differences, rather than combat exposure, seem to most strongly relate to post-military nonemployment.

The significant increase in the level of nonemployment among Vietnam-era veterans from 1999 to 2003 may reflect changes in the VA compensation program. During the 1999 to 2003 period, increasing numbers of Vietnam-era veterans received compensation for PTSD and a policy

change occurred that allowed Vietnam-theater veterans diagnosed with diabetes to become eligible for disability compensation without having to prove exposure to Agent Orange.³²

Black veterans who served during the period of the AVF were less likely to be nonemployed than their nonveteran peers over the years for which we have data, and the relative risk of nonemployment among black veterans declined over these years. In contrast, whites who entered the military during the early years of the AVF had a higher rate of nonemployment than their nonveteran peers, while those whites who entered the military during the mid and late AVF either did not differ significantly from their nonveteran peers or had a relatively lower risk of nonemployment. These results are likely explained by trends in recruiting over these years that reduced differences in the socioeconomic status between AVF recruits and their peers. Due to increased military pay and increased civilian unemployment, recruits from all racial groups became relatively better off than their peers.

Although data are not available to examine how enlistees differed from their peers by race for the early period of the AVF, data from later years of the AVF show black enlistees to have been increasingly better off than their peers, while white enlistees became more similar to their peers. A study that used 1987 enlistment data found that black enlistees were drawn disproportionately from areas where black family incomes are relatively high, and had better educational qualifications than their nonveteran peers, while results were more mixed for whites enlistees.³³ Another study found that black recruits remained better qualified than their civilian peers in 2002, while white recruits, in contrast to earlier cohorts, were also found to be better qualified than their civilian peers. In 2002, more than 95 percent of all new military recruits (both whites and minorities) had either a high school diploma or a GED, compared with about 85 percent of white civilians and 74 percent of black civilians of similar age (18 to 24 years).³⁴ Improvements in the qualifications of both black and white military personnel among those recruited during the mid and later years of the AVF is also suggested by greater high school graduation rates and higher scores on the Armed Forces Qualification Tests among recruits, compared with nonrecruits, in the more recent years.³⁵

Improvement in the relative quality of both black and white recruits in comparison with their peers is also likely to have reflected the increasing success of the military in the 1980s and 1990s in recruiting higher quality personnel as a result of increased military pay and benefits; greater enlistment incentives; more experience and skill

in recruiting better qualified volunteers; and higher youth unemployment during parts of this period.³⁶ It is also possible that the implementation of a “zero tolerance” policy toward illicit drug use among military personnel in the 1980s lowered rates of substance abuse in military life and specifically among those who recently entered the service.³⁷ Thus, the decline in the relative risk of nonemployment from the early to the mid and late AVF among both whites and blacks is likely due to improvements in AVF recruiting and efforts to reduce substance abuse.

Two other issues raised by our findings require consideration. First, factors besides the quality of black recruits may have contributed to the generally lower risk or nonemployment among black veterans over all service periods. As discussed above, the military is more likely to serve as a bridging environment for blacks between disadvantaged communities and the mainstream economy. Additionally, black retention and reenlistment is generally higher than that of whites, and as a result they may be older and more skilled at the time of discharge, increasing their likelihood of employment.³⁸

Second, it is important to keep in mind that although the factors that have been discussed above appear to be associated with a lower relative risk of nonemployment among black veterans as compared with nonveterans, black veterans were still generally found to have higher nonemployment rates than white veterans, reflecting dominant national employment trends. (See table 1.)

One potential limitation of our study deserves comment. Although the age categories were constructed to represent the highest proportion possible of veterans who served each specific service period, the specified age categories do not perfectly identify service eras.

VETERANS AS A GROUP DO NOT HAVE HIGHER RISKS OF NONEMPLOYMENT than their nonveteran peers. Instead, the relative risk or nonemployment varied greatly by age cohort and ethnicity. While differences in nonemployment between veterans and nonveterans were limited in the World War II and Korean War generations, the relative risk of nonemployment among veterans increased steadily from 1989 to 2003 among white veterans of the Vietnam-era generation and was consistently higher among white post-Vietnam veterans of the early years of AVF than among nonveterans. In contrast, among black veterans of the Vietnam-era generation, there were no significant differences from their nonveteran peers in any of the three survey years, while blacks who served in the early AVF had significantly lower risk of nonemployment than nonveterans across all three survey years. Both white

and black veterans of recent years of the AVF were less likely to experience nonemployment than their nonveteran peers. Traumatic war zone exposure or other military experiences does not seem to explain our findings. They

are better understood to result from differences in selectivity in the recruitment of whites and blacks, with black recruits tending to be better off than their peers and the opposite being true for white recruits. □

Notes

¹ Joshua Angrist and Alan Krueger, "Why do World War II Veterans Earn More than Nonveterans," *Journal of Labor Economics*, January 1994, pp. 74–97; Harley Browning, Sally C. Lopreato, and Dudley L. Poston, "Income and Veteran Status: Variations among Mexican Americans, Blacks, and Anglos," *American Sociological Review*, February 1973, pp. 74–85; Richard Bryant, V. A. Samaranayake, and Allen Wilhite, "The Effect of Military Service on the Subsequent Civilian Wage of the Post-Vietnam Veteran," *The Quarterly Review of Economics and Finance*, spring 1993, pp. 15–31; Sharon R. Cohany, "Employment and unemployment among Vietnam-era veterans," *Monthly Labor Review*, April 1990, pp. 22–29; Sharon R. Cohany, "The Vietnam-era cohort: employment and earnings," *Monthly Labor Review*, June 1992, pp. 3–15; Richard T. Cooney, Mady W. Segal, David R. Segal, and William W. Falk, "Racial Differences in the Impact of Military Service on the Socioeconomic Status of Women Veterans," *Armed Forces & Society*, September 2003, pp. 53–86; Phillips Cutright, "The Civilian Earnings of White and Black Draftees and Nonveterans," *American Sociological Review*, June 1974, pp. 317–27; Dennis De Tray, "Veteran Status as a Screening Device," *The American Economic Review*, March 1982, pp. 133–42; Hyder Lakhani, "The Socioeconomic Benefits of Active Military Service to Reservists," *Armed Forces & Society*, 24, 4 (Summer 1998, pp. 549–61); Jay D. Teachman and R. A. Vaughn Call, "The Effect of Military Service on Educational, Occupational, and Income Attainment," *Social Science Research*, March 1996, pp. 1–31.

² Joshua Angrist, "Estimating the Labor Market Impact of Voluntary Military Service using Social Security Data on Military Applicant," *Econometrica*, March 1998, pp. 249–88; Angrist et al., "Why do World War II Veterans Earn More than Nonveterans"; Cohany, "The Vietnam-Era Cohort"; De Tray, "Veteran Status as a Screening Device."

³ Cohany, "The Vietnam-era cohort: employment and earnings"; Amy Iverson, Vasilis Nikolaou, Neil Greenberg, Catherin Unwin, Lisa Hull, Mathew Hotopf, Christopher Dandeker, John Ross, and Simon Wessely, "What Happens to British Veterans When They Leave the Armed Forces?," *The European Journal of Public Health*, August 2005, pp. 175–84; Richard A. Kulka, William E. Schlenger, John A. Fairbank, Richard L. Hough, B. Kathleen Jordan, Charles R. Marmar, and Daniel S. Weiss, *Trauma and the Vietnam War Generation: Report of Findings from the National Vietnam Veterans Readjustment Study* (New York, Brunner/Mazel, 1990); Elizabeth Savoca E and Robert Rosenheck, "The Civilian Labor Market Experiences of Vietnam-Era Veterans: The Influence of Psychiatric Disorders," *Journal of Mental Health Policy and Economics*, December 2000, pp. 199–207.

⁴ Mark Berger and Barry T. Hirsch, "The Civilian Earnings Experience of Vietnam-Era Veterans," *The Journal of Human Resources*, fall 1983, pp. 455–79; Browning et al., "Income and Veteran Status"; Cohany, "The Vietnam-era cohort"; Cutright, "The Civilian Earnings of White and Black Draftees and Nonveterans"; Lakhani, "The Socioeconomic Benefits of Active Military Service to Reservists."

⁵ Browning, et al., "Income and Veteran Status"; Jere Cohen, David R. Segal, and Lloyd V. Temme, "The Impact of Education on Vietnam-Era Veterans' Occupational Attainment," *Social Science Quarterly*, June

1992, pp. 397–409; Jay D. Teachman and Lucky M. Tedrow, "Wages, Earnings, and Occupational Status: Did World War II Veterans Receive a Premium?" *Social Science Research*, December 2003, pp. 581–605; Jay D. Teachman, "Military Service During the Vietnam Era: Were there Consequences for Subsequent Civilian Earnings," *Social Forces*, December 2004, pp. 709–30.

⁶ Angrist et al., "Why do World War II Veterans Earn More than Nonveterans?"; Cohany, "Employment and unemployment among Vietnam-era veterans"; Barry T. Hirsch and Stephen L. Mehay, "Evaluating the Labor Market Performance of Veterans Using a Matched Comparison Group Design," *Journal of Human Resources*, summer 2003, pp. 673–700; Teachman et al., "The Effect of Military Service on Educational, Occupational, and Income Attainment"; Teachman et al., "Wages, Earnings, and Occupational Status."

⁷ Angrist et al., "Why do World War II Veterans Earn More than Nonveterans"; Cohany, "The Vietnam-era cohort"; Melvin Small, "The Domestic Course of the War," in John W. Chambers II, ed., *The Oxford Companion to American Military History* (New York, Oxford UP, 1999), pp. 763–65.

⁸ Paul F. Hogan, Paul F. Curtis, J. Simon, and John T. Warner, "Sustaining the Force in an Era of Transformation," in Barbara A. Bickler, Curtis L. Gilroy, and John T. Warner, ed., *The All Volunteer Force: Thirty Years of Service* (Washington, DC, Brassey's, 2004), pp. 57–89.

⁹ Robert J. Sampson and John L. Laub, "Socioeconomic Achievement in the Life Course of Disadvantaged Men: Military Service as a Turning Point, Circa 1940–1965," *American Sociological Review*, June 1996, pp. 347–67; Saul Schwartz, "The Relative Earnings of Vietnam and Korean-Era Veterans," *Industrial and Labor Relations Review*, July 1986, pp. 564–72; Teachman et al., "The Effect of Military Service on Educational, Occupational, and Income Attainment."

¹⁰ Cooney et al., "Racial Differences in the Impact of Military Service on the Socioeconomic Status of Women Veterans"; and Cohen et al., "The Impact of Education on Vietnam-Era Veterans' Occupational Attainment."

¹¹ Samuel Cohn and Mark Fossett, "Why Racial Employment Inequality Is Greater in Labor Markets: Regional Differences in White-Black Employment Differentials," *Social Forces*, December 1995, 511–42; Matt L. Huffman and Philip N. Cohn, "Racial Wage Inequality: Job Segregation and Devaluation across U.S. Labor Markets," *American Journal of Sociology*, January 2004, pp. 902–36; Ryan A. Smith, "Race, Income, and Authority at Work: A Cross-Temporal Analysis of Black and White Men (1972–1994)," *Social Problems*, February 1997, pp. 19–37.

¹² Josefina Card, *Lives after Vietnam: The Personal Impact of Military Service* (Toronto, Lexington Books, 1983); Arthur Engendorf, Charles Kadushin, Robert Laufer, George Rothbart, and Lee Sloan, *Legacies of Vietnam: Comparative Adjustment of Veterans and Their Peers* (New York City, The Center for Policy Research, Inc, 1981); Richard Fer-

nandez, "Social Representation in the Military: A Reassessment," in J. Eric Fredland, Curtis Gilroy, Roger Little, and W. S. Sellman, eds., *Professionals in the Front Line: Two Decades of the All-Volunteer Force* (London, Brassey's, 1996), pp. 226–45; Greg Greenberg and Robert Rosenheck, "Risk of Incarceration among Veterans and Non-veteran Men: Are Veterans of the All Volunteer Force at Greater Risk?" (under review); Teachman et al., "The Effect of Military Service on Educational, Occupational, and Income Attainment."

¹³ Cohany, "The Vietnam-era cohort"; and Engendorf et al., *Legacies of Vietnam*.

¹⁴ Browning et al., "Income and Veteran Status"; Cooney et al., "Racial Differences in the Impact of Military Service on the Socio-economic Status of Women Veterans"; Robert L. Phillips, Paul J. Andrisani, Thomas N. Daymont, and Curtis L. Gilroy, "The Economic Returns to Military Service: Race-Ethnic Differences," *Social Science Quarterly*, June 1992, pp. 340–59; Teachman et al., "The Effect of Military Service on Educational, Occupational, and Income Attainment"; Teachman et al., "Wages, Earnings, and Occupational Status"; Teachman, "Military Service During the Vietnam Era."

¹⁵ Angrist, "Estimating the Labor Market Impact of Voluntary Military Service using Social Security Data on Military Applicant."

¹⁶ Kulka et al., *Trauma and the Vietnam War Generation*.

¹⁷ Anonymous, "Agent Orange Exposure Linked to Type 2 Diabetes," *Nation's Health* (December 2000/January 2001), pp. 11.

¹⁸ Veterans Administration Office of the IG, *Review of State Variances in VA Disability Compensation Payments*, Report no. 05–00765–137, 2005, available at www.va.gov/oig/52/reports/2005/VAOIG-05-00765-137.pdf (visited Jan. 30, 2006).

¹⁹ Cohany, "The Vietnam-era cohort."

²⁰ AskCensus, "Inquiry regarding total number of PSUs in 1989" (Personal Communication, askcensus@custhelp.com, 12/29/2005); *Current Population Survey, September 1999: Veterans Supplement, Technical Documentation CPS-00* (Census Bureau, 2000); *Current Population Survey, Technical Paper 63RV: Design and Methodology* (Census Bureau, 2002); *Current Population Survey, September 2003: Veterans Supplement, Technical Documentation CPS-03* (Census Bureau, 2004); Center for Disease Control. *Scientific Data Documentation, 1989: Current Population Survey, September Supplement, 1990*, on the Internet at http://wonder.cdc.gov/wonder/sci_data/census/cps/type_txt/cps89sep.asp (visited Dec. 29, 2005).

²¹ Current Population Survey, September 1999; Current Population Survey, September 2003; Center for Disease Control, *Scientific Data Documentation, 1989*.

²² *Current Population Survey, September 1999; Current Population Survey, September 2003*; Center for Disease Control, *Scientific Data Documentation, 1989*.

²³ Due to the constraints of our methodology, some of these eras slightly differ from the officially defined service eras, which are as follows: (1) Korean conflict—June 27, 1950–January 31, 1955; (2) between Korean conflict and Vietnam era—February 1, 1955–August 4, 1964; (3) Vietnam era—August 5, 1964–May 7, 1975; and (4) after Vietnam era I—May 8, 1975.

²⁴ Edwin Dorn, "Sustaining the All-Volunteer Forces," in J. Eric Fredland, Curtis Gilroy, Roger D. Little, and W. S. Sellman, eds., *Professionals in the Front Line: Two Decades of the All-Volunteer Force* (London, Brassey's, 1996), pp. 3–22; Mark Eitelberg, "The All-Volunteer After Twenty Years," in J. Eric Fredland, Curtis Gilroy, Roger D. Little, and W. S. Sellman, eds., *Professionals in the Front Line: Two Decades of the All-Volunteer Force* (London, Brassey's, 1996), pp. 66–98; Hogan et al., "Sustaining the Force in an Era of Transformation"; John P. White, "Reflections on Managing the All-Volunteer Force: Past and Future," in Barbara A. Bicksler, Curtis Gilroy, and John Warner, eds., *The All-Volunteer Force: Thirty Years of Service* (Washington, DC, Brassey's, 2004), pp. 33–44; Office of the Assistant Secretary of Defense for Personnel and Readiness, *The Population Representation in the Military Services: Fiscal Year 1989* (Washington, DC, Office of the Secretary of Defense, 1990).

²⁵ Kulka et al., *Trauma and the Vietnam War Generation*.

²⁶ Robert Rosenheck, Linda Frisman, and An-Me Chung. "The Proportion of Veteran Among Homeless Men," *American Journal of Public Health*, March 1984, pp. 466–69.

²⁷ Rosenheck, et al., "The Proportion of Veterans Among Homeless Men."

²⁸ Engendorf et al., *Legacies of Vietnam*.

²⁹ *Ibid.*

³⁰ *Ibid.*

³¹ *Ibid.*

³² Anonymous. "Agent Orange Exposure Linked to Type 2 Diabetes," *Nation's Health* (December 2000/January 2001), pp. 11.

³³ Fernandez, "Social Representation in the Military."

³⁴ Office of the Assistant Secretary of Defense for Personnel and Readiness, *The Population Representation in the Military Services*.

³⁵ Dorn, "Sustaining the All-Volunteer Forces"; Eitelberg, "The All-Volunteer Force After Twenty Years"; Fernandez, "Social Representation in the Military: A Reassessment"; Hogan et al., "Sustaining the Force in an Era of Transformation"; Office of the Assistant Secretary of Defense for Personnel and Readiness, *The Population Representation in the Military Services*.

³⁶ Dorn, "Sustaining the All-Volunteer Forces"; Mark Eitelberg, "The All-Volunteer Force After Twenty Years"; Hogan, et al., "Sustaining the Force in an Era of Transformation"; John P. White, "Reflections on Managing the All-Volunteer Force"; Office of the Assistant Secretary of Defense for Personnel and Readiness, *The Population Representation in the Military Services*.

³⁷ Jerald Bachman, Peter Freedman-Doan, Patrick O'Malley, Lloyd Johnston, and David Segal, "Changing Patterns of Drug Use Among US Military Recruits Before and After Enlistment," *American Journal of Public Health*, May 1999, pp. 672–77.

³⁸ Robert L. Phillips, Paul J. Andrisani, Thomas N. Daymont, and Curtis Gilroy, "The Economic Returns to Military Service: Race-Ethnic Differences," *Social Science Quarterly*, June 1992, pp. 340–59.