ETHNICITY AND THE PROCESS OF STATUS ATTAINMENT IN ISRAEL

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Factors which may explain the differences in status attainment of Jews in Israel of European-American origin and of Asian-African origin are examined. In addition to education and occupation, religiosity and point of entry into the labor market are investigated. A basic model of the status attainment process is presented, which is used to decompose the gross differences between Jews of European-American origin and those of Asian-African origin. An assessment of "time in the system" in relation to status attainment is also made. The data show that there is no clear evidence that gross occupational discrimination exists with respect to ethnic origin in Israel. It was found, however, that there is a large educational gap between European-American and Asian-African Jews. This differential is particularly significant since education plays a vital role in occupational and economic attainment. It was also found that ethnic origin exerts a direct influence on income level. The income data suggest that Ashkenazim (mainly of European-American origin) have a distinct advantage over Sepharadim (of Asian-African origin) where the former have wider access to the more lucrative occupational posts.

INTRODUCTION

Differences between the socioeconomic attainment of Jews in Israel of European or American extraction and of Asian or African extraction are well established, as are those between successive *aliyot* or cohorts of immigrants (Eisenstadt, 1967; Hodge, 1973; Lissak, 1969; Matras, 1965). The basic pattern of occupational and income differences between these groups is relatively simple. Among veterans settling in Palestine during the British mandate, among successive waves of newcomers, and even among the Israeli-born with foreign-born fathers, those of European or American origin have outdistanced those of Asian or African background in socioeconomic attainment. Within the two broad ethnic groups, successive *aliyot* have on the whole fared less well than their predecessors.

Although the differential achievement of ethnic groups and successive waves of immigrants is well documented, very little is known about the social sources of these differentials. One may surmise from zero order associations that education certainly accounts for part of the gross difference between the occupational and economic accomplishments of European-American and Asian-African Jews, but just how much of the gross difference may be explained in this way remains to be estimated. While education is an operative factor in the generation of socioeconomic differentials between ethnic groups in Israel, it is less clearly a factor in the economic hardships experienced

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by successive waves of immigrants. Since the association between year of arrival and educational attainment is modest (see, e.g., Central Bureau of Statistics, 1974, Table XIII-1:608), earning differentials between successive *aliyot* within educational levels are unlikely to be much narrower than those observed in the aggregate.

Plainly, factors other than education are implicated in the differential achievement of ethnic groups and immigrant waves in Israel. Census and other published data provide, however, no clue to the impact of socioeconomic background, religiosity, and point of entry into the labor market upon current occupational and economic status. To take these factors into consideration, one must turn to sample surveys. In this paper, we present a basic model of the process of status attainment in Israel and use this model to decompose the gross differentials in attainment between Jews of European-American and Asian-African extraction. We are also able to assess the impact of "time in the system" upon current attainment.

DATA AND PROCEDURES

The basic data available to us derive from a modified probability sample of 685 first and second generation immigrants residing in one of Israel's three largest cities -- Tel Aviv, Jerusalem, or Haifa. The data were collected by the Israel Institute of Applied Social Research during November and December of 1972. This survey, originally conducted for other purposes, contains a number of items relevant to the process of status attainment. While the variables available to us for secondary analysis by no means exhaust the array of factors relevant to processes of status attainment, they are nevertheless more complete than published material from the census and labor force surveys.

Occupational data collected by the Israel Institute of Applied Social Research are assigned by interviewers in the field to one of seven broad categories reflecting occupational skill levels and supervisory responsibilities. We devised scores for these categories via smallest space analysis of the indices of dissimilarity between the destination distribution observed in the standard outflow matrix relating fathers to sons. For purposes of correlation and regression analysis, these scores were assigned to data on father's occupation at the time the son was aged 18 (=F), son's first job (=J), and son's current occupation (=S)[1]. Suffice it to say for present purposes that, while the system of occupational classification employed here is a gross one, neither it nor our scoring of its categories appears to distort correlations involving father's or son's occupational status in any substantively meaningful way. The scores were devised so that the higher values are associated with occupational categories generally recognized as higher status ones.

In addition to the occupational items, data were available on religiosity, year of immigration, son's education, family income, and, of course, ethnic origin. Religiosity (=R) is measured on a four point scale ranging from "very religious" to "not very religious," which were assigned scores from 4 (= very religious) to 1 (= not very religious). Data on year of immigration were converted to a measure of time in the system (=T) by scoring first generation immigrants according to the number of years they have lived in Israel. (Second generation immigrants are ignored in computations involving this variable). Grouped data on educational level and family income were assigned, respectively, values reflecting number of years of school completed (=E) and monthly earnings in hundreds of Israeli *liroth* (=I). (At the time these data were collected the exchange rate was 4.2 Israeli *liroth* to the American dollar). Finally, ethnic origin (=C) was coded as a dummy variable taking the value 1 for those who themselves or

whose fathers were born in Europe or the Americas and the value 0 for those born or whose fathers were born in Asia or Africa.

Table 1. Means of Selected Indicators by Ethnic Origin, for First and Second Generation Urban Jews in Israel.

Variable (Symbol)	Total (1)	European-American Origin (2)	Asian-African Origin (3)	Difference (4)=(2)-(3)	Significance Level of Difference*
	Means				
Father's Occupation (F)	-140.40	-110.00	-202.70	92.70	.01
Religiosity (R)	2.12	2.05	2.27	-0.22	.01
Time in System (T)	24.60	26.00	21.60	4.40	.01
Education (E)	10.70	11.50	8.90	2.60	.01
First Job of Son (J)	-149.60	-118.60	-210.60	92.00	.01
Son's Occupation (S)	-72.80	-28.70	-153.80	125.10	.01
Family Income (I)	10.75	11.62	8.93	2.69	.01
	Number of Cases			Standard Deviations	
				Europe-America	Asia-Africa
Father's Occupation (F)	559	375	184	166.40	105.90
Religiosity (R)	575	455	220	1.00	0.96
Time in the System (T)	508	344	164	10.20	7.60
Education (E)	674	454	220	3.40	3.18
First Job of Son (J)	581	385	196	171.80	94.20
Son's Occupation (S)	526	337	189	194.60	146.00
Family Income (I)	612	411	201	5.25	4.01

* From analysis of variance.

The means of the varibles are given in Table 1 for the total sample, as well as for those of European-American and Asian-African extraction. These results leave little doubt that those of European-American origin are advantaged relative to first- and second-generation Asian-African Jews: their occupational origins are higher; they are somewhat less constrained by religious orthodoxy; they have, on the average, somewhat greater exposure to the Israeli social system; and they have been to school about 2-1/2 years longer. It is, of course, no surprise that first- and second-generation European-American Jews in Israel are able to turn these advantages into additional ones -- a higher point of entry into the occupational status system than Asian-Africans, superior occupational posts in Israel, and earnings which run a little more than $750 a year above those of Asian-Africans.

The occupational means reported in Table 1 reveal two points of interest. (The negative values of the means are an artifact of the scoring system which assigned negative values to low status occupations and positive values to higher status ones). First, both European-Americans and Asian-Africans experience some net downward mobility between their occupational origins and their points of entry into the labor force. Both groups also experience considerable net upward mobility between their first and current occupations. This pattern is by no means unusual and suggests that the inter- and intra-generation occupational mobility patterns among European-American and Asian-African Jews in Israel yield occupational outcomes broadly similar to those observed in other populations (see, e.g., Blau and Duncan, 1967). Second, although the points of entry into the labor force of European-American and Asian-African Jews differ

by no more than the achieved occupational statuses of their fathers, the pattern of intra-generation occupational mobility within the two groups widens the occupational differential between them. Thus, the mingling of European-American and Asian-African Jews in Israel appears to have augmented the occupational differences between them. Since the first jobs of many first-generation immigrants were achieved abroad, one must exercise caution in interpreting the results, which are a product of at least two factors -- differential conditions in the ghettoes of the Diaspora experienced prior to immigration to Israel and differential hardships experienced in Israel after immigration.

Although the gross differences between the two groups are of interest, they tell us little about the forces which generate them. Further insight can be provided by statistical decomposition of the gross differences within the framework of a causal model of status attainment. In order to construct such a model, we, of course, must know the intercorrelations between the variables. These were computed via pairwise present estimation of the covariances, while the standard deviations were estimated from all observations present on each variable[3].

A BASIC MODEL OF THE PROCESS OF STATUS ATTAINMENT IN ISRAEL

A causal model of the process of status attainment in Israel is given in Figure 1 in the form of a path diagram. Although this model was developed in the spirit of the basic Blau-Duncan model for the United States (Blau and Duncan, 1967), it differs from theirs in several regards, not the least of these being the way in which occupational data were coded and scored. The present model also differs from the basic Blau-Duncan model by virtue of its exclusion of father's education (of which we had no measurements) and its inclusion of several additional variables -- religiosity, ethnic origin, time in the system, and family income. These additional factors (or closely related ones), while missing from the initial Blau-Duncan model, have been taken up by Duncan and his associates in subsequent work (Duncan and Duncan, 1968; Duncan, 1969; Duncan and Featherman, 1973).

The basic features of our model are apparent from Figure 1. The measures of father's occupational status (=F), religiosity (=R), ethnic extraction (=C), and time in the system (=T) are treated as predetermined variables. The intercorrelations between them are reported adjacent to the curved, double-headed arrows linking them in the diagram. The remaining variables -- education (=E), occupational status of first job (=J), occupational status of present job (=S), and personal income (=I) -- are successively determined in that order within the recursive system represented by Figure 1. The path coefficients along each of the single-headed arrows leading to the four endogenous variables are equivalent, in this case, to regression coefficients in standard form, obtained by least squares regression of each endogenous variable on the factors directly affecting it[4].

Before turning to the substantive results, there are two curiosities about the postulated structure of the model which require comment. These involve the treatment of religiosity and time in the system as predetermined variables. Religiosity, like religious affiliation, is an achieved characteristic, for, unlike one's ethnic background, one has the prospects of changing one's faith and the diligence with which one follows its commandments in everyday life. Nevertheless, people do, to a large extent, take up the religions of their parents. For this reason, students of stratification often treat religious affiliation in much the same way as race or ethnicity, to wit, as a nearly ascribed

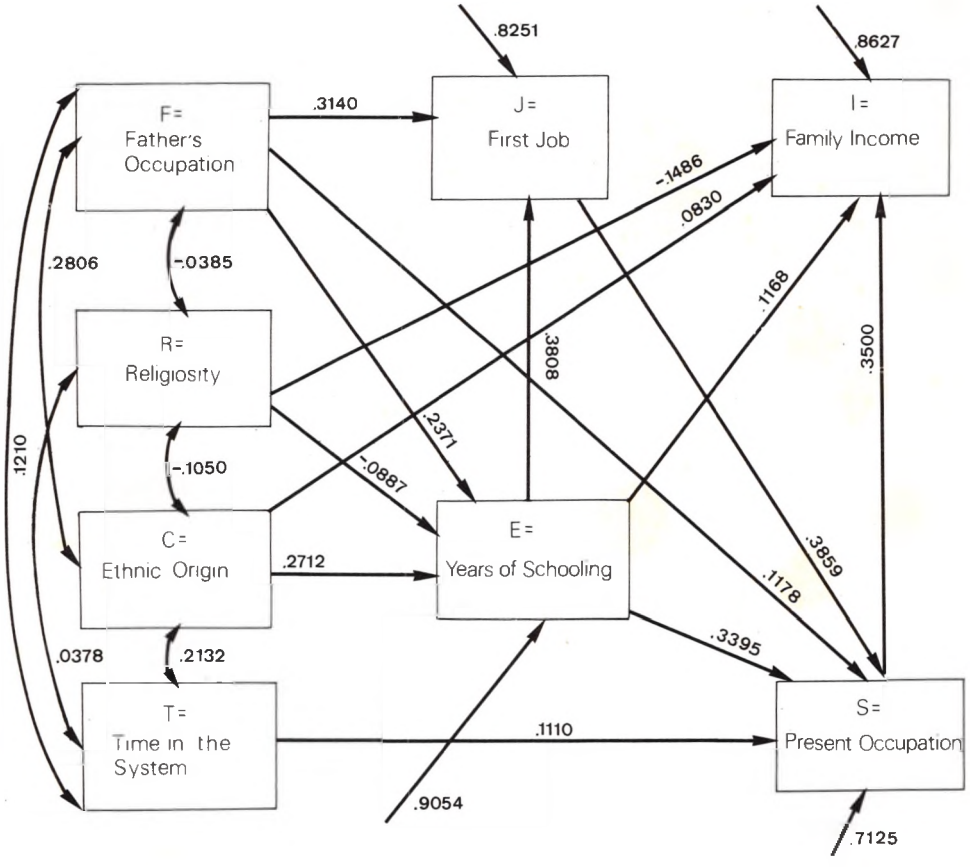


Figure 1. The Process of Status Attainment in Israel, a Path Analysis

characteristic over which an individual exercises little or no control (see, e.g., Gockel, 1969; Duncan and Featherman, 1973). In Israel and in Jewish communities elsewhere, religiosity -- or at least our measurements of it -- is virtually synonymous with religious orthodoxy -- a matter which, within Jewish communities, is very similiar to differences in religious affiliation elsewhere. For this reason, we have elected to regard our indicator of religiosity as a predetermined variable rather than treating it as an achieved characteristic to be explained within the model.

The second bothersome point hinges upon the indicator of time in the system. The causal position of this variable, relative to both education and first job, is at best ambiguous. Immigrants arriving late in life have already completed their education and assumed their first job before arriving in Israel. For them, no "time in the system" is completed until they have passed from the school system and moved beyond their first jobs. Indeed, their education and initial occupational achievements might well be causal factors in their decisions to immigrate to Israel. However, for immigrants arriving early in life, "time in the system" is accumulated prior to the completion of schooling and labor force entry. Thus, regarding "time in the system" as exogenous with respect to education and first job is arbitrary[5]. However, "time in the system" does not enter the model as a causal agent until the equations for current occupational status and family

income -- factors with respect to which it is properly conceived as exogenous -- are reached.

Models are often interesting not so much by virtue of what is put in them as by virtue of what is left out of them. That is surely the case here, where the basic framework is familiar and the main points of interest -- apart from whatever novelty the Israeli scene holds -- hinge upon where the impacts of ethnic origins, religiosity, and time in the system are either directly felt in the model or indirectly worked through it. Of these effects, those pertaining to time in the system are simplest. It does not enter the model until one reaches the equation for present occupational status and this is the only point at which it enters the model directly[6]. For the conceptual reasons noted above, one would not want it in the equations for education or first job. That it fails to enter the equation for family income is substantively significant, indicating that the causal impact of time in the system upon income is channeled entirely through current occupation. The residue of the association between time in the system and income is built up largely via the (given) association of time in the system with ethnic extraction and the subsequent direct and indirect impacts of ethnic extraction. This residue, however, has no causal import for family income. Thus, the model yields the rather sensible conclusion that time in the system is beneficial in locating a superior occupational post but gives one no handle in securing a superior wage within that post. Put otherwise, time in the system works on income only through the between-rather than through the within-occupational variance in income.

Ethnic origins and religiosity enter the model at two points. Both act upon educational attainment, over which the influence of ethnic extraction is especially strong and upon income, over which the influence of religiosity is more pronounced. The effects of both ethnicity and religiosity upon the process of *occupational* attainment are, for all practical purposes, spent once they have operated upon schooling. Religiosity has, in any case, only negligible zero order association with both first job and current occupation, while the appreciable gross differentials between European-Americans and Asian-Africans in their points of entry into the labor market and in their current occupational statuses prove to rest largely upon corresponding differentials in occupational origins and years of school completed. *Economic* attainment proves another matter, for, having been washed out of the equations for occupational attainment, both ethnic origins and religiosity reappear as determinants of family income. Thus, unlike "time in the system," religiosity and ethnicity operate upon the within-, but not upon the between-occupational variance in income.

Those familiar with the society and economy of Israel will find it neither surprising nor unusual that ethnicity and religiosity should emerge as significant sources of variation in family income. While our results show that ethnicity fails to account for occupational attainment as such, it must be remembered that our data, like other data upon occupational attainment, fail to distinguish between similar jobs in diverse industrial settings. The private sector of the Israeli economy, particularly banking and manufacturing, is almost wholly dependent upon the capital of resident European-American Jews or overseas investments by the Western European and American Jewry. Under these circumstances, one can anticipate that those of European or American extraction will have differential access to the better paying posts in the larger, older, and established firms controlled by European-American capital. Thus, while there is little difference in the occupational status of first- and second-generation European-American and Asian-African Jews in Israel once an allowance is made for education, there is still considerable difference in their remuneration for doing work conveying similar prestige or status even after education is taken into account. The role of ethnicity

in economic attainment is not so much a matter of what one does as where one does it.

Religiosity proves to be another factor in personal income variation. While religiosity poses few limitations upon one's occupational aspirations, it clearly limits one's economic opportunities, since Jewish religious law prohibits work on the *Shabat* (Saturday, the Jewish day of rest). Some rough calculations indicate this factor alone can go a long way toward explaining income differentials by religiosity. We observe that the average monthly salary per employee's post was 918 Israeli *liroth* in 1972, while the average number of hours worked per week per employee was 40.0 in the same year (Central Bureau of Statistics, 1974, Table XII-23:341, for salaries, and Table XII-15:328-329, for hours worked). This puts the hourly wage rate at around (918)/(4)(40.0)=5.7 Israeli *liroth* or about $1.37 at the 1972 exchange rate[8]. Thus, a non-observer working an 8-hour day at double time on the *Shabat* for 50 weeks out of the year would be expected to earn about (50)(8)(5.7)=2280 Israeli *liroth* more than an otherwise comparably situated observer of the religious laws who refused to work on the *Shabat*. From the estimated family income equation in *raw score* form presented below, we can calculate that the estimated net annual family income difference between a "not very religious" and a "very religious" person is [(1)-(4)](-.755)(100)(12)=2718 Israeli *liroth*". While it is almost surely coincidental that this calculation comes so close to the rough estimate of the expected income increment from working on the *Shabat*, it does serve to illustrate how the income differentials between groups differing in their religiosity can be made up from so simple a constraint as observance of the *Shabat*. Of course, non-observers do not uniformly work on the *Shabat* and, indeed, it would be impossible for most of them to do so since most shops, offices, and factories are closed for this day of religious observance. One may, therefore, safely infer that other-factors such as asceticism and other-worldliness would have to be invoked to explicate fully the observed connection between religiosity and personal income.

The remaining features of the basic model shown in Figure 1 are common to most models of this type. Indeed, even the estimates of the path coefficients are approximately equal to those observed in similar models for the United States. While it would be absurd to suppose that there are no differences between the processes of status attainment in Israel and the United States or other developed countries, there are striking similarities between them despite the novel features of Israeli society and its populations.

DECOMPOSITION OF ETHNIC DIFFERENTIALS IN ATTAINMENT

The basic model of the process of status attainment presented in Figure 1 also provides a conceptual framework for the decomposition of ethnic differentials in attainment. Such a decomposition is embedded in the structural equations which comprise the model. The estimated structural equations, expressed in the scales of the original measured variables rather than in standardized form, are as follows:

$$\hat{E}_i = 10.71 - .3185R_i - .005454F_i + 2.0622C_i, \qquad \text{(Eq. 1a)}$$

$$\hat{J}_i = 16.72E_i + .3172F_i - 283.4, \qquad \text{(Eq. 1b)}$$

$$\hat{S}_i = .4652J_i + 17.97E_i + 2.171T_i + .1435F_i - 228.2 \qquad \text{(Eq. 1c)}$$

and

$$\hat{I}_i = .009354S_i + .1652E_i - .7550R_i + .8932C_i + 10.66 \quad \text{(Eq. 1d).}$$

The basis for a decomposition of ethnic differentials rests upon the properties of these equations. It can be easily shown that Eqs. la and ld must pass through the within group means for both European-Americans and for Asian-Africans. While Eqs. lb and lc are not constrained by the estimating procedures to pass through the within group means for the two ethnic groups, they will in fact do so if the model holds.

With the observation that the structural equations pass through the means of the variables within the ethnic groups, we have from Eq. la that

$$\bar{E}_e = 12.77 - .3185\bar{R}_e + .005454\bar{F}_e, \quad \text{(Eq. 2a)}$$

where the subscripted "e" refers to the within group means for European-Americans. The constant term in this equation is given by the sum of the constant term in Eq. 1a (=10.71) plus the coefficient of C_i in Eq. 1a (=2.06), since for European-Americans $\bar{C}_e = 1$. We also have from Eq. 1a that

$$\bar{E}_a = 10.71 - .3185\bar{R}_a + .005454\bar{F}_a, \quad \text{(Eq. 2b)}$$

where the subscripted "a" denotes a within group mean for Asian-Africans. The constant term is the same in Eq. 2b as in Eq. 1a, since $\bar{C}_a = 0$ for those of Asian-African origin.

Subtracting Eq. 2b from Eq. 2a yields the decomposition of ethnic differences in educational attainment we desire, viz.,

$$\bar{E}_e - \bar{E}_a = 2.06 - .3185(\bar{R}_e - \bar{R}_a) + .005454(\bar{F}_e - \bar{F}_a) \quad \text{(Eq. 2c)}$$

This decomposition divides the gross difference between ehtnic groups in years of school completed, $\bar{E}_e - \bar{E}_a$, into three parts: (1) a component, $-.3185(\bar{R}_e - \bar{R}_a)$, reflecting differences in the composition of the ethnic groups with respect to religiosity; (2) a similar part, $.005454(\bar{F}_e - \bar{F}_a)$, which takes into account differences between the occupational origins of the two ethnic groups; and (3) a final component, 2.06, equivalent to the coefficient of C_i in Eq. 1a, which represents a net difference between the educational attainment of the two groups which cannot be explained away by either their difference in religiosity or their differences in occupational origins. Thus, in words, we have:

Gross Difference in Education	=	Net Difference in Education	+	Part Due to Differences in Religiosity	+	Part Due to Differences in Occupational Origins

This decomposition is, of course no better or worse than the structural equation in our model from which it is derived. If we have erred in our specification of the equation for education, then a decomposition of group differenced based on that equation will most likely also be awry[10].

Using the relationship given by Eq. 2c, the difference between the mean years of schooling completed by European-Americans and Asian-Africans was decomposed[11]. Using similar relationships derived in a parallel way from the remaining structural equations in the model, ehtnic group differences in the status of first job, current occupation, and personal income were likewise decomposed[12]. The results are presented in Table 2 both in raw score and percentaged form.

Table 2. Decomposition of Ethnic Differentials from Structural Equations.

Components of Difference	Differential Achievement in			
	Years of School Completed	First Job	Current Occupation	Family Income
	Components in Raw Form			
Total Difference	2.6	92.0	125.1	2.96
Net Effect of Ethnic Origin	2.0	—	—	0.90
Father's Occupation	0.5	37.1	14.8	—
Religiosity	0.1	—	—	0.17
Time in the System	—	—	10.6	—
Education	—	54.9	52.0	0.44
First Job	—	—	47.7	—
Current Occupation	—	—	—	1.18
	Percent of Total Difference			
Total Difference	100.0	100.0	100.0	100.0
Net Effect of Ethnic Origin	78.0	—	—	33.6
Father's Occupation	19.3	40.3	11.8	—
Religiosity	2.7	—	—	6.2
Time in the System	—	—	8.5	—
Education	—	59.7	41.6	16.2
First Job	—	—	38.1	—
Current Occupation	—	—	—	44.0

As can be seen from the first column of Table 2, religiosity accounts for only a negligible fraction of the between-ethnic group difference in schooling. The reason for this is that, while the religiosity of European-Americans is significantly lower than that of Asian-Africans in the statistical sense (see Table 1), the difference between the groups in religiosity is substantively quite small -- less than a quarter of a standard deviation. Thus, while religiosity is a significant (in the substantive sense) factor in the educational attainment of individuals, it has little to do with the generation of the between-ethnic group differential in schooling. In contrast to religiosity, father's occupation is a potent factor in the ethnic differential in educational attainment, for about a fifth of the gross difference resides in differences between the occupational origins of European-Americans and Asian-Africans. However, by far the largest component of the educational differential is a residue which is explained away neither by religiosity nor by occupational origins. This net difference amounts to more than three-fourths of the

gross difference and is comprised by an unknown mix of three types of factors: (1) differential educational opportunities for Asian-Africans and other forms of educational discrimination, (2) cultural differences between the two groups which lead them to value schooling in different ways and to form different levels of educational aspirations, and (3) various unmeasured and correlated factors such as father's education and intelligence which are implicated in the process of educational achievement.

The ethnic differential in points of entry to the labor market reduces to ethnic differentials in occupational origins and educational attainment. About three-fifths of the difference between European-Americans and Asian-Africans in the status of their first jobs is rooted in schooling, while the remaining two-fifths is predicated on father's occupation. Ethnic differences in first job are, in turn, translated into corresponding differences in current occupation. About two-fifths of the gross ethnic differential in current occupation lies in first job, while another two-fifths rests on differentials in schooling. The remaining fifth of the ethnic differential in current occupational status may be traced in nearly equal parts to compositional differences between European-Americans and Asian-Africans in time of arrival (or time in the system) and occupational origins.

A little less than half of the ethnic differential in family income may be traced to differentials in current occupational status. Another sixth of the income difference is rooted in ethnic differences in schooling and the direct impact of educational attainment upon current income, while religiosity accounts for about 5 percent of the differential between European-American and Asian-Africans in income. A full third of the income differential is, however, unexplained by these or other factors in the model and must, therefore, be assigned to ethnic origins as such. Like the large component of schooling differentials which is unexplained by religiosity and occupational origins, this net ethnic component in the income differential represents an unknown mix of differential economic opportunities for Asian-Africans and other forms of economic discrimination, cultural differences between the two groups which are conducive to differential economic aspirations, and various unmeasured, but ethnically correlated factors such as capital assets and sociopolitical connections which are implicated in the process of economic achievement[13].

Several points of appreciable substantive and policy interest emerge from these decompositions. First, it is clear that the factors responsible for a sizable proportion of observed ethnic differences in attainment are operative at relatively early points in the life cycle. Over three-quarters of the ethnic differential in schooling cannot be explained away by the variables entered in our model. Any attempt to reduce this differential must be found in factors operative during the pre-school and school years.

Second, these factors, whatever they may be, are carried through the system via education to generate differences in occupational entry, in occupational attainment, and in income. The point is easy to see with a few additional calculations. Suppose the factors generating the net ethnic differential in schooling were identified and social forces were set in motion to eradicate them. The most immediate consequence would be the elimination of 78 percent of the ethnic differential in schooling. But this carries over to first job and, since education accounts for 59.7 percent of the ethnic difference in first job status, one would find (.78)(59.7) = 46.6 percent of the difference in first job being washed away.

Both education and first job carry over to current occupation where each accounts for about two-fifths of the ethnic differential in current occupational status. The direct impact of education accounts for 41.6 percent of the current occupational difference

between the ethnic groups. Of this, (.78)(41.6) = 32.4 percent would be eliminated if the net difference between the ethnic groups in schooling was washed out. A further 38.1 of the current occupational differential lies in first job. But 46.6 percent of the difference in first job is rooted in the net educational differentials, so an additional (.466)(38.1) = 17.8 percent of the current occupational differential would go. Thus, in all, the decomposition implies that 32.4 + 17.8 = 50.2 percent of the difference between European-Americans and Asian-Africans in current occupational statuses would be eliminated by eradication of the net ethnic differential in educational attainment.

Finally, of course, differences in current occupation and schooling are translated into income differences between European-Americans and Asian-Africans. Schooling accounts directly for 16.2 percent of the income differential. Of this (.78)(16.2) = 12.6 percent would fall with the levelling of the net ethnic differential in educational attainment. Another 44 percent of the income differential rests upon ethnic differentials in current occupation. However, we have seen that 50.2 percent of the occupational gap would be eliminated by eradicating the net ethnic differential in schooling. Thus, another (.502)(44) = 22.1 percent of the income differential would disappear. In total, then, the decomposition implies that 12.6 + 22.1 = 34.7 of the ethnic gap in family income is premised upon the net ethnic differential in schooling.

Although it would be a mistake to regard the foregoing calculations as precise ones, they make very clear just how important the net ethnic differential in educational attainment is in the generation of ethnic differentials in achievement throughout the life cycle. About half the gap in first jobs and current occupation and a third of the income differential are rooted in educational handicaps, net of religiosity and occupational origins. Such estimates leave little doubt that education is the major vehicle for the perpetuation of ethnic differences in achievement throughout the life cycle.

When interpreting the foregoing results and/or drawing out their policy implications, one needs to remember that the population in question is comprised only of first-and second-generation immigrants. Needless to say, many first-generation immigrants had completed their schooling before landing in Israel. In so far as this is the case, ethnic inequality in Israel is a product of events, decisions, and achievements which took place beyond its borders. However, educational differentials between European-Americans and Asian-Africans imported in the first generation have been perpetuated in the second generation. Although Israel's institutional record at eradicating them is by no means poor, it is far from perfect. The most recent data, for the population aged 14 and over in 1973 (Central Bureau of Statistics, 1974, Table XXII-1:608), show that the mean years of schooling completed by those born in Asia or Africa is 6.4, while the corresponding figure for those born in Europe or America is 9.4. Among the Israel-born with fathers born in Asia or Africa, the mean years of school completed is 9.3, while second-generation Israelis with European or American fathers have completed 11.5 years of schooling on the average. Thus, the educational gap of three years observed in the first generation has been reduced to a little more than two years among second-generation European-Americans and Asian-Africans. Furthermore, both second-generation Asian-Africans and second-generation European-Americans appear to have experienced substantial upward educational mobility[14]. These are signs of progress, but the gap is still wide and, given the continued translation of educational differences into occupational and economic ones implied by our model, there is no hope whatsoever that ethnic inequality in Israel will disappear within our lifetimes.

DECOMPOSITIONS IN REDUCED FORM

In the preceding section we indicated how the net ethnic differential in schooling is carried over into ethnic differences in occupation and income. This amounted in the case of the differences in first job and current occupation to effecting a partial decomposition of ethnic differences using the reduced form, rather than the structural equations of our model. The full decompositions using the reduced form equations, which express the endogenous variables as functions only of the exogenous variables, are of interest for they show how the ethnic differentials in all the exogenous variables are worked through the system.

One may derive the reduced form equations from the structural equations in a straightforward way. The equation for education is, of course, already in reduced form, since education is regarded as dependent only upon the exogenous variables (see Eq. 1a). The reduced form equation for first job is obtained by substituting Eq. 1a for E_i in Eq. 1b. This yields:

$$\hat{J}_i = 34.480_i - 5.325R_i + .4084F_i - 104.3, \qquad \text{(Eq. 3a)}$$

which may, in turn, be substituted along with Eq. 1a into Eq. 1c to ascertain the reduced form equation for current occupation. Finally, Eq. 1a may be substituted along with the reduced form equation for current occupation into Eq. 1d to obtain the reduced form equation for current family income[15]. The resulting set of reduced form equations may be manipulated in a manner analogous to Eqs. 2a and 2b to yield decomposition of ethnic differentials similar to those given by Eq. 2c. These decompositions in reduced form will, of course, yield components which reflect only ethnic differences in the exogenous variables.

The reduced form decompositions for first job, current occupation, and income are given in Table 3[16]. (No decomposition of education is given, since that in Table 2 is already in reduced form.) As one can see from the decompositions of ethnic differentials in first job and current occupation, the fraction of the total difference assigned to education is just equivalent to the fractions we associated in the preceding section with the net ethnic differential in education. The reason for this should be clear from inspection of the model (see Figure 1). Since ethnic origin directly effects neither first job nor current occupation, the only way it can operate on either of them is via its net effect upon education. The decomposition of family income is, however, another matter, since ethnic origin has a direct effect upon it. Over two-thirds of the observed difference between European-Americans and Asian-Africans is assigned, in these reduced form decompositions, to ethnic origins. One part, 33.6 percent, comes from the direct influence of ethnic origins as indicated from the decomposition based on the structural equations (see Table 2). The remainder is built from the transmission of the net ethnic difference in education via first job and current occupation. This, as we saw in the preceding section, amounts to 34.7 percent of the gross income differential. Thus, in all, 33.6 + 34.7 = 68.4 percent of the gross difference in family income between European-Americans and Asian-Africans can be assigned to the direct effects of ethnic origins *at some point in the system.*

Neither religiosity nor "time in the system" receive much weight in these reduced form decompositions. Since there are only modest differences between the two ethnic groups in religiosity, its direct effect on education produces only small ethnic differences

Table 3. Decomposition of Ethnic Differentials from Reduced Form Equations.

Components of Difference	Differential Achievement in: First Job	Current Occupation	Family Income
	Components in Raw Form		
Total Difference	92.0	125.1	2.69
Due to Ethnic Origin	42.8	62.9	1.84
Father's Occupation	47.7	49.4	0.55
Religiosity	1.5	2.1	0.20
Time in the System	—	10.7	0.10
	Percent of Total Difference		
Total Difference	100.0	100.0	100.00
Due to Ethnic Origin	46.6	50.3	68.30
Father's Occupation	51.8	39.5	20.50
Religiosity	1.6	1.7	7.40
Time in the System	—	8.5	3.80
	Percent of Ethnic Component Due to Direct and Indirect Impact Through Education and First Job		
Total Ethnic Component	100.0	100.0	100.00
Direct Effect of Ethnic Origin	—	—	49.20
Education	100.0	64.6	39.40
Education and First Job	—	35.4	11.40

in first job and current occupation and adds only a modest increment to the 6.2 percent of the income gap accounted for by its direct effect upon personal income (see Table 2). Likewise, the modest fraction of the gross ethnic differential in current occupation assigned to time in the system generates only a negligible annual income difference of about 120 Israeli *liroth* -- less than $30 and less than 5 percent of the total.

There is a substantial ethnic differential in father's occupational status and this, like the net ethnic differential in educational attainment, is translated into ethnic differences throughout the life cycle via the impact of father's occupation on education and the subsequent influence of education on occupational attainment and family income. These indirect effects through education are, however, further magnified by the direct effects of father's occupation on first job and son's current occupation. In all, father's occupation accounts for half the gross ethnic differential in first job, two-fifths of that in current occupation and one-fifth of the difference in family income between European-Americans and Asian-Africans. These portions of the gross ethnic differentials may be regarded as inequality of opportunity with respect to socio-economic origins, a matter which affects European-Americans and Asian-Africans alike, masquerading in the guise of ethnic inequality. Any policy directed toward improving the life chances of Asian-African Jews in Israel will remove these portions of the ethnic differentials in attainment only if an externality of the program is the elimination of inequality of opportunity with respect to occupational origins. The reduced form decompositions leave little doubt that this is a significant factor in gross differences between the achievements of European-American and Asian-African Jews in Israel.

ON SERVING TIME AND GAINING STATUS

There is appreciable concern in Israel not only with the assimilation of ethnic groups, but also with the absorption of immigrants into the socioeconomic structure. Time, and the experience that comes with it, is an important vehicle for the adjustment of immigrants. This is particularly the case in Israel, where many immigrants arrive with little or no knowledge of Hebrew. Elapsed time since arrival can, therefore, be regarded a proxy for a number of interrelated phenomena which we were unable to measure directly. These include, among other things, language learning, familiarity with Israeli society and its institutions, and establishment of personal contacts.

The gross association between current occupational status and time in the system is given by:

$$\hat{S}_i = 3.1543T_i - 151.2, \qquad \text{(Eq. 4a)}$$

which implies that immigrants have, on the average, experienced a three point rise in occupational status with each additional year in Israel. This is, by no means, a dramatic increase, since at this rate it would take sixty years to rise up the occupational ladder by one standard deviation. Furthermore, this gross effect overstates the impact of time in the system on occupational status, since part of this gross impact reflects the operation of other factors with which time in the system is associated. The coefficient of time in the system in the structural equation for occupational status (see Eq. 1c) is 2.171. Thus, $(100)[(3.154) - (2.171)]/(3.154) = 31.2$ percent or about one third of the gross effect of time in the system on current occupational status is attributable to its intercorrelations with education, first job, and father's occupational status.

Although time in the system has no direct effect on personal income, its modest impact on current occupational status does carry over into the process of income determination. The coefficient of current occupation in the income equation is .009354, so for each additional year in the system an immigrant can anticipate a $(12)(100)(.009354)(2.171) = 24$ Israeli *liroth* (about $6) rise in income. The gross association between income and time in the system is given by:

$$\hat{I}_i = .0650T_i + 9.134, \qquad \text{(Eq. 4b)}$$

so immigrants on the average earn an additional $(12)(100)(.0650) = 78$ Israeli *liroth* for each additional year they remain in Israel. However, over two-thirds of this gross effect is due to the operation of correlated variables, since only the 24 *liroth* yearly income rise associated with the impact of time in the system on current occupational status can be regarded as a product of one's tenure as such.

As far as these results go, they reveal that Israeli society has met with considerable success in the absorption of immigrants into the socioeconomic system. Although one should not belittle the social and psychological hardships which immigrants encounter and endure, the occupational and economic handicaps experienced by immigrants are quite modest in magnitude. In part, of course, these results may reflect selectivity from the pool of potential immigrants, since those experiencing the most severe problems of occupational and economic adjustment may elect to return to their homelands. Even so,

a several-fold magnification of the occupational and economic handicaps of immigrants would not, judging by the present results, represent a serious barrier to their success in Israel.

SUMMARY AND CONCLUSION

Decompositions of differentials in the status attainment of first and second generation European-American and Asian-African Jews in Israel reveal that substantial differences between their occupational accomplishments -- both in first job and in current occupation -- are almost entirely a product of differences in their occupational origins and years of schooling. Thus, the data analyzed herein provide no firm evidence of gross occupational discrimination with respect to ethnic origins in Israel. The data also reveal that immigrants have, on the whole, experienced only modest occupational and economic disadvantages. Israeli society has, then, been largely successful in achieving equality of occupational opportunities among the urban Jewish population with respect to immigrant status and ethnic origins. that is the bright side of the picture.

There is, however, a bleaker aspect to the overall picture. There is a large educational gap between European-American and Asian-African Jews, even after occupational origins and religiosity have been taken into account. This differential is particularly significant because education plays such a vital role in occupational and economic attainment. Thus, the large difference between the two groups in their educational background carries over into their occupational and economic achievements throughout the life cycle. Israeli society has a long way to go before equality of educational opportunity is reached between the *Ashkenazim*, largely of European-American extraction, and the *Sepharadim*, primarily of Asian-African origin. However, when that goal has been achieved, a gigantic stride will have been taken toward the complete elimination of ethnic differentials in attainment.

Our data also revealed that, while ethnic origins have no or little direct impact upon either first job or current occupation, they do exert a direct influence over income levels. This finding suggests that, in part, our conclusions about ethnic discrimination in occupational attainment may be overly optimistic. Neither our own occupational data nor any other currently available are fine enough to detect discrimination within broad occupational categories. The income data suggest the *Ashkenazim* may well have distinct advantages over the *Sepharadim*, even after schooling differences have been discounted, in landing the most lucrative posts within broad occupational categories. But whatever its source, Israeli society has still fallen short of achieving ethnic equality of economic opportunity.

Communalities between the experiences of different individuals is an important basis for the creation of social bonds. The persistence of country of origin as a social force in an ethnoreligiously homogeneous environment like Israel is strong evidence of the continued vitality of cultural groupings in the modern and modernizing world. The minor cultural differences between the *Askenazim* and *Sepharadim* in their pronounciation of Hebrew, in their religious liturgy and customs, and in their styles of food preparation have been transformed in Israel into a major axis of social differentiation. These cultural differences appear to have been refined and elaborated rather than diluted and eliminated in the Jewish melting pot. Indeed, cultural background, rather than Jewishness, has become an important source of personal identity in modern Israel.

FOOTNOTES

1. Further details of the scoring procedure and the Israel Institute of Applied Social Research's occupational code are available from the authors upon request.

2. The immigration waves from various countries in Asia and Africa are intertwined with those from specific countries in Europe and the Americas. The Yemenites, for example, were among the veteran settlers and were well established, as were the communities from several Eastern European countries, long before statehood. Immediately following independence, the numbers of immigrants from Morocco, Iraq, and Algeria, among other places, increased, but in recent years the balance of immigration has often tilted in favor of those from Europe and America.

3. The resulting correlation matrix is not reported here, but is available from the authors.

4. For discussions of estimation procedures in overidentified models, see Goldberger (1970), who indicates the superiority of single-equation, least squares estimates in recursive models to various pooled estimates proposed by Boudon (1968). Also, see Goldberger (1973) and Land (1973).

5. Conceptually, the most satisfying way we have hit upon to handle this problem is to endogenize "time in the system" so that it is no longer predetermined with respect to education and first job, but nonetheless correlated with them by virtue of common and correlated causes. Unfortunately, the structural equation one could then write for "time in the system" is itself not very satisfactory, since the decision to immigrate and the timing of it are almost surely affected by numerous variables other than ethnic origin, religiosity, and father's occupation.

6. All of the path coefficients entered in Figure 1 are more than twice their standard errors, save p_{ER} and p_{IC} which are, respectively, 1.94 and 1.77 times as large as their standard errors.

7. These findings parallel those concerning the role of ethnicity (but not race) in the process of occupational achievement in the United States. Cf. Duncan and Duncan (1968) on the role of minorities.

8. There is considerable belief and rather less hard evidence that income data in Israel are subject to substantial errors of underreporting. One is, therefore, advised to take absolute income figures as subject to appreciable error. Relative incomes, income ratios, and the relative magnitudes of components of income differentials will not be affected, however, so long as incomes are understated by a constant proportion.

9. Since there are approximately 1.4 workers per urban employee's family, this calculation on family income should be deflated by an unknown factor in order to effect a more precise comparison with the estimate of the potential income advantage to an earner from working on the *Shabat*. If we took 1.4 at the proper deflation factor (which is almost surely too large, since extra-earners are likely to be part-time workers), we obtain (2718)/(1.4) = 1941, a figure about 15 percent less than the estimate of the potential earnings increment from working on *Shabat*.

10. However, the decomposition will not be affected appreciably if (1), the variables missing from the structural equation in question are uncorrelated with ethnic origins and (2), their inclusion in the equation leaves the coefficients of the variables already present roughly the same.

11. There is a minor problem in making this decomposition (and also the subsequent one for family income). This difficulty is engendered by virtue of the particular method of estimation we have used, to wit, computation of regressions from covariances derived by pairwise deletion. This means that, in fact, Eq. 2c will not hold precisely because Eq. 1a will not pass exactly through the means of the variables. (This problem would not have occurred, for example, if we had restricted our analysis to those respondents for which observations on all variables were available). Our solution to this problem was a pragmatic one and there may well be alternative ones with more desirable statistical properties. Our procedure was simply to estimate the *components* in raw score form, using the between-group differences in Table 1. We then took the sum of the components estimated in this way and calculated their percentage distribution. The distribution of the components derived in this fashion was then applied to the observed gross between-group difference observed in Table 1 for the variable being decomposed to provide another estimate of the components in raw score form. These second round estimates of the components are the ones reported in the test tables. All of the components from each decompostion were obtained in this way.

12. The remaining decompositions are given by the following relationships:

$$\bar{J}_e - \bar{J}_a = 16.72(\bar{E}_e - \bar{E}_a) + .3172(\bar{F}_e - \bar{F}_a), \qquad \text{(Eq. 2d)}$$

$$\bar{S}_e - \bar{S}_a = .4652(\bar{J}_e - \bar{J}_a) + 17.97(\bar{E}_e - \bar{E}_a) + 2.171(\bar{T}_e - \bar{T}_a) + .1435(\bar{F}_e - \bar{F}_a), \qquad \text{(Eq. 2e)}$$

and

$$\bar{I}_e - \bar{I}_a = .8932 + .009354(\bar{S}_e - \bar{S}_a) + .1652(\bar{E}_e - \bar{E}_a) - .7550(\bar{R}_e - \bar{R}_a), \qquad \text{(Eq. 2f).}$$

It should be noted that Eqs. 2d and 2e will not hold precisely, both because of the use of pairwise deletion in the estimating procedures *and* because the equations for first job and current occupation are not constrained (as they would be by inclusion of the ethnic origin variable) to pass through the within-ethnic-group means. Decompositions were executed with these equations as indicated in Footnote 11.

13. Another factor at work is the widespread system of *protectzia* -- an informal network of exchange relationships in which favors and help are distributed. Little is known about this system, but it seems likely that European-Americans dominate key nodes within it.

14. One must be cautious, however, in interpreting differences between first- and second-generation immigrants as though they were differences between parents and offspring. Some of the reasons for this are obvious: not all first-generation immigrants have children (or children born in Israel) and the first generation includes many immigrant children and youth, which evidently are not numbered among the parental generation of the Israeli-born with foreign parentage.

15. The reduced form equations for current occupation and family income are as follows:

$$\hat{S}_i = 53.10C_i + .4315F_i - 3.201R_i + 2.171T_i - 84.26, \quad \text{(Eq. 3b)}$$

and

$$\hat{I}_i = 1.731C_i + .004937F_i - .8843R_i + .0203T_i + 11.64. \quad \text{(Eq. 3c)}$$

In an overidentified model such as ours, the reduced form equations arrived at by successive substitution into the estimated structural equations are only approximately the same as those which would be observed from ordinary least squares regression of each endogenous variable on the predetermined variables.

16. These decompositions were computed by (1) successive application of the percentage decomposition of the structural components in Table 2 in order to obtain the percentage decomposition of the reduced form components shown in the second panel of Table 3 and (2), application of the resulting percentage decomposition to the gross difference between the means of the two groups shown in Table 1 in order to ascertain the reduced form components in raw score form.

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