# The Labor Force in Israel

by Avner Hovne

## ABOUT THE AUTHOR

Avner Hovne (formerly Adrian B. Schwartz) has been an economist with the Israel Government since 1950. After receiving his M.A. degree from the University of Wisconsin in 1935, he visited Palestine on a travelling fellowship, and devoted the following five years to lecturing and writing on the social and economic aspects of Zionism. During World War II, he was an economist with the United States Government in Washington, immigrated to Palestine in 1946, and became a *kibbutz* member for several years.

Since 1953, he has been Director of Research of the Israel Ministry of Labor, except for the years 1958–60 when he was on loan, as economic consultant, to the Puerto Rico Planning Board.

His publications include: *Bus Services in Israel: Relation of the Cooperative Form and Monopolistic Structure to Problems of Public Control* (Hebrew) Jerusalem, 1952, and "Economic Growth and Population Change in Israel," in *Economics and Statistics Review of Puerto Rico*, Vol. I, No. 1, 1959.

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# PREFACE

THE STUDY on which this report is based was started in March 1954, while plans were being made for the first Israel sample survey of the labor force. For the most part, the report consists of an interpretation of the findings of the Labor Force Surveys from 1954 to 1959, though figures are presented and there is some discussion of the period 1931–1970.

The period 1954-1959 was relatively stable, for the Israel labor force. 1953, the year before the start of this period, was marked by very high unemployment; in 1960, labor shortages in a small number of occupations attracted increasing notice, though local pockets of serious unemployment remained. In early 1961 the government established a National Manpower Council, primarily to deal with existing and threatened shortages in specialized manpower.
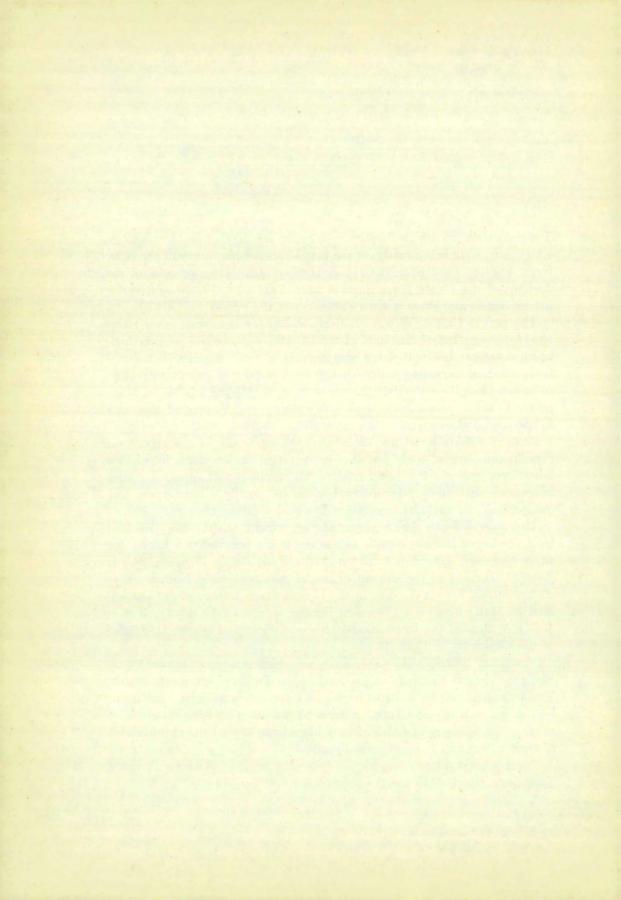
Readers outside Israel may find novel the emphasis, in this report, on "continent-of-origin" and "period-of-immigration" as key characteristics for labor force analysis. For Israel readers this emphasis will appear a matter of course, since most present-day Israelis are one-time immigrants and "absorption" or national integration is a major public concern.

The several drafts which preceded the present report were criticized by a number of scholars outside Israel, and it is a pleasure to acknowledge their kindness: Robert J. Carleton of the Puerto Rico Planning Board; John D. Durand of the Bureau of Social Affairs, United Nations; Ross A. Eckler and Robert A. Stein of the United States Bureau of the Census; Neil L. McKellar of the Dominion Bureau of Statistics, Canada; Robert J. Myers, then of the International Labour Office; and Gladys L. Palmer of the University of Pennsylvania.

Significant contributions to the study on which this report is based were made by various members of the staff of the Falk Project for Economic Research in Israel; by Roberto Bachi, Government Statistician, and members of his staff at the Central Bureau of Statistics; and by associates of mine in the Ministry of Labor. Many helped far beyond the requirements of their offices and I am grateful to all.

AVNER HOVNE

Jerusalem, Israel, May 1961

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# SYMBOLS IN TABLES

..   Not Available
—   Zero or negligible
( )   Figures not reliable

# INTRODUCTION AND SUMMARY

## 1. *Aims of the Study*

The labor force in Israel since 1948 has been marked by large scale and rapid changes as a result of a massive influx of immigrants. The primary aims of this study are: to throw light on the pace and extent of absorption of the immigrants into the labor market, and to relate the size and composition of the immigration to other major determinants of change in the dimensions of the labor force. On the basis of the analysis of the determinants of the labor force, a series has been developed of estimated annual average magnitudes of the labor force in Israel from 1948 to 1959 and an estimate for 1931, which refers to the area which is now Israel; also a projection of the labor force to 1970. Two secondary aims of the study are to evaluate the level of labor force participation in Israel, and to examine the measures of unemployment, particularly in relation to the pace and extent of absorption into the labor market of new immigrants. A series of estimated average annual figures of unemployment from 1949 to 1960 is suggested.

Because of the lack of reliable statistical information concerning the non-Jewish population,[1] and because of the particular interest, in this study, in problems related to recent immigration, discussion centers on the Jewish population.

Among the closely related questions which were excluded from the scope of the study is the optimal distribution of the employed among various kinds of work. This is a very important problem, one which might well be the subject of a special study some time in the future.

It should be emphasized that the analysis of participation in the labor force and of unemployment is partial; in the main, only demographic

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[1] The term "non-Jews", as used in this study, refers to all persons who are not classified as Jews in statistical practice. Approximately 73 per cent of the non-Jews are classified as Moslems, 17 per cent as Christians, and 10 per cent as Druze. (*Statistical Abstract of Israel 1959/60*, p. 7.) A very large percentage of the non-Jews speak Arabic, regard themselves and are regarded as Arabs, but there is available no statistical division between non-Jews who are Arabs and those who are not Arabs.

factors are examined. No consideration has been given here to economic factors such as the level and the structure of wages, the national income and its distribution, and the structure of investments.

## 2. *Concepts and Definitions*

Two concepts of the economically active population[2] have been used in Palestinian and Israel statistics between 1931 and 1959: "gainful workers" and "labor force". The former was used until 1954, the latter since 1954. The major difference between the two lies in the greater precision of the labor force concept, which refers to the activities of persons during a specific week (or other specific period). By contrast, counts or estimates of gainful workers refer to the regular or usual activities of persons, with no reference to a specific period of time. The labor force concept also allows for a more precise and inclusive count of the unemployed.

This study uses the labor force concept. Statistics for years prior to 1954 are adjusted, in so far as possible, to fit this concept.[3]

Following are the definitions of the terms which are associated with the labor force concept, as used in this study. All of the terms refer to the numbers of persons as of a given week, and are restricted to persons 14 years old or older.

*Civilian labor force*: the employed plus the unemployed.

*Employed*: worked for one hour or more during the week, for wages or for profits or as member of a *kibbutz*. Also includes persons who worked without pay for at least 15 hours during the week, helping a member of their family in his employment. Also includes employed persons temporarily absent from work during the week.

*Unemployed*: had no work whatever during the week *and* actively looked for work, whether by registration in a General Employment Exchange or in any other way. Includes persons who have never worked before.

*Not in the civilian labor force*: housewives, students, persons incapacitated for work, persons living on income not derived from work, persons living in closed institutions, and all others who are neither employed nor unemployed. Includes also members of the armed forces.

*Members of the armed forces*: enlistees and voluntary members of the

[2] The term "economically active population" embraces both "gainful workers" and "labor force". For general analysis of these terms, see UN, *Application of International Standards to Census Data on the Economically Active Population*, Population Studies No. 9, New York, 1951, p. 5.

[3] See Appendix A for details of the adjustments which were made in the original gainful worker figures for 1931 and 1948.

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standing army during the entire week. Does not include persons in temporary military service as reserves.

*Total labor force*: civilian labor force plus members of the armed forces.[4]

### 3. Statistical Sources

The earliest empirically-based estimate of the labor force in Palestine is found in the Census of Palestine conducted in November 1931 by the Mandatory Government. The census reported in great detail concerning the economic activities (in "gainful worker" terms) of Jewish, Moslem, Christian, and "other" religious groupings, and also concerning the population by religion in each place of residence. On this basis, we have estimated the civilian and total labor force of the Jewish and non-Jewish populations, both for Palestine as a whole and also for that part of Palestine which is now Israel. For comparison with current labor force estimates, these estimates must be considered merely general indicators, with a very high possible error.

On November 8, 1948, shortly after the establishment of the State of Israel, a Registration of the Population was conducted in order to prepare a list of voters for the Knesset (Constituent Assembly). The Registration was intended to cover all the residents of the State, but due to the conditions of war at the time it was impossible to register all of the non-Jewish residents. We therefore use only the registration of Jews, which was complete.

At the time of the registration each person was asked to describe his occupation and his place of work. Since about 100,000 residents were serving in the Army at that time, the interviewers were asked to list the soldiers according to their occupation and place of work before they were drafted and to add "at present, soldier". Only those soldiers, very few in numbers, who had not yet worked were listed by occupation as "soldier", and they too were included as gainful workers employed in public services. As a result, the 100,000 members of the armed forces in November 1948 are included, without distinction, in the report of "gainful workers". The total of "gainful workers" in 1948 is thus equivalent (with small adjustments) to an estimate of the "total labor force".

Some male soldiers in November 1948 would normally have been full-time students. The number is very small, especially since many university

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[4] All the terms defined above, with the exception of "total labor force", are taken from the reports of the Central Bureau of Statistics' Labor Force Surveys. There, the term "members of the armed forces" is defined, but no estimate of numbers is published, and persons in this category are included, without distinction, in the category "not in the civilian labor force".

students in Israel have part-time employment. Some girls who were in the army would normally not have been in the civilian labor force. For these reasons, the 1948 estimate based on the Registration overstates the total labor force, for comparison with periods when the army was much smaller.

We can assume that some recent immigrants, classified in the Registration as "gainful workers" on the basis of their regular activities before immigrating, never worked in Israel. With more than 15 per cent of the Jewish population having immigrated in the year prior to November 1948, this could lead to an overestimate of the total labor force, for persons not in the age-groups for military service.

A very minor source of downward bias in the 1948 estimate of the total labor force is the exclusion of unemployed persons who had never worked previously. On the other hand, we may speculate that in the emergency situation of 1948, the high social valuation of productive activity may have led to an upward bias in the estimate, particularly among older men. The 1948 estimate of the total labor force is very likely biased upward, for comparison with 1931 and is more likely to be biased upward than downward for comparison with current estimates.

In June 1954 the first attempt was made to estimate the labor force by means of household interviews of a sample of the Jewish and non-Jewish population. During the years 1954-56 a sample survey was conducted annually. In 1957 two surveys were conducted and in 1958 and 1959 four surveys each year. The definitions used in all the surveys since 1954 have remained constant, though the sampling methods have been changed several times. Following are the major sources of biases and errors in those surveys[5]:

a. Errors due to choice of samples: In the June 1954 survey, which was the first of the series of labor force samples, a sample of families was selected from the lists of grocery stores which were given a weight in proportion to the number of their customers. The selection was made with the hidden incorrect assumption that the number of adults in the family is proportional to the number of persons in the family. As a result, large families, particularly those living in ma'abarot, received too large a representation in the sample at the expense of small families. Since the labor force participation of these families is lower than the national average and their unemployment higher than the average, the results understated the ratio of the civilian labor force to the population and overstated unemployment. This error was corrected in subsequent surveys.

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[5] The discussion of the errors in the labor force surveys is based on the introductions to the surveys of 1954 and 1957 and on internal material relating to the surveys of 1955 and 1956.

b. Errors due to unreliable answers. Despite the training and direction given each team of interviewers, there are some groups of interviewed persons whose answers must be taken with reservations. Non-Jewish women in villages tend to consider themselves housewives even though they help considerably in agricultural work. Some persons tend to report themselves as fully unemployed although there is basis to suspect that they are partly employed. These two causes of error, which reduce the numbers in the labor force and inflate the number of unemployed, are probably found to some extent in all the surveys. In June 1956 an attempt was made to investigate the problem of partial employment in greater detail, and the number of partially employed obtained in that survey was higher than in other surveys.

c. Sampling errors. This is the name for errors resulting from use of a sample rather than the total population. For the proportion of the civilian labor force in the population the standard error amounted to 0.38 per cent in the 1954, 1955 and 1956 surveys. In other words the probability is two out of three that the true ratio of civilian labor force/population was in the realm of 0.38 per cent of that which was found in the samples. The standard error of the average ratio of civilian labor force/population in the 1957 surveys was about 0.7 per cent, with the probability also two out of three. The standard error for the smaller groups such as the unemployed or the non-Jewish civilian labor force was generally higher.[6]

It is important to emphasize that the surveys conducted in 1954-57 were undertaken once or twice during the year and related only to a one week period. In the absence of information on seasonal variations in employment during the year it is difficult to accept the rates as representing the yearly level of rate of labor force participation. To some extent this difficulty was overcome in 1958 and 1959, when four surveys were conducted at four different seasons during the year. Added together, these give a more accurate picture than that obtained in previous years of the average level over the year of the size of the labor force and its composition.

The sources described above provide the statistical foundation of this study. In addition, eight estimates of the number of gainful workers in the Jewish population were published between 1939 and 1952; in 1939, 1943, 1945 and 1947 by the Statistical Division of the Jewish Agency, and in 1949, 1950, 1951 and 1952 by the Central Bureau of Statistics

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[6] Details on the standard error were published only with regard to 1957. See: Central Bureau of Statistics, *Labour Force Survey (1957)*, Special Publications Series No. 82, pp. XIV–XV.

and also (with some differences) by the Statistics Division of the Histadrut.[7] The estimates before 1948 were generally based on partial censuses of branches and cities[8] and on reports of workers' and employers' associations in the major economic branches, concerning the number of persons employed. The estimates of 1949-52 were based on the 1948 Registration of the population and on information from enterprises and associations. None of these eight estimates rested on a current census or representative count of the population. Thus it can be assumed that the over-all estimates of gainful workers suffered from considerable errors. The inability to estimate the self-employed who were not connected with large enterprises or with labor unions, and the unemployed, was a major source of understatement. On the other hand some double counting was possible to the extent that workers move from one branch to another during the year. The estimates of those employed in branches of trade and services were especially faulty. Since the methods were not fully described it is impossible to determine whether the errors were consistent. It was not found possible to subject these figures to correction or analysis for the purposes of this study.

### 4. *Measurements of Absorption in the Labor Force and of Labor Force Adequacy*

The problem of measuring the absorption into the Israel labor force of the mass immigration from 1948 onward is a special aspect of the more general problem of making normative judgments on the size of the labor force.

How does one determine whether there are "enough" persons in the labor force, that is, whether labor force/population ratios or specific labor force participation rates are "high" or "low"? There is no single answer to such a question. There are many answers depending on various points of view.

The entire adult population, excluding ill and old persons, can be viewed as the potential for civilian or military labor force and it can be asked: what is the maximum total labor force which could be activated in a time of emergency? The comparison of the actual total labor force with this maximum represents one of the criteria on which judgment can be based whether labor force participation is high or low. The measure-

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[7] The number of gainful workers estimated, and the sources, are stated in a note to Table 49.

[8] Principally: Census of Manufacturing in 1937; Census of Agriculture 1941-42; Census of Industry 1943; Census of Population in Haifa 1943, in Jerusalem 1939 and in Tel-Aviv 1940.

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ment of labor force potential cannot be done on the basis of the regular Labor Force Surveys, and therefore no answer is suggested in this study to such a question. This is, however, a vital question for Israel, both because of continued exposure to the danger of war and because of the rapid rate of development which is liable to demand large additions to the labor force within relatively short periods.

Another approach is to take as the "norm", for comparison, not the theoretical maximum ratio of labor force/population, but the ratios actually achieved at an earlier time or in other countries. The reasoning which is implied is this: if and when the labor force/population ratios of the whole population is "normal", then the participation rates may be considered "good"—and the immigrant population may be considered to be "absorbed".

However, simple comparisons of over-all ratios over time or across countries are necessarily influenced by three quite separable kinds of factors and it is clearly relevant, for our purposes, to separate them. The factors are: (a) different demographic structures of the population, (b) different specific rates of labor force participation, and (c) different general dispositions of the population; in the present case, different numbers in the armed forces and in immigrant camps. Analysis of this kind is undertaken in Chapter I (historical), and in Chapter III (international).

It is not sufficient to evaluate the importance of differing specific labor force rates solely in connection with differing labor force/population ratios. With particular relation to immigrant groups, such as recent immigrants from Asian and African countries the question is: as of recent date, what is the relation of their specific age-sex rates of participation in the labor force, compared with the rates of other groups, such as persons who immigrated before 1948 from European countries? Such cross-section comparisons are made and interpreted in Chapter II. That discussion throws direct and recent light on the absorption of the immigrants.

Underlying the cross-section analysis of Chapter II and the international comparisons of Chapter III is the assumption that the specific labor force rates of economically developed sections of the Israel population, or of economically developed countries, are "normal". In the statistical sense, it is found that there is a relationship between degree of economic and social development and the specific labor force rates of certain age-sex groups, such as young men, old men, and—with many more reservations—married women. However, this leaves quite open the question as to whether it is *desirable* for persons in these age-sex groups to engage in economic activities. Such questions are discussed as they arise, but definitive answers are not attempted.

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There is another way of approaching the question as to whether there are "enough" persons in the labor force, and the related question as to how thoroughly the immigrants have been absorbed, as of recent date. Do there exist, in the adult population, groups who have no clear occupation, that is, are there men and women presumably able to work who do not fall in the accepted categories of employment, study, military service or caring for the home, and what are the reasons for the existence of these groups? If, in certain population segments, there are a substantial proportion of men and women who have no defined occupations, one can define the rate of labor force as "low", and identify them, if immigrant groups, as "not absorbed". Such a functional analysis of the population is made in the last Section of Chapter II.

Other measures of "absorption" of immigrants which are employed in the text need no explanation: unemployment ratios during periods of high immigration, current unemployment ratios of new immigrants, and numbers of new immigrants who were maintained in immigrant camps and not allowed to enter the labor market.

### 5. *Major Findings*

a. During the period 1931-59, the Jewish population of Palestine and Israel increased from 175,000 to 1,836,000, that is, 10.5 times. About the same rate of increase occured in the total labor force.

b. In 1948, the year the State of Israel was established, one of seven in the Jewish population was enlisted in the armed forces. In 1949, when immigration augmented the 1948 Jewish population by a third, one fifth of the newly arriving immigrants were accommodated in temporary immigrant camps, and withheld from participation in the civilian labor force. As a result of these events, the civilian labor force/population ratio was extremely low in 1948, quite low in 1949, and did not return to a historically normal level until, at the earliest, 1951. So far as we can judge, the normal level was, in fact, reached at that date, but the first reliable direct measurement of the civilian labor force/population ratio, is of 1955. By then, at the very latest, the large scale immigration was absorbed, as measured by historical over-all labor force/population ratios.

c. The most critical year for absorption of the immigration was 1949, when rapid demobilization of the army took place, immigration was at its peak, and not enough time had passed to reorganise the economy, which had just undergone political and military shocks. The clearest direct indication of non-absorption at that time is the no-employment rule of the immigrant camps. Another clear indication is the high level of unemployment, which is estimated at 9.5 per cent of the civilian labor force.

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d. The sharp impact of the events of 1948-51 on the ratio of the Jewish labor force to the population was restricted to the civilian labor force. When account is simultaneously taken of the large but rapidly shrinking numbers in the armed forces from 1948 to 1951, the trend of the *total* labor force/population ratio is believed to have been affected only by the shifts in the population in the immigrant camps. However, the ratio of the total labor force/population must have been reduced slightly, each year, by a different set of factors: the changing proportions in the Jewish population of children, of old persons, and of persons of all ages who had grown up in economically undeveloped countries.

From 1931 to about 1944, the demographic composition of the Jewish population had become increasingly more favorable to a large labor force. Then, about 1944, this trend reversed; after 1948 the demographic composition became more rapidly unfavorable to a large labor force, and some time before 1958 it became less favorable than in 1931. The effect of these changes in the composition of the population was to make the 1958 total labor force smaller by more than 13 per cent, than the size we might expect if we took account solely of the growth in the *numbers* of the population from 1948 to 1958.

e. After 1951, when the mass immigration appears to have been absorbed into the civilian labor market, the ratio of the civilian labor force to the population was also reduced each year as a result of the increasingly unfavorable demographic composition of the population, so that, *each year,* the civilian labor force was smaller by nearly 1 per cent than the size we might expect if we took account solely of the growth, during the year, in the numbers of the population.

f. From 9.5 per cent in 1949, the unemployment rate fell in 1950 to 7 per cent, where it remained (approximately) through 1957; with the exception of 1953. The 11 per cent unemployment rate of 1953 was directly related to the fiscal and monetary reforms of 1951 and 1952. From 1957 to 1960, the unemployment rate declined to 4.7 per cent.

Aside from the direct effect in 1949 and the indirect effect in 1953, the large-scale immigration did not lead to extremely high unemployment. The 7 per cent rate is about equal to that of the United States in the mild "recession" year of 1958. At the same time, during most of the period 1949-58, real wages increased.[9] This fact, combined with the absence of extreme unemployment, is another indication of effective absorption.

g. From the analysis of unemployment and of labor force participation

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[9] See D. Patinkin, *The Israel Economy: The First Decade,* Falk Project for Economic Research in Israel, Jerusalem, 1960, pp. 38–40. Also, U. Bahral *The Influence of Mass Immigration on the Structure of Wages in Israel,* unpublished manuscript.

of specific groups in the Jewish population, in the years 1954-58, the striking signs of difficulty in absorption in the labor market were presented by males aged 55 and over who had immigrated in the period after 1948 (post-State), and who came from Asian or African countries. Compared with other segments of the population, including men of their own age who immigrated from Asia or Africa *before* 1948, their rates of labor force participation were very low, and their rates of unemployment very high. Partly owing to the statistical weight of this group in all the male population aged 55 and over, the labor force participation rates of this age-sex group in particular, were low in Israel, compared to developed countries.

The major cause of the difficulties of absorption of this group was the late age at which they immigrated, combined with a low level of education. They could not compete for very many of the jobs in the expanding economy and they were too old to take heavy manual work. Many who had skills found them not relevant. Relatively large numbers changed their former occupations. Many apparently passed from chronic unemployment out of the labor force. Among families of this background, the number of working-age sons was relatively high. This enabled the heads of families to retire early from the labor force—a step foreign to the past pattern of labor force activity of their social grouping.

h. Among women aged 35 and over, immigrants from Asia and Africa had very low rates of participation in the labor force. Just as among the men, this is associated with a low level of education. However, the social background of these groups tends to assume non-participation of women in the labor force. Also, their family situations are more likely to require them to stay home than is the case for other Jewish women; they are more likely to have young children to care for. The fact that there is relatively little difference between the participation rates of pre-State as compared with post-State immigrant women from Asia and Africa, suggests that the low participation rates of women from Asia and Africa is simply a social difference—possibly a future source of additional workers—but not a clear problem in absorption.

i. Among the 14-17 year olds of the Jewish population, school attendance, by comparison with developed countries, was very high. However, the unemployment rate for this group was also very high.

In school attendance, boys and girls of this age group who immigrated from Asia and Africa lagged behind the others, and this, it is suggested, is a more serious problem than their immediate absorption in the labor force. In labor force participation they did not lag, nor was the very high unemployment of the whole age group particularly marked among immigrants from Asia or Africa or among post-State immigrants in general.

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j. The numbers of persons who were not housewives, members of the armed forces, or students who could probably be recruited for the civilian labor force under normal conditions, such as obtained in 1958, was very small. The major source for recruitment was housewives. Raising the levels of their labor force participation may be necessary under conditions of rapid economic development and low immigration, but will require attention to the social no less than the economic implications of such a policy.

It is interesting, in this connection, that the age-specific rates of married women aged 35 and over, for that part of the population which was in Israel from 1948 or earlier, rose sharply between 1948 and 1955, while the age-specific rates of very young persons and of men 55 and over, fell. These trends in specific rates, combined, had a null effect on the total labor force/population ratio, from 1948 to 1955 but they changed the demographic composition of the labor force,—and they point to housewives as the most likely source of future growth in the labor force/population ratios.

k. Israel's 1958 ratio of total labor force/population was low, compared with developed countries. The dominant reason for this was the much higher percentage of children in the Israel population. By international as by historical comparisons, recent specific participation rates for very young and for older men were low, while specific rates for men and women in the prime working ages were average or slightly above average.

l. Non-Jews, who constituted about one tenth of the Israel population from 1948 to 1959, had a higher ratio of children than the Jewish population, a lower level of education, higher unemployment, and lower specific rates of labor force participation, particularly among women. Detailed analysis is precluded by the unreliability of conclusions which may be drawn from the sampling of this small population.

m. A projection of the population of Israel to 1970 shows that those age groups which have manifested the greatest difficulties in adjustment to the labor market—the youngest and the oldest—will constitute a larger proportion of the population. In addition, it may be expected that the proportion of immigrants from Asia and Africa (whose levels of education and of labor force participation are also low) will continue to increase, while the percentage of European-born will decrease. The percentage of the population in the working-age groups will continue to decline while the proportion of women in each age group will continue to rise. Assuming the continuation of the 1958 rates of participation for each group by age, sex, continent-of-origin and period-of-immigration, the ratio of the civilian labor force to the population will decline from 34.9 per cent in 1958 to 30.9 per cent in 1970.

SUMMARY TABLE. *Population, Labor Force, and Unemployment Estimates: 1931–1960*

| Date | Population (thousands) | Total labor force (thousands) | Total labor force/ population (per cent) | Civilian labor force (thousands) | Civilian labor force/ population (per cent) | Unemployed (thousands) | Unemployed/ civilian labor force (per cent) |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| **A. Jews and non-Jews [1]** | | | | | | | |
| November 1931 | 634.6 | 192.5 | 30.3 | 192.3 | 30.3 | .. | .. |
| **Annual average** | | | | | | | |
| 1949 | 1,032.6 | 417.9 | 40.5 | 342.9 | 33.2 | 32.6 | 9.5 |
| 1950 | 1,253.5 | 500.1 | 39.9 | 450.1 | 35.9 | 31.0 | 6.9 |
| 1951 | 1,480.8 | 595.0 | 40.2 | 545.0 | 36.8 | 33.2 | 6.1 |
| 1952 | 1,592.7 | 634.0 | 39.8 | 584.0 | 36.7 | 41.8 | 7.2 |
| 1953 | 1,636.7 | 648.6 | 39.6 | 598.6 | 36.6 | 67.4 | 11.3 |
| 1954 | 1,676.0 | 658.0 | 39.3 | 608.0 | 36.3 | 54.1 | 8.9 |
| 1955 | 1,736.9 | 669.3 | 38.5 | 619.3 | 35.7 | 45.9 | 7.4 |
| 1956 | 1,814.9 | 696.1 | 38.4 | 646.1 | 35.6 | 50.7 | 7.8 |
| 1957 | 1,916.5 | 725.3 | 37.8 | 675.3 | 35.2 | 51.4 | 7.6 |
| 1958 | 1,986.1 | 745.1 | 37.5 | 695.1 | 35.0 | 40.0 | 5.8 |
| 1959 | 2,048.1 | 761.2 | 37.2 | 711.2 | 34.7 | 39.3 | 5.5 |
| 1960 | 2,113.0 | .. | .. | 732.5 | 34.7 | 34.8 | 4.7 |

### B. Jews

| | Total | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|---|
| November 1931 | 174.6 | 66.4 | 38.0 | 66.4 | 38.0 | .. | .. |
| December 1947 | 630.0 | .. | .. | .. | .. | .. | .. |
| November 1948 | 716.7 | 321.5 | 44.9 | 221.5 | 30.9 | .. | .. |
| Annual average | | | | | | | |
| 1949 | 901.1 | 385.0 | 42.7 | 310.0 | 34.4 | 29.6 | 9.5 |
| 1950 | 1,103.0 | 462.5 | 41.9 | 412.5 | 37.4 | 28.2 | 6.8 |
| 1951 | 1,324.0 | 555.8 | 42.0 | 505.8 | 38.2 | 29.3 | 5.8 |
| 1952 | 1,429.8 | 593.3 | 41.5 | 543.3 | 38.0 | 38.0 | 7.0 |
| 1953 | 1,467.7 | 606.3 | 41.3 | 556.3 | 37.9 | 61.3 | 11.0 |
| 1954 | 1,500.6 | 614.2 | 40.9 | 564.2 | 37.6 | 49.2 | 8.7 |
| 1955 | 1,555.3 | 623.9 | 40.1 | 573.9 | 36.9 | 41.7 | 7.3 |
| 1956 | 1,626.3 | 648.9 | 39.9 | 598.9 | 36.8 | 46.1 | 7.8 |
| 1957 | 1,721.2 | 676.5 | 39.4 | 626.5 | 36.4 | 46.7 | 7.5 |
| 1958 | 1,782.7 | 698.8 | 39.2 | 648.8 | 36.4 | 36.5 | 5.6 |
| 1959 | 1,836.2 | 711.1 | 38.7 | 661.1 | 36.0 | 33.3 | 5.0 |
| 1960 | 1,882.6 | .. | .. | 680.3 | 36.1 | 26.6 | 3.9 |

1 For 1931, the figures for non-Jews include only those living in that part of Palestine now included in Israel, apart from all the Bedouin who are excluded. For 1949 to 1960 the figures for non-Jews exclude the Bedouin of the Negev, estimated at 13,000-14,000.

SOURCES: Part A: For Jews, part B of this Table.
For non-Jews: col. (1) : Table 8, col. 3.
cols. (2), (4) and (6) : 1931, Appendix-Table A.
1949-57: Table 9, Part A
1958-59: Table 9, Part B

Part B:    cols. (1), (2) and (4) : 1931 and 1947 : Appendix-Table C
1948-59 : Table 1
col. (6) : 1949-57 : Table 7, Part A
1958-59 : Table 7, Part B

Figures for 1960 are preliminary. 1960 in Part A, col. (4), was adjusted similarly to 1958 and 1959 in Table 9.

If the experience of the past is a reliable guide, the assumption of fixed specific rates of participation is likely to yield accurate projections of the overall *size* of the civilian labor force, but not of its composition. In particular, it may be expected that participation rates of 14-17 year olds will decline, as a result of expanding secondary education, while the rates for males aged 55-64 are likely to rise. The difficulties of absorption of immigrants of this latter group were, it is believed, peculiar to the circumstances of the 1950's.

# POPULATION, LABOR FORCE, AND UNEMPLOYMENT

## 1. *Labor Force: Jews, 1931–1959*

As indicated above, the Labor Force Surveys of 1954-59 are subject to known sources of non-comparability. These are relatively minor difficulties, compared with the difficulty of obtaining reliable information on labor force trends for the period prior to 1954.

However, there is great interest and use in believable magnitudes of labor force size, for the whole period since 1948, both for the purposes of this study and for purposes of other kinds of analysis. The estimates of these magnitudes, for Jews, are shown in the Summary Table, Part B. Following is the general procedure[1] by which the figures for the Jewish civilian labor force and total labor force for 1948-57 were estimated.

    a. The specific rates of participation in the civilian labor force by sex, age, and continent-of-origin, as reported for 1958 by the Labor Force Survey, were assumed for each year from 1948 to 1957.

    b. These rates were applied to the appropriate subdivisions of the populations, in each of those years, and summed up. The result, stated as a ratio of the population in the given year, is shown in Table 1, col. 2, headed "Civilian Labor Force Population Ratio, Standardized."

    c. It was assumed that, in 1958 and in the previous years, all persons in the armed forces and a "normal" ratio of the population of immigrant camps would have been in the civilian labor force had they not been in the armed forces or in immigrant camps. Therefore, in 1949, for example, the numbers actually in the civilian labor force must have been fewer than the numbers in Table 1, col. 2 because of the relatively larger numbers in 1949 than in 1958 who were in the armed forces and in immigrant camps. The final estimate of the civilian labor force incorporates a correction for these differences between 1958 and the earlier years.

    d. The total labor force was estimated by adding to the estimated civilian labor force the estimated numbers in the armed forces.

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[1] The details of the procedure are explained in Appendix B.

As there are not available in Israel statistical sources for estimates of members of the armed forces, the estimates used in this report (50,000 for 1950 through 1959) are based on assumptions published in various places outside Israel, as the Yearbooks of the Encyclopedia Britannica. Those assumptions, like the assumptions stated just above, are not subject to direct proof.

On the other hand, there are reasons for treating the estimates as generally valid. The procedure leads to close approximations on an average annual basis, to the one-week, and two-week Labor Force Survey estimates of 1955-57; and to an estimate of the total labor force in 1948 which accords closely — is in fact, almost embarassingly, identical — with that estimate of the total labor force in 1948 which is based directly on the Registration of the Population (see Appendix-Table C). The latter estimate, as stated above, is itself subject to considerable doubt for accuracy; however, it is the most reliable figure which exists for comparison, before 1954, with current estimates of the Jewish labor force. The meeting of the estimates calculated from 1958 with the Registration estimate of 1948 may be a result of large, off-setting errors, but we have no indication that this is indeed the case.[2]

The fundamental question is the credibility of the assumptions which underlie the estimates, independently of the perhaps accidental neatness of the bridge to the 1948 Registration figures to which they contribute. The major assumption, the consistency for the period 1948-57 of the 1958 pattern of age—sex—continent-of-origin specific rates, is discussed in the next Section; the conclusion is that for use in estimating the size of the labor force (though not its composition) the assumption is probably valid.

The assumption that all persons in the armed forces were, in effect, withdrawn from the civilian labor force, is clearly subject to certain exceptions. As suggested in Section 3 above, the exceptions are male soldiers who would otherwise be full-time university students, and girls (who do not obtain exemption from the army on religious grounds) both of whom, if not in the army, would not look for any employment. However, there is no reason for supposing that, by and large, army service by men, even in the large-scale dimensions of November 1948, led to increased labor force participation by women or older men who would otherwise not be

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[2] We may note that unemployment was high in 1949 and 1953 (see the following section), but there is no basis of estimating the effect of unemployment on overall labor force participation in Israel. In the United States, Long found the influence to be generally very small. Clarence D. Long, *The Labor Force Under Changing Income and Employment,* National Bureau of Economic Research, 1959 p. 30.

in the labor force. The specific age-sex labor force participation rates of women and older men were relatively *low* in November 1948 (see Section 2, below).[3]

TABLE 1. *Estimated Labor Force/Population Ratios*
*Jews: 1948-1959*
*(Annual Averages)*[1]

| Year | Population (thousands) | Civilian labor force/ population ratio— standardized[2] (per cent) | Civilian labor force/ population (per cent) | Total labor force/ population (per cent) |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| November 1948 | 716.7 | 42.0 | 30.9 | 44.9 |
| Annual Average: | | | | |
| 1949 | 901.1 | 41.7 | 34.4 | 42.7 |
| 1950 | 1103.0 | 41.0 | 37.4 | 42.0 |
| 1951 | 1324.0 | 39.9 | 38.2 | 41.9 |
| 1952 | 1429.8 | 39.0 | 38.0 | 41.5 |
| 1953 | 1467.7 | 38.5 | 37.9 | 41.3 |
| 1954 | 1500.6 | 38.1 | 37.6 | 40.9 |
| 1955 | 1555.3 | 37.3 | 36.9 | 40.1 |
| 1956 | 1626.3 | 37.1 | 36.8 | 39.9 |
| 1957 | 1721.2 | 36.6 | 36.4 | 39.4 |
| 1958 | 1782.7 | 36.4 | 36.4 | 39.2 |
| 1959 | 1836.2 | .. | 36.0 | 38.7 |

[1] For sources and methods, see Appendix B.
[2] The 1958 rates standardized to the population of each year listed, for age, sex, and continent-of-origin.

The assumption that persons otherwise in the civilian labor force were prevented from working or seeking work by living in immigrant camps is generally valid. These immigrants were temporarily housed in special camps and provided with their basic needs out of funds contributed from abroad. Outside employment was against the rules,[4] although persons were recruited from the immigrant camps into the army.[5]

[3] Cf. Clarence D. Long, *The Labor Force in War and Transition*, Occasional Paper 36, National Bureau of Economic Research, New York, 1952, pp. 1-4. In Israel in 1948 there was no "rear" producing at high levels for the "front", into which women and older men had to be recruited.
[4] The no-outside-employment rule is not believed to have been established by November 1948; consequently no correction for the population in immigrant camps is made either in the estimates of the 1948 labor force which are being discussed here nor in the estimate derived from the 1948 Registration of the Population.
[5] This fact was overlooked in the estimates of Appendix-Table B. As a result, there

Col. 2, of Table 1 gives summary expression to the consistent downward impact on labor force size (civilian and total) of changes in the structure of the Jewish population from 1948 to 1958. The effect of these changes alone would have reduced the 1958 labor force (civilian and total) by more than 13 per cent, compared with the sizes we might expect if we took account solely of the growth in the population from 1948 to 1958.

Following is a summary of changes, from 1931 on, in the structure and characteristics of the population which were significant for the size of the labor force in 1958.

TABLE 2. *Age Structure of the Jewish Population at Year-End: 1931-1957*
*(per cent)*

| Year | All ages | Age group | | | | |
|------|----------|-----------|------|------|------|------|
| | | 0-14 | 15-29 | 30-44 | 45-64 | 65 and over |
| 1931 | 100.0 | 32.8 | 31.9 | 19.7 | 11.4 | 4.2 |
| 1939 | 100.0 | 27.5 | 26.8 | 28.4 | 12.9 | 4.4 |
| 1942 | 100.0 | 27.2 | 24.5 | 30.0 | 13.6 | 4.7 |
| 1947 | 100.0 | 29.5 | 24.5 | 26.9 | 15.0 | 4.1 |
| 1948 | 100.0 | 28.8 | 26.5 | 26.0 | 14.9 | 3.8 |
| 1949 | 100.0 | 29.3 | 27.1 | 24.8 | 15.1 | 3.7 |
| 1950 | 100.0 | 29.8 | 26.1 | 24.2 | 16.1 | 3.8 |
| 1951 | 100.0 | 30.9 | 25.3 | 22.7 | 16.9 | 4.2 |
| 1952 | 100.0 | 31.7 | 24.5 | 22.4 | 17.2 | 4.2 |
| 1953 | 100.0 | 32.3 | 24.0 | 21.8 | 17.5 | 4.4 |
| 1954 | 100.0 | 32.7 | 23.3 | 21.6 | 17.9 | 4.5 |
| 1957 | 100.0 | 34.8 | 21.8 | 19.8 | 19.0 | 4.6 |

SOURCES: 1931–54: Central Bureau of Statistics, *Jewish Population (1931–1954)*, Special Publications Series, No. 37.
1957 : Central Bureau of Statistics, *Statistical Abstract of Israel 1957/58*, Table 12, p. 19.

a. Age composition: From 1931 to the middle of World War II, the age composition of the Jewish community was determined mainly by the presence of many young adults among the immigrants (who came mainly from Central Europe) and, particularly in the years of the "disturbances" —(1936-39), by a low birth rate. The percentage of persons aged 30-44 rose while the proportion of children in the population fell (Table 2).

is double-counting of persons withdrawn from the civilian labor force by virtue of membership in the armed forces and of residence in immigrant camps. This leads to downward errors of about 2,500 or 0.3 per cent of the populatoin, for 1949 and about 1,000 or 0.1 per cent for 1950, in the estimates of civilian labor force and total labor force in the Summary Table, Part B.

These changes in age composition must have resulted in rising ratios of labor force/population from 1931 through 1942, but there is available no direct confirmation of this.[6]

The age composition of the Jewish population changed towards the end of World War II. The proportion of children in the population rose as a result of a rising birth rate and continued to increase as a result of the mass immigration, which included large numbers of children, and as a result of the relatively high birth rate among new immigrants from Asia and Africa. The proportion of children under 15 rose from 27 per cent in 1942 to 29 per cent in 1948, and further to 35 per cent in 1957. The proportion of older persons, (aged 45 and over), also increased—from 18 per cent in 1942 and 1948 to 22 per cent in 1957. The proportion of young and middle aged persons (15-44 years old)—the major source of the labor force—therefore declined from 55 per cent in 1942, to 53 per cent in 1948, and to 42 per cent in 1957. These changes cannot but have led to a decline in the rates of participation in the active population, particularly after 1948.

TABLE 3. *Jewish Population by Continent-of-Origin: 1931-1955*
*(per cent)*

| Continent-of-origin | Total population | | | Population 15 and over | |
|---|---|---|---|---|---|
| | 1931 | 1948 | 1955 | 1948 | 1955 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Born in Israel | 42.0 | 35.4 | 32.1 | 15.4 | 13.2 |
| Born in Europe and America | 46.6 | 54.8 | 39.9 | 72.8 | 55.4 |
| Born in Asia and Africa | 11.4 | 9.8 | 28.0 | 11.8 | 31.4 |

SOURCES: Population 1931, 1948—Central Bureau of Statistics, *Jewish Population (1931-1954)*, Special Publications Series No. 37 by Moshe Sicron, B. Gil, pp. 14, 20.
Population 1955—Central Bureau of Statistics, *Projection of Population of Israel (1955-1970)*, Special Publications Series, No. 69, by B. Gil, working papers.

b. Continent-of-Origin: Immigration also changed the composition of the population from the viewpoint of continent-of-origin. Table 3 shows that the weight of native-born persons has decreased since 1931. The

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[6] Concerning estimates of "gainful workers" during this and later periods see Introduction, Sec. 3 and Table 49.

percentage of European and American-born rose until the establishment of the State, then declined sharply. Complementarily, the proportion of Asian and African-born declined from 1945 to 1948, then from 1948, rose sharply. If we compare the composition of the population over 15 in 1948 and in 1955, it is seen that European and American-born who, constituted 73 per cent of this population in 1948, decreased to 55 per cent in 1955, while the percentage of Asian and African-born rose in this period from 12 to 31 per cent. For this population (over 15), from 1955 to 1958 there was no change in the Asia-Africa ratio while there was a further decline to 52 per cent for the European-American-born (see Table 11).

c. Level of Education: The most significant concommitant of the changes in the composition of the population by continent-of-origin is the decline in the general level of education of the Jewish population since the establishment of the State (see Tables 12 and 13). The decline in the level of education is bound up with phenomena which will be discussed below: low labor force participation and high unemployment among persons with little education.

TABLE 4. *Percentage of Married Women to Total Women in Each Age Group, Jews: 1931-1954*

| Age group | 1931 | 1948 | 1954 |
|-----------|------|------|------|
| 15-19 | 11.5 | 10.9 | 8.4 |
| 20-24 | 50.3 | 60.4 | 68.6 |
| 25-34 | 80.0 | 84.4 | 96.0 |
| 35-44 | 82.7 | 86.8 | 91.3 |
| 45-54 | 70.7 | 80.9 | 80.8 |
| 55-64 | 54.3 | 64.7 | 61.2 |
| 65+ | 29.8 | 33.3 | 28.6 |

SOURCES: 1931: Palestine Census Office, *Census of Population, 1931*, Vol. II, p. 47.
1948: Central Bureau of Statistics, *Statistical abstract of Israel 1950–51*, p. 27.
1954: Working papers of the Labor Force Survey of June 1954 (unpublished).

d. Marital status: Another important change in population structure was the continuing rise in the proportion of married women in relation to all women (Table 4). This rise appeared in both the pre-State period (1931-48) and the post-State period (1948-54). Only among the youngest women (15-19 years old) and women over 55 is there any sign

of decline in the proportion of married women. Since married women tend to work less than others, this factor lowers labor force participation, particularly as the rise in marriage ratios was concentrated in those age-groups from which most female members of the labor force are recruited.

We may note that the level of education and the marital status of women do not figure directly in the labor force estimates presented. However, both are, in part (the former in very large part) dependent on the changes in continent of origin, which have great relative weight in the determination of the estimates.

As presented in Table 1, changes from 1949 to 1958 in the ratio of the total labor force/population reflect quite directly the downward impact on labor force size of the changes in population structure (cf. cols 2 and 4). The trend of the civilian labor force/population ratio (col. 3) is, however, quite different. Starting at the extremely low figure of 31 per cent in 1948, when one of seven persons in the population was in the army, this ratio rose rapidly to over 38 per cent in 1951. Other things being unchanged, the ratio would have risen a full point higher a year earlier, as a result of the reduction of the army by an estimated 50,000 from 1948 to 1950, had it not been for the withholding from the civilian labor force, in 1950, of 20,000 potential jobseekers, residents of the immigrant camps (see Table 5 and also footnote in this connection, above). From 1951 on, with the gradual emptying of the immigrant camps, the downward impact of the changing population structure directly determined the civilian labor force estimate, except that the downward trend in the size of the civilian labor force was slightly augmented by the slowly falling ratio of the (estimated) unchanging numbers in the armed forces compared to the rising population.

In so far as the absorption of new immigrants into the economy can be measured by the achievement, on the part of the whole population, of a "normal" ratio of civilian labor force/population, this was achieved by 1951. It need hardly be added that the accuracy of this conclusion obviously depends directly on the correctness of the assumption on which the labor force estimates are based. By a more exacting measure, i.e. by reference to the "normalcy" of rates, absorption was achieved, at the latest, by 1955. This is shown by comparison with other directly-estimated labor force rates 1956-59 and by international comparisons, discussed respectively in Chapters 2 and 3.

## 2. *Specific Labor Force Participation Rates: Jews, 1948-1958*

A comparison of the specific labor force participation rates of Jews between 1948 and 1958 must take account of the changing composition

TABLE 5. *Civilian Labor Force Potential in Immigrant Camps: 1949-1953*

*(annual average — thousands)*

| Year | Population of Immigrants Camps | | |
|------|------|------|------|
| | Total | 15 years of age and over | Potential participants in the civilian labor force |
| | (1) | (2) | (3) |
| 1949 | 48.4 | 34 | 17 |
| 1950 | 62.2 | 43 | 22 |
| 1951 | 33.1 | 23 | 12 |
| 1952 | 16.0 | 11 | 6 |
| 1953 | 5.5 | 3 | 2 |

SOURCES: col. (1): Central Bureau of Statistics, *Statistical Abstract of Israel 1957/58,* Table 8, p. 14. Yearly average calculated on the basis of figures at the end of each year.

col. (2): Estimated from the age distribution of all immigrants.

col. (3): col. (2) multiplied by 51.2 per cent, i.e., the rate of participation of post-State immigrants in the labor force as found in the labor force survey of November 1955. See: Central Bureau of Statistics, *Labour Force Survey, 1955,* Special Publications Series No. 61, p. 2.

of the population by virtue of immigration. For this reason, in Table 6, the age-sex labor force participation rates in 1948 are compared not only with the rates for the whole Jewish population in 1958, but, more meaningfully with the rates of the pre-1948 population, that is, that part of the 1958 population which was in Israel in 1948 (minus those who meanwhile died or emigrated).

In Table 6, the rates for ages 18-34 are omitted, because they are not comparable. The reason is that for 1948 we have available only the total labor force/population ratio; for 1958 we have a direct estimate of the civilian labor force/population ratio only, and for ages 18-34, the proportion of persons in army service is known to have differed greatly in these two years. Comparison of the rates for age groups other than 18-34—which contained relatively few members of the armed forces in both years —can be made without serious reservations on this score.

Since the biases in the 1948 figures are more likely to be upward than downward for comparison with 1958, more significance is attached to rising than to falling rates of participation.

TABLE 6. *Participation of Jewish Population in the Labor Force in 1948, by Age and Sex; and in 1958, by Age, Sex and Period-of-Immigration*

*(per cent)*

| Age and sex | 1948 Total population | 1958 Pre-State residents | 1958 Total population |
|---|---|---|---|
| *Males* | | | |
| 14-17 | 47.0 | 26.2 | 34.8 |
| 18-34[1] | .. | .. | .. |
| 35-54 | 97.6 | 98.6 | 96.4 |
| 55-64 | 87.5 | 91.1 | 81.9 |
| 65 + | 51.4 | 42.1 | 33.0 |
| *Females* | | | |
| 14-17 | 30.0 | 21.6 | 26.3 |
| 18-34[1] | .. | .. | .. |
| 35-54 | 27.3 | 32.6 | 27.8 |
| 55-64 | 14.2 | 25.1 | 18.2 |
| 65 + | 4.4 | 7.9 | 4.8 |

[1] No comparable data available, as 1948 figures include and 1958 figures exclude members of the armed forces.
SOURCES: 1948: Central Bureau of Statistics, *Registration of Population,* Nov. 8, 1948, Special Publications Series No. 53, Table 28.
1958: Working papers of Labor Force Survey 1958.

The major conclusions from Table 6 are that in 1958, compared with 1948, for that part of the population with continuous residence:

a. The rates of participation of 14-17 year old boys and girls were lower.

b. The rate of participation of men 65 and over was also lower.

c. The rate of participation of men 55-64 was somewhat higher.

d. The rates of participation of women in the age groups 35 and over were markedly higher.

The lower rates of participation of 14-17 year olds can in part be explained by the increasing proportion of students[7] in this group. Indirect calculations lead to an estimate of about 45 per cent of both sexes in 1948

[7] For use in labor force analysis, many different definitions of "students" may be used. Of course numbers relating to different definitions are not directly comparable. Several major definitions are :
(1) studying in day-schools, government-supervised; (2) studying in any government-supervised school; (3) studying in any school (all the above on the basis of school statistics) ; and (4) classified as "student" by a labor force survey. In this study, definitions (1) and (2) and (4) are referred to.

studying in government-supervised schools as against 1954 figures of 64 per cent for pre-State boys and 55 per cent for pre-State girls.[8]

A related conclusion is reached in Chapter II, Section 1, from a cross-section analysis in 1958. That analysis shows a negative correspondence between length of stay in the country and participation in the labor force, and there, too, differences in labor force participation are clearly related to differences in rates of school attendance.

There is no simple explanation for the decline from 51 per cent to 42 per cent in the proportion of men 65 and over in the labor force. We may note that it agrees with the experience of many developing countries. A small part of the decline may be due to the introduction, late in the period, of National Insurance. Part may be due to statistical error.

It is particularly significant that the rates of participation of men 55-64 increased somewhat and the rates of women 35 and over increased markedly between 1948 and 1958. The main explanation for this would seem to lie in the establishment of the State and the mass influx of persons with a relatively low level of education. The increase in the kinds of governmental responsibilities and the need to broaden basic services to the public, especially school and health services, led to increasing demand for educated persons, particularly persons with secondary school and university education. The new immigrants were unable to supply workers in these fields because of their relatively low level of education. The demand was therefore filled mainly by the pre-State population. This pressure apparently worked in two directions: on the one hand, pre-State immigrants transferred from their previous occupations to those where the demand was felt; on the other hand, some of the pre-State population (particularly women) who had not done so previously, entered the labor force.

In the previous section, it was pointed out that the assumption of constant specific labor force rates, by age—sex—continent-of-origin groups, leads to estimates of labor force sizes which accord with the best available bench marks between 1948 and 1958.[9] Reference to the columns headed

[8] Sources of number of students:
    1948: *Government Yearbook* 1950, p. 439.
    1954: Central Bureau of Statistics, *Standard of Education of the Population: June 1954*, Special Publications Series No. 66.
    Source of population figures :
    Central Bureau of Statistics, *Jewish Population (1931–1954)*, Special Publications Series No. 37.

[9] A different test of the assumption of constant specific rates was also made. To the November 1955 population structure, subdivided for males by age, and for females by age and "married or not-married", there were applied the appropriate specific total labor force rates of November 1948. The result—the 1948 ratio of total labor

"Total population" in Table 6 makes clearer the mechanism; apparently, the effects on the size of the labor force of downward shifts in participation rates for younger and older persons were just offset by the upward shifts in other specific rates, particularly of women 35 and over. It is of some interest that Long, using more detailed data than are available for Israel, found for the United States similar general trends in the specific rates, of the young, the old, and females (especially wives) and similar stability in the labor force/population ratio as a whole.[10]

Several sources of error for the earlier years between 1948 and 1958 can be identified, in the assumption of constant participation rates by age—sex —continent-of-origin groups, but it is hard to determine their net direction:

a. The assumption of constant specific labor force rates by continent-of-origin takes no account of the changing "mix", in each continent-of-origin group, between pre-State immigrants and post-State immigrants. This leads to underestimates for 1948-49, when pre-State immigrants (whose specific rates of labor force participation in 1958 were generally much higher than those of post-State immigrants from the same continents) were a larger ratio than later.

b. In the *earliest* years of their immigration, the specific labor force rates of the post-State immigrants may, generally, have been even lower than in 1958. This leads to overestimates of the labor force in the earliest years of the period.

c. The national shortage of persons with education, which is believed to have determined, in the main, the rising participation rates of the pre-State population between 1948 and 1958, may have been particularly acute during 1948-51, when the demand for increased numbers of teachers, nurses, and clerks, and the ability of the new immigrants to contribute to the supply in these occupations may be assumed to have been most out of balance. Failure to take account of this is a source of underestimation of the labor force in the earlier years.

### 3. Unemployment: 1949-1958

There are two main statistical sources for the measurement of unemployment among Jews: the registration of persons seeking jobs at the General

force/population standardized to the 1955 population—was 40.1 per cent. The ratio of total labor force/population in November 1955, as estimated by the Labor Force Survey, plus an estimate for the armed forces, was 40.2 per cent. Inclusion of participation rates of women *by marital status* partially corrects the omission of the continent-of-origin distinction, as the increasing ratio of the population from Asia-Africa was, at least in part, casually related to the increasing ratio of women married.

[10] Clarence D. Long, *The Labor Force under changing Income and Employment,* p. 31.

Labor Exchange,[11] a series which existed from before 1948 to the present, and the Labor Force Surveys, which began in June 1954. The two sources use different definitions of unemployment which preclude direct comparisons.

As stated earlier, the definition of unemployed, according to the Labor Force Survey, is: a person 14 years of age or older who did not work as much as one hour during the week of the survey and who was actively seeking work during that week, whether by registration at any employment office, application for a job in person or in writing, or by attempts to set up his own business. The statistics of the General Labor Exchanges are based on entirely different principles: the population here is 18 years of age and over, and includes persons who are seeking wage or salaried employment only, and through the General Labor Exchanges and not by any other means. On all these counts (i.e. age, type of work sought, and means of seeking work) the scope of the statistics of the Labor Exchanges is narrower than that of the Labor Force Surveys. As against this, the time period on which the most generally useful Labor Exchange statistics are based, is one day, compared with an entire consecutive week in the Labor Force Surveys. From this viewpoint, therefore, the scope of the Labor Exchange statistics is more inclusive. Finally, the estimates of the Labor Force Surveys are available for one week only in 1954-56, for two spaced weeks in 1957, and four spaced weeks for 1958 and 1959. By contrast, the averages for the year of daily registration at the Exchanges are completely free of the seasonal or accidental bias which may result from a limited number of readings per year.

The estimated numbers of Jewish unemployed in the Summary Table, Part B, result from the attempt to produce a series which will, (a) be stated in terms of the Labor Force definition of unemployment (b) cover the whole period from 1949 on and (c) be in terms of annual averages, as free as possible of seasonal biases. For the particular weeks in the years 1954-58, for which figures on unemployment were available from two sources, we calculated the ratio between the Labor Exchange figures and the Labor Force Survey figures. We tested the constancy of this ratio for various series of figures of the Labor Exchange and found that the most constant ratio between the number of unemployed, according to the Labor

[11] These Exchanges were operated by the labor organizations under government subsidy and supervision until 1958, when they became the National Employment Service. Hiring was and is done only through the Exchanges for all employees except for professional and managerial occupations, and in other limited cases. The coverage of the Exchanges is, therefore, relatively complete for those groups in the labor force among whom the bulk of unemployment is found.

TABLE 7. *Estimates of Unemployment, Jews: 1949-1959*

| Date | Registered unemployed daily average (thousands) | Estimated unemployed by labor force definition | |
|------|------|------|------|
| | | (thousands) | Per cent of civilian labor force |
| | (1) | (2) | (3) |
| **A. Annual Average Estimates** | | | |
| 1949 | 6.4 | 29.6 | 9.5 |
| 1950 | 5.9 | 28.2 | 6.8 |
| 1951 | 6.3 | 29.3 | 5.8 |
| 1952 | 9.4 | 38.0 | 7.0 |
| 1953 | 17.7 | 61.3 | 11.0 |
| 1954 | 13.4 | 49.2 | 8.7 |
| 1955 | 10.7 | 41.7 | 7.3 |
| 1956 | 12.3 | 46.1 | 7.5 |
| 1957 | 12.5 | 46.7 | 7.5 |
| 1958 | 9.3 | 37.7 | 5.8 |
| 1959 | 7.4 | 32.4 | 4.9 |
| **B. Labor Force Estimates** | | | |
| June 13-19, 1954 | 12.2 | 42.6 | 8.2 |
| Oct. 28-Nov. 2, 1955 | 11.4 | 41.4 | 7,1 |
| June 17-23, 1956 | 10.3 | 41.3 | 7.3 |
| June 16-23, Nov. 3-9, 1957 | 10.4 | 44.0 | 6.9 |
| 4 Surveys 1958 | 9.2 | 36.5 | 5.6 |
| 4 Surveys 1959 | .. | 33.3 | 5.0 |

SOURCES: *Part A*
  col. (1): Central Bureau of Statistics, *Statistical Abstract of Israel 1959/60*, No. 10, p. 308. For 1959, unpublished estimate.
  col. (2): Calculated on the basis of a line of regression between col. 1 and col. 2 of Part B. The line of regression is
$$Y = 11.7 + 2.8X$$
where X is the Registered Unemployed Daily Average and Y is the Estimated Unemployed by Labor Force Definition.
  col. (3): col. 2 and Summary Table, Part B, col. 3.

*Part B*
  col. (1): Registration figures for the *week* referred to in the Survey.
  cols. (2) and (3): Labor Force Surveys.

Force Survey, and the number of unemployed registered at the Labor Exchanges, results from the use of the series of daily average of registered unemployment.[12] We applied the ratio thus derived to the Labor Exchange figures (annual averages) for each year 1949-59.[13] The addition of estimates for the non-Jewish population[14] produced the unemployment series of Part A in the Summary Table.

This series shows that the proportion of unemployed in the civilian labor force was very high in 1949 (9.5 per cent), decreased to about 7 per cent for 1950 through 1952, and rose sharply in 1953 (11.3 per cent). After 1953 the proportion decreased to about 7.5 per cent through 1957, then declined further, reaching 4.7 per cent in 1960.

The high unemployment of 1949 stemmed from the mass immigration, the large-scale army releases and the relative disorganization of the economy following the warfare, the withdrawal of the Mandatory Government, and major migration movements. It may be assumed that the unemployment would have been even greater in this period had the residents of the immigrant camps entered the labor market. In 1950 and 1951 a large scale program was undertaken to absorb into the labor market the newly arriving immigrants, the recently discharged soldiers, and the unemployed. However, just as full employment was being approached in the labor market, shocks occurred in other markets: the inflationary pressure and the pressure on the balance of payments which accumulated in these years forced a revision of government monetary and fiscal policy, which led to a steep rise in the percentage of unemployment in 1953.[15] From 1953 to 1960, unemployment fell at an average of one percentage point per year.

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[12] The test was made for: total persons registered at least one day during the month of the Survey; persons registered at least 7 days during the month; persons registered at least 13 days during the month of the survey; persons registered at least 19 days during the month of the survey; and the daily average of persons seeking jobs during the week of the Survey.

[13] The underlying figures for the computation are shown in Table 7.

[14] The estimates for non-Jews are given in Table 9, which is discussed in the following section. The Exchange statistics now include non-Jewish unemployed, but their numbers are not separated and they are probably not as fully represented as are Jews, from the viewpoint of the Labor Force Survey concept of unemployment. Further, non-Jews were not included in the Exchange statistics in the early years of the 1950's. Therefore, the total Exchange statistics were related to the Labor Force statistics for Jews, and the non-Jewish unemployed were estimated separately, as explained below.

[15] For a general discussion see: D. Patinkin, *The Israel Economy: The First Decade*, p. 30.

## 4. Labor Force and Unemployment: Non-Jews 1931-1959

In contrast to the Jewish population, the non-Jewish population in Israel constitutes a very incomplete continuation of that which existed

TABLE 8. *Non-Jewish Population in Palestine and Israel: 1931-1959*
*(thousands)*

| Date | In Palestine (area of Israel)[1] and in Israel (including Bedouin) (1) | In all Palestine (excluding Bedouin) (2) | In Palestine (area of Israel)[1] and in Israel (excluding Bedouin) (3) | Index, annual rate of growth of col. (3) population (4) |
|---|---|---|---|---|
| November 1931 | 510.0 | 792.0 | 460.0 | |
| December 1947 | .. | 1268.6 | 763.3 | 103 |
| Annual Average | | | | |
| 1949 | 145.0 | .. | 131.5 | .. |
| 1950 | 163.7 | .. | 150.2 | 104 |
| 1951 | 170.3 | .. | 156.8 | 104 |
| 1952 | 176.4 | .. | 162.9 | 103 |
| 1953 | 182.6 | .. | 169.1 | 104 |
| 1954 | 188.8 | .. | 175.3 | 103 |
| 1955 | 195.1 | .. | 181.6 | 103 |
| 1956 | 202.0 | .. | 188.5 | 103 |
| 1957 | 209.3 | .. | 195.3 | 104 |
| 1958 | 217.4 | .. | 203.4 | 104 |
| 1959 | 225.9 | .. | 211.9 | 104 |

[1] I.e., for 1931 and 1947, in the part of Palestine now included in Israel.

SOURCES: 1931: col. (1): Palestine Census Office, *Census of Population 1931*, Vol II, Table III. 2500 British troops were deducted from the total population figure.

col. (2): Government of Palestine, *Statistical Abstract of Palestine 1944/45*, Table 1, p. 16. British troops were not included in the figure.

col. (3): The number of persnos in each place of settlement is given in the *Census of Population, 1931*, Population of Villages, Towns + Administrative Areas. The places of settlement located in the area which now belongs to Israel were determined on the basis of the map of Palestine published in August 1954 by the Survey Department of the Government of Israel.

1947: The population, excluding Negev Bedouin in the area of Israel: Compounded growth of population in 1944 by natural increase of 3.5 per cent annually. See: Government of Palestine, *Statistical Abstract of Palestine 1944/45*, Tables 16, 17.

1949-59 : col. (1): Central Bureau of Statistics, *Statistical Bulletin of Israel: Part A—Social Statistics*, October 1960.

col. (3): Col 1 minus 13,500 for 1949-56; minus 14,000 for 1957-59, the estimated population of Negev Bedouin—according to information provided by the Central Bureau of Statistics.

TABLE 9. *Ratios of Labor Force and of Unemployment, Non-Jews: 1949-1959*

| Date | Civilian labor force (thousands) (1) | Unemployed (thousands) (2) | Civilian labor force/ population (per cent) (3) | Unemployed/ civilian labor force (per cent) (4) |
|---|---|---|---|---|
| *A. Annual Average Estimates* | | | | |
| 1949 | 32.9 | 3.0 | | |
| 1950 | 37.6 | 2.8 | | |
| 1951 | 39.2 | 2.9 | | |
| 1952 | 40.7 | 3.8 | | |
| 1953 | 42.3 | 6.1 | | |
| 1954 | 43.8 | 4.9 | | |
| 1955 | 45.4 | 4.2 | | |
| 1956 | 47.2 | 4.6 | | |
| 1957 | 48.8 | 4.7 | | |
| *B. Labor Force Survey Estimates* | | | | |
| June 1954 | 42.9 | 5.2 | 22.0 | 12.1 |
| November 1955 | 47.5 | 4.1 | 25.5 | 8.6 |
| June 1956 | 48.2 | 4.7 | 25.6 | 9.8 |
| June-November 1957 | 46.3 | 3.6 | 23.7 | 7.8 |
| 4 Surveys 1958 | 46.3 | 3.5 | 22.8 | 7.1 |
| 4 Surveys 1959 | 50.1 | 5.8 | 23.6 | 10.9 |

SOURCES: *Part A:*

col. (1): Table 8 col. (3) × 25.0 per cent. Cf. Part B, col. (3).
col. (2): Table 7 col. (2) × 10.0 per cent. Cf. below, the ratio of non-Jewish unemployed to Jewish unemployed in the Labor Force Surveys 1954–59. These ratios (Table 9, Part B. col. (4)/Table 7, Part B. col. (2)) are:

| | | | |
|---|---|---|---|
| 1954 — | 12.2 | 1957 — | 8.4 |
| 1955 — | 9.9 | 1958 — | 9.6 |
| 1956 — | 11.4 | 1959 — | 17.4 |

*Part B:*

col. (1) and (2): Central Bureau of Statistics, *Labour Force Surveys, 1959*, March 1959 (Hebrew) and *Statistical Bulletin of Israel: Part B—Economic Statistics*, May 1960 (Hebrew). The figures for 1958 and 1959, as published there, were blown up to 49,500 and 53,400 respectively, so as to apply to the entire population, including the estimated 14,000 Bedouin of the Negev.
col. (3): col. (1) and Table 8, col. (3). For November 1955, the annual average estimate of population was adjusted to November.

in the period of the Mandate (Table 8). Of the total number of non-Jews in Palestine in 1947, only 60 per cent lived in areas which were later included in the borders of Israel. The slenderness of the continuity remains unaffected even if the non-Jewish population of Israel is com-

pared with the non-Jewish population in that part of Palestine which is now Israel. The numbers of those within the area of Israel were decreased by five-sixths by the flight of the Arabs during the War of Independence.[16]

Since 1949 (as was true between 1931 and 1947) the natural increase of the non-Jewish population has been at an annual rate of 3 to 4 per cent. Post-1949 migration has been statistically insignificant.

Estimates of labor force and unemployment among non-Jews have been made for 1949-57 (Table 9 and explanatory notes). These estimates must be taken with serious reservations, particularly for 1949-54. The only use made of these figures in this study is to fill out the estimates of the labor force of Israel as a whole (Summary Table, Part A). Since the non-Jews have been about one-tenth of the population since 1949, the estimates for the whole population can tolerate relatively large errors in the estimates of the non-Jewish population.

As shown in Table 10, the general character of the age structure of the non-Jewish population in Israel is not radically different from that of the non-Jews of Palestine. However, an increase in the ratio of children under 15 can be traced from 1931 to 1944 and from 1944 to 1957.

The ratio of civilian labor force/population was lower among non-Jews than among Jews in each Labor Force Survey (see Table 1, and Table 9, Part B). The reasons for this low participation lie, in part, in the high proportion of children under 14 years of age. In 1957, children constituted 45.7 per cent of the non-Jewish population, as compared with 34.8 per cent of the Jewish population (Tables 2 and 10). The high percentage of children in this population is due to its high birth rate, which is among the highest in the world.[17] The proportion of persons over 65 was, in 1958, the same as that in the Jewish population (4.6 per cent). Persons in working ages (15-64) comprised in 1957, less than half of the non-Jewish population, as compared with 63 per cent in the Jewish population.

For the population aged 14 and over, 40 per cent of non-Jews were estimated to be in the civilian labor force in 1958, compared with 54.5 per cent among Jews.[18] Almost all age-specific rates were relatively low in the non-Jewish population, but particularly among females (see Table 14). In

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[16] Calculated by subtracting from the estimated population at the end of 1947 in the area now Israel, the population in Israel at the end of 1949, with a small correction for natural increase. This calculation takes no account of Bedouin of the Negev, concerning whom no reliable estimates are available.

[17] See *Statistical Abstract of Israel 1957/58*, p. 28; also UN, *The Determinants and Consequences of Population Trends*, New York, 1953, p. 17.

[18] See Central Bureau of Statistics, *Labour Force Surveys, 1958*, Table 1.

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TABLE 10.  *Non-Jewish Population by Age:*
*1931, 1944 and 1957*

*(per cent)*

| Age group | 1931 | 1944 | 1957 |
|-----------|------|------|------|
| 0-14 | 40.7 | 42.4 | 45.7 |
| 15-19 | 7.0 | 11.1 | 10.5 |
| 20-24 | 9.3 | 7.9 | 8.6 |
| 25-34 | 16.2 | 10.0 | 12.8 |
| 35-44 | 10.9 | 11.7 | 7.4 |
| 45-54 | 7.0 | 7.7 | 6.2 |
| 55-64 | 4.4 | 5.0 | 4.2 |
| 65 + | 4.5 | 4.2 | 4.6 |

SOURCES: 1931: Palestine Census Office, *Census of of Population, 1931,* Part II, p. 149.
1944: Government of Palestine, *Statistical Abstract of Palestine 1944/45,* pp. 16, 19. The source gives figures for age groups in each religion and sex separately. Weights by religion were given on the basis of the proportion of the population of each religious group to the total non-Jewish population in 1944. Weights by sex were given on the basis of weights of the 1931 census.
1957: Central Bureau of Statistics, *Statistical Abstract of Israel 1957/58,* p. 19.

part, this may be due to under-reporting, the tendency referred to earlier for Arab women working on their own farms to consider their work in the fields as an integral part of their duties as housewives. In large part, there is reflected the social values and customs of Moslem societies in regard to employment of women, values and customs which are reflected in low rates of labor force participation for women in all Moslem countries.[19]

Unemployment among non-Jews ranged from 8 to 12 per cent of the civilian labor force, as estimated by the labor force surveys between 1954 and 1959, compared with 5 to 8 per cent among Jews (see Tables 7 and 9).[20]

[19] See, for example, the results of recent labor force surveys in Egypt, reported in the *International Labour Review,* November, 1960.

[20] Because of the smallness of the samples, the labor force estimates of unemployment among the non-Jews are not very reliable, as independent data, but the consistency of the higher unemployment rates, over many surveys, reliably indicates a higher general level of unemployment.

The relatively low level of education of the non-Jews is probably an important reason for the low specific participation rates and high unemployment. In 1954, 42.8 per cent and in 1957, 46.9 per cent of non-Jews over 15 were able to read and write, as compared with 85 per cent of the adult Jewish population.[21]

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[21] See: Central Bureau of Statistics, *Statistical Abstract of Israel 1957/58*, p. 364.

# SPECIFIC RATES OF LABOR FORCE PARTICIPATION AND OF UNEMPLOYMENT: JEWS, 1954-1958

In the previous chapter, attention was focused on the overall ratios of the labor force to the population and on overall unemployment rates. In this chapter it is proposed to examine the specific rates of participation in the civilian labor force and specific rates of unemployment of various segments of the population. The discussion in this chapter is based mainly on the Labor Force Surveys conducted in the years 1954-58. This period appears to be quite stable from the viewpoint of labor force growth and composition and therefore can be dealt with as a single entity. We have tried to base the discussion mainly on the later surveys, especially those of 1957 and 1958; however, where data are available only from the earlier surveys (particularly with relation to level of education), the earlier ones are used. The discussion in this chapter is limited to the Jewish population.

## 1. *Cross-section of the Population in 1958*

To introduce the discussion in this chapter, we will examine a cross-section of the population in 1958 based on the major classifications used in the chapter. Table 11 gives a picture of the composition of the population by sex, age, continent-of-origin and length-of-stay in the country in 1958. European and American-born persons were almost 50 per cent of the population, Asian and African-born about 25 per cent, Israeli-born about 15 per cent, and non-Jews about 10 per cent.

About half the European and American-born immigrated before the establishment of the State, and half afterwards, whereas the overwhelming majority of Asian and African-born immigrated after the State existed. Post-State immigrants form about half of the population aged 14 and over. In the younger age groups (14-34), Israeli-born and post-State immigrants from Asia and Africa form the main part of the population, whereas in the middle and upper groups (35 and over), immigrants from Europe and America (pre- and post-State) represent the majority.

The level of education varies greatly among the different age—sex—continent-of-origin—length-of-stay groupings (Tables 12 and 13). The pre-State European and American immigrants have the highest level of educa-

TABLE 11. *Population 14 Years Old and over, by Age, Sex, Continent-of Origin and Period-of-Immigration: 1958 Average*
*(thousands)*

| Age and sex group | Total population | Non-Jews | Total Jews | Israeli-born | Pre-State immigrants | | Post-State immigrants | |
|---|---|---|---|---|---|---|---|---|
| | | | | | From Asia and Africa | From Europe and America | From Asia and Africa | From Europe and America |
| **Males** | | | | | | | | |
| Total aged 14 and over | 661.6 | 62.3 | 599.3 | 99.6 | 27.2 | 153.1 | 156.6 | 162.0 |
| 14-17 | 62.5 | 10.7 | 51.8 | 25.3 | 0.6 | 0.6 | 17.9 | 7.3 |
| 18-34 | 248.9 | 27.6 | 221.2 | 56.7 | 9.9 | 28.6 | 74.9 | 50.8 |
| 35-54 | 238.3 | 14.3 | 224.0 | 13.1 | 11.2 | 84.4 | 44.7 | 70.3 |
| 55-64 | 68.9 | 4.6 | 64.3 | 3.1 | 2.8 | 25.9 | 11.8 | 20.6 |
| 65 + | 42.9 | 4.9 | 38.0 | 1.3 | 2.8 | 13.5 | 7.2 | 13.1 |
| **Females** | | | | | | | | |
| Total aged 14 and over | 652.1 | 61.3 | 590.8 | 97.6 | 25.6 | 154.4 | 155.6 | 165.7 |
| 14-17 | 58.2 | 9.3 | 48.8 | 25.3 | 1.0 | 0.3 | 17.1 | 5.1 |
| 18-34 | 246.5 | 26.7 | 219.7 | 55.1 | 8.4 | 24.8 | 75.8 | 55.4 |
| 35-54 | 234.0 | 15.4 | 218.7 | 13.0 | 10.5 | 83.5 | 40.7 | 70.4 |
| 55-64 | 64.4 | 4.5 | 59.9 | 2.9 | 3.0 | 21.0 | 12.9 | 20.0 |
| 65 + | 49.0 | 5.4 | 43.6 | 1.3 | 2.6 | 15.8 | 9.0 | 14.8 |
| Total aged 14 and over | 1313.7 | 123.6 | 1190.1 | 197.2 | 52.8 | 298.5 | 312.2 | 327.7 |
| Total population all ages | 2000.1 | 217.4 | 1782.7 | | | | | |

SOURCES: Population 14 years of age and over from Labour Force Survey 1958, working papers. Total population, Central Bureau of Statistics, *Statistical Abstract of Israel 1958/59*, p. 7.

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TABLE 12.  *Level of Education of the Jewish Population 15 Years of Age and over by Sex and Period-of-Immigration: 1954*
*(per cent)*

| Level of education | Males | | | Females | | |
|---|---|---|---|---|---|---|
| | Total | Pre-State residents | Post-State immigrants | Total | Pre-State residents | Post-State immigrants |
| All levels | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Never attended school | 8.2 | 4.1 | 12.0 | 21.7 | 11.8 | 30.3 |
| Completed less than 8 grades | 31.8 | 22.3 | 40.8 | 24.2 | 18.5 | 29.2 |
| Completed 8 grades | 35.2 | 39.6 | 31.0 | 33.4 | 39.9 | 27.7 |
| Sub-total | 75.2 | 66.0 | 83.8 | 79.3 | 70.2 | 87.2 |
| Completed second-ary school | 19.9 | 26.8 | 13.4 | 18.3 | 26.1 | 11.6 |
| Completed higher education | 4.9 | 7.2 | 2.8 | 2.4 | 3.7 | 1.2 |

SOURCE: Central Bureau of Statistics, *Statistical Abstract of Israel 1957/58*, p. 365.

tion; below them are the Israeli-born and the new immigrants from Europe and America; the lowest level is among the pre- and post-State immigrants from Asia and Africa. About 57 per cent of the total Jewish population completed elementary school or more. Among pre-State European and American-born the proportion completing elementary school or more is 80 per cent; among new post-State immigrants from Asia and Africa this proportion is only 22 per cent. The differences among the various segments of the population, especially differences in level of education and their influence on participation in the labor force, form the core of the discussion in this chapter.

## 2. *Specific Labor Force Participation: 1958*

Table 14 shows, for 1958, the rate of participation of each age-sex group in the whole Israel population and the relationship of the participation rate of each age-sex group by continent-of-origin and period-of-immigration to the average participation rate for the entire population of that age-sex group.

The ratio of civilian labor force/population among men was 78.6 per cent and among women 27.2 per cent. Among men, the distribution curve of rates of participation in the civilian labor force is more or less symmetrical around the age group 35-54, which has the peak participation rate

TABLE 13. *Years of Education, Jews, by Age, Sex, Continent-of-Origin and Period-of-Immigration: June 1954*

(*average number of years*)[1]

| Sex—continent-of-origin—period-of-immigration categories | 15-29 | 30-44 | 45-59 | 60 and over |
|---|---|---|---|---|
| **Males** | | | | |
| Israeli-born | 8.1 | 8.4 | 7.0 | 4.9 |
| Pre-State immigrants | | | | |
| Asia-Africa | 6.0 | 6.0 | 4.3 | 3.1 |
| Europe-America | 8.8 | 9.6 | 9.7 | 8.3 |
| Pre-State immigrants | | | | |
| Asia-Africa | 5.1 | 5.0 | 3.7 | 2.3 |
| Europe-America | 7.5 | 8.0 | 7.6 | 6.4 |
| Standard error[2] | 1.4 | 1.7 | 2.2 | 2.0 |
| **Females** | | | | |
| Israeli-born | 8.2 | 7.6 | 5.2 | 2.6 |
| Pre-State immigrants | | | | |
| Asia-Africa | 5.3 | 3.2 | 1.4 | 0.9 |
| Europe-America | 9.0 | 9.1 | 9.0 | 6.1 |
| Post-State immigrants | | | | |
| Asia-Africa | 3.6 | 2.2 | 1.3 | 0.6 |
| Europe-America | 7.9 | 7.8 | 6.6 | 4.8 |
| Standard error[2] | 2.0 | 2.7 | 3.0 | 2.2 |

[1] For measurement purposes weights were assigned to each level of education by number of years required. These were: 0 for those with no education; 4 for those not completing elementary school, 8 for those completing elementary school and for those with partial secondary school education, 12 for those completing secondary school and for those with partial higher education, and 16 for persons completing higher education. The differences in the table are probably smaller than they should be because years of uncompleted secondary or higher education are not counted.

[2] Unweighted standard error of differences in levels of education among the different categories in each age—sex group.

SOURCES: Central Bureau of Statistics, *Standard of Education of the Population: June 1954*, Special Publications Series No. 66, Table 11.

(96.4 per cent).[1] At the ends, that is at the ages 14-17 on one side and 65 and over on the other, the participation was about 34 per cent. Among women, peak participation was in the 18-34 age group (33.9 per cent) and from there, the rate steadily declined to 4.8 per cent participation at the age of 65 and over.

Examination by continent-of-origin—period-of-immigration shows that in every age-sex group there were significant differences in the rates of

[1] The peak rate is approached in the age group 18-34, if members of the armed forces are included, that is, if total labor force/population is measured (see Table 30).

TABLE 14. *Index of Participation in the Civilian Labor Force by Age, Sex, Continent-of-Origin and Period-of-Immigration: 1958*

| Age and sex | Percentage of civilian labor force participants in the population | Index of participation (col. 1 = 100) | | | | | | |
| | | Total | European and American born | | Asian and African born | | Israeli-born Jews | Non-Jews |
| | | | Pre-State immigrants | Post-State immigrants | Pre-State immigrants | Post-State immigrants | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| **Males** | | | | | | | | |
| Total aged 14 and over | 78.6 | 100 | 113 | 105 | 108 | 96 | 80 | 92 |
| 14–17 | 34.8 | 100 | (116) | 100 | (62) | 122 | 75 | 118 |
| 18-34 | 79.7 | 100 | 102 | 99 | 110 | 102 | 89 | 114 |
| 35-54 | 96.4 | 100 | 103 | 101 | 101 | 97 | 102 | 92 |
| 55-64 | 81.9 | 100 | 113 | 106 | (104) | 75 | (103) | (61) |
| 65 + | 33.0 | 100 | 133 | 108 | (107) | 51 | (116) | (52) |
| **Females** | | | | | | | | |
| Total aged 14 and over | 27.2 | 100 | 120 | 113 | 65 | 79 | 139 | 25 |
| 14-17 | 26.3 | 100 | (149) | 126 | (83) | 156 | 81 | (34) |
| 18-34 | 33.9 | 100 | 117 | 119 | 83 | 74 | 150 | (22) |
| 34-54 | 27.8 | 100 | 130 | 115 | 56 | 57 | 89 | (26) |
| 54-64 | 18.2 | 100 | 159 | 114 | (67) | 25 | (58) | (28) |
| 65 + | 4.8 | 100 | 194 | 83 | (42) | 31 | (48) | (27) |

SOURCE: Central Bureau of Statistics, *Statistical Abstract of Israel 1958/59*, p. 303.

participation of different segments of the population. The differences in participation rates of the various population segments were particularly large among young men (14-17), older men (55 and over), and among women. Because of the difficulty in dealing with civilian labor force participation by young men and women (18-34) without reliable details concerning members of the armed forces, the discussion excludes this age group.

a. 14-17 years old

In this age group, 35 per cent of the boys and 26 per cent of the girls participated in the labor force. However, within the group there were wide differences among different continent-of-origin and period-of-immigration segments. The major segments in this age group were Israeli-born (about 50 per cent of the entire age group), new immigrants from Asia

and Africa (about 35 per cent) and new immigrants from Europe and America (about 12 per cent) (see Table 11).

Between the two largest segments there were marked differences in habits of labor force participation. Whereas among new immigrants from Asia and Africa the rate of participation was over 40 per cent, among the Israeli-born the rate did not reach 25 per cent. The main reason for this difference lies in the different proportion of students among the different continent-of-origin and period-of-immigration segments. Table 15 shows that, in 1958, about 50 per cent of Israeli-born 14-17 year olds studied in government-supervised day schools, whereas less than 25 per cent of immigrants from Asia and Africa did so. No figures by continent-of-origin are available for students in all government-supervised schools or in all schools. For these broader definitions of "studying", the differences are likely to be less sharp.

TABLE 15.  *Students in Government-Supervised Day-Schools and Participants in the Labor Force, Jews, Aged 14-17, by Sex and Selected Population Segments: 1958*

*(per cent)*

| Age and sex | Total (1) | Labor force participants (2) | Students in day schools (3) | Others (4) |
|---|---|---|---|---|
| *Males* | | | | |
| Israeli-born | 100.0 | 26.0 | 49.0 | 25.0 |
| Post-State immigrants | | | | |
| From Asia-Africa | 100.0 | 42.6 | 27.0 | 30.0 |
| From Europe-America | 100.0 | 38.1 | 37.0 | 25.0 |
| *Females* | | | | |
| Israeli-born | 100.0 | 21.4 | 55.0 | 24.0 |
| Post-State immigrants | | | | |
| From Asia-Africa | 100.0 | 41.1 | 18.0 | 41.0 |
| From Europe-America | 100.0 | 33.0 | 56.0 | 11.0 |

SOURCES: col. (2): Central Bureau of Statistics, *Statistical Abstract of Israel 1958/59*, Table 11, p. 304.
col. (3): *Statistical Bulletin of Israel, Part A—Social Statistics*, May 1959: Composition of Students in Hebrew Schools, 1958/59, Tables 1, 2 and 10.

Differences in the proportion of students among the different segments of the population is one of the most difficult problems of the state from both the social and the economic points of view. From the social point

of view the danger lies in continued identification of different population segments with specific levels of education and the resulting crystallization of these segments as clearly differentiated classes. From the economic point of view, the relative abundance of uneducated persons and persons with little education, together with a lack of persons with a medium-level education, does not fit the needs of a modern economy, such as is developing in Israel.

Further, the span of the work life of persons with a low level of education is relatively short—they leave the labor force at a much younger age than persons with education, and even in the periods when they are in the labor market, unemployment among them is higher than among educated persons. These are reasons why, from the economic point of view, it is worth while raising the proportion of students 14-17 years of age at the expense of the labor force.[2] Of course, against these economic considerations there must be weighed opposing economic considerations; especially, the direct value for the economy of the potential employment of 14-17 year olds, and the alternative uses which are available for the investments which are required to expand the educational system.

TABLE 16.  *Jews Aged 14-17 Attending Government-Supervised Schools: 1952, 1954, 1957 and 1958*

*(per cent)*

| Sex | 1952 | 1954 | 1957 | 1958 |
|---|---|---|---|---|
| Both sexes | 42.8 | 51.5 | 55.9 | 57.8 |
| Males | 43.0 | 52.5 | 56.6 | 58.6 |
| Females | 42.7 | 50.2 | 55.2 | 57.6 |

SOURCE: Central Bureau of Statistics, *Statistical Abstract of Israel 1958/59*, p. 359.

As shown by Table 16, there is a rising trend in the proportion of students in this age group. Whereas only 43 per cent of this group were studying in any government-supervised school (day or evening) in 1951, in 1959 the proportion was 62 per cent. This trend results in a decline in the rate of participation in the labor force of the population aged 14-17,

[2] The same conclusion, although on the basis of other considerations, was reached by Dr. M. Smilansky in his survey, "Social Examination of the Structure of Education in Israel", *Megamot,* Vol. 8, No. 3, July 1957 (Hebrew). More exact calculations on the economic profitability of broadening the education of 14-17 year olds are being made in a study under the auspices of the Falk Project, which was initiated by Ruth Klinov-Malul and the late Yehuda Grunfeld.

and a narrowing of the difference in labor force rates as between the segments of this young population.

Full complementarity between the percentage of students and the percentage of labor force members is not to be expected; account must be taken of boys and girls neither in the labor market nor at school, as well as of boys and girls who both work and study.

If the numbers of boys and girls who are neither in the labor force nor at school were to be large, this would constitute a serious social and economic problem. The data now available do not allow for a reliable estimate of the size of this group.[3]

Whatever the size of the group, the relative distribution among different population segments is of considerable importance. Table 15, which is based on the count of students in government-supervised day-schools only, throws light on this.[4] Persons neither in the labor force nor at school are particularly frequent among girls who are post-State immigrants from Asia and Africa—the same conclusion as that which emerged from the Labor Force Survey figures referred to in footnote 3. It is quite believable that families which, by tradition or by the needs of large households, would be particularly reluctant for their adolescent daughters to study or work are most likely to be of Asian-African origin.

For the Jewish population under 14, the compulsory schooling law appears to be highly effective: in 1958, 97.8 per cent of children aged 6-13 were registered in government-supervised schools. This is a rise of nearly 3 percentage points from 1952. We may note that a similar rise

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[3] If "students" are measured by Labor Force Survey estimates, the number in this group was about 7 per cent of the population aged 14-17 in 1959. More than half of the group, so measured, were girls who immigrated since 1948 from Asia and Africa; excluding this segment from the calculation, less than 2 per cent of the population was neither in the labor force nor at school. These estimates are from the working papers, Labor Force Survey for May 1959. There may be an over-reporting of "students" and an under-reporting of labor force participation. Also, the possibilities of sampling error are large.

Taking as "student" all who were registered in any government-supervised school, about 10 per cent of the number of all boys and girls 14-17 in 1958 were not accounted for by the labor force estimates and the figure for students combined (see Table 31). This arithmetic remainder needs to be qualified. Since some boys and girls were *both* in the labor force *and* studying (by this definition) the number *neither* in the labor force *nor* studying (by this definition) was more than 10 per cent. Considering as "student" only those registered in government-supervised *day-schools*, the size of the not-working and not-studying group, was around 20 per cent of the 14-17 population in 1958.

[4] These figures are also subject to large errors, because of the use of small samples and the indirect method of calculating day-students.

CHAPTER II

has occured in the school attendance of non-Jewish children aged 6-13, but in 1958 their attendance was still only 69.6 per cent.[5] Child labor, now[6] extremely rare in the Jewish population, is still to be found in the Arab villages.

### b. Men 55 and over

As Table 14 shows, in the 35-54 year group there are no outstanding differences in rates of labor force participation among the various segments by continent of orgin and period of immigration. However, begining with the 55 year olds[7] the low participation rate of immigrants from Asia and Africa becomes marked; their rate of participation is 61 per cent as compared with 93 per cent among pre-State immigrants from Europe and America. In the middle are the Israel-born men and women and new immigrants from Europe.

Differences in education are marked among the different segments by continent of origin and period of immigration (see Table 13). In the 45-59 age group the average number of years of schooling of post-State male immigrants from Asia and Africa was 3.7, compared with 9.7 among pre-State immigrants from Europe. Such differences are generally closely associated with differences in labor force participation (Table 17).

In the younger age group also, there are different levels of education but, as observed above (in Table 13), there are not marked differences in labor force rates. This may be due to two reasons: first, the gap in the level of education increases with increasing age up to the age of 60; and second, the influence of level of education on labor force participation probably increases with increasing age. This latter assumption is reasonable; its meaning is that the physical limitations of old age have a greater effect on persons without education than on educated persons since the latter are able to work in jobs that do not require physical effort.

However, even among the older age groups, differences in level of education are not the only explanation of differences in rates of labor force participation among different segments of the population who are of the same age and sex. In particular, this factor is insignificant for ex-plaining the far lower labor force rates of post-State male immigrants

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[5] Central Bureau of Statistics, *Statistical Abstract of Israel 1958/59*, p. 359.

[6] Assuming that all "gainful workers" listed in the 1948 Registration of the population as being under the age of 15 were, in fact, aged 10-14, 3.5 per cent of the boys and 2.7 per cent of the girls in this age-group were then in the labor force. See Central Bureau of Statistics, *Statistical Abstract for Israel 1950/51*, p. 22.

[7] The 1954 Labor Force Survey working papers, showing finer age distributions, indic-ate that the difference discussed in the text was also significant for men aged 45-54.

TABLE 17. *Participation in the Civilian Labor Force by Level of Education, Sex and Age, Jews: June 1954*

*(per cent)*

| Level of education | All ages | 14-24 | 25-29 | 30-39 | 40-49 | 50 and over |
|---|---|---|---|---|---|---|
| *Males* | | | | | | |
| Total | 76.6 | 59.4 | 94.6 | 96.1 | 95.8 | 68.4 |
| Attended no school | 67.9 | 78.7 | 88.5 | 91.2 | 88.7 | 43.1 |
| Did not complete elementary school | 75.4 | 58.1 | 95.5 | 95.2 | 94.0 | 59.1 |
| Completed elementary school | 83.5 | 57.7 | 97.2 | 97.3 | 97.3 | 78.6 |
| Completed secondary school or more | 92.1 | 71.4 | 94.0 | 98.1 | 98.5 | 87.2 |
| Standard error of rate of participation[1] | 9.4 | 9.8 | 3.4 | 4.1 | 4.7 | 17.1 |
| *Females* | | | | | | |
| Total | 21.7 | 32.2 | 24.5 | 20.1 | 23.3 | 11.7 |
| Attended no school | 9.4 | 19.3 | 10.3 | 10.5 | 9.5 | 5.3 |
| Did not complete elementary school | 17.8 | 27.9 | 15.0 | 14.0 | 17.2 | 9.7 |
| Completed elementary school | 23.5 | 32.6 | 22.0 | 20.0 | 23.8 | 13.7 |
| Completed secondary school or more | 37.6 | 55.2 | 45.2 | 31.2 | 37.8 | 26.8 |
| Standard error of rate of participation | 10.2 | 13.5 | 13.5 | 7.9 | 10.3 | 7.9 |

[1] Unweighted standard error of rate of labor force participation by different levels of education.

SOURCES: Central Bureau of Statistics, *Labour Force Survey June 1954*, Special Publications Series No. 56, Table 36.

from Asia and Africa, compared with pre-State. For other pairs of comparisons—immigrants from Europe compared across time, and comparisons for a *given* period between immigrants from different continents—differences in education seem to explain half or more of the differences in labor force rates.[8]

[8] These conclusions rest on the following Tables:

A contributory explanation for the low labor force rates of post-State male immigrants from Asia and Africa over 55 is the inapplicability of

*Increase in the Number of Civilian Labor Force Members per 1000 Population which is Associated with each Additional Year of Education (Average) for the Same Popula-ation—Jews, by Age, Sex, and Different Base Levels of Education*

| | For 1,000 persons with | | |
| Age and sex | 0 years of education | 4 years of education | 8 years of education |
|---|---|---|---|
| | Each additional year of education (average) adds to the civilian labor force: | | |
| | *(1)* | *(2)* | *(3)* |
| *Males* | | | |
| 15–29 | —20 | 0 | 10 |
| 30–44 | 10 | 2 | 2 |
| 45–54 | 20 | 20 | 10 |
| 60 + | 20 | 20 | 7 |
| *Females* | | | |
| 15–29 | 20 | 12 | 40 |
| 30–44 | 12 | 12 | 20 |
| 45–59 | 15 | 15 | 15 |
| 60 + | 3 | 3 | 10 |

This Table was made by interpellations in Table 17. The results must be treated as rough approximations. Using the above Table and Table 13 for col. 2, and Table 14 for col. 1, the following Table was constructed:

*Actual Differences in the Number of Civilian Labor Force Members per 100 Population among Various Immigrant Groups, and the Differences to be Expected If Level of Education Were the Only Factor*

| Within the immigrant group | The comparison | Civilian labor force members per 100 population | |
|---|---|---|---|
| | | Actual differences | Differences expected from the education factor only |
| | | *(1)* | *(2)* |
| *Europe-America* | Pre-State vs. post-State | | |
| Males 55–64 | | 5 | 3 |
| Females 35–54 | | 4 | 3 |
| Females 55–64 | | 8 | 5 |
| *Asia-Africa* | Pre-State vs. post-State | | |
| Males 55–64 | | 24 | 1 |
| Females 35–54 | | 0 | 2 |
| *Pre-State* | Europe-America vs. Asia-Africa | | |
| Males 55–64 | | 26 | 9 |
| Females 35–54 | | 16 | 9 |
| Females 55–64 | | 16 | 8 |

their previous skills and experience. A relatively large proportion among all immigrants from these continents who remained in the labor force changed their occupations (Table 18). For a poorly educated older person a successful change in occupation is probably very difficult when demanded relatively late in life. In this regard pre-State immigrants of the same age, level of education, and continent-of-origin were at an advantage.

RATES OF LABOR FORCE PARTICIPATION

TABLE 18. *Percentage of Immigrants who Changed their Occupation After Immigration to Israel, by Continent-of-Origin, Period-of-Immigration and Sex: June 1954*
*(per cent)*

|  | All immigrants | Europe-America immigrants | | Asia-Africa immigrants | |
|---|---|---|---|---|---|
|  |  | pre-State | post-State | pre-State | post-State |
| Males | 56.0 | 45.4 | 52.4 | 54.2 | 69.9 |
| Females | 44.6 | 40.8 | 46.0 | .. | .. |

SOURCE: Prof. R. Bachi, *Immigration to Israel,* Table 9, Round Table on International Migrations, International Economic Association at Igls, September 1955.

Another factor tested for its influence on the labor force participation of older males was family structure (Table 19). Despite the fact that labor force rates for post-State immigrants from Asia and Africa were lower than for other Jewish population segments at ages 45-54, and very much lower at 55-64 (see Table 14), the number of labor force members *per family* was as high for this population segment as for pre-State immigrants from Europe and America. This is explicable only by reference to the large numbers of working-age sons in these families and their relatively high level of participation in the labor force.

We must abstain from the conclusion that the Asian-African family structure induces early withdrawal of the father from the labor force. The data in Table 19 show that despite the rough similarity in family structure among pre-State and post-State immigrants from Asia and Africa, among the pre-State immigrants elderly heads of families did *not* withdraw from the labor market. Also, in economically backward countries, the labor force participation of males 55 years and over is generally high. It can therefore be inferred that a large number of working-age sons does not *generally* lead to early withdrawal from the labor force. Rather, faced with the particular difficulties of their absorption into the Israel labor market in the period after 1948, difficulties which were the frequent result of late age of immigration, the need to change occupation, and a low level of education, these particular men of Asian-African background

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TABLE 19. *Average Number of Participants in the Labor Force, Family Members and Dependents, Jews, by Age of the Family Head, his Continent-of-Origin and Period-of-Immigration: June 1954*
*(average number of persons)*

| Age of the family head | Total | Europe-America immigrants | | Asia-Africa immigrants | | Local born |
|---|---|---|---|---|---|---|
| | | Pre-State | Post-State | Pre-State | Post-State | |
| (a) Number of labor force members per family | | | | | | |
| 35-44 | 1.29 | 1.33 | 1.23 | 1.23 | 1.31 | 1.36 |
| 45-54 | 1.49 | 1.46 | 1.87 | 1.87 | 1.57 | 1.61 |
| 55-64 | 1.62 | 1.57 | 2.02 | 2.02 | 1.64 | 1.88 |
| (b) Number of persons per family | | | | | | |
| 35-44 | 4.41 | 3.94 | 3.74 | 5.57 | 5.80 | 4.92 |
| 45-54 | 4.08 | 3.62 | 3.38 | 5.74 | 5.54 | 4.61 |
| 55-64 | 3.54 | 2.99 | 2.96 | 5.28 | 4.64 | 4.08 |
| (c) Dependants/labor force members per family | | | | | | |
| 35-44 | 2.42 | 1.96 | 2.04 | 3.53 | 3.43 | 2.62 |
| 45-54 | 1.74 | 1.48 | 1.43 | 2.07 | 2.53 | 1.86 |
| 55-64 | 1.19 | 0.90 | 0.92 | 1.61 | 1.83 | 1.17 |

SOURCE: Special demographic tabulation of the 1954 Labor Force Survey (financed by the Ford Foundation, for the Hebrew University, and used by the kind permission of Prof. R. Bachi).

found it possible, because of the structure of their families, to "solve" the problem by withdrawing from the search for work.

c. Women 35 and over

Among women too there are great differences in labor force participation among the various segments by continent-of-origin—period-of-immigration. The scale of participation resembles that found among men in the age categories past 35, in that high participation was found among women from Europe and low participation among women from Asia and Africa. There was also some association of high participation with pre-State immigration and low participation with post-State immigration, but in this respect the association was much less marked than for males (see Table 14 above).[9]

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[9] For the June 1954 Labor Force Survey data, coefficients of association between rates of participation in the labor force on the one hand and continent-of-origin and

In 1958, it was particularly among female immigrants from Asia and Africa that the period-of-immigration had relatively little association with labor force rates—in sharp contrast, as stated above, with the case of male immigrants from Asia and Africa. For the age group 35-54, in spite of a slight superiority in educational level of the pre-State women, there was virtually no difference in labor force rates (see the second table in footnote 8, above). The explanation suggested is that the customs which affect labor force participation remain relatively static over time among women from a given kind of background. This impression is supported by Table 20, which shows that the number of persons in the family is more like that found among families from the same continent-of-origin than among families of the same period-of-immigration.[10]

TABLE 20. *Rates of Participation of Jewish Mothers in the Labor Force, by Age of Mother and Age of Youngest Child: June 1954*

*(per cent)*

| Age of mother | All mothers | Age of youngest child | | | |
|---|---|---|---|---|---|
| | | *0-2* | *3-5* | *6-9* | *10-13* |
| All ages | 18.0 | 12.6 | 18.5 | 23.7 | 22.7 |
| 14-29 | 21.3 | 14.5 | 23.2 | 34.8 | 30.1 |
| 30-44 | 18.2 | 12.7 | 17.9 | 22.5 | 23.5 |
| 45-59 | 5.5 | 7.7 | 14.4 | 19.9 | 17.4 |

SOURCE: Central Bureau of Statistics, *Labour Force Survey June 1954*, Table 13, p. 21.

Table 20 shows that in every age group, the tendency of mothers to participate in the labor force increases with the higher age of the youngest child in the family. To a considerable measure, this is probably the explanation of differences in labor force participation rates between women of the same age, from different continents. In every age group the fertility rate of women from Asia and Africa is higher than that of women from Europe.[11] Consequently, for each age group of mothers, more women

period-of-immigration on the other were calculated. For males in each age group above 35, high labor force participation was associated about equally with origin in Europe and with immigration before 1948; for females the coefficients of association for period-of-immigration were about two thirds of those for continent-of-origin. In 1954, there was more spread between the rates of pre-State and post-State female immigrants from Asia and Africa than in 1958.

[10] See also: R. Bachi, "Demographic Development of Israel", *Economic Quarterly*, (Hebrew), No. 8, June 1955, p. 388.

[11] See: Central Bureau of Statistics, *Statistical Abstract of Israel 1958/59*, Table 25, p. 46.

from Asia and Africa have young children, with fewer free to work outside their homes. Furthermore, as the age of women increases, those from Europe tend to have older children only to care for, and so some of them return to outside employment, whereas women from Asia and Africa tend to continue to give birth so that there are always young children in the family to prevent their entry into the labor force.

TABLE 21. *Labor Force Participation of Jewish Females by Age and Family Status: June 1954*

*(per cent)*

| Age | Married | Single | Divorced and widowed |
|-----|---------|--------|----------------------|
| 14 and over | 16.6 | 41.3 | 22.7 |
| 14-19 | 17.5 | 27.0 | .. |
| 20-24 | 19.8 | 69.5 | 75.0 |
| 25-34 | 16.9 | 74.0 | 72.7 |
| 35-44 | 18.2 | 67.8 | 69.3 |
| 45-54 | 16.0 | 68.4 | 34.0 |
| 55-64 | 9.8 | 50.0 | 13.4 |
| 65 + | 5.5 | 33.3 | 4.6 |

SOURCE: Central Bureau of Statistics, *Labour Force Survey June 1954*, Table 12, p. 21.

Participation in the labor force of married women is lower than that of single women for every age group (Table 21). Assuming that the proportion of married women is relatively high among those from Asia and Africa, this would constitute an additional explanation of their lower rates of labor force participation.

## 3. *Labor Force Participation and Level of Unemployment*

As stated in the introduction, the definition of the unemployed in the labor force surveys excludes persons not working or actively seeking work because they see no possibility of finding any.[12] If there were significant numbers of such persons, we should expect to find a negative relationship between labor force participation and level of unemployment.

Examination of the figures for 1954 showed such a relationship in certain groups in the population, though not in all. It was especially strong among men and women 35-64. Thus, if we divide the men or women in the 35-64 group into sub-groups (by smaller age-group, continent-of-

[12] Technically, such persons may be counted as unemployed, under the full definitions and instructions of the Surveys. See Central Bureau of Statistics, *Labour Force Survey June 1954*, p. XI. In practice, the numbers so included are negligible.

TABLE 22. *Coefficients of Rank Correlation between Rates of Labor Force Participation and Rates of Unemployment, Jews: 1954*

| Between groups classified by: | Coefficient of rank correlation | | | 5% Level of significance | | |
|---|---|---|---|---|---|---|
| | *Males* | *Females* | *Both sexes* | *Males* | *Females* | *Both sexes* |
| A. Continent-of-origin and period-of-immigration for age group | | | | | | |
| 15-19 | +0.08 | +0.10 | | 0.811 | 0.407 | |
| 20-24 | —0.10 | +0.40 | | 0.811 | 0.407 | |
| 25-34 | —0.12 | —0.43 | | 0.811 | 0.407 | |
| 35-44 | —0.86 | —0.89 | | 0.811 | 0.407 | |
| 45-54 | —0.83 | —0.80 | | 0.811 | 0.407 | |
| 55-64 | —0.80 | .. | | 0.811 | 0.407 | |
| B. Education | 1.00 | 1.00 | | 1.00 | 1.00 | |
| C. Form of settlement | | | —0.89 | | | 0.708 |
| D. District | | | —0.83 | | | 0.811 |

SOURCES: (1) Central Bureau of Statistics, *Labour Force Survey June 1954*, Table 35.
(2) Labor Force Survey, 1954, working papers.
(3) Central Bureau of Statistics, *Labour Force Survey June 1956*, Special Publications Series No. 68.

origin, period-of-immigration to Israel) we see that the rate of participation declined with a rising rate of unemployment. A strong relationship between high unemployment and low labor force participation was also found among different population groups classified by level of education; by type of settlement; or by district. But the relationship did not exist when men and women were combined in a single group or when age groups under 35 were examined. Table 22 shows the figures on which these conclusions are based.

Another questions is: to what extent does the definition of unemployment according to the Labor Force Survey result in undersatement of the extent of unemployment as perhaps more commonly understood? The labor force definition relates only to a consecutive week of unemployment and excludes persons who worked part time and were looking for full time work. Table 23 compares the numbers of such partially unemployed with the numbers unemployed for a consecutive week in June 1956. It shows that the proportion of partially unemployed was not very high (1.5 per cent of the labor force) and, in the age break-down, was more or less similar to those unemployed for a consecutive week. The table also shows that most of the partially employed were not actively interested

in full time work; that is, that the partially unemployed were a rather small proportion of the partially employed.

TABLE 23. *Unemployment, Partial Unemployment and Partial Employment, Jews by Age: June 1956*

*(per cent)*

| Age | Civilian labor force | Unemployed | Partially unemployed | Partially employed (excluding partially unemployed) |
|---|---|---|---|---|
| 14-17 | 100.0 | 16.7 | 2.4 | 37.1 |
| 18-34 | 100.0 | 8.2 | 2.1 | 8.4 |
| 35-44 | 100.0 | 4.6 | 1.1 | 7.9 |
| 45-54 | 100.0 | 5.1 | 1.6 | 8.2 |
| 55-64 | 100.0 | 8.6 | 2.1 | 10.9 |
| 65 + | 100.0 | 6.9 | 1.1 | 26.7 |

SOURCE: Central Bureau of Statistics, *Labour Force Survey June 1956*, Tables 33, 36.

## 4. The Demographic Structure of Unemployment

Table 24 outlines the age pattern of labor force activity for each sex for the Israel population as a whole, together with unemployment rates, in November 1955. Among males, as among females, unemployment was highest for the youngest age group, 14-17, while among males, a second peak in unemployment was reached in the age group 55-64. The U-shaped

TABLE 24. *Labor Force Participation and Unemployment Rates by Sex and Age: November 1955*

*(per cent)*

| Age group | Males | | Females | |
|---|---|---|---|---|
| | Civilian labor force/ population | Unemployed/ civilian labor force | Civilian labor force/ population | Unemployed/ civilian labor force |
| Total 14 years and over | 80.1 | 5.6 | 26.5 | 7.9 |
| 14–17 | 42.2 | 15.2 | 31.7 | 18.0 |
| 18-34 | 80.9 | 7.4 | 32.2 | 9.5 |
| 35-54 | 96.4 | 4.8 | 26.2 | 3.9 |
| 55-64 | 82.3 | 10.1 | 26.2 | 3.2 |
| 65 + | 38.3 | 8.8 | 5.1 | .. |

SOURCE: Labor Force Survey, November 1955, working papers.

pattern of unemployment among males was roughly the observe of the pattern of male labor force participation. For females, by contrast, lower labor force participation in the higher age groups was correlated with lower unemployment rates.

The very much lower unemployment rates for older women than for older men probably understate the *relative* under-utilization of older female labour potential. Consider a man and a woman, each aged 55, equally able to and interested in work, but for neither of whom work is available. For socio-cultural reasons, the man may take occasional action, however desultory, to find work, in accordance with his view of himself as in the labor market but unemployed, while the woman may find it more comfortable to view herself—and to act—as a "housewife" than as an unemployed woman. These differing socially determined definitions of their status will, quite properly, show in the labor force figures, though from the viewpoint of manpower utilization their situations are identical; the likelihood of either being at work is exactly equal, if job opportunities were suddenly to become available for both.

TABLE 25.  *Unemployment Rates, Jews, by Age, Continent-of-Origin and Period-of-Immigration: June 1954*

*(per cent)*

| Continent-of-origin—period-of-immigration | All ages | 14-17 | 18-34 | 35-44 | 45-54 | 55-64 | 65 and over |
|---|---|---|---|---|---|---|---|
| Total | 8.3 | 23.8 | 9.1 | 6.3 | .. | 6.1 | 9.8 |
| Israeli-born | 10.7 | 25.4 | 10.0 | 6.4 | (4.4) | (2.1) | (4.3) |
| Asia-Africa Immigrants | | | | | | | |
| Pre-State | 7.9 | (31.0) | 9.5 | 6.0 | 4.8 | 2.9 | (9.4) |
| Post-State | 15.4 | 23.0 | 13.9 | 11.2 | 19.6 | 14.6 | (20.0) |
| Europe-America Immigrants | | | | | | | |
| Pre-State | 3.4 | (16.4) | 4.4 | 2.2 | 3.8 | 1.7 | (5.5) |
| Post-State | 7.9 | 19.5 | 6.8 | 6.1 | 8.4 | 11.2 | (13.8) |

SOURCE: Central Bureau of Statistics, *Labour Force Survey June 1954*, Tables 2 and 8.

Table 25 shows the proportions of unemployed by age—sex—continent-of-origin—period-of-immigration groups, in 1954. Within the 14-17 age group the proportion of unemployed was far more uniform for different population segments than in any other age group. Though the samples are so small as to make the figures subject to large errors, the high ranking of the unemployment rate for the Israeli-born is interesting in view

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of the fact that their level of education was rather high in comparison with other population segments. Moreover, the differences in the estimated rates of unemployment as between pre- and post-State immigrants were not extreme, and (if the small sample points the direction properly) the pre-State immigrants from Asia and Africa had a higher rate of unemployment than the post-State ones.

The hypothesis is suggested that the main factors in the high unemployment in the 14-17 age group have to do with the organization of the labor market. The wage structure may be such as to over-price younger workers. Institutions for guidance, training, and placing of young workers may not be fully adequate. Employers' and older workers' attitudes may be unfavorable to the employment of younger workers, for non-rational causes. However, impending military service for the 17 year olds may be an economically rational reason for discrimination by employers.

TABLE 26.  *Unemployment Rates, Jews, by Level of Education and Sex: June 1954*

*(per cent)*

| Level of education | Males | Females |
|---|---|---|
| Did not attend school | 12.9 | 12.9 |
| Did not complete elementary school | 11.6 | 12.4 |
| Completed elementary school | 7.8 | 9.1 |
| Completed secondary school or higher | 4.5 | 4.0 |

SOURCE: Central Bureau of Statistics, *Labour Force Survey June 1954*, Table 35.

Passing to the older age groups, two trends become clear: on the one hand, a decline in the over-all rate of unemployment, and on the other hand, wider differences among various continent-of-origin—period-of-immigration groups. In every age group over 18 the percentage of unemployment is greater among post-State than pre-State immigrants, while the Israeli-born are placed in-between the two. For these population segments, this scale is the reverse of the scale of level of education.

Direct evidence on the close association of a low level of education with a high level of unemployment is given in Table 26. Table 27 illustrates the close inverse relationship between level of occupational skill and level of unemployment.

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TABLE 27. *Unemployment Rates by Occupation,*
*Jews: June 1954*

*(per cent)*

| Occupation | Per cent unemployed |
|---|---|
| All occupations | 8.3 |
| Professional and technical workers | 1.2 |
| Administrative and managerial workers | 1.5 |
| Clerical workers | 2.1 |
| Sales workers | 1.6 |
| Agricultural workers | 7.9 |
| Operating transport workers | 3.9 |
| Craftsmen, industrial and building workers | 6.1 |
| Other service workers | 3.8 |
| Unskilled non-agricultural workers | 10.2 |

SOURCE: Central Bureau of Statistics, *Labour Force Survey June 1954,* Table 18.

## 5. *Potential Additions to the Civilian Labor Force in Normal Times*

As stated in the introduction, no attempt is made, in this study, to estimate the potential labor force for emergencies. However, it is possible, by a "functional analysis" of the population to make a rough estimate of the numbers of persons who might, to all appearances, be recruited to the civilian labor force under normal circumstances. That is the aim of this section.

For this purpose the population aged 14 and over is divided into age groups, and each age group is subdivided into members of the civilian labor force, housewives, students, members of the armed forces, and "others". The "others", include residents of closed institutions, recipients of income from grants or pensions, and persons whose status is not clear. Table 28 shows this breakdown, for 1959.

The largest group in the working-age population was that of participants in the civilian labor force, who comprised 53 per cent of the population aged 14 and over. The second largest group was that of housewives, who constituted 29 per cent. The proportion of students, as defined by Labor Force Surveys, was approximately 6 per cent.[13] Persons in regular military service were estimated at about 4 per cent. The remainder, that is, the "others" constituted 8 per cent of the total population aged 14 and over. Because there is a tendency for all positive functions to be over-

[13] This percentage was lower, as defined by other procedures. See footnote 3, p. 41.

TABLE 28. *Functional Distribution of the Population Aged 14 and Over: 1959*
*(per cent of total population aged 14 and over)*

| Age and sex | Population | Civilian labor force | House-wives | Students | Armed forces[1] | Others |
|---|---|---|---|---|---|---|
| **Both sexes** | **100** | 53 | 29 | 6 | 4 | 8 |
| *Males,* all ages | 50 | 40 | .. | 3 | 3 | 4 |
| 14-17 | 5 | 2 | .. | 2 | .. | } 1 |
| 18-54 | 37 | 33 | .. | 1 | 3 | } |
| 55-64 | 5 | 4 | .. | .. | .. | 1 |
| 65 and over | 3 | 1 | .. | .. | .. | 2 |
| *Females,* all ages | 50 | 13 | 29 | 3 | 1 | 4 |
| 14-17 | 5 | 1 | 1 | 2 | .. | } 1 |
| 18-54 | 36 | 11 | 24 | 1 | 1 | } |
| 55-64 | 5 } | } 1 | 3 | .. | .. | 1 |
| 65 and over | 4 } | | 1 | .. | .. | 2 |

[1] Numbers in the armed forces were estimated by us arbitrarily.
SOURCES: Central Bureau of Statistics, Labor Force Surveys, 1959, *Statistical Abstract of Israel 1959/60,* p. 300, supplemented by work papers.

stated, the figure for "others" may be an understatement. However, the pool from which additional members of the civilian labor force might have been recruited—without including persons already functioning as house-wives, students, or members of the armed forces—was clearly not very large. Particularly in view of the age-sex composition of the pool, it is not a significant source of additional labor force. Half the pool were aged 65 and over; only one eighth were males under the age of 55.

The major source for additional members of the civilian labor force is the group of "housewives". It is difficult to determine how many of this group could be recruited to employment under normal circumstances. One way of making such an estimate is by the use of the ratio of female members of the civilian labor force to the civilian labor force as a whole. For Finland and France, the countries of Europe in which this ratio was at a peak figure (see Table 35, below), it stood at about 35 per cent. If the ratio in Israel, which was about 25 per cent in 1959, were to be brought to 35 per cent by the recruitment of housewives alone, this would involve about one fifth of the housewife group.

The recruitment of housewives to employment is a subject which requires a more detailed study. The increase in the national product which is to be expected from the recruitement of housewives to employment

is less than proportional to the increase in the numbers of labor force members. The problems and possibilities which deserve consideration range wide, from tax policy to the emotional significance for family life of a working wife and mother.[14]

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[14] In 1959, 62 per cent of all females employed worked full-time, compared with 85 per cent for males. (Central Bureau of Statistics, *Statistical Abstract of Israel 1959/60*, p. 312.) It is very likely that the recruits to employment among housewives *not* working in 1959 would be less likely to take full-time work than did the average of all females who *were* employed.

Another factor bearing on the increase in national product has to do with the illusory character of increases to the national product which result from the conversion of an existing non-market service to a market service. A, a housewife, takes outside employment, and employs B, another housewife, to work in the home of A. Labor force participation and the national product both go up as a result of the employment and money income of both A and B. But the home of A was serviced *before* the dual employment took place; the only actual increase in physical product is from the employment of A.

# INTERNATIONAL COMPARISONS OF LABOR
# FORCE PARTICIPATION

## 1. *International Comparison of Age Structure*

A comparison of the age structure of the population of Israel with the age structure of many other countries is shown in Table 29. The main results of this comparison are:

In Israel, the population under 14 and over 65 constitutes about 39 per cent of the total population, as compared with 32-35 per cent of the population in most countries of Europe, and the United States. In this respect Israel resembles many economically underdeveloped countries in South America and Asia.

As in the underdeveloped countries, children in Israel form a relatively large proportion of the population, old persons a relatively small proportion. Persons over 65 constitute about 5 per cent of Israel's population, compared with 8 to 11 per cent of the population in most European and North American countries. The percentage of children in Israel is about 35, in comparison with a percentage of 20 to 30 in Europe and the United States. Within the age group 15-64, a considerable majority in Israel are in the younger ages (15-39). In this respect too, Israel resembles the countries of Latin America and Asia.

The fact that the majority of the population outside the working ages is composed of children and not of old persons has an important bearing on the future size and composition of the labor force. Also, the large number of young persons permits considerable flexibility in adapting the future occupational and educational structure of the labor force to changing needs.

It may be expected that the Israel population will age in the future in a pattern similar to that of the developed countries. After taking this pattern into consideration, however, the percentage of old persons projected for 1970 in Israel (see next chapter) is low in comparison with that found in Europe and North America today, and lower still than the percentage projected for those countries.[1]

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[1] See: UN, *Economic Survey of Europe 1955*, p. 116.

TABLE 29.  *Age Distribution of Population of Various Countries*
*(per cent)*

| Country | Year | Total | 0-14 | 15-39 | 40-64 | 65 and over |
|---------|------|-------|------|-------|-------|-------------|
| Israel | 1958 | 100.0 | 36.1 | 35.3 | 23.9 | 4.7 |
| *Europe* | | | | | | |
| Austria | 1955 | 100.0 | 22.1 | 32.7 | 33.9 | 11.3 |
| Belgium | 1954 | 100.0 | 21.5 | 34.2 | 32.8 | 11.5 |
| Denmark | 1954 | 100.0 | 26.6 | 34.3 | 29.5 | 9.6 |
| Finland | 1955 | 100.0 | 30.6 | 35.7 | 26.8 | 6.9 |
| France | 1955 | 100.0 | 24.5 | 33.1 | 30.8 | 11.6 |
| Western Germany | 1955 | 100.0 | 21.5 | 35.5 | 33.1 | 9.9 |
| Holland | 1955 | 100.0 | 29.9 | 35.5 | 26.1 | 8.5 |
| Norway | 1954 | 100.0 | 25.5 | 34.6 | 29.9 | 10.0 |
| Sweden | 1955 | 100.0 | 23.8 | 33.5 | 31.9 | 10.9 |
| Switzerland | 1954 | 100.0 | 24.1 | 34.9 | 31.2 | 9.8 |
| Great Britain | 1955 | 100.0 | 23.0 | 33.5 | 32.2 | 11.3 |
| Italy | 1951 | 100.0 | 26.3 | 38.5 | 27.0 | 8.2 |
| Yugoslavia | 1954 | 100.0 | 32.0 | 39.3 | 22.8 | 5.9 |
| *America* | | | | | | |
| United States | 1956 | 100.0 | 27.1 | 30.6 | 35.2 | 7.1 |
| Cuba | 1953 | 100.0 | 36.3 | 39.8 | 19.6 | 4.3 |
| Jamaica | 1953 | 100.0 | 36.1 | 40.2 | 19.9 | 3.8 |
| Argentina | 1954 | 100.0 | 21.7 | 49.2 | 20.9[1] | 8.2[2] |
| Peru | 1956 | 100.0 | 44.1 | 37.4 | 15.5 | 3.0 |
| Canada | 1955 | 100.0 | 32.2 | 36.2 | 23.7 | 7.8 |
| *Asia* | | | | | | |
| Burma | 1953 | 100.0 | 33.9 | 45.9 | 16.2[1] | 4.0[2] |
| Japan | 1954 | 100.0 | 33.9 | 40.0 | 20.9 | 5.2 |

[1] 40-59.
[2] 60 years of age and over.
SOURCES: Israel — Central Bureau of Statistics, *Statistical Abstract of Israel 1958/59*, Table 12, p. 21.
Other countries — UN, Demographic Yearbook 1956, Table 4, pp. 164–178.

2. *Rates of Participation of the Active Population*[2] *by Age and Sex*

A comparison of the rates of participation of the active population by age, and sex, of Israel and of other countries, is made in Table 30. This section will deal with some of the age-sex groups: It should be kept in mind that the lack of standard concepts and methods make these comparisons subject to wide errors.

a. Boys and girls 14-17 years old

The rate of participation of boys aged 14-17 is low in Israel in comparison with both developed and under-developed countries, excluding the United States and Canada (Table 30). As shown in Table 31, the proportion of boys and girls studying in government-supervised schools is relatively very high in Israel. This proportion, 58.6 per cent in 1958, is still far below that of the United States (84 per cent in 1950) but far higher than that in many highly developed countries. The arithmetic remainder[3] neither in the labor force nor studying in a government supervised school is relatively high in Israel. For Israeli girls this figure is relatively low compared with most other countries, probably because fewer girls are, by custom, restricted from outside activities.

b. Men and women 18-34 years old

Comparison with other countries of participation rates for the age group 18-34, which constitutes about a third of the Israeli population, is almost impossible in the absence of exact figures on the number of persons in military service. We can only indicate the approximate dimensions of participation by employing rough and arbitrary estimates of these figures; the estimates we used are 39,000–40,000 men and 10,000–11,000 women. On this basis, the rate of participation of men in this age group is about 95 per cent and of women about 38 per cent. The rate for men is comparatively high, while that for women stands in the middle level of participation in comparison with other countries. To the extent that (a) the Israel armed forces may be a larger ratio of the total labor force

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[2] The concepts and methods used for estimates of this kind by the different countries differ widely. We shall use the term "active population" as a general concept to cover them all. Very few estimates exclude members of the armed forces, so that the concept of "total labor force" is the most appropriate for Israel, for comparative purposes. See: International Labour Office, *Yearbook of Labour Statistics 1956,* Geneva, pp. 50-53.

[3] See footnote 3 in Chapter II, above. Note that the arithmetic remainder for the United States is negative; more young persons there work *and* study than do neither.

TABLE 30. *Active Population Rates of Selected Countries by Age and Sex*
(*per cent*)

| Age and sex | Israel (1958) | U.S. (1950) | Canada (1951) | Guatemala (1950) | Denmark (1950) | Switzerland (1950) | Western Germany (1950) | Greece (1951) | Hungary (1949) | Portugal (1950) |
|---|---|---|---|---|---|---|---|---|---|---|
| *Males* | | | | | | | | | | |
| Total aged 14 and over | 84.5 | 78.9 | 82.3 | 94.9 | 87.6[1] | 88.7[1] | 89.7[1] | 87.1[1] | 89.4[1] | 87.8[1] |
| 14-17 | 34.8 | 25.6 | 34.8 | 88.1 | 79.3[2] | 64.1[2] | 80.3[2] | 64.6[2] | 72.3[2] | 71.7[2] |
| 18-34 | 95.4 | 86.3 | 93.3 | 96.9 | 95.2 | 94.2 | 94.1 | 90.7 | 94.2 | 90.2 |
| 35-54 | 96.4 | 93.3 | 95.7 | 97.6 | 97.9 | 98.2 | 96.2 | 95.2 | 96.4 | 94.9 |
| 55-64 | 81.9 | 83.4 | 85.7 | 94.7 | 90.6 | 91.7 | 80.7 | 89.7 | 84.8 | 86.4 |
| 65 + | 33.0 | 41.5 | 38.6 | 73.1 | 35.9 | 50.7 | 26.8 | 61.6 | 61.9 | 67.2 |
| *Females* | | | | | | | | | | |
| Total aged 14 and over | 28.9 | 29.0 | 23.4 | 13.9 | 40.9[1] | 33.7[1] | 39.6[1] | 16.8[1] | 32.2[1] | 21.9[1] |
| 14-17 | 26.3 | 11.4 | 19.4 | 15.3 | 81.3[2] | 54.4[2] | 73.2[2] | 23.2[2] | 54.3[2] | 32.6[2] |
| 18-34 | 38.4 | 36.4 | 34.6 | 14.3 | 52.9 | 49.8 | 57.7 | 21.9 | 39.9 | 26.9 |
| 35-54 | 27.8 | 34.1 | 21.2 | 13.7 | 43.3 | 28.1 | 35.4 | 14.6 | 27.3 | 18.8 |
| 55-64 | 18.2 | 23.4 | 14.5 | 12.3 | 30.5 | 25.6 | 25.7 | 10.3 | 26.3 | 17.3 |
| 65 + | 4.8 | 7.8 | 5.1 | 8.7 | 8.3 | 11.9 | 9.7 | 4.9 | 19.5 | 12.2 |

[1] Total population aged 15 and over.
[2] Ages 15-17.
SOURCES: Israel—Central Bureau of Statistics, *Labour Force Survey 1958*, with addition of estimated numbers in armed forces.
Other countries—UN, *Demographic Yearbook 1956*, Table 11.

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Table 31. *Economically Active Persons and Students in Government-Supervised Schools, Age Groups 14-17 and 15-19, Selected Countries*

*(per cent)*

| Age and country | Year | Both sexes | | | | Males | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Total | In labor force | Students | Others | Total | In labor force | Students | Others |
| *14-17 years old* | | | | | | | | | |
| Israel (Jews) | 1958 | 100.0 | 31.6 | 58.6 | 9.8 | 100.0 | 33.5 | 58.8 | 7.7 |
| United States | 1950 | 100.0 | 18.5 | 84.0 | —2.5 | 100.0 | 25.6 | 84.0 | —9.6 |
| Guatemala | 1950 | 100.0 | 51.7 | 10.1 | 35.2 | 100.0 | 88.1 | 11.2 | 0.7 |
| *15-19 years old* | | | | | | | | | |
| Canada | 1951 | 100.0 | 48.3 | 37.3 | 14.4 | 100.0 | 58.5 | 40.8 | 4.5 |
| Great Britain | 1952 | 100.0 | 81.1 | 14.2 | 4.7 | 100.0 | 83.9 | 14.3 | 1.8 |
| Denmark | 1950 | 100.0 | 83.7 | 12.6 | 3.7 | 100.0 | 84.3 | 13.6 | 2.1 |
| Greece | 1951 | 100.0 | 47.4 | 19.8 | 32.8 | 100.0 | 70.6 | 26.1 | 3.3 |
| Australia | 1947 | 100.0 | 73.9 | 11.4 | 4.7 | 100.0 | 81.1 | 12.3 | 6.6 |
| Ecuador | 1950 | 100.0 | 57.0 | 11.4 | 31.6 | 100.0 | 80.6 | 12.3 | 7.1 |
| Venezuela | 1950 | 100.0 | 50.2 | 11.0 | 38.8 | 100.0 | 79.3 | 11.3 | 9.4 |
| Bolivia | 1950 | 100.0 | 72.6 | 11.0 | 16.4 | 100.0 | 78.3 | 14.3 | 7.4 |
| Paraguay | 1950 | 100.0 | 53.8 | 28.7 | 17.5 | 100.0 | 82.7 | 13.0 | 4.3 |

Sources: Israel—Age 14-17 in labor force: Central Bureau of Statistics, *Labour Force Survey 1958*; Students: Table 16, above. Other countries—UN, *Demographic Yearbook 1956*, Tables 11 and 17.

than in some other countries, and (b) some of the enlisted persons might not be in the labor market if they were civilians, these rates may be overstatements, for comparison with other countries.

### c. Men 35 years old and over

A comparison of the participation of Israeli men aged 35-54 with other countries shows that in this group, as well, Israel is in a middle place. Almost all of the men in this age group participate in the labor force, in Israel as well as abroad. The participation of Israeli men aged 55-64 and 65 and over is, however, relatively low (Table 32).

The low labor force rate in Israel for post-State immigrants, aged 55-64, who came from less developed areas was explained above (Chapter II, Section II B) by difficulties in the absorption of this particular group of immigrants. For many persons aged 65 and over the same analysis holds. In addition, for Israelis over 65 there are, generally, provisions for retirement. Examining, in Table 32, the relationship between high per capita income and low rates of labor force participation of men 65 and over, we find a correlation 0.649. This partly explains the low participation in Israel relative to poorer countries.

### d. Women 35 and over

Table 33 shows that the Israel rates of participation of women 35-54 years of age are similar to those found in the developed countries. However, the rates of participation of Israeli women aged 55-64 and especially of those 65 and over were low compared with developed countries—running parallel to the rates of participation among men. However, for comparison with developed countries, all age-specific female rates for Israel are understated, because of a larger ratio in each age group in Israel which is married and has children.

### e. Over-all rate of participation

An international comparison of the ratios of total labor force/population appears in Table 34. This comparison shows that the Israeli ratio is low in relation to the economically developed countries.

The Israeli ratio of total labor force/*population aged 15 and over* is almost identical[4] (60 per cent) to the ratio for the population of all countries of North, West and Central Europe combined, and is much

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[4] The Israel calculation is from Tables 29 and 34. Ratios abroad refer to 1950 and are derived from "The World's Population, Some Demographic Aspects" in *International Labour Review*, Vol. LXXIII, No. 2, Feb. 1956, pp. 153 and 157; and UN, *The Determinants and Consequences of Population Trends*, 1953, p. 144.

TABLE 32. *Active Population Rates of Men Aged 35 and Over in Selected Countries*

*(per cent)*

| Country | Year | Age | | |
| --- | --- | --- | --- | --- |
| | | 35-54 | 55-64 | 65 and over |
| Israel | 1950 | 96.4 | 81.9 | 33.0 |
| Turkey | 1950 | 91.6 | 81.5 | 55.1 |
| *America* | | | | |
| Canada | 1951 | 95.7 | 85.7 | 38.6 |
| United States | 1950 | 93.3 | 83.3 | 33.6 |
| Argentina | 1947 | 97.5 [1] | .. | 41.4 |
| Brazil | 1950 | .. | 93.2 | 74.5 |
| Chile | 1952 | 97.4 | 88.0 | 70.2 |
| Cuba | 1953 | 95.0 | 89.8 | 57.1 |
| Guatemala | 1950 | 97.6 | 94.7 | 73.1 |
| Venezuela | 1950 | 95.6 | 90.5 | 79.1 |
| *Europe* | | | | |
| Belgium | 1947 | 94.0 | 78.4 | 24.7 |
| Denmark | 1950 | 97.9 | 90.6 | 35.9 |
| Finland | 1950 | 97.2 | 90.4 | 56.7 |
| France | 1946 | 94.4 | 81.1 | 37.2 |
| Greece | 1951 | 95.2 | 89.7 | 61.6 |
| Hungary | 1949 | 96.4 | 84.8 | 61.9 |
| Holland | 1947 | .. | .. | 35.5 |
| Portugal | 1950 | 94.9 | 86.4 | 67.2 |
| Sweden | 1945 | 96.8 | 86.4 | 36.1 |
| Switzerland | 1950 | 98.2 | 91.7 | 50.7 |
| Great Britain | 1951 | 98.2 | 92.1 | 31.4 |
| Yugoslavia | 1948 | 97.9 | .. | 60.3 |
| Western Germany | 1950 | 96.2 | 80.7 | 26.7 |
| *Oceania* | | | | |
| Australia | 1947 | 96.9 | 86.2 | 33.2 |
| New Zealand | 1951 | 97.3 | 78.8 | 26.5 |

[1] Aged 30-54.

SOURCES: Israel—Table 14, above.
Other countries — UN, *Demographic Yearbook 1956*, Table 11.

TABLE 33. *Active Population Rates of Women Aged
35 and Over in Selected Countries*

*(per cent)*

| Country | Year | Age | | |
|---------|------|-------|-------|------------|
| | | 35-54 | 55-65 | 65 and over |
| Israel | 1958 | 27.8 | 18.2 | 4.8 |
| Turkey | 1950 | 19.1 | 15.2 | 10.2 |
| *America* | | | | |
| Canada | 1951 | 21.2 | 14.5 | 5.1 |
| Cuba | 1953 | 15.4 | 10.7 | 6.8 |
| Salvador | 1950 | 16.7 | 13.5 | 10.5 |
| United States | 1950 | 34.1 | 23.4 | 7.8 |
| Chile | 1952 | 26.7 | 21.0 | 13.2 |
| Ecuador | 1950 | 36.1 | 34.9 | 31.1 |
| Venezuela | 1950 | 19.1 | 15.2 | 10.2 |
| *Europe* | | | | |
| Belgium | 1947 | 22.8 | 15.4 | 5.4 |
| Denmark | 1950 | 43.3 | 30.5 | 8.3 |
| Finland | 1950 | 59.9 | 47.6 | 20.6 |
| France | 1946 | 50.6 | 43.2 | 22.3 |
| Western Germany | 1950 | 35.4 | 25.7 | 9.7 |
| Greece | 1951 | 14.6 | 10.3 | 4.9 |
| Hungary | 1949 | 27.3 | 26.3 | 19.5 |
| Ireland | 1946 | 20.9 | 21.8 | 17.0 |
| Portugal | 1950 | 18.8 | 17.3 | 12.2 |
| Sweden | 1945 | 25.6 | 20.0 | 8.3 |
| Switzerland | 1950 | 28.1 | 25.6 | 11.9 |
| Great Britain | 1951 | 34.2 | 21.4 | 7.8 |

SOURCE: Table 32, above.

higher than the ratio (53 per cent) for the combined population in North America. The high percentage of children in Israel is, apparently, the primary reason for the low labor force/population ratio, compared with developed countries. The effect on this ratio of Israel's relatively low specific participation rates for the youngest and oldest age groups is offset

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TABLE 34. *Active Population Rates in Various Countries*

*(per cent)*

| Country | Year | Rate |
|---|---|---|
| Brazil | 1950 | 33.0 |
| Venezuela | 1950 | 33.9 |
| Egypt | 1947 | 34.1 |
| Canada | 1957 | 35.8 |
| Burma | 1953 | 36.3 |
| Chile | 1952 | 36.9 |
| Greece | 1951 | 37.2 |
| New Zealand | 1956 | 37.6 |
| The Philippines | 1957 | 38.2 |
| Spain | 1940 | 38.8 |
| *Israel* | 1958 | 39.2 |
| India | 1951 | 39.2 |
| Argentina | 1947 | 40.6 |
| Australia | 1954 | 41.2 |
| United States | 1957 | 41.3 |
| Italy | 1957 | 41.8 |
| Norway | 1950 | 42.3 |
| Yugoslavia | 1953 | 43.8 |
| Sweden | 1950 | 44.1 |
| Japan | 1956 | 44.8 |
| France | 1958 | 45.6 |
| Switzerland | 1950 | 45.7 |
| Great Britain | 1951 | 46.2 |
| Austria | 1951 | 48.3 |
| Finland | 1950 | 48.5 |
| Denmark | 1950 | 49.5 |

SOURCES: Israel—Table 1 above. The figure used includes estimate of persons in regular army. Percentage of civilian labor force to total population is 34.9.

Other countries—ILO, *Yearbook of Labour Statistics* 1958, Table 1.

TABLE 35. *Distribution of the Active Population by Age and Sex in Selected Countries*
(per cent)

| Country | Year | Both sexes | | | | | | Percentage of females in active population |
|---|---|---|---|---|---|---|---|---|
| | | Total aged 14 and over | 14-17 | 18-34 | 35-54 | 55-64 | 65 and over | |
| Israel | 1958 | 100.0 | 5.3 | 40.4 | 42.2 | 9.8 | 2.3 | 25.5 |
| Canada | 1951 | 100.0 | 4.3 | 44.2 | 36.6 | 10.4 | 4.5 | 22.1 |
| United States | 1950 | 100.0 | 2.6 | 40.2 | 40.7 | 11.7 | 4.8 | 27.8 |
| Venezuela | 1950 | 100.0 | 8.0[1] | 50.7 | 32.2 | 6.2 | 2.9 | 17.8 |
| Cuba | 1953 | 100.0 | 12.9[2] | 38.2[2] | 36.0 | 7.9 | 5.0 | 13.0 |
| Salvador | 1950 | 100.0 | 17.9[3] | 40.0[3] | 31.4 | 6.6 | 4.1 | 16.7 |
| Chile | 1952 | 100.0 | 12.7[3] | 41.1[3] | 34.1 | 7.8 | 4.3 | 24.9 |
| Ecuador | 1950 | 100.0 | 15.6[3] | 39.9[3] | 31.5 | 7.7 | 5.3 | 28.0 |
| Turkey | 1950 | 100.0 | 13.5[3] | 41.3[3] | 35.2 | 7.0 | 3.0 | 17.7 |
| Belgium | 1947 | 100.0 | 10.2 | 32.5 | 42.0 | 11.6 | 3.7 | 23.5 |
| Denmark | 1950 | 100.0 | 6.9[1] | 37.8 | 39.7 | 11.6 | 4.1 | 33.4 |
| Finland | 1950 | 100.0 | 10.3[2] | 34.7[3] | 40.2 | 12.1 | 7.5 | 35.9 |
| France | 1946 | 100.0 | 16.1[2] | 28.5[2] | 40.3 | 12.1 | 7.5 | 35.9 |
| Greece | 1951 | 100.0 | 7.8[1] | 42.5 | 35.5 | 8.6 | 5.6 | 17.4 |
| Hungary | 1949 | 100.0 | 7.1[2] | 38.0 | 38.2 | 10.2 | 6.5 | 28.8 |
| Portugal | 1950 | 100.0 | 8.1 | 42.7 | 33.5 | 9.4 | 6.3 | 22.0 |
| Sweden | 1945 | 100.0 | 8.7[3] | 33.5[3] | 40.7 | 12.2 | 4.9 | 26.4 |
| Switzerland | 1950 | 100.0 | 5.3 | 83.5 | 38.3 | 11.9 | 6.0 | 29.7 |
| Great Britain | 1951 | 100.0 | 11.0[3] | 32.5[3] | 40.9 | 11.8 | 3.8 | 30.6 |

[1] Aged 15-19.
[2] Aged 14-19, 20-34.
[3] Aged 15-19, 20-34.
SOURCES: Israel—Central Bureau of Statistics, *Labour Force Survey 1958*. The distribution shown is for the civilian labor force. Other countries—see Table 32.

by average-to-higher rates in the other age groups and by the relatively young age structure of the adult population.

### 3. *Age and Sex Composition of the Labor Force*

Table 35 compares the age composition of the Israeli civilian labor force with that of the active population of other countries and compares the proportions of women in the active population. The low rates of participation of young persons (14-17 years of age) in Israel are expressed here in terms of a relatively low proportion of persons in this age group in the labor force. For persons aged 65 and over, the Israeli ratio is the lowest shown; the effects of low rates of labor force participation by old persons are combined with the effects of the young age structure of the Israel population. The proportion of women in the Israel labor force (about 25 per cent) is similar to that found in many developed countries. If we keep in mind the relatively high propensity to marry and to have children in Israel, the proportion appears relatively high. On the other hand, the Israel female population is younger than in the developed countries; from this viewpoint, the proportion for Israel appears low.

# PROJECTIONS OF THE POPULATION AND THE LABOR FORCE TO 1960 AND 1970

## 1. *Method of Estimating*

In this chapter our aim is to estimate the labor force in the next decade and to understand the major changes which are likely to occur in its composition. Because we do not know the size and the composition of immigration in the coming years, it is even more difficult in Israel than in other countries to give an exact estimate of future developments.

It therefore appears best to use a number of population projections based on alternative assumptions, particularly regarding the level of immigration. However, in order to avoid confusion, the discussion of the labor force is focused on the one population projection which appears to be most likely.

The population projection 1960-70 are based on a study by B. Gil.[1] The projection of labor force in these years is obtained by applying the rates of labor force participation in 1958—broken down by age, sex, continent-of-origin and period-of-immigration to Israel[2]—to the population. The assumption is not that these rates will remain constant but that the effect of any changes will be neglible in comparison with the effects of changes in the size of the population and its composition.[3] We will discuss below the developments likely to occur in habits of labor force participation by specific population groups without attempting to estimate their effect quantitatively.

## 2. *Anticipated Growth of the Population in 1965 and 1970*[4]

The projection of the population of Israel in 1965 and 1970 is shown in Table 36. The three alternative estimates shown for each year are

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[1] Dr. B. Gil, *Projection of Israel Population (1955-1970)*, Central Bureau of Statistics, Special Publications Series No. 69, and working papers.

[2] Labor Force Survey 1958, working papers.

[3] This assumption was developed and tested in the process of constructing the estimates of annual average labor force magnitudes from 1948 to 1957. See Chapter I, Sections 1 and 2.

[4] This section is based entirely on the study by Dr. B. Gil, *op. cit.*

based on separate estimates for the Jewish and the non-Jewish popula-
tions. With respect to the Jewish population, the estimates differ in their
assumptions as to size of immigration and level of fertility, but not with
regard to death rates and emigration. With respect to the non-Jewish
population the assumptions vary as to level of fertility and death rate;
all three assume no immigration or emigration.

TABLE 36.  *Projections of Population of Israel
1965 and 1970*
*(thousands)*

| Year | Estimate I | Estimate II | Estimate III |
|------|------------|-------------|--------------|
| 1965 | 2,255 | 2,560 | 3,031 |
| 1970 | 2,499 | 3,013 | 3,754 |

SOURCE: Dr. B. Gil, *Projection of Population of Is-
rael (1955–1970)*, Central Bureau of Sta-
tistics, Special Publications Series No. 69
p. 13.

Estimate I — assumes, in relation to Jews, low fertility, and immigration
of 20,000 persons—annually. In relation to non-Jews a low fertility
and a high death rate are assumed. This is the minimum estimate of the
population, and according to this estimate the population will be 2.25
million in 1965 and about 2.5 million in 1970.

Estimate II — assumes, for Jews, immigration of 40,000 annually and a
medium rate of fertility; for non-Jews, low fertility and low death rate.
This is a medium estimate and is considered by the author of the
projection as more likely than any of the others. On the basis of this
estimate the population will number 2.5 million in 1965 and 3 million
in 1970.

Estimate III — the maximum: assumes annual immigration of 80,000
Jews and high fertility, and with regard to non-Jews, high fertility
and low death rate. Under this estimate the population will be 3 million
in 1965 and 3.75 million in 1970.

The range of these estimates is broad, spreading for 1965 between
2.25 and 3 million and for 1970 between 2.5 and 3.75 million.

## 3. *Anticipated Composition of the Population by Age and Sex*

We shall concentrate here on Estimate II of the projections, the results
of which, for numbers in the population, are shown in Tables 37 and 38.
A comparison of the age composition of the population projected for
1965 and 1970 with that of 1958 is shown in Table 39. Considerable

TABLE 37. *Projection to 1965 of Structure of Population of Israel by Age, Sex, Continent-of-Origin and Period-of-Immigration*

(Estimate II)

| Age and sex | Total population | Non-Jews | Jews | | | | | |
| | | | Jews, total | Israeli-born | Asia-Africa born | | Europe-America born | |
| | | | | | Immigrated before 1/1/56 | Immigrated on or after 1/1/56 | Immigrated before 1/1/56 | Immigrated on or after 1/1/56 |
|---|---|---|---|---|---|---|---|---|
| *Males*, total | 1,281,081 | 129,774 | 1,151,307 | 299,445 | 317,239 | 146,106 | 319,810 | 68,707 |
| 0-14 | 458,105 | 59,018 | 399,087 | 151,446 | 117,087 | 68,958 | 46,219 | 15,377 |
| 15-19 | 125,807 | (11,986) | 113,821 | 52,683 | 25,029 | 15,938 | 16,736 | 3,435 |
| 20-24 | 90,047 | (11,986) | 78,061 | 30,210 | 24,326 | 12,871 | 6,188 | 4,466 |
| 25-34 | 161,531 | (18,080) | 143,451 | 39,145 | 51,270 | 17,287 | 26,330 | 9,419 |
| 35-44 | 145,074 | (12,189) | 132,885 | 15,376 | 41,726 | 12,274 | 54,695 | 8,814 |
| 45-54 | 122,301 | (5,770) | 116,531 | 4,608 | 24,772 | 8,844 | 67,725 | 10,582 |
| 55-64 | 107,512 | (5,770) | 101,742 | 3,898 | 19,069 | 5,625 | 63,903 | 9,247 |
| 65 + | 70,704 | (4,975) | 65,729 | 2,079 | 13,960 | 4,309 | 38,014 | 7,367 |
| *Females*, total | 1,262,063 | 122,023 | 1,140,040 | 287,072 | 304,649 | 146,745 | 321,335 | 80,239 |
| 0-14 | 432,308 | 53,777 | 378,531 | 143,633 | 110,891 | 65,549 | 43,829 | 14,629 |
| 15-19 | 119,057 | (10,720) | 108,337 | 50,163 | 23,892 | 14,845 | 16,057 | 3,380 |
| 20-24 | 87,145 | (10,720) | 76,425 | 28,481 | 23,566 | 12,830 | 6,600 | 4,948 |
| 25-34 | 161,575 | (16,740) | 144,835 | 37,353 | 46,840 | 20,416 | 27,009 | 13,217 |
| 35-44 | 152,616 | (12,042) | 140,574 | 15,932 | 38,465 | 13,946 | 60,427 | 11,804 |
| 45-54 | 129,023 | (6,354) | 122,669 | 5,035 | 25,779 | 9,796 | 69,759 | 12,300 |
| 55-64 | 104,144 | (6,355) | 97,789 | 3,647 | 19,856 | 6,274 | 57,120 | 10,892 |
| 65 + | 76,195 | (5,315) | 70,880 | 2,828 | 15,360 | 3,089 | 40,534 | 9,069 |

SOURCE: See Table 36. Also working papers on the projection.

TABLE 38. *Projection to 1970 of Structure of Population of Israel by Age, Sex, Continent-of-Origin and Period-of-Immigration*
(Estimate II)

| Age and sex | Total population | Non-Jews | Jews | | | | | | |
| | | | Total | Israeli-born | Asia-Africa born | | Europe-America born | | |
| | | | | | Immigrated before 1/1/56 | Immigrated on or after 1/1/56 | Immigrated before 1/1/56 | Immigrated on or after 1/1/56 |
| *Males*, total | 1,503,337 | 152,160 | 1,351,177 | 342,002 | 359,876 | 225,987 | 308,444 | 114,868 |
| 0-14 | 525,858 | 67,461 | 458,397 | 97,031 | 167,502 | 107,365 | 59,369 | 27,130 |
| 15-19 | 149,190 | (14,124) | 135,066 | 100,492 | 4,150 | 24,302 | 171 | 5,951 |
| 20-24 | 132,400 | (14,124) | 118,276 | 51,995 | 23,862 | 19,871 | 15,984 | 6,564 |
| 25-34 | 177,051 | (22,026) | 155,025 | 52,369 | 46,793 | 27,787 | 12,967 | 15,109 |
| 35-44 | 159,654 | (15,806) | 143,848 | 24,653 | 49,126 | 18,117 | 37,700 | 14,252 |
| 45-54 | 134,474 | (6,629) | 127,845 | 8,204 | 30,330 | 13,226 | 59,482 | 16,603 |
| 55-64 | 126,816 | (6,629) | 120,187 | 4,383 | 20,851 | 8,614 | 70,606 | 15,733 |
| 65 + | 97,894 | 5,361 | 92,533 | 2,875 | 17,262 | 6,705 | 52,165 | 13,526 |
| *Females*, total | 1,491,617 | 143,263 | 1,348,354 | 327,380 | 247,325 | 226,622 | 312,665 | 133,912 |
| 0-14 | 498,016 | 62,482 | 435,534 | 92,411 | 158,756 | 102,174 | 56,316 | 25,877 |
| 15-19 | 141,151 | (12,823) | 128,328 | 95,181 | 4,306 | 22,874 | 211 | 5,756 |
| 20-24 | 127,768 | (12,824) | 114,949 | 49,715 | 23,318 | 23,356 | 15,357 | 7,018 |
| 25-34 | 181,081 | (20,118) | 160,963 | 50,700 | 45,243 | 30,636 | 14,214 | 20,170 |
| 35-44 | 166,943 | (14,950) | 152,353 | 24,064 | 44,411 | 21,456 | 42,476 | 19,946 |
| 45-54 | 141,246 | (7,437) | 133,809 | 7,865 | 29,257 | 14,693 | 62,403 | 19,591 |
| 55-64 | 133,545 | (7,436) | 126,109 | 4,643 | 23,165 | 9,780 | 69,972 | 18,549 |
| 65 + | 101,867 | 5,553 | 96,314 | 3,251 | 18,869 | 5,653 | 51,356 | 17,005 |

SOURCE: See Table 37.

growth in the proportion of persons 65 and over is expected, and less pronounced growth in the proportion 55-64. These trends are due to local processes: the young composition of the immigration in the 20's and 30's led to great concentration in the younger age groups of the population at that time. This concentration has moved into the upper age groups and in the next decade will reach age 55 and over. Its influence will be felt especially in the 65 and over group. It cannot be assumed that future immigration will counteract this trend, since among the Jews outside Israel the proportion of those in the upper ages is itself high. As a direct expression of the growth in the ratio of older persons, the proportion of the population aged 15-64 will decline.

TABLE 39. *Age Structure of Population of Israel, 1958 and Projection to 1965 and 1970*
*(Estimate II)*
*(absolute numbers and per cent)*

| Age group | 1958 | | 1965 | | 1970 | |
|---|---|---|---|---|---|---|
| | *Number* | *Per cent* | *Number* | *Per cent* | *Number* | *Per cent* |
| Total | 2,031,672 | 100.0 | 2,543,144 | 100.0 | 2,994,954 | 100.0 |
| 0-14 | 773,127 | 36.2 | 890,413 | 35.0 | 1,023,874 | 34.1 |
| 15-19 | 149,166 | 7.3 | 244,864 | 9.6 | 290,341 | 9.7 |
| 20-24 | 153,043 | 7.5 | 177,192 | 7.0 | 260,168 | 8.7 |
| 25-34 | 281,930 | 13.9 | 323,106 | 12.7 | 358,132 | 12.0 |
| 35-44 | 242,342 | 11.9 | 297,690 | 11.7 | 326,597 | 10.9 |
| 45-54 | 236,197 | 11.6 | 251,324 | 9.9 | 275,720 | 9.2 |
| 55-64 | 140,177 | 6.9 | 211,656 | 8.3 | 260,361 | 8.7 |
| 65 + | 95,690 | 4.7 | 146,899 | 5.8 | 199,761 | 6.7 |

SOURCES : 1958 — Central Bureau of Statistics, *Statistical Abstract of Israel 1958/59,* Table 12, p. 21.
1965, 1970 — see Table 37.

Within the group 15-64, the proportion of young persons (15-24) and old persons (55-64) will rise while that of the 25-54 year olds will decline. The main causes for the decline expected in the proportion of the 25-54 age group are the low percentage of children among European immigrants after World War II, and the low birth rates among Palestine Jews in the 1930's. It is not to be assumed that immigration in the next decade will change the proportion of this (25–54) age group to a considerable extent.

Though a general rise is expected in the proportion 15-24 years old, in 1965 a decline in the ratio aged 20-24 is expected. The age group

0-14 does not enter into the labor force estimates. Their proportion will vary greatly in accordance with the assumptions as to fertility. Under the assumptions of Estimate II, their ratio will decline, reversing the trend in the Jewish population since 1944 (see Table 2).

TABLE 40. *Ratio of Males to the Population of Each Age Group in 1958 and Projection to 1965 and 1970*

*(Estimate II)*

*(per cent)*

| Age | 1958 | 1965 | 1970 |
|-----|------|------|------|
| Total | 50,8 | 50.4 | 50.2 |
| 0-14 | 51.6 | 51.4 | 51.4 |
| 15-19 | 51.9 | 51.4 | 51.4 |
| 20-24 | 51.7 | 50.8 | 50.9 |
| 25-34 | 49.3 | 50.0 | 49.4 |
| 35-44 | 49.5 | 48.7 | 48.9 |
| 45-54 | 51.0 | 48.7 | 48.8 |
| 55-64 | 51.6 | 50.8 | 48.7 |
| 65 + | 47.0 | 48.1 | 49.0 |

SOURCE: See Table 39.

In each age group, with the exception of persons 65 and over, a decrease may be expected in the proportion of men. This trend will be relatively sharpest in the ages 45-64 (Table 40).

## 4. *Anticipated Composition of the Population by Continent-of-Origin*

The composition of the population from this viewpoint depends, largely, on the assumptions regarding the size and the composition of the future immigration. In constructing the three alternative projections of population, it was assumed that the immigration from Asia and Africa is more certain, but that the total potentialities are more limited than from Europe and America. As a result, the smaller the assumption of total immigration, the higher the proportion of Asian and African immigrants within it; but for the 1970 projection, there is to be expected, at higher levels of total immigration, a smaller percentage from Asia and Africa than for the 1965 projection.

Table 41 presents a projection of the composition of the population in 1965 and 1970 assuming an annual immigration of 40,000 persons, 50 per cent of whom are from Asia and Africa and 50 per cent from Europe and America. According to this projection the proportion of

TABLE 41. *Structure of Population of Israel by Continent-of-Origin and Age in 1955 and Projection[1] to 1970*
*(in absolute numbers and per cent)*

| Age and year | Total population | | Israeli-born Jews | | Asia-Africa born | | Europe-America born | | Non-Jews | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number | Per cent | Number | Per cent | Number | Per cent | Number | Per cent | Number | Per cent |
| *Total* | | | | | | | | | | |
| 1970 | 2,994,954 | 100.0 | 669,832 | 22.4 | 445,208 | 25.1 | 635,332 | 35.8 | 185,059 | 10.4 |
| 1955 | 1,775,578 | 100.0 | 509,979 | 28.7 | 1,159,810 | 38.7 | 869,889 | 29.0 | 295,423 | 9.9 |
| *0-14* | | | | | | | | | | |
| 1955 | 615,447 | 100.0 | 370,124 | 60.2 | 112,104 | 18.2 | 48,659 | 7.9 | 84,560 | 13.7 |
| 1970 | 1,023,874 | 100.0 | 189,422 | 18.5 | 535,797 | 52.3 | 168,692 | 16.5 | 129,943 | 12.7 |
| *15-19* | | | | | | | | | | |
| 1955 | 135,499 | 100.0 | 48,102 | 35.5 | 50,871 | 37.6 | 20,918 | 15.4 | 15,608 | 11.5 |
| 1970 | 290,341 | 100.0 | 195,673 | 67.4 | 55,632 | 19.2 | 12,089 | 4.1 | 26,947 | 9.3 |
| *20-24* | | | | | | | | | | |
| 1955 | 140,687 | 100.0 | 31,865 | 22.6 | 53,896 | 38.4 | 39,318 | 27.9 | 15,608 | 11.1 |
| 1970 | 260,168 | 100.0 | 101,710 | 39.1 | 86,407 | 33.2 | 45,103 | 17.3 | 26,948 | 10.4 |
| *25-34* | | | | | | | | | | |
| 1955 | 263,366 | 100.0 | 32,878 | 12.5 | 84,341 | 32.0 | 122,734 | 46.6 | 23,413 | 8.9 |
| 1970 | 358,132 | 100.0 | 103,069 | 28.7 | 150,459 | 42.1 | 62,460 | 17.4 | 42,144 | 11.8 |
| *35-44* | | | | | | | | | | |
| 1955 | 227,272 | 100.0 | 10,797 | 4.8 | 53,745 | 23.6 | 147,121 | 64.8 | 15,609 | 6.8 |
| 1970 | 326,597 | 100.0 | 48,717 | 14.9 | 133,110 | 40.8 | 114,374 | 35.0 | 30,396 | 9.3 |
| *45-54* | | | | | | | | | | |
| 1955 | 196,324 | 100.0 | 8,575 | 4.3 | 43,251 | 22.0 | 134,375 | 68.5 | 10,123 | 5.2 |
| 1970 | 275,720 | 100.0 | 16,069 | 5.8 | 87,506 | 31.7 | 158,079 | 57.4 | 14,066 | 5.1 |
| *55-64* | | | | | | | | | | |
| 1955 | 114,921 | 100.0 | 4,597 | 4.0 | 26,522 | 23.1 | 73,679 | 64.1 | 10,123 | 8.8 |
| 1970 | 260,361 | 100.0 | 9,026 | 3.5 | 62,410 | 24.0 | 174,860 | 67.1 | 14,065 | 5.4 |
| *65 +* | | | | | | | | | | |
| 1955 | 82,062 | 100.0 | 3,041 | 3.7 | 20,478 | 25.0 | 48,528 | 59.1 | 10,015 | 12.2 |
| 1970 | 199,761 | 100.0 | 6,126 | 3.1 | 48,489 | 24.3 | 134,232 | 67.1 | 10,914 | 5.5 |

SOURCE: See Table 37.

[1] According to Estimate II.

Asian- and African-born in the population will increase from 25.3 per cent in 1955 to 36.2 per cent in 1965. The complementary proportion of Israeli-born and European-born will decrease and the proportion of non-Jews will remain more or less constant. The proportion of Asian- and African-born will increase particularly in the youngest group, 0-14, which will be of significance for the labor force only in later years.

TABLE 42. *Projections of Civilian Labor Force in 1965 and 1970 by Age and Sex, Three Estimates*

| Age and sex | 1965 | | | 1970 | | |
|---|---|---|---|---|---|---|
| | Estimate I | Estimate II | Estimate III | Estimate I | Estimate II | Estimate III |
| *Males* | | | | | | |
| Total aged 14 and over | 593,632 | 646,229 | 749,522 | 671,731 | 755,873 | 919,057 |
| 14-17 | 33,830 | 36,481 | 40,815 | 36,923 | 41,973 | 49,221 |
| 18-34 | 220,408 | 240,614 | 276,879 | 262,565 | 294,194 | 348,405 |
| 35-54 | 236,944 | 257,750 | 299,859 | 251,418 | 283,539 | 349,951 |
| 55-64 | 81,210 | 88,052 | 103,597 | 92,278 | 103,862 | 130,017 |
| 65 + | 21,240 | 23,332 | 28,372 | 28,547 | 32,305 | 41,463 |
| *Females* | | | | | | |
| Total aged 14 and over | 206,306 | 227,405 | 268,401 | 234,958 | 268,746 | 332,906 |
| 14-17 | 24,124 | 26,033 | 29,114 | 26,359 | 30,034 | 35,259 |
| 18-34 | 90,539 | 100,460 | 118,629 | 108,828 | 123,840 | 150,200 |
| 35-54 | 71,142 | 78,296 | 93,188 | 74,240 | 85,677 | 109,786 |
| 55-64 | 17,179 | 18,954 | 22,964 | 21,293 | 24,305 | 31,154 |
| 65 + | 3,322 | 3,662 | 4,506 | 4,238 | 4,890 | 6,507 |

SOURCE: See Tables 14 and 37.

5. *Anticipated Size and Composition of the Labor Force in 1965 and 1970*

The projection of the labor force in the next ten years was obtained by multiplying the rates of participation in the labor force by age, sex, continent-of-origin, and period-of-immigration, as found in the 1958 Labour Force Survey, by the population cells in 1965 and 1970. Detailed computation was undertaken only with regard to Estimate II of the population. With regard to Estimates I and III a rougher calculation was made, using only rates of participation by age and sex without regard to composition by continent-of-origin and period-of-immigration. Table 42 shows the size of the anticipated labor force in 1965 and 1970 under the three estimates. From these calculations it appears that the size of the labor

force under estimate II will be 874,000 at the end of 1965 and 1,025,000 at the end of 1970 in comparison with about 700,000 in 1958.

The composition of the labor force according to Estimate II is shown in Tables 43 and 44. The ratio of civilian labor force/population will decrease, under this estimate, from 34.9 per cent in 1958 to 30.9 per cent in 1970, mainly as a result of the increase in the proportion of persons aged 65 and over in the population and a decrease in the proportion in the middle age groups. The larger proportion of immigrants from Asia and Africa among young adult women is another factor, as is the increase in the proportion of women in all age groups.

TABLE 43. *Projection to 1965 of Civilian Labor Force by Age, Sex, Continent-of-Origin and Period-of-Immigration*
*(Estimate II)*

| Age and sex | Total | Israel-born | Asia-Africa born and immigrated | | Europe-America born and immigrated | | Non-Jews |
| | | | Before 1/1/56 | On or after 1/1/56 | Before 1/1/56 | On or after 1/1/56 | |
|---|---|---|---|---|---|---|---|
| *Males* | | | | | | | |
| Total aged 14 and over | 656,193 | 101,177 | 164,517 | 59,377 | 232,794 | 42,647 | 55,681 |
| 14-17 | 32,229 | 13,491 | 3,462 | 5,673 | 4,061 | 1,098 | 4,444 |
| 18-34 | 244,354 | 64,024 | 74,907 | 29,812 | 31,958 | 12,070 | 31,583 |
| 35-54 | 259,999 | 19,564 | 65,035 | 19,724 | 120,951 | 18,795 | 15,930 |
| 55-64 | 93,022 | 3,302 | 16,171 | 3,448 | 59,174 | 8,054 | 2,873 |
| 65 + | 26,589 | 796 | 4,942 | 720 | 16,650 | 2,630 | 851 |
| *Females* | | | | | | | |
| Total aged 14 and over | 226,372 | 59,915 | 38,682 | 18,973 | 86,760 | 19,101 | 4,941 |
| 14-17 | 24,545 | 10,540 | 3,337 | 5,106 | 3,803 | 898 | 861 |
| 18-34 | 102,107 | 43,723 | 22,549 | 9,757 | 15,812 | 7,885 | 2,381 |
| 35-54 | 74,923 | 5,200 | 10,086 | 3,775 | 46,867 | 7,689 | 1,306 |
| 55-64 | 22,177 | 387 | 2,403 | 289 | 16,508 | 2,266 | 324 |
| 65 + | 4,620 | 65 | 307 | 46 | 3,770 | 363 | 69 |

SOURCE: See Tables 14 and 37.

The anticipated changes in the population according to Estimate II are reflected in the composition of the labor force. The important changes are :

a. A decrease in the percentage of men in the civilian labor force from 74.5 in 1958 to 73.7 in 1970. The decrease is particularly marked in the 14-17 and 55-64 age groups (Table 45).

TABLE 44. *Projection to 1970 of Civilian Labor Force by Age, Sex,*
*Continent-of-Origin and Period-of-Immigration*
*(Estimate II)*

| Age and sex | Total | Israeli-born | Asia-Africa born, and immigrated | | Europe-America born and immigrated | | Non-Jews |
|---|---|---|---|---|---|---|---|
| | | | Before 1/1/56 | On or after 1/1/56 | Before 1/1/56 | On or after 1/1/56 | |
| **Males** | | | | | | | |
| Total aged 14 and over | **761,401** | **155,983** | **167,641** | **91,167** | **210,063** | **69,367** | **67,180** |
| 14-17 | 37,462 | 16,655 | 2,864 | 8,673 | 2,168 | 1,911 | 5,191 |
| 18-34 | 292,991 | 102,348 | 63,276 | 46,820 | 23,650 | 19,026 | 37,871 |
| 35-54 | 284,963 | 32,167 | 77,708 | 29,274 | 96,016 | 29,898 | 19,900 |
| 55–64 | 109,059 | 3,712 | 17,682 | 5,280 | 65,381 | 15,703 | 3,301 |
| 65 + | 36,926 | 1,101 | 6,111 | 1,120 | 22,848 | 4,829 | 917 |
| **Females** | | | | | | | |
| Total aged 14 and over | **271,375** | **91,977** | **37,362** | **28,913** | **76,576** | **30,655** | **5,892** |
| 14-17 | 28,335 | 13,002 | 2,796 | 7,904 | 2,020 | 1,591 | 1,022 |
| 18-34 | 131,590 | 70,490 | 19,820 | 14,726 | 11,785 | 11,914 | 2,855 |
| 35-54 | 77,164 | 7,918 | 11,566 | 5,748 | 37,756 | 12,612 | 1,564 |
| 55–64 | 28,204 | 492 | 2,803 | 450 | 20,222 | 3,858 | 379 |
| 65 + | 6,082 | 75 | 377 | 85 | 4,793 | 680 | 72 |

SOURCE: See Tables 14 and 37.

b. An increase in the proportion of the young and of the old in the labor force, and a concurrent decrease in the middle age groups (Table 46). The decrease in the 35-54 year old group from 42 per cent to 35 per cent of the civilian labor force and the increase in the percentage of persons 55 and over from 12 to 18 per cent are particularly striking.

c. An increase in the proportion of Israeli-born and Asian- and African-born and a decrease in the proportion of persons from Europe and America.

Israeli-born will constitute 50 per cent of the civilian labor force aged 14-17, and about 45 per cent in the 18-34 group. The proportion of persons from Asia and Africa in the 14-34 group will rise to 37 per cent of the civilian labor force, while the percentage of European-born will decline to 15.

As said above, this projection is based on the assumption of constant rates of participation for each cell of population. However, we have doubts concerning the validity of this assumption, particularly with regard to the 14-17 and 55 and over age groups, and with regard to women over 35.

TABLE 45.  *Number and Percentage of Males in the Civilian Labor Force
by Age: 1958 and 1970*

*(Estimate II)*

| Age | 1958 | | | 1970 | | |
|-----|------|------|------|------|------|------|
| | Total labor force | Males | Per cent males | Total labor force | Males | Per cent males |
| Total | 698,300 | 529,520 | 74.5 | 1,032,776 | 761,401 | 73.7 |
| 14-17 | 37,080 | 21,796 | 58.8 | 65,797 | 37,462 | 56.9 |
| 18-34 | 281,875 | 198,392 | 70.4 | 424,581 | 292,991 | 69.0 |
| 35-54 | 294,649 | 229,670 | 77.9 | 362,127 | 284,963 | 78.7 |
| 55-64 | 68,199 | 56,487 | 82.8 | 137,263 | 109,059 | 79.5 |
| 65 + | 16,493 | 14,142 | 85.7 | 43,008 | 36,926 | 85.9 |

SOURCES: 1958—Labor Force Surveys, work papers.
1970—See Table 44.

In the 14-17 age group a decrease may be expected in the rate of labor force participation, with the expansion of the network of secondary schools. The participation rates of persons 55-64 may rise in the next decade since persons in this age group will have both a higher educational level and a greater experience of life in Israel than was true for persons in this age group in the 1950's. Also, the special difficulties of absorption faced by the immigrants in this age-group in the 1950's may be assumed to be less keen as the economy develops. The participation rates of persons aged 65 and over may tend to rise for the same reasons, but this tendency is likely to be offset by the trend for more general retirement from work

TABLE 46.  *Age Structure of Civilian Labor Force:
1958 and 1970*

*(Estimate II)*

| Age | 1958 | | 1970 | |
|-----|------|------|------|------|
| | Number | Per cent | Number | Per cent |
| Total | 696,300 | 100.0 | 1,032,776 | 100.0 |
| 14-17 | 37,080 | 5.3 | 65,797 | 6.4 |
| 18-34 | 281,875 | 40.4 | 424,581 | 41.0 |
| 35-54 | 294,649 | 42.1 | 362,127 | 35.1 |
| 55-64 | 68,199 | 9.8 | 137,263 | 13.3 |
| 65 + | 16,493 | 2.4 | 43,008 | 4.2 |

SOURCES: 1958—Labor Force Surveys, work papers.
1970—See Table 44.

by old people, which is to be associated with continued economic development.

The direction of the rates of participation of women over 35 is particularly difficult to project. For them, the major factor determining their participation has been continent-of-orgin. For those born locally or in Europe, increases and greater variety in available work may lead to higher labor force participation, continuing the sharp upward trends in labor force participation rates of the women of the pre-State Jewish population from 1948 to 1955. For those born in Asia-Africa there may occur shifts in social values which will enable them, too, to participate in enlarged employment opportunities. However, no clear indications of such shifts have yet appeared.

The continuing fall in the ratio of civilian labor force to population which is projected to 1970 suggests the need for two lines of further thought and action. One line, which is briefly touched on in the present report, concerns the recruitment into the civilian labor force of segments of the population now outside it. The other line concerns the achievement of more optimal training and utilization of the available labor force. Special policies of recruitment offer the more immediate but more limited results. The effects on the size of the national product of a population's structure which leads to a continuing decrease in the ratio of the civilian labor force to the population can, in the long run, be offset only by a continuing rise in output per employee.

ADJUSTMENTS OF GAINFUL WORKERS' ESTIMATES
TO OBTAIN LABOR FORCE ESTIMATES: 1931 AND 1948

The adjustments in the 1948 Registration of Population estimates of gainful workers, resulted in a net addition of 2 per cent for the estimate of the total labor force, both sexes. Half the additional numbers consist of persons classified in the 1948 Registration as unemployed, but not included in the total reported as "gainful workers". The other half is the result of an adjustment we made that persons classified as "economic status unknown" were probably divided between "gainful workers" and "not gainful workers" in the same proportions as those specifically classified.

The adjustments made by us in the estimate of earners by the 1931 Census of Palestine, to obtain an estimate of the total labor force were, on a net basis, even smaller: less than 1 per cent. However, the net addition of about 2,500 to the estimate is the result of adding 10,000 "working dependents" who were not included in the count of earners, but are reasonable equivalents of the "unpaid family workers", who are included in the definition of the labor force,[1] and subtracting numerous small groups, mainly rentiers and members of non-local armed forces. Rentiers were subtracted because they are not defined now as members of the labor force. Members of non-local armed forces were subtracted from the labor force estimate because they were subtracted from the population estimates. (Otherwise there would be no continuity in the population estimates, since no estimates of non-local armed forces are available after 1931.)

No way was found for 1931 to add an estimate of the unemployed or to subtract from the figures for earners and working dependents, those under the age of 14. Among the Jews, in 1948, these corrections accounted for a net addition of 0.7 per cent.

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[1] The following table throws light on the comparability of the concepts, "dependent earners" in 1931 and "unpaid family earners" in 1955. The numbers in these classifications, as a percentage of the estimated civilian labor force, in each year, were:

|                    | 1931 | 1955 |
|--------------------|------|------|
| Jewish males       | 1    | 1    |
| Jewish females     | 8    | 16   |
| Non-Jewish males   | 13   | 10   |
| Non-Jewish females | 20   | 52   |

The 1931 estimates were made in three forms: for all Palestine, and for the area of Palestine now Israel, Variant I and Variant II. Under Variant I, account is taken of the higher ratio of the non-Jewish population which was urban in the area which is now Israel, compared with Palestine as a whole. Under Variant II the labor force estimate of Palestine was reduced in direct proportion to the population in the more limited area. The 3 per cent higher labor force estimate of non-Jews obtained under Variant I is probably more reliable.

The 1931 figures in the Summary Table refer to Jews in Palestine and to non-Jews in the Palestine-Area of Israel—Variant I. The figures used in the Summary Table are italicized in Appendix-Table A.

APPENDIX-TABLE A: *Summary of Adjustments in 1931 and 1948 Gainful Worker Estimates*
*(thousands)*

| | Estimate of gainful workers | Adjusted estimate of total labor force | Adjusted estimate of civilian labor force |
|---|---|---|---|
| *1931* | | | |
| *Palestine* | | | |
| Jews and non-Jews | 380.9 | 378.2 | 377.9 |
| Jews, both sexes | 66.7 | *66.4* | *66.4* |
|    Males | 51.7 | 50.9 | .. |
|    Females | 15.0 | 15.5 | .. |
| Non-Jews, both sexes | 214.2 | 211.8 | 211.5 |
|    Males | 195.2 | 191.8 | .. |
|    Females | 19.0 | 20.0 | .. |
| *Palestine-Area of Israel* | | | |
| Variant 1, Jews and non-Jews | .. | 188.1 | 187.9 |
| Jews, both sexes | .. | 64.0 | 64.0 |
|    Males | .. | 49.1 | .. |
|    Females | .. | 14.9 | .. |
| Non-Jews, both sexes | .. | *126.1* | *125.9* |
|    Males | .. | 114.1 | .. |
|    Females | .. | 12.0 | .. |
| Variant 1, Jews and non-Jews | .. | 186.8 | 186.5 |
|    Jews, both sexes | .. | 64.0 | 64.0 |
|    Non-Jews, both sexes | .. | 122.8 | 122.6 |
| *1948* | | | |
| Jews, both sexes | 315.3 | *321.5* | *221.5* |
|    Males | 234.8 | 239.3 | .. |
|    Females | 80.5 | 82.1 | .. |

## METHOD OF ESTIMATING LABOR FORCE / POPULATION
## RATIOS, JEWS, ANNUAL AVERAGES: 1949-1959

This appendix consists of notes and sources to Table 1, from which the figures in the Summary Table, Part B, were calculated.

col. (1): Central Bureau of Statistics, *Statistical Abstract of Israel 1959/60,* p. 7.

col. (2)  1958: The civilian labor force, as estimated by the Labor Force Survey (for reference see Table-Appendix C.) divided by the population, col. 1.

1948-57: For each year, $\dfrac{(a) \times (b)}{(c)}$ , where

(a) = 1958 rates of labor force participation by age—sex—continent-of-origin subdivisions.

(b) = for each year, numbers in the population by age—sex—continent-of-origin subdivisions, defined identically to the subdivisions used for (a).

(c) = for each year, the whole population.

This produces an estimate of the numbers in the civilian labor force, each year, on the assumption that 1958 specific participation rates prevailed.

*Sources:*

(a) For 1958 age—sex—continent-of-origin rates: Central Bureau of Statistics, *Statistical Abstract of Israel 1958/59,* p. 304, supplemented by worksheets of the Labor Force Survey.

(b) For population by age—sex—continent-of-origin: For 1948-1954: Central Bureau of Statistics, *Jewish Population (1931–1954),* Special Publications Series No. 37; for 1955-1957, Central Bureau of Statistics, *Statistical Abstract of Israel 1956/57,* p. 14; *1957/58,* p. 22 and *1958/59,* p. 24.

(c) For population: col. 1.

col. (3) 1958: identical with the 1958 figure in col. 2.

1959: similarly, the civilian labor force, as estimated by the Labor Force Survey divided by the population, col. 1.

1948-57: col. 2 corrected for the effect on the estimated siez of the civilian labor force of the numbers in immigrant camps and in the armed forces. Col. (5) in Appendix-Table B below was added to col. 2 of Table 1 to produce col. 3.

col. (4) col. 3 plus col. (1) in Appendix-Table B below.

APPENDIX-TABLE B. *Effect of Numbers in Immigrant Camps and Armed Forces on Civilian Labor Force Estimate, Jews: 1948-1957*
*(all figures refer to per cent of population)*

| Year | Armed forces | Col. (1) minus 1958 armed forces | CLF* potential in immigrant camps | Col. (3) minus 1958 CLF* potential in immigrant camps | Joint effect col. (2) plus col. (4) |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| 1948 | 14.0 | —11.2 | .. | + 0.1 | —11.1 |
| 1949 | 8.3 | — 5.5 | 1.9 | —1.8 | — 7.3 |
| 1950 | 4.6 | — 1.8 | 2.0 | —1.9 | — 3.7 |
| 1951 | 3.7 | — 0.9 | 0.9 | —0.8 | — 1.7 |
| 1952 | 3.5 | — 0.7 | 0.4 | —0.3 | — 1.0 |
| 1953 | 3.4 | — 0.6 | 0.1 | .. | — 0.6 |
| 1954 | 3.3 | — 0.5 | 0.1 | .. | — 0.5 |
| 1955 | 3.2 | — 0.4 | 0.1 | .. | — 0.4 |
| 1956 | 3.1 | — 0.3 | 0.1 | .. | — 0.3 |
| 1957 | 3.0 | — 0.2 | 0.1 | .. | — 0.2 |
| 1958 | 2.8 | .. | 0.1 | .. | .. |
| 1959 | 2.7 | .. | .. | .. | .. |

* CLF: Civilian Labor Force.
SOURCES: col. (1): based on the arbitrary assumptions of 100,000 in the armed forces in 1948, 75,000 in 1949, and 50,000 each year thereafter.
col. (3): Table 5, col. 3.

# APPENDIX C

## ESTIMATES OF LABOR FORCE / POPULATION RATIOS IN TABLE 1, COMPARED WITH OTHER ESTIMATED LABOR FORCE / POPULATION RATIOS, JEWS: 1931–1959

| Date | Population (thousands) | Civilian labor force/ population | | Total labor force/ population | |
|---|---|---|---|---|---|
| | | Table 1 estimates (per cent) | Census and labor force survey estimates (per cent) | Table 1 estimates (per cent) | Census and population registration estimates (per cent) |
| | (1) | (2) | (3) | (4) | (5) |
| November 1931 | 174.6 | .. | 38.0 | .. | 38.0 |
| December 1947 | 630,0 | .. | .. | .. | .. |
| November 1948 | 716.7 | 30.9 | .. | 44.9 | 44.9 |
| Annual average | | | | | |
| 1954 | 1,500.6 | 37.6 | 34.4[1] | 40.9 | .. |
| 1955 | 1,555.3 | 36.9 | 36.9[1] | 40.1 | .. |
| 1956 | 1,626.3 | 36.8 | 35.3[1] | 39.9 | .. |
| 1957 | 1,721.2 | 36.4 | 37.0[1] | 39.4 | .. |
| 1958 | 1,782.7 | 36.4 | 36.4[1] | 39.2 | .. |
| 1959 | 1,836.2 | 36.0 | 36.0[1] | 38.7 | .. |

[1] Not annual averages, but for particular weeks. For 1954, a week in June; for 1955 in October-November; for 1956 in June; for 1957 two weeks, June and November; for 1958 and 1959 four weeks distributed through the year.

NOTE: Following are ratios of gainful workers/population as estimated by the Jewish Agency and the Central Bureau of Statistics before 1954: 1939—40.4; 1943—40.5; 1945—39.0; 1947—41.0; 1949—37.7; 1950—38.3; 1951—37.2; 1952—37.1. These ratios are not conceptually comparable with the ratios in the Table above.

SOURCES: col. (1): 1931: Palestine Census Office, *Census of Palestine, 1931.*
    1947: Central Bureau of Statistics, *Jewish Population (1931-1954),* Tables 1 and 4.
    1948: Central Bureau of Statistics, *Statistical Abstract of Israel 1958/59,* p. 21.
    1954-59: Table 1.
  cols. (2) and (4): Table 1.
  cols. (3) and (5):
    1931 and 1948: Appendix-Table A.
    1954: Central Bureau of Statistics, *Labour Force Survey June 1954,* Special Publication Series No. 56.

1955-58: Central Bureau of Statistics, *Labor Force Surveys 1958,* March 1959.

1959: Central Bureau of Statistics, *Statistical Bulletin of Israel: Part B — Economic Statistics,* May, 1960.

Following are the sources for the estimates of gainful workers referred to in the note following the Table:

1939: The Jewish Agency for Palestine, *Statistical Bulletin,* August-October, 1942.

1943: D. Gurevitch, A. Gertz, R. Bachi, *The Jewish Population of Palestine—Immigration, Demographic Structure and National Growth,* (Hebrew), Department of Statistics of the Jewish Agency, Jerusalem, 1944, p. 88.

1945: The Jewish Agency, Statistics Department, *Statistical Bulletin,* No. 1, 1946.

1947: A. Nitzan, "The Structure of Manpower in the Israel Economy", *The Economic Quarterly,* (Hebrew), No. 9-10, October, 1955, p. 60.

1949-52: Central Bureau of Statistics, *Statistical Bulletin of Israel,* Vol III, 1952, Nos. 1-2. Estimate of Jews gainfully employed in Israel.

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## ABOUT THE BOOK

This book studies the results, for the labor force, of the great population changes which have occurred in Israel. Analysis of the absorption into the economy of the massive immigration of 1948–1951 leads to a more detailed examination of that population grouping whose economic absorption was most difficult: males aged 55–64 who came to Israel from other countries in Asia or from Africa.

The book presents new estimates of the size of the labor force and of numbers unemployed. The labor force figures start in 1931 and are annual from 1948 to 1960.

Evaluation of recent labor force rates is made by comparisons with other countries as well as by historical and static analysis of the Israel data.

The final chapter includes projections of the labor force to 1970. The unpredictable size and origin of immigration is the major variable in these projections and there are no changes assumed in the labor force rates of Israelis of a given age, sex, and continent-of-origin. However, the likelihood of such changes taking place is discussed.