

**THE PINHAS SAPIR CENTER FOR DEVELOPMENT  
TEL-AVIV UNIVERSITY**

**The Impact of Labor Market Structure, Age  
and Ethnicity on Withdrawal of Prime-Age Arab  
Men from the Labor Market**

**Noah Lewin-Epstein and Ahmad H. Sa'di**

**Discussion Paper No. 5-98**

**November 1998**

## **The Impact of Labor Market Structure, Age and Ethnicity On Withdrawal of Prime Age Arab Men From the Labor Market**

### **Abstract**

This study aims at investigating the impact of labor market structure, age and ethnicity on withdrawal of prime-age Arab men from the labor market. After reviewing the trends of labor market participation/ non-participation of Arab men over the last two decades and comparing their participation levels with those of Jewish men, we examine the main factors, which cause their withdrawal from the labor market. Our main hypothesis is that the high ratio of non-participation of prime-age Arab men in the labor market results from their over-concentration at the bottom of the occupational structure. The data for the study was drawn from the *labor force surveys* that the Central Bureau of Statistic carries out on regular basis. The unique panel structure of these surveys enabled us to analyze the dynamics and shifts in the process of withdrawal. Results of the analysis reveal that Arab men experience substantial disadvantage in relation to their Jewish counterparts. Age, years of schooling and unemployment at any given point of time increase their likelihood of exiting the labor market. Meanwhile, these variables effect the withdrawal of Jewish men differently. The differences between the determinants of exit by Jews and Arabs point to the existence of a segmented labor market in Israel, whereas, the impact of ethnicity is mediated by other variables such as education and age. These results are employed to evaluate the implications of the *segmented labor market theory* and motivate propositions relating to labor market outcomes in ethnically divided societies.

## **Introduction**

The recession that began in the early 1970s, persisted through out the 1980s, and hit many developed and developing countries including Israel, caused a fundamental change in the socioeconomic arrangements, which emerged after the end of the Second World War. The Keynesian style economics, which view low unemployment as a main objective that the state should pursue, even at the expense of budget deficit, was abandoned and a tendency of decreasing state's expenditure on welfare and social affairs has emerged (see e.g. Gerber 1995; Stewart 1967: Ch.2; Lowe 1994). The recession unveiled the fact that the Fordist method of capitalist accumulation - which is composed of constant modernization of technology, changes in labor processes, the production of standardized goods for mass consumption and increase in real wages and productivity - has reached its limits, thus giving rise to new social realities. In the post-Fordist era high and persistent unemployment became a common feature in the social landscape. In many countries, high unemployment ceased to be a major issue even in election campaigns, and the assumption that any government, which presided over a return to mass unemployment, would be ejected from office is no longer valid. Additionally the boundaries between various types of non-participation in the labor market such as unemployment, early retirement, temporary absence and training were blurred (Kolberg & Kolstad, 1992; Walters, 1996). Research on Western European countries and the US reveals that prime-age men who work in the traditional industries and minority employees are among the first groups which are ejected from the labor market (Juhn 1992; Parsons 1980). In this study, we focus on the determinants of labor force withdrawal at the individual level. We examine the differential rates of labor market exit of Arab and Jewish men and how these are affected by age, labor market structure and ethnicity.

### **Theoretical Background**

Sociological research on unemployment among minorities pursued four lines of explanation. The first employs Becker's (1957) assumptions on the role of human capital in determining the employment prospect of individuals. According to Becker the employee, converts his human capital - innate ability, education and training - in the labor market to occupational attainments. The "taste of discrimination" that employers might have is not supposed to obstruct the overall fair functioning of the labor market. Based upon the human capital theory various researchers pinpointed low levels of human capital as the main cause for the high unemployment rates among minority workers. For example, Kasarda (1983; 1989) argued that high unemployment among minorities in the US is due to a "mismatch" between the demands of the market and the human capital of these populations. As the traditional industries, which provided blue-collar skilled and unskilled jobs have been declining, a high proportion of minority workers are unable to find employment in the new expanding industry of data and information processing which demand high education and specialized training. These findings are in line with Wilson's (1978) conclusion that the main problem of Afro-Americans is their low educational attainments.

The second line of explanation derives from the characteristics of the labor market as outlined by what is loosely called "dualist/ segmentation theories". Employers offer employment conditions to employees according to their possession of needed skills and their ethnic background. Typically, employers select between two major options of employment: those providing "primary" or "secondary" sector conditions. In the former they offer the employees high wages, built-in advancement opportunities, tenure etc., while in the later, they offer low wages and poor occupational prospect. Additionally, employers who offer primary sector conditions tend to recruit employees through the internal labor market, while those who offer secondary sector condition rely on the external market in the

recruitment of employees (Doeringer & Poire 1971; Poire 1973; Edwards 1979; Rosenberg 1975; 1977; 1980). Some dualist researchers argue that large monopolistic (core) companies usually offer primary sector conditions and small peripheral (competitive) ones offer secondary sector conditions (see the summary of Harrison & Sum 1979; Beck, Horan & Tolbert. 1978). Following this theoretical approach, Schervish (1981) explained the high rates of layoffs among minority employees by their concentration in "low capacity jobs" (i.e. low-skill, dead-end occupations). Cornfield (1987) reported that in addition to over-concentration of minority workers in such jobs, they are quite often the last to be hired and therefore on the grounds of seniority rules they are the first to be fired. Moreover, he found that minority workers are more inclined to accept voluntary layoffs.

More recently, John Goldthorpe incorporated the notion of differentiated employment contracts into his class schema, which was developed primarily to study mobility patterns in industrial societies (see Erickson and Goldthorpe (1992) for a full exposition of the class schema). A basic distinction is made in the Goldthorpe class schema between employers, the self-employed and employees. However, the major conceptual novelty of the schema is its treatments of the heterogeneous population of the employees who account for approximately 85 percent of the active labor force in most industrial societies. "The main contrast that is set up in this regard is that between, on the one hand, the 'labour contract', supposed typically to operate in the case of manual and lower-grade non-manual workers, and, on the other hand, the 'service relationship' as expressed in the kind of contract taken as typical for the professional, administrative and managerial staffs of organizational bureaucracies, public and private" (Goldthorpe 1997: 4).

The distinction between 'labor contract' and the 'service relationship', according to Goldthorpe (1997), has to do with two major characteristics of work: the specificity of human assets required for the work, and the extent of difficulty in

monitoring the work-tasks. One may summarize (in rather simplified manner) the essence schema by pointing out that class positions are derived from combining varying levels of difficulty in monitoring tasks and levels of knowledge specificity. Thus, the service relationship emerges in situations of high specificity of human assets and great difficulty in monitoring the work-tasks. The labor contract relationship generally characterizes employment situations where task monitoring is rather easy, and jobs that require low specificity of skills. Mixed employment relationships will emerge in situations requiring high specificity of skills and difficult monitoring, or *vice versa*. These relationships will crystallize into class positions that are distinct from both the service relationship and the labor contract (Goldthorpe 1997).

Unlike these two explanations which are anchored in the sociology of labor markets, the third represents an endeavor of analyzing labor market processes as part of the wider context of ethnic relations. In her theory of "split labor market", Bonacich (1972; 1976) points to three groups in the labor market, each has its interests and agenda. Employers are interested in peaceful industrial relation and in low wage employees, workers with dominant ethnic background endeavor to keep their gains and improve their conditions, while minority workers aspire first to enter the labor market and in later stages to achieve parity in the work conditions with their co-workers of the dominant ethnic group. These conflicting interests could give rise to a variety of labor market processes and social relations. In many cases, racism and exclusion of minority workers from certain jobs and economic sectors have been a main result. On the basis of a careful scrutiny of the causes for the low employability of Blacks in the US, Fainstein (1987) concluded that the main problem of American Blacks is race. Through a combination of "employment ghettos" and "underclassing" Blacks are excluded from the main activities in the labor market. This conclusion was supported by the results of a research on the construction industry. Waldinger & Bailey (1991) reported on a

widespread exclusion of Blacks from this industry, particularly from skilled jobs as a result of informal agreement between employers and (White) trade unions. Similarly, a study on the Canadian labor market revealed that racial discrimination is pervasive and is especially deleterious to new immigrants (Daenzer 1991).

The fourth explanation views exit from the labor market, particularly by prime-age men, as largely voluntary. The decline in the volume of work led to an increase in the paid non-work, including generous schemes of early retirement (Juhn 1992; Parsons 1980). Proponents of this explanation suggest that when given the opportunity many prime-age men, especially the older members of this category choose to exit from the labor force voluntarily. This contention is at odds with the long-standing research in social psychology of work which maintains that for the majority of people work is far more than a source of livelihood. It gives satisfaction for various psychosocial needs including friendship, company, meaning and structure of the time, sense of achievement and challenge (e.g. Brown 1980). Indeed a study on discouraged older workers in Ohio USA revealed that most of the surveyed prime-age men (50+), although they stopped looking for work, did not experience lowered identification with work. The most cited reasons for their inability to work were age discrimination and deteriorating health conditions. They also reported on decreased life satisfaction and financial difficulties after their layoff (Rife & First 1989). An alternative explanation that might be raised, particularly in communities with cohesive extended family networks, is that prime-age men can afford not to work by relying on the support of younger family members.

### **The Arabs in Israel**

The Arab minority composes about 17 percent of Israel's population. Since the establishment of the state of Israel in 1948 the Arabs, although given full citizenship, have suffered from discrimination in all aspects of life. They attain

fewer years of schooling (Shavit 1990; Swirski 1990), hold less desirable and rewarding jobs (Lewin-Epstein & Semyonov 1986, 1993; Semyonov & Lewin-Epstein 1989) and their earning and standard of living are lower than those of their Jewish counterparts. Furthermore the vast majority of both Arabs and Jews are segregated; they live in ethnically homogeneous communities. The Arab communities are mostly oversized villages, which lack not only worthwhile industries, but also the infrastructure needed for modern economic activities. Consequently, more than one half of the Arab employees work in Jewish-owned enterprises, where they are subject to discrimination and exclusion from positions of responsibility and authority (Kretzmer 1987; Wolkinson 1989).

The data on the occupational distribution of Arab and Jewish employed men clearly points to the subordination of Arabs in the labor market. For example in 1994 less than 4% of Arab men worked in professional and scientific jobs, in comparison with over 10% of their Jewish counterparts. Similarly, while 8.2% of the employed Jewish men worked in executive and managerial jobs, less than 1.5% of the Arab men were employed in this category. At the other end of the employment structure 36.2% of Jewish men versus 58.6% of Arab men worked in skilled and unskilled jobs (CBS 1995).

These disparities reflect the historical experience of the Arabs in the Israeli labor market. Since the establishment of the state, all Israeli governments regardless of party difference, considered the advancement of Zionist objectives as their prime assignment. One major aim has been the attraction of Jewish immigration by the creation of a desirable socioeconomic milieu. This includes occupational opportunities, high standard of living and low unemployment. The pursuance of these objectives led to active intervention of the State in the economy, in general, and the labor market, in particular. For decades the state and the *Histadrut* (the Trade Union of Workers in Israel) were the main employers; in the 1980s they employed about 45% of the work force (Murphy 1994).



Yet, the attainment of these goals meant the awarding of preferential treatment to Jews. By the early 1950s, it became clear that the Military Government that was imposed over Arab populated areas in 1948 for security reasons had achieved its objective. However, it was extended until 1966 for political and economic reasons. One principal objective of this regime had become the regulation of the entrance of Arab workers to the labor market in the cities in order to prevent them from competing with new immigrant workers. During the 1950s and early 1960s, the *Histadrut* launched a campaign against the employment of unorganized (Arab) workers. After the abolishment of the Military Government, the state created new ways to ensure the awarding of preferential treatment to Jews, particularly to new immigrants (Sa'di 1995). This includes laws, regulations, and the exclusion of Arabs from a wide range of jobs in the bureaucracy, state and *Histadrut* owned companies. They are especially excluded from professional, managerial and technical jobs (Wolkinson 1989). Moreover, state's under-investment in the Arab educational system led to the rise of a growing strata of Arabs who lack the education and the training needed for employment in occupations beyond the blue-collar category (Sa'di 1995). The institutional discrimination against Arabs has been considered acceptable and justified by large sections of Israeli Jewish public (e.g. Smooha 1989).

Since the 1980s, the Israeli State has been embarking on economic restructuring, with the aim of increasing the integration of the country in the world economy. Various steps of liberalization and privatization have been introduced. Consequently, the age-old inefficient and unprofitable traditional industries have been declining. This contributed to a sustained high unemployment, which converged with a trend of declining male participation in the labor market that has been taking place during the last two decades. Trends of labor force participation of Arab men in relation to their Jewish counterparts are described in the next section.

### **Changing Patterns of Male Participation in the Labor Market**

There has been a considerable decline in male participation in the Israeli labor force over the last two decades. The rate of non-participants, those, who neither worked nor looked actively for work, has increased between 1975 and 1996 from 35.1 percent to 37.9 per cent. As Figure 1 shows the rate of participation of Arab men has been higher than that of Jewish men except in 1979, and the gap has increased over time. By 1996, the rate of labor force participation among Arab men was 66.6 per cent in relation to 61.2 per cent among *their Jewish counterparts*.

Figure 1 About Here

Labor force participation is strongly associated with age, the educational opportunities open to young men, illness and the availability of social welfare to prime-age men. Figure 2, which shows the labor force participation of Arab and Jewish men for the period 1975 to 1996, reveals a general trend of declining participation among almost all the age groups. Yet, the patterns of participation among Arabs and Jews differ considerably. In the youngest cohort (25-34 years old) the participation rate of Arab men has decreased from 94 per cent in 1975 to 86.8 per cent in 1996, while among their Jewish counterparts the participation rate has dropped in the same period from 85.8 per cent to 81.1 per cent respectively. This gap could be explained by the different access of the two groups to higher education. In the older cohort, 35-44 years old, the levels of participation of the two groups are virtually similar, and in both cases, there has been a general trend of declining participation. Among Arabs, the rate of participation has dropped from 93.3 percent in 1975 to 85.4 per cent in 1996, while the rate of Jewish men's participation has decreased from 94.1 per cent to 87.0 per cent respectively. This data is brought here to help us understand the dynamics, which eventually lead to

low participation levels of prime-age Arab men. An analysis of this dynamic will be done after a short description of the participation/ non-participation trends of the prime-age men.

Figure 2 About Here

The trends of labor force participation of Jewish and Arab men of the age category 45-54 years are diametrically opposing. While among the Arab men there has been a dramatic decline in the period 1975 to 1996 from 91.9 percent to 72.9 percent, among Jewish men there has been an increase from 85.2 percent to 89.4 percent respectively. In fact, this is the only group that has increased its participation rate in the discussed period. These data also unveil an important fact; more than one fourth of prime-age Arab men did not participate in the workforce although they were far away from the retirement age (which is 65). In this stage of the life cycle where one expect employed men to reached the peak of their careers due to experience and seniority, about one quarter of Arab men leave the work force altogether.

The dropout of Arab men from the labor force takes a dramatic turn when they reach the age category of 55-64 years. Their rates of participation in the labor force have dropped between 1975 and 1996 from 62.5 percent to 48.3 percent respectively. Among Jewish men of the same age category there has also been a dramatic decline, but in a much smaller scale. Their rate of participation has decreased from 85.2 percent to 70.5 percent respectively. In sum, this data reveals a troubling reality of Arab men in the labor market. One quarter of them drop out by the age of 54 and more than one half quit before reaching the age of retirement. Only 48.3 percent reach the retirement age and become eligible to full pension payments.

The trend data enable us to examine the changes experienced by specific age cohorts. That is we may follow those who were 25-34 years old in 1975 and explore the changes in their rate of participation over a 20 years period.

Table 1 About Here

In 1975, 94 percent of Arab men in the age category 25-34 years participated in the labor force. During the decade that followed 1.8 percent of them dropped out from the labor force and in the next decade, when they were in the age category 45-54 years old an additional 16.1 percent exited. All in all about 18 percent of this cohort, left the labor force. Meanwhile, the participation rate among their Jewish counterparts took a different trajectory. During the first decade, their participation rate had increased by 4.1 percent and in the following decade, it had decreased slightly (half a percent). Throughout the two decades they increased their rate of participation by 3.6 percent.

Those who composed the age category of 35-44 in 1975 experienced changes that are more dramatic. 93.1 percent of Arab men of this cohort participated in the labor force at the time. A decade later about 13 percent of them left the labor force, and during the following decade an additional 31.4 percent of them dropped out. Throughout the two decades 44.3, percent of this cohort stopped their active involvement in the labor market. Meanwhile among their Jewish counterparts, the decline was more moderate reaching only 23 percent. In sum, the participation of Arab men in the labor market is characterized by high participation rates in younger ages and a steep decline in participation after the age of 44 years old.

The causes that bring Arab men to leave the labor force, voluntarily or involuntarily, is the subject of the following analysis. What we focus on here is not the macro conditions that affects the rates of participation over time, rather the

individual-level factors that render certain individuals more susceptible than others to labor force dropout. Particularly we are interested in the factors that differentially affect the likelihood of the Jewish and Arab men's quitting the labor force, and which may account for the considerable differences in the rates of non-participation among the two groups.

## **Data and Variables**

### *Characteristics of the Data Set*

The data used in the analysis is drawn from the labor force surveys that the Israel Central Bureau of Statistics (CBS) carries out every three months. These surveys are comprised of a rotating panel design whereby in any given time about one quarter of the respondents are interviewed for the first time and the remainder are respondents who are interviewed for the second, the third or the fourth time. The first time that the respondent is approached is taken as ( $I_1$ ), then he is interviewed after three months ( $I_2$ ). The third interview ( $I_3$ ) takes place after nine months of the second. Finally, the fourth and last interview ( $I_4$ ) occurred three months after the third. Hence, the same person is interviewed four times over a period of 15 months. The interval between  $I_1$  and  $I_3$  is the same as between  $I_2$  and  $I_4$ , one year. Our data includes males in the age category of 25-64 years who were interviewed during the years 1979 to 1992.<sup>1</sup>

A concatenated file was created for all men whose first interview took place between 1979 and 1992. Each individual had a maximum of four records, one for each interview. This procedure resulted in a sample of 52,720 individuals for whom panel data was available. Of these respondents 47,367 (89.8 percent) were Jews and 5,325 were Arabs. In order to study the changes in the labor force status we took the period of one year as our time frame. Specifically, we studied individuals who were in the labor force in the first interview ( $I_1$ ) and examined

their labor force status in a year later ( $I_3$ ). A total of 44,382 persons have complete records for these time points (representing 84 percent of the sample). In cases where either of the records or both were not completed we used the data of the interviews conducted at  $I_2$  and  $I_4$ . Detailed information on the distribution of the cases, according to the year in which the interviews were conducted and the number of the interviews completed, is presented in appendixes A1 and A2.

### *Variables*

The dependent variable – *withdrawal from the labor force* – is treated as dichotomous. The value 1 is given if the person was in the labor force at the time of the first interview, which we will refer to as  $t_1$  ( $I_1$  or  $I_2$ ), and was not in the labor force a year later –  $t_2$  – ( $I_3$  or  $I_4$ ). The value 0 is given if the person continued his participation in the labor force in the two points in time.

In the statistical analysis we included various independent variables, these are: 1) *Ethnicity*: we distinguished between Jews (coded 1) and Arabs (coded 0). The Arabs comprise about 10 percent of the cases, a slightly lower figure than their share in the labor force. In 1992 Arab men aged 25-64 composed 11.7 percent of the men in the civilian labor force at these ages (CBS 1993).

2) *Age*: we adopted the age categories, which were used in the previous section. This classification was found useful for capturing the phenomenon of rapid increase in exit of Arab men from the labor force after the age of 44. These categories are 25-34; 35-44; 45-54 and 55-64. <sup>2</sup>

3) *Education*: is measured in years of schooling.

4) *Marital Status*: This variable was treated as dichotomous, whereas married received the value of 1 and the rest were coded 0.

5) *Earners*: indicates the number of breadwinners in the household who contribute to family's budget. We included this variable to test the hypothesis, which predicts

an increase in the tendency of prime-age Arab men to leave the labor force along with additional breadwinners in the family.

6) *Locus of employment*: A trichotomous variable that indicates the type of locality in which Arab men were employed at the time of the first interview. These are: Arab localities, mixed Jewish-Arab cities and Jewish localities.<sup>3</sup>

7) *Class Position and Occupational Status*: To capture the impact of the employee's position in the stratification system, two interrelated variables are introduced, class and occupational status. Class classification is based on Erikson & Goldthorpe's (1992) class schema, modified for the Israeli labor force (Goldthorpe, Yaish & Kraus 1997) which includes five categories (classes).<sup>4</sup> We also included the continuous occupational hierarchy of Tyree (1981) in order to determine whether the likelihood of withdrawal from the labor force is affected by class position, after controlling for the linear effect of status.<sup>5</sup>

## Findings

### *Descriptive Overview*

Before examining the patterns of withdrawal from the labor force, it is useful to review the employment status of the respondents. The figures presented in Table 2 provide information on the employment status of the respondents by ethnicity and age at the time of the first interview. Similar proportions of the two groups were not in the labor force at the time of the first interview ( $t_1$ ); 12.4 percent among Jewish men and 12.9 among Arab men. However, the proportion of men who were unemployed was higher among Arab men than among Jews by a factor of 1.75. It should be emphasized that these figures do not represent the unemployment rates at any given year, rather they represent an weighted average for the entire period of the study. As such they point to the greater hardship experienced by Arab men in the labor market.

The overall figures tend to mask the age-specific patterns of non-participation among the two groups. Among Jews, the youngest and the oldest cohorts have the higher rates of non-participation; the rate of non-participation among the young cohort 25-34 years old was almost 16 percent, while among the oldest, 55-64 years old, was more than 17 percent. The lowest non-participation rate was among the group of 45-54 years old. This U shape of Jewish non-participation in the labor force reflects the access of young men to educational institution and health related causes and early retirement that leads to withdrawal of prime-age men. Meanwhile, among Arabs low rates of non-participation persist until the age of 44 (about 9 percent). Thereafter a steep increase in non-participation occurs reaching 17 percent at the age group of 45-54. Then it doubled at the age category of 55-64 reaching 37 percent. This dramatic increase in non-participation is what we are going to analyze in the following.

Table 2 About Here

The data in Table 3 presents aggregate data for Jewish and Arab men who were in the labor force in the first interview either employed or unemployed, and dropped out within one year. Overall, 3.7 percent of Jewish men and 4.5 percent of Arab men exited from the labor force during this time span. The data confirms the age-specific patterns of non-participation reported above.

Table 3 About Here

The lower panels of Table 3 show the educational levels of the dropouts. Among Jewish and Arab men alike, exit from the labor force is inversely related to years of schooling, a pattern that becomes pronounced among men 45-64 years old. Does this mean that the lower educational attainments of Arab men,



particularly the older cohorts, account for their high rates of exit from the labor force, as the “mismatch” and the “human capital” theories predict? In the following analysis, we examine this tentative conclusion thoroughly.

#### *Determinants of the Likelihood of Withdrawal*

To test the impact of various individual and labor market characteristics on the likelihood of withdrawal from the labor market during one year since the first interview, a multivariate logistic regression analysis was conducted. The labor force participation/ non-participation at the end of the first year ( $t_2$ ) was regressed on personal and labor market characteristics at  $t_1$ , for all the interviewees who were in the labor force in  $t_1$ . The logistic regression is to estimate the odds of withdrawal from the labor market (i.e. the ratio of the probability of withdrawal to the probability of staying active). Since the logistic model is not linear, the logistic regression coefficient should be interpreted as the change in the log-odds associated with one-unit change in the independent variables evaluated at the mean of all other variables. The exponent of the coefficient, in the right-hand column of each model, provides the odds ratios, which are more readily interpretable than the coefficients themselves. And unstandardized coefficients are provided in the left-hand column (standard errors are given below coefficients in parentheses). Since the data is drawn from surveys conducted over a period of 14 years, a set of dummy variables was introduced to represent the year of the survey, thus all the coefficients included in the models should be interpreted as partial coefficients controlling for the time of the interview.

In the initial model presented in Table 4 only ethnicity is entered into the equation. The coefficient in the left-hand column ( $b = -0.167$ ) is statistically significant, indicating a lower likelihood of exit from the labor force by Jews than by Arabs. Since the values of the regression coefficients do not have a straightforward interpretation, the exponent of the coefficient is also provided. The

odds of exiting the labor force at  $t_2$ , for persons who were active at  $t_1$ , are lower for Jews than for Arabs (0.85 vs. 1.0).

Table 4 About Here

In the second model, presented in Table 4 as well, individual characteristics are added to the equation. These are: years of education, marital status, number of breadwinners in the household and age (ten year age categories were entered as dummy variables with the youngest cohort serving as the comparison group). Following that, ethnicity lost its significant effect (although it remains negative). Presumably, the differences in age and education between Jewish and Arab men, in the labor market, account for the effect of ethnicity found in the first model. Once the variables of age and education are controlled, the direct effect of ethnicity disappears. Indeed education has a significant negative effect. Age has a U-shaped relationship with labor force exit, where men 35-44 are less likely than *men of 25-34 years old to withdraw from the labor force*, while men in the older cohort, 55-64 years, are considerably more likely to withdraw than the younger men. Marital status exerts a significantly negative of effect on exit from the labor force, where married men are one third as likely as non-married (odds ratio of 0.345) to exit the labor force. In the third model, the employment status at  $t_1$  (at the time of the first interview) was added to the equation. This variable distinguishes between those who were employed versus those who were unemployed. Clearly the employment status has a strong effect; men who were unemployed at  $t_1$  were 7 times more likely than those who were employed to be out of the labor force within one year.

Three main conclusions could be drawn from the findings presented in table 4. Firstly, ethnicity has no direct effect on withdrawal from the labor market. Secondly, the main variables that effect the likelihood of exit from the labor

market are age, education, and the labor force status (employed vs. unemployed) at any given point in time. Thirdly, the number of breadwinners in the household does not have any significant bearing on the exit from the labor force.

However, these findings present an analytical problem; the fact that Jews constitute more than 80 percent of the population, the pooled model for Jews and Arabs largely represents the effects of individual characteristics of the Jewish population. In order to examine whether individual attributes differently affect labor force withdrawal among Jews and Arabs, separate models are estimated for the two ethnic groups (Table 5). Again, for each model, unstandardized coefficients are provided in the left-hand column (standard errors are given in parentheses below the coefficients), and the exponents of the coefficients (odds ratios) are provided in the right-hand column.

#### Table 5 About Here

The results of equation 1 in Table 5 show that education, marital status, and employment status at  $t_1$  have significant effects on the likelihood of withdrawal from the labor force of both Jewish and Arab men. Yet, the extent of the impact of these variables on the two groups is different. A comparison of the impact of education discloses that every additional year of education reduces the likelihood of withdrawal more for Arabs than for Jews and the difference between the two coefficients is statistically significant. On the other hand, the relative odds of exiting the labor force for those who were unemployed at  $t_1$  were significantly higher for Jews than for Arabs, pointing out that the move from unemployment to complete withdrawal is more likely to occur among Jews (here too the difference between coefficients is significant). Age has a differential effect on withdrawal from the labor force of both Jewish and Arab men. The effect of age is estimated by contrasting the likelihood of exit for each group with the youngest cohort -

Turning to the effect of class position, among Jews only extreme class positions have a significant effect. Men in class I are less likely (than those in class IV) to withdraw from the labor force, while men in the lowest class - class V - are more likely to withdraw. Meanwhile, among Arab men, only those in class II show a greater tendency to exit the labor force than the rest. Further more, the kind of the labor market in which they work - Arab or Jewish - does not effect their likelihood of exiting the labor force.

### **Socioeconomic Conditions of the Unemployed**

In addition to the statistical analysis, we conducted interviews with 22 persons who at the time of the interview were not in the labor market. The interviewees were from different parts of the country.<sup>6</sup> Although the sample is not representative, we believe that the method of open interview is significant for gaining direct access to the thoughts, feelings and judgement of the subjects. While letting the interviewees describe their situation freely, the interviewers posed general questions in order to maintain some structure and coherence. Prior to their unemployment 2 interviewees worked as teachers, one worked in the civil service as a middle-level clerk, while the rest (19) worked in blue-collar semi-skilled and unskilled jobs. The interviews covered four areas relating to the causes for non-participation in the labor market, the impact of unemployment on the self-image and self-esteem, and the use of time and the sources of income.

The first area relates to the circumstances that surrounded the exit of the interviewees from the labor market. Twenty respondents cited illness or disability as the main cause, while the remaining two mentioned burnout, a psychosomatic phenomenon. Those who mentioned burnout were the teachers. The rest mentioned work accidents and various illnesses including general fatigue and lack of strength, strong and permanent headaches, heart problems, kidney failure,

gastro-enteritis, permanent back pain, stroke, cancer and a case mental illness. The age at which they stopped working ranges between 26 and 63.<sup>7</sup> 21 of the interviewees describe themselves as retired or in a transitory period towards retirement. Therefore, their vast majority, 18 persons, thought that they would not rejoin the workforce. They explained their discouragement by their ill health as well as the lack of unskilled jobs, which are not physically demanding. Three interviewees thought that they would participate in the labor market in case of substantial improvement in their health. And one interviewee explained his discouragement by the deterioration of the labor market. In his locality, Rahat in the Negev, where unemployment levels have been for years the highest or among the highest in the country, the status of unemployed is no longer considered a personal problem. He explained that "You might look at unemployment differently, but here there are many unemployed men, it is a common phenomenon".

The second area covered by the interviews relates to the impact of unemployment on the self-image of the interviewees. 14 described a decrease in their self-esteem and feelings of helplessness. For example, one interviewee commented: "I feel inferior, the way my wife, my family and the community see me has changed". Another said: "I feel worthless, I bring home nothing". Similar description was voiced yet by another: "This situation has a negative psychological impact on me, I am accustomed to work, and now our situation is pretty bad and I cannot work". Ruptured self-image is not only associated with loss of income and decline in the standards of living; it is primarily ensues from a sense of loss of the status the head of the family and main breadwinner. As shall be discussed later on, many of the interviewees ask their working sons and daughters for financial support, an inversion of the traditional roles. Moreover, seven of them (half) reported a decline of their image in their families and community. For example, one person reported on frequent arguments and quarrels

with his wife. Another person said: "I feel the strange gazes of people, I feel inferior, I am sick and my body is misshapen". Yet, for another person unemployment leads inescapably to stigmatization, "Even if your family understands your situation, some people in the community might think that he is healthy and does not go to work".

The third domain relates to the use of time. Despite the enormous free time that the unemployed men have, the interviewees reported on few activities that they do. Loneliness is a conspicuous feeling among many of them. Six spend almost all their time at home. Three said they occasionally go to the mosque to pray, and one reported on doing some voluntary work. The life of the other four is centered outside the house. One person spends most of his time in the mosque, and another socializes for long hours with friends and relatives. The remaining two combine both religious activity and socializing.

The last area that the interviews included relates to the sources of livelihood of the interviewees especially as they have medium to large size families. Six had families composed of 3-4 members, nine had families constituted of 5-6 persons, four had families composed of 7-8 members, and three had large families composed of 12; 13 and 17 person. 16 of the interviewees received social security allowance, a small income in Israeli terms. Five got pensions and one did not have any formal income. Eight of the interviewees received income from a single source; seven from the social security and one was supported by his children. Fourteen respondents, in addition to the formal income received support from various sources. 13 received support from their children, one got aid from relatives and community members, one leased a room in his house, and four use their savings when necessary.

In summary, the life of the unemployed as reflected in these interviews is far from being monolithic, yet it is in most cases depressing. Those who are unable to cope with the conditions of the hard or physically demanding jobs, in many

occasions, have to live through a dehumanizing experience of loneliness, poverty and decreased self-image and self-esteem. Even in the Arab society, the collectivist orientation seems to have failed in reducing the negative consequences of the capitalist relations of exploitation and degradation. Moreover, the lack of public and state interest in the fate of the unemployed aggravates their predicament.

### **Discussion & Conclusion**

In this study, we explore a conspicuous social phenomenon in Arab localities; high rates of prime age-men's exit from the labor market before the official age of retirement. To understand the dynamics of this occurrence we looked at the employment patterns of Arab men and compared them with those of Jewish men. It is found that the two groups are widely different in this respect. Whereas the pattern of labor force non-participation among Jewish men takes a U-shape, with high rates of non-participation among the young and the older category of prime-age men, among Arab men the non-participation takes a different trajectory. High rates of Arab men participate in the labor force at young ages and considerable rates withdraw after the age of 44. In 1996 more than one fourth (27 percent) of Arab men in the age category of 45-54 were not in the labor force, although at this age employed men ordinarily reach the peak of their careers. Furthermore, only a minority of about 48 percent of the cohort who reached the age of official retirement, at that year, remained in the labor force until retirement.

To understand the causes of this phenomenon a multivariate logistic regression analysis was conducted. It is found that ethnicity influences the rates of non-participation; being Arab increases likelihood of exit from the labor force. Yet, the impact of ethnicity is rarely direct. It is commonly mediated by other variables such as education, sector of employment etc. Indeed, when individual

and labor market characteristics were added to the equation (education, marital status, age and the status of employment at the beginning of data gathering) ethnicity lost its explanatory effect. Education has become a main determinant of exit from the labor force for Arab men but not for their Jewish counterparts. In accordance with the mismatch theory, Arabs with low educational attainments are more likely to exit the labor force than educated Arabs. While this theory is cast in universalistic terms, it does not seem to apply to Jewish men who enjoy a greater security in the labor market. This divergence is a clear manifestation of a segmented labor market where Arabs with low education are employed in low-capacity, dead-end and subordinate jobs in the secondary sector. After certain age, they lose their capacity to compete for such jobs. The interviews that we conducted with unemployed Arab men lend firm support to this explanation. 18 out of the 22 interviewees explained their discouragement by the unavailability of jobs in the secondary sector, which are not physically demanding. The influx of guest workers to Israel since the mid 1980s added to the over-supply of workers to secondary sector positions, and stiffened the competition over such jobs.

Our analysis shows that an increase in the number of breadwinners in the household does not induce Arab men to withdraw from the labor market. The hypothesis presented earlier that prime-age Arab men can afford not to work by relying on the support of their working children was not supported. In the interviews conducted, although about 60 per cent of the unemployed Arab men received some financial help from their children, this support was a source of sorrow and sadness. It contributed to feelings of helplessness and to ruptured self-image. Thus, children's assistance is accepted but not heartily desired.

Another variable that we included in the analysis is the effect of labor market status at any given point in time on the likelihood of eventual dropout from the labor market. Both Jews and Arabs who were unemployed at the time of the first interview ( $t_1$ ) were more likely to exit the labor force altogether within a



period of one year. One possible interpretation of this finding is that unemployment is a "revolving door" with more than one exit. Many persons leave the state of unemployment by means of a job and they join the gainfully employed, but for others, unemployment is a step on the way to "dropping out" of the labor force. Unemployed Jews are more likely to withdraw from the labor force than their Arab counterparts. This seems to lend yet another support to our characterization of the Israeli labor market as segmented. While for more Jews unemployment is a decisive step towards total withdrawal, for many Arabs it is an additional cycle of their movement in and out the labor market. It should be recalled that Arabs suffer from higher unemployment rates; weighted averages of unemployment for the period of the study show that their unemployment rates are higher than those of their Jewish counterparts by a factor of 1.75.

The addition of class to our analysis did cause a fundamental change. Among Jews, those who affiliate to the higher class (class I) are less likely to withdraw from the labor force; their expertise seems to be highly valued and demanded in the labor market. Contrary to that, those in the lower class are more likely to withdraw. As to Arab men only those in class II are more likely to exit the labor force than the rest.

In summary, the analysis in the paper attributes the high rates of exit from the labor force by Arab men to the segmented nature of the Israeli labor market. Arab men are concentrated in manual dead-end and subordinate jobs. They are easily absorbed in the labor market when they are young, although the work history of significant proportion of them is characterized by movements in and out the labor market. After the age of 44 most Arab men lose their ability to compete in light of the continuous supply of young and more educated Arab employees as well as cheap guest workers (most of the interviewees asserted that they would return to work if jobs that are not physically demanding were available to them).

The main two variables that effect their dropout/ retention in the labor market are age and education. Contrary to that, education does not have any significant bearing on the exit of Jewish men from the labor market. It seems that they are protect by a safety net. Moreover, it is found that unemployment composes a main step towards complete exit for both Jews and Arabs. Yet, more Jews who reach this stage are likely to withdraw than Arabs are. That is to say, a working life at the periphery of the labor market interval of unemployment is more common among Arabs than among Jews.

The segmentation of the Israeli labor market represents a long history of discrimination against the minority. This history has been described at length in various works (e.g. Shafir 1989; Shalev 1992; Lewin-Epstein & Semyonov 1993; Sa'di 1995), yet in this paper we analyzed an aspect in the labor market that has been so far unheeded. We showed how the process of withdrawal from the labor market by majority and minority members is effected by different variables and takes divergent venues. Yet, ethnicity does not have a direct impact, as in other cases of segmented labor markets, it is mediated by other variables such as education and sector of employment. The segmentation of the Israeli labor market is intimately connected with a long-lived ideology began before the establishment of the state which advocates the awarding of priority in the labor market for Jews. This ideology is still widely accepted after five decades of statehood.

Finally, we dealt with the use of free time that became available to the Arab men who exit the labor market. In line with the finding of Rife & First (1989), they described a decrease in their life satisfaction and a growing feelings of lonesness and helplessness. Their situation cast heavy doubts on the recently celebrated thesis which view the shortening of the working period in the life cycle as an opportunity for many persons to develop hobbies and increase their time of leisure.

---

## Notes

<sup>1</sup> Females were excluded for both substantive and methodological reasons. From the substantive point of view the process of labor force entry and exit is quite different for women and men, as in the case of the former it is strongly related to the family life cycle and labor force participation fluctuates considerably with marital status and child bearing. From the methodological point of view the labor force participation of Arab women is still very low (it stood at ?? percent in 1979 and rose to ?? percent by 1996) resulting in too few cases for the panel analysis.

<sup>2</sup> We limit the presentation here to men 25-64 years old in order to focus on the population for whom employment is likely to be the primary activity. This will permit a comparison over time that is little affected by such changes as school enrolment or pension coverage.

<sup>3</sup> This variable was included to (indirectly) test the hypothesis that Arabs enjoy a degree of labor market protection in Arab communities. They would be less likely, therefore, to withdraw from the labor force. This variable was not included in the analysis of labor market exit among Jewish men since very few Jews are employed in Arab communities and the mixed Jewish-Arab communities are dominated by Jewish population. For all practical purposes, then, Jews are employed only in Jewish dominated labor markets.

<sup>4</sup> In the present study we collapse the EGP class schema into a five-category classification as follows: (1) The service class (EGP Classes I + II) consisting of professionals, administrators and managers, and high grade technicians. (2) Routine non-manual employees in administration and sales (class III). (3) Small proprietors and self-employed (class IV). (4) Skilled workers (classes V + VI). (5) Unskilled workers (class VII).

<sup>5</sup> We also estimated the model that includes occupational status in addition to the class categories. This was done in order to capture the linear effect of occupational hierarchical position on the likelihood of withdrawal from the labor market. Controlling for occupational status we are also able to test whether class position affects the likelihood of exit from the labor force which is separate from the status dimension. The occupational status effect was negative and statistically significant in the Jewish population, suggesting a status effect within class categories. Other things being equal, the higher the occupational status the lower the likelihood that the person would exit the labor market during one year interval. Among Arab men, however, occupational status has no significant effect. Adding occupational status to the models, however, only slightly modified the direct effects of other variables on the likelihood of withdrawal.

---

<sup>6</sup> Ten interviewees were from Nazareth and the village of Ilaboun, another ten were from villages in the triangle - the surrounding of Um el-Fahim, and the remaining two were from Rahat in the Negev.

<sup>7</sup> One person stopped working following car accident at the age of 26, five became unemployed between the ages of 30-39, two at the age of 44, eight between the ages of 45-54 and six between the age of 55-63.

## Reference

- Beck, E. Horan, P. and C. Tolbert. 1978. "Stratification in a Dual Economy: A Sectoral Model of Earning Determination", *American Sociological Review* 43: 704-720.
- Becker, G. 1957. *The Economics of Discrimination*. Chicago: University of Chicago Press.
- Bonacich, E. 1972. "A Theory of Ethnic Antagonism: The Split Labor Market", *American Sociological Review*. 37: 547-559.
- -- 1976. "Advanced Capitalism and Black/White Race Relations in the United States: A Split Labor Market Interpretation", *American Sociological Review*. 41: 34-51.
- Brown, J. 1980. *The Social Psychology of Industry*. Middlesex: Penguin Books.
- CBS (Central Bureau of Statistics, the State of Israel). 1993; 1995 . *Statistical Abstract of Israel*. Jerusalem
- Cornfield, D. B .1987. "Ethnic Inequality in Layoff Chances: The Impact of Unionization and Layoff Procedure. Pp. 116-140, in P. M. Lee (ed.), *Redundancy, Layoffs and Plant Closures*. London: Cromhelm.
- Daenzer, P. 1991. "Unemployment and Minority Immigrants in Canada", *International Journal of Sociology and Social Policy* 11 (1-3): 29-50.
- Doeringer, P. & M. Piore. 1971. *Internal Labor Markets and Manpower Analysis*. Lexington, Mass.: D.C. Heath.
- Edwards, R. 1979. *Contested Terrain*. New York: Basic Books.
- Erikson, R. & J. H. Goldthorpe. 1992. *The Constant Flux: A Study of Class Mobility in Industrial Societies*. Oxford: Clarendon Press.
- Fainstein, N. 1987. "The Underclass/Mismatch Hypothesis as an Explanation for Black Economic Deprivation", *Politics & Society*. 15: 403-415.
- Farley, J. E. 1987. "Disproportionate Black and Hispanic Unemployment in the US Metropolitan Areas: The Roles of Racial Inequality, Segregation and

Discrimination in Male Joblessness", *The American Journal of Economics & Sociology*. 46: 129-150.

Gerber, L. 1995. "Corporatism and State Theory", *Social Science History* 19 (3): 313-332.

Goldthorpe, J. H., M. Yaish & V. Kraus. 1997 "Class Mobility in Israeli Society: A Comparative Perspective", *Research in Social Stratification & Mobility*. 15: 3-28.

Harrison, B. and A. Sum. 1979. "The Theory of 'Dual' or Segmented Labor Markets", *Journal of Economic Issues* 13 (3): 687-706.

Juhn, C. 1992. "Decline of Male Labor Market Participation: The Role of Declining Market Opportunities", *The Quarterly Journal of Economics*. 79-121.

Kasarda, J, 1983. "Entry Level Jobs, Mobility, and Urban Minority Unemployment", *Urban Affairs Quarterly*. 19: 21-40.

-- --. 1989. "Urban Industrial Transition and the Underclass", *AAPSS*. 501: 26-47.

Kolberg, J. & A. Kolstad. 1992. "Unemployment Regimes", *International Journal of Sociology*. 4: 171-192.

Kretzmer, D. 1987. *The Legal Status of Arabs in Israel*. Tel-Aviv: International Center for Peace in the Middle East.

Lewin-Epstein, N. & M. Semyonov. 1986. "Group Mobility in the Israeli Labor Market", *American Sociological Review*. 51: 342-352.

-- -- . 1993. *The Arab Minority in Israel's Economy: Patterns of Ethnic Inequality*. Boulder, Colorado: Westview, Social Inequality Series.

Lowe, R. 1994. "Lessons From the Past: The Rise and Fall of the Classic Welfare State in Britain 1945-76" pp. 37-53, in A. Oakley & S. Williams (eds.), *The Politics of the Welfare State*, London: UCL press.

Murphy, E. 1994. "Structural Inhibitions to Economic Liberalization in Israel", *Middle East Journal* 48 (1): 65-88.

Parsons, D. O. 1980. "The Decline in Male Labor Force Participation", *Journal of Political Economy*. 88: 117-134.

Piore, M. 1973. "Notes for a Theory of Labor Market Stratification" Pp. 125-150. in Richard Edwards et. al., (eds.). *Labor Market Segmentation*. Lexington: D. C. Heath & Company.

Rife, J. and R. First. 1989. "Discouraged Older Workers: An Exploratory Study", *International Journal of Aging and Human Development* 29 (3): 195-203.

Rosenberg, S. 1975. *The Dual Labor Market: Its Existence and Consequences*. Ph.D. Diss. University of California Berkeley.

-- -- 1977. "The Marxian Reserve Army of Labor and the Dual Labor Market", *Politics & Society*. 7: 221-228.

-- -- 1980. "Male Occupational Standing and the Dual Labor Market", *Industrial Relation*. 19: 34-49.

Sa'di, A. 1995. "Incorporation Without Integration: Palestinian-Citizens in Israel's Labor Market", *Sociology* 29 (3): 429-451.

Schervish, P. 1981. "The Structure of Employment and Unemployment", Pp. 153-186, in Ivar Berg (ed.), *Sociological Perspectives on Labor Markets*. New York: Academic Press.

Semyonov, M. & N. Lewin-Epstein, 1989. "Segregation and Competition in Occupational Labor Markets", *Social Forces*. 68: 379-396.

Shafir, G. 1989. *Land, Labor and the Origin of the Israeli-Palestinian Conflict 1882-1914*. Cambridge: Cambridge University Press.

Shaliv, M. 1992. *Labor and the Political Economy in Israel*. Oxford: Oxford University Press.

Shavit, Y. 1990. "Segregation, Tracking and the Educational Attainment of Minorities: Arabs and Oriental Jews in Israel", *American Sociological Review*. 55: 115-126.

Smootha, S. 1989. *Arabs and Jews in Israel*. Boulder: Westview Press. Vol.1.

Stewart, M. 1967. *Keynes and After*. Middlesex: Penguin books.

Swirski, S. 1990. *Education in Israel: Schooling for Inequality*. Tel-Aviv: Brerot (in Hebrew).

Tyree, A. (1981). "Occupational Socioeconomic Status, Ethnicity and Sex in Israel: Consideration in Scale Construction", *Megamot*. 27: 7-21.

Waldinger, R. & T. Bailey, 1991. "The Continuing Significance of Race: Racial Conflict and Racial Discrimination in Construction", *Politics & Society*. 19: 291-323.

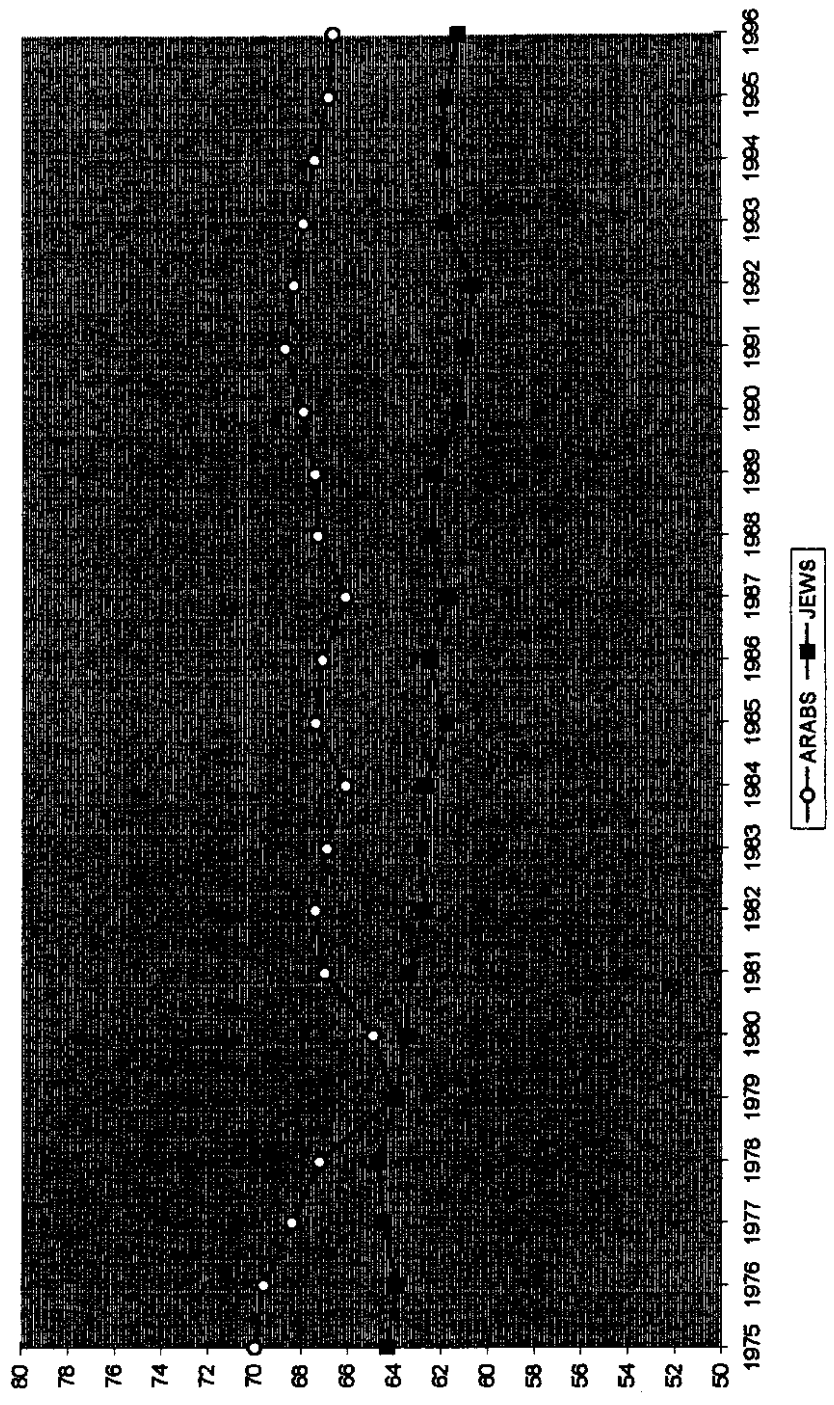
Walters, W. 1996. "The Demise of Unemployment", *Politics & Society* 24 (3): 197-219.

Wilson, J. W. 1978. *The Declining Significance of Race*. Chicago: Chicago University Press.

Wolkinson, B. 1989. *Equal Employment Opportunity for Israel's Arab Citizens*. Tel-Aviv University, G. Meir Institute for Social & Labor Research, Discussion Paper No. 48.

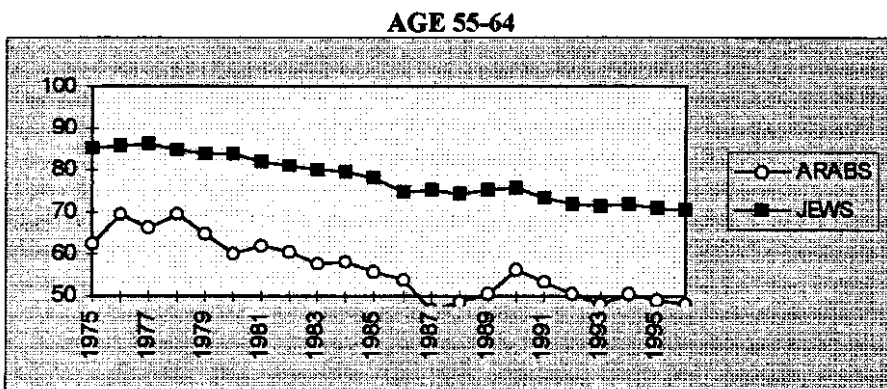
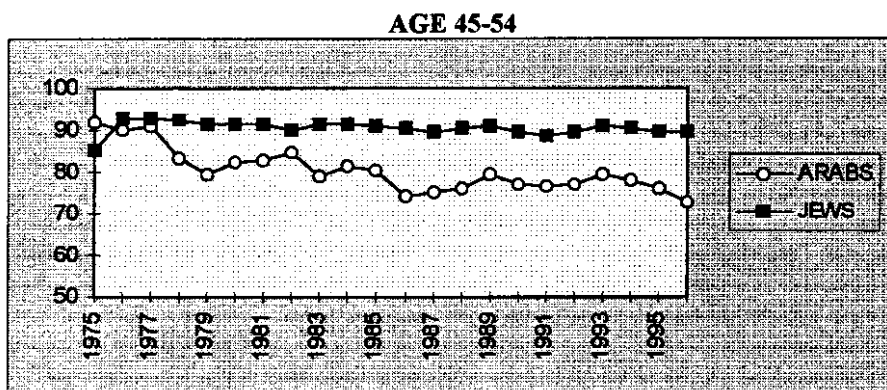
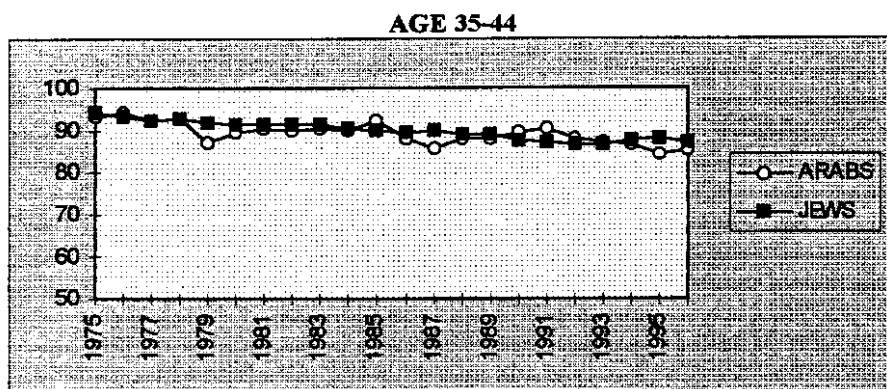
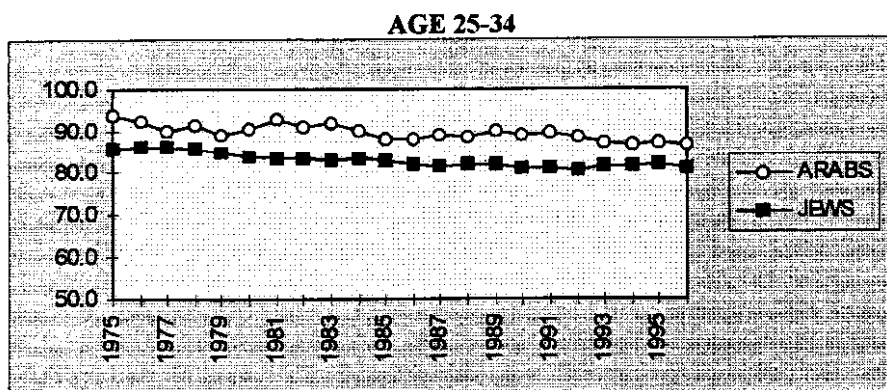


**Figure 1: Labor Force Participation Rates of Arab and Jewish Men<sup>1</sup>**



<sup>1</sup> Age 14 and over (from 1985, age 15 and over)  
 Note: Data are from the Central Bureau of Statistics, Statistical Abstracts, 1976-1997

**Figure 2: Labor Force Participation Rates of Men, by Age and Population Group**



**Table 1: Cohort Analysis of Labor Market Withdrawal**

<b>Year</b>	<b>1975</b>	<b>1985</b>	<b>1995</b>
<b>Age</b>	<b>Jews</b>		
<b>25-34</b>	<b>85.8</b>	<b>82.8</b>	<b>81.9</b>
<b>35-44</b>	<b>94.1</b>	<b>89.9</b>	<b>87.9</b>
<b>45-54</b>	<b>85.2</b>	<b>91.0</b>	<b>89.4</b>
<b>55-64</b>	<b>85.2</b>	<b>77.9</b>	<b>71.1</b>
	<b>Arabs</b>		
<b>25-34</b>	<b>94.0</b>	<b>88.2</b>	<b>87.1</b>
<b>35-44</b>	<b>93.5</b>	<b>92.2</b>	<b>84.1</b>
<b>45-54</b>	<b>91.9</b>	<b>80.6</b>	<b>76.1</b>
<b>55-64</b>	<b>62.5</b>	<b>55.6</b>	<b>49.2</b>

**Table 2: The Distribution of Employment Status at First Interview, by Age and Population Group (percent)**

Employment status	Age	Jews						Arabs					
		25-34	35-44	45-54	55-64	Total	25-34	35-44	45-54	55-64	Total		
Employed		79.4	87.3	90.2	80.2	84.3	83.9	85.9	77.7	60.1	81.3		
Unemployed		4.9	3.0	2.5	2.2	3.3	6.9	5.5	5.4	2.8	5.8		
Not in Labor Force		15.7	9.6	7.2	17.3	12.4	9.2	8.6	17	37.1	12.9		
Total (Number of Cases)		100 (14679)	100 (13940)	100 (10291)	100 (8457)	100 (47367)	100 (2279)	100 (1592)	100 (990)	100 (464)	100 (5325)		

**Table 3: Withdrawal from the Labor-Force Within One-Year, among Men who Were in the Labor-Force at the First Interview**

	Jews		Arabs	
	Number of Cases	Percent	Number of Cases	Percent
<b>Total</b>	<b>1546</b>	<b>3.7</b>	<b>208</b>	<b>4.5</b>
<b>by Age Groups:</b>				
25-34	523	4.2	79	3.8
35-44	280	2.2	52	3.6
45-54	283	3.0	46	5.6
55-64	460	6.6	31	10.6
<b>by Years of Education:</b>				
11 Years and under	800	4.6	158	5.0
12 Years	318	3.3	20	3.0
13 Years and over	367	2.7	18	2.7
<b><u>Men 45-64 Years Old</u></b>				
<b>by Years of Education:</b>				
11 Years and under	413	5.3	65	7.8
12 Years	148	4.4	2	2.6
13 Years and over	1365	2.8	3	3.1

**Table 4: Logistic Regression Coefficients (Standard Errors) Predicting the Likelihood of Withdrawal from the Labor-Force Within One Year, among Men who were in the Labor-Force at the First Interview**

Variables	b (s.e.)	Odds Ratio	b (s.e.)	Odds Ratio	b (s.e.)	Odds Ratio
Ethnicity: 1 for Jews 0 for Arabs	-0.167* (0.076)	0.846	-0.070 (0.082)	0.932	-0.057 (0.084)	0.945
Years of Education			-0.056* (0.007)	0.945	-0.041* (0.007)	0.960
Married			-1.064* (0.066)	0.345	-0.885* (0.069)	0.413
Number of Providers			0.010 (0.028)	1.010	-0.012 (0.028)	0.988
Unemployed at t <sub>1</sub>					1.975* (0.068)	7.207
<u>Age Groups</u> <sup>a</sup>						
Age 35-44			-0.377* (0.074)	0.686	-0.317* (0.075)	0.728
Age 45-54			-0.059 (0.075)	0.943	0.065 (0.077)	1.067
Age 55-64			0.654* (0.070)	1.924	0.818* (0.072)	2.266
Constant	-3.117* (0.092)		-2.050* (0.166)		-2.499* (0.170)	
-2 Log Likelihood	14912.02		13784.96		13127.57	
Sample Size	46155		45362		45362	

\* P<0.05

<sup>a</sup> The comparison group is age 25-34.

Note: Year of first interview was also included in the model to control for annual fluctuations.

**Table 5: Logistic Regression Coefficients (Standard Errors) Predicting the Likelihood of Withdrawal from the Labor-Force Within One Year, among Men who were in the Labor-Force at the First Interview**

Variables	Jews		Arabs	
	b (s.e.)	Odds Ratio	b (s.e.)	Odds Ratio
Years of Education	-0.034* (0.008)	0.967	-0.081* (0.025)	0.922
Married	-0.873* (0.072)	0.418	-1.176* (0.242)	0.309
Number of Providers	-0.006 (0.0031)	0.994	-0.080 (0.072)	0.923
Unemployed at t <sub>1</sub>	2.055* (0.073)	7.807	1.458* (0.192)	4.297
<b>Age Groups</b>				
Age 35-44	-0.394* (0.081)	0.674	0.135 (0.210)	1.145
Age 45-54	-0.026 (0.082)	0.974	0.711* (0.225)	2.036
Age 55-64	0.768* (0.074)	2.155	1.347* (0.282)	3.846
Constant	-2.579* (0.168)	0.076	-2.490* (0.578)	0.083
-2 Log Likelihood		11607.43		1482.39
Sample Size		40901		4461

\* P<0.05

<sup>a</sup> The comparison group is age 25-34.

Note: Year of first interview was also included in the model to control for annual fluctuations.

**Table 6: Logistic Regression Coefficients (Standard Errors) Predicting the Likelihood of Withdrawal from the Labor-Force Within One Year, among Men who were in the Labor-Force at the First Interview**

Variables	Jews		Arabs	
	B (s.e.)	Odds Ratio	b (s.e.)	Oc Ra
Years of Education	-0.005 (0.009)	0.995	-0.089* (0.030)	0.
Married	-0.867* (0.073)	0.420	-1.171* (0.244)	0.
Number of Providers	-0.011 (0.031)	0.989	-0.082 (0.073)	0.
Unemployed at t <sub>1</sub>	2.032* (0.075)	7.629	1.587* (0.202)	4.
<u>Age Group</u>				
Age 35-44	-0.368* (0.081)	0.692	0.105 (0.213)	1.
Age 45-54	0.020 (0.082)	1.020	0.645* (0.231)	1.
Age 55-64	0.824* (0.075)	2.280	1.284* (0.292)	3.
<u>Community of Employment</u>				
Working in Arab Community			-0.006 (0.192)	
Working in mixed Arabs and Jews Community	-0.107 (0.056)	0.899	0.085 (0.183)	1.
<u>Occupational Class</u>				
Class I	-0.327* (0.092)	0.721	-0.011 (0.413)	0.
Class II	0.025 (0.097)	1.025	0.623* (0.291)	1.
Class III	-0.021 (0.085)	0.979	0.427 (0.238)	1.
Class V	0.298* (0.076)	1.347	0.005 (0.210)	1.
Constant	-2.864* (0.183)	0.057	-2.648* (0.615)	0.
-2 Log Likelihood		11565.75	1473.42	
Sample Size		40901	4461	

P<0.05

<sup>a</sup> The comparison group is age 25-34.

<sup>b</sup> The comparison group is employed in the Jewish community.

<sup>c</sup> The comparison group is class IV.

Note: Year of First Interview was also included in the Model to Control for Annual Fluctuations.



**Table A<sub>1</sub>: Distribution of Cases by Year of First Interview**

<b>Year</b>	<b>Number of Cases</b>	<b>Percentage of Cases</b>
1979	3876	7.4
1980	3447	6.5
1981	3316	6.3
1982	3441	6.5
1983	3768	7.1
1984	3699	7.0
1985	3847	7.3
1986	3502	6.6
1987	3697	7.0
1988	3760	7.1
1989	4026	7.6
1990	4214	8.0
1991	4283	8.1
1992	3844	7.3
<b>Total Cases</b>	<b>52720</b>	<b>100</b>