

THE SOCIAL AND POLITICAL CONSEQUENCES OF OVEREDUCATION*

VAL BURRIS

University of Oregon

This study employs national survey data to estimate the extent of overeducation in the U.S. labor force and its impact on a variety of worker attitudes. Estimates are made of the extent of overeducation and its distribution among different categories of workers, according to sex, race, age, and class background. The effects of overeducation are examined in four areas of worker attitudes: job satisfaction, political leftism, political alienation, and stratification ideology. Evidence is found of significant effects of overeducation on job satisfaction and several aspects of stratification ideology. The magnitude of these effects is small, however, and they are concentrated almost exclusively among very highly overeducated workers. No evidence is found of generalized political effects of overeducation, either in the form of increased political leftism or in the form of increased political alienation. These findings fail to support the common prediction of major political repercussions of overeducation and suggest the likelihood of alternative forms of adaptation among overeducated workers.

Much has been written in recent years about the extent to which the educational achievements of American workers have come to exceed those required by the economy. As levels of educational attainment have risen, increasing numbers of workers are said to have become "overeducated" in relation to the occupational positions available to them.¹ Social theorists have hypothesized a variety of consequences of this trend, ranging from an increase in levels of job dissatisfaction to more stirring pronouncements about the likelihood of widespread political discontent. Thus far, however, there has been little systematic study of the effects of overeducation upon the behavior and attitudes of American workers.

In this paper we present evidence of the effects of overeducation upon four types of worker attitudes: job satisfaction, political leftism, political alienation, and stratification ideology. The results of this study indicate that the social and political effects of overeducation are neither as strong nor as widespread as many have claimed. While some hypothesized effects are confirmed, their magnitude is generally small. Many supposed consequences of overeducation find no empirical support at all. These findings caution against the assumption of a necessary relationship between overeducation and specific social and political attitudes.

* Direct all correspondence to: Val Burris, Department of Sociology, University of Oregon, Eugene, OR 97403.

¹ Such workers could equally be described as "underemployed" in relation to their level of educational qualifications. These two terms will be used interchangeably in this essay.

THE EXTENT AND SUPPOSED CONSEQUENCES OF OVEREDUCATION

The increase in educational attainments relative to the educational requirements of the economy has been amply documented over the past several decades. In an early study, Folger and Nam (1964:29) estimated that about 85 percent of the rise in educational attainments between 1940 and 1960 could be attributed to increases in educational levels within occupations, and only 15 percent to shifts in the occupational structure from occupations requiring less to occupations requiring more education. Taking into account the changing skill requirements within occupational categories, Berg (1970:38-60) concluded that the increase in levels of educational attainment between 1950 and 1960 exceeded the skill requirements of available jobs by a significant margin. Similar findings are reported by Rumberger (1981) for the 1960-1976 period.

Since about 1970, the trend toward an oversupply of college graduates has received the greatest attention in the literature. At the beginning of the 1970s, Folger et al. (1970:39) projected a "residual" of 2.6 million college graduates for the coming decade. The Carnegie Commission report, *College Graduates and Jobs* (1973:3-4), estimated that 25 percent of new college graduates in the 1970s would be employed in jobs previously performed by noncollege graduates, while Freeman and Hollomon (1975:27) found that the proportion of male college graduates entering nonmanagerial and nonprofessional jobs increased from 14 percent in 1958 to 31 percent in 1971. More recently, Berg et al. (1978:85) estimated that

about 24 percent of the almost 14 million employed college graduates in 1975 were "underutilized" in their present occupations. According to the projections of the National Planning Association (O'Toole, 1975:32-33), by the mid-1980s there may be 2 to 2.5 college graduates competing for every professional and managerial opening, with an annual surplus of 700,000 college graduates unable to find employment commensurate with their training or aspirations.

The underlying causes of this trend toward overeducation are a matter of controversy. Neoclassical economists like Freeman (1976) view the surplus of educated workers as the result of a temporary disequilibrium in the market for educated labor.² This approach assumes that the demand for education is responsive to anticipated rates of economic return (which are declining) and that the equilibration of supply and demand, while sluggish and uneven, is nevertheless assured in the long run. Neoclassical economic theory, however, fails to account for the longstanding and cumulative nature of the trend toward overeducation, and is also contradicted by the experience of the last decade in which increasing numbers of workers have sought advanced education in spite of a decline in the rate of economic return.³ A more plausible explanation of overeducation is provided by those who emphasize the role of educational credentials in the process of occupational selection (Collins, 1971; Thurow, 1975). These theorists argue that overeducation is the necessary result of the use of educational credentials as a means of rationing economic privilege. According to this view, as long as employers continue to allocate preferred jobs to those who are relatively better educated, there will be constant pressure for increased education, independent of the skill requirements of jobs or changes in the rate of economic return.⁴

² The most commonly cited reason for such a "disequilibrium" is the existence of what are known as "cobweb" effects—that is, lags in the adjustment of supply and demand which result from the fact that the completion of a given level of education requires an extended period of time, so that the supply of educated labor will tend to reflect the forces of demand of a somewhat earlier period (Freeman, 1976:51-63).

³ Enrollment in colleges and universities increased from 8,581,000 in 1970 to 12,097,000 in 1980. College enrollments as a percentage of the 18-24 age group increased from 34.8 percent to 41.1 percent during this same period (NCES, 1982:24).

⁴ While most theorists explain overeducation exclusively from the standpoint of the oversupply of educational credentials, there are some who also point to the deskilling of jobs as a factor restricting

The most common consequence attributed to overeducation is a projected increase in levels of job dissatisfaction and worker discontent. Advanced education, by raising workers' expectations for interesting and challenging work, is claimed to result in increased frustration and dissatisfaction when those expectations are not fulfilled. Reviewing the early literature on job dissatisfaction, Berg (1970:105-42) concluded that overeducation is one of the strongest and most consistent causes of dissatisfaction among workers in low-skilled occupations.⁵ Quinn and Mandilovich (1975: vii) analyzed data from the 1972-73 Quality of Employment Survey and also concluded that "the most dissatisfied workers were those who were too highly educated for their jobs."

A number of writers have suggested that such dissatisfaction with work increases the likelihood of political leftism among overeducated workers. Gorz (1967) was among the first to predict the emergence of a politically radical "new working class" as a result of the contradiction between the spread of educational qualifications and the limits which capitalist production imposes on the autonomy of educated workers. More recently, Blumberg and Murtha (1977:46) have described the career frustrations of overeducated workers as the "central dynamic for social discontent emerging in America," while Bowles and Gintis (1976:215) interpret the "incongruence between the aspirations of college students . . . and the labor requirements of the economy" as one of the chief causes of student radicalism.

State and corporate elites have expressed considerable alarm over the political implications of the growing number of overeducated workers. In a special report, the Carnegie Commission on Higher Education (1973:4-5) warned that "if inadequate adjustments are made, . . . we could end up with a political crisis because of the substantial number of disenchanting and underemployed or even unemployed college graduates." According to the Management Development Institute (1978:29), "perhaps the most pernicious trend over the next decade is the growing gap between an

the demand for qualified labor (Braverman, 1974; Bowles and Gintis, 1976). Estimates by Rumberger (1981:71) show that there has indeed been a small decline in the proportion of jobs at the highest skill level, although most of the increase in overeducation is explained by the increase in educational attainments rather than changes in the skill requirements of jobs.

⁵ In a more recent study, Berg has moderated his earlier claims of a strong correspondence between overeducation and worker dissatisfaction (see Berg et al., 1978:98-110).

increasingly well educated labor force and the number of job openings which can utilize its skills and qualifications. . . . The potential for frustration, alienation and disruption resulting from the disparity between educational attainment and the appropriate job content cannot be overemphasized." Similar sentiments are expressed by the Trilateral Commission (1975:183-85) and by the U.S. Department of Health, Education and Welfare (n.d.:136) in its influential *Work in America* report.

The notion that overeducated workers may be inclined to higher levels of political radicalism finds additional support in the theoretical literature on status inconsistency and cognitive dissonance. A central claim of this literature is that persons who occupy inconsistent positions on different dimensions of status—in this instance a high educational status and a low occupational status—will experience this situation as stressful and, if efforts at mobility are blocked, are likely to express their discontent in the form of liberal or radical political tendencies (Lenski, 1954, 1967; Goffman, 1957). These tendencies are claimed to be especially pronounced in the situation which Geschwender (1967) describes as an inconsistency between high "investment" status and low "reward" status, of which overeducation would be one example.⁶

Other theorists hypothesize that overeducated workers may exhibit high levels of political alienation. According to this view, the inability to exercise acquired skills on the job is thought to produce diffuse feelings of social and political inefficacy; entrapment in occupations which do not reward motivational investment leads to habits of withdrawal which carry over into other areas of social and political life, culminating in a general tendency toward estrangement from the political system (Sheppard and Harrick, 1972:77-95). Writers on status inconsistency have also suggested that status-inconsistent persons may tend to withdraw from social and political participation (Lenski, 1956; Geschwender, 1968; Laumann and Segal, 1971).

Finally, some have argued that, by severing the link between the acquisition of skills and

the attainment of rewarding work, overeducation weakens support for the dominant achievement ideology. Bowles and Gintis (1976:213-23) hypothesize that disillusionment with individualistic strategies of mobility through educational achievement may lead overeducated workers toward more collective forms of economic struggle. In a similar vein, Blumberg and Murtha (1977:52) suggest the possibility of a more militant trade unionism among overeducated workers.

Important social and political consequences have thus been attributed to overeducation. Judging from the existing literature, overeducated workers can be expected to exhibit higher levels of job dissatisfaction, increased tendencies toward political leftism, greater political alienation, and a weaker allegiance to the dominant achievement ideology than workers with comparable occupations or levels of education. These hypotheses are examined in the study reported below.

DATA AND MEASUREMENT

The data for this study come from a national sample survey conducted in 1977-78 by the National Opinion Research Center of the University of Chicago. The sample consisted of 3062 noninstitutionalized, English-speaking residents of the continental United States, 18 years of age or older. Analysis was restricted to 1534 respondents who were employed full-time and for whom complete data on occupation and education were available.

Measurement of overeducation was based on a comparison between the educational attainment of each respondent and the amount of education necessary or likely to be utilized in his or her present occupation. Following the method of Berg (1970), estimates of the educational requirements of jobs were made using the scale of General Educational Development (GED) constructed by the U.S. Department of Labor. The GED scale measures the functional or performance requirements of jobs—i.e., "the requirements determined by objective job analysis as necessary and sufficient to achieve average performance in the specific tasks of the jobs"—as distinguished from the hiring requirements of employers or the actual educational attainments of employees (Fine, 1968:365).⁷ The scale embraces three types of educational development—logical, mathematical, and linguistic—each of which is measured

⁶ Unfortunately, empirical studies of status inconsistency have given primary attention to inconsistencies between ascribed and achieved statuses (e.g., ethnicity and occupation); only rarely have they examined the interaction between two achieved statuses like education and occupation. The few studies which have examined the education-occupation relationship as part of a larger research design report mixed and inconclusive findings (Segal and Knoke, 1968; Broom and Jones, 1970; Jackson and Curtis, 1972; Olsen and Tully, 1972; Portes, 1972).

⁷ These estimates were derived primarily "by observing workers performing their jobs and by interviewing workers, supervisors, and others who have information pertinent to the job" (U.S. Department of Labor, 1972:12).

separately on a six-point scale, with the overall score set equal to the maximum of each of the three partial scores. Although not specifically designed as a summary measure of educational requirements, the GED scale is the closest approximation of such a measure currently available and has been widely used for this purpose (Eckhaus, 1964; Berg, 1970; U.S. Department of Labor, 1971; Berg et al., 1978; Rumberger, 1981).

To obtain estimates of the educational requirements of occupations, each of the U.S. Bureau of the Census 3-digit occupational categories employed in the NORC survey was assigned an average GED score; these scores were then converted into educational equivalents according to the following formula:

GED	Educational Requirement
1,2	0-11 years
3	12 years
4	13-15 years
5	16 years
6	over 16 years

Overeducation was then defined as any situation in which the educational attainment of the respondent exceeded the GED equivalent of his or her present occupation.⁸

In addition to using GED scores, several other methods have been suggested for measuring overeducation. Some researchers have used respondents' subjective evaluations of the level of education required in their occupations or whether they feel that their skills are adequately utilized on the job (Quinn and Mandilovich, 1975; Duncan and Hoffman, 1978). Unfortunately, these questions are subject to widely differing interpretations by respondents and tend to produce somewhat inconsistent and inflated estimates of overeducation. Furthermore, such measures fail to provide a test of the basic claim of the overeducation literature: the existence of a causal connection between overeducation as an *objective* social status and specific attitudinal and behavioral consequences.

Other researchers have estimated the educational requirements of jobs in terms of the actual distribution of educational attainments within occupations. Sullivan (1978) and Clogg (1979), for example, define a worker as over-

educated if his or her education is greater than one standard deviation above the mean education in his or her current occupation. The problem with this measure is that it arbitrarily standardizes the extent of overeducation so that roughly 16 percent of the workers in each occupational category will be defined as overeducated simply as an artifact of the measurement statistic. This approach ignores the extent to which past tendencies toward overeducation are already incorporated (in *differing* degrees) in the existing educational distributions of occupations and renders meaningless any notion of an historical increase in the aggregate level of overeducation. While such a measure may provide a useful index of relative deprivation of a certain kind, it too fails to capture the notion of an objective mismatch between actual skills and the functional requirements of occupations which is ordinarily implied by the concept of overeducation.

It is for these reasons that we have chosen the more direct approach of estimating the skill requirements of jobs on the basis of GED scores. The use of GED scores to measure overeducation is not without its own problems, particularly with regard to the assumption of the equivalence of the years of education of different individuals (regardless of the school attended, the field of study or the ability of the student), and the assumption that an average GED score can meaningfully be assigned to each occupation despite the considerable variance in skill requirements *within* occupational categories. GED measures also ignore the linkage between occupations—i.e., the fact that some low-skill occupations are normally stepping stones to higher-skill occupations, while others are not.⁹ Ideally, more detailed information on both education and occupation would be necessary to estimate the extent of overeducation with any accuracy. In the absence of such detailed information, however, the comparison of years of educational attainment with the average GED scores of occupations offers the most satisfactory measure of overeducation and the one most consistent with the way in which the term is used in the literature.

THE EXTENT AND DISTRIBUTION OF OVEREDUCATION

Before turning to the question of the social and political consequences of overeducation, it will

⁸ There is no consensus over the most appropriate translation between GED scores and educational requirements. Eckhaus (1964), Berg (1970) and the U.S. Department of Labor (1971) each propose slightly different conversion schemes. The translation adopted here was arrived at by taking from among these different conversion schemes the *highest* proposed educational equivalent for each GED level. This was done so as to minimize the number of workers falsely classified as overeducated.

⁹ For a more complete discussion of the strengths and weaknesses of GED scores as a measure of overeducation, see Eckhaus (1964), Scoville (1966), Berg (1970:40-45), Sullivan (1978:164-67), and Rumberger (1981:45-66).

be useful to examine the pattern of educational and occupational attainments revealed in this study. Table 1 presents a percentage distribution of the educational attainments of workers by the educational requirements of their present occupations. The figures below the diagonal indicate the number of workers whose level of educational attainment exceeded the educational requirements of their occupation. According to this survey, approximately 21.7 percent of full-time workers in 1977-78 were overeducated in their current jobs. Interestingly, the greatest concentrations of such workers were found not among college graduates—the group which has received the most attention in the literature—but at the middle levels of educational attainment. Approximately 37.7 percent of workers with 13-15 years of schooling were employed in occupations requiring no more than a high school education. By comparison, 30.9 percent of workers with 16 years of education were employed in occupations which did not require a college degree. High rates of overeducation were also found among those workers with one or more years of graduate training in occupations which did not require any specialized education beyond the college degree.

The percentages of overeducated workers at each level of education are presented in Table 2, with separate distributions for different categories of workers. Comparing male and female workers, the overall rate of overeducation for male workers was slightly higher than for females: 22.7 percent versus 20.1 percent. This difference is due almost entirely to the much higher rates of overeducation among males with 12 years of education—a reflection of the fact that women high school graduates are more concentrated in low-level white-collar occupations which utilize the skills taught in high school, while male graduates are more likely to enter into unskilled or semi-skilled manual occupations. There was also a slight tendency toward higher rates of overeducation among males at the BA level. This appears to be largely a result of the greater access of male

college graduates to routine managerial positions—occupations which are relatively privileged even though they exercise little in the way of specialized skills. Female graduates, by comparison, are more concentrated in fields like teaching, social work, and health professions where the standards of certification correspond more closely to the actual skill requirements of the occupation. At all other levels of education female workers had much higher rates of overeducation than males.

Previous research suggests that, overall, blacks and other minorities are more likely to be overeducated than whites (Rumberger, 1981:78-83; Duncan and Hoffman, 1978:236-83; Sullivan, 1978:99-109). This finding is confirmed by the data in Table 2, which show 27.1 percent of minority workers to be overeducated, compared with 20.8 percent of white workers. The greatest differences were found among those with 1-3 years of post-secondary education, where minority workers were almost twice as likely to be overeducated as white workers. Among college graduates, however, rates of overeducation were somewhat lower for blacks than for whites. This finding (also reported by earlier studies) is most likely a result of restricted access to education and overselection among minority students, and may also reflect relatively recent gains due to affirmative action.

If we define class background in terms of father's occupation, with professional and managerial occupations classified as "middle class" and all others as "working class," we find that, at every level of education, persons from working-class backgrounds were more likely to be affected by overeducation than those from middle-class backgrounds (the overall rate of overeducation was higher for the middle class only because of the much higher educational attainments of this group as a whole). This presumably reflects the differences in the kinds of schools attended by working-class and middle-class students, as well as cultural mechanisms which restrict the mobility of working-class students indepen-

Table 1. Educational Attainment of Workers by Educational Requirements of Occupation—Percentage Distribution^a

Educational Attainment of Worker	Educational Requirements of Occupation					Total
	0-11 Years	12 Years	13-15 Years	16 Years	17+ Years	
0-11 Years	5.1%	11.7%	4.5%	1.8%	0.0%	23.2%
12 Years	5.0	15.3	12.6	5.0	0.2	38.0
13-15 Years	1.0	6.1	7.3	4.1	0.3	18.8
16 Years	0.3	1.0	1.8	5.6	1.2	9.9
17+ Years	0.0	0.6	0.8	5.1	3.6	10.0
Total	11.3	34.7	26.9	21.6	5.3	100.0

^a Total N = 1534.

Table 2. Percentage of Overeducated Workers at Each Level of Education by Sex, Race, Class Background, and Age of Worker^a

Educational Attainment of Worker	Category of Worker								
	Sex		Race		Class Background		Age Level		Total
	Male	Female	White	Non-white	Middle class	Working class	35 & under	Over 35	
12 Years	18.1% (321)	6.9% (262)	12.8% (524)	15.3% (59)	6.5% (62)	12.8% (454)	15.1% (291)	11.0% (292)	13.0% (583)
13-15 Years	34.6 (162)	41.7 (127)	33.0 (245)	63.6 (44)	27.4 (62)	39.9 (183)	43.9 (166)	29.3 (123)	37.7 (289)
16 Years	32.0 (100)	28.8 (52)	31.6 (133)	26.3 (19)	28.6 (56)	34.6 (78)	32.6 (80)	29.2 (72)	30.9 (152)
17+ Years	56.0 (109)	84.4 (45)	63.9 (144)	70.0 (10)	59.4 (69)	66.7 (75)	75.0 (72)	54.9 (82)	64.2 (154)
Total	22.7 (915)	20.1 (619)	20.8 (1353)	27.1 (181)	28.3 (276)	19.6 (1063)	27.4 (717)	16.3 (817)	21.7 (1534)

^a Ns in parentheses.

dently of the acquisition of educational credentials (Bowles and Gintis, 1976:102-24).

Finally, as expected, younger workers were more likely to be overeducated than older workers—a reflection of the historical increase in levels of educational attainment and the greater concentration of young workers at the lower levels of their career ladders. Approximately 27.4 percent of workers age 35 and under were overeducated in their present occupations, compared with only 16.3 percent of workers over 35. Younger workers had higher rates of overeducation at every level of educational attainment. It is worth noting, however, that the smallest difference between the two age groups was recorded among workers with 16 years of education. This tends to disprove the common view which equates the rise in overeducation with an increase in the number of college graduates. The figures in Table 2 suggest that the trend toward overeducation is more the result of an increase in the number of students attending community colleges (or who otherwise complete less than four years of post-secondary education) without achieving jobs which utilize any skills beyond those which are typically taught in high school, as well as an increase in the number of college graduates going on to one or more years of graduate training without receiving any occupational return.¹⁰

¹⁰ The high (and increasing) rates of overeducation among workers with 13-15 years of education and among those with more than 16 years of education are more than a result of the limited occupational returns accruing to those who enter a given level of education but who drop out before receiving a degree. Among workers with 13-15 years of education, the rate of overeducation for those with an associate's degree was also relatively high at 24.4 percent. This breaks down to 28.0 percent for the younger age

JOB DISSATISFACTION

Two methods were used to measure the effects of overeducation on each dependent variable. The first was simply to compare the responses of overeducated workers with those of workers whose educational attainment did not exceed that required by their occupation. This method reveals any net differences between overeducated and nonovereducated workers, but it does not tell us whether these differences are truly the result of overeducation (i.e., of the discrepancy between education and occupation) or simply a consequence of the direct effects of education and occupation operating independently of one another. A second and more stringent test for overeducation effects involved controlling simultaneously for both occupation and education. This was done by calculating the best-fitting regression equation for each dependent variable using dummy variables for each level of occupation and education as independent variables and examining the pattern of residuals for signs of interaction effects. The size and direction of these interaction effects was then used as a measure of the impact of overeducation.¹¹

group versus 20.0 percent for the older age group. Among workers with 17 or more years of education, the rate of overeducation for those with a graduate degree was 57.8 percent. This includes 70.0 percent of younger workers versus 50.0 percent of older workers.

¹¹ This method is similar to that adopted by Jackson and Burke (1965) in their study of status inconsistency and symptoms of stress. It is also consistent with Blalock's (1966, 1967) recommendations concerning the appropriate method for identifying an interaction between two variables while controlling for the main effects of those same two variables. Blalock demonstrates that there is really no alterna-

Of the various consequences attributed to overeducation, the one which receives the most support in this study is the association between overeducation and job dissatisfaction. Even here, however, the relationship is not as strong as the existing literature would lead us to expect. Using the broadest possible definition of job dissatisfaction, approximately 49.0 percent of the total sample reported less than full satisfaction with their present employment. This included 2.4 percent who were "very dissatisfied," 8.7 percent who were "little satisfied," and 37.9 percent who were only "moderately satisfied" with their work. The remaining 51.0 percent reported that they were "very satisfied" with their jobs. Table 3 presents the percentage of very satisfied workers at each level of educational and occupational attainment.¹² At first glance, this table would seem to provide strong support for the hypothesis of an association between overeducation and job dissatisfaction. It is evident that the very highest rates of job satisfaction are found among workers who, in terms of formal education, are the most underqualified for their jobs (the upper right-hand corner of the table), while the very lowest rates of job satisfaction are found among those who are the most overqualified (the lower left-hand corner of the table). This pattern extends uniformly throughout the table, so that if we average rates of job satisfaction along each of the diagonals (i.e., for workers with equivalent levels of overeducation measured in GED units), we get the following relationship between the level of overeducation and job satisfaction:

Level of Overeducation	Percent Satisfied
-3	69.1
-2	62.7
-1	55.4
0	52.3
+1	48.8
+2	37.5
+3	23.6

tive to the detailed examination of residuals when studying interaction variables like overeducation. A multiple regression model, even one which included an interaction term, would be insufficient to identify the specific types of effects hypothesized in the overeducation literature.

¹² For reasons of economy and ease of interpretation, we have presented our findings in terms of the percentage of a single value of the dependent variable. An analysis utilizing the entire range of job satisfaction scores was also made, with similar results to those presented here. We have followed the same procedure for several of the other dependent variables discussed later in the paper. In each case a similar check was made.

The consistency of this relationship is striking; however, the magnitude of these differences is exaggerated by the fact that the most undereducated workers are disproportionately in skilled occupations where average levels of satisfaction are high, while the most overeducated workers are disproportionately in unskilled occupations where the average levels of satisfaction are low. If we compare the rates of job satisfaction of overeducated workers with those of other workers in equivalent occupations, as is done at the bottom of Table 3, we still find lower levels of job satisfaction among overeducated workers, but the magnitude of these differences is relatively small. Within occupational categories, the only place where we find substantial decreases in job satisfaction is among workers in the lowest two occupational categories (those requiring 12 or less years of education) who are overeducated by a factor of at least two GED levels. Overeducation by a factor of a single GED level does not appear to produce a sharp decline in job satisfaction at any level of occupational attainment.

This pattern emerges in sharper relief if we examine the effects of overeducation while controlling for the direct effects of both education and occupation. The second entry in each cell of Table 3 shows the difference between the observed level of job satisfaction in each category and the level predicted by the best-fitting regression model using education and occupation as independent variables. These residuals can be interpreted as a measure of the degree of interaction between education and occupation. Note that the rates of job satisfaction are consistently lower than predicted by the additive model in all of the cells for which the educational level of the worker exceeds the educational requirements of the occupation by at least two GED levels. The average residual for these five cells (weighting each cell by the number of respondents it contains) is -7.6, indicating that the observed rates of job satisfaction are 7.6 percent lower than predicted by the additive model. Among workers who are overeducated by only a single GED level, the magnitude of the residuals is generally smaller and their sign is positive as often as negative. This confirms the fact that, while high levels of overeducation seem to be associated with a decline in job satisfaction, moderate levels of overeducation need not produce a similar effect.¹³

¹³ The effects of overeducation were no greater for younger workers (the object of most recent speculation) than they were for the workforce as a whole. Separate estimates of the effects of overeducation for workers 35 and under and for workers over 35 produced results similar to those reported here.

Table 3. Percentage of Workers Very Satisfied with Job by Educational Attainment of Worker and Educational Requirements of Occupation^a

Educational Attainment of Worker	Educational Requirements of Occupation					Total
	0-11 Years	12 Years	13-15 Years	16 Years	17+ Years	
0-11 Years	45.6% 1.2 (79)	50.0% 3.7 (178)	44.9% -11.5 (69)	71.4% 5.1 (28)	—	49.7% (354)
12 Years	44.7 3.4 (76)	39.7 -3.5 (232)	58.1 4.8 (190)	64.0 0.9 (75)	66.7% -0.6 (3)	49.8 (576)
13-15 Years	26.7 -10.6 (15)	44.6 5.4 (92)	49.1 -0.2 (112)	54.8 -4.3 (62)	80.0 16.7 (5)	48.3 (286)
16 Years	25.0 -11.6 (4)	35.7 -2.7 (14)	44.4 -4.2 (27)	60.5 2.0 (86)	58.8 -3.9 (17)	52.6 (148)
17+ Years	—	22.2 -18.3 (9)	50.0 -0.5 (12)	61.4 1.1 (78)	66.7 1.2 (54)	60.1 (153)
Total	43.1 (174)	43.6 (525)	52.2 (410)	61.4 (329)	65.8 (79)	51.0 (1517)
Overeducated	41.0	41.7	46.2	61.4	—	47.1
Not overeducated	45.6	44.1	53.1	61.4	65.8	52.1
Difference	-4.6	-2.4	-6.9	0.0	—	-5.0

^a The first entry in each cell is the observed percentage. The second entry is the residual from the best-fitting regression equation using education and occupation as independent variables. Ns are given in parentheses.

These results are not necessarily incompatible with the findings of previous studies. Berg (1970) found that overeducation was one of the strongest correlates of worker dissatisfaction, but his data were for blue-collar workers only (comparable to our two lowest occupational categories). A more recent study by Berg et al. (1978:99), which was based on a national probability sample of *all* employed workers, found only a modest 4.9 percent difference in job satisfaction between overeducated and nonovereducated workers—a figure closer to that of our own sample. Quinn and Mandilovich (1975) also reported a strong association between overeducation and job dissatisfaction; however, a close examination of their findings shows that overeducation had large effects only when workers had four or more years of education in excess of that needed by their occupation (comparable to two or more GED levels in our study). Thus, while there is evidence of job dissatisfaction among very highly educated workers in the least-skilled jobs, it is by no means certain that this tendency can be generalized to moderate levels of overeducation. Neither the present study nor previous research provides convincing evidence that moderate discrepancies between education and occupation are responsible for major increases in job dissatisfaction.

POLITICAL LEFTISM

In order to investigate the political consequences of overeducation, we examined the relationship between overeducation and three standard measures of political leftism: political party identification, self-identification as liberal or conservative, and support for state welfare spending.¹⁴ Because of space limitations, we shall not reproduce the entire distribution of scores on these variables as we did for job satisfaction.¹⁵ Instead we have presented in Table 4 only the average scores for three categories of workers: nonovereducated workers, all overeducated workers, and a smaller category of highly overeducated workers (those whose educational attainment exceeds the requirements of their occupation by two or more GED levels). For each of the two categories of overeducated workers we have also calculated the average residual from the best-fitting regression equation using education

¹⁴ The NORC survey provides no measures of radical or socialist political attitudes. The only question which could be remotely interpreted as an indication of such attitudes, a question concerning attitudes toward communism as a system of government, produced no significant results.

¹⁵ Complete data on these variables is available on request from the author.

Table 4. Social and Political Attitudes of Workers by Level of Overeducation^a

	Average Score or Percentage				Average Residual	
	All Workers	Non-over-educated	Over-educated	Highly Over-educated	Over-educated	Highly Over-educated
Percentage Very Satisfied with Job	51.0 (1517)	52.1 (1190)	47.1 (327)	33.3 (54)	1.0 (327)	-7.6 (54)
Percentage Supporting Democratic Party	41.2 (1518)	41.4 (1192)	40.8 (326)	39.3 (56)	1.2 (326)	0.2 (56)
Political Liberalism (7-point scale)	2.98 (1477)	2.94 (1161)	3.12 (316)	3.39 (54)	0.03 (316)	0.18 (54)
Percentage Favoring Welfare Spending	31.7 (1483)	30.0 (1162)	37.7 (321)	37.2 (54)	-0.5 (321)	-7.1 (54)
Political Alienation (7-point scale)	3.30 (607)	3.35 (467)	3.13 (140)	2.92 (26)	-0.04 (140)	-0.24 (26)
Percentage Affirming Achievement Ideology	61.3 (1586)	61.8 (1254)	59.6 (332)	37.5 (56)	2.2 (332)	-11.7 (56)
Percentage with Great Confidence in Unions	13.7 (1498)	13.7 (1174)	13.6 (324)	10.7 (56)	0.2 (324)	-3.2 (56)
Percentage Identifying as Middle/Upper Class	43.3 (1528)	40.5 (1198)	54.5 (330)	69.6 (56)	0.9 (330)	14.2 (56)

^a Ns in parentheses.

and occupation as independent variables. Similar statistics are given for variables pertaining to political alienation and stratification ideology, which are discussed below.

The results shown in Table 4 tend to disprove the hypothesis of a positive association between overeducation and political leftism. For example, there is no discernible tendency toward greater Democratic Party support among overeducated workers. The overall percentages of Democratic supporters among overeducated and nonovereducated workers are virtually identical at 40.8 percent and 41.1 percent respectively. Controlling for education and occupation, there is no sign of significant interaction effects—i.e., the pattern of residuals reveals no tendency for overeducated workers to be either higher or lower in their support for the Democratic Party than would be predicted by an additive model of the direct effects of education and occupation.

Similar results are obtained if we examine the self-placement of workers on a seven-point liberalism/conservatism scale. Here there is a slight tendency for overeducated workers to identify themselves as more liberal than nonovereducated workers. The average liberalism score for overeducated workers is 3.12, compared with 2.94 for nonovereducated workers (a difference of approximately 0.15 standard deviations). Even this small difference, however, seems to be less an effect of overeducation than a reflection of the general tendency for highly educated workers at all occupational levels to identify themselves as more liberal than less-educated workers. This is confirmed by an examination of the residu-

als, which shows no strong positive interaction effect after controlling for the direct effects of education and occupation.

The most interesting findings are revealed in workers' attitudes toward state welfare spending. This specific issue was chosen because it addresses a concern which would seem to be of direct relevance to overeducated workers: the linkage between occupational placement and the distribution of economic rewards. As indicated in Table 4, the percentage of workers who express support for a continuation or increase in the level of state welfare spending is somewhat higher among overeducated workers than among those who are not overeducated—37.7 percent versus 30.0 percent. Once again, however, the question arises of whether this difference is truly the result of overeducation or merely a reflection of the direct effects of education and occupation. Overall, support for state welfare spending is positively correlated with educational level and negatively correlated with occupational level. When we control for the direct effects of education and occupation, we find that the residual interaction attributable to overeducation is actually slightly negative. Among highly overeducated workers the average residual is a rather sizeable -7.1, indicating that the percentage of these workers who support state welfare spending is 7.1 percent lower than predicted by the additive model. If there is a significant interaction between high educational attainment and low occupational placement, it would thus appear to be in the direction of a decrease in support for state welfare spending.

POLITICAL ALIENATION

As a measure of political alienation we employed a six-item scale which focused on attitudes of political powerlessness and social isolation.¹⁶ Included in the scale were the following statements with which the respondent was asked to agree or disagree:

1. The people running the country don't really care what happens to you.
2. The rich get rich and the poor get poorer.
3. What you think doesn't count very much anymore.
4. You're left out of things going on around you.
5. Most people with power try to take advantage of people like yourself.
6. The people in Washington, D.C., are out of touch with the rest of the country.

Alienation scores were obtained by summing the number of positive responses to these six statements.

The distribution of scores on this scale provides no support for the hypothesis of a positive association between overeducation and political alienation. Consistent with the findings of previous research (Dean, 1961; Olsen, 1969; Finifter, 1970), we did find a negative correlation between political alienation and both education and occupational level. Because the negative correlation with education was greater than that with occupation, overeducated workers tended to be somewhat less alienated than nonovereducated workers. As shown in Table 4, the average alienation score for overeducated workers was 3.13, compared with 3.32 for nonovereducated workers (a difference of about 0.12 standard deviations).¹⁷ Most of this difference is attributable to the direct effects of education and occupation. After controlling for the direct effects of these variables, the residuals are small in size and slightly negative on the average. In other words, there is no evidence that overeducated workers are any more alienated than would be predicted by an additive model of the direct effects of education and occupation.

STRATIFICATION IDEOLOGY

To investigate the impact of overeducation upon workers' perception of and attitude toward the stratification system, we examined responses to three types of questions: belief in

the achievement ideology, attitude toward organized labor, and subjective class identification. These questions produced more significant results than those pertaining to political leftism or political alienation, although the findings were somewhat different from those predicted in the literature.

Belief in the achievement ideology was measured by the percentage of workers in each category who agreed with the statement that "people get ahead by their own hard work" rather than by "lucky breaks" or "help from other people."¹⁸ As the figures in Table 4 indicate, there is some evidence that overeducated workers are less supportive of the achievement ideology than nonovereducated workers. This is particularly true of workers whose level of education exceeds the requirements of their occupation by two or more GED levels. Only 37.5 percent of these highly overeducated workers agree that people get ahead by hard work, compared with 61.8 percent of nonovereducated workers. Controlling for the direct effects of education and occupation, we continue to find negative interaction effects among these highly overeducated workers. The observed percentage of positive responses among these workers is 11.7 points below what would be predicted by the direct effects of education and occupation. By contrast, among workers who are overeducated by only a single GED level, the residuals are small and slightly positive. These findings are similar to those we encountered in the case of job dissatisfaction. They suggest that extreme levels of overeducation may cause disaffection with the achievement ideology, but that moderate discrepancies between education and occupation do not necessarily produce a similar effect.

As noted earlier, several writers have hypothesized that disillusionment with the ideology of individual achievement might lead overeducated workers to be more favorable toward collective strategies for economic advancement. The attitudes of overeducated workers toward organized labor tend to disprove this hypothesis. The figures in Table 4 represent the percentage of workers in each category who expressed "a great deal of confidence" in organized labor. These figures show that, despite their lesser belief in the achievement ideology, overeducated workers are by no means more favorable toward unionization than other workers. Only 13.6 percent of overeducated workers expressed a great deal of confidence in organized labor, compared with

¹⁶ For a discussion of the conceptualization and measurement of political alienation, see Dean (1961), Olsen (1969) and Finifter (1970).

¹⁷ The sample size for this question is smaller than for the previous questions because the alienation scale was included in the NORC survey only in 1978, and not in 1977 or previous years.

¹⁸ This question was included in the NORC survey only in 1977 and previous years, not in 1978. We therefore pooled responses for 1976 and 1977 as our sample for this question.

13.7 percent of nonovereducated workers. The pattern of residuals, after controlling for the direct effects of education and occupation, does not indicate any consistently positive interaction effects. Highly overeducated workers are actually slightly less favorable toward unionization than nonovereducated workers. Only 10.7 percent of these workers expressed a great deal of confidence in organized labor—3.2 percentage points below what would be predicted by the direct effects of education and occupation.

If overeducated workers are somewhat disillusioned with the achievement ideology, but are not yet convinced of the possibility or desirability of collective action, how then do they respond to the relative meaninglessness of their work? One possibility which has been mentioned elsewhere, but has received little attention in the literature on overeducation, is that such workers may respond by giving greater attention to status-conferring features extrinsic to their work lives. Mills (1951: 239–58), in his analysis of the proletarianization of white-collar labor, suggested that as the historic bases of white-collar prestige were eroded through the down-grading of white-collar occupations, workers in these occupations would react first by denying their objective proletarianization and seeking to satisfy their status claims by emphasizing distinctions peripheral to the intrinsic character of their work. Evidence of a similar kind of “status panic” can be found if we examine the patterns of subjective class identification among overeducated workers.

The figures in Table 4 indicate the percentage of workers in each category who identified themselves as middle or upper class as opposed to working or lower class. Consistent with the results of previous studies (Hodge and Treiman, 1968), we found that both educational attainment and occupational level contributed independently to workers' subjective class identification, so that, generally speaking, overeducated workers were more likely to identify as middle or upper class than other workers in comparable occupations, but less likely than other workers with comparable levels of education. This much is hardly surprising. What is more interesting is the pattern which emerges among the residuals after we control for the direct effects of education and occupation. Here we find that overeducated workers, especially highly overeducated workers, are more likely to identify as middle or upper class than would be predicted by the additive effects of their education and occupation. Among workers who are overeducated by two or more GED levels, the average residual is 14.2 percentage points. What this suggests is

that overeducated workers weigh their occupational characteristics less heavily and their education (or other status-conferring characteristics) more strongly in their calculation of subjective class identity than is typical for workers in general. This interpretation is consistent with Mills's hypothesis of “status panic” and also helps to explain the low levels of pro-union sentiment among overeducated workers.

DISCUSSION

Two questions pose themselves for discussion. First, why do moderate levels of overeducation have such a small effect, even in work-related areas such as job dissatisfaction? Second, how do we account for the absence of broader political correlates of overeducation? With regard to the first question, we would argue that the strength of any attitudinal effects of overeducation will depend upon the degree to which workers subjectively perceive themselves as overqualified for their jobs, and that this may be only very loosely correlated with the objective mismatch between their educational attainment and the occupational requirements of their job.¹⁹ Among workers who are overeducated by two or more GED levels we can be fairly certain that this subjective perception will be present; at more moderate levels of overeducation we cannot assume that this will be the case. Depending upon such factors as the type of school attended, the fit between the course of study and their present job, the length of time since leaving school, and the educational distribution of their immediate work group, many workers whose skills are objectively underutilized in routine occupations may fail to experience any dissonance in this situation, while other workers, who by any objective criteria have relatively challenging and rewarding jobs, may nevertheless feel underemployed in relation to their personal expectations and aspirations.

Further, we would argue that workers' subjective experience of overeducation will depend as much or more on the unfulfillment of their aspirations for income and status as it will on the underutilization of their technical skills. This raises a more general problem with the concept of overeducation and the consequences which have been attributed to it. Implicit in the concept of overeducation, as it is generally applied, is an overly technical under-

¹⁹ Quinn and Mandilovich (1975:27) found that overeducation measured in terms of workers' own estimates of the years of education required for their jobs explained more variance in job satisfaction than overeducation measures in terms of GED scores ($\eta^2 = 0.21$ versus $\eta^2 = 0.14$).

standing of the relationship between education and occupational attainment. To speak of overeducation in this way assumes that by and large, or at least in the past, the correspondence between educational attainment and economic success is explained by the role of schools in the transmission of technical skills. Privileged positions are understood as positions which exercise greater technical skills, and highly educated persons are assumed to be more likely to obtain such positions because they have acquired such skills through education. As Collins (1971, 1979) and others have demonstrated, this view bears little resemblance to reality. Outside of a few learned professions, and with the exception of basic math and literacy skills, most occupations require little of the kind of skills which schools teach. Those skills which are required are generally learned on the job rather than in school. Employers rely on educational credentials in hiring and promotion not because of the technical skills these represent, but as a means of selecting persons who are socialized into the dominant status culture (Collins, 1971:1011; Bourdieu, 1973; Bowles and Gintis, 1976:102-48). From a sociological standpoint, educational attainment is simply a more or less legitimate social norm for the differential allocation of individuals into privileged positions. On the average, persons with a given level of education will expect to hold certain kinds of positions; these expectations will correspond more or less well to the actual distribution of educational and occupational attainments. All this has little to do with technical skills, except in the sense that claims of technical competence are one of the legitimating ideals in terms of which the competition for position takes place. Whether individuals will experience themselves as overeducated therefore depends less on the objective match between the skills they have learned and those which they use on the job than it does on the socially prevailing norm as to the "appropriate" level of education for their occupation. It is therefore not surprising that objective measures of overeducation are so weakly correlated with worker attitudes, particularly at the moderate levels of overeducation.

As to the negative findings on political attitudes, we would argue that this is not just a result of problems in the conceptualization and measurement of overeducation, but a reflection of the genuine absence of any necessary or consistent political effects of overeducation. At most, overeducation may create a latent predisposition to political mobilization among certain groups. What form or direction this mobilization may take, or even whether it will occur, depends upon the operation of inter-

vening political and organizational factors. There is evidence that overeducated workers have reacted in very different ways under different social and historical circumstances. Shils (1960) and Germani (1966), for example, note the presence of underemployed (or unemployed) intellectuals in the leadership of left-wing movements in Third World countries. Kotschnig (1937), on the other hand, maintains that underemployed university graduates during the Depression became the spearhead of German National Socialism and other European right-wing movements.²⁰ Caplan and Paige (1968) report that black high school graduates were more likely to riot in the Detroit and Newark ghettos in 1968 than those who were not graduates, while Sheppard and Herrick (1972:144-49) present evidence of greater Wallace support among blue-collar workers with higher educational attainments. This evidence, fragmentary as it is, suggests the variability of possible forms of political mobilization among overeducated workers. Overeducated workers may direct their dissatisfaction toward the economic system in demands for reform, or they may blame their misfortune on the most readily available scapegoat. In the absence of a political movement which articulates their discontent, they may simply turn the blame inward, in which case the effects of overeducation will be primarily psychological rather than political. Which of these will occur will vary from one individual or context to another. Multiple political tendencies of this sort are unlikely to be picked up in general social surveys, and when they are their effects are likely to be counter-balancing—hence the negative findings of this study, as well as the generally inconclusive results of related research on status inconsistency.

In the United States the most probable consequence of overeducation is the continued privatization of discontent, leading either to self-blame (low self-esteem, symptoms of psychological stress, etc.) or to individual adaptation through the redefinition of status (elevating the importance of family, leisure and non-work activities). Several studies have found a correlation between overeducation and symptoms of psychological stress. Kornhauser (1965:137), in his classic study of the mental health of industrial workers, found that better educated men in routine blue-collar jobs had lower "life satisfaction" and "self-esteem"

²⁰ Research by Hamilton (1982) suggests that such claims may be exaggerated. While agreeing that German university students and graduates were disproportionately pro-Nazi, Hamilton disputes the claim that declining employment prospects within this sector were an important factor in causing the rise of fascism.

scores than those with less education.²¹ Studies based on the Survey of Working Conditions and Quality of Employment Surveys have confirmed these findings and also found a greater frequency of depressed mood among workers whose skills were underutilized (Quinn, 1974; Margolis et al., 1974). There is little research on processes of adaptation among overeducated workers, but presumably many of the strategies traditionally adopted by workers in low-skill, low-prestige occupations—lowering aspirations and redefining success in terms of personal and family happiness, miscellaneous avocations and other nonwork activities (Chinoy, 1955)—may be followed by overeducated workers also. In her study of Indisco Corporation, Kanter (1977) found that highly educated men whose career advancement was blocked tended to substitute a variety of forms of social recognition for career success. Clark (1976) describes a variety of similar strategies of adaptation among downwardly mobile men in blue-collar jobs. These results are consistent with our finding that overeducated workers tended to maintain a high subjective class identity by downplaying the intrinsic characteristics of their work.

In summary, the predictions of significant political repercussions of overeducation are probably unfounded. The most likely reaction among American workers is one of pragmatic adaptation and privatized discontent. Whatever political effects occur are likely to be mixed and contradictory. We should not expect a general or consistent shift in political attitudes as an automatic consequence of the spread of overeducation.

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²¹ Kornhauser also found that overeducation was not associated with lower "personal morale" or "sociability" scores. The scores on these variables counter-balanced the negative effect of "life satisfaction" and "self-esteem" so that the net impact of overeducation on worker mental health was negligible.

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