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SOCIOECONOMIC ACHIEVEMENT IN THE LIFE COURSE OF DISADVANTAGED MEN: MILITARY SERVICE AS A TURNING POINT, CIRCA 1940–1965*

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Linking historical context with macro-social opportunity over the life course, we examine the social mechanisms by which military service in the World War II era fostered long-term socioeconomic achievement. Our analysis draws on a classic longitudinal study of delinquency that brings together data on childhood differences (e.g., IQ, early antisocial behavior), multimethod measures of military experiences, and adult socioeconomic outcomes among 1,000 men raised in poverty areas of Boston during the Great Depression. Supporting a theory of military service as a turning point in the transition to young adulthood, the results show that overseas duty, in-service schooling, and G.I.-Bill training at ages 17 to 25 generally enhanced subsequent occupational status, job stability, and economic well-being, independent of childhood differences and socioeconomic background. The benefits of the G.I. Bill were also larger for veterans stigmatized with an officially delinquent past, especially those who served in the military earlier rather than later in life. Overall the results underscore the potential of large-scale structural interventions in the lives of disadvantaged youths.

Social scientists have long sought to learn how individuals can surmount economic disadvantage. How is it that many children raised in impoverished and high-risk settings nonetheless attain occupational success and stable work in adulthood? Although the continuing search for childhood protective factors and individual differences in resilience is surely important for understanding successful adult outcomes among those at risk for economic and social failure (Masten, Best, and Garmezy 1991; Maughan and Champion 1990; Werner and Smith 1992), it is far from the whole story. Indeed, an alternative idea is that "turning points" in the adult life course matter, and that a change in life direction may stem from macro-level events largely beyond individual choice (e.g., war, depression, natural disasters, revolutions).

From a sociological viewpoint, one of the most intriguing macro-level sources of adult developmental change is the military—especially service during wartime. As Elder (1986:244) argued, war and serving in the military can profoundly affect an individual's development by introducing a major source of discontinuity in the life course. Military service during World War II stands out as the defining moment for an entire generation, touching the lives of three in four American men and yielding one of the largest social interventions in U.S. history—the G.I. Bill of Rights. As we were reminded by the observation in 1994 of the 50th anniversary of the G.I. Bill (O'Niell 1994), some 10 million

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men received the opportunity to start anew after the war. Even today the military remains one of the largest employers of young adults in the United States and plays a major role in the labor market. Yet neither the psychological literature on resilience nor the sociological literature on status attainment tells us much about how macro-induced experiences during military service (e.g., overseas assignment in wartime, in-service training) influence adult socioeconomic achievement.

Closing this gap in knowledge from a life-course perspective, we analyze the lives of 1,000 men raised in poverty-stricken areas of Boston during the Great Depression. The data were collected originally by Sheldon and Eleanor Glueck (1950) in their classic study of 500 delinquent and 500 nondelinquent adolescents followed prospectively for approximately 18 years, including the critical transition to young adulthood during the World War II era. Moving beyond a comparison of veterans with nonveterans, our major hypotheses and analytical strategy focus on the differential social mechanisms and experiences associated with military service that bear on long-term trajectories of adult achievement in the lives of disadvantaged individuals. To achieve this goal, we reconstruct information on military service gathered from multiple sources (e.g., Army, Navy, Selective Service, Veterans Administration, Red Cross, personal interviews) augmented with follow-up information on socioeconomic attainment into the men's thirties and forties. We thus can bring together premilitary data on childhood differences (e.g., measured intelligence, early antisocial behavior), multimethod measures of the military experience, and postmilitary outcomes in work and status attainment. The richness of the data, coupled with the longitudinal design, provides a unique opportunity to assess the role of military service as a turning point in the life course of economically disadvantaged and (in the case of the 500 delinquents) officially stigmatized men.

MILITARY SERVICE AND THE LIFE COURSE

Various hypotheses, focusing on both the positive and the negative, attempt to explain how the military offers a meaningful opportunity for change in men's lives. Among the positive factors, the military setting provides qualities often missing from the backgrounds of disadvantaged men, such as firm discipline, cooperative relations or teamwork, strong leadership, social responsibility, and competent role models for emulation (Elder 1986:236–38). The military also entails new options and experiences, especially travel to diverse places with its corresponding exposure to different people, situations, and cultures (Elder 1986:238–40; Elder and Hareven 1993:53).

Regarding possibilities for change, the military is of interest in another important respect: It exerts a leveling influence on all recruits. As Janowitz (1972:167) argued, prior social characteristics are "de-emphasized" in the military, including social disabilities such as bad grades and criminal records. Beginning with basic training, the military performs an education and socialization function designed to reorient newcomers to a world with different rules and structures (1972:171). Thus the influence of past accomplishments and past deficits is diminished; "nothing in one's past seems relevant" (Brotz and Wilson 1946:374). Similarly, Elder and Hareven (1993:54) believe that military service reduces the persistence of prior disadvantage for those who enter the service at a young age. The separation from family influences, combined with a new social independence, represents a "knifing off" of past experience (Brotz and Wilson 1946: 374). Caspi and Moffitt (1993) also observe that the military, by knifing off the past while simultaneously providing a new "script" of social expectations, is one of the few social institutions with the potential to spark fundamental change.

Assessing these hypotheses, Elder (1986) used data from the Berkeley Guidance Study to examine military service among men who were disadvantaged in childhood and adolescence (e.g., economically deprived family during the 1930s, poor school grades, and low scores on social competence as a teenager). Like the subjects of the Gluecks' study, the Berkeley men were born in 1928–1929, and served in the military during the 1940s and into the Korean War. Elder found that although life disadvantages did not influence whether men entered the military,

servicemen from disadvantaged backgrounds were most likely to enter at an early age (before age 21). Moreover, early entry allowed many veterans to overcome childhood disadvantages and achieve positive outcomes such as improved psychological health and social competence in midlife. This finding supports the idea that military service helps many individuals to surmount the detrimental effects of early disadvantage.

These possibilities are intriguing, but they tend to focus on changes in self-identity and other social-psychological characteristics. Military service also may offer *structural* benefits in the form of job training and education, which in turn enhance later occupational achievement. As noted by Havighurst et al. (1951) and Elder and Hareven (1993), military recruits in the 1940s from disadvantaged backgrounds were uniquely positioned to take advantage of the G.I. Bill. In a study of the relative effects of measured intelligence and military service on midlife occupational status, Elder and Caspi (1990) found that military service significantly increased educational and occupational achievement for those from deprived backgrounds. Villemez and Kasarda (1976) also found that military service positively influenced adult socioeconomic achievement among World War II veterans. More generally, Xie's (1992) more recent analysis suggests that the benefits of military service accrue over the long run as a result of increased access to education.

The educational and ultimately the economic benefits of the G.I. Bill, however, do not always depend on a college education. Nam's (1964) study found that college was not the dominant means of extending education with the G.I. Bill. Some veterans used benefits simply to complete high school diplomas, and approximately one-third enrolled in craft, trade, or industrial courses. Others took farm training and specialized courses; still others dropped out during the first year of schooling or chose to take only a few courses. Those from disadvantaged backgrounds thus used the G.I. Bill less to mimic the middle-class ideal of going to college than to finish high school or trade school and improve their technical skills so as to position themselves for long-term advancement in the labor market (Xie 1992). In this sense, the military provides a "bridging environment," which introduces disadvantaged men to on-the-job training and to both in-service and postservice education (Browning, Lopreato, and Poston 1973; Cutright 1974:318). This environment apparently saved many lower-income veterans of World War II from falling below their parents' economic level during the Great Depression; the military gave them a chance for a "new start" within their own class (Elder and Hareven 1993:66).

In keeping with a life-course perspective, the effect of military service on adult status attainment also appears to interact with the *timing* of entry. Motivated by Ryder's (1965) conceptualization of cohort effects and social change, the "life-stage principle" holds that the influence of historic events will vary depending on the stage of life when the event is experienced (Elder 1974; Elder and Caspi 1990:219). To test this principle, Elder (1987) examined the interaction between military service and age, using data from the Oakland Growth Study. For men mobilized later in life (after age 22), military service tended to disrupt both family ties and work careers. Moreover, late entrants had less to gain from G.I. benefits in education, jobs, and housing, given their starting positions in wartime. As Elder (1987:450) argued: "[D]elayed entry into the service exacts more from and offers less return to the lives of men." In contrast, early entrants were able to take fuller advantage of the G.I. Bill, and were more likely than late entrants to change and develop for the better and to describe the military experience as a positive life event (Elder 1987:467).

Some evidence, although limited, suggests that the military presents a unique setting for men with a disadvantaged past in yet another arena—the stigma of prior criminal conviction. Mattick (1960) compared the recidivism rates of men paroled to the army with those of a group of civil parolees, and found that the rates among army parolees were much lower. An eight-year follow-up revealed lasting positive effects of the army experience: The recidivism rate for the army parolees was 10.5 percent, compared with the national average of 66.6 percent. Mattick, however, could not identify the aspects of the army experience that may have accounted for this difference.

War, of course, can have negative consequences for individual lives. Besides death, the most obvious consequence is serious injury incurred in battle. War-induced trauma can undermine the stability of marriage or can result in the avoidance of marriage altogether. According to Elder (1986), veterans least likely to benefit from the military experience were those who served in combat, who were wounded or taken captive, or who observed killing by others. Using data from the Terman study, Pavalko and Elder (1990) examined the effects of mass mobilization in World War II and found that veterans were more likely to divorce than nonveterans. This effect was especially pronounced for those who entered the military late (after age 30) and served in combat. Similarly, the research of Laufer and Gallops (1985) suggests that trauma resulting from combat heightens the risk of marital instability. Late entry into World War II also predicts negative physical health over veterans' lives (Elder, Shanahan, and Clipp 1994). Clearly, the tragic consequences of military service cannot be ignored.

RESEARCH STRATEGY AND THEORETICAL FRAMEWORK

On analytical grounds, military service in the World War II era shares some of the benefits of a natural experiment, or what Bronfenbrenner (1979:41) called a "transforming experiment." That is, service in World War II provided the equivalent of a full-employment treatment program available to the majority of subjects in the Gluecks' study, delinquents and nondelinquents alike (Gottfredson and Hirschi 1990:164). After the war, the G.I. Bill constituted an unprecedented macro-social intervention that was available to all returning veterans. The thorny selection effects prominent in developmental research (Scarr 1992) are thus reduced, and the military becomes an important analytical window for viewing the role of macro-level events in changing the course of adult development.

Analytical advantages notwithstanding, the military has received surprisingly little attention in developmental research on adult achievement (Elder 1986). The role of military service or veteran status has also been largely unexplored in the sociological literature on status attainment (Duncan, Featherman, and Duncan 1972:14; Teachman and Call 1996). As Xie (1992) observed, "[R]esearch concerning the impact of military experience upon veterans' socioeconomic status is sparse and inconclusive" (p. 379). Moreover, the research that exists typically does no more than compare veterans with nonveterans with respect to subsequent socioeconomic achievement. This strategy masks the considerable variations existing in the large cohorts of men who served in the World War II era; these include age at entry (Elder 1986) as well as variations in overseas assignment, in-service education and skills training, and contact with the military justice system. How these and other social experiences during military service predict long-term adult outcomes remains an open question.

This gap in knowledge is due not only to a lack of sustained theoretical attention but also to a scarcity of relevant data on the life course. Isolating the effects of military service requires the longitudinal study of selection into, behavior and experiences during, discharge from, and long-term consequences of the military for later adult outcomes. Longitudinal archives that can support these requirements are rare; hence much of the relevant literature has relied on retrospective reports from cross-sectional surveys of American men (Xie 1992:394). Even some of the major longitudinal archives are limited to retrospective accounts of military experiences. For example, military data on the Oakland/Berkeley cohorts were collected over 40 years after mass mobilization in World War II (Elder et al. 1991:221–22). Longitudinal data on the military have also been derived primarily from self-reports from interviews (e.g., Pavalko and Elder 1990). Independent information typically is unavailable from records of the various branches of the military or the accompanying institutions for veterans (e.g., records on service training, military benefits, misconduct).

With these limitations in mind, we draw on a prospective longitudinal study of disadvantaged men to examine the social mechanisms by which military service influences adult achievement over the life course. A staple of life-course inquiry is the concept of pathways or trajectories through the age-differentiated life span (Elder 1987; Sampson and Laub 1993:8). Trajectories re-

fer to long-term patterns and sequences of behavioral transitions, often leading to a focus on the continuity between childhood experience and adult outcomes. An equally compelling feature of the life course is change, especially the ways in which "turning points" can modify life trajectories and redirect pathways. For some individuals, turning points are abrupt—radical turnarounds or changes in life history that separate the past from the future (Elder et al. 1991:215). For many others, turning points are embedded in a temporal process that cannot be reduced to a single dramatic event (Pickles and Rutter 1991:134). Whether they are incremental or abrupt, the idea of turning points highlights the possibility of overcoming prior disadvantage.

Hypotheses

Applying this life-course framework (Laub and Sampson 1993; Sampson and Laub 1993:6–24) to the research reviewed above, we investigate the military as a key turning point or "career contingency" (Duncan et al. 1972:13) in the transition to young adulthood. Although situational change can lead to the accentuation of prior individual differences (Caspi and Moffitt 1993), the contexts that provide the greatest potential for overcoming these differences, and thereby for change, are those which knife off or radically separate individuals from past environments (Brotz and Wilson 1946). Military service, especially overseas assignment, exemplifies such change by removing disadvantaged youths from prior influences (e.g., poverty, delinquent peers) and social stigma (e.g., criminal record). As Caspi and Moffitt (1993: 247) argue, the military is a "strong" situational transition because it includes institutional discouragement of previous responses *and* provides clear direction and novel opportunities for behavioral adaptation. In summary, then, we hypothesize two pathways of change:

H_1: By knifing off one's past while simultaneously exerting a leveling influence in a strong institutional context, overseas military duty redirects disadvantaged youths onto a developmental path where change is encouraged. Overseas duty thus is predicted to inhibit the continuity of deviant behavior and to enhance opportunities for long-term socioeconomic achievement.

H_2: In addition, macro-induced opportunities provided by the military—in-service training and subsequent training/education under the G.I. Bill—will directly promote socioeconomic achievement in later adulthood.

Extending the life-stage principle (Elder 1974, 1987; Ryder 1965), we expect that entry into the military at an early age will enhance the possibility of long-term advancement. By contrast, "off-time" entry will interrupt the age-graded trajectory of adult work careers. Therefore it follows that

H_3: Increased age at entry into the military will have a direct negative influence on later socioeconomic attainment.

Integrating Elder's work with our life-course perspective on turning points and disadvantaged youths, we also hypothesize two forms of *interaction*:

H_4: If we extend the logic of Hypothesis 3, the timing of military service should interact with the salience of opportunities for developmental change. Specifically, the earlier the age at entry, the greater the positive influence of military-related job training and education on later socioeconomic outcomes.

H_5: By offering pathways to success not found (or perhaps not allowed) in civilian life among those with a criminal record, we further expect that military experiences in the World War II era will yield larger long-term benefits for former delinquents than for nondelinquents. Although extant theory is not strong enough to specify detailed interactions, the knifing-off aspect of overseas assignment and the macro-level intervention of the G.I. Bill are especially relevant to the early-entry delinquent youths who not only were convicted but also tainted with the stigma of incarceration.

In short, our age-graded conceptualization of the life course implies that military service sets in motion a chain of events (or experiences) in individuals' lives that progressively

shapes future outcomes. The analytical goal is to identify the underlying mechanisms in this temporal process which, taken together, give meaning to the theoretical idea of a turning point. In taking this strategy we do not deny the importance of prior individual differences or the largely unappreciated phenomenon of continuity in deviant behavior across divergent life-course settings. In fact, there is good reason to believe that deviant behavior will spill over from civilian life in adolescence to diverse military settings in adulthood and even to later problems of civilian work adjustment (Gottfredson and Hirschi 1990:164–65). In addition to other theoretically important factors (e.g., IQ, biases stemming from selection into the military), our research design thus takes into account not only childhood and adolescent antisocial behavior, but also official misconduct in the military in adulthood (e.g., AWOL, arrest, dishonorable discharge).

DATA SOURCES AND CODING

We test these hypotheses by analyzing 1,000 life histories of delinquent and nondelinquent boys, originally gathered by Glueck and Glueck (1950, 1968) and matched case-by-case on age, measured intelligence (IQ), race/ethnicity, and neighborhood deprivation. The delinquent group comprised 500 10- to 17-year-old White males from Boston who, because of their persistent delinquency, had been committed to one of two correctional schools in Massachusetts. The nondelinquent sample, or what Glueck and Glueck (1950:14) called a "control group," consisted of 500 10- to 17-year-old White males from the Boston public schools. Nondelinquent status was determined on the basis of official record checks and interviews with parents, teachers, local police, social workers, and recreational leaders, as well as the boys themselves. The research design maximized differences in childhood antisocial behavior that predict adult outcomes, such as socioeconomic achievement (see below), and yielded two qualitatively distinct samples that we treat separately in the present study (also see Sampson and Laub 1993:148; Vaillant 1983:278).

Over a 25-year period from 1940 to 1965, Glueck and Glueck collected a wealth of multifaceted information on the delinquents and the controls in childhood (retrospectively), adolescence (concurrently), and adulthood (prospectively), using a combination of official records, observations, and interviews with both the subjects and the informants (e.g., parents, spouses, neighbors, and employers). Raised in low-income, disadvantaged neighborhoods of central Boston, the boys originally were interviewed at an average age of 14, again at age 25, and again at age 32. The follow-up success rate at age 32 was 92 percent when adjusted for mortality. Further details of this study, along with efforts to reconstruct and validate the data, can be found in Sampson and Laub (1993).

The men were born between 1925 and 1935 and were raised during the Great Depression era (mean birth year 1928); more than two-thirds (67 percent) served in the military during the period of the Gluecks' follow-up study. At the outset, then, we have a sufficient number of cases to assess how the military operates in the life course of disadvantaged men. The number of independent sources of data offers additional advantages that counteract the limitations of previous research. For example, because all subjects were required by the 1940 Selective Service Act to register with local draft boards as they reached 18, the Gluecks were able to collect potentially important information on selection into the military. We coded method of entry—enlistment or induction—and whether or not subjects were deferred for "psychiatric" reasons (including failure to meet minimum intelligence requirements) or "moral unfitness" (e.g., delinquent record). We employ this and other information to control for differences in military selection.

We examine a second set of data from the State Adjutant General (on personnel records) and from each branch of service (e.g., the Army, the Navy) while each subject was in the military. In addition to measuring combat experience and in-service training or specialized schooling (e.g., mechanic, medic, cook), we took advantage of information on official military charges (e.g., theft, AWOL, fighting) against the men while they were in the armed forces, along with the military justice system's response to such conduct. From the original records gathered by the Gluecks, we coded official military

charges (arrests) and dishonorable discharges. We also used supplemental data from the Red Cross on injuries and disabilities to create a variable indexing combat experience and/or injury.

Data on experiences with the G.I. Bill and other postmilitary events were gathered by the Gluecks from the Veterans Administration. From these records we coded whether each subject received postmilitary job training or schooling under the G.I. Bill. Institutional records were augmented by data from interviews with the subjects themselves and with other key informants (e.g., siblings, parents, spouses). Overall we used a "network of information sources" to construct military histories of the 500 delinquents and 500 nondelinquents up to their 25th birthdays (Glueck and Glueck 1968:131).

Descriptive data on military experiences at ages 17 to 25 are displayed in Table 1. Behavioral differences were relatively stable even in an environment that diminishes the relevance of past transgressions. Delinquents were much more likely than men in the control group to receive deferments, less likely to eventually serve, and once in the military, more likely to be arrested and dishonorably discharged. On the other hand, the experiences of greatest theoretical interest are similar across groups, despite their disparate criminal histories. Unlike findings for behaviors such as official misconduct, the difference in overseas assignment is fairly modest (61 versus 76 percent). This finding is directly relevant to expectations about the knifing off of one's past (Brotz and Wilson 1946) which provides disadvantaged recruits with a chance to start anew. In-service training also shows only modest differences; perhaps most important, postmilitary utilization of the G.I. Bill is quite similar across groups (19 versus 26 percent). These patterns suggest that prior behavior diminishes in importance when one experiences macro-induced dimensions of military service, increasing the potential for change.

Table 1. Descriptive Statistics on Military Service, Ages 17 to 25: Delinquent and Control Groups

Variables	Delinquents	Controls
Number of cases	461	466
Percent deferred	31%	4%
Percent ever served	65%	79%
Servicemen		
Number of cases	299	367
Mean age at entry	18.2	18.8
Service more than two years	49%	57%
Enlistment	70%	66%
Service during World War II	47%	22%
Overseas duty	61%	76%
Combat/injury	24%	13%
Official misconduct	60%	20%
Mean number of arrests	1.78	.37
Dishonorably discharged	30%	4%
In-service training	30%	44%
G.I.-Bill training	19%	26%

Note: Except for the enlistment variable, all differences between the delinquent and the control groups are significant at $p < .05$ (two-tailed tests).

Pre-Military Background

To account for individual differences not captured by the delinquent/control group design, we examine three measures of prior antisocial behavior: (1) the average annual frequency of official arrests up to age 17 while free (i.e., not incarcerated); (2) a composite "unofficial" scale, ranging from 1 to 26, of self-, parent, and teacher reports of delinquent behavior (e.g., stealing, vandalism) and other misconduct (e.g., truancy, running away) not necessarily known to the police (Sampson and Laub 1993:51); and (3) a dichotomous variable indicating whether the subject engaged in violent and habitual temper tantrums while growing up (39 percent of delinquents; 7 percent of controls). This last teacher- and parent-reported measure refers to tantrums that were the child's "predominant mode of response" to difficult situations while he was growing up (Glueck and Glueck 1950:152) and corresponds to the indicator used by Caspi (1987). We also account for cohort differences (birth year) and individual differences in intelligence as measured by the Wechsler-Bellevue IQ test (mean score = 93; range = 53 to 130).

Final models of adult socioeconomic achievement include core background vari-

ables from the status attainment tradition: father's occupation, parents' education, and family economic status. In view of the historical context and study design, the SES background was low: Fewer than one-third of the parents had attended high school, and most fathers were concentrated in low-status jobs. Job status is represented by a three-category indicator of father's occupation, ranging from unskilled (e.g., laborer, janitor, elevator operator) to skilled or semiskilled (e.g., plumber, electrician, public service) to professional/managerial (e.g., shopkeeper, lawyer). Education is a dichotomous variable for which a 1 indicates that the subject's parent(s) attended high school (30 percent). To tap variations in family economic status, we created a standardized (z-score) index comprising the family's average weekly income (per person) and the family's financial independence. The latter measures whether the family was living in comfortable circumstances (having enough savings to cover four months of financial stress), lived in marginal circumstances (little or no savings but only occasional dependence on outside aid), or was financially dependent (continuous receipt of outside aid for support). A high score on the resulting index means that the boy's family enjoyed relatively high per capita income in addition to financial savings.

We also examine the role of educational attainment at age 25 in predicting each subject's later socioeconomic achievement. Again the design and the historical context are paramount; like many men of this era, more than 80 percent of the sample did not graduate from high school, and only 65 of the 1,000 went to college. Because of this restricted range, it is unlikely that educational attainment alone can explain exits from poverty in the way envisioned by traditional theory. Nevertheless, we incorporate education as both an outcome and an intervening process, measured by a seven-point scale ranging from less than a sixth-grade education (11 percent of the men) to post-high school education (7 percent).

Socioeconomic Achievement Outcomes

Follow-up information at age 32 on occupation, economic status, and job stability was collected by the Gluecks on both delinquents and controls. The measure of *occupational attainment* originally included eight categories ranging from unskilled workers (e.g., laborers, janitors) to professionals (e.g., teachers, lawyers). Fewer than 5 percent of the delinquents achieved professional or even semiprofessional status. In fact, 75 percent of the delinquents cluster in the bottom two categories: unskilled and semiskilled jobs. Because of this highly skewed distribution, we recoded the eight occupational groups into an ordered indicator of occupational status consisting of three categories: unskilled, semiskilled, and skilled/professional. As expected, occupational outcomes for the control group reflected a higher status: More than half of these men achieved skilled or professional/managerial jobs.[1]

Economic status is a three-category measure of the men's economic condition at age 32, ranging from dependence on welfare (continuous receipt of outside aid) to financial independence with savings and investments. We also coded average *weekly income* at age 32, which ranges from less than $60 to more than $200.

To capture differences in attachment to work, we measure *job stability* by a standardized index that combines three interrelated variables: employed at age 32, length of time employed at present or most recent job (ranging from less than three months to 48 months or more), and work habits at ages 25 to 32. We classified individuals as having poor work habits if they were unreliable at work or failed to give any effort to the job; fair

[1] Although the numbers are small, 21 of the delinquents and 26 of the controls stayed in the armed forces as a career. This situation presents a problem because, as Reiss (1961:51) notes, the military constitutes a separate occupational sphere and thus is difficult to integrate with traditional scales of SES. We addressed this issue in two ways. To provide a conservative test and to eliminate any chance of tautology, our main analysis focuses on the three-category indicator of occupational attainment by treating those still in the armed forces at age 32 as inapplicable. We also repeated all analyses with the three- and eight-category occupational measures by scoring career servicemen respectively as skilled and as semiprofessional (below professional/managerial but above skilled). The results converged despite these alternative strategies, thus increasing confidence in the general validity of our measures.

work habits were characterized by a generally good job performance except for periodic absences or periods of unemployment; good work habits referred to reliable performance on the job, as noted by the employer, as well as instances in which the subject was declared an asset to the organization (Sampson and Laub 1993:145). Cronbach's alpha reliability is .78 for job stability at age 32.[2]

Finally, we were fortunate to gain access to information from a follow-up study of the control group at age 47, originally collected as part of the Study of Adult Development (Vaillant 1983). Summarizing information from the age-47 assessment on housing (e.g., value and size of home), detailed occupation, and educational attainment (Vaillant 1983: 324), we employ the Hollingshead and Redlich (1958) social-class scale for each of the control-group subjects. In view of the historical context, the Hollingshead scale is directly relevant to assessing SES outcomes among these men.

RESULTS

The analysis strategy unfolds sequentially in accordance with theoretical concerns. We first estimate a multivariate prediction of key military experiences including official misconduct (*arrest, dishonorable discharge*) and opportunities for change (*in-service training* and *G.I.-Bill training*). Then we test the central hypotheses on adult socioeconomic achievement, and examine interactions with official delinquency status and age at military entry.

The transformative potential of military life presents a complex mix of positive and negative experiences that may have lasting consequences. For present purposes, official arrests in the military and later dishonorable discharge are compelling negative events that affect long-term achievement. To explain these experiences within each group, we examine individual differences in prior delinquency (*prior arrest frequency, unofficial delinquency*), *early violent tantrums, measured IQ*, and a set of five variables capturing key aspects of military context: *age at entry, enlistment, service during World War II, overseas assignment*, and *length of service*. As described in Appendix A, we also control for potential selection bias into the military.

The first two columns in Table 2 estimate the frequency of military arrests among the delinquents and the controls.[3] The results suggest that late age at entry and overseas assignment substantially inhibited arrests among the delinquents. Individual characteristics are largely nonsignificant, although unofficial delinquency shows some predictive power. For the controls, only age at entry appears important: As among the delinquents, older recruits were less likely than younger ones to be arrested. The third and fourth columns display maximum-likelihood (ML) logistic regression estimates of an even harsher military sanction—dishonorable discharge. As expected, military arrests have the largest impact on dismissal for both groups. No other variable matters for the controls; for the delinquents, however, overseas duty again protects against negative outcomes (supporting Hypothesis 1). Enlisted delinquents also were more likely to be dishonorably discharged, as were those with high values on the selection hazard. Along with the findings displayed in Table 1, these results highlight the frequency of negative experiences in the military among those with a history of deviance.[4]

[2] Suggesting an initial balance of convergent with discriminant validity, socioeconomic achievement outcomes were correlated significantly in a moderate to strong positive direction. For example, occupational status was correlated .55 with wages, .43 with economic status, and .49 with job stability among delinquent veterans. The corresponding correlations for the control group were .54, .47, and .37 (coefficients significant at $p < .05$).

[3] These frequency data are estimated with a maximum-likelihood variant of Poisson regression—the negative binomial model (Greene 1991). In the Poisson model, the probability of an event's occurring is assumed to be constant over time and independent of its prior history. When this assumption is relaxed, the negative binomial model adds an error term with a gamma distribution and variance denoted by alpha (α). Estimates of α (Table 2, note a) indicate significant overdispersion in the data (i.e., the mean and the variance are unequal) and hence the desirability of a negative binomial model.

[4] In a later analysis, we control for differences in official misconduct using the number of arrests

Table 2. Maximum-Likelihood Estimates Predicting Military Arrests and Dishonorable Discharge among Servicemen

Independent Variable	Negative Binomial Model, Arrest Counts[a]		Logistic Model, Dishonorable Discharge	
	Delinquents	Controls	Delinquents	Controls
Background Characteristics				
Prior arrest frequency	−.17	.41	−.48	−8.80
	(−.43)	(.88)	(−.47)	(−.16)
Unofficial delinquency	.05*	.10	.09	.26
	(2.56)	(1.45)	(1.79)	(1.58)
Early violent tantrums	.16	1.27	.41	−.30
	(1.13)	(1.76)	(1.07)	(−.19)
IQ score	.00	−.01	−.00	−.06
	(.56)	(−.35)	(−.32)	(−1.38)
Selection lambda	.25	2.96	4.06**	3.48
	(.68)	(1.57)	(4.03)	(1.16)
Military Service				
Age at entry	−.29**	−.21*	−.19	−.39
	(−4.69)	(−2.15)	(−1.26)	(−.97)
Enlistment	.25	.74	1.16*	8.49
	(1.46)	(1.75)	(2.13)	(.24)
World War II	−.10	−.61	.18	−.39
	(−.62)	(−1.57)	(.40)	(−.40)
Overseas duty	−.49**	−.66	−1.72**	−1.29
	(−2.79)	(−1.62)	(−3.42)	(−1.21)
Length of service	.27*	.62	−.29	−.93
	(1.96)	(1.78)	(−.85)	(−1.14)
Arrest counts	—	—	.63**	1.39**
			(5.45)	(3.55)
Constant	4.19**	.38	−1.38	.88
	(3.14)	(.14)	(−.42)	(.02)
Model χ^2 (d.f. = 11)	29.3	22.7	133.0	64.6
Number of cases	254	336	254	336

Note: Numbers in parentheses are *t*-statistics.

[a] Estimates of overdispersion are .46 (4.32) for delinquents and 2.12 (3.26) for controls ($p < .01$).

*$p < .05$ **$p < .01$ (two-tailed tests)

Opportunities for Change

Table 3 addresses the multivariate prediction of more positive experiences: in-service training (e.g., classes, skills development) and job training or schooling under the G.I. Bill during the postmilitary period. In agreement with Table 1 and with a view of the military as a large-scale intervention, the logistic regression estimates reveal that prior antisocial behavior and other background characteristics do not help much in explaining occupation-related military experiences. The main exception seems to be that among the controls, men with higher IQs were more likely to take advantage of in-service schooling and training under the G.I. Bill.

The bottom half of Table 3 highlights the social context of military service. Age of entry has mixed results: Older recruits were more likely to receive training in the military but less likely to take advantage of the G.I. Bill. It may be that older servicemen were

rather than the dichotomous indicator of discharge. Arrests and discharge are highly correlated, however, and the results did not differ depending on which variable was used as a control.

Table 3. Maximum-Likelihood Logistic Regression Predicting G.I.-Bill and In-Service Training

	G.I.-Bill Training		In-Service Training	
Independent Variable	Delinquents	Controls	Delinquents	Controls
Background Characteristics				
Prior arrest frequency	1.03	−.19	−1.74	−.06
	(.97)	(−.48)	(−1.79)	(−.20)
Unofficial delinquency	−.09*	−.08	.00	−.01
	(−2.02)	(−1.32)	(.07)	(−.14)
Early violent tantrums	−.40	.55	−.18	.11
	(−1.08)	(.92)	(−.54)	(.21)
IQ score	−.00	.04**	.02	.02*
	(−.02)	(2.90)	(1.41)	(2.26)
Selection lambda	−2.62*	−.09	.86	1.08
	(−1.98)	(−.05)	(1.03)	(.83)
Military Service				
Age at entry	−.28	−.24*	.44**	.23**
	(−1.42)	(−2.12)	(3.49)	(2.64)
Enlistment	−.30	.82*	.48	.46
	(−.66)	(2.09)	(1.14)	(1.39)
World War II	.90*	1.48**	.05	−.18
	(2.04)	(4.31)	(.13)	(−.55)
Overseas duty	1.08*	−.20	.85*	.15
	(2.23)	(−.55)	(1.99)	(.50)
Length of service	−.42	−.44	.97**	.76**
	(−1.35)	(−1.58)	(3.28)	(2.99)
Constant	5.81	−.33	−13.57**	−9.47**
	(1.40)	(−.12)	(−4.25)	(−4.11)
Model χ^2 (d.f. = 10)	39.7	87.4	49.2	32.7
Number of cases	254	336	247	324

Note: Numbers in parentheses are *t*-statistics.

*$p < .05$ **$p < .01$ (two-tailed tests)

more interested in settling down and starting a family than in continuing their education. More striking are the differential consequences of overseas duty. Evaluated at the mean, the logistic coefficients reveal that delinquent-group men assigned overseas were 66 percent more likely to receive in-service training and over 100 percent more likely to use G.I.-Bill training than were those who served stateside. Overseas duty did not benefit the nondelinquents. Moreover, the coefficients for overseas duty differ significantly across groups for both G.I.-Bill and in-service training (*t*-ratios = 3.05 and 1.92 respectively, $p < .05$, one-tailed tests).[5]

Thus the findings in Table 3 are consistent with Hypotheses 1 and 5: Overseas duty, which embodies radical change, provides a unique stepping stone to eventual turnaround among those stigmatized with a criminal conviction. Background factors were not only controlled; they had virtually no influence in predicting which men served overseas. Rather, the main factor leading to overseas duty was service in World War II (data not shown in tabular form). Table 3 also shows that with other factors controlled, service in World War II increased G.I.-Bill training by at least 75 percent for

[5] Where predicted by Hypothesis 5, we employ formal tests for the cross-group comparison of OLS and ML estimates of unstandardized regression coefficients (Kleinbaum and Kupper 1978: 99–102).

Table 4. Estimated Coefficients for Regressions of Five Measures of Socioeconomic Achievement at Age 32 on Military Service Experiences at Ages 17 to 25: Delinquent Group

	Ordered Probit (ML)		OLS Regression			
Independent Variable	Occupational Attainment	Economic Status	Job Stability	Weekly Income	Summary SES Scale	
Military Service						
Age at entry	−.09	−.20**	−.31*	−.13	−.11*	−.26[a]
	(−1.37)	(−2.89)	(−2.42)	(−1.46)	(−2.60)	
Enlistment	−.39	−.30	−.83*	−.00	−.23	−.13[a]
	(−1.74)	(−1.36)	(−2.02)	(−.01)	(−1.64)	
World War II	−.03	−.12	.39	−.26	−.00	−.00[a]
	(−.12)	(−.51)	(1.00)	(−.91)	(−.01)	
Overseas duty	.30	.76**	.52	.63*	.38**	.23[a]
	(1.33)	(3.28)	(1.24)	(2.13)	(2.72)	
Length of service	−.14	−.10	.08	−.17	−.08	−.07[a]
	(−.90)	(−.65)	(.28)	(−.79)	(−.82)	
Selection lambda	−.03	.16	.10	−.06	.08	.03[a]
	(−.10)	(.46)	(.14)	(−.14)	(.35)	
Combat/injury	.13	−.35	.20	.20	−.01	−.01[a]
	(.58)	(−1.56)	(.49)	(.66)	(−.07)	
Official charges	−.05	−.18**	−.38**	−.12*	−.10**	−.24[a]
	(−1.31)	(−3.59)	(−4.16)	(−2.02)	(−3.37)	
In-service training	.08	.40*	.89*	−.02	.16	.09[a]
	(.35)	(1.98)	(2.41)	(−.09)	(1.24)	
G.I.-Bill training	.81**	.32	.55	.68*	.38**	.20[a]
	(3.69)	(1.39)	(1.39)	(2.41)	(2.86)	
Constant	2.39	4.73**	4.75	5.43**	2.21*	
	(1.71)	(3.35)	(1.83)	(2.96)	(2.57)	
Model χ^2 (d.f. = 10)/R^2	$\chi^2 = 36.1$	$\chi^2 = 50.7$	$R^2 = .26$	$R^2 = .12$	$R^2 = .24$	
Number of cases	206	201	198	193	198	

Note: Numbers in parentheses are *t*-statistics.

[a] Standardized regression coefficient (β).

*$p < .05$ **$p < .01$ (two-tailed tests)

delinquents and more than 100 percent for controls.[6] Taken together, the results on overseas duty and on World War II service underscore the importance of macro-historical context for individual outcomes.

[6] Service during World War II is coded as the period 1941–1945. We emphasize, however, that 75 percent of the delinquents and approximately half of the controls served during what is usually regarded as the World War II period—1941 to 1947—when troops were highly active in Europe and in the Pacific. Because only a small minority of the men (15 percent overall) served in the Korean War, we do not attempt to examine its unique effect.

LINKS TO ADULT SOCIOECONOMIC ACHIEVEMENT

We can now answer the key question we posed in this paper: What are the consequences of military service for later socioeconomic achievement? Table 4 displays multivariate equations of adult attainment for the follow-up of the delinquent group at age 32. On the basis of the results in Tables 1 through 3, we begin by estimating the predictive power of age at entry, enlistment, service in World War II, length of service, selection hazard, and both positive and negative experiences associated with military

duty, including the indicator of combat/injury (Pavalko and Elder 1990).

The first two columns in Table 4 present coefficient estimates from ordered probit models of occupational attainment and economic status.[7] After other variables are controlled, the data reveal that the men receiving postmilitary training were substantially more likely to attain skilled and professional/managerial jobs at age 32 (b = .81, *t*-ratio = 3.69). In-service training also helped the delinquents to enhance their economic status at age 32, as did overseas duty (b = .76, *t*-ratio = 3.28). The third and fourth columns present OLS regression estimates of job stability and average weekly income among the men at age 32. In-service training is related directly to later job stability (the standardized β is .16); overseas duty and G.I. Bill training have the largest effects on wages at age 32 (β = .20 and .18 respectively). In support of Hypotheses 1 and 2, these military experiences helped former delinquents enhance their later socioeconomic achievement.

By contrast, age at entry is associated negatively with later economic status and job stability (Hypothesis 3). In keeping with research on life-course timing (Elder 1987), late entry into the service appears to disrupt school and job careers and thereby later socioeconomic achievement. Official misconduct is important as well: Men arrested in the military were less likely to obtain stable jobs or earn higher incomes in civilian life.

The final two columns present an overall test of hypotheses with a summary scale of socioeconomic achievement at age 32.[8] The results clearly support Hypotheses 1 and 2, and hence the concept of military service as a turning point. Two of the main predictors of socioeconomic achievement at age 32 are overseas duty (β = .23) and training under the G.I. Bill at ages 17 to 25 (β = .20). Overseas duty thus has both direct effects on later achievement and indirect effects through the G.I. Bill (see Table 3). Hypothesis 3 is also supported: Late entrants do less well than early entrants with respect to final achievement, regardless of prior record. These patterns hold up even after controlling arrests in the military, which themselves foreshadow a lower socioeconomic outcome in later civilian life. Taken as a whole, then, the results in Table 4 support the theoretical framework.

Military Experiences and the Lives of Nondelinquents

Table 5 presents results for the control-group subjects, who entered young adulthood without the stigma of prior institutionalization. More than 120 of the controls but only 11 of the delinquents graduated from high school, a fact not unrelated to this backdrop. Because of the increased variance in educational achievement in high school and beyond, we begin by assessing whether the control-group men realized an educational return to the G.I. Bill. The first column suggests that they did so. Measured at age 25, the data show that G.I.-Bill training had the largest influence on educational attainment (*t*-ratio = 4.41, OLS β = .27), whereas in-service training had no effect. The specificity of these findings reinforces the idea that the expanded opportunities offered by the G.I. Bill directly enhanced educational advancement (Xie 1992).[9]

The remaining columns of Table 5 display job-related and economic outcomes at age 32. The G.I. Bill is not only the strongest predic-

[7] We use ordered probit models to take into account the ordinal measurement of key dependent variables. For details on estimation procedures and model assumptions, see Greene (1991:525–38).

[8] We formed the SES scale by summing standardized indicators of occupational attainment, economic status, job stability, and wages (Cronbach's alpha = .83). Because preliminary analysis showed that missing data on the individual SES indicators were distributed randomly with respect to key independent variables (e.g., dummy variables for missing data were correlated less than .05 with G.I.-Bill training), we used a conditional imputation procedure to preserve cases in calculating the summary scale. The incorporated imputation predicted values of missing SES measures from the set of observed SES measures. The results suggested the robustness of procedures: They were the same for mean substitution, for listwise deletion of missing data, and when dummy variables were included for missing data.

[9] In fact, further analysis showed that G.I.-Bill training predicted college attendance (N = 43) among the control-group veterans, even after adjusting for measured IQ *and* educational attainment before schooling was interrupted (logistic regression coefficient = .88, S.E. = .38, $p < .05$).

Table 5. Estimated Coefficients for Regressions of Six Measures of Later Socioeconomic Achievement on Military Service Experiences at Ages 17 to 25: Control Group, Ages 25, 32, and 47 at Follow-up

	OLS Regression			Ordered Probit (ML)		
Independent Variable	Educational Attainment, Age 25	Job Stability, Age 32	Weekly Income, Age 32	Occupational Attainment, Age 32	Economic Status, Age 32	Hollingshead SES Scale, Age 47
Military Service						
Age at entry	.10	.11	−.02	.08	.08	.13**
	(1.70)	(1.24)	(−.25)	(1.61)	(1.44)	(2.70)
Enlistment	.15	.03	.03	.31	.21	.11
	(.68)	(.09)	(.12)	(1.76)	(1.04)	(.58)
World War II	−.52**	.11	−.05	.11	.30	−.05
	(−2.23)	(.34)	(−.20)	(.53)	(1.49)	(−.29)
Overseas duty	−.12	.31	−.22	−.04	.07	.19
	(−.57)	(1.01)	(−.94)	(−.19)	(.40)	(1.19)
Length of service	.28	.04	.38*	.19	.08	.20
	(1.64)	(.15)	(2.04)	(1.37)	(.56)	(.34)
Selection lambda	−.38	1.48	−.43	.34	.09	−.06
	(−.42)	(.98)	(−.42)	(.42)	(.11)	(−.09)
Combat/injury	−.42	−.34	−.32	−.04	−.41	−.33
	(−1.72)	(−.94)	(−1.19)	(−.20)	(−1.78)	(−1.71)
Official charges	−.32**	−.34*	−.10	−.22**	−.11	−.19**
	(−3.48)	(−2.36)	(−.98)	(−2.79)	(−1.14)	(−2.61)
In-service training	.07	−.03	.04	−.01	.03	.26
	(.44)	(−.12)	(.20)	(−.11)	(.19)	(1.87)
G.I.-Bill training	.93**	.78**	.29	.59**	.18	.64**
	(4.41)	(2.65)	(1.29)	(3.21)	(.92)	(3.78)
Constant	2.15	−2.06	3.45*	−1.26	−.24	−1.79
	(1.60)	(−1.05)	(2.30)	(−1.17)	(−.20)	(−1.56)
Model χ^2 (d.f. = 10)/R^2	R^2 = .13	R^2 = .06	R^2 = .04	χ^2 = 24.9	χ^2 = 13.3	χ^2 = 40.5
Number of cases	316	301	292	286	305	294

Note: Numbers in parentheses are *t*-statistics.

*$p < .05$ **$p < .01$ (two-tailed tests)

tor of occupational attainment (b = .59, *t*-ratio = 3.21); in addition, its raw coefficient is indistinguishable from that found in the delinquent group (*t*-ratio for difference = 1.10, $p > .05$). The same conclusion holds for job stability at age 32. In contrast, the raw coefficients of overseas duty and the G.I. Bill predicting weekly income, and of in-service training and overseas duty predicting economic status, are significantly larger for the delinquent group than for the control group.[10]

Also, across the control-group models, the R^2 and chi-square values are consistently smaller than for the delinquent group.

The most comprehensive measure for the control group, however, is the Hollingshead scale at age 47, which combines housing status, final education, and occupational attainment. Even though this measure was obtained some 25 years after the end of military service, the last column in Table 5 confirms Hypothesis 2. G.I.-Bill training has the single largest effect (b = .64, *t*-ratio = 3.78): more than double that of in-service training. Like the summary measure of age-32 SES for delinquents in Table 4, in-service train-

[10] *T*-ratios for these cross-group comparisons, respectively, are 3.27, 1.57 ($p < .10$, one-tailed tests), 2.10, and 3.46.

ing fails to emerge as an important long-term factor in comparison with G.I.-Bill training (Havighurst et al. 1951:185). Arrest also exhibits a negative relationship with later SES, even in a relatively crime-free group. Contrary to Hypothesis 3 and the results for the delinquent-group, however, age at entry has a positive relationship with long-term achievement.

Support for Hypothesis 5 is thus qualified. The predictive power of overseas assignment and G.I.-Bill training is significantly greater for delinquents than for nondelinquents only for wages and economic status at age 32. Moreover, Table 5 plainly shows that by age 47, G.I.-Bill training among the controls emerges as an important predictor of socioeconomic achievement.

BACKGROUND DIFFERENCES AND LIFE-COURSE TIMING

Now that the multiple dimensions of military service have been analyzed and a core set of relationships has been identified, we estimate final models of achievement by controlling additional characteristics believed to be relevant for explaining later adult functioning. These include individual differences in ability as measured by IQ, along with the following staples from the status-attainment tradition in sociology: parental education, income, and occupation. We also examine the predictive power of subjects' educational attainment at age 25. On the basis of theoretical interest and the pattern of results in Tables 4 and 5, we retain the following military factors: G.I.-Bill training, official charges, overseas assignment, and age at entry.[11]

We also extend the "life-stage principle" (Elder 1974; Elder and Caspi 1990; Ryder 1965) by testing Hypothesis 4, which specifies an interaction between age at entry and opportunities for occupational advancement. Early entrants are defined as those who entered the military before age 18, approximately half of the delinquents (see Table 1). This age cutoff is earlier than that (age 21) examined by Elder (1987:453); in fact, the late entrants in the Gluecks' cohorts are similar in age to Elder's *early*-entry cohorts. We then multiplied the dummy variable for early entry by G.I.-Bill training, the major opportunity-related predictor of later achievement in both groups. The interaction term takes on a value of 1 for early entrants who received training under the G.I. Bill, and 0 otherwise.

To facilitate a parsimonious test, we present in Table 6 the summary scale of SES at age 32 that combines the four individual measures. In the main-effects model for delinquents, the results show that adjusting for background SES, education, and IQ does not alter the major conclusions of this study. Overseas duty, training under the G.I. Bill, and lack of a military arrest record remain strong predictors of achievement at age 32; together these three factors account for more than half of the explained variance. These results are noteworthy when we consider that traditional pathways to success are controlled explicitly. For example, the standardized effects of the G.I. Bill and overseas duty rival those of measured ability. In addition, background SES is noticeably weak, and education does not predict later achievement. Interestingly, delinquents who received G.I.-Bill training *were* more likely to advance educationally.[12] Yet because of their initial social disadvantage and low overall level of schooling, formal education fails to account for adult achievement among the delinquents.

In the interaction model, the data confirm the importance of the life-stage principle in the delinquent group. The interaction of training with early entry is not only significant but similar in magnitude to IQ and official charges (β = .21). Early entry into the service, coupled with on-the-job training under the G.I. Bill, increased later SES by more than one-half a standardized unit, independent of background factors. This basic result remains for each constituent SES measure, even though early entrants actually were

[11] Nonetheless we examined other military factors as well as the childhood measures of antisocial behavior, birth cohort, and selection lambda. Because they were generally unimportant and did not change the pattern of results, these factors are not pursued in further analyses.

[12] When family background and measured IQ were controlled, G.I.-Bill training had a direct positive effect on education at age 25 (t-ratio = 2.62).

Table 6. Coefficients for OLS and Ordered Probit Regressions of SES Scales on Family Background Characteristics, IQ, Education at Age 25, and Key Military Experiences: Delinquents and Controls with Interaction Model

	Delinquents (N = 197)				Controls (N = 292)				
	Summary SES, Age 32[a]				Summary SES, Age 32[a]				Hollingshead SES, Age 47[b]
	Main effects		Interaction		Main effects		Interaction		Interaction
Independent Variable	b	β	b	β	b	β	b	β	b
Background/SES Controls									
IQ score	.02** (3.39)	.24	.02** (3.34)	.24	.01** (2.99)	.18	.01** (2.98)	.18	.01 (1.69)
Family income	.02 (.72)	.04	.02 (.80)	.05	.04 (1.56)	.09	.04 (1.54)	.08	.08 (1.85)
Father's occupation	.15 (1.64)	.10	.15 (1.65)	.10	−.03 (−.39)	−.02	−.03 (−.42)	−.02	−.06 (−.49)
Parents' education	.07 (.56)	.04	.09 (.74)	.05	−.13 (-1.53)	−.08	−.14 (-1.55)	−.08	−.01 (−.09)
Subject's education	.05 (1.20)	.09	.07 (1.44)	.10	.15** (4.69)	.29	.15** (4.74)	.29	.37** (6.62)
Military Service									
Early entry	.20 (1.86)	.12	.08 (.65)	.05	.06 (.60)	.03	.11 (.99)	.07	−.21 (-1.23)
Official charges	−.10** (-3.45)	−.23	−.09** (-3.19)	−.21	−.09 (-1.67)	−.09	−.08 (-1.65)	−.09	−.06 (−.90)
Overseas duty	.32** (2.98)	.18	.31** (2.89)	.18	.13 (1.36)	.07	.13 (1.38)	.07	.35* (2.11)
G.I.-Bill training	.43** (3.25)	.21	.14 (.75)	.07	.12 (1.24)	.07	.18 (1.53)	.11	.49* (2.08)
Early entry × G.I. Bill	—	—	.53* (2.09)	.21	—	—	−.17 (−.90)	−.07	−.49 (−1.55)
Constant	−2.01 (−4.82)		−1.96 (−4.74)		−1.93** (−4.89)		−1.95** (−4.93)		−1.26 (−1.79)
Model χ^2 (d.f. = 10)/R^2	R^2 = .31		R^2 = .33		R^2 = .22		R^2 = .22		χ^2 = 115.7

Note: Numbers in parentheses are *t*-statistics.

[a] OLS regression estimates.

[b] Ordered probit regression estimates.

*$p < .05$ **$p < .01$ (two-tailed tests)

more "at risk" than later entrants in terms of longer delinquent records and lower measured IQs (data not shown).

Furthermore, the raw coefficients for G.I.-Bill training are significantly larger in subgroup equations defined by early entry than by later entry for each of the four constituent measures (*t*-ratios = 1.76, 3.13, 3.85, and 2.18 respectively for occupational attainment, economic status, job stability, and income, $p < .05$, one-tailed tests). For the summary SES scale at age 32, the unstandardized effect of G.I.-Bill training is .76 in the group of early entrants and .09 for late entrants, yielding a raw difference of .67 (*t*-ratio = 2.47, $p < .05$). In support of Hypothesis 4, the interaction of the G.I. Bill with age at entry is thus both significant and substantively large.

On the other hand, military experiences manifest themselves differently for the control-group summary scale of SES at age 32.

By far the most important predictor is educational attainment at age 25 ($\beta = .29$); the direct effect of G.I.-Bill training is nonsignificant. Interpreted with the results in Table 5, the influence of the G.I. Bill is mediated by educational attainment at age 25.[13] The controls thus follow a more traditional or "normal" status-attainment process (Duncan et al. 1972; Xie 1992); the G.I. Bill emerges as an important *indirect* factor at this stage of the life course. Accordingly the difference between the delinquent- and control-group coefficients for the direct effect of the G.I. Bill is significant (t-ratio = 2.76, $p < .01$). The direct effect of overseas duty is also larger for the delinquents than for the controls (t-ratio = 1.74, $p < .05$, one-tailed test); early entry and its interaction with the G.I. Bill have no influence. The general point of Hypothesis 5 is thus supported *at age 32*: Delinquent veterans seemed to gain a larger return on their military experiences.[14]

The last column extends the analysis to an ordered probit model of the Hollingshead SES scale at age 47. As in Table 5, G.I.-Bill training continues to function as a significant and relatively substantial predictor of long-term socioeconomic achievement. This result is important in that education at age 25 is now controlled, and final educational attainment is one of the three components of the Hollingshead SES at 47 (Vaillant 1983:324). This finding suggests that increases in SES above and beyond education at age 25 were enhanced directly by postmilitary training under the G.I. Bill. (In fact, approximately one-quarter of the men continued their educational activities after age 25.) Overseas assignment also emerges as a significant predictor of achievement at age 47, independent of prior education. Moreover, the effects of both the G.I. Bill and overseas duty remain after adjusting for family background variables, age at entry, and the interaction of the G.I. Bill with early entry. Although this interaction suggests that early entrants who utilized the G.I. Bill fared marginally less well than all others (t-ratio = −1.55), this coefficient was highly unstable in further specifications. In models not controlling for age-25 education, for example, the direct effect of the G.I. Bill was unchanged, whereas the interaction was nil ($p > .30$). Viewed in the long term, Hypotheses 1 and 2 thus receive support among the control-group subjects. From a human capital perspective, it makes sense that the fruits of the G.I. Bill would take some time to be fully realized when factors such as housing value and later adult education are considered along with occupation. Recall that the nondelinquents were much more likely than the delinquents to enter the military in their twenties (38 percent versus 18 percent).

Having demonstrated the predictive significance of G.I.-Bill training in extensive multivariate models for both groups, we close with a more intuitive portrayal of its substantive impact in promoting change among disadvantaged youths. Consider the challenge that the past presented in these men's lives: Only about 25 percent of the delinquents achieved skilled or professional occupations by age 32, compared with 55 percent of the controls ($p < .01$). The magnitude of this difference highlights the cumulative disadvantage faced by convicted and economically impoverished adolescents. Yet when we account for military service, training under the G.I. Bill, and the interaction of this training with age at entry, a striking pattern emerges. The proportion of delinquents who achieved skilled or professional jobs is only 15 percent for those who never served in the military, 21 percent

[13] Independent of military factors, IQ and childhood family income also indirectly predict age-32 achievement through their positive effects on educational attainment at age 25 (t-ratios = 3.95 and 7.71 respectively).

[14] Although not the major focus of this paper, some evidence supports the idea that veteran status in the World War II era enhanced final socioeconomic achievement (Villemez and Kasarda 1976; Xie 1992). For example, 32 percent of delinquent veterans had achieved skilled to high-status occupations by age 32, compared with 15 percent of nonveterans ($p < .05$). This finding was maintained even when background factors (e.g., IQ, prior delinquency) were controlled in multivariate analysis. By contrast, a simple comparison of veterans with nonveterans failed to yield significant differences in the control group. Although this veteran-nonveteran comparison strengthens Hypothesis 5, which states that the military offered greater benefits for those officially stigmatized with a delinquent past, it reaffirms the need to identify the differential social consequences of experiences associated with military service, for delinquents and nondelinquents alike.

for those who served but received no G.I.-Bill training, 54 percent for G.I.-Bill veterans, and fully 78 percent among those delinquents who entered the military before age 18 and had received G.I.-Bill training. This large and monotonic increase captures the multivariate patterns demonstrated above. In the control group, 71 percent of veterans receiving G.I.-Bill training achieved skilled or professional occupations, compared with 50 percent of nonveterans and of veterans with no training. Early entry coupled with later utilization of the G.I. Bill thus eliminates the large differential in socioeconomic achievement among adult men with disparate criminal backgrounds.

CONCLUSION AND IMPLICATIONS

Despite the limitations of the present study, overall we believe that the data tell a consistent and important story. Military service in the World War II era provided American men from economically disadvantaged backgrounds with an unprecedented opportunity to better their lives through on-the-job training and further education. The analyses in this paper suggest the power of these macro-induced opportunities in the status-attainment process; they show that G.I.-Bill training in the transition to young adulthood predicted occupational attainment and socioeconomic well-being at age 32, especially among former delinquents. Even in the control-group sample, the influence of the G.I. Bill was apparent more than 20 years after the men left the service. These patterns persisted after we took into account a host of individual characteristics, childhood antisocial behavior, family socioeconomic background, educational attainment at age 25, and even problem behavior in the military. Continuity and change apparently are not mutually exclusive in explaining stratification and deviance outcomes over the life course (Hagan 1991; Sampson and Laub 1993).

Equally interesting, we believe that overseas duty emerged as a crucial life experience because it facilitated the knifing off of past social disadvantages (e.g., poverty, deviant peers) and stigmatization by the criminal justice system. Overseas service apparently offered previously sheltered men an opportunity to "see the world" (Elder and Hareven 1993:53) and to get to know and experience individuals different from themselves. This broadening of perspective, along with indirect effects through in-service and G.I.- Bill training that further encouraged advancement (Table 3), may have given economically disadvantaged and officially stigmatized youths the opportunity to redirect their lives in a new context where the past did not count.

As predicted by the life-stage principle (Elder 1974, 1987; Ryder 1965), the timing of military service also mattered. Among the delinquents, men who entered the service at an early age fared better in adult occupational outcomes than did later entrants. G.I.-Bill training also had a much larger impact on adult achievement for early than for late entrants in the delinquent group. Although the Gluecks argued that delinquents entered the military earlier than nondelinquents "to satisfy a longing for adventure and perhaps even a means of avoiding or delaying the responsibilities of civilian life" (1968:133), avoidance of family and work responsibilities at a young age allowed delinquents to escape the weight of prior disadvantage and to position themselves better in the long run. Perhaps because an untroubled past opened the door of opportunity wider, later age at entry did not adversely influence the control-group subjects greatly or consistently.

Turning points and developmental change are bound by historical context. The men in the Gluecks' study entered the adult labor market during the 1950s and 1960s, in a period of expanding economic opportunities, and were able to take advantage of numerous benefits offered by the G.I. Bill. Prospects for current cohorts are less promising: The industrial base in America has changed dramatically over the last 25 years, global competition has increased, and expectations for upward social mobility have declined. Seen in this light, our results may help to explain the recent hardening of poverty in America's urban "underclass" (Wilson 1991). That is, the military as a vehicle for escaping poverty has stalled in the 1990s, in contrast to the 1940s and 1950s, for persons disadvantaged economically and socially (e.g., high school dropouts, members of minority groups, young adults with criminal records). There is also evidence that service in Vietnam took an

unusually severe economic and physical toll on veterans (Laufer and Gallops 1985), exacerbated by the failure of the United States to provide a G.I. program for Vietnam veterans similar in magnitude and scope to that of the World War II era. Hence the military cannot be divorced from its historical context (Teachman and Call 1996:27); in the present study, military service by itself counted less than its link to economic opportunity via the G.I. Bill.

Consistent with the life-course perspective, then, a central topic for future research is the interaction of turning points with the varying structural locations and macro-historical contexts in which individuals make the transition to young adulthood. Although psychological mechanisms such as resilience are important, they may not be sufficient to overcome structural disadvantages in this crucial transition. Large cohorts of disadvantaged youths are now coming of age without access to macro-level interventions such as the G.I. Bill; this may be one of the most salient social facts of our time. A "masterpiece of social legislation" (O'Niell 1994), the G.I. Bill was the defining institution of the postwar era and gave more than 10 million veterans a chance to enter the middle class. Despite evidence that such large-scale interventions can and do work, today's climate on social policy toward the disadvantaged is far different (see especially Herrnstein and Murray 1994). If anything, policy has regressed to the point at which, for some segments of society, imprisonment is the major governmental intervention in the transition to young adulthood (National Research Council 1993:163–68). Understanding and promoting exits from poverty in an era of increasing inequality and public hostility to macro (pro)social action is thus a major challenge.

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Appendix A: Accounting for Military Selection Bias

Although mass mobilization during the World War 11 era was a macro-induced phenomenon, individual-level characteristics may have influenced decisions to enlist and decisions by the Selective Service Board to defer some men. To understand and account for this potentially biasing process, we examined the predictors of deferment by the Selective Service and of actual military service. This two-step model is important because a deferment did not mean total disbarment from further military consideration. A subject could be deferred before induction or enlistment, and thus could be deferred several times. In fact, 35 percent of the delinquents who received a deferment eventually entered the military. Deferment and military service are therefore not mutually exclusive.

Maximum-likelihood (ML) estimates (available on request) revealed that both controls and delinquents with lower IQ scores and from earlier birth cohorts were more likely to be deferred by the Selective Service. Among delinquents, the frequency of prior arrests also predicted deferment. These results make sense; they indicate that the Selective Service Board took into account not only presumed differences in ability, as measured by IQ, but also antisocial behavior, as known through official records of arrest. Not surprisingly, deferment in turn exerted the largest effect on selection into the military, reducing the likelihood of service for both the delinquent and the control groups (t-ratios = –7.28 and –3.77, respectively). The data further suggested that deferment mediates the prior impact of individual differences in IQ and year of birth. Once deferment was controlled, for example, only prior arrest frequency had a significant influence on military service, and then only for delinquents. This finding makes sense as well because delinquents generated many more arrests in adolescence and thus exhibit more variation.

To account for the systematic nature of the selection process distinguishing those men who served in the military from those who did not, we then employed Heckman's (1979) probit-based methodology to adjust for sample selection bias. Specifically, we used ML probit equations for military service to estimate a "hazard rate" instrument, lambda (λ),

which we employed in turn as a new regressor in second-stage substantive equations presented in this paper. Although this method has been criticized because arbitrary variables are often used mechanistically to model the selection process (Stolzenberg and Relles 1990), we draw here on knowledge about the military combined with substantively meaningful variables. In particular, deferment by the Selective Service and official misconduct in one's youth clearly influence the systematic nature of entry into the military. In keeping with this specification, both selection equations were significant at the $p < .01$ level.

To guard against incorrect conclusions, we also reestimated and compared all models using deferment, birth cohort, IQ, and other variables as individual controls. Moreover, we employed a logistic regression equation to estimate the predicted probability of military exclusion (assuming a bivariate logistic distribution of errors), and we substituted a hazard rate constructed with the logistic specification for the Heckman probit-based lambda (Berk 1983:394). All results were substantively identical (including those with no selection control); this outcome suggests robustness in the estimation procedures. For consistency with most of the published research, we present results using Heckman's (1979) probit-based lambda as a selection control in the test of hypotheses.

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