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WORK AND RETIREMENT

Among Israelis Aged Sixty and Over

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Preface

This report gives a general portrait of work and retirement patterns of the population aged 60 and over in Israel. The findings presented herein are taken from the Survey of the Elderly conducted by the Central Bureau of Statistics in 1985 at the initiative of various governmental and public institutions*. The survey was of a comprehensive nature, and covered a wide variety of subjects particularly pertinent to the elderly.

The purpose of this report is twofold. Firstly, to extend empirical evidence of the employment and retirement situation of the elderly in Israel. Some of the important issues dealt with include the relationship between occupation and the reasons for retirement, the relationship between occupationally-based pensions and retirement timing, and age discrimination in the workplace. Ethnically-differentiated patterns of work and retirement are also emphasized, enabling researchers to measure the longitudinal effects of the dynamics of retirement patterns on the two primary ethnic groups in Israel, those born in Europe or America and those born in Asia or Africa.

A second purpose is to place the findings from the survey in the context of retirement issues of concern to researchers abroad, particularly in the United States. Two of the more prominent issues discussed here are retirement adjustment paradigms, and the

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interdependence of health and retirement. Regarding the former, adjustment to retirement is considered against the framework of the work career, so that these two stages of an individual's life cannot be separated in any organic sense. Regarding the latter issue, the reciprocal effects of health and retirement have been widely investigated from several perspectives - among them medical, sociological and financial. This work examines the evidence from the Elderly Survey on poor health as a motivation to retire, and, to a lesser extent, the impact on health due to retirement.

Appreciation is expressed to Yehudit King, Leah Achdut, and Dorit Tal for reviewing this paper. It has benefitted considerably from their numerous comments and critiques.

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Introduction

Work and retirement are two subjects which are not infrequently viewed as foils for each other. If work is viewed as a continuum of time devoted to what is called remunerated activity, then retirement is that point, debatable to be sure, where the time devoted to work has effectively ceased. Work time is then really a continuum ranging from full-time activity to zero activity.

The organization of this paper first discusses the patterns of work history of the elderly in Israel, enumerating the reasons for non-participation in the labor force. It elucidates some of the factors which have encouraged people to work, and how these factors have changed over time. Particularly significant have been two major developments in Israel in the last decades: the introduction of government pensions in the mid-1950's, and the expansion of the coverage of occupationally-based pensions. The latter tier of pensions can be divided into three types: company pension plans, pension plans controlled by the General Federation of Labor (Histadrut) and budgetary pensions. Because old-age pensions paid by the National Insurance Institute (NII) are universal and are not income-tested, the immense differences in the income-replacement ratios of retired people are caused essentially by the benefit level (or lack of coverage) in occupational pensions (Cohen and Antler, 1985).

The legal statutory retirement age at which NII old-age pensions are received is differentiated in Israel according to

gender: for women it is age 65 and for men it is age 70. Unlike the situation in the United States, where early retirement carries with it a reduction in social security benefits, retirement in Israel between 60-65 for women or 65-70 for men bears no decrease. In practice, 60 and 65 respectively are regarded as the retirement ages in collective labor agreements. In the five-year period following these ages, the National Insurance Institute denies an old-age pension to those individuals with earnings of more than half the average wage (or two-thirds the average wage for those married). Instead, they are accredited a deferred retirement increment. Most union-negotiated pension contracts also view the earlier set of ages as an "official" retirement age. In this report, therefore, 60 and 65 are used as the retirement age for women and men, respectively. Although not pertinent to this report per se, the Equal Retirement Age Law passed in 1987 gave women the option to retire at any time between age 60 and 65, regardless of the age specified by existing collective work agreements.

Some background data on the extent of pension coverage of the elderly population covered in this report is in order, taken from a companion report published several years ago (Zipkin and Morginstin, 1989). Of the statutory age population, the coverage rate of NII old-age/survivor pensions was about 70%, 94% of men and 56% of the women. About a quarter of this population, and almost half of elderly single women, reported old-age/survivor benefits as their sole source of income. As for occupationally-based pensions, 53% of the men and only 23% of the women reported coverage. In

general, receipt of a private pension was linked to the extent to which the particular economic branch was covered in work agreements. As women predominated in such occupations as personal services, they were exposed to lower pension coverage. Pension coverage has changed appreciably in the last three decades. Among men aged 80 and over in 1985, just 33% reported receiving a pension income, while among the group of men aged 60-65, this rate had almost doubled, to 60%. This is still a much lower rate of coverage than in the general working population (Cohen and Antler, 1985), the difference being explained by the rapid expansion of coverage in the 1970's. The reported mean income from recipients of occupational pensions was not high - only 35% of the average employee wage of July 1985. Looking at age cohorts, there was a steady rise over time of mean pension income, reflecting the maturation of the pension system.

Both endogenous and exogenous issues that affect the retirement decision are explored in this report. The former area deals with such points as employment background and the disputable role of poor health in effecting early retirement. Exogenous issues are occupied with such concerns as pension coverage and mandatory retirement.

Lastly, this study has tried to delineate the lifestyle of the retirees, as much as can be evinced through the closed answers furnished in a cross-sectional questionnaire. This is, descriptively, an assailable means of understanding the diversity of the retirees' lifestyle. It captures a cross-sectional picture,

and tells little either about the decision-making process leading to retirement or the frame of mind of retirees. In-depth interviews would have evoked much greater texture to the lives of retirees. Yet this kind of study does have the advantage of being statistically representative, and tells more of the overall picture of the elderly than many small-scale studies done on any one of the issues covered.

Methodology

The Elderly Survey encompassed 3,279 households, and included 4,573 people aged 60 and over, who were born prior to 1925. The population sample used in the survey was extracted from the 1983 Population Census. Not included in the sample were three groups of elderly: those living in non-urban areas, those living in settlements of less than 2,000 inhabitants, and those living in institutions. The sample population statistically represents 432,000 elderly, while the entire elderly population of Israel in 1985 was 526,200 (Central Bureau of Statistics,1988) .

Unless otherwise noted, the population of non-Jews aged 60 and over is omitted in the analyses of this report. This accounts for any discrepancies with reports of the Central Bureau of Statistics on the same data. The total non-Jewish sample population was about 200, representing over 27,900 elderly. However, because of the significantly differentiated work patterns of this population, and their concentration in non-urban areas, separate analyses are required. For example, only 17% of the non-Jewish population aged 60 and over were part of the labor force, with the participation of women at less than 1%. This rate declined to less than 10% for non-Jewish elderly males aged 65 and over. Such low rates are atypical in comparison to the elderly in neighboring Arab countries (Sicron, 1986). While no explanation can be garnered from the survey, it should be noted that aging is perceived particularly negatively among elderly Arabs, and commonly

identified with poor health (Weil, 1992). This attitude, coupled with occupational structure, may at least partially explain the low rate of labor force participation among the Arab elderly. In most cases, the small sample size for this group does not allow results with any statistical significance to be presented.

Several methodological notes are called for here. The tables in this report which have been derived from the Elderly Survey, except where noted, give the weighted sample number of elderly. The relative sample errors for the various population groups are given in Appendix A. Adjustments of incomes from the 1985 survey have been made by the average employee wage of December, 1992. Finally, in grouping the elderly by continent of birth, the conventional groupings Europe-America and Asia-Africa have been used. Neither grouping is very satisfactory. Regarding the former, there was only a negligible number of elderly born in the Americas. As for the latter group, the differences between those born in Africa and Asia are so prodigious that they really deserve separate analysis. Unless otherwise noted, the elderly born in Israel are grouped with the European-American born.

Part I Work Patterns of the Population Aged 60 and Over

Work History in Israel and Abroad

Table 1 presents the rate of participation in the labor force of the population born outside of Israel, who was 60 years and over during 1984, by age, sex and by whether their employment experience included Israel. Four-fifths of the population worked at some stage of their lives, with 73% having worked in Israel. Overall, the likelihood of having worked in Israel declines with age, and this is certainly related to the age at which the individual immigrated to Israel. The likelihood of having worked at all anywhere also declines with the increasing age cohort, but this is related to sex differentiation. Almost all men (93%) were employed in Israel at some point in their working lives. Another 6% of the men never worked in Israel, having immigrated to Israel at a late phase of their productive lives. Among women, slightly more than half worked in Israel at all. The rate who have ever participated in the labor force declines as the age cohort increases, with only 39% of women aged 80+ having ever worked in Israel at some point in their lives. As age increases, so do the chances that the elderly's working life was confined solely to employment abroad.

Among women, the proportion having worked abroad only is much greater than for men, and this gap widens for each successive age group. Among the entire population of women, 9% worked abroad only, while the corresponding figure for men was 6% . This pattern

Table 1 - Percent Elderly Ever Employed, by Age, Sex and Place of Employment (Jews Only) *

Age Group	Percent Ever Employed					
	Total Population		Men		Women	
	Israel Only	Total**	Israel Only	Total**	Israel Only	Total**
Total	73	80	93	99	55	64
60-64	78	82	96	98	62	68
65-69	74	80	97	99	56	65
70-74	73	81	93	99	55	65
75-79	67	78	89	99	45	57
80+	59	74	82	98	39	52

* Refers to employment in Israel and/or abroad.
** Not included are those born in Israel, 3% of the population.

is accentuated with age: 13% of the women aged 80 and over worked abroad but never in Israel, while among men of the same age the proportion is 16%.

The rise of labor force participation rates among women is an important and well-researched development in the industrialized world (Gillaspy, 1980). The economic implications of this are manifold: in this study, their consequences are limited to the effects on the material well-being of the elderly. One of the most important areas in this regard is the relationship between employment history and pension coverage. Occupationally-linked pension coverage in Israel has been shown to be highly correlated with the accumulation of work seniority (Zipkin and Morginstin, 1989). Low incomes of women are attributable to their low rates

of participation in the labor force, with the concomitant absence of pension rights. This has severely impacted on income of those at the statutory retirement age and above.

Work History By Continent of Birth

Table 2 demonstrates the labor force participation rates by ethnic origin. Excluded are those few elderly born in Israel. Of the elderly born in Europe or America, more than four-fifths worked at some point in their lives, and three-quarters worked in Israel. About 9% worked abroad only. Those elderly born in Asia or Africa showed a sharply different pattern of labor force participation. Only 69% reported they had ever worked, and just 64% ever worked in Israel. These ethnic differences are explained, however, by reference to the vastly different patterns of employment for women by continent of origin. Whereas 71% of women born in Europe-America worked at some stage of their lives, only 44% of women born in Asia-Africa did so. Family size and cultural behavior, such as the attitude towards the spouse working outside the home, are suggestive in explaining these differences. This ethnically differentiated participation of women in the labor force plays no small contribution in accounting for household income levels (Zipkin, 1990). The sources of income from work-related earnings or pensions are much more limited if such a significant section of the population has a priori never entered the labor force. The difference in work force participation between the two ethnic groups is attenuated somewhat if female work

experience in Israel only is taken into account. Instead of a 27% difference (between 71% and 44%), it is reduced to 22% (between 61% and 39%).

Table 2 - Percent of Elderly Ever Employed, by Continent of Birth, Sex and Place of Employment (Jews Only)

Continent of Birth	Percent Ever Employed					
	Total Population		Men		Women	
	Israel Only	Total*	Israel Only	Total*	Israel Only	Total*
Total	73	80	93	99	55	64
Europe-Am	76	84	93	99	61	71
Asia-Africa	64	69	94	98	39	44

* Refers to employment in Israel and/or abroad.

Job Mobility

One of the distinctive characteristics of the Israeli labor market is its lack of job mobility. This is true not only for mobility between economic branches, but within branches as well (CBS,1988). Of the entire elderly population ever employed in Israel, almost three in four (74 %) elderly reported working in only one place of employment. Overlooked, however, is the mobility within an organization. Among men, two-thirds confined their work careers to one place of employment, while women showed even far less mobility - more than four-fifths reported working in only one place in their entire careers.

Several factors are frequently proferred to account for this low mobility. One is the large increase in jobs in the public sector, where pension benefits are well-developed. Another factor is the decreasing rate of growth of the labor force in the years between 1960 and 1980 (Klinov, 1986). Some researchers have sited institutional impediments to job mobility evidenced in many pension plans: they are characterized by the lack of transferability of accrued pension rights to a new workplace (Doron and Kramer, 1991). While this assertion may well have been true in the 1970's, it is considerably less valid in the 1990's.

Immigration and Ethnicity

A possible explanation for the differences in employment history in Israel could be accounted for had the two ethnic groups immigrated at different stages in their working lives, or had the two groups arrived at different periods of employment opportunity or work arrangements. The prospect of finding employment at a more advanced age is a deterrent to many from entering the labor market. Tables 1 and 2 in the Appendix, respectively show when and at what age people immigrated to Israel, by continent of birth and gender.

Of the Jewish population, 96% were born outside of Israel. Historically, over a quarter of the elderly alive in 1985 had immigrated to the State prior to its independence year, 1948 (Appendix, Table 1). More than a third immigrated in the initial years of mass migration, 1948-1954. An analysis of immigration

year by ethnic origin, however, shows significant differences. The pre-state period of immigration predominates in the European-American group, when over a third of the elderly from these continents arrived in Israel. In contrast, only a seventh of the elderly from Asia-Africa had immigrated prior to 1948. Over half of the elderly from these latter continents immigrated to Israel in the period 1948-1954. Among the elderly from Europe-America, a sizable number, 18,000 (7% of the total), immigrated since 1975. Most of these came from Eastern Europe. There are substantive differences between the two ethnic groups in the age at which they arrived in Israel (see Appendix, Table 2). Approximately three-fifths of both groups immigrated prior to the age of 40, but among the Europe-America group the proportion of those immigrating under age 30 is much higher - 39% versus 27% for the Asia-Africa group. These proportions are similar among both sexes. There is a somewhat higher proportion of Europe-America than Asia-Africa elderly who came at the age of 60 and over, 9% versus 5% .

The majority of the Europe-America born elderly immigrated at a time, prior to 1950, when seniority-based government and occupational pension plans were either non-existent or less developed. Similarly, seniority for National Insurance old-age benefits has been calculated since 1954. Table 3 reflects the differences in work seniority accumulated by the various populations. This variation has implications as to occupationally-linked pension benefits. Included here as a separate group are those elderly born in Israel. The elderly born in Europe and

America had the longer average work seniority of the two major groupings, 26 years versus 22 years for the Asia-Africa group. Those born in Israel had the longest period of working in the country - 36 years.

Table 3 - Average Work Seniority, by Continent of Birth - Retired Men, Aged 60 and Over

Continent of Birth	N (000)	Average Years Work Seniority
Total	115.5	25.7
Europe-America	78.9	26.7
Asia-Africa	32.3	22.0
Israel	4.3	36.3

Employment by Work Characteristics

Within the Israeli labor force, like in other industrialized countries, a shift has occurred away from manual jobs and towards service-oriented jobs. This transformation is not pronounced in the data from the Elderly Survey, since most men in it had withdrawn from the labor force between 1975-1980. Excluding agricultural workers, the survey shows that approximately a third of the male labor force who ever worked in Israel (now and in the past) were manual workers (skilled and unskilled) by occupation. This proportion has not changed greatly between the oldest age

cohort, 80 and over, and the youngest, 60-64. About one in three in each of these two cohorts were industrial workers. There has, however, been a sharp increase in academic, clerical and managerial occupations. In the same two age cohorts as above, the increase has doubled, from 8% to 16% . In general, however, the survey does not precisely reflect the structural changes in the labor force of the last decade and a half (CBS, 1988). It does, however, indicate the shift in work status from self-employed to employee. Between the two extreme age cohorts, there was a shift of about 7% away from self-employment.

Work Characteristics by Continent of Birth

Despite the absence of longitudinal changes in the labor force composition, patterns of differential employment opportunities can be found in an examination by ethnic identity. Tables 3-5 in the Appendix present the elderly Jewish population who ever worked or is working in Israel by work characteristics, continent of birth and sex.

Table 3 (Appendix) shows the differences in occupations between the two groups. In cases of multiple places of employment, the occupation selected was that in which the individual worked the longest of the last two jobs. A greater proportion of those elderly born in Asia and Africa than those born in Europe-America are concentrated in the manual occupations in industry and agriculture - 42% versus 28% - and in services - 30% versus 21%. These differences are accentuated when analyzed by sex. More than

half of all men from Asia- Africa but only a quarter of all men from Europe-America worked in the manual occupations. Among women, three-fifths of those born in Asia-Africa and only a quarter of those born in Europe-America worked in the services. Less than one percent of the Asian-African born women have worked as academically-trained professionals, yet these occupations account for about a sixth of the European-American born women who have ever been part of the Israeli labor force.

Data from the Central Bureau of Statistics confirm the occupational profiles of the general population by continent of origin. Among those born in Europe-America and who immigrated before 1961, one out of four had a professional or technical degree. This rate increased to two out of five for those who immigrated post-1965. The corresponding figures for those born in Asia-Africa are 3.1% and 6.3%. While the rate of increase among the latter group seems to have risen much faster than the former group, the absolute gap continues to rise (CBS, 1989-1992). Figures from the Elderly Survey are more ambiguous, but point in the same general direction.

The distribution of the elderly by economic branch presents a similar picture to that presented above, in which the more education-intensive economic branches have a higher proportion of European-American elderly (Appendix, Table 4). It is significant to note (Appendix, Table 5) that a larger share of the elderly from Europe-America are self-employed, where pension coverage is much lower than among wage-earners (see below, on ethnicity and

retirement age). While 22% of this group were self-employed, the proportion declines to 15% among the elderly from Asia-Africa.

Changes in Work Status

The last two and a half decades have witnessed a gradual decline in the proportion of those declaring they are self-employed, partly explained by the tax advantages of being an employee in one's own firm. In 1974 74% of the labor force worked for someone else, and this proportion rose to 80% by 1988 (CBS, 1989-1992). The Elderly Survey shows a similar, if not exactly parallel shift away from self-employment.

Table 4 - Work Status of Elderly by Age Group

Age Group	Work Status * (Percent)			
	Total	Wage-earners	Self-employed	Other
60-64	100	70	21	9
65-69	100	74	17	9
70-74	100	69	22	9
75-79	100	66	28	8
80+	100	63	31	6

* Work status refers to that of the job held the longest, of the last two places of employment.

Table 4 shows the decline in the proportion of self- employed of the labor force for five-year age cohorts, as reported in the

Elderly Survey. While three of every ten workers aged 80 or more had been self-employed, this proportion declined to only two of every ten workers in the 60-64 age group.

Education

Occupation is to a large degree determined by education level. It, in turn, greatly determines a wide range of personal and financial conditions related to retirement, including the availability of pension coverage and conditions of job-separation. Non-attainment of Western education in Israel has been a major impediment to the advancement of those groups who have immigrated from less-developed countries. Educational level is one of the most important factors influencing labor force participation (Sicron, 1986). Table 5 below contains the distribution of years of education by ethnic background and religious grouping. Only men were included. Mean years of education among all men was 9.8. Among all Jews it was 9.9 years and among non-Jews it was only 7.2.

Looking at the distribution of years of education, forty-six percent had eight years or less, and only twenty percent had more than twelve years. By population groups, twenty-three percent of the European-American born men and only thirteen percent of the Asia-Africa born had over twelve years of education. Only ten percent of non-Jewish men had more than twelve years of education. Almost three-quarters of this latter group had eight years or less of education.

Table 5 - Men, Distribution of Years of Education by Ethnicity and Religion (Percentages)

Population Group	Years of Education				
	N (000)	Total	0-8	9-12	12+
Total	182.1	100	45	35	20
Jews	175.9	100	46	34	20
-Europe-America*	136.1	100	41	36	23
-Asia-Africa	39.8	100	54	33	13
Non-Jews	6.2	100	72	18	10

*Includes those born in Israel. Excluded are those whose education level is unknown.

Elderly Who Never Worked

About one-quarter (106,000) of the Jewish population in the survey were never employed at any point in their lives in Israel (see Table 6). The overwhelming majority of these non-participants (90%) were women. Two-thirds of the non-participants in the labor force were born in Europe-America, a smaller proportion than in the overall population - 74%. The sex distribution is similar in both ethnic groups. The table below presents the distribution of reasons for non-employment in Israel, by sex and continent of origin. Excluded are those elderly born in Israel.

A majority of those never employed in Israel opted to be housewives - 61% of the total and 69% of the women. Only a small minority claimed that they couldn't find work suitable to them - 2%. An important, if not major, reason for non-participation was health-related. Eight percent overall, and 18% of the men, said

that they did not look for work because of poor health.

A further significant reason for not working in Israel was immigration at a later stage in life, when finding work becomes difficult or there is a disinclination to look for work. This must be judged a subjective finding. Table 6 in the Appendix looks at the breakdown of reasons for not working in Israel by age at which the person immigrated to Israel. Omitted are those elderly whose age at immigration was unknown. Clearly, age is more likely to be given as a reason for non-working as age at immigration increases. Five percent of the group aged 40-49 on their arrival compared to thirty percent of the group aged 50-59 on arrival claimed that they were too old to look for a job here. The high rate of the latter group which saw itself too old to begin a new career after immigration has some bearing for the Israel of the 1990's which is absorbing a large immigrant population from Eastern Europe, and whose demographic composition is significantly older than previous large-scale immigrations.

The distribution of reasons for never having worked in Israel were ethnically differentiated (see Table 6 above). A larger proportion of elderly born in Europe and America than those born in Asia-Africa didn't work because of their choice to be housewives. Of greater interest is the higher rate of the later ethnic group who didn't work because of their immigration at an older age. More than a quarter of the Africa-Asian group (28%) and less than a seventh (14%) of the European-American group fall into this category. This differential can be partly explained by

age at immigration: 22% of the latter and only 17% of the former group immigrated after the age of 50 (see Table 2 in Appendix). When looking at the participation rates of men in the labor force by ethnic origin, 5% of those born in Asia-Africa and 2% of those born in Europe-America who immigrated under the age of 60 reported that they never worked in Israel. (The difference, while small, was statistically significant, $x^2=6.57$, $p=.014$.) A tentative conclusion from this is the culturally-differentiated definition of the concept 'too old to work'. Differing occupational profiles and consequent employment opportunities also account for demarcating this definition.

Table 6 - Reasons For Nonparticipation In Labor Force in Israel, by Sex and by Continent of Birth

Reason	Total	Sex		Continent of Birth	
		Men	Women	Europe Am	Africa-Asia
Total Population	386.4	180.6	205.8	277.9	108.5
Total Never Employed -Thousands	106.2	12.2	93.9	67.2	39.0
-Percentage	100	100	100	100	100
' Too Old '	22	59	18	14	28
Housewife	61	0	69	74	54
Health Status	8	18	7	7	9
Lack of Suitable Work	2	3	2	2	2
Other/Unknown	6	20	5	5	7

Work Continuation After Age 60

Not unexpectedly, the number of people (Jews only) in the labor force shows a decline at age 60 and then a sharp decrease at the age of 65 and above. This section describes those continuing to work and their motives. In absolute numbers, there are more than four times as many men as females working aged 60 and over (see Table 7). The percent of men working is 63%, and for women it is only 14%. This is not surprising as it should be recalled that the commonly-held retirement age for men is 65 and for women is 60. By age for men, almost two-thirds (63%) in the 60-64 group are in the labor force. Of the total population aged 65 and over, only one in four men worked. In the five-year age group immediately following 65, more than one in three men was still employed in

Table 7 - Proportion of Population in Labor Force, by Age and Sex

Sex	Age Group					
	Total	60-64	65-69	70-74	75-79	80+
Total Labor Force						
-Thousands	86.9	48.4	19.9	12.9	3.8	2.0
-Percent *	21	36	22	13	6	6
Men						
-Thousands	70.3	37.8	16.1	11.3	3.6	1.4
-Percent *	36	63	38	24	12	9
Women						
-Thousands	16.7	10.5	3.9	1.5	0.2	0.6
-Percent *	7	14	8	3	1	3

* Percent from the total population in each group.

1985. Less than one in ten women aged 60 and above, and one in seven women aged 60-64 , are in the labor force.

Marital status has an important effect on labor-force participation rates among men, when controlling for age (Table 8). This propensity holds true for the three age groups presented. Overall, the proportion of married men working is almost twice that of men not living with a spouse. When controlling for age, however, the only striking difference is in the 65-69 age group, where of those aged 65-69, 43% of married men and only 24% of unmarried men are working. It is not inherently obvious what accounts for this large difference in participation rates, as

Table 8 - Proportion of Men in Labor Force, by Age and Marital Status

Marital Status	Age Group			
	Total	60-64	65-69	70+
Total Labor Force				
-Thousands	70,254	37,844	16,069	16,341
-Percent Working *	38	66	41	18
Married				
-Thousands	63,804	35,210	15,005	13,589
-Percent Working *	41	66	43	20
Unmarried				
-Thousands	6,450	2,634	1,064	2,752
-Percent Working *	22	56	24	14

* Percent from the total population in each group.

married men have, at least potentially, an additional income-earner in the circumstance when they are incapable of working. Non-economic factors, such as the disinclination to participate in household maintenance, are highly plausible. As a consequence of

this lower participation rate, single men are over-represented among men whose income is dependent solely on National Insurance old-age pensions (Zipkin and Morginstin, 1989).

Financial expectation after retirement is an important issue for those elderly still in the labor force. One in four elderly men in the Elderly Survey said that they were unsure how they would manage financially when they stopped working. Almost another quarter expressed anxiety about their post-retirement financial state, and expected it to be difficult or very difficult.

There is little question that withdrawal from the labor force precipitates a decline in the mean income of those aged 60 and over. Replacement rates will vary greatly, of course, depending on previous income, pension rights and so forth. The expectation and anxiety of this drop in income is what prevents many from retiring earlier than they do. In the pension funds controlled by the General Federation of Labor (Histadrut), retiring at age 60 translates into a consequential loss of pension income. From the Elderly Survey, men 60 and over had a drop of approximately a third in their income from all sources when they retire from work (full- or part-time). Adjusted to the December 1992 average wage, the mean income of those working fulltime aged 60 and over was NIS 3,048 per month, or nearly the average wage of NIS 3,345, while a non-working male had an income of NIS 2,010 per month, or only 60% of the average wage (see Table 9). (See below on the breakdown of income sources for retirees.)

Table 9 - Mean Income of Men Aged 60 and Over, by Employment Situation and Age Group

Age Group	Mean Income As Percent of Average Wage	
	Working	Non-working
Total	91%	60%
60-64	91%	61%
65-69	100%	66%
70-74	83%	59%
75-79	73%	57%
80+	(89%)	54%

* Average wage, December, 1992 = NIS 3,345.
( ) Number of cases is less than 30.

There is a slight rise in the average income from the group aged 60-64 to the group aged 65-69, in both categories of working and retired. Receipt of the old-age benefits, even to those continuing to work, would appear to explain this apparent anomaly. From this group and older, there is a continuous and steady decline in income by age, reflecting the decline in both labor force participation rates and pension seniority.

Retirement financial anxieties are highly contingent on occupation prior to retirement. In a study done in the U.S. of people who continue to work after age 60, only 20-23% of professional and other white-collar workers cited loss of income as something they missed about their previous job, while over 40% of both skilled and unskilled workers reported money as what they most

missed about their job (Sheppard, 1988). While differing in absolute terms from the Elderly Survey, there was an even greater relative gap between the income of retirees and those continuing to work. This disparity was inversely correlated to the number of post-retirement years.

Part-Time Work

While many people do work after the age of 60, many also reduce their working hours. This option, however, is often overlooked by both employers and employees (McConnell, 1980). In many cases, though, it is explicitly discounted. Matras and Noam (1990) reported high employer resistance to the idea of part-time work for the elderly. Workers in public and community services have more flexibility for part-time work than do employees in the private sector (CBS,1971-1989). In this study, part-time employment was defined solely by the responses as to work extent, without regard to any reduction in earnings. The Elderly Survey suggested that in many situations part-time work would be welcomed, if given the opportunity. Of retired men aged less than 75, a third (31%) expressed an interest in returning to work. Virtually all, however, would work only part time (92%). Data from the U.S is not dissimilar: the comprehensive Retirement History Survey in the United States showed that approximately one-third of all workers are interested in part-time work before reducing work hours to zero (Rust, 1989). A major impediment to achieving this flexibility is the policy of pension plans which usually do not

accommodate those workers interested in that possibility. This attitude is prevalent in most of the industrialized countries (Quinn, 1981). Sixty percent of the wage-earning elderly population aged 60 and above in Israel were employed full-time (see Table 10), men participating in numbers five times that of women (CBS, 1988). The self-employed were excluded from questions about part-time employment. In the 60-64 age group, seventy-eight percent worked full-time. This proportion is reversed in the next age group , 65-74, where only thirty-two percent are working.

As expected, after age 65 there is a sharp reversal between the proportion working full-time and those working part-time (Table 10). Thus, while three-quarters of the working men aged 60-64 were employed full-time, in the 65- 69 age group only 40% of those working were in full-time positions. This proportion holds steady in the successive age group 70-74, and then sharply drops off at any higher age.

In terms of hours worked per week, the self-employed as well as wage-earners were included. Of those men working part-time, half work 20 hours or less. Among American men who had begun receiving old-age benefits, the average number of hours per week was nineteen (Iams,1987). A quarter of the total working part-time had no set number of hours worked, which vary on a weekly basis. When asked why they are working on a part-time and not a full-time basis, 32% responded that their health did not permit them to continue working full-time in their jobs. The self-employed are more likely to be working part-time than are

Table 10 - The Working Elderly, by Work Extent, Sex and Age Employees Only

Work Extent	Age Group			
	Total	60-64	65-74	75+
Total				
-Thousands	63.5	39.4	20.7	3.4
-Percent	100	100	100	100
Full-time	60	78	32	18
Part-time	40	23	68	82
Men				
-Thousands	52.0	31.3	17.7	2.3
-Percent	100	100	100	100
Full-time	65	86	36	18
Part-time	35	14	64	82
Women				
-Thousands	11.5	8.2	3.0	0.3
-Percent	100	100	100	100
Full-time	37	46	7	18
Part-time	63	54	93	82

Source: Selected Characteristics of Persons Aged 60 and Over, Special Series No. 840, Central Bureau of Statistics,1988.

employees: 48% and 41% respectively. Another 28% admitted that they would have liked to continue working full-time, but were obliged to reduce the number of weekly hours for a variety of reasons. Almost the same number, 23%, claimed that they continued to work, even part-time, in order not to lose any pension rights.

Transitions into part-time employment in countries outside of Israel are often associated with discrete changes in the work career - a change of job, residence, or work contract (Honig and Hanoch, 1985). In Israel, because of low job mobility, these

reasons do not appear as germane. Data from the Elderly Survey show that less than one in twenty of those employed after age 60 had changed jobs within the last five years. Of those that did change their job, only a quarter were working part-time. It follows that only a very small proportion of this transition to part-time work is associated with a change in jobs. Instead, the reduction of work scope constitutes a discontinuity within the same job related to reaching age 65: the proportion of those working full-time in those aged 65-74 is less than half that in the group aged 60-64.

Working After Age 65

Seen in the perspective of the two decades between 1970 and 1990, the labor force participation rate of men aged 65 and over seems to have bottomed out in the mid-1980's. Table 11 shows the participation rates by elderly men for the above period, taken from labor force surveys conducted by the Central Bureau of Statistics. The rates in Israel are, nevertheless, still substantially higher than the rates in any of the Western industrialized countries (Habib and Matras, 1987). While in 1971 over a third of men aged 65 and over participated in the labor force, this rate had declined to less than a quarter by 1989. In 1985, the year of the Elderly Survey, the rate was 22.5. The discrepancy in the rates for the same year can be accounted for by the slight difference in populations sampled. The Elderly Survey, for example, did not include the elderly in small localities.

One of the trends of the retrospective data is that the participation rate of the elderly men born in Europe-America has declined more markedly than has that of the total group, from 40% in 1971 to 25% in 1989. The group born in Asia-Africa has fluctuated somewhat around a participation rate of 18%, and shows no really immediate trend. Sicron(1986) and Matras and Noam(1990) have noted that the latter group has lower participation rates even when education is controlled for.

The Elderly Survey does not provide unambiguous answers to the question why men continued to work after the age of 65. Nevertheless, there are well-defined characteristics to the population working after 65. Lack of diversified income sources is a powerful push to keep people from retiring, particularly where

Table 11 - *Labor Force Participation Rate of Men Aged 65 and Over, by Continent of Birth and Year : 1971-1989*

Year	Continent of Birth			
	Total	Europe-America	Asia-Africa	Israel
1971	34.4	40.1	20.3	40.1
1975	29.8	34.8	15.6	28.6
1980	29.1	32.3	18.4	33.9
1985	22.5	26.0	11.5	29.8
1989	22.7	25.0	15.1	32.3

Source: Labor Force Surveys, by the Central Bureau of Statistics, Years 1971-1989.

there is no work-related pension plan (Zipkin and Morginstin, 1989). Work background and economic branch are significant

predictors of pension coverage. White-collar, well-educated employees have far more extensive coverage than do blue-collar, poorly educated employees. The latter group, having less occupational pension coverage, are more likely to continue working well past the age of 65. The self-employed are a large group who have very little pension coverage and comprise a disproportionate part of the labor force aged 65 and above. A major income component of retirement income is occupationally-based pensions: almost half the men aged 65 and over reported a pension as part of their retirement income (Zipkin, 1990). More than three out of four pension beneficiaries had retired from work, while among non-beneficiaries only two out of three had retired from work. When age is held constant, the difference of pension coverage between retirees and those continuing to work after age 65 is conspicuous (Table 12). Overall, 57% of male retirees reported a pension income, while only 44% of those continuing to work reported that they were enrolled in a pension lan. Not surprisingly, the gap between the two groups in pension coverage is greatest for the 65-69 age group, where the difference is 27%. The elderly who continue to work significantly beyond the age of 65 because of a lack of pension coverage tend to be the self-employed, born in Africa or Asia, and engaged in a manual occupation (see below, on retirement timing). In a large-scale comprehensive study of retired males in the United States, Parnes (1985) found that many men working into their 70's had limited resources.

Beyond economic necessity, there are other factors motivating

Table 12 - Pension Coverage and Work Situation, by Age Group

Age Group	Percent With Pension Coverage, by Work Situation *	
	Retired	Working
Total	57	44
65-69	72	45
70-74	57	47
75-79	50	32
80+	42	36

* Refers to the percent of the group having pension coverage.

people to work past the statutory retirement age. Work satisfaction and boredom from inactivity are frequently - given reasons for continuing to work. There are not a few people over 60 who would work as long as it were possible for them. Almost two out of five of those working after aged 60 in the survey responded that they wanted to work for as long as they were capable, and had no intentions of retiring. Another quarter were not sure if they ever wanted to retire. Only a third of the group continuing to work had a defined goal of the age at which they intended to retire. The absence of job mobility may account for the well-nigh resistance that some have towards retirement. For some, the prospect of retirement is perhaps beyond their daily horizon, even at an advanced age. Such findings are similar to those in several U.S. studies which demonstrate a strong reluctance

to work separation. Sheppard (1988) found that one-third of work continuers aged 65 and older wanted never to retire if they could help it. Levine (1980) supported these findings, that workers prefer not to be confined by some arbitrarily mandated retirement age.

The economic branches in which the desire to never quit working was highest were the following: commerce and industry (46% wanted never to retire), and financial services (49%). By occupation, those with higher educational requirements expressed the willingness to continue working as long as they were able. Academics and technicians had the highest rate - 59%. In addition, the elderly in administrative positions tended not to want to retire. Low-skilled workers, particularly in construction, had the lowest inclination to continue working (22%). By work status, three out of every five self-employed, but only three out of every ten employees, wanted to continue working indefinitely. While the rate of self-employed never wanting to retire is twice that of the employed, it would be misleading not to connect this figure with the generally unfavorable financial position of the retired self-employed. Only a small percentage of this group has pension coverage. The lack of income alternatives would seem to be a solid incentive for continuing to work.

Regression Analysis of Continuing to Work

Multiple regression analysis was used for the group of men aged 66-75 in predicting the likelihood of being employed. Five

variables were entered into the model. A number of conceptual and technical difficulties led to the selection of this age group and the variables entered into the regression model. It was decided to choose a sample of those men who were clearly past the statutory retirement age, and therefore the sample selection commenced with age 66. Men under 66 were excluded also because of the lack of information concerning those men in that age group who expected to receive a pension from a former place of employment but were not yet receiving it. This lack of information applied both to working and to retired men. Because occupation is so closely connected to the timing of, and reason for, retirement (see below), separate regression analyses were run for each major occupational grouping: professional, academic and managerial; services, sales and clerical; and, industrial and manual.

Several variables predominate in the regression presented in Table 13. There is a 21% greater chance of working if health was reported good than if it was reported poor. By occupational grouping, compared to manual workers there was a 16% greater chance of working if the occupation was managerial or academic, and a 7% greater chance if the occupation was clerical, sales, or services. By continent of birth, there was a 13% less chance of working if the elderly was born in Africa or Asia. Curiously, whereas receipt of an occupational pension in itself was not a significant factor in predicting likelihood of working, the level of retirement income was. The level of pension income was highly significant ($p<.01$), indicating that at lower levels of pension income there is little

influence on the likelihood of working. For every NIS 100 per month, there was a decrease of almost 1.4% in the probability of working. In addition, the level of income from capital assets is a significant, albeit modest factor: for every NIS 200 per month from this source, there is a decrease of 1% in the probability of working. The multiple regression points to the contingency nature of pension coverage on the likelihood of working: when other factors are controlled for, pension coverage in of itself is not statistically significant. Health condition is of far more influence, for example, than pension coverage. Salaried work status (currently or in the longest of the last two jobs) meant a decrease of 11% in the probability of working. One last significant factor in the model was marital status. Married men were 10% more likely to be working that were their unmarried counterparts.

Table 13- Multiple Regression Analysis for Men, Aged 66-75, on the Likelihood of Continuing to Work , By Occupation

Variable	Parameter Estimate*	P Value
Good Health	.214 (.031)	.0001
Salaried **	.109 (.035)	.002
Receives Occupation Pension	-.032 (.045)	.47
Every NIS 100/ Month From Pension	-.014 (.005)	.005
Every NIS 100/ Month From Capital Assets	-.005 (.002)	.03
Married	.103 (.043)	.02
Asia-Africa Born	-.137 (.036)	.001
Occupation ***:		
- Professional/Manager	.164 (.044)	.005
-Clerical/Sales/Services	.072 (.034)	.05
N (unweighted)	762	
R^2	.129	
Adjusted R^2	.123	

* Standard errors are in parentheses.
** For those not working, status at longest of the last two places of employment.
*** Dummy variable where industrial worker is the reference.
Income is adjusted to December, 1992.

Part II Retirement

Introduction

A degree of ambiguity surrounds the term retirement, and it conveys various associations. In terms of work, it can be either absolute withdrawal from the labor force, a significiant reduction of work hours at the widely-acknowledged marker of age 65, or the termination of a pensionable job after the age of 65 and the assumption of another (Parnes and Nestel, 1981). Most researchers view retirement at a minimum as withdrawal from full-time employment, with a transition to either part-time or no employment. There is considerable disagreement, however, on the extent to which retirement is viewed as a period of withdrawal and disengagement, rather than one in which internal and external consistencies with past roles are maintained (Parnes and Nestel, 1981; Atchley, 1976; Atchley, 1989).

In economic terms, Burtless and Moffitt (1984) have contended that retirement occurs at that point in life when there is a discontinuous drop in an individual's labor supply. This is not necessarily at the time of complete cessation of work, but it does signify at least an external discontinuity. Rust (1989) argued that retirement is not really a continuous or a dichotomous variable. Since a consequential segment of the elderly labor force works part-time, retirement should be viewed as a trichotomous variable, providing the choice of full-time work, part-time work or full withdrawal.

This study has adopted the definition of retirement as the absolute conclusion of work. It has taken the respondents' answer that he or she is no longer working at all, regardless of current age and pension status. This is not a completely satisfactory definition, as a plausible case could also be argued for a definition of a retiree as one who has reached the age of 65, has severely reduced his work hours, or is an old-age pensioneer. The former definition views the definition of retirement as a process wherein there is a cessation of work, and a clear break with the work role. Seeing retirement as an event of withdrawal from full-time employment omits all those elderly working on a part-time basis. In quantitative terms, the exclusion of the elderly working part-time from the sample of retirees leaves out over 30,000 men and 11,000 women.

This section on retirement patterns will be confined primarily, but not exclusively, to an analysis of men who have retired. The three principal reasons for excluding women are as follows:

1) A large segment of women in the survey, 48%, had never participated in the labor force in Israel.

2) Of those who participated, almost half retired early, for reasons which were at variance from those of men (see below).

3) There are vastly different work experiences between men and women, including professional employment and seniority.

The sexually divergent nature of the employment experience in Israel would dictate, then, a separate study of the work and retirement patterns of women.

Deferred Retirement

Those entitled to old-age pensions from the National Insurance Institute are offered an incentive to defer retirement. For the first five years after reaching age 65, an individual who continues to work without receiving his pension is accredited an increment of 5% per annum of his old-age pension. The maximum increment, then, is 25% of the pension rate. Until reaching age 70, a person whose earnings is above half the average wage for a single person, or greater than two-thirds the average wage for a married person, foregoes his old-age pension. In return, however, upon reaching age 70 (or reducing his income), he receives his old-age pension, along with his accrued deferral increment. Benefit levels are dependent, too, on numbered years of insurance contributions as well as on number of dependents. They are not linked to contribution levels, in contrast to some other countries.

Almost 30% of the men reaching 65 and over in the Elderly Survey took advantage of this deferred retirement increment, irrespective of the number of years deferred. The percentage of men within each five-year age group beyond age 65 who opt to receive this deferral increment is shown in Table 14. The percentage is taken from the total population in each age group who have ever worked in Israel. The 60-65 age group includes as deferral increment recipients those who are working and earning over the incomes test. There is a significant decline among men by decreasing age cohort in the deferment of old-age benefits. This, of course, parallels the negative association found between age

and labor force participation (see Table 11). This decline is not at all astonishing because, actuarially, it is not financially

Table 14 - Male Beneficiaries of Retirement Deferral Increment As Percent of All Males, By Age Group

Age Group	Percent Receiving Deferral Increment
Total	27.6
65-69	23.2
70-74	28.7
75-79	27.7
80+	34.1

rewarding to work beyond age 65: marginal benefits of the deferral increment are exceeded by the old-age pension forfeited by continuing to work. Confounding this interpretation, however, has been decreasing job opportunities in the last two decades for men over 55. By 1993, this downward trend has continued to a point where only 17% of men receiving an old-age pension were receiving the deferral increment (National Insurance Institute, 1993).

Patterns of Retirement

Job separation occurs for a variety of reasons: some are voluntary, others involuntary, and yet others are difficult to

categorize. Voluntary reasons in this analysis embrace the categories of: family affairs, withdrawal from the workforce, and attainment of an age at which statutory pension(s) are received. Involuntary reasons include: mandatory job-leaving because of age (forced retirement) and dismissal due to work-force reductions, plant closings, etc. Forcible retirement because of age did not specify the mandatory age enforced at the particular workplace. A remaining category is retirement due to health, leaving unspecified whether it is a general feeling or a recognized disability. While it is perhaps the most frequently cited reason, it is also the most problematic (Kingson, 1982; Myers, 1982). It is often given as an ex-post rationalization for retiring, as a legitimate and morally accepted substitution for other reasons. This seems to be especially true the further one distances oneself from the retirement event.

There is much license in a closed questionnaire for inaccuracy on the genuine reasons people give for retiring. Two different people who retire under the same mandatory retirement program can give two different answers- one answers that he is forced to retire, and the other, who dislikes his job, says that he retired voluntarily (Parnes and Less, 1985). It has been convincingly argued that the retirement decision represents an array of circumstances which, studied together, lead to a decision to leave the labor force (Kingson, 1982).

Retirement Routes by Occupational Characteristics

The timing and reasons for retiring permanently from the labor force are to a large extent dependent on what the individual's work was, including its physical demands and its ability to hold his interest. Of all retired men, 39% reported health as their reason for retirement. Another 27% reported their retirement as voluntary, and a further 20% reported it as involuntary. A U.S. study of retired males showed that health was given as a reason for retirement in almost the same proportion as in Israel - 43% of cases (Parnes and Nestel, 1981).

The data from the Elderly Survey for retired men show how much one's occupation affected both the age at which the individual retired and the reasons for retiring (see Appendix, Table 7). Those workers in the academic, scientific and managerial occupations tended to retire out of voluntary reasons more than did those in the other occupations. Especially striking is the relatively low rate of men retiring due to health reasons in these occupations - only about two in ten whereas overall four in ten retired because of poor health. A similar pattern of retirement by occupations to that in Israel was found in the above U.S. study, with the exception that in no occupation did involuntary job separation account for more than 5% of the retirement reasons, in contrast to 20% in the Israeli survey. Voluntary retirement in the U.S. was reported by 54% of the study population, a considerably higher proportion than in Israel (27%). The same study concluded that age discrimination was not a major factor in

retirement routes, a conclusion somewhat at variance with the data in the Israeli study.

By work status, the proportion of self-employed giving health as their reason for retiring far exceeded employees, 52% versus 36%. A far smaller proportion of the former group retired voluntarily, than did the latter.

An examination of retirement reasons by educational attainment shows some very clear cut findings. The greater the number of years of formal education, the greater the flexibility on making retirement decisions. Of those retirees having thirteen or more years of education, four in ten retired voluntarily, a rate far higher than those with less formal education. The proportion of retirement due to poor health among those with thirteen or more years of education was half that of those with less education. Educational attainment, of course, determines occupation, which in turn determines to a large extent the flexibility of retirement options.

Retirement Timing

The timing of retirement is clearly differentiated by sex (see Table 15). Slightly less than a fourth of men in the Elderly Survey retired prior to age 65. A third retired in their 65th year. More than a third retired at age 66 or over. For women, the pattern is totally different. Almost half of those women who had ever worked retired by age 60, the statutory age of retirement for them. One of every nine women who ever worked had retired by age

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40. These must be counted primarily as women whose working careers were confined to their early adult years and who withdrew permanently from the workforce with the onset of family formation. By age 60, almost half (46%) of all women who had been in the labor force had retired. Only 17% of women retired in their sixtieth year. Contrasting this figure to the high percentage of men (36%) retiring in their sixty-fifth year, the lack of pension coverage for women is conspicuous.

Table 15 - Retirees, by Sex and Age of Retirement

Retirement Age	Total Elderly		Men		Women	
	(000)	Percent	(000)	Percent	(000)	Percent
Total	208.3	100.0	106.1	100.0	102.2	100.0
Under 40	11.0	5.3	0.2	0.2	10.8	10.5
40 - 49	8.2	3.9	1.2	1.1	7.0	6.9
50 - 59	37.9	18.2	9.5	8.9	28.4	27.8
60	22.0	10.6	5.4	5.1	16.6	16.2
61 - 62	16.7	8.0	6.1	5.8	10.5	10.3
63 - 64	15.0	7.2	7.4	7.0	7.6	7.4
65	40.7	19.6	36.1	34.1	4.6	4.5
66 - 69	27.4	13.2	19.4	18.3	7.9	7.8
70 +	28.4	13.6	20.3	19.2	8.0	7.9
Unknown	1.0	0.5	0.3	0.3	0.7	0.7

Retirement Timing By Job Characteristics

Professional and technical workers tended towards retirement at a later age, 66 and older, than did workers in other occupations (see Appendix, Table 8). This is interesting as this group also had a relatively high rate of pension coverage and less financial incentive to work (Zipkin and Morginstin, 1989). As most pension plans in Israel do not permit a pension recipient to continue working in the same place of employment, this later retirement is presumedly due to greater employment opportunities (as well as to desire to work) after age 65. In the United States, too, the professional occupations retired later than did other groups of male workers (Burtless, 1987). In a U.S. study, whereas 75% all workers had retired by age 65, less than two-thirds (64%) of professionals had retired by that age. This high percentage of retirees by age 65, by the way, contrasts with the timing of retirement in Israel - by age 65 only 62% of the total male labor force had retired. (Defining retirement by some measure of reduced earnings would further lower this figure.)

Occupational groups which tended to retire at an early age, prior to 62, include manual workers and those in sales and services, groups which on the whole had low pension coverage. By economic branch, retirement age is easier to identify. About half of workers in commerce, financial services and personal services retired at the age of 66 and over. These three economic branches have low pension coverage in common. By work status, self-employed workers tended to defer retirement, and they too are characterized

by an exceedingly low rate of pension coverage - only one in ten men, in contrast to half of salaried men overall. Almost by definition, the self-employed do not receive work-based pensions. Their so reporting reflects either a pension received from a previous place of employment, or the erroneous inclusion of income from an individual retirement account ("kupot gemel"). This latter source is a retirement fund particularly attractive to the self-employed, but open to wage-earners as well. Its provisions are clearly more like a capital account than a pension income. Fourteen percent of the self-employed reported income from such accounts, versus three percent of salaried workers.

Retirement Routes and Timing by Ethnicity

As was noted above, the European-American born predominate among the elderly who have ever worked in Israel. This is true for the retired population as well, and particularly so for women. With respect to retirement routes for the two population groups, a much larger proportion of Asia-Africa born than Europe-America born retired for health reasons: 44% versus 31%. In a breakdown by sex (in Table 9 in the Appendix), this gap narrowed among men (46% and 36%, respectively) and widened among women (47% and 21%, respectively).

With regard to the timing of retirement, a notably larger proportion of European-American born elderly continued working past

age 65 than did the Asian-African born (see Table 16). Part of the explanation for this ethnic differentiation of retirement patterns lies in the differential occupational patterns and educational attainment. When occupation is controlled for, the results show disparate trends in retirement timing, as well as the paths to retirement (Tables 16 and 17). Pre-retirement occupations of retired men were grouped together into three categories: professional and managerial; clerical, sales and services; and manual labor. Because the first category contained a statistically

Table 16 - Retirement Timing of Men, by Continent of Birth and Occupational Group

Continent of Birth	Total		Age at Retirement		
	(000)	Percent	Under 63	63-65	Over 65
			Total Retirees*		
Total	106.1	100	20.5	41.0	37.5
Asia-Africa	32.2	100	29.1	44.8	26.2
Europe-America**	73.9	100	18.2	39.4	42.4
			Clerical, Sales and Services		
Total	36.3	100	21.4	38.5	40.0
Asia-Africa	11.2	100	28.0	43.0	29.0
Europe-America**	25.1	100	18.6	36.5	44.9
			Industrial/ Manual		
Total	50.4	100	22.6	43.2	34.2
Asia-Africa	18.1	100	30.1	44.6	25.3
Europe-America**	32.3	100	18.4	42.4	39.2

*Includes the category of managers, academics and other professionals not listed separately.
**Includes those born in Israel.

insignificant number of elderly born in Asia-Africa, it is not presented separately.

There are persuasive differences in the timing of retirement between the two ethnic groups, even when occupation is controlled for (Table 16). Although education is highly correlated with retirement timing, occupation was instead selected as a controlling variable. It not only reflects educational achievement, but also captures the differentials in labor agreements by occupation. Overall, elderly men born in Africa or Asia retired much earlier than did those born in Europe, America or Israel: by age 63, 29% of the former and 18% of the latter group had retired. Controlling for occupational group, the pattern of earlier retirement remains without change: among the clerical, sales group, 28% of those born in Asia-Africa retired by age 63, while 19% of those born in Europe-America retired by that age. For manual workers, where the Asia-Africa group is more represented, the corresponding figures for early retirement among the two groups were 30% and 18% .

Contrary, perhaps, to expectations, the retirement patterns of the two ethnic groups are drawn more similarly, if certainly not identically, when occupation is controlled for (see Table 17). Among both blue and white collar workers, those retiring by the path of voluntary and involuntary reasons is identical for the two ethnic groups. While health is still given more frequently as the retirement path for Asia-African-born men, the interval is narrowed. This indicates that occupation accounts for part of the explanation of which retirement path is taken, but not for all of

Table 17 - Retirement Reasons of Men, by Continent of Birth and Occupational Group

Continent of Birth	Total		Retirement Reasons			
	(000)	Percent	Voluntary	Involuntary	Health	Other
			Total Retirees *			
Total	106.1	100	27.5	19.3	38.9	14.3
Asia-Africa	32.2	100	27.1	18.4	45.7	8.8
Europe-America**	73.9	100	27.7	19.8	35.9	16.7
			Clerical, Sales and Services			
Total	36.3	100	23.3	21.2	41.0	14.6
Asia-Africa	11.2	100	22.9	20.7	46.4	10.0
Europe-America**	25.1	100	23.4	21.4	38.5	16.6
			Industrial/Manual			
Total	50.4	100	29.0	16.6	46.3	8.1
Asia-Africa	18.1	100	28.2	16.5	50.4	4.9
Europe-America**	32.3	100	29.5	16.6	44.0	10.0

*Includes the category of managers, academics and other professionals not listed separately.
**Includes those born in Israel.

for all of it. There still remains a considerable distance between the two ethnic groups as to the retirement path of poor health, all the more so when the group of elderly born in Asia-Africa has an earlier average retirement age. Given the negative correlation between health and age, health would seem to occupy a smaller part in retirement paths for this group. Cultural attitudes, however, might be decisive in explaining why the Asian-Africa born perceive themselves more ill on the average than the European-American born. Consideration must be given as well to the disparate health systems

in which these two groups were raised, and their consequences on differential health outcomes.

It was not possible within the study confines to externally validate the responses on job separation, and the only approach can be internal consistency. A larger proportion of those born in Asia-Africa than those from Europe-America reported that their health was poor, 70 versus 63 percent. The correlation between poor health as a reason for retirement and current health status tends to support the retirement reason proffered, but certainly cannot be considered as any validation. The widening of the difference between health as a retirement reason (a retrospective evaluation) and current health evaluation might indicate that there was some post-retirement justification of ill health that was greater on the part of the Asia-Africa born than the Europe-America group. An alternative explanation would be that the post-retirement health of the elderly born in the former group deteriorated at a more rapid rate than the elderly from the later group.

Early Retirement

There is no doubt that health is a prime determinant in the timing of retirement. Burtless (1987) claimed that health remained the single most important timing determinant. As discussed above, however, other factors, including pension coverage, also had a role in retirement timing. Simple regression analysis on the Elderly Survey data showed only 4% of

the variance in the timing of retirement explained by occupational pensions. Despite its low explanatory power, however, it still showed a significant correlation ($p<.01$). It has been argued that cultural background is critical for many who retire early. Those elderly born in Africa or Asia were inadequately absorbed into the labor force, and failed to establish a commitment to work. As this ethnic group becomes more 'modern' in its work attitudes, these differences are envisioned to diminish over time and eventually disappear (Habib and Matras, 1987). Table 11 above supports this expectation, as the gap between ethnic groups in labor force participation has narrowed considerably when looked at by age cohort.

It is evident that a person's health is affected to some extent by the type of job he does. The consequences may be in terms of work accident rate, environment effects, or ergonomic stress. In comparing Tables 7 and 8 in the Appendix one finds that there is a strong relationship between those occupations in which a higher than average proportion retired because of poor health and those who retired prior to age 63. They tend to be concentrated in the manual rather than service, clerical and sales occupations (white-collar workers). By work status, the retirement age of the self-employed is significantly different than that of the employed (Table 8, Appendix). Of the former group, a greater proportion retired prior to age 63, but also a greater proportion retired after age 65 - five in ten employees, in contrast to only three in ten salaried employees. This pattern

of retirement must be attributed to low pension coverage, as well as to the specific demands and rewards of the self-employed.

Looking at reasons for retirement by age at retirement, health stands out in those retiring prior to age 65. In the Elderly Survey 65% of those retiring at 62 or earlier claimed poor health as preventing them from continuing to work (see Table 18). The group under 63 comprised over one in five of the total retired population, and very few of them (9%) retired voluntarily. For the group aged 63-64 at retirement, only a slightly smaller proportion claimed poor health as the reason for retirement, 57%. A plurality

Table 18 - Retirement Reasons, by Age at Retirement

Retirement Reasons	Age at Retirement				
	Total	Under 63	63-64	65	66
Total					
-Thousands	106.1	22.5	7.4	36.1	40.1
-Percent	100	100	100	100	100
Not Allowed	12	2	0	18	13
Health	39	65	57	25	33
Family	4	6	2	3	6
Dismissal	8	11	16	3	6
Voluntary					
-Under 65	3	9	20	-	-
-65 and over	24	-	-	42	26
Other	10	8	5	8	14

of men, 42%, who retire in their sixty-fifth year do so for

voluntary reasons. At retirement age 66 and over, health again becomes the most frequent reason, but not dominantly so.

Mandatory Retirement

Altogether, there is a significant proportion of retirees under age 65 who were compelled to retire due to layoffs and dismissals - about one in eight (see Table 18). Of those retirees at age 65, about one in five was forced, or mandated, to retire. Mandated retirement in Israel is associated with immediate ad hoc constraints with which companies are faced, rather than as a considered government policy (King, 1988). Planned early retirement, based on company policy, is a rarity.

The problematics of a mandatory retirement age in work agreements have been publicly recognized in Israel for several decades (Nizan, 1977). Recommendations have been made to enable more flexibility for the individual in determining his or her timing for retirement. Flexible retirement is an issue raised in most industrialized economies, with the emphasis oscillating between the poles of individual expression and labor force supply. For many years Sweden has provided an alternate paradigm, allowing the prospective retiree to retire several years before or after the normal pensionable age of 65 (changed from 67), with an actuarial adjustment in pension rights (Rehn, 1990). This position is adamantly opposed by employers in Israel, who feel most comfortable

with an explicit retirement age included in work agreements. Bergman (1976) found that almost two-thirds of employers had fixed retirement ages in their work arrangements. The issue is surrounded by a paternalistic environment coupled with the anxiety of economic uncertainty. According to Matras and Noam (1990), employers believe that the Israeli worker is unwilling to trade a loss in pension income for increased leisure. Unlike in the U.S., where the public supports increased opportunities for the older worker, the issue in Israel seems to be viewed as a collective one by policymakers (Ferraro, 1989). Blass (1981) claimed that the issue should be addressed on a quantitative loss and gains basis, being concerned with the net societal change stemming from the widespread adoption of flexible retirement. The evidence regarding age discrimination and early job separation due to age is only suggestive from this study. According to Table 18, a relatively high proportion of men who retired at age 65 or above were not permitted to continue working due to their age, 15%, almost one in six. This, in contrast to those under 65, where less than 2% were not permitted to work in their place of employment beyond the age at which they retired. For those who retired at age 66 and older, more than one in eight, 13%, reported mandated retirement.

A somewhat different approach might assist in illuminating possible age discrimination evidenced in this study. Looking only at those retirees who expressed a desire to continue working (36% of all retirees) almost a third (32%) of them wanted to continue working but were not allowed to, and another fifth (22%) were

fired or laid off. Only a third (33%) of those retiring and wanting to continue working, retired for health reasons. This contrasts with the 44% of those who did not want to continue working, who retired due to what was considered poor health. The data do strongly indicate that for those wishing to continue working, many were either constrained or prevented from doing so. In other words, forcible retirement significantly exceeds health in importance as a reason for job non-continuance for those retirees who wished to keep working. The issue is confounded by the probable overstatement of poor health as a reason for job separation.

Retirement Income, Government and Private Pensions

Retirement Income

Evidence from the Elderly Survey points to the decreasing significance of NII old-age benefits for many elderly, who show increased diversification in sources of income over successive age cohorts. This data tends to confute other studies which show that expected income from government pensions plays a significant part in the retirement decision (Peleg, 1988). A retrospective look at the influence of Social Security on retirement timing in the U.S. points to its dwindling impact. Its most conclusive effect on retirement timing took place over three decades ago, in 1962, when reduced old-age benefits were first extended to men

between 62 and 65. Recent evidence shows that retirement age is not particularly sensitive to changes in the benefit formula (Burtless and Moffitt, 1984). It indicates the diminishing role of government pensions in retirement income for many, but not all elderly, and the increasing importance of occupationally-based pensions. The improved financial prospects in post-retirement income help explain the progressively earlier average age at which people retire.

In an analysis of mean income by age cohort, in Table 19, the decreasing importance of NII benefits with successive cohorts is demonstrated. For all 5-year age groups beyond 65, the absolute amount of the old-age benefit remains fixed - between NIS 922-955 per month in December 1992 shekels. However, there is a steady and substantial increase in mean income from work pensions as age group decreases. From 356 NIS on the average per month among the elderly 80 and over it increased by 2.4 times among the group aged

Table 19 - Mean Income by Source, and Age Cohort - Male Retirees*

Age Group	Mean Income, by Source				Population (000)
	Total	NII Pension **	Work Pension	Other	
Total	1962	933	608	421	87.6
65-69	2176	922	854	400	22.9
70-74	1947	931	611	405	30.7
75-79	1863	955	487	421	21.8
80+	1780	924	356	500	12.3

* Figures adjusted to December 1992, average wage= NIS 3,345.
** NII pension includes dependents.

65-69, to NIS 854 per month. The proportion of the NII pension declines from 52% of total income in the oldest group, to 42% in the youngest group. It is a pattern similar to, if not as acute as, that of other countries, where private pension income has come to overshadow government entitlements (Kotlikoff and Wise, 1989).

Income By Pension Coverage

The income differential between those retirees who are recipients of occupationally-based pensions and those who are not is striking, if not surprising. What is interesting, however, is the examination of pension recipients versus non-recipients by the source and level of income. Table 20 presents mean retirement income by source and pension coverage.

Nearly six in ten male retirees reported income from occupationally-based pension plans. For retirees who are pension beneficiaries, pension income accounted for about half of their retirement income. The total level of income was almost 30% higher than for non-pension recipients. The latter group had a much higher level of mean income from the source described as other. This includes income from dividends, rents, interest and individual retirement accounts ("kupot gemel"). Of those not receiving an occupational pension, over half received an income supplement. Their mean income falls to NIS 1571 per month. Of this amount, more than four-fifths comes from old-age pension, including the income supplement. Clearly, retirees who are not recipients of work-based pension income find themselves in some

Table 20 - Mean Retirement Income, by Source and Pension Recipient Status

Pension Status	Mean Income				Population
	Total	NII Pension **	Work Pension	Other	(000)
Total	1962	933	608	421	87.6
Recipient	2124	826	1050	246	49.1
Non-recipient	1742	1081	-	661	38.5
Of whom: Income Support Beneficiaries	1571	1340	-	230	23.2

* Men aged 65 and over.
Figures adjusted to December 1992, average wage= NIS 3,345.
** NII pension includes dependents.

economic distress.

There is a strong empirical connection between pension plan coverage and timing of retirement: those with coverage generally wait until age 65 to retire - 44% retired at the age of 65 (see Table 21). The elderly without pension coverage either retired early, a quarter before age 63, or at 66 and older - about a half. For those elderly without pension coverage, lack of diversified

Table 21 - Distribution of Pension Beneficiaries by Retirement Age -Percentages

Retirement Age	N (000)	Pension Coverage		
		Total	Yes	No
Total *	106.1	100	100	100
Under 63	22.6	21	19	25
63-64	7.4	7	7	7
65	36.2	34	44	21
Over 65	39.9	37	31	47

income sources compels them to work longer in order to maintain their income level. Among workers covered by a pension plan, about one in six is forced to retire at the pensionable age of their place of employment (Table 21). This, in contrast to the only one in twenty retirees without pension coverage who reported that they were not allowed to continue working. At the same time, a third of pension recipients had the opportunity to continue work past the traditional retirement age - 30% retired voluntarily over 65 - whereas only 17% of those without pension coverage did so.

Although the survey data indicate a degree of flexibility in working beyond age 65, most pension plans are reported rigid in their allowing early retirement - hence, less than one in twenty-five men under pension coverage retired voluntarily before age 65 (see Table 22). In other countries, private pensions plans have demonstrated far greater flexibility in allowing early retirement: voluntary early retirees reported substantially higher rates of coverage from private pension plans than did retirees at age 65 and older (Parnes and Nestel, 1981). In a study of the policy of several firms in the U.S. Schiller and Snyder (1986) revealed that pension plans offered substantial incentives to substantial incentives to retire at a designated early retirement age (but not before).

Almost four out of five pension recipients age 65 and over had waited until age 65 to retire. Little variation is noted by age group, indicating no substantive longitudinal policy

Table 22 - Retirement Reasons and Pension Coverage (Percent)

Men Aged 65 and Over

Retirement Reasons	Pension Coverage		
	Total	No	Yes
Total			
-Thousands	106.1	46.5	59.6
-Percent	100	100	100
Not Allowed	12	5	17
Health	39	49	31
Family	4	6	3
Dismissal	8	9	6
Voluntary			
-Under 65	3	4	3
-65 and over	24	17	30
Other	10	9	10

change towards early retirement (see Table 23). The higher proportion of men aged 65-69 having retired prior to 65 is overstated because of the incomplete retirement profile for this group. These data are another indication of the rather rigid age requirements which occupationally-based pension plans maintain. Few men with pension coverage retire prior to age 65, a pattern which has changed little over the fifteen years prior to 1984. The lack of flexibility in retirement timing may be a function of the particular work environment (Schultz, 1985). Then, also there is a great reluctance to forego a loss in pension income by retiring early.

Table 23 - The Retirement Timing of Pension Beneficiaries, by Age Group

Age Group	Retirement Timing			
	Total		Under 65	65 and Over
	Thousands	Percent		
Total	54.4	100	16	84
65-69	15.6	100	29	71
70-74	17.9	100	14	86
75-79	13.7	100	7	93
80+	7.2	100	12	88

Income and Work Status

Because occupationally-based pension income is far more prevalent among salaried workers than among the self-employed, significant income differentials between these two groups might be expected. In an analysis of income by sources for these two groups, this did prove to be the case (see Table 24). Included in the retired group are the early retirees, aged 60-64, as the period effect of age is discounted. When incomes were adjusted by the average wage for December 1992, the gap between the mean income of workers salaried and the self-employed was only NIS 122. By source of income, salaried workers had on the average a monthly pension income of about NIS 674, whereas the self-employed had on

the average a negligible monthly income of NIS 65. The income gap was almost wholly spanned by the other sources of income of the self-employed, income derived from interest, dividends, reparations from Germany and individual retirement accounts. These two last sources accounted for the preponderance of the other income source.

When salaried workers are examined by pension coverage, a dichotomous income grouping becomes apparent. Those retirees with pension coverage have a fixed income more than a third higher than that of their fellow retirees without pension coverage, NIS 2043 versus NIS 1515. The income profile of this latter group appears similar, in fact, to that of the retirees who receive income supplement from the National Insurance Institute. For this group,

Table 24 - Mean Retirement Income by Source, Work Status and Pension Recipients *

Work and Status	Mean Income				Pension Recipients (000)
	Total	NII Pension	Work Pension	Other	
Total	1850	914	549	387	104.8
Self-Employed	1754	998	65	692	22.2
Salaried	1876	893	674	309	82.6
Of whom:					
Work-Pension Recipients	2043	810	988	245	58.2
Non-pension Recipients	1515	1069	0	446	54.8

* Men, aged 60 and over. Figures adjusted to December 1992.
Not included are retirees whose status was unknown.
** NII pension includes dependents.

NII benefits comprise more than two-thirds of retirement income. Among retirees who receive a work-based pension income, NII benefits constitute less than 40% of retirement income.

Health and Retirement

This section discusses in depth the evidence for the relationship between retirement and health found in the Elderly Survey. Because this association is charged with several methodological complexities, it is an issue which requires a degree of introduction, although it properly belongs to the analysis of retirement paths.

Until modern times, virtually the only reason people ceased working was failing health. Social attitudes have shifted over time: where once retirement was justified only if a person was physically unable to work, it is now generally considered a reward for a lifetime of work. To the general public, retirement is still commonly associated with declining health. Among other factors, this may be due to the easing of the previous constraints which retirees had with regard to discussing their poor health (Johnson, 1987). Retirement often confers a frankness of addressing problems formerly undisclosed.

The issue of health as a precursor or consequence of retirement remains a highly contentious one for many researchers, and the lines are firmly drawn. On the one side are those who

contend that poor health leads to early retirement. It is more prevalent in those occupations which tend to be physically stressful and which are considered detrimental to health. On the other side are those who counter that the use of poor health as a retirement reason is actually a post-factum justification, used for greater social acceptability. It is also a prerequisite for receiving disability benefits prior to the statutory retirement age. (In the U.S. this is prior to age 62, at which time retirees are eligible for reduced old-age benefits.) Both sides have amassed a considerable body of evidence to prove their contention.

An advocate of poor health as retirement precursor, Burtless (1987) has written that health remains the crucial determinant of retirement age. He relates that self-reported health was a very good predictor of mortality. Elsewhere, he estimates that men reporting poor health retired 1.1 years earlier on the average than did men reporting good health (Burtless,1981). Boskin and Hurd (1978) have estimated that for a working cohort between the ages of 58-63, the probability of retiring for a person in poor health was almost twice that of a healthy person. In a study of a representative sampling of 1.8 million men in the U.S. who retired before age 62, Kingson (1982) found that those men who reported work-limiting health conditions at withdrawal had far higher mortality rates than did those who did not report such conditions. Iams and McCoy (1991) examined the mortality data of a cohort of newly retired Social Security beneficiaries, and found that labor force withdrawal due to poor health was a significant predictor of

mortality.

When checking the effect of expected retirement income on retirement timing, Kingson (in the study cited above) reported that the severity of health problems was inversely associated with the level of expected retirement income. He concluded that those men with low expected retirement income and poor health held on to their jobs longer than did men of similar health but with higher retirement income expectations. This finding is consistent with a longitudinal study of early retirees which showed that one-quarter of them waited two years or more after retirement for their retirement income to begin. Included in this group were many who were in poor health (Diamond and Hausman, 1984). These findings are duplicated in a report by the U.S. Social Security Administration (Sherman, 1985). In a logistic regression analysis of the same data, Ozawa and Wai-on Law (1992) corroborated that among those who involuntarily retire in spite of having poor employment prospects, health problems have a dominant role. For this significant group, health is clearly an involuntary retirement reason.

Arrayed against these claims of health status as a predictor of retirement are the proponents of poor health as at least partially a consequence of retirement. This position does not dispute that poor health may be a contributing factor to retirement, but rather says that it has been vastly overrated. Ruhm (1993) has claimed that private pensions and the early retirement option under Social Security are far more important than

is poor health in explaining early retirement. Bazzoli (1985), and others as well, argued against the use of subjective health measurements in explaining retirement timing. Postretirement health measures were superior to preretirement health measures in explaining early retirement. Perhaps one of the most unreserved assertions in this debate was made some time ago by Ellison (1968), who maintained that illness was used as a psychosomatic ploy by the retired individual to justify a dependency role, whether it be to children, friends, or governmental claims officers. He noted that the assumption of this role is most prevalent among blue-collar workers. A number of other authors have argued in this same vein (Atchley, 1975; Palmore, 1965).

Those arguing that health is the predominant factor leading to retirement ought to show the link between decreased labor force participation rates and objective declining health status in successive cohorts of men aged 60-65 over the last 25-30 years. Failing that, it would appear difficult to argue that an individual's declining health is his major immediate motivation to retirement. There still remains the problem of reconciling this lack of proof of increased morbidity over time with the considerable evidence showing an increasing number of people who have given poor health as their retirement reason and who in fact have been proven to have had poor health. Changes in disability entitlements both in the United States and in Israel may account for part of this increased cognizance of poor health. In the former country, the rate of social security disability

beneficiaries rose almost 300% between 1960 and 1980 (Bailey, 1987). During the decade of the 1970's in Israel, both the National Insurance Institute and the labor unions (Histadrut) introduced major changes in liberalizing entitlements for work disability.

In examining the relationship between health and retirement, the Elderly Survey was handicapped by the lack of any external data which might validate the responses given on the questions related to health, whether currently or at the time of retirement. Indirect evidence and internal consistency were then the only means of verifying ill health as a cause of job retirement. Separate sections of the survey contained questions on recent hospitalization experience and daily functional abilities. A close relationship was found between those answering that their health was poor, and the chances that they had a hospitalization episode in the previous year. Two and a half times as many men reporting

Table 25 - Percentage of Men Reporting a Hospitalization or Some Functional Disability, by Self-Reported Health Status*

Health Status	Population (000)	Percentage: Hospitalized in Previous Year	Percentage: Reporting Some Functional Disability
Total	188.8	28.7	6.2
Good	90.1	16.7	1.2
Poor	98.7	40.3	10.9

*Includes all men who have ever worked in Israel, irrespective of retirement status.

poor health had a hospitalization episode within the past year as did men reporting good health (see Table 25). Similarly, functional disability proved to be considerably higher for those reporting poor health than for those reporting good health. Retirees' claims that health was their motivation for retiring can be accepted with a high degree of confidence.

Further validation was done through a comparison made between the self-evaluated health of retirees versus those continuing to work beyond age 60. A general question on self-evaluation of health status was asked. The responses 'good' and 'satisfactory' were classified as good, while responses 'bad' and 'not so good' were classified as bad. Table 26 gives the distribution of men by retirement status, age and their reported health evaluation. Almost half of the total, 48%, responded that their health was good. The difference between those working and those retired was striking. When examined by labor force participation, two out of three of the working men responded positively to their health status, while only slightly more than one out of three retirees responded that their health status was good. By age group, the difference was greatest among those aged 60-64 where less than one in three male retirees said their health was good, compared to almost two-thirds of employed men. Similar findings from the Elderly Survey were reported among women (Sabatello and Tal, 1990). These answers are consistent with the reasons given for retirement, particularly prior to age 65 (see above discussion on reasons for retirement).

It has been consistently shown that men who reported retiring

Table 26 - Health Status of Men, by Retirement Status and Age

Health and Retirement Status	Age Group			
	Total	60-64	65-69	70+
Total				
-Thousands	176.2	56.3	38.9	80.8
-Percent	100	100	100	100
-Poor Health	48	47	44	58
-Good Health	52	53	56	42
Working				
-Thousands	70.3	37.8	16.1	16.3
-Percent	100	100	100	100
-Poor Health	34	36	27	35
-Good Health	66	64	73	65
Retired				
-Thousands	106.0	18.5	22.9	64.5
-Percent	100	100	100	100
-Poor Health	64	71	56	64
-Good Health	36	29	44	36

because of poor health will continue to report poor health after retirement (Crowley, 1985). Followup of mortality data in Israel showed that health status was a good predictor of both morbidity and mortality (*Pinelli and Sabatello, 1993*). *In the Elderly Study,* current health status responses were compared with retirement paths, establishing a clear relationship between the two. Table 27 concisely presents the correspondence between occupation, retirement path and self-evaluated health status. Sixty-five percent of all retired males, but only fifty-one percent of professionals and managers, reported poor health. Overall, for

those reporting poor health, fifty-six percent retired because of health reasons, versus only twenty percent among those reporting good health who retired due to health reasons. This connection is valid for all three major occupational groupings: retirement due to health is highly associated with reported current health. It is strongest for professionals and managers, where four times as many men reporting poor health took the retirement route of failing

Table 27 - Retirement Reasons, by Health and Occupational Status Male Retirees

Occupation	Health Status	Population	Retirement Reason (Percentage of Total)		
			Voluntary	Involuntary	Health
Total	Good	33,033	54	26	20
	Poor	61,967	25	19	56
Professionals/ Managers	Good	7,901	61	29	10
	Poor	8,214	30	31	49
Clerical,Sales, Service	Good	10,404	50	27	23
	Poor	21,735	24	21	55
Manual	Good	14,728	53	24	22
	Poor	32,018	25	14	61

health than did those reporting good health.

Health not only affects labor force participation, but it also may affect people's intentions to continue working. A way of measuring this importance is to ask whether there is an age at which the individual has decided to retire. It is assumed that those who have a fixed age derive less satisfaction (or

diminishing satisfaction) from work, than do those with an indeterminate age at which they would like to retire.

The Elderly Survey inquired of those still working whether they had a defined retirement age in mind, or had no plans to ever retire. About two in five working men had in mind no clear age at which they wanted to retire, and they apparently intended to work for as long as conditions permitted (see Table 28). This group also had a slightly higher level of reported health status. Seventy-two percent reported their health as good, about eight

Table 28 - Health Status of Working Men, by Retirement Intentions and Age

Retirement Intention by Age Group *	Age Group			
	Total	60-64	65-69	70+
Total				
-Thousands	70.3	37.8	16.1	16.3
-Percent	100	100	100	100
-Poor Health	33	35	27	35
-Good Health	67	65	73	65
No Clear Age				
-Thousands	26.5	8.7	9.0	8.8
-Percent	100	100	100	100
-Poor Health	28	31	18	36
-Good Health	72	69	82	64
Defined Age				
-Thousands	43.7	29.1	7.1	7.6
-Percent	100	100	100	100
-Poor Health	37	37	39	34
-Good Health	63	63	61	66

* Omitted are the elderly whose responses to retirement intentions were unknown.

percent higher than the group who had a defined age at which they wanted to retire. The contrast is greatest in the 65-69 age group, where there is more than a twenty percent difference in self-evaluated health status (82% and 61%, respectively). This differential points to the consequence of self-evaluated health in the decision-making process of work continuation. It does not preclude the countenance of other relevant factors, such as pension coverage, profession and personal circumstances.

Part III Retirement and Leisure Time

Introduction

After decades of being accustomed to dividing their time between work and leisure, new retirees are suddenly confronted with a situation in which this distinction is eliminated. Many workers approach retirement anxiously, wondering how they can convert free time into meaningful leisure activities (King, 1989). While the Elderly Survey did not directly treat the satisfaction of retirees with their retirement, this area might be partially examined by utilization of leisure time. Because of their significantly different occupational patterns, continent of birth is again a useful analytic tool in looking at leisure-time preferences. Leisure time of retirees can be divided into two broad areas: social contacts and leisure activities. The Elderly Survey does not contain information on time utilization, and therefore it is impossible to measure the amounts of time spent either in social contacts or in leisure activities. All data, unless otherwise noted, refer to retired men only.

The central perspective in examining this area must be to view the total contextual background of the retiree, socially, intellectually and physically. Most obviously, physical condition defines a great deal, but certainly not all, of the parameters of the retiree's activities. Beyond that, however, retirees approach the retirement stage of their lives through the prism of their previous experiences in their work careers. McConnell (1980) dichotomized the way retirees adapt to retirement by their former

work careers. Those people who had a career which progressed in stages had a "directed career". Retirees who had less ordered careers, to which they felt little commitment, had "undirected careers". The extent to which a career is directed or undirected is determinative in the utilization of leisure time in retirement, through the degree of commitment and involvement in leisure time activities. This rough framework is supported and modified by other researchers, although it is also challenged (Streib and Schneider, 1971; Schulz, 1985). Beck (1982) contended that the more people have been committed to their work, the less able they will be to adjust to retirement. Qualifying this framework, Sadan and Chaja (1988) have reported that satisfaction with one's career is correlated with the degree of stress with which retirement is perceived, but not necessarily with how they will adapt to retirement. Atchley (1976) and Sicron (1986) associated educational level with success in retirement, although also conceding that retirement is a more profound change for professionals and executives, because their careers consumed a greater proportion of their time than it did for others. The conflicting perspectives would seem to be reconciled by the perception that the "directed" retirees retire considerably later than do the "nondirected" retirees, and are essentially postponing a change that they would rather not have to make. When it does occur, especially under voluntary arrangements, they are better prepared for it.

Social Contacts

Social contacts have a strong bearing on the quality of retirement, delineating the measure of social isolation. Social isolation is very much culturally-determined, and this is no less true in Israel. By order of importance in ranking social isolation, Auslander et al (1991) classed contacts with children the highest, followed by contacts with friends and then neighbors. Lomranz et al (1992) reported that for men, more so than for women, health status and contacts with children were highly correlated. In the Elderly Survey, two out of five retired men see at least one of their children daily, and a similar proportion see them at least once a week. About one if five sees at least one of their children up to once a month. Less than one in twenty (4%) see their children less than once a month. Virtually all respondents would like to see their children more often, although half claimed that more frequent visits were not feasible. The degree of contact is slightly more intense among elderly born in Asia-Africa, 47% reporting daily contact, whereas among elderly born in Europe-America the rate was 40%. No indication is available of the accessibility of parents to children, nor of the distances involved to see parents, nor of family size. The Elderly Survey showed a positive association between health status and amount of contacts with children, but it was unclear in which direction the influence went. Does poor health lead to decreasing contact, or do close contacts with children bolster health? In this area, there is no distinction by sex: Sabatello and Tal (1990) found a similar

pattern among women as well. Habib and Matras (1990), using the same Elderly Survey, posed the same query for the more generalized relationship of health and involvement. Kotlikoff and Morris (1989) found a similar relationship in a Massachusetts study: the more vulnerable the parent was, the less contact there was between parent and child. Abroad, there would appear to be a high degree of intergenerational contact as well. Studies in England and the U.S. showed that between 27%-34% of retirees were seen daily by at least one of their children (Bracey, 1966). The greater family contact in Israel than abroad suggests the closer intergenerational ties which families in Israel have, regardless of ethnic background. It can also be explained by the larger average family size in Israel, increasing the potential number of contacts.

The nature of the family contacts in Israel can be partially measured by mutual intergenerational assistance (see Table 29). Aid by children is expressed in terms of time, while that given by parents is of a monetary nature (Shmueli, 1990). Half of the retirees reported regular assistance in shopping, transportation or household repairs, yet one in five, approximately the same proportion who reported seeing their children less than once a week, claimed that their children could not help them. Proportionately more Asian-African born retirees reported their children's inability to help them, despite the fact they are more likely to be living with their children (Habib and Matras, 1987). The European-American born group professed a much greater deal of independence: 35% claimed that they had no need for assistance,

versus 15% of the Asia-African born.

Very few retirees reciprocated the assistance: only 13% reported helping their children once a month or more in some domestic activity. More importantly, half of the total (and almost two-thirds of the Asia-Africa born) claimed that they could not assist their children. It is suggested that the low level of ability to assist is undoubtedly connected in part to the perceived health status of the group, and conforms to the dependency model posited by Ellison above.

Table 29 - Retired Men and Assistance* from Children, by Continent of Birth

Frequency of Assistance	Total	Continent of Birth	
		Europe-America	Asia-Africa
Total -Absolute Number (000)	106.1	73.9	32.2
Percentage	100.0	100.0	100.0
- Usually	21.7	20.7	23.8
- Sometimes	27.5	26.3	29.9
- No Need for Assistance	28.6	35.1	15.1
- Children Can't Help	20.7	16.7	28.8
- Other	1.6	1.1	2.5

* Assistance with shopping, transportation and household repairs.

As for economic assistance, very few elderly reported receiving money from their children on a regular basis - less than

three percent (Zipkin and Morginstin, 1989). A considerable proportion, 22%, reported providing regular financial assistance to their children, while more than a quarter (26%) maintained that their children did not need assistance. Almost half (46%) could not provide their children with any financial assistance.

Contacts with neighbors and friends are a further manifestation of the degree of socialization of retirees, albeit a more functional one. Almost 62% reported having friends with whom they met at least occasionally. However, a large proportion of retirees have little social contact other than with children - almost one in three respondents reported having either no friends or no contact with any friends. The Asian-African born had an even higher rate - 52%. The few male retirees living alone reported a higher degree of social isolation than those who lived with a spouse. There is far less contact with neighbors than with friends. Forty-seven percent of male retirees reported neither any assistance from or contacts with neighbors. Among retirees born in Asia-Africa the rate was higher - fifty-four percent. By age, these figures rise slightly.

Is this degree of social isolation as prevalent among women of retirement age? It would seem so. Among all women in the study, 43% reported either having no friends or never meeting with them. The proportion among the Asia-African born was again considerably higher- 59%. This isolation is more prominent among single women and most prominent among women living with their children. By age, social isolation increased from 40% among women aged 65-74 to 54%

among women aged 80 and above (CBS, 1988).

Leisure Activities

Interest in retirement leisure activities corresponds to pre-retirement involvement (Bosse and Ekerdt, 1981). Habib and Matras (1987), using data antecedent to the Elderly Survey, reported that Israeli retirees did not go out for entertainment very often, were moderately interested in walking for pleasure, and did not report on many hobbies. The general picture of retirees given by the Elderly Survey is similar, that on the whole, they are not very active. Inactivity, however, is not a consequence of retirement. Total time spent on non-home recreation is small. While indicating the frequency of leisure activities, the survey gave no suggestion of the allocation of time, rendering impossible an accounting of the emphasis on activities. Watching television daily was reported by a large majority of the survey, 77%, but again it is unknown wha' proportion of waking hours this accounts for. Several tables below present some of the major daily activities, broken down by ethnic background. Considerable previous research has demonstrated rather conclusively the positive correlations between the degree of activity in retirement and variables such as education or health status (Katz and Gurevich, 1976; Habib and Matras, 1990). The general picture is one of a rather sedate life-style in retirement.

Regular reading was an activity of most retirees. Almost half read a newspaper daily, and seven out of ten read a newspaper at

least once a week. Reading habits vary significantly by ethnicity, with the elderly born in Asia-Africa reading far less frequently than those born in Europe-America. Foreign language newspaper were included as well, insuring that language was not a barrier . It is notable that a large proportion of the former group reported that they were illiterate - 16%. The latter group had a tiny illiteracy rate - less than 1%.

Questions regarding hobbies were asked on the area of interest rather than the specific name of the hobby. The categories were: handicrafts, gardening, art and music, and other. More than half

Table 30 - Retired Men and Number of Hobbies, by Continent of Birth

Number of Hobbies	Total	Continent of Birth	
		Europe-America	Asia-Africa
Total -Absolute Number (000)	106.1	73.9	32.2
Percentage	100	100	100
- None	55	49	70
- One	28	31	21
- Two	11	12	7
- Three	5	7	2
- Four	1	1	0

of retirees responded that they had no hobby whatsoever (see Table 30). Slightly more than a quarter had one area of interest, and one out of ten had two areas of interest. Again, the answers were culturally differentiated; those elderly born in Asia-Africa

had far fewer hobbies than did the Europe-America born - only one in three had at least one hobby in the former group, versus one in two in the latter group.

Visiting a social club (usually in the neighborhood) is an infrequent activity among male retirees - only one in twenty visited such a club daily, and one in six visited at least once a week. This rate of the utilization of social clubs is substantially lower than that found in England and in the U.S. (Bracey, 1966).

Activities related to spiritual and religious needs occupy an important position in the lives of many retirees. Synagogue attendance was found to be high (see Table 31). Over half of the group attended a synagogue at least once a week, and one quarter visited the synagogue daily, or almost daily. This is, not surprisingly, a somewhat higher attendance level than that previously found in a study of men over 50 (Habib and Matras,

Table 31 - Retired Men and Synagogue Attendance, by Continent of Birth

Frequency	Total	Continent of Birth	
		Europe-America	Asia-Africa
Total			
-Absolute Number (000)	106.1	73.9	32.2
Percentage	100	100	100
- Daily	28	17	52
- At least once a week	22	21	23
- Only major holidays	25	31	12
- Not at all	25	31	13

1987). On closer examination, this behavior is noted more exceptionally among the retirees of Asian-African origin: more than half of this group attended a synagogue, and three-quarters attended at least once a week. Among retirees of European-American origin, the synagogue occupied a far lesser role: only one is six in this group attended a synagogue daily, and slightly less than a third of this group never attended a synagogue.

Leisure Activities by Paths to Retirement

The path by which a person retired is likely to reflect not a single decision, but rather an entire decision-making process, and attitude towards leisure and work. This mode, then, might be expected to be analytically valuable in showing the degree of continuity between the work and retirement activities. Table 32 highlights the degree of participation in the activities mentioned above, as well as in some additional ones, by the path to retirement. In this analysis; the paths to retirement are collapsed to three categories - voluntary, involuntary and health. Several minor paths to retirement, such as family reasons, were excluded from this analysis: together they accounted for about 14% of retirees. As might be expected, of those elderly men who reported poor health as their primary reason for retirement, slightly more than half had any contacts with friends, whereas about two-thirds of the other groups reported contacts with friends. The pattern for contacts with neighbors was similar. They

Table 32 - Leisure Activities by Path to Retirement - Retired Men Aged 60 and Over

Activity	Total	Path to Retirement		
		Involuntary	Voluntary	Health
Population (000)	90.7	20.5	29.2	41.0
Percentage of Column Total				
Contacts with friends *	61	65	68	54
Contacts with neighbors *	51	55	58	44
Reads newspaper daily	45	55	50	38
Never takes recreational walks	19	19	15	23
Never goes to a movie, concert etc.	70	61	60	81
Volunteers	13	15	19	8
Visits local social club **	15	15	20	10
Attends synagogue **	49	48	48	51
Sees children often **	68	63	68	72
Has at least one hobby	42	45	50	36
Over 10 years education	29	33	37	21
Engaged in any studies	11	9	13	11

* At all.
** At least once a week.

similar. They also reported a much lower frequency in reading a newspaper, in entertainment activities, and in the amount of hobbies they had. The sole social activity where their utilization approached and even exceeded that of the other groups was their frequency in visiting social clubs. Citing the previous explanation on the high utilization of clubs among English

retirees, this may be due to the limited horizon of activities which are available to them, or at least which they perceive as available to them. They may be substituting contacts with children for other activities, as well as exhibiting manifestations of dependency.

Volunteerism is an activity among elderly Israelis which was reported at a rate of only 13% across all retirement paths. This rate is especially low when compared to that of the U.S., where almost a third of the elderly reported a volunteer activity (Chambre, 1993). A partial explanation may be the lack of appropriately-viewed frameworks specifically for the elderly (Steigman, 1988). Viewing volunteerism as one of the paramount activities substituted for work, it would be expected to be highest among those who retired voluntarily, and see themselves more in control of both work and leisure time. While not notably high, the volunteer rate among this type of retiree was 19%, higher than the involuntary retiree and twice that of the retiree due to poor health.

Retirement Styles - Factor Analysis

The data on retirement activities has hitherto ventured to characterize utilization of leisure time by ethnicity and the path leading to retirement. It has pointed out that there are clear differences between retirees in their utilization of leisure time activities. These differences have been classified in various other studies, and paradigms have been outlined of various adaptive

(or non-adaptive) retirement styles. Adjustment to retirement implicitly incorporates leisure time utilization. Two recent studies from the U.S. have both identified a typology of four retirement styles, as follows (Walker et al, 1981; Hornstein, 1985): 1) "Reorganizer" , 2) "Holding on", 3) "Rocking chair", and 4) "Dissatisfied".

The first category of retiree, the "reorganizer", has looked forward to his retirement in order to start a new pattern of activities, and is the most active of all retiree types. He tends to have retired voluntarily in good health, to be relatively highly educated, and to have good pension coverage. He is also the most satisfied with retirement (Parnes, 1985). The second paradigm, "holding on", is of those elderly active in retirement, but who would actually have preferred to have continued working. The retiree is also healthy, but has a lower average pension income than does a member of the first group. He is not as active in retirement as the "reorganizer", did not see retirement as a choice, and would have preferred to continue working. The retiree of the third group, "rocking chair", the largest, has looked forward to retirement as a relief from work, and has concomitantly significantly reduced post-work activities. He enjoys retirement, but tends to have poor health. Financially, he is reasonably satisfied. His education level is about average. The fourth category, "dissatisfied", is the worst off in retirement of all the groups. The retiree here has the poorest health of any group, and there is a high probability that he was forced into retirement. He

has few substitute activities for work. Of the four groups, this one has the lowest average education, and the lowest retirement income. Data from the Elderly Survey allowed validating the degree to which these paradigms were appropriate to Israel. Factor analysis was used to establish correlations between key variables which might illuminate retirement styles. To discount the effects of declining health over time, and achieve greater homogeneity, only men aged 65-74 were used in this analysis. The optional rotation, ORTHOMAX, gave the clearest factor separation.

Results from the analysis were constructive in identifying several distinctive patterns of retirement. Nine variables were processed in the model as follows: self-assessed health status, pension income, years of education, retired prior to age 65, contact with friends, reading habits, number of hobbies, continent of origin and volunteer activities. Four of the variables were dummy variables. Continent of origin has a value of (0) for those born in Asia-Africa, and (1) given to those born in Europe-America. The variables retired before 65, volunteers, and contact with friends, all have a value of (0) for a 'no' answer and a value of (1) for a 'yes' answer. All the continuous variables have increasing monotonic values.

Table 33 shows the three factors which together accounted for 51% of the variance of the nine variables. The first three columns contain the correlation of the variables with the factor at the head of the column. The last column, commonality, shows the variance of that variable explained by the three factors.

Several characteristics distinguish the first factor, I: a high level of reading, numerous social contacts, and a strong tendency to have been born in Europe or America. Pension income is not particularly high, and neither is education level. There is no specific direction in which to characterize the average health of this group. Activities, except reading, are at a moderately low level. Substituted leisure time for work is more socially rather than activity-oriented. This factor is the predominate in this group of retired men, accounting for 26% of the variance, and is highly consonant with the "holding on" type described above.

The second factor, II, is the individual who appears to have considerable control over the timing of retirement. He tends to retire slightly early, but is highly active in retirement, having a considerable number of hobbies. There is also a strong proclivity to volunteerism. He has the highest level of education and has the highest pension income. His health is the best of the three groups. This group corresponds well with the "reorganizer" paradigm described above. although from the available data it is only speculation whether this type has looked forward to retirement. It is the group which has adjusted best to retirement.

The third factor, III, is the individual who retires because of health reasons. This group has on the average the lowest pension income, and has in large part retired before the age of 65. Early retirees are the most represented in this group. This type is present in both the ethnic groups analyzed in this report. This is an inactive group which has few hobbies, and is not well

educated. Other than visiting the social club, there is unlikely to be much social stimulus. Contacts with friends are very low. This factor seems to partially correspond to the category of "dissatisfied" described above.

These schematic retirement types are roughly consistent with the determinants of leisure utilization and activity profiles found in other studies in Israel. For the general population, Katz and Gurevich (1976) found amount of education to be a major factor discriminating between time allocation, and to show an affinity with activites outside the house. The low education level is particularly acute in the group which retired early and for health reasons, and who have a passive retirement mode. Habib and Matras (1990), also using the data from the Elderly Survey, reported that those elderly who have several major commitment roles are more likely to be engaged in a variety of leisure activities, than are those who have no or only one major commitment role. Thus, while factor analysis is useful in validating a typology, it is not exceptional. The theme of continuity between work and retirement holds for all type of retirees. Disengagement theory posits a more passive and acquiescent role for retirees across the board.

Table 33 - Factor Analysis of Retirement Styles

Variable	Factor			
	I	II	III	Commonality Estimates
Health Status	.016	.421	-.571	.503
Pension Income Level	.258	.580	.065	.407
Years of Education	.321	.468	-.247	.383
Retired Before 65	-.051	.177	.864	.781
Volunteers	.241	.534	-.104	.355
Born in Europe-America	.794	-.022	-.062	.635
Contact with Friends	.541	.317	-.018	.394
Frequent Reader	.807	-.148	-.018	.673
Number of Hobbies	-.124	.676	-.062	.476
Percentage of total Variance	.268	.123	.120	.511

Discussion and Summary

This study has covered many of the prominent issues involved in work and retirement in Israel, yet it also contains some omissions. The most glaring of these have been separate analyses on the retirement patterns among women and minorities. Low labor force participation rates among these two groups have already been mentioned as the grounds for a lack of discussion of their work patterns, yet descriptive data on retirement styles for these groups remains to be published in some detail. Each of these groups has distinctive familial patterns which distinguish them from Jewish males. Elderly women tend to be found living alone much more frequently than are elderly men. And the non-Jewish elderly tend to be found living with their children much more than are the Jewish elderly (Zipkin and Morginstin, 1989).

In relation to work patterns of men aged 60 and above, this study has delineated some of the changes in occupation among the limited number of age cohorts which can be obtained from the survey data. Cultural and ethnic background, as examined through continent of birth, has played a significant role in most organizational aspects of work life, including occupation, economic branch and employment status. Much of this differentiation in employment patterns can be explained by the disparities in education. The employment pattern has shifted somewhat in recent decades, yet the initial mold can still be easily identified. Among the second-generation of European-American parentage (principally

those born in Israel in the last forty years), 47% of them have 13 or more years of education, while the comparable figure for those of Asian-African origin is only 16% (CBS, 1971-1989). This is a relative improvement over the age group 55-64 where the respective figures are 27% and 7%, yet it also affirms a widening of the absolute disparity in education levels. Insofar as retirement patterns are concerned, cultural background is of great consequence. As was demonstrated, it influences retirement timing, as well as the path to retirement, even when occupation is controlled for. As for the future elderly, some researchers have pointed towards a convergence of retirement patterns, as skills and opportunities between ethnic groups tend towards equalization (Matras, 1990). The Elderly Survey presents the ramifications of occupationally related pension coverage on retirement and living standards. A majority of men who did not report pension income received an income supplement from the National Insurance Institute. The fuller import on the lifestyle of this group of beneficiaries has already been discussed in an ancillary report based on the Elderly Survey (Morginstin and Zipkin, 1992). The rate of pension coverage has continued to increase over the last two decades, yet a significant portion of the population faces a significant reduction in their standard of living upon retirement. Because the Elderly Survey was cross-sectional and not longitudinal, it was impossible to estimate average individual replacement rates of post-retirement income. Instead, the income of the working and nonworking was contrasted. At particular risk,

besides those who have worked in sectors of the economy which are poorly covered by pension plans, are the self-employed with low incomes. The evidence points to the forced retirement of many men because of their age, usually 65 . Whether the reason was a consequence of age discrimination, collective agreements, ad hoc policy on the part of the firm, or some other combination, is imprecise to fix. Taking into account the trends from abroad, there is reason to conclude that age itself was the precipitating factor for a significant number of retirees. In Israel, this area has only been briefly surveyed. What age constitutes the lower limit for discrimination is an arguable point. The economic climate assuredly must be taken into account when approaching these issues. With unemployment rates in most of Western Europe and Israel hovering around 10% and over, they may lose a great deal of their immediacy.

Hopefully this paper has contributed to a depreciation of the conventional depiction of the retiree as ill and dejected in retirement. It has tentatively demonstrated a more subtle, complex mechanism in which the retirement decision is arrived at. Retirees, in general, do not become ill because of their retirement. The reasons and timing of retirement are highly influenced both by one's occupation and by one's identification with it. These factors, then, play a dominant role in the diversification of life styles among retirees, and in the ways they utilize their leisure time.

Those retirees in occupations which are education-intensive

have the brightest prospects of adjusting to retirement in terms of finding work substitutes, yet, paradoxically, they have the most difficult time separating from their jobs. Their greater identification with their jobs is the explanation behind such equivocation.

One of the central issues raised in this study has been the effects of the self-reported health status of the individual on the decision to retire and to permanently withdraw from the work force. An important corollary issue which arises is the determination of health as an endogenous or exogenous variable. In other words, does deteriorating health at least partially have its origins in the work environment, or is it identified and rationalized only after the decision to retire has been taken. Post-retirement financial resources no doubt pervade the retirement decision, but their influence is not one-sided. That is, people often retire willingly, or due to health reasons, in spite of their poor financial prospects. That this is so should be of major interest to policy-makers in adjusting pension plans to fit the needs of those who can no longer work. This should be particularly true if poor health were, among other factors, a consequent of the work environment. Numerous studies have found the opposite to be the case, namely, that poor health is an exogenous variable, and is offered as a retirement reason to disguise other motivations. These studies have in common a reliance on self-reported data, and are therefore open to methodological criticism (Anderson and Burkhauser, 1985). On the

other hand, several studies discussed here have demonstrated health to be dependent on pre-retirement occupation and income. Evidence from the Elderly Survey tends to support the latter position. A clear relationship was demonstrated between occupation and the probability of health being given as the reason for retirement. While there was no independent data on health status at the time of retirement, the self-reported hospitalization rate as well as functional disability were highly correlated with health status. It would be unreasonable to reject this correlation. Those occupations which were more physically demanding showed much higher rates of both early retirement and retirement because of health. This, in spite of the findings that those same occupations had low pension coverage. Those workers in ill health tend to be early retirees in spite of their poorer post-retirement financial prospects. To a large degree, then, they must be classified as involuntary retirees, since they would have preferred to continue to work.

Acknowledgement of the health burden as a factor in involuntary retirement by both governmental and private pension schemes would seem long overdue. Short of receiving disability allowances, those in marginal health with no occupational pension coverage are placed in a quandry: they physically cannot continue working, yet their postretirement resources are extremely limited. Yet some official notice has taken place. The 1983 Amendments to the U.S. Social Security Law recognized that many people are forced to retire before the retirement age because of poor health, and

called for a study of the implications of raising the retirement age from 65 to 67 (Sammartino, 1987).

In a process comparable to those who opt for part-time work, retirees give first priority to their ability/desire to participate in the labor force (Honig, 1985). Acceptance of pension or NII benefits becomes a secondary, albeit not insignificant priority. Such a conclusion suggests that the dimensions of early retirement lay beyond the conundrum of individual expression versus employer rigidity. They reach into the area of equitable pension coverage for those no longer capable of sustaining the work load expected of them.

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Appendix A - Relative Sampling Errors and Population Groups

The population figures given in the tables, both in the body of the report and in Appendix B, represent the set of individuals in the sample survey population "inflated" by the weight which each individual has among the entire survey population. The percentages given in the various tables are population estimates, and should be considered in light of the sampling error of each estimate. The relative sampling error gives an indication of how reliable the sample estimate is. It is defined as the ratio between the sampling error of the estimate and the estimate itself (CBS, 1987). The following table presents the percentage estimates below and above which the relative sampling error exceeds 30% for the populations discussed in this report. That is, the sample estimate may vary from the population estimate by more than 30%. The 90% confidence interval is used. Only the major population groups covered in this report are listed below. As a rule of thumb, the estimates are considered too few where the weighted population is less than 3,000.

Population Group	Population Estimate	
	Lower Limit	Upper Limit
Total	1	99
Men	1	99
Women	1	99
Continent of Birth	1	99
Europe-America	1	99
Men	1	99
Women	1	99
Asia-Africa	1	99
Men	4	96
Women	4	96
Age Group - Total Elderly		
60-64	3	97
65-69	4	96
70-74	4	96
75-79	4	96
80+	5	95
Men		
60-64	6	94
65-69	8	92
70-74	6	94
75-79	6	94
80+	9	91
Women		
60-64	5	96
65-69	6	94
70-74	6	94
75-79	6	94
80+	8	92
Age Group - Retired Elderly		
Total	1	99
60-64	8	92
65-69	7	93
70-74	6	94
75-79	6	94
80+	8	92
Men	1	99
60-64	16	84
65-69	10	90
70-74	10	90
75-79	10	90
80+	12	88
Women	4	96
60-64	11	89
65-69	14	86
70-74	14	86
75-79	14	86
80+	24	76

Population Group	Population Estimate Lower Limit	Upper Limit
Marital Status		
Men		
Married	1	99
Unmarried	8	92
Women		
Married	2	98
Unmarried	1	99
Work Characteristics of Retired Men		
Occupation		
Total	1	99
Scientific and academic workers	38	62
Other professional workers	47	53
Administrators and managers	24	76
Clerical and related workers	17	83
Sales workers	19	81
Service workers	17	83
Agricultural workers	15	85
Skilled workers in industry	7	93
Other workers in industry	22	78
Economic Branch		
Agriculture	15	85
Industry	9	91
Electricity and Water	*	*
Construction	15	85
Commerce, Restaurants and Hotels	16	84
Transportation/Communication	28	72
Financing and business services	44	56
Public and Community Services	10	90
Personal and other Services	38	62
Work Status		
Employee	1	99
Self-Employed	5	95
Europe-America	1	99
Employee	3	97
Self-Employed	9	91
Asia-Africa	4	96
Employee	5	95
Self-Employed	24	76
Men	1	99
Employee	3	97
Self-Employed	10	90
Women	4	96
Employee	5	95
Self-Employed	19	81

* Less than 30 cases.

Appendix B- Tables 1-9

Table 1 - Jewish Elderly, by Year of Immigration, Continent of Birth and Sex

Continent of Birth And Sex	Total		Year of Immigration (Percent)							
	Thousands	Percent	To 1929	1930-39	1940-47	1948-49	1950-54	1955-64	1965-74	1975-84
Total	386.4	100	5.1	16.7	6.6	19.2	17.3	18.0	11.8	5.4
Europe/America	277.9	100	5.7	21.3	7.1	18.3	12.7	16.2	12.3	6.5
Asia/Africa	108.5	100	3.5	5.1	5.4	21.4	29.0	22.6	10.5	2.5
Men	180.6	100	5.7	16.7	8.2	20.9	15.2	17.6	11.3	4.5
Europe/America	130.2	100	6.5	21.1	9.0	20.0	10.1	16.0	12.0	5.4
Asia/Africa	50.3	100	3.5	5.5	6.0	23.2	28.2	21.8	9.7	2.2
Women	205.8	100	4.5	16.7	5.3	17.7	19.1	18.4	12.1	6.1
Europe/America	147.7	100	4.9	21.4	5.4	16.8	14.9	16.5	12.5	7.5
Asia/Africa	58.1	100	3.5	4.8	4.9	20.0	29.6	23.3	11.2	2.8

Table 2 - Jewish Elderly, by Age at Immigration, Continent of Birth and Sex

Continent of Birth And Sex	Total		Age at Immigration (Percent)						
	Thousands	Percent	Under 20	20-29	30-39	40-49	50-59	60-64	65+
Total	386.4	100	11.7	23.6	23.8	20.5	12.6	3.7	4.2
Europe/America	277.9	100	13.7	24.9	21.0	18.6	13.0	4.1	4.9
Asia/Africa	108.5	100	6.6	20.4	31.1	25.4	11.5	2.8	2.3
Men	180.6	100	12.7	24.0	23.1	20.8	12.1	3.5	3.7
Europe/America	130.2	100	15.2	25.0	19.9	19.5	12.1	3.9	4.4
Asia/Africa	50.3	100	6.3	21.5	31.4	24.4	12.1	2.3	1.9
Women	205.8	100	10.8	23.2	24.4	20.2	13.0	3.9	4.5
Europe/America	147.7	100	12.3	24.8	21.9	17.8	13.8	4.2	5.3
Asia/Africa	58.1	100	6.8	19.4	30.8	26.3	10.9	3.2	2.7

Table 3 - Jewish Elderly, by Occupation*, Continent of Birth and Sex

Occupation and Sex	Total		Continent of Birth			
			Asia/Africa		Europe/America **	
	Thousands	Percent	Thousands	Percent	Thousands	Percent
Total	295.0	100.0	69.9	100.0	225.1	100.0

Scientific and academic workers	13.4	4.5	1.0	1.5	12.4	5.5
Other professional workers (1)	20.7	7.0	2.3	3.4	18.4	8.2
Administrators and managers	24.1	8.2	2.9	4.1	21.2	9.4
Clerical and related workers	42.6	14.4	4.3	6.1	38.3	17.0
Sales workers	33.2	11.3	6.7	9.6	26.5	11.8
Service workers	51.9	17.6	21.1	30.2	30.8	13.7
Agricultural workers	15.2	5.2	7.8	11.2	7.4	3.3
Skilled workers in industry (2)	65.8	22.3	15.3	21.8	50.6	22.5
Other workers in industry (3)	14.4	4.9	6.3	9.1	8.0	3.6
Other workers	13.7	4.6	2.1	3.1	11.5	5.1
Men	176.2	100.0	47.2	100.0	129.1	100.0

Scientific and academic workers	10.2	5.8	1.0	2.1	9.2	7.1
Other professional workers (1)	9.2	5.2	1.6	3.4	7.6	5.9
Administrators and managers	21.7	12.3	2.8	5.9	18.9	14.7
Clerical and related workers	25.8	14.6	3.7	7.9	22.0	17.1
Sales workers	19.7	11.2	5.5	11.7	14.1	11.0
Service workers	15.3	8.7	7.5	15.8	7.8	6.0
Agricultural workers	10.1	5.8	6.0	12.8	4.1	3.2
Skilled workers in industry (2)	52.5	29.8	13.4	28.4	39.2	30.3
Other workers in industry (3)	10.9	6.2	5.4	11.5	5.5	4.2
Other workers	0.9	0.5	0.3	0.6	0.6	0.5
Women	118.8	100.0	22.8	100.0	96.0	100.0

Scientific and academic workers	3.2	2.7	0.0	0.2	3.2	3.3
Other professional workers (1)	11.5	9.7	0.8	3.4	10.7	11.2
Administrators and managers	2.4	2.0	0.1	0.3	2.3	2.4
Clerical and related workers	16.8	14.1	0.5	2.4	16.3	16.9
Sales workers	13.6	11.4	1.2	5.3	12.4	12.9
Service workers	36.7	30.9	13.7	60.0	23.0	24.0
Agricultural workers	5.1	4.3	1.8	7.8	3.3	3.4
Skilled workers in industry (2)	13.3	11.2	1.9	8.4	11.4	11.9
Other workers in industry (3)	3.5	3.0	0.9	4.1	2.6	2.7
Other workers	12.8	10.7	1.9	8.1	10.9	11.4

* Occupation in the longest of the last two jobs held.

** Includes those born in Israel.

(1) Includes other technical and related workers.

(2) Includes workers in mining, building and transport and other skilled workers.

(3) Includes other workers in industry, transport and building and unskilled workers.

Table 4 - Jewish Elderly, by Economic Branch*, Continent of Birth and Sex

Economic Branch and Sex	Total		Continent of Birth			
			Asia/Africa		Europe/America **	
	Thousands	Percent	Thousands	Percent	Thousands	Percent
Total	295.0	100.0	69.9	100.0	225.1	100.0
Agriculture	17.3	5.9	7.5	10.8	9.8	4.4
Industry	68.0	23.1	14.6	20.9	53.4	23.7
Electricity and Water	4.0	1.4	0.2	0.3	3.8	1.7
Construction	21.1	7.2	7.7	11.0	13.4	6.0
Commerce, Restaurants and Hotels	45.0	15.3	8.3	11.9	36.7	16.3
Transportation/Communication	12.3	4.2	2.3	3.3	9.9	4.4
Financing and business services	13.4	4.5	1.2	1.7	12.2	5.4
Public and Community Services	69.2	23.5	16.7	23.9	52.5	23.3
Personal and other Services	30.8	10.4	9.2	13.1	21.6	9.6
Other	13.8	4.7	2.1	3.1	11.7	5.2
Men	176.2	100.0	47.2	100.0	129.1	100.0
Agriculture	10.9	6.2	5.5	11.8	5.4	4.2
Industry	47.5	27.0	10.9	23.1	36.7	28.4
Electricity and Water	3.9	2.2	0.2	0.4	3.7	2.9
Construction	19.7	11.2	7.6	16.0	12.1	9.4
Commerce, Restaurants and Hotels	24.8	14.1	6.2	13.2	18.5	14.4
Transportation/Communication	11.0	6.3	2.1	4.6	8.9	6.9
Financing and business services	8.9	5.1	0.7	1.5	8.2	6.4
Public and Community Services	39.7	22.5	11.0	23.2	28.7	22.3
Personal and other Services	9.0	5.1	2.7	5.6	6.3	4.9
Other	0.8	0.5	0.3	0.6	0.5	0.4
Women	118.8	100.0	22.9	100.0	96.0	100.0
Agriculture	6.4	5.4	2.0	8.7	4.4	4.6
Industry	20.4	17.2	3.7	16.3	16.7	17.4
Electricity and Water	0.2	0.2	0.1	0.3	0.1	0.1
Construction	1.5	1.2	0.2	0.7	1.3	1.4
Commerce, Restaurants and Hotels	20.3	17.1	2.1	9.2	18.2	18.9
Transportation/Communication	1.2	1.0	0.2	0.7	1.1	1.1
Financing and business services	4.4	3.7	0.5	2.0	4.0	4.2
Public and Community Services	29.5	24.9	5.8	25.3	23.8	24.8
Personal and other Services	21.8	18.4	6.5	28.6	15.3	16.0
Other	13.0	10.9	1.9	8.1	11.1	11.6

* Economic branch in the longest of the last two jobs held.

** Includes those born in Israel.

Table 5 - Jewish Elderly, by Work Status*, Continent of Birth and Sex

Work Status and Sex	Total		Continent of Birth			
			Asia/Africa		Europe/America **	
	Thousands	Percent	Thousands	Percent	Thousands	Percent
Total	295.0	100.0	69.9	100.0	225.1	100.0
Employee	209.4	71.0	56.0	80.0	153.4	68.2
Self-Employed	60.3	20.4	10.3	14.8	50.0	22.2
Other	10.9	3.7	1.2	1.7	9.6	4.3
Unknown	14.4	4.9	2.4	3.5	12.0	5.3
Men	176.2	100.0	47.2	100.0	129.1	100.0
Employee	130.4	74.0	38.2	81.0	92.2	71.5
Self-Employed	44.2	25.1	8.4	17.8	35.8	27.7
Other	0.5	0.3	0.2	0.3	0.3	0.2
Unknown	1.2	0.7	0.4	0.9	0.7	0.6
Women	118.8	100.0	22.8	100.0	96.0	100.0
Employee	78.9	66.5	17.7	78.0	61.2	63.7
Self-Employed	16.1	13.6	2.0	8.6	14.2	14.8
Other	10.4	8.8	1.1	4.7	9.3	9.7
Unknown	13.3	11.2	2.0	8.8	11.3	11.8

* Work status in the longest of the last two jobs held.

** Includes those born in Israel.

Table 6 - Age at Immigration, by Reasons Given for not Working in Israel

Age at Immigration	Total		Reasons for not Working in Israel				
	Thousands	Percent	Age	Housewife	Health	Lack of Opportunity	Other/ Unknown
Total *	102.2	100	23	64	8	2	3
Under 40	41.0	100	1	89	6	1	3
40 - 49	20.2	100	5	79	11	3	3
50 - 59	17.8	100	30	42	15	5	8
60 - 64	8.9	100	59	27	13	1	1
65 - 69	8.4	100	79	19	1	0	1
70+	5.9	100	89	9	0	1	1

Table 7 - Work Characteristics and Years of Education of Retired Men, by Retirement Reason

Work Characteristics and Years of Education *	Total		Forced	Health Reasons	Family	Dismissal	Voluntary Under 65	Voluntary 65 +	Other/ Unknown
	Thousands	Percent							
Occupation	106.1	100	12	39	4	8	3	24	10
Scientific and academic workers	4.1	100	7	13	0	21	9	35	15
Other professional workers (1)	4.5	100	28	27	9	4	1	27	4
Administrators and managers	10.1	100	13	23	4	9	5	29	17
Clerical and related workers	14.7	100	16	28	7	12	1	25	11
Sales workers	10.9	100	3	53	9	6	5	12	11
Service workers	10.8	100	14	41	4	8	2	19	12
Agricultural workers	8.0	100	9	43	5	5	1	31	7
Skilled workers in industry (2)	34.3	100	11	45	2	7	5	23	7
Other workers in industry (3)	8.1	100	9	48	4	3	0	29	8
Other workers	0.8	100	17	15	0	0	9	31	29
Economic Branch	106.1	100	12	39	4	8	3	24	10
Agriculture	8.1	100	10	39	5	3	1	32	10
Industry	27.2	100	12	35	4	11	4	28	6
Electricity and Water	2.1	100	23	10	0	8	3	42	14
Construction	13.9	100	6	47	3	7	5	21	12
Commerce, Restaurants and Hotels	13.3	100	3	58	7	5	4	10	13
Transportation/Communication	8.0	100	17	45	0	5	6	22	4
Financing and business services	4.0	100	7	45	8	8	4	21	8
Public and Community Services	25.0	100	18	27	6	8	2	27	13
Personal and other Services	3.8	100	7	49	3	16	0	20	6
Other	0.7	100	18	16	0	0	0	34	32
Years of Education	106.1	100	12	39	4	8	3	24	10
10 or less	63.5	100	11	44	4	9	3	21	8
11-12	17.8	100	13	33	6	7	6	21	13
13 and more	14.8	100	14	19	5	8	3	37	15
Unknown	10.0	100	11	47	4	3	1	28	6
Work Status	106.1	100	12	39	4	8	3	24	10
Employee	82.6	100	14	36	4	8	3	27	9
Self-Employed	22.2	100	4	52	8	8	4	14	11
Other	0.2	100	0	0	0	0	21	79	0
Unknown	1.1	100	3	29	0	0	0	7	62

* Work characteristics in the longest of the last two jobs held.

(1) Includes other technical and related workers.

(2) Includes workers in mining, building and transport and other skilled workers.

(3) Includes other workers in industry, transport and building and unskilled workers.

Table 8- Work Characteristics of Retired Men, By Age of Retirement

Work Characteristics *	Total		Retirement Age (Percent)				
	Thousands	Percent	Until 62	63-64	65	66-70	Over 70
Occupation	106.1	100	21	7	34	24	13
Scientific and academic workers	4.1	100	10	13	33	22	22
Other professional workers (1)	4.5	100	15	4	36	38	7
Administrators and managers	10.1	100	21	13	26	27	12
Clerical and related workers	14.7	100	12	8	41	21	19
Sales workers	10.9	100	30	4	19	26	22
Service workers	10.8	100	27	5	36	21	12
Agricultural workers	8.0	100	17	1	45	30	7
Skilled workers in industry (2)	34.3	100	23	8	34	23	11
Other workers in industry (3)	8.1	100	27	6	38	21	9
Other workers	0.8	100	52	0	17	9	22
Economic Branch	106.1	100	21	7	34	24	13
Agriculture	8.1	100	12	1	48	29	10
Industry	27.2	100	19	9	33	23	16
Electricity and Water	2.1	100	17	0	57	23	2
Construction	13.9	100	29	11	30	22	8
Commerce, Restaurants and Hotels	13.3	100	28	4	20	28	21
Transportation/Communication	8.0	100	22	10	41	19	8
Financing and business services	4.0	100	11	18	15	33	23
Public and Community Services	25.0	100	21	5	40	23	11
Personal and other Services	3.8	100	19	0	33	28	20
Other	0.7	100	48	0	18	10	24
Years of Education	106.1	100	21	7	34	24	13
10 or less	63.5	100	22	7	33	24	14
11-12	17.8	100	25	10	30	22	13
13 and more	14.8	100	11	5	38	30	16
Unknown	10.0	100	27	3	38	23	9
Work Status	106.1	100	21	7	34	24	13
Employee	82.6	100	20	8	39	23	11
Self-Employed	22.2	100	26	5	16	31	22
Other	0.2	100	21	0	79	0	0
Unknown	1.1	100	42	10	31	0	18

* Work characteristics in the longest of the last two jobs held.

(1) Includes other technical and related workers.

(2) Includes workers in mining, building and transport and other skilled workers.

(3) Includes other workers in industry, transport and building and unskilled workers.

Table 9 - Continent of Birth, By Retirement Reasons and Sex

Continent of Birth and Sex	Total		Retirement Reasons (Percent)						
	Thousands	Percent	Forced	Health Reasons	Family	Dismissal	Voluntary Under 65	Voluntary 65 +	Other/ Unknown
Total	208.3	100	8	34	8	7	9	14	19
Europe/America	156.2	100	8	31	9	8	9	13	22
Asia/Africa	52.2	100	10	44	6	5	7	16	11
Men	106.1	100	12	39	4	8	3	24	10
Europe/America	73.9	100	11	36	6	9	3	24	11
Asia/Africa	32.2	100	14	46	2	5	3	24	7
Women	102.2	100	5	29	12	7	15	4	28
Europe/America	82.2	100	5	27	11	8	15	4	31
Asia/Africa	20.0	100	4	41	14	6	14	4	18

Publications may be ordered from the Research and Planning Administration,
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