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ABSTRACT

This report charts the rate at which occupational differentiation proceeded among 3,730 young white men and the dimensions along which it proceeded. Data from the National Longitudinal Survey of the Labor Force Experience of Young Men were used to examine employment among men aged sixteen to twenty-eight in different levels and fields of work. Results suggest that the rate of labor force participation stabilizes in the early twenties, differentiation among men by education and the distribution of men among different broad levels and fields of work stabilizes by the mid-twenties, and the sorting of men with different socioeconomic backgrounds into different occupational groups continues through the late twenties, at which age it appears to have been largely completed. Discriminant analyses reveal that academic achievement (IQ and years of education) is the major dimension by which men are sorted or sort themselves to jobs, but socioeconomic background also helps to distinguish among men in different fields as well as levels of work. (Author)

Occupational Differentiation in the First Decade after High School

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Occupational Differentiation in the First Decade After High School

Abstract

This report charts the rate at which occupational differentiation proceeds among 3730 young white men and the dimensions along which it proceeds. Data from the National Longitudinal (Parnes) Survey of the Labor Force Experience of Young Men were used to examine employment among men aged 16 to 28 in different levels and fields of work. Results suggest that the rate of labor force participation stabilizes in the early twenties, differentiation among men by education and the distribution of men among different broad levels and fields of work stabilizes by the mid twenties, and the sorting of men with different socioeconomic backgrounds into different occupational groups continues through the late twenties at which age it appears to have been largely completed. Discriminant analyses reveal that academic achievement (IQ and years of education) is the major dimension by which men are sorted or sort themselves to jobs, but socioeconomic background also helps to distinguish among men in different fields as well as levels of work.

Occupational Differentiation in the First Decade After High School

Career development in the first ten years after high school in large measure forecasts the course of the remaining decades of a person's career. During these years young people make vocational choices and compete not only for the jobs they desire but also for the required education and training. Some youngsters are able to establish themselves in their preferred careers, but many find themselves rooted in low-level, uninteresting, or dead-end jobs.

The sorting of people into jobs has generally been examined within sociology as an aspect of social stratification and intergenerational mobility. Estimates are made of the degree to which sons "inherit" the occupations of fathers and of the relative importance of socioeconomic and educational advantages in determining occupational attainment in adulthood. For example, status attainment researchers have provided strong evidence that years of education, IQ, and socioeconomic background are major criteria by which people are sorted, or sort themselves, into different levels of work. The correlation of fathers' and sons' adult occupational status is generally found to be .3 to .4, and the correlations of sons' status with sons' years of education and IQ are, respectively, .6 and .4 (e.g. Alexander and Eckland, 1975; Duncan, et al., 1972; Sewell and Hauser, 1976).

Although the fact that sorting occurs is well documented, just how and at what ages it occurs has not been systematically investigated. For example, the following questions have received little attention: How does the type (field) and level (prestige) of work people typically do change during their first decade out of high school? Does

occupational differentiation increase with age and proceed according to socioeconomic and educational advantage? And are some routes to occupational success easier than others for disadvantaged youth to follow?

This report is from a research program designed to address these issues. It differs from earlier studies in two ways. First, with few exceptions (e.g. Blum and Coleman, 1970; Coleman et al., 1970), research has examined jobs held at only one or two points in the life cycle--the most common being first job, first job after completing school, or job at the time of survey. This study provides a more comprehensive picture of career development in early adulthood by examining longitudinal data on employment at two-year intervals from ages 16 to 28. Second, this study examines the type or field (situs) of work as well as the status level of work obtained. Previous reports from this program (e.g. Gottfredson, 1977) have shown large and systematic income differences by functionally different types of work (e.g. sales and management versus education and social service) even when years of education and occupational status are held constant. This work suggests that occupational attainment processes differ substantially in different occupational labor markets, and therefore, that models of career development must examine both type and level of work.

Method

Data

Data on a nationally representative sample of white men (N = 3730) aged 14 to 24 in 1966 were obtained from the National Longitudinal

Survey of the Labor Market Experience of Young Men (Parnes et al., 1969). The men were interviewed every year for over five years, and the surveys provide extensive data on educational and labor market experiences for each of these years. The men were not surveyed during the years they were in military service. This study used data from survey years 1966 to 1971.

The analyses reported here are based on comparisons among different age groups. Because of the small number of men in each age cohort in 1966, the labor force participation of men of different ages was examined without regard to cohort, that is, without regard to which year it was that they were a particular age. For example, the jobs of men aged 18 in any year were compared to the jobs of men aged 20 in any year regardless of the survey year during which this information was obtained. This means that each man could be classified into as many as; but not more than, five age groups. This procedure assumes that cohort differences (for example, differences between men aged 20 in 1966 and men aged 20 in 1971) are negligible during the five-year period.

Occupations are classified in two ways: by Duncan socioeconomic index scores (Duncan, 1961) and by Holland's (1973) 6-category horizontal classification of occupations. The Holland categories of work are Realistic (e.g. skilled trades and some engineering), Investigative (e.g. science and medicine), Artistic (e.g. aesthetic and literary work), Social (e.g. social service and education), Enterprising (e.g. sales and management), and Conventional (e.g. clerical and accounting

work). Although largely unfamiliar to sociologists, Holland's classification is widely used in other disciplines. See Walsh (1973), Holland (1973), Osipow (1973), Lackey (1975), and Holland, et al. (1977) for reviews of the extensive research testing and using the classification. Additional evidence about the validity of the typology for describing occupations is provided by Gottfredson (1978). Gottfredson and Brown (1978) provide the Holland codes for detailed census occupational titles.

For most analyses, occupations were classified into one of eighteen groups defined according to three levels of prestige (low: 0-29; moderate: 30-59; and high: 60 or more points on the Duncan SEI) and six types of work. An examination of the data showed that over 90% of men are found in only seven of the possible eighteen groups: low-level Realistic work (R Lo), moderate Realistic (R Mod), moderate Conventional (C Mod), moderate Enterprising (E Mod), high Enterprising (E Hi), high Investigative (I Hi), and high Social (S Hi). Therefore, most of the analyses use only these seven groups. Men in the three moderate-level groups are on the average equal in status, as are men in the three high-level groups; the mean status of men in each of the seven groups is, respectively, 17, 41, 41, 45, 72, 74, and 71. Sample occupations in each of the seven groups are as follows: R Lo--bootblacks, assemblers, meat cutters, and brickmasons; R Mod--machinists, firemen, mail carriers, and electrotypers; C Mod--clerks, telephone operators, and bookkeepers; E Mod--deliverymen, sales clerks, farm managers, and store floor managers; E Hi--insurance adjusters, purchasing agents, public administrators, and lawyers; S Hi--librarians, teachers, social

workers, and psychologists; Hi--engineering technicians, chemists, civil engineers, and physicians.

Measures of social background, mental ability, and educational attainment were included in the analyses. Socioeconomic background was measured by mother's and father's years of education and father's occupational status when the respondent was 14 years of age. Mental ability test scores were obtained from the last high school attended. Scores were not all from the same test (about 30 tests are represented), so scores were standardized to a common metric (Herriott and Kohen, unpublished). The scale used in these analyses consisted of a 9-point scale indicating the stanine in which the IQ score was estimated to fall. Measures of educational attainment included high school curriculum (college preparatory or not) and years of education completed. Respondents were also characterized according to whether or not they reported being currently enrolled in school and whether or not they had ever received any vocational or technical training.

Analyses

All analyses were performed separately for each age group to show the progress of occupational differentiation with age. The first analysis shows the percentages of men employed, and in which particular occupational group if they were employed. The last three analyses are designed to reveal the process of occupational differentiation according to socioeconomic and educational background. They include (a) correlations of status of boys' current or last job with background variables, (b) percentage of men with high IQ's in the different types and levels

of work, and (c) discriminant analyses (Overall and Klett, 1972) among the seven major occupational groups. The last two analyses focus on workers in the seven major occupational groups, but Table 1 shows that excluding men in the eleven "other" categories excludes only a small proportion of the men.

Regression analysis has typically been used to estimate multivariate models of occupational attainment because the criterion of occupational achievement has generally been a status score on a single vertical dimension. The occupational groups in this analysis could not be ordered on a single scale because some of the groups differ by type but not by level of work. Differences among the seven categories of work were therefore examined using discriminant analysis because this method of analyzing differences among groups does not assume any single hierarchical ordering. To maintain reasonable sample sizes for the discriminant analyses, values were imputed for missing data. Means for all variables were calculated separately for each occupational group within each age group, and men with missing data were assigned the mean value for their own age-occupational group. The percentages of cases with missing data in the seven occupational groups varied by predictor and sometimes by age group: years of education and current enrollment status--0%; father's occupational status--5 to 7%; father's and mother's education--increasing, respectively, from 12 and 5% to 28 and 15% with age; IQ--20 to 31%; and training--decreasing from 39 to 8% with age.

The statistic kappa (Cohen, 1960) is used to assess the ability of the discriminant functions to predict occupational group membership. Kappa is a measure of categorical agreement and it indicates the degree of greater-than-chance agreement.

Results

Table 1 provides a description of the labor force and employment status of the young men according to type and level of work. This table shows how the distribution of men by labor force status changes from age 16 to 28. About half the men were employed at age 16, an age at which most could still be expected to be attending high school. By age 22 over 85% of the men were employed; by age 28 almost all were working. By age 18, two thirds of the men who were employed reported that working was their major activity; by age 22, 90% of employed men reported this. (The percentages of employed men reporting work as their major activity are, respectively for the seven age groups, 11, 66, 76, 90, 96, 96, and 99.)

Table 1 also reveals what types and levels of work were held by men of different ages. Most young men are employed in only seven of the eighteen possible groups, as is true of adults as well (Gottfredson, forthcoming). The youngest men are employed almost exclusively in low-level Realistic work. As the men age and as more enter the labor market, employment in this type of work decreases and the men move into an increasingly broad spectrum of work. Employment in moderate-level jobs increases until age 22, at which age it levels off. Between ages 20 and 24--ages during which many men are leaving college--there are

large proportionate increases in employment in high-level jobs. The major net movement of men after age 24 appears to be into high-level Enterprising work, which provides over half the high-level employment by age 28.

Table 1 About Here

Occupational Differentiation: The Process of Men Being Sorted to Jobs

Table 1 illustrated several ways in which men are differentiated in their early career development: they enter the labor force at different ages, and they are eventually distributed into varying types and levels of work. Table 2 reveals other aspects of differentiation with age. The means and standard deviations in Table 2 show that men continue to become more differentiated by education until age 22 and by occupational status until age 28. The lower panel of the table is particularly interesting because it shows that the correlations of the men's occupational status with antecedents, such as their IQ and their parents' socioeconomic status increase from less than .2 at age 18 to .4 or above at age 28. The correlations for the oldest group are comparable in magnitude to those cited in the introduction for older men. In short, older men are much more differentiated in attainment than are younger men, and the links of their current occupational attainment to their educational level and to their parents' socioeconomic status have become much more apparent. The comparability of the correlations among the older groups to those among much older adults suggests that the sorting process may be largely complete by the late twenties.

Table 2 About Here

The rise in correlations reflects two sources of sorting by background characteristics. First, late entrants to the labor force tend to be more advantaged than early entrants, the latter being lower and more homogeneous in social status than men in general. Second, among men who are already employed, the more advantaged ones are more likely than the less advantaged ones to move out of low-level jobs. Table 3 illustrates these two types of sorting. In Table 3, IQ is used as a measure of advantage in the labor market, and the table shows the percentage of men in each age-occupational group whose IQ scores are among the top 40% of IQ scores. At all ages a high proportion of men not in the labor force have IQ scores in this upper range, a proportion most similar to that of the men in high-level jobs. Looking at the proportions for low- and moderate-level work, it is apparent that with age the higher IQ men tend to move out of such jobs. Table 3 also reveals differences in IQ among the men in different types of work at the same level. Investigative and Social occupations have the highest proportion of high-IQ men. The other high-level work considered here--Enterprising work--recruits proportionately fewer such men. The IQ level of men in moderate-level Realistic work also appears to be lower than that of men in other moderate-level work. The latter types of work may more often serve as a stepping stone of higher-IQ men to higher-level work.

Table 3 About Here

Major Dimensions of the Sorting Process

Discriminant analyses were performed for each age group in order to find the major dimensions along which young men in different types and levels of work differ. In particular, these analyses indicate which characteristics--respondent's education, parent's occupational status, and so on--are most useful in distinguishing workers in one occupational group from those in another, and they thus provide evidence about what it is that determines how men are sorted, or sort themselves, into different jobs. But before discussing those results, it is useful to first examine some more general issues: (a) just how different are workers across the occupational groups compared to differences within groups, (b) how many dimensions (functions) are needed to summarize most of the differences between the groups, and (c) how well does the whole set of predictors predict occupational group membership? The upper panel of Table 4 shows what proportion of the total variance in each particular predictor is between groups. These proportions indicate that less than 7% of the variance in any of the characteristics is between groups for the younger men, but that most proportions increase in the mid-20's--somewhat for parental characteristics (to about 14%), more for IQ and high school curriculum (to about 23%), and most for years of education (to about 43%). Whereas the young men in the different occupational groups are not very distinguishable according to any of these criteria, the groups among the older men are more distinguishable--particularly in years of education. It should be remembered, however, that a much smaller proportion of the younger

men than of the older men (e.g. 58% of the 18 year-olds versus 87% of the 28-year-olds) are included in the analyses, because only employed men are analyzed. In addition, the between-group variance is restricted in the youngest groups because those men are found primarily in only one of the seven occupational groups analyzed.

The lower panel shows the eigenvalues and the canonical correlations of the first three (of the possible six) discriminant functions. The first three functions are significant for most of the age groups, but the first function summarizes most of the inter-group differences, particularly for the three oldest groups of men. The final set of results in the lower panel of Table 4 indicate the ability of the eight predictors to predict group membership. Although the greatest percentage (70%) of the cases were correctly classified in the youngest age group, most of these men are employed in only a single occupational group (see Table 1) and the kappa (.05) indicates that this percentage is what would be expected by chance. In contrast, about .3 of the agreement possible above that expected by chance is found for the three oldest age groups.

Table 4 About Here

Turning to the more detailed results, Table 5 provides the coefficients for the first discriminant function and the centroids for each occupational group along this dimension. The first function is the one linear combination of the variables which best differentiates the occupational groups (that is, which best accounts for the between-

group variance). Beginning with age 20, the first function appears to tap primarily an "academic achievement" dimension. Looking at the upper panel of the table, years of education has the largest weights in this first function. Parental background variables have essentially zero coefficients and so make almost no independent contribution to the first (and most powerful) function separating the seven groups. Current enrollment in school and a history of some vocational training help to distinguish groups among the youngest men, but these two variables become relatively unimportant with age for defining the first dimension. The canonical correlation of scores on this first function with group membership--one measure of the ability of this dimension to distinguish among the groups--increases with age. This increase is concurrent with the increasing differentiation among men in years of education completed (Table 2) and the more even distribution of men across the seven occupational groups (Table 1) that occur with age.

Table 5 About Here

The lower panel of Table 5 shows the group means on the first discriminant function. With the exception of only one occupational group in the two youngest age groups, the ordering of the seven occupational groups is exactly the same at all ages. As would be expected, the high-level occupational groups all score higher than the moderate-level groups, which in turn all score higher than the one low-level group. However, this function also discriminates among groups at the same level. The mean scores of the Social and Investigative groups are about the same on this achievement dimension but are considerably higher

than the mean of the high-level Enterprising group. In fact, the high-level Enterprising group is closer on this dimension to the moderate-level groups. The moderate-level groups also vary along this dimension, though not to the same degree as the high-level groups. The moderate Enterprising group scores higher than does the Realistic group, and the Conventional group scores higher than both of the former.

A second and third dimension (statistically independent of each other and of the first dimension) were also useful in distinguishing the groups, as noted above. Plots of the centroids along the second and third dimensions showed consistent differentiation among the three high-level groups and among the three moderate-level groups. The second function was not the same across all age groups, nor was the third, but taken together they suggest a pattern. This pattern is illustrated below by the results for men aged 22.

Figure 1 summarizes the differences between the occupational groups in the second and third dimensions for men aged 22. The definition of the functions, and the distinguishing features between the groups according to the original eight variables are illustrated by showing the vectors of the original eight variables within the two-dimensional space created by the second and third functions. The centroids for the seven occupational groups are also plotted within this two-dimensional space. The direction of a vector represents the direction in which the variable is weighted on a discriminant function, and its length represents the importance of that variable relative to the other variables in defining the two functions. (See Overall and

Klett, 1972, for a description of this technique for interpreting discriminant analysis results.)

Figure 1 About Here

Figure 1 shows that years of education also contributes to the second and third dimensions and that IQ is also relatively important in defining group differences. Although the socioeconomic background variables are less important, they do help differentiate the groups. The distinctions among the high-level groups (net of differences on the first dimension) can be summarized as follows: (a) the contrast between men in Social and Enterprising work is a high IQ-education versus high socioeconomic background distinction, (b) the contrast between Investigative and Enterprising work is primarily an IQ and college curriculum versus a socioeconomic background distinction, and (c) the contrast between Social and Investigative work is not clear but appears to involve an academic versus technical training distinction. Looking at the moderate-level groups, the major distinction among them seems to be level of schooling versus vocational and technical training and this distinction separates Enterprising from Realistic and Conventional work.

Conclusions

This report charts the rate at which occupational differentiation proceeds among white male youth as they enter the labor force; and it charts the dimensions along which occupation differentiation proceeds. The major limitation of the study is that it includes only the civilian

white male proportion of workers, so, for example, it allows no inferences about the career development of women or blacks. Nevertheless, the results are ths most comprehensive to date on the process by which people become sorted to jobs during the critical first decade after high school. This study essentially provides a series of snapshots at regular intervals of the results of the ongoing sorting process. More detailed examinations should be made, but these preliminary snapshots do provide an outline of the process which is consistent with the major conclusions from previous research on intergenerational mobility but which also suggests the need to examine the systematic variations in how people attain high-status jobs in different fields of work. The results of the present study can be summarized as follows:

Dimensions of Occupational Differentiation

(1) Academic achievement is the major dimension (among those examined here) by which white men become sorted into different occupational groups. This finding is consistent with previous status attainment work which shows via path models that education is a more important determinant of occupational status than are IQ and family background (Sewell and Hauser, 1975), but it differs significantly from the previous research by suggesting that some types of high-level work are obtained with considerably less education on the average than are others.

(2) Family socioeconomic background also distinguishes among boys in different occupational groups, but it is not as important as are the educational history and mental ability measures.

(3) Although the chances of high occupational attainment are clearly enhanced by having a high socioeconomic background, a high IQ, or a high education, the results presented here indicate that there may be some paths by which the less advantaged have a better chance to obtain high-level jobs. For example, Social occupations seem to be providing high-status work to people who are able to obtain the high level of education required to enter such work but who may have come from low-status families. In contrast, Enterprising work attracts men without such a high level of education but who nevertheless may have come from high socioeconomic status families. Because of the lower academic ability and credentials required, however, Enterprising work may provide more opportunities for high-level jobs for some men who did not have either the encouragement, financial resources, academic talent, or desire to obtain the education necessary for both Investigative work (which includes most of the professions) and the Social occupations. This is a particularly important finding because other research (Gottfredson, 1977) has shown Enterprising work to be high-paying relative to other types of work, and it therefore potentially offers lower class people a chance to succeed without having to invest in an expensive education. Nevertheless, it is possible that other barriers operate to include lower class or minority people from Enterprising work.

Rate of Occupational Differentiation

(1) Rate of labor force participation stabilizes in the early twenties, and by age 22, working is the major activity of almost 80% of all men.

(2) Differentiation according to educational level, the major criterion by which men are sorted to jobs, is largely complete by age 22. Differences in other antecedents of occupational attainment such as IQ and father's status do not increase, which is as expected.

(3) Differentiation according to occupational status occurs primarily by age 24 but continues at a slower rate through the late 20's.

(4) The overall distribution of men to different kinds and levels of work has largely stabilized by the mid twenties. The major net change in the late twenties is the continuing movement of men into high-level Enterprising work, which is consequently associated with a continuing rise in the mean and variation of occupational status among all men.

(5) The dimensions by which men are sorted to different occupational groups appear to be the same after most men have obtained employment, but the sorting process itself continues through the late twenties.

(6) By age 28 the sorting of men of different backgrounds into different occupational groups appears to have been largely completed.

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Table 1

Employment Status By Age

Age	Occupational Group								Un-employed	Not in labor force	(N)
	R Lo	R Mod	C Mod	E Mod	E Hi	S Hi	I Hi	Other			
16	38.9	1.7	1.2	3.8	0.3	0.0	0.0	3.2	8.9	41.5	(884)
18	40.9	6.1	3.3	4.8	1.4	0.5	0.9	4.5	7.8	29.9	(1480)
20	37.7	9.3	5.0	6.4	4.2	1.0	2.6	5.6	5.3	22.9	(1417)
22	36.2	12.1	5.5	6.4	7.0	5.3	4.7	7.5	4.5	10.9	(1170)
24	34.3	11.5	4.3	8.0	12.4	5.8	7.6	8.2	1.9	6.1	(1100)
26	32.8	14.0	3.6	7.3	13.4	5.7	7.9	10.3	1.4	3.4	(923)
28	31.1	12.8	3.7	7.3	17.1	6.2	8.5	8.9	2.1	2.1	(483)

Table 2

Means, Standard Deviations, and Correlations for Socioeconomic Background and Current Occupational Status[a]: By Age

Means and Standard Deviations

Age	Respondent's Status			Respondent's Education			Respondent's IQ			Father's Status			Father's Education		
	$\bar{X}$	SD	(N)	$\bar{X}$	SD	(N)	$\bar{X}$	SD.	(N)	$\bar{X}$	SD	(N)	$\bar{X}$	SD	(N)
.8	23.9	17.1	(1424)	11.8	1.4	(1480)	5.8	1.7	(1027)	38.3	24.3	(1385)	10.9	3.5	(1323)
:0	30.3	20.5	(1386)	12.7	2.0	(1414)	5.8	1.7	(1156)	39.1	24.4	(1320)	10.8	3.4	(1241)
:2	36.6	23.2	(1154)	12.9	2.5	(1167)	5.5	1.8	(939)	38.1	24.1	(1087)	10.5	3.5	(968)
:4	42.4	24.9	(1088)	12.8	2.8	(1098)	5.4	1.7	(846)	37.0	24.0	(1033)	10.1	3.6	(872)
:6	43.7	24.7	(918)	12.8	2.9	(922)	5.3	1.6	(689)	36.4	23.9	(870)	9.9	3.6	(703)
:8	45.4	25.4	(480)	12.9	2.9	(483)	5.2	1.7	(368)	35.5	23.8	(460)	9.8	3.6	(364)

Correlations of Respondent's Occupational Status[b] with:

Age	Respondent's Education		Respondent's IQ		Father's Status		Father's Education	
	r	(N)	r	(N)	r	(N)	r	(N)
18	.17	(1424)	.14	(992)	.13	(1334)	.15	(1272)
20	.20	(1385)	.13	(1133)	.16	(1291)	.13	(1212)
22	.45	(1153)	.32	(930)	.24	(1073)	.21	(957)
24	.60	(1087)	.38	(838)	.32	(1021)	.35	(865)
26	.64	(917)	.43	(689)	.31	(865)	.35	(698)
28	.65	(480)	.45	(368)	.41	(457)	.36	(361)

[a] Table includes only men for whom labor force status (i.e., employed, unemployed, or not in the labor force) is known.

[b] Occupational status is for current job if employed and is for last job if not currently employed.

Table 3

Percentage of Men in Each Occupational Group Whose IQ Scores Fall Within the Top 40% of IQ Scores: By Age

Age	R Lo		R Mod		I Hi		S Hi		E Mod		E Hi		C Mod		Unemployed		NILF[b]	
	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)
18	43.4	(406)	49.2	(65)	a		a		60.3	(53)	a		65.8	(41)	38.1	(71)	73.3	(319)
20	41.8	(410)	36.5	(104)	67.7	(34)	a		48.7	(78)	60.0	(50)	71.4	(63)	57.7	(59)	80.3	(274)
22	33.6	(307)	40.0	(120)	81.2	(53)	83.0	(53)	41.8	(67)	54.6	(66)	55.6	(54)	60.9	(41)	67.0	(100)
24	29.0	(245)	25.0	(100)	78.0	(77)	72.7	(55)	36.1	(72)	61.3	(106)	42.9	(42)	a		70.9	(55)
26	24.8	(197)	31.6	(98)	84.0	(63)	62.8	(43)	38.8	(49)	57.6	(99)	40.0	(30)	a		65.0	(20)
28	24.0	(100)	33.4	(48)	66.7	(36)	72.0	(25)	21.7	(23)	56.5	(69)	a		a		a	

[a] Fewer than 20 cases.

[b] Not in the labor force.

Table 4

Summary Statistics from the Discriminant Analyses of the Seven Major Occupational Groups: By Age

Age	Percentage of Total Variance Which is Between Groups							
	Father's Status	Father's Education	Mother's Education	IQ	Years Education	College Curriculum	Enrolled Now	Any Training
18	4	3	1	5	2	5	7	7
20	5	4	3	5	11	6	9	5
22	6	5	5	17	29	15	7	7
24	14	15	12	20	40	22	10	8
26	12	15	14	25	43	27	10	8
28	18	13	10	23	46	22	8	6

	Eigenvalues of first three functions			Canonical Correlations of Functions with Occup. Groups			Cases Correctly Classified	
	1st	2nd	3rd	1st	2nd	3rd	%	Kappa
18	.14***	.08***	.05***	.35	.28	.21	70	.05
20	.18***	.07***	.03*	.39	.25	.17	50	.05
22	.52	.08***	.04***	.59	.27	.21	51	.25
24	.88***	.09***	.05***	.68	.29	.22	51	.29
26	1.08***	.05***	.04***	.72	.23	.19	50	.29
28	1.11***	.07**	.03	.73	.26	.18	48	.29

* $p \leq .05$

** $p \leq .01$

*** $p \leq .001$

Table 5

Standardized Coefficients and Centroids for the First Discriminant function: By Age

Age	Standardized Coefficients of First Discriminant Function								
	Father's Status	Father's Education	Mother's Education	IQ	Years Education	College Curriculum	Enrolled Now	Any Training	(N)
18	.08	.30	-.24	.35	.14	.27	.34	.40	(859)
20	.23	-.07	.09	.19	.48	.21	.18	.23	(937)
22	.08	-.08	-.06	.31	.70	.16	.03	.18	(902)
24	.08	-.00	-.02	.22	.65	.21	.05	.17	(923)
26	-.03	.02	.08	.25	.58	.25	.07	.15	(783)
28	.12	.02	-.05	.18	.67	.16	.16	.11	(419)

	Centroids on First Discriminant Function						
	R Lo	R Mod	E Mod	C Mod	E Hi	I Hi	S Hi
18	-.18	.15	.49	.70	-.09	.88	2.06
20	-.25	-.14	.38	.72	.33	.95	1.07
22	-.45	-.16	-.01	.38	.44	1.22	1.35
24	-.60	-.32	-.07	.11	.67	1.18	1.27
26	-.65	-.30	-.19	.10	.65	1.30	1.30
28	-.65	-.38	-.38	.14	.54	1.25	1.33

Figure 1

Centroids of Seven Occupational Groups on the Second and Third Discriminant Functions and the Vectors of the Original Variables in that Two-Dimensional Space

(Men Aged 22)