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Enhanced Human Capital Stock and the Military Experience: A Modest Policy Proposal

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Recommended Citation

Sondey, John, "Enhanced Human Capital Stock and the Military Experience: A Modest Policy Proposal" (1994). *Department of Economics Staff Paper Series*. Paper 108.

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Introduction

George Washington's sentiments on the obligations of citizens were clear. He regarded military service as the duty of every male citizen who enjoyed the privileges of democracy. He stressed that an army composed of citizen-soldiers was preferable, from a point of social cohesion and political stability, to one composed of professional soldiers - and cited the Swiss Army as the proper example (Graham, 1971).

In spite of these perceived benefits, the United States has historically been of two minds with respect to providing for the national defense. That is, should the military be composed of professional soldiers, induced to enlist by opportunity cost differentials or a taste for military service? Or should the military consist in large part of citizen-soldiers responding to a national obligation - in much the same manner as citizens called for jury duty (Lacey, 1982)? The national response to security threats has reflected this dichotomy. From the Civil War to World War II, the government periodically relied on conscription to augment a small, professional army. In the aftermath of World War II, the draft apparatus was dismantled, only to be quickly reconstructed with the onset of the Cold War. For the next twenty-five years conscription (and draft-induced enlistments) provided a substantial portion of our armed forces; spreading the military experience over a large segment of the young, male population. Given the necessity for maintaining a large military presence over an protracted period, the draft came to be viewed as a reasonable

demand of citizenship. It remained for an unpopular war and a unfairly selective draft to dim the values of a broader military experience.

Gates Commission

In 1970, the Gates Commission was convened by President Nixon to consider the abolition of an increasingly unpopular draft. The Gates Commission found the draft to be arbitrary and discriminatory in its burden; a "tax" neither universally borne, nor one with an equal probability of being borne by different segments of the population (Report, 1970). The draft was viewed as inequitable and an all volunteer service (AVS) as preferable, particularly from the perspective of applied economic theory. Thus, for the past twenty years, the US military has been an all-volunteer service

The issue is not whether to reinstate conscription; for all purposes the draft is extinct. The issue at hand is whether society is better when a smaller percentage of its membership experiences military training. Did the staff economists who had substantial input into the final Gates Report err in their cost-benefit analysis? Specifically, were the social benefits of military service understated in the cost-benefit analysis? The paper proposes that they indeed were.

Much of the economic argument which supported the abolition of conscription cited the "tax" of the draft; broadly defined as

coercion, evasion, and collection costs, a military wage less than the reservation wage, and lower lifetime earnings. Furthermore, opponents of the draft noted that the draft tax was arbitrary, regressive, and shouldered disproportionately by minorities. Today, in the absence of a draft and the presence of a pay scale which more accurately reflects civilian opportunity costs, the tax of military service becomes negative.

The Economics of Voluntarism

From an economic perspective, "voluntarism" implies that each man or woman who chooses to join the military bears no implicit tax; i.e. receives a military wage which, at the very least, is equal to his or her opportunity cost in the civilian sector at the time of enlistment. If the distaste for military service is very high, then so is one's reservation wage. As the enlistment proceeds, it is conceivable a particular occupation might become onerous, raising the reservation wage above the military wage. However, well-laid career and promotional tracks plus shorter enlistment periods minimize this potential cost. If the military wage rises (*ceteris paribus*) more individuals will volunteer their labor services as their reservation wage is met. As the military wage structure is uniform and set by law, anyone who selects to enlist has perfect information about the starting wage and earns an economic rent.

Removal of the draft (and the costs of coercion) occasioned an

increase in individual (and social) benefits accruing to the military experience. On the other hand, since 1973, traffic through the military has been reduced as the composition of the military becomes more careerist and less citizen-soldier in nature. Accordingly, the military experience is spread over a smaller segment of society, reducing the social benefits of a broader military experience. In the absence of conscription, the costs of individual service have been lowered as have the benefits of a broader participation. The post-Cold War downsizing of the military will further reduce the element of military experience in US society. The paper proposes that a broader, short term exposure to military training would be a Pareto superior move for society.

Benefits Accruing to a Broader Military Experience

The paper proposes that society benefits in two ways from a more diffused military experience. First, service personnel undertake both general and military-specific training which build human capital and improve post-service productivity. Second, society benefits directly as military service becomes common to a greater percentage of its population. Social cohesiveness is enhanced as more citizens of diverse social groups share a common denominator of military training. Military training spread over a greater portion of society results in a greater proliferation of socially desirable attributes such as discipline, responsibility, and adaptability.

In order to affect a wider dispersion of service-attendant social benefits, the paper proposes a mechanism by which greater numbers of the post-high school youthful cohort (18-20) can undertake military training for a brief, twelve month period and then phase back into civilian life. Military service during this period might be optimal for those without established career goals or distaste for military service. Certainly, opportunity costs during the immediate post-high school period would be minimized.

Therefore, the focus of the paper is to: (1) consider evidence of the distinctive human and social capital generated by the military experience; (2) propose how production of this service-specific capital can be encouraged through shorter periods of enlistment and a more widespread military experience; and, (3) examine a reward structure for the new voluntary military training program. It is further suggested that this new infusion of short term active duty military personnel will be cost-efficient and not detrimental to the military mission. Finally, through careful structuring of the post-service benefits package, human and social capital can be further stimulated through subsidized post-military training and education.

Human and Social Capital Generation in the Military

The distinction between human and social capital development is a tenuous one, but one that must be attempted for the sake of greater clarity. The author proposes that human capital

development, in making the recruit more productive, directly rewards the acquirer with higher income, and indirectly benefits the greater society; e.g. more productive labor resources may lower costs, increase innovation, and raise incomes. Social capital generation refers to characteristics inculcated, fostered, and honed by the military experience that result in social benefits of an approximately equal incremental nature for all citizens; e.g. a more tolerant, civic-minded, and law abiding society as the result of a broader military experience. It is further proposed that both human and social capital are a joint product of the military experience.

Changes in Technological Content of Military Skills and Systems:

The military service of the 1990s is substantially different than the military of the 1980s and of the 1970s from a perspective of technological content. Since the end of the Korean War, the percentage of military manpower trained in traditional infantryman skills has declined in favor of technology-oriented skills. In 1945, white collar labor made up 28% of the military work force compared to 47% in 1985 (Binkin, 1986). Calculated on a percentage of total cost basis, the electronic content of weapons systems increased from 10 to 20 percent in the 1950's, to 20 to 30 percent by the early 1970's, to 40% by 1983 (Binkin, 1986). In 1945, only 6% of armed forces enlisted personnel were categorized as electronic technicians. By 1985, this percentage had increased to 21% of military enlisted personnel (Binkin, 1986, p. 7-8). This

technological transformation of the military, plus the civilianization of some of the more mundane jobs (food service) insures that even the least educated recruits will enjoy some real level of human capital enhancement.

Magnum and Ball (1989) focused on the transferability of military training to civilian occupations in veterans of the post-draft period. They found a transferability rate (45%-50%) for military acquired skills to civilian employment, a higher rate than previously hypothesized. It is probable that the higher rate is attributable for improved individual choice in both enlistment and military career field decisions. Furthermore, the 50% skill transferability rate was equal to that achieved in civilian occupational training.

It is possible and indeed probable that military experience allows the relative poor and unskilled a level of general training that could not be realized in civilian entry level positions, training which would could not be undertaken at the individual's own expense. It should be noted that military downsizing and reduced opportunity costs in the civilian sector have allowed the military to tighten enlistment standards and thereby raise, rather than lower, the ladder of social mobility for the least endowed. However, lower civilian wage expectations have made military service a viable alternative for the better endowed youthful cohort, particularly among minorities and females.

The "Bridging" Effect and Military Service

Martindale and Poston (1979) consider the "bridging" effect that military service has in channeling youth, and, in particular, minorities into the socioeconomic mainstream, and the subsequent positive impact on post-service income. In examining the earnings of World War II, Korean War, and Vietnam veterans relative to their nonveteran cohorts, the authors find a positive correlation between civilian earnings and prior military experience. Furthermore, the weight of the evidence is particularly strong for minorities (African-Americans and Mexican-Americans), suggesting that the military serves as an effective instrument of socioeconomic mobility.

Little and Fredland (1979) reach essentially the same conclusions from a different database. Employing disaggregated data from the National Longitudinal Survey on the 1966 earnings of men aged 45 to 66, they find that military service has a positive influence on civilian earnings fifteen to twenty years after discharge. Specifically, white veterans, averaged across characteristic groups, earned incomes 5%-10% greater than their nonveteran cohort, while non-white (Hispanic) and black veterans earned 13% -15% more than their nonveteran counterparts. For whites, this increment is equivalent to the return on a year's additional education or four to seven added years of job tenure. For African-Americans, the service-determined increase is worth two to three years added schooling or seven extra years of job tenure.

Furthermore, the study shows that white veterans averaged one more year of post-military training than their nonveteran counterpart, while minority veterans averaged two and one-half more years of formal education than their nonveteran counterpart (Little and Fredland, 1979).

There is a strong correlation between the existence of GI Educational Bill rights and the attainment of additional education. In turn, incremental training is positively correlated with income. The evidence presented by Little and Fredland (1979) suggests that military service may have a positive effect on life cycle income. Thus, the "tax" of a functioning draft, may have been overstated. Furthermore, the nature and extent of Vietnam GI Bill benefits may help explain the post-service earnings gap of Vietnam veterans relative to their Korean and Second World War counterparts. As benefits under the Vietnam GI Bill of Rights were less extensive than their predecessors, Vietnam veterans were less apt to undertake post-service training or enrolled for a shorter period. Consequently, Vietnam veterans earned smaller returns on a smaller investment.

The Veteran's Premium

Many of the studies which considered the burden and benefits of military service were conducted in the 1970s, the general period of conversion from a draft-augmented force to the all volunteer system. Because of the time frame, the research tended to

concentrate on the perceived short run net costs accruing to military service. Later, Angrist (1990) focuses on the veteran within a ten year aftermath of discharge. The common thread linking most of the analyses conducted under the Gates Commission was that the draft imposed real costs on draftees and coerced enlistees that were not offset by benefits. The Gates Commission was, in fact, an economic study of the feasibility of an all-volunteer force to replace a draft-augmented one. The Commission considered objections to the AVS, including its potential lack of representativeness and negative effect on the social fabric. However, it concluded that the tax of the draft was a most inefficient one and that the country would be better served by a volunteer service, manned through the workings of a free labor marketplace (Segal, 1989). Furthermore, the Commission took a decidedly short run focus in its cost benefit analysis which tended to bias its findings in favor of the AVS.

A countervailing body of research suggests a secular and positive divergence between veteran and non-veteran earnings paths. In the shorter run, the differential may be positive or negative depending on the time frame over which veterans' earnings are considered. One possible explanation of the variation in findings between short run (lower incomes for Vietnam era veterans) and long run (higher incomes for veterans in general) is that Vietnam veterans may have entered a decidedly different labor market than their World War II counterparts.

Magnum and Ball (1989) combed the National Longitudinal Survey data for evidence on the civilian sector earnings of post-draft era veterans. They found, as did studies of World War II and Korean War veterans, that an earnings premium for veterans did in fact exist, and surfaced within two years after entering civilian employment. Their findings add credence to the view of the Vietnam experience as an outlier - one inconsistent with the history of the military as a documented generator of human capital.

Also, as many of the studies of Vietnam veterans consider post-service earnings in the relatively short post-discharge period, the premium attributable to veteran status may not yet have revealed itself, particularly in the case of initial entry into an adverse labor market (DeTray, 1982; Little and Fredland, 1979). Were the premium lagged until the veteran's early middle age before exerting itself, lifetime earnings, even when discounted, outweigh any short-run costs. The author concurs with Schwartz (1986) in viewing any negative impact on post-service earnings as a "particular feature of the Vietnam war." It follows that, in the absence of a Vietnam conflict, the draft, and coerced military service and in the presence of higher military pay scales and a technologically intensified armed services, any cost-benefit analysis of the military experience will swing toward the (more) positive.

The question for economists becomes, why does the premium occur? The literature generally attributes the post-service wage premium to two sources: (1) differences in human capital investment by veterans and non-veterans; and, (2) employers' use of veteran status as a screening device (De Tray, 1982).

Human Capital and Credentialism

To test the hypothesis that the effect of military service on civilian wages is positively related to the veteran component of any group, DeTray (1982) draws data from the 1960 and 1970 Census Public Use Samples. The resulting evidence seems to corroborate his hypothesis of a positive correlation between veteran status and private sector wage. While some of the wage differential is attributable to general human capital acquired from military-specific training, and subsequent, government-financed training post-military service, Detray assigns a significant part of the difference to the reality that employers use veteran status as a credential - an effective means of screening job applicants. Veteran status provides a vacancy filling firm with information that the applicant has been pre-screened by the military. That is, the veteran has passed sufficient tests to be accepted by the military, designated as qualified, and honorably discharged from the performance of his or her duties. Veteran status, then, may signal employers that the applicant has a proven level of productivity, while the non-veteran lacks that credential; enabling a higher wage for the veteran (Little and Fredland, 1979).

Unique Social Capital

The concept of a purely social capital, uniquely generated by a broader exposure to military training, constitutes an intangible which evades attempts at quantification. Nonetheless, there is support that such capital does exist and is produced through military service. A broader military experience is seen by Charles Moskos (1982) and Moskos and Faris (1982) as consistent with increased participation of society in the requirements of democracy and the creation of a common denominator of shared experience for a greater cross-section of society. A greater diffusion of military service is also viewed as increasing the production of the characteristics of discipline, responsibility, and social order - which would tend to strengthen the cohesiveness of a society. A military that is more representative of the greater society, in that a larger segment of the civilian population has undergone military training, would tend to be less alienated from that society. Inversely, a broader military experience would result in a military that is more reflective of widely held social values. Finally, a larger "pass-through" military service by the larger society would create a greater awareness of military efficiency and help to establish real constraints against redundant programs and personnel. In Democracy in America, Tocqueville (1877) describes the benefits, for the military and the greater society, of the citizen soldier:

Among democratic nations the private soldiers remain most like civilians; upon them the habits of the nation have the firmest hold, and public opinion the most influence. It is by the instrumentality of the private soldier especially that it may

be possible to infuse into a democratic army the love of freedom and the respect of rights, if these principles have once been inculcated on the people at large. The reverse happens among aristocratic nations, where the soldiery have eventually nothing in common with their fellow-citizens and where they live among them as strangers, and often as enemies.

New Military Enlistment Option

It is proposed that a new enlistment option be extended to young men and women, 18-20 years old. The year or two following high school is viewed as the transition period between youth and adulthood and a time for reassessment. Accordingly, it is in this period where the opportunity costs of military service are lower than at any other stage of the life cycle. The new enlistment option entails an active duty commitment of twelve months, with additional active or reserve service at the option of the recruit and the respective services.

It is expected that the nature of military training will be a mix of general (the first six months) and civilian occupation specific (the last six months). Knapp (1973) suggests that aspects of general training such as "discipline, ability to get along with others, and good citizenship," are as positively correlated with higher civilian earnings as is occupation-specific training. Knapp proceeds to note that the "burden" of military service becomes more negative (less than zero dollars) when the military training is undertaken at lower ages, levels of education, and periods of enlistment.

In 1990, the first term enlistment accessions of the four services totaled 217,000 personnel. It is proposed that, initially, the new option add 100,000 recruits to the military services; incrementing each service in proportion to the 1990 first term enlistments of each branch as a percentage of total accessions (Army 39%, Navy 29%, Air Force 17%, Marine Corps 15%). The increase of new accessions by 50% should not affect service mission capability nor strain existing facilities. New accessions as a percentage of total force strength would increase modestly, from 10.6 % to 15.5%. It is further proposed that the 100,000 force increment be raised gradually to a ceiling of 200,000 (US Bureau of the Census, 1992).

As an integral part of the new enlistment option, participants, upon successful completion of duty tours, will be guaranteed a low interest student loan to continue their training or education. Initially, the maximum loan to each student would be limited to \$10,000. This ceiling would be adjusted upward by the average annual increase in higher education costs.

Implementation of such an option will benefit society and the military in three ways. First, it will spread the military experience over a greater cross-section of society, increasing the representativeness of the military and expanding the common denominator of military service, thereby strengthening the social fabric. Second, the new enlistment option, through active duty and

post-military training and education will act to enhance the human capital stock of the youthful (18-20) cohort and allow a secular flow of return on investment. Finally, such a program will act to augment the reserves at a critical juncture in time. Under the Total Force policy, reservists have a greatly expanded role in maintaining the nation's security (Binkin and Kaufman, 1989). Reservists are now a major part of any initial deployment of combat troops. The role of the reserves will increase rather than shrink as the active military services are downsized as part of the post-Cold War, deficit reduction package.

Summary

Military service is a proven developer of human and social capital. The thrust of the literature is that World War II and Korean veterans enjoy a civilian earnings premium associated with military service. There is no evidence yet of a positive income differential attributable to Vietnam-era duty. Indeed, much of the literature associates a negative post-service earnings differential with Vietnam-era service. The Vietnam era period may be considered an outlier, in terms of unique economic conditions, characteristics of Vietnam-era veterans, lower levels of post-service educational benefits and possible discrimination against veterans by employers. More recently in the post-draft period, (Magnum and Ball, 1989) when the AVS is sampled, the earnings premium turns positive again.

In 1993, President Clinton's National Service proposal was

enacted with the expressed purpose of creating civic awareness and instilling a sense of social responsibility in young people. The author contends that we have a viable means of gaining such ends in place - the US Armed Forces. A brief period of enlistment, spread across a greater cross section of the youthful cohort, could achieve many of the same goals targeted by National Service in a more cost efficient manner.

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