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CENTRAL STATISTICAL OFFICE
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# THE POPULATION OF HUNGARY 

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# WORLD POPULATION YEAR 

CICRED SERIES
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## ELÖSZÓ

Az Egyesült Nemzetek Szervezete1974-re Népesedési Világévet hirdetett meg és ugyanebben az évben a Népességi Világkongresszust is összehivta. Ennek keretében könyvsorozat kiadását kezdeményezte, amely az egyes országokra vonatkozỏan, közös terv alapján tájékoztatást nyujt a mult és a jelen népesedési helyzetérol és annak jövớ irányvonaláról.

Ezeknek a nemzeti népességi monográfiáknak a koordinálására a "Nemzeti Demográfiai Kutatások Nemzetközi Koordinációs Bizottsága" ("CICRED") kapott megbizást. A "CICRED" részérol annak elnöke, Jean Bourgeois-Pichat fordult a Magyar Népességtudományi Kutató Intézethez, javasolva Magyarország népességére vonatkozó kiadvány összeállitását. A monográfiának tartalmát, beosztását és terjedelmét is nemzetközi szinten egységesen elöirták. Ennek megfeleloen készült el a vonatkozó magyar anyag is.

A monográfia hivatalos demográfiai kiadványokban és tudományos közleményekben már megjelent anyagok összefoglalása. A kiadvány egyes fejezeteit a megjelent publikációk alapján a Központi Statisztikai Hivatal Népességtudományi Kutató Intézete és Népesedésstatisztikai föosztálya tudományos munkatársai közremüködésével állitottam össze.

Dr. Szabady Egon

The United Nations Organization declared 1974 as the World Population Year andalso the Wo:ld Population Conference was convened for the same year. Within the framework of this the UN initiated the publication of a book series which will give information - according to a common plan - on the past and present population situation of the individual countries and on the future trends.

The Committee for International Coordination of National Research in Demography (CICRED) was entrusted with the coordination of these national population monographs. On the part of the CICRED its President Jean Bourgeois-Pichat contacted the Hungarian Demographic Research Institute suggesting to prepare a publication on the population of Hungary. Also the content, structure and length of the monograph were prescribed uniformly on international scale. The Hungarian material, too, was prepared according to this.

The monograph is the summing up of materials having already published in official demographic and scientific issues. I prepared the chapters of the monograph on the basis of those publications with the contribution of the research workers of the Demographic Research Institute and Population Statistics Department of the Hungarian Central Statistical Office.

Dr. Egon Szabady

## I. POPULATION GROWTH

Hungary is situated in the Eastern part of Central Europe on a territory of 93 thousand square kilometres. The size of the population, according to the latest population census taken on January lst, 1970, was 10 million 322 thousand. Precise data on the population size are available only for the last 150-200 years. As for earlier periods only rough estimates and inaccurate data are obtainable. In terms of the present area of the country, the first figure goes back as far as the years around 1840, indicating a population of 3 million 945 thousand. The population growth taken place over the hundred years since the first official Hungarian population census in 1870 is characterized by the following data:

| Year | Number of the population (Thousands) | Density of the population (per km ${ }^{2}$ ) | Natural increase or decrease (-) (Thousands) | Percentages |  | Average annual rate of increase or decrease (-) per cent* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $1870=100$ | $\begin{gathered} \text { preced- } \\ \text { ing } \\ \text { census= } \\ 100 \end{gathered}$ |  |
| 1870 | 5011 | 54 |  | 100 |  |  |
| 1880 | 5329 | 57 | 318 | 106 | 106 | 0.56 |
| 1890 | 6009 | 65 | 680 | 120 | 113 | 1. 21 |
| 1900 | 6854 | 74 | 794 | 137 | 113 | 1. 25 |
| 1910 | 7612 | 82 | 758 | 152 | 111 | 1. 05 |
| 1920 | 7987 | 86 | 375 | 159 | 105 | 0.48 |
| 1930 | 8685 | 93 | 698 | 173 | 109 | 0.84 |
| 1941 | 9316 | 100 | 631 | 186 | 107 | 0.70 |
| 1949 | 9205 | 99 | - 111 | 184 | 99 | -0,15 |
| 1960 | 9961 | 107 | 756 | 199 | 108 | 0. 72 |
| 1970 | 10322 | 111 | 361 | 206 | 104 | 0, 35 |

Population censuses taken at more or less regular intervals permit a reliable analysis of population growth. The series of population censuses reflect the events of a complete century. Population growth has been influenced over this period by various factors of different signs. An attempt will be made here to present a brief review of the major factors.

Population growth has been accelerated by the following factors:

1. continuously decreasing mortality over the last hundred years,
2. considerable immigration into the present area of the country after the area changes following the First World War and also in the period after the Second World War.

Population growth has been retarded at the same time by the following factors:

1. the birth rate has been gradually decreasing and the fall in the birth rate experienced during the First World War had also a special influence on the vital events,
2. emigration showed varying intensity over the period investigated,
3. the major epidemics of the 19 th century especially the cholera epidemic of 1873 increased mortality,
4. casualties of the two World Wars and also the considerable resettlements and emigration following the Second World War.

The average annual increase of the population in the intercensal periods was the highest both in absolute and relative terms around the turn of the century. In the second half of the century population growth diminished, however, actual decrease took place only during the Second World War, in the forties.

The rate of population growth in the period 1960-1969 lagged behind the growth rate observed in any of the decades over the century since the first official Hungarian population census in 1870; the only exception here is the period of the Second World War when there was a slight 1.2 per cent decrease in the population.

| Period | Natural <br> increase | Net <br> migration | Natural <br> increase | Net <br> migration |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | thousands |  |  | per cent |  |
| $1881-1890$ | 647.0 | 33.3 | 12.2 | 0.6 |  |
| $1891-1900$ | 732.3 | 62.1 | 12.2 | 1.0 |  |
| $1901-1910$ | 837.0 | -79.1 | 12.2 | -1.1 |  |
| $1911-1920$ | 362.0 | 13.0 | 4.7 | 0.2 |  |
| $1921-1930$ | 772.0 | -73.6 | 9.6 | -0.9 |  |
| $1931-1941$ | 560.0 | 70.9 | 6,5 | 0.8 |  |
| $1942-1948$ | 332.5 | -443.9 | 3.6 | -4.8 |  |
| $1949-1959$ | 916,5 | -160.3 | 10.0 | -1.8 |  |
| $1960-1969$ | 352.0 | 9.1 | 3.5 | 0.1 |  |

Over the hundred years betwen 1870 and 1970 it was the natural increase that was the primary determining factor of population growth at the national level. Migratory movement played only a minor role in determining the size of the population. Although the excess of births over deaths was not outstandingly high, it developed
favourably: it was 12.2 per cent from decade-to-decade between 1881 and 1910 which corresponds to a yearly rate of $1.1-1.2$ per cent of natural increase.

However, in the interwar period the rate of natural increase gradually diminished to a medium level, moreover even below it, not to mention the periods of heavy war damages when the excess of births over deaths dropped to a minimum and there were even years when there were more deaths than births.

The earlier high rates of natural increase were approximated only in periods directly following the wars. In decades, however, that followed them the declining trend continued: compared to the preceding level it decreased by one third after the First World War and by two thirds after the Second World War. In the period between 1960 and 1969 the rate of natural increase was lower than at any time before including even the war years.

In a part of the period there was a certain net immigration which took place as a result of the vigorous development of the capital more or less counterbalancing emigration. However, the size of net immigration was rather moderate even in the decades which could be considered favourable in this respect.

Population growth in the period before the First World War was primarily influenced by the various migratory movements: emigration to the overseas countries which affected to the greatest extent the wide masses of the population. The population of the present area of the country provided during the decade directly following the turn of the century more than 200 thousand emigrants to the overseas countries and also the net emigration was more than 150 thousand.

Nevertheless, the actual loss of population i. e. the net emigration was about half as large because the balance of immigration from areas beyond the present territory was positive. Except for the
re-migration, the compensating effect came from the internal migratory movement from the that time territory of the country into the central parts, mainly into Budapest.

Immediately after the First World War the number of emigrants increased considerably but this migratory wave levelled off soon. Net emigration became relatively important only between 1941-1948 and 1949-1959 when it meant decreases in the population by 5 and 2 per cent, respectively. All things considered the number of persons emigrated over the whole period can be estimated at hardly more than half million about one quarter of which was compensated by immigration and re-migration.

The first major demographic disaster during the century reviewed was the last cholera epidemic in 1873.Deaths were estimated to reach 350 thousand but including also the accompanying reduction in births after the epidemic the total loss amounts to some half million persons.

Losses caused by the two World Wars were even more serious. Their demographic consequences appeared partly in mortality and partly in births showing at the same time rather divergent patterns. Between 1914 and 1918 war casualties were estimated at 250 thousand persons. However, the loss caused by the subsequent reduction in births to the country was even greater. In the period just after the First World War, there were 550-600 thousand less children borne than would have been expected under normal conditions.

As for population losses the Second World War differed very much from the First World War. The number of live births remained by $10-20$ thousand below the normal level only and at the same time the direct military casualties were also smaller than during the First World War. Nevertheless much greater losses were caused by different activities of the war, bombings among the civil population
and mainly by the deportation of a great part of Jews. All considered, the total number of deaths may be estimated at some 420 thousand.

To sum up: the curve of the population growth is not an unbroken one and the growth rate has been declining since the turn of the century. At the beginning of the period, in the early 1870 afflicted with cholera, the population increased at a rate which was half as high as it could have been expected on the basis of normal and rather favourable natural increase in the preceding period. In the decade of the First World War practically no increase would have taken place had it not been for the considerable inflow of refugees; in the period of the Second World War, however, the number of emigrants exceeded somewhat that of the immigrants and thus the country suffered a certain loss of the population. Over the whole period it was only between 1880 and 1900 that the number of the population increased at a really high rate, later, however, in the subsequent decade, the rate of population growth declined markedly with the increase of the emigration and in the interwar period this process continued due to the declining birth rate. By European standards, the indicator of population growth was at a medium level even then and it dropped to a low level only in the last decade.

## II. COMPONENTS OF GROWTH

a/Fertility

One of the major determining factors of the growth and reproduction of the population is the development of births i. e. of fertility. Therefore, Hungarian demographers have been engaged for decades in investigating the causes and relationships which influence fertility in a positive or negative way.

## The number of births

Similarly to other Central and Eastern European countries the declining trend of births started in Hungary later than in most Western European countries. The main reason for this is the postponed modern industrial revolution and the resultant divergent socioeconomic structure. However, the decline of fertility in general can be traced back to the middle of the last century, moreover a significant decrease of fertility could be observed during the decades prior to the First World War. In the interwar period, the number of births further declined and following the temporary upswing in the early 1920 compensating the losses caused by the war, even an acceleration of the process of decrease could be observed. With a live birth rate around 20 per thousand, Hungary took a medium position among the European countries in the period preceding the Second World War. This meant a relative decline compared to the position before the turn of the centrury; the live birth rate around 40 per thousand observed then in Hungary was among the highest in Europe.

The upturn observed in the number of births after the Second World War was not as significant as it was in the countries engaged in war after the First World War'(although the decrease in births was also smaller between 1939 and 1944 than between 1914 and 1918). Nevertheless, between 1947 and 1950 fertility reached a relatively high level (around 21 per thousand) which was above the general declining trend observed since the end of the last century. In the subsequent two years the "regular" decrease of births started again: in 1952 already a live birth rate of 19.6 per thousand was observed. The fertility development of the subsequent years was considerably modified by population policy measures acting in the opposite direction. First mainly due to a ban on induced abortion the number of births started increasing (in 1954 it was already 23 per thousand) then as a consequence of newer legal provisions issued in 1956 legalizing induced abortion, the number of births started declining again,

The new period starting with 1956 cannot be completely separated from the general history of fertility in Hungary. Although the annual rate of decrease in births in this period (between 1956 and 1962) was higher than generally observed over the century(the number of births diminished on annual average by 0.6 per cent between 1900 and 1952 and by 5.4 per cent between 1956 and 1962), it should, however, be borne in mind that the high fertility level of the preceding three years were attained by administrative measures, Going back to the 1920 s to examine the smoother parabolic trend, it can be said that even the significant decline in births taken place after the mid1950 does not alter significantly the historical process of fertility development.

At any rate, an exceptionally low live birth rate has been attained in our country: the number of live births per 1000 population
was 12.9 in 1962 which was the lowest ever birth rate in Hungarian history. At the same time it was the lowest live birth rate in Europe at that time.

Since 1963 a certain stagnation has been observed in the number of live births: the live birth rate was 13.1 over three subsequent years then in 1966 a minor and since 1967 a greater annual increase could be observed.

Number and rate of live births

| Year | Live births |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | total | per thousand <br> population | per thousand <br> females of <br> age 15-49 |  |
| 1876 | 239532 | 46,7 |  |  |
| 1901 | 260439 | 37.8 |  |  |
| 1911 | 261375 | 34.1 |  |  |
| 1921 | 255453 | 31,8 | 116.8 |  |
| 1931 | 206925 | 23.7 | 88.0 |  |
| 1938 | 182206 | 19,9 | 73.6 |  |
| 1941 | 177047 | 18,9 |  |  |
| 1949 | 190398 | 20,6 | 75.4 |  |
| 1954 | 223347 | 23.0 | 58.9 |  |
| 1960 | 146461 | 14.7 | 56.6 |  |
| 1961 | 140365 | 14.0 | 52.5 |  |
| 1962 | 130053 | 12.9 | 53.4 |  |
| 1963 | 132335 | 13,1 | 53.2 |  |
| 1964 | 132141 | 13.1 | 53,2 |  |
| 1965 | 133009 | 13.1 | 54.5 |  |
| 1966 | 138489 | 13.6 | 57.7 |  |
| 1967 | 148886 | 14,6 | 58,7 |  |
| 1968 | 154419 | 15,1 | 58,1 |  |
| 1969 | 154318 | 15.0 | 56.6 |  |
| 1970 | 151819 | 14.7 | 55.9 |  |
| 1971 | 150640 | 14.5 | 56.9 |  |
| 1972 | 153265 | 14.7 |  |  |

The growing number of live births over the recent years may be explained by a number of factors. Of these the largest weight is carried by the government measures which aimed at promoting births. Thus maternity leave for women in employment was increased (from 4 to 5 months) already in 1966 later in 1967 the leave for child-care was introduced for employed women which ensured reduced pay for the mothers until the child reaches the age of 2 and a half year. In 1968 this leave was extended to the age of three of the child. The increasing share of women of reproductive age in the total population also contributed to the growth: while live births increased by 16 per cent between 1965 and 1968 and the crude live birth rate by 15 per cent, the general fertility rate i.e. the number of live births per 15-49 year old females rose only by 10 per cent. In other words this means that one third of the increment in births was due to a shift in the age composition of the population. (The number of women in reproductive age was 2485000 at the beginning of 1965 , 47 per cent of the total female population. By the beginning of 1969 this figure rose to 2651000 and the corresponding ratio to 50 per cent. The number of $20-29$ year old women playing the gratest role in fertility rose over the same period from 722000 to 744000 .)

The relatively high birth rate, around 15 per thousand was maintained only in 1968 and 1969, and from mid-1970 to mid-1971 a minor set-back took place which is not explained by a change in the number of women at the reproductive age because there was even an increase both in terms of their numbers and their ratio. (At the beginning of 1972 the number of 20-29 year old women reached 779 thousand.)

Consequently it can be pointed out that the increase in the number of live births experienced in 1966-1969 levelled off, but as
against the minimum rate of 13 per thousand observed in 1962-1965 this rate of about 15 per thousand cannot be regarded as the lowest by European standards.

## Fertility by the age of the mother

The "general fertility rate" i.e. the number of live births per - 15-49 year old - women shows a more consistent picture of fertility development than the crude birth rate calculated in relation to the total population.

In 1921 after the First World War the number of live births per females aged $15-49$ was still 117. In 1938 the rate was 74. After the Second World War a certain increase could be observed but after reaching a maximum of 88 per thousand in 1954 , it started to decline gradually and in 1960 the general fertility rate dropped to 59. After 1960 the declining trend continued: a minimum of around 53 per thousand was attained in 1962-1965, followed by a gradual increase, until in 1968 the level of 1960 was restored. This rate has been decreasing again over the last three years and in 1971 it was 56 per thousand.

Standardized live birth rates present a similar picture. When examining live birth rates standardized to the Hungarian age composition of 1910, a somewhat smaller decline can be observed than in the case of the crude rates, although fluctuations also occur. It is, of course normal that due to the ageing of the population, birth rates obtained even by this method are higher than the crude rates, and moreover, even an apparent increase could be observed lately. All this means that the birth rate for 1960 standardized to the age composition of 1910 was 16.4 per thousand and for 196817.3 per thousand. In 1971 the rate is identical with that of 1960.

The above mentioned developments clearly show that changes in the age composition of the population have a strong influence on the number of live births. Thus, if the crude birth rate of 1962, the year it reached its lowest ever value of 12.93 , would have been calculated with the 1910 age-composition of the country, its value would be 14.49 per thousand, indicating a smaller decline.

Crude and standardized live birth rates

| Year | Live birth rates (per thousand) |  |  |
| :---: | :---: | :---: | :---: |
|  | Crude | Standardized to the age composition of |  |
|  |  | 1910 | 1960 |
| 1911 | 34.13 | 34.13 |  |
| 1938 | 19.87 | 20.94 | 19.93 |
| 1948-1949 | 20.77 | 22.15 | 20.48 |
| 1960 | 14.67 | 16.44 | 14.65 |
| 1961 | 14.00 | 15.66 | 13.98 |
| 1962 | 12.93 | 14.49 | 12.91 |
| 1963 | 13.12 | 14.62 | 13.03 |
| 1964 | 13.06 | 14.56 | 12.93 |
| 1965 | 13.11 | 14.70 | 13.04 |
| 1966 | 13.61 | 15,43 | 13.66 |
| 1967 | 14.57 | 16.66 | 14.76 |
| 1968 | 15.06 | 17,33 | 15,36 |
| 1969 | 14.97 | 17.33 | 15.34 |
| 1970 | 14.69 | 16.85 | 14,89 |
| 1971 | 14.53 | 16.46 | 14.53 |
| 1972 | 14.74 | 16.42 | 14.46 |

Coming now to the distribution of live births by the age of mother, the decline in fertility took place simultaneously with a decline in the age of mothers, that is to say the fertility of older women decreased in the first place (since the frequency of births of higher order diminished in the older childbearing age groups) and the younger women with relatively unchanged birth frequencies are representing increasingly higher weights among mothers.

At the beginning of the century only slightly more than one quarter of mothers was 20-24 years old; by the early 193os their ratio increased to one third. It was similar also in the early fifties, but beginning from 1957 it started gradually increasing, and in 1960 already 38 per cent of the mothers was 20-24 years old and their share kept on increasing up to 1965 (above 41 per cent). Following this, as a result of increasing births which took place primarily in age groups below 20 a slight decrease occurred: in 1967-1968 40 per cent of live births occurred to 20-24 year old women and in 1970-1971 this figure was already 41-43 per cent.

During the same period the ratio of older women giving birth decreased considerably. In the early years of the century one third of births occurred to females aged $30-39$, and 6 per cent to those aged 40 and more. The ratio of births in the former age group decreased but slightly prior to the Second World War (in the early 193os it was around 30 per cent) and that of the latter went down to 4 per cent. But in the early fifties only one quarter of mothers belonged to the age group 30-39 and 3-4 per cent to those above 40. Simultaneously with the decreasing number of births experienced since 1957 the number of older women giving birth diminished considerably: in 1970-71 only 16 per cent of births occurred to 30-39 years old females and slightly more than 1 per cent to those in the subsequent age groups.

The declining trend is all the more remarkable since the levels of live births, as it was shown above were almost identical in 1960 and 1971 and at the same time there were significant shifts in the age composition of mothers. From what has been said above it is apparent that the ratio of older mothers is gradually declining and this has to be supplemented by saying that this process has been going on continuously and independently of the general trend of births (i.e. of the decrease up to 1962, stagnation up to 1965 and the increase since then). Thus despite the general increase in the number of births relatively less women over 30 were among the mothers when compared to 1962 which is considered to be the trough of the birth wave.

The decreasing percentage of older mothers was naturally compensated by the increasing weight of the younger ones. A part of this process that relates to the 20-24 year age group has been discussed above. The increasing weight of younger mothers is even more remarkable if the ratio of births to females under 20 is examined. In the early years of the century only 8 per cent of the mothers was under 20 while in the 1930 and 1940 os this figure was $8-10$ per cent. Similarly in the early fifties their percentage was still 9 , but later since 1957 it also started to increase: in 1960 it went up to 13 per cent and later slightly decreased (to 12 per cent) but in 1966 with the reappearance of the birth wave it increased again and in 1968 it reached 14.5 per cent and in 1971 the highest rate so far ( 15.3 per cent) could be experienced.

Live births per thousand females of corresponding age in the

|  | $15-19$ | $20-24$ | $25-29$ | $30-34$ | $35-39$ | $40-49$ | Total |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Years | age groups |  |  |  |  |  |  |
| 1938 | 42.1 | 146.6 | 134.6 | 92.9 | 57.6 | 13.2 | 73.6 |
| 1949 | 47.3 | 162.6 | 140.7 | 84.0 | 52.7 | 10.9 | 75.4 |
| 1960 | 52.5 | 159.2 | 105.6 | 52.9 | 25.0 | 3.6 | 58.9 |
| 1961 | 52.0 | 153.9 | 100.7 | 50.2 | 23.0 | 3.7 | 56.6 |
| 1962 | 46.4 | 143.1 | 94,8 | 47.0 | 20.3 | 3.7 | 52.5 |
| 1963 | 43.3 | 143.9 | 100.7 | 48.4 | 21.1 | 3.6 | 53.4 |
| 1964 | 41.8 | 145.1 | 101.3 | 48.0 | 19.1 | 3.4 | 53.2 |
| 1965 | 41.9 | 147.9 | 100.6 | 47.8 | 18.2 | 3.0 | 53.2 |
| 1966 | 45.8 | 152.7 | 104.8 | 48.5 | 18.8 | 2.9 | 54.5 |
| 1967 | 50.4 | 160.9 | 112.5 | 53.0 | 19.7 | 2.7 | 57.7 |
| 1968 | 52.2 | 164.5 | 116.3 | 54.4 | 19.7 | 2.4 | 58.7 |
| 1969 | 53.7 | 162.3 | 114.3 | 53.7 | 19.5 | 2.4 | 58.1 |
| 1970 | 50.0 | 159.3 | 110.3 | 51.4 | 18.4 | 2.2 | 56.6 |
| 1971 | 50.3 | 157.7 | 103.8 | 49.8 | 17.9 | 2.1 | 55.9 |
| 1972 | 53.5 | 157.4 | 105.2 | 47.8 | 17.4 | 2.2 | 56.9 |

Differences in the distribution of births by age of the mothers are caused by divergent development of fertility in the various age groups. Of the older age groups the fertility of $30-39$ year old females was still 170 per thousand in 1910 but by 1930 it dropped to 94 per thousand. As a result of a further decline in 1949 it was already only 65 per thousand and later in 1960 and 1971 the fertility rates were only 39 and 34 per thousand, respectively. An even steeper decline was observed in the fertility of females age 40 and above: the number of births per thousand females of this age group was 36 in 1910 and

16 in the 193 os. Fertility rates of the oldest females in reproductive age decreased to 11 by 1949 and due to a further decline in 1967 and 1968 it was 2.7 and 2.4 per thousand, respectively, By 1971 it went down to 2.1 per thousand.

Fertility trends of the youngest age groups, have not followed the general trend and the development here has been diverging in many respects from that of the older age groups. Thus the frequency of births among 15-19 year old females, which showed a marked decrease (from 57 to 41 per thousand) between 1900 and 1930 rose first to 55 per thousand after the Second World War, then dropped back to 42 per thousand and finally stabilized, although with much fluctuation, around the rate of 50 per thousand.

The highest fertility rate was found, as always since the 1930 in the age-group 20-24 (although until the first quarter of the century it was exceeded by the fertility level of the age-group 25-29). However, changes were smaller in this age group than in the younger or older ones. (The rate of decrease was smaller and also the rate of increase remained below the average. It is interesting for example that while in 1960 the fertility in this age group was by 51 per cent higher than that of the 25-29 year old females by 1971 this gap expanded to 53 per cent. All this indicates that the 25-29 year old age group taking the second place in respect of fertility followed more sensitively the birth waves.

Summing up the fertility trends by age groups, it can be stated that a continuous decline in fertility can be observed over the recent period for the older age groups. Fluctuations in fertility were experienced primarily by the age group of 25-29 and those below 20 .

## Order of birth

In addition to an analysis of fertility by age groups, births can also be analysed by birth order. The higher fertility level is associated in general by a relatively greater number of births of higher parities and, conversely, declining fertility usually manifests itself by an increasing share of births of lower order.

All this is well shown in the trend of births over the last decade. The average parity - a single indicator, although somewhat formal - denotes the fertility level of a given year. Accordingly, the a verage of parity before the Second World War was still 3.05 but later due to the general decrease in fertility it went down to 2,51 by 1949. The exceptionally high birth rates of 1953-54 had but a slight impact on it since the increase took place in births of lower birth order. However, the deceleration of the decrease of that indicator stopped and it remained stagnant practically up to 1956 . The less favourable attitude of females towards childbearing caused a fast decrease in the average of birth order:in 1960 it already reached the level of 2.18 . This trend was not changed even by an increase in births in 1966-1968 since it took place in births of lower parities. Due to this since 1966 the average birth order has been below 2 and in 1971 it -was only 1.88 .

This makes it worth while examining the factors influencing this average, factors the combined effect of which caused the average parity to decline. First, the decline in births of higher order should be mentioned. Nowadays fewer and fewer females wish to have a large family i, e, to give birth to further children if they have a few living ones. Before the Second World War already 14 per cent of the live births were the sixth or of higher order. The share of these births went below 9 per cent by the late 1940 s and it was only 3 per cent in 1971 which means that mothers with such a large number of children became rare exceptions.

The ratio of fourth and fifth births also decreased although not at such a high rate, but is also contributed to a general decline in fertility. Their joint weight in total live births decreased from the 16 per cent pre-war value to 5 per cent by 1971. In spite of a general 12 per cent increase in the number of births in 1971, the number of fourth and fifth births remained by 32 and 34 per cent, respectively, below the level of 1962 , in which year the country experienced the trough of the general birth wave. All this points to the fact that today not only the 6 th and higher order births are exceptional but also the 4th and 5th births; this latter for example constitutes 1.7 per cent of the cases.

If, however, the decrease of 4 th and higher order births were observed only and the 3rd births were increasing (both in absolute and relative terms) some improvement in fertility could still take place. Notwithstanding the share of 3rd births is gradually declining independently of the general rise in the number of births over the last three years. In 1938 already 15 per cent of births was accounted for by the 3rd births, however, since 1966 this share has been fluctuating closely around 9 per cent. The contradictory development is indicated by the fact that over the recent years simultaneously with the growth of the birth rate the number of 3rd births still decreased; in 1971 the ratio of 3 rd parity births was only 8.9 per cent.

Percentage distribution of births by parity

| Year | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | Total births | Average of birth order |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | per cent |  |  |  |  |  |  |  |  |  |  |  |
| 1938 | 33.1 | 22.1 | 14.6 | 9.8 | 6.5 | 4.5 | 3.3 | 2.3 | 1.5 | 2.3 | 100.0 | 3.05 |
| 1949 | 40.6 | 26.6 | 13.2 | 7.0 | 4.1 | 2.8 | 1.9 | 1.4 | 0.9 | 1.5 | 100.0 | 2.51 |
| 1960 | 44.0 | 29.3 | 12.7 | 5.7 | 3.2 | 1.9 | 1.2 | 0.8 | 0.5 | 0.7 | 100.0 | 2.18 |
| 1961 | 45.0 | 29.0 | 12.3 | 5.6 | 3.0 | 1.9 | 1.2 | 0.8 | 0.5 | 0.7 | 100.0 | 2.16 |
| 1962 | 45.4 | 29.0 | 12.0 | 5.6 | 2.9 | 1.9 | 1.2 | 0.8 | 0.5 | 0.7 | 100.0 | 2.15 |
| 1963 | 45.0 | 30.2 | 11.6 | 5.3 | 2.9 | 1.8 | 1.2 | 0.8 | 0.5 | 0.7 | 100.0 | 2.14 |
| 1964 | 47.5 | 29.7 | 10.8 | 4.9 | 2.6 | 1.6 | 1.1 | 0.7 | 0.4 | 0.7 | 100.0 | 2.06 |
| 1965 | 48.8 | 29.9 | 10.1 | 4.5 | 2.5 | 1.6 | 1.0 | 0.6 | 0.4 | 0.6 | 100.0 | 2.01 |
| 1966 | 49.3 | 31.0 | 9.2 | 4.2 | 2.3 | 1.5 | 0.9 | 0.6 | 0.4 | 0.6 | 100.0 | 1.97 |
| 1967 | 48.7 | 32.5 | 9.2 | 3.9 | 2.1 | 1.4 | 0.8 | 0.6 | 0.3 | 0.5 | 100.0 | 1.95 |
| 1968 | 48.4 | 33.6 | 9.0 . | 3.7 | 2.0 | 1.2 | 0.8 | 0.5 | 0.3 | 0.5 | 100.0 | 1.93 |
| 1969 | 49.1 | 33.5 | 8.9 | 3.5 | 1.8 | 1.2 | 0.8 | 0.5 | 0.3 | 0.5 | 100.0 | 1.90 |
| 1970 | 49.3 | 33.7 | 8.9 | 3.4 | 1.7 | 1.1 | 0.7 | 0.5 | 0.3 | 0.4 | 100.0 | 1.88 |
| 1971 | 49.5 | 33.8 | 8.8 | 3.3 | 1.7 | 1.0 | 0.6 | 0.5 | 0.3 | 0.4 | 100.0 | 1.87 |
| 1972 | 49.2 | 34.4 | 8.8 | 3.2 | 1.6 | 1.0 | 0.6 | 0.5 | 0.3 | 0.4 | 100.0 | 1.87 |

Consequently, over the recent period due to the decrease in the 3rd and higher parities the proportion of the first and second births increased only. First births constituted only one third of live births in 1938 and their proportion was in the late 1940 os 41 per cent, moreover by 1954 - due to a rise in births - it went back to 35 per cent. As a result of decreasing fertility the share of first births was gradually rising up to 1966 (reaching 49 per cent) and since then it has been stagnating at this level.

The present birth wave is even more clearly reflected in the second births. Their prewar proportion of 22 per cent rose to 27 per cent by 1949 and to 30 per cent by 1954. Apart from only minor fluctuations it remained unchanged up to 1965 and it has been gradually increasing ever since; by 1968-1971 they accounted for 34 per cent of all live births. All this implies at the same time that the latest wave of live births resulted mainly from an upswing in the number of second births.

Thus, the characteristics of the present birth wave are well shown by the trends in birth parities, similarly to the analysis of fertility by age. The increase in the number of births experienced in 1967-1971 does not mean a change in the general declining trend of fertility. In fact, fertility of females above 30 with already two children remained unchanged, or declined even further. The rise came almost exclusively from the increasing fertility of youngest females with no child and to a smaller extent from those with only one child. A really favourable impact could be achieved only if the number of second and, primarily, third births were increasing at a similar rate. However, at present there is no evidence of such a development.

Important social and economic changes taken place in the various countries have a considerable influence on demographic processes and this applies especially to fertility which is largely dependent on the decision of individuals (women, families).

Simplifying the historical process characteristic for the most (developed or perhaps developing) countries, one could say that when fertility level is rather high and there is virtually no family planning, fertility differences of the various social strata are negligible. A slight decrease in family size usually occurs due to the slow expansion of birth control that produces actual fertility differences. The number of births starts decreasing just for the urban population with a higher cultural level, and the fertility of rural, peasant strata remains unchanged or decreases only slightly. This stage covers periods of different length in the individual countries, nevertheless, it is maintained by the faster or slower space of economic development i.e. industrialization in the first place, and by the resultant urbanization. The third stage of fertility. differentiation implies stabilization of a relatively low fertility level which shows rather slight variation by social strata.

In Hungary where during the past decades fundamental social transformations have taken place accompanying the building of the sosialist system, and followed by industrialization, and urbanization by expanding female employment, changes in fertility differentials i.e. the partial realization of the above process are rather clearly shown.

The following three social strata are distinguished in the Hungarian demographical practice and the same terms will be used also here:

- agricultural manual workers: every employed, member of agricultural co-operatives and self employed person and their family helpers whose activity is connected with agricultural production;
- non-agricultural manual workers: employed workers, members of craftsmen's cooperatives, self employed persons, family helpers whose activity relates to industry, construction, services and transport and whose work requires in general physical efforts. Thus skilled, semiskilled and unskilled workers and the so-called persons in auxiliary activities, office attendants, day-labourers, etc. who work outside the agriculture also belong to this group;
- non-manuals: persons whose work does not require in general physical effort. Thus technical managers (engineers and similar) persons engaged in scientific research and teaching activities, physicians, medical personnel, artists; managers of enterprises, heads of institutions, and senior staff of the public administration, persons engaged ir administrative work, etc.

Differential fertility of females belonging to various social strata can be analysed beginning from the early years of the century. That period was characterized by an extremely high birth rate of the agricultural population: their fertility exceeded that of females in other occupations by $30-40$ per cent. This difference further increased in the interwar period: the fertility level of females in agriculture exceeded that of others by $30-50$ per cent. Since the Second World War this difference has vanished or later it has taken a reversal trend: at the end of the 1940 s the fertility levels of the two strata was practi-
cally identical, and since then, birth frequencies of females in non agricultural manual occupations have exceeded those of females working in agriculture.

A part from the above mentioned characteristic the difference in the fertilitylevels of females in manual and non-manual occupations are also worth mentioning. In the early years of the century fertility of females belonging to the non-agricultural manual stratum was by two thirds or three quarters higher than of those in non-manual occupations.

Over the recent period the above mentioned general trend continued: fertility of agricultural manual workers further declined accompanied by a lower fertility level of non-agricultural manuals: between 1960 and 1970 a decrease of 11 and 12 per cent, respectively, took place in their fertility. In contrast the fertility of females in nonmanual occupations rose by 16 per cent. This process is even more clearly shown by the fact that during 20 years, between 1949 and 1970 , fertility of females in agricultural manual occupations diminished by more than 40 per cent, that of other manual workers by 22 per cent, while the fertility level of non-manuals increased by 9 per cent. Thus while in 1949 the fertility level of peasant females was one and a half times over that of the non-manuals, in 1970 this latter stratum had the highest rate and the non-agricultural manual workers, whose fertility level in 1949 was below that of the agricultural workers had now fertility rates by one quarter higher than that of the latter stratum.

This trend was even more clearly shown in the birth waves of the recent years. Since 1966 the fertility of the non-agricultural strata has only increased: the increase has taken place first of all in the rates of non-manuals and, to a smaller extent in those of the manual workers.

Formerly it was generally held that the fertility of economically active females was smaller than that of dependant ones since female employment had a decreasing effect on births. Thus for example in the non-agricultural strata in 1949 fertility of economically actives was one third of that of dependants and although this gap became smaller, the fertility rate of dependant females exceeded in 1960 by some 68 per cent that of the employed ones. Considerable change occurred in 1967 only: when a somewhat higher fertility rate was observed for the active females than for the dependant ones and this difference further increased in 1970 (the number of live births per thousand females employed outside the agriculture and being of reproductive age was by 45 per cent higher than the same indicator for the dependants).

This change may be ascribed primarily to the effect of the child care allowance, since more and more females take the opportunity of staying on leave up to the age of three of the child which promotes births among females in employment.

## Fertility by the educational level of the mother

The cultural level of the mother is closely connected with fertility. As a matter of fact the level of education does not appear as a factor determining directly the fertility, but it acts upon the conscious forming of family size through the social differences.

Fertility differences by educational level can only be analysed for the last decade i.e. changes which have taken place between 1960 and 1968 can be investigated. Data for 1960 clearly show that fertility gradually diminishes when the number of classes attended increases and only the fertility of females who attended 12 or more classes (or graduated from a university) exceeded the level of those with lower school qualification. This situation applies by and large even to 1968
with the difference that the fertility of females with 6-8 classes attended exceeds the fertility of females with both 1-5 and 9-12 classes attended. Here not so much the actual fertility differences are of significance but rather the divergent age composition of strata with various educational levels: as a result of improving cultural level the percentage of females above 30 and mainly 40 with a very low number of expected future birth is rather high in the less educated part of the female population of reproductive age. Thus fertility differences among these groups are most likely not of similar magnitude.

We are likely to get a better idea of cultural differences infertility if in addition to the investigation based on the live birth rates calculated in relation to females of reproductive age the average parity would also be included in the analysis of the relation between the cultural level and fertility. These latter indicators show more clearly the tendency that parallel with the increasing educational level (school qualification) of females the number of children decreases and a slight increase can only be observed in case of females who are former university students or graduates.

## Regional differences in fertility

The analysis of fertility differences includes also the investigation of regional differences. In this respect fertility differences of certain characteristic groups of settlement (the capital, other towns, villages) should be mentioned which - apart from the divergent socioeconomic and cultural levels - also reflect long established attitudes towards birth and family planning.

The diverging development patterns in the live birth rates of the three types of settlements can be traced back to as far as the early years of the century. The highest rate has been observed all along the
period in the villages which was followed by the country towns and the live birth rate of Budapest has been the lowest. However, the differences have increased over this period: in 1910 the birth rate in villages was by some 40 per cent higher than in Budapest and by 20 per cent higher than in the country towns. By 1949 the advantage of villages over Budapest remained unchanged, in relation of the country towns, how ever, it disappeared. In 1960 the birth rate in Budapest was half as high as in the villages and this latter rate was again by 20 per cent higher than in the country towns.

The revival in births was experienced this time in Budapest rather than in the country towns and hardly any rise was observed in the villages.

Apart from the fertility differences of the above mentioned types of settlements there are still considerable differences in the birth rates of various regions (counties, districts, etc.). Without entering into a detailed discussion of that problem, it should, however, be noted that past differences still exist i.e. the highest and lowest fertility rates are to be found in the same areas as earlier.

## The influence of fertility on reproduction

In conclusion an account will be given of how the two main indicators of reproduction, gross and net reproduction rates have been developing over the recent years.

In Hungary the last net reproduction rate indicating a prospective growth of population (1.019) is that of 1957 . Since then, the number of births in any year have been indicating a declining future population. The lowest figure was observed in 1962 when the net reproduction rate was 0.808 (which implied that thenext generation would be by 20 per cent smaller provided that the 1962 fertility and mortality conditions pre-
vailed for a longer period). Although as a result of the birth wave of the recent years there was some increase in the net reproduction rate: in 1967 it attained the level of 0.923 which meant an increase of 14 per cent over the minimum, however, this is still insufficient for ensuring the reproduction of the population all the more so since in 1971 this rate dropped back to 0.887 .

Reproduction rates*/

| Years <br> (Average of years) | Gross | Net |
| :---: | :---: | :---: |
|  | reproduction rates |  |
| $1930-1931$ | 1.828 | 1.128 |
| $1940-1941$ | 1.385 | 1.010 |
| $1948-1949$ | 1.194 | 0.972 |
| 1952 | 1.238 | 1.067 |
| 1953 | 1.200 | 1.083 |
| 1954 | 1.330 | 1.202 |
| 1955 | 1.429 | 1.308 |
| 1956 | 1.354 | 1.256 |
| 1957 | 1.258 | 1.164 |
| 1958 | 1.102 | 1.019 |
| 1959 | 1.045 | 0.973 |
| 1960 | 1,005 | 0.935 |
| 1961 | 0.975 | 0.907 |
| 1962 | 0.938 | 0.880 |
| 1963 | 0.868 | 0.808 |
| 1964 | 0.880 | 0.819 |
| 1965 | 0.872 | 0.829 |
| 1966 | 0.875 | 0.831 |
| 1967 | 0.907 | 0.863 |
| 1968 | 0.970 | 0.923 |
| 1969 | 0,997 | 0.948 |
| 1970 | 0.984 | 0.939 |
| 1971 | 0.953 | 0.912 |
| 1972 | 0.931 | 0.891 |
|  | 0.931 | 0.891 |

* / The crude (gross) reproduction rate shows the average number of daughters that would be borne to a female over her lifetime under the age specific fertility rates of the given year. The net reproduction rate, on the other hand, shows the number of daughters per female that would reach childbearing age under the mortality rates of the same given year.

> b/ Mortality

## Development of mortality

Before the First World War mortality conditions in Hungary were among the most unfavourable ones all over Europe. Although the crude mortality rate of 35-39 per thousand experienced in the late seventies and early eighties of the last century decreased by the early years of the twentieth century to 25 per thousand, nevertheless in the first decades of the century the number of deaths per thousand inhabitants was still around $22-24$, which was among the highest figure of the period.

Following the First World War, mainly as a consequence of the influenza epidemic, the level of mortality remained high and it was not until after 1925 that a considerable improvement took place. As against 20-21 per thousand registered in the early 1920 s the number of deaths per thousand inhabitants decreased to 17-18 and by 1930 as a further improvement this rate went down to 16 per thousand. The most favourable rate before the Second World War was observed in 1941: this year the number of deaths per thousand inhabitants was 13.2. The mortality conditions achieved in Hungary in the interwar period ensured a place still somewhat below the average among the European countries. It should, however, be noted that in Hungary starting from a relatively high mortality level the decrease was among the fastest in Europe.

The impact of the Second World War was relatively strong, however, mainly not in respect of war casualties but the great number of civilian deaths. According to estimates, more than 420000 persons died of the population calculated on the present territory of the country mainly in 1944 and to a smaller extent in 1945 , due to war activities.

War casualties amounted to some 135 thousand, 240 thousand persons were deported and the number of victims of bombings and other activities reached 45000.

Mortality level was high also in 1946-1947 (13-15 per thousand), however, in the subsequent period, up to 1954 the crude mortality rate was fluctuating between 11 and 11.7 per thousand. In the second half of the 1950 s the mortality rate decreased; on average there were 10.3 deaths in this period per thousand inhabitants.

The gradual declining tendency of the crude death rate continued also in the early 1960 s . The mortality rate 10.2 measured as an average of 1961-1965 remained somewhat below the figure observed for the preceding five years ( 10.3 per thousand). The lowest so far Hungarian mortality rate was also measured this time: in 1961 the average number of deaths per thousand inhabitants was only 9.6.

The improving tendency experienced up to this time took a reversal in the second half of the decade: the average death rate of 19661969 was already 10.8 per thousand which meant an increase of $5-6$ per cent over the preceding two periods. Especially remarkable are the high mortality rates of 1970 and 1971 when the average number of deaths per thousand inhabitants was 11.6 and 11.9 respectively.

The latest higher level of mortality in Hungary is explained by a number of factors. Of these the most apparent is the shift in the age composition of the population which will be discussed in detils later. Here we want to emphasize another aspect of mortality trends over the recent years. Already since the early 1920 s the mortality level of each year has unambigously been determined by the fact whether there has been a higher winter peak in deaths, usually related to the influenza epidemics and the resultant higher number of deaths. In years when there was an influenza epidemic late winter or early spring, and a resulting higher number of deaths, the mortality conditions of the year proved to be also unfavourable. This, however, did not imply in every
case an absolute increase in the number of deaths. Since years with high mortality rates which meant additional and earlier deaths of older persons were always followed by (two-to-three) years of low mortality when the mortality rates were reduced by the pre-time deaths of older persons. Although these high mortality rates did not folow each other periodically, they usually occurred every second-third year. Thus between 1920 and 1941 ten years may be found with outstandingly high figures of winter deaths (once in January, six times in February and three times in March) and also the total number of deaths may be regarded as high in each of those years. (1920, 1922, 1924, 1927, 1929, 1932, 1933, 1935, 1939, 1941.)

Number and rates of deaths*/

| Year | Number of <br> deaths | Crude death <br> rate <br> (per thousand) |
| :---: | :---: | :---: |
| 1876 | 178610 | 34.9 |
| 1901 | 166662 | 24.2 |
| 1911 | 184009 | 24.1 |
| 1921 | 170059 | 21.2 |
| 1931 | 144968 | 16.6 |
| 1938 | 130628 | 14.2 |
| 1941 | 123349 | 13.2 |
| 1949 | 105718 | 11.4 |
| 1960 | 101525 | 10.2 |
| 1961 | 96410 | 9.6 |
| 1962 | 108273 | 10.8 |
| 1963 | 99871 | 9.9 |
| 1964 | 100830 | 10.0 |
| 1965 | 108119 | 10.7 |
| 1966 | 101943 | 10.0 |
| 1967 | 109530 | 10.7 |
| 1968 | 115354 | 11.2 |
| 1969 | 116659 | 11.4 |
| 1970 | 120197 | 11.6 |
| 1971 | 123009 | 11.9 |
| 1972 | 118991 | 11.4 |

*/ All data relate to the present territory of the country.

The periodicity of mortality remained essentially similar after the Second World War. Leaving out war years when fluctuations were caused by other type of factors, between 1949 and 1965 eight winter peaks can be found with extreme values (five in March one in January, February, April, respectively) and the total number of deahts were relatively the highest also in the same years (in 1949, 1952, 1953, 1954, 1959, 1960, 1962 and 1965).

Since 1967 the late winter and early spring mortality peaks have been recurring every year keeping the mortality rate year by year at a high level. These peaks have meant by around 30 per cent higher monthly death rates than the annual averages.

The increase occurred in the crude death rate, as it has already been mentioned above, was primarily due to shifts in the age composition of the population. In the early seventies 1750000 persons of the total population of the country were 60 years old or older which is by 380000 , one quarter more than in the early sixties. The percentage of old persons increased during the decade from 13.8 per cent to 17. 0 per cent which is even more significant if one considers that at the beginning of the 20 th century the ratio of 60 year old and older persons was only 7 per cent, 8 per cent in 1910 and somewhat below 11 per cent before the Second World War. These factors strongly influence the number of deaths and the crude death rates calculated in relation to the total population, primarily because the greatest part of the deaths occurred in the old age group. Therefore, the so-called standardized death rates are superior to the crude rates in reflecting reality, since they are based on a constant age composition when the mortality of different periods or population groups are compared, and consequently differences calculated in this way reflect actual mortality differences.

Considering all this mortality in Hungary would be 6.3 per thousand in 1972 on the basis of the age composition of 1910 as against the calculated actual rate of 11.4 per thousand. Consequently, the "actual ${ }^{11}$ decrease in mortality rates since 1911 is 74 per cent as against 53 per cent indicated by the crude rates. If the same calculation is performed in relation to the mortality development of the 1960 s and standardization is based on the age composition of 1960 it can be seen that as against the 12 per cent increase measured by the crude rates the standard rates show a decrease of 8 per cent between 1960 and 1972 . This, however, is again of smaller size if one considers that the decrease in the standard rate between 1948-1949 and 1960 was 19 per cent (nearly 2 per cent annually). Apart from this it should also be noted that an increase could be observed during the 1960 s in the standard rate as well: as against the extreme standard rates of 1960 and 1962 much lower death rates were observed in the other years. The mortality rate standardized for the age structure of 1960 was by 9 per cent higher in 1970 (and also in 1971) than in 1966 with the lowest mortality rate and it exceeded the "actual" mortality of every year. Consequently, although the rate of increase over the recent years in the mortality level has not been as high as indicated by the crude death rates other factors also seem to have an influence here.

It is difficult to forsee the future development of mortality. The expected further ageing of the population is in itself an increasing factor. For if the age specific death rates do not change in the future then, considering always the current age composition, the crude death rate will increase to 12.5 per thousand by 1980 to 13.1 per thousand by 1990 and to 13.3 per thousand by 2000 . In order to keep the number of deaths at the present level the age specific mortality rates have to improve on average by 10 per cent by 1980 and by 15 per cent by 2000 .

Crude and standardized death rates (per thousands)

| Year | Crude death rates | Standardized death rates, considering the population composition of |  |
| :---: | :---: | :---: | :---: |
|  |  | 1910 | 1960 |
| 1911 | 24.1 | 24.1 |  |
| 1938 | 14.2 | 14.0 | 16.1 |
| 1948-1949 | 11.5 | 10.1 | 12.4 |
| 1960 | 10.2 | 7.0 | 10.1 |
| 1961 | 9.6 | 6.6 | 9.4 |
| 1962 | 10.8 | 7.2 | 10.4 |
| 1963 | 9.9 | 6.6 | 9.4 |
| 1964 | 10.0 | 6.4 | 9.3 |
| 1965 | 10.7 | 6.6 | 9.7 |
| 1966 | 10.0 | 6.2 | 9.0 |
| 1967 | 10.7 | 6.4 | 9.4 |
| 1968 | 11.2 | 6.5 | 9.7 |
| 1969 | 11.4 | 6.5 | 9.7 |
| 1970 | 11.6 | 6.5 | 9.8 |
| 1971 | 11.9 | 6.6 | 9,8 |
| 1972 | 11.4 | 6.3 | 9.3 |

By European standards the Hungarian mortality level can be considered to be somewhat below the average, thus its relative position among the countries has not changed, as compared to the prewar conditions.

It has been generally known already for a long time that there is a difference in the mortality of the two sexes i. e, mortality of males exceeds that of females. In the course of time,however, this difference has increased and in the 1960 s there was an increase even in the excess males deaths.

In the early years of the century the number of deaths per thousand males exceeded by 4 per cent and in 1910 already by 8 per cent the number of deaths per thousand females. This difference increased in the period after the First World War and reached 11-12 per cent. It took an extreme value after the Second World War: there were by 18 per cent more deaths in 1948-1949 per 1000 males than females. In 1960 the difference became relatively small again (11 per cent) and since then it has been increasing: in 1968 it was 14 per cent. The difference in the mortality levels of the two sexes is explained by the fact that while between 1910 and 1968 the crude mortality rate of females improved by 55 per cent that of males only by 52 per cent. Between 1960 and 1968 the crude mortality rate of males increased by 12 per cent that of females by 9 per cent.

The excess mortality of males is even more pronounced if it is examined in terms of standard mortality. Standardizing the sex specific mortality rates by means of an unchanged age composition the mortality of males decreased to 31 per cent and that of females to 23 per cent of that time level. In terms of standard rates male mortality increased by 2 per cent and female mortality by 8 per cent between 1960 and 1968.

The clearest picture is obtained if in order to eliminate the effect of different age composition both mortality rates arestandardized for the age composition of females. According to these indicators while
the mortality rates of the two sexes were actually identical in the early years of the century, the male mortality in 1938 was already by 13 per cent and in 1960 by 32 per cent higher than the female mortality. This process was even accelerating during the 1960s: the male mortality rate standardized for the female age composition is already 15 per thousand which exceeds by 43 per cent the female mortality level. In other words it means that if the relative number of old age males were as high as the females whose mortality rate is more favourable, the mortality rate of males would be by 43 and not by 14 per cent higher.

## Mortality by age

In the early years and the first decade of the century the highest weight in the Hungarian mortality was represented by infant and childhood mortality. In 1900-1901 out of 100 deaths 32 were under one year and further 22 between 1 and 14 years. The same figures for 1920 are 29 and 15 , respectively. By the years prior to the Second World War the share of infant mortality declined to 17 and that of child mortality to 6 per cent and the situation was hardly different also in the 1940 s . In 1960 only slightly more than 7 per cent of deaths was accounted for by infant deaths and slightly less than 2 per cent by child deaths. The declining trend in infant and childhood mortality continued in the 1960 s: in 1969 already less than 5 per cent of deaths was accounted for by infant and 1 per cent by child deaths.

Simultaneously with the declining share of infant and child deaths the share of old age deaths is increasing. In the early years of the century only somewhat more than one fifth of the deceased persons were 60 year old or older and this figure was one quarter even in 1910 , and less than 30 per cent in the 1920 s . In the years before the Second

World War the mortality rates of the old age population were 46-48 per cent and it occurred in the late 1940s for the first time that half of the deceased persons were above 60. Since then this tendency has become more prevalent: in 19.60 less than 70 per cent and over the last twoyears already 76 per cent of the deaths occurred to persons aged 60 and above.

The significant shifts in the age composition of deaths are only partly due to the ageing of the population i.e. to the declining number of births and increasing share of old age persons just as a consequence of improving mortality. The basic, underlying cause is that the improvement of mortality is rather different by age groups; the rate of decrease in mortality diminishes with the progress of age. While between 1900 and 1969 infant and child mortality declined to 17 and 3 per cent, respectively, of the 1900 level the mortality rate of 60 year old and older persons is only 70 per cent of the figure relating to the early years of the century. The rate of improvement diminishes with the progress of age also among the old age persons: the mortality of the $60-64,65-69,70-74,75-79,80-84$ year old persons is only $50,52,63$, 64, 76 per cent of the 1900 level and the same figure for the 85 year old and older persons is 87 per cent.

A similar trend can be observed for the 1960 s . While infant and child mortality improved between 1960 and 1969 by 29 and 37 per cent, respectively, the mortality of the 60 year old and older persons diminished only by one per cent. Within the age group 60 and more, the improvement was 8 per cent in the age group 80-84, and there was no change in the age-group 65-76.

All this points to the fact that the improvement in mortality may be explained primarily in terms of decreasing infant and child mortality and since the mortality of these age groups can hardly be decreased considerably in the future (if Hungarian infant mortality were
reduced to the level of the countries with the lowest rates it would not mean more than 2 per cent reduction in the overall mortality). Further reduction can therefore only be achieved by improving the mortality of the old age population.

## Percentage distribution of deaths by age groups

| Year <br> (average of <br> years) | $0 * /$ | $1-14$ | $15-39$ | $40-59$ | $60-\mathrm{x}$ | Total |
| :---: | ---: | ---: | ---: | ---: | ---: | :--- |
| $1900-1901$ | 31.8 | 22.0 | 12.4 | 12.2 | 21.6 | 100.0 |
| $1910-1911$ | 29.3 | 20.9 | 12.5 | 12.4 | 24.9 | 100.0 |
| $1920-1921$ | 28.6 | 14.9 | 15.1 | 12.5 | .28 .9 | 100.0 |
| $1930-1931$ | 24.0 | 9.9 | 14.8 | 14.2 | 37.1 | 100.0 |
| 1938 | 18.3 | 7.3 | 12.7 | 16.2 | 45.5 | 100.0 |
| 1941 | 16.6 | 6.4 | 12.7 | 16.5 | 47.8 | 100.0 |
| $1948-1949$ | 16.7 | 4.5 | 10.8 | 18.0 | 50.0 | 100.0 |
| $1959-1960$ | 7.3 | 1.9 | 5.1 | 16.4 | 69.3 | 100.0 |
| 1965 | 4.8 | 1.3 | 4.2 | 14.8 | 74.9 | 100.0 |
| 1968 | 4.8 | 1.1 | 4.2 | 14.1 | 75.8 | 100.0 |
| 1969 | 4.7 | 1.0 | 4.0 | 14.3 | 76.0 | 100.0 |
| 1970 | 4.5 | 1.0 | 4.1 | 13.9 | 76.5 | 100.0 |
| 1971 | 4.3 | 0.9 | 4.1 | 14.1 | 76.6 | 100.0 |
| 1972 | 4.3 | 0.8 | 4.2 | 14.0 | 76.7 | 100.0 |

* Calculated per 1000 live births.

Number of deaths per 1000 population in the corresponding age group

| Year <br> (average of <br> years) | $0^{* /}$ | $1-14$ | $15-39$ | $40-59$ | $60-\mathrm{x}$ | Total |
| :---: | :---: | ---: | ---: | ---: | ---: | :--- |
| $1900-1901$ | 215.1 | 17.7 | 8.5 | 16.6 | 73.4 | 26.0 |
| $1910-1911$ | 201.2 | 15.6 | 8.0 | 15.9 | 73.2 | 24.1 |
| $1920-1921$ | 192.8 | 11.3 | 7.8 | 14.0 | 68.0 | 21.3 |
| $1930-1931$ | 157.0 | 6.3 | 5.6 | 11.4 | 61.0 | 16.1 |
| 1938 | 131.4 | 4.1 | 4.4 | 10.6 | 62.2 | 14.2 |
| 1941 | 115.6 | 3.5 | 4.1 | 9.5 | 58.7 | 13.2 |
| $1948-1949$ | 92.5 | 2.2 | 3.2 | 8.4 | 49.3 | 11.5 |
| $1959-1960$ | 50.1 | 0.8 | 1.4 | 7.0 | 51.9 | 10.3 |
| 1965 | 38.8 | 0.6 | 1.3 | 6.3 | 51.1 | 10.7 |
| 1968 | 35.8 | 0.6 | 1.3 | 6.4 | 51.5 | 11.2 |
| 1969 | 35.7 | 0.5 | 1.2 | 6.5 | 51.4 | 11.4 |
| 1970 | 35.9 | 0.6 | 1.3 | 6.5 | 51.8 | 11.7 |
| 1971 | 35.1 | 0.5 | 1.3 | 6.8 | 51.9 | 11.9 |
| 1972 | 33.2 | 0.5 | 1.3 | 6.5 | 49.3 | 11.4 |

* / Per 1000 live births.

Examining in details the age-specific mortality rates of the 1960s an unambiguously continuous improving trend can be observed all over the period in infant and child mortality. At the beginning of the period the decline in infant mortality was faster, but, a deceleration has taken place over the recent years (during the last two years even some stagnation could be observed). At this low level, however, because of the increasing share of peri-natal mortality (which is explained primarily by the growing ratio of premature deliveries in infant
mortality) any further improvement is an increasingly difficult objective. All taken together the mortality of age groups below ten improved during the current decade by 29 per cent but a considerable part of this fell on the first part of the decade: between 1960 and 1964 the decrease was of 20 per cent and only of 11 per cent since then.

The most important and continuous was the declining trend in the mortality of the one and twoyear old children. At present the number of deaths is by 55 per cent less in the one year old age group and by 43 per cent in the two year old age group than ten years ago. Continuous decrease can be observed also for the 3-4 year old children, total mortality decreased by 23 per cent although in 1969 already a slight increase took place. Total mortality of 5-9 year old persons decreased by 26 per cent.

It is characteristic for every age group in the reproductive age (between 15-59) that mortality was improving in most of the decade, however, it started increasing over the recent years. Between 1960 and 1969 the rate of improvement was the highest for the age group 15-24 (18 per cent), but their mortality is now by 1-3 per cent higher than in 1966 and there was an actual increase in mortality as compared to 1960 for the 40-44 year old population and hardly any improvement was observed for the 50-54 year old persons.

There was also a temporary improvement in the old age mortality, however, by the end of the decade mortality rose for every age group. As compared to the position in the early 1960 s the rate of improvement did not exceed 8 per cent ( $80-84$ year old population) but in most age groups it was only 3-4 per cent and the mortality of 65-74 year old persons remained unchanged since 1960. Compared to the year of lowest mortality, except for the 80-84 and 60-64 year old populations where the increase was of $5-7$ per cent, the mortality rate rose by 9-13 per cent for every age group.

If one analyses Hungarian age specific mortality rates in an international aspect, a rather manifold pictuve is obtained. The mortality rate of the recent years reaches in certain age groups the level of countries with the lowest mortality, while in other age groups the stituation is rather unfavourable. In this comparison mortality conditions of the children and young age persons can be regarded as the most favourable where the present Hungarian mortality rates are identical with those of the most developed countries. However, in respect of infant mortality our position is somewhat below the medium level i, e, the number of deaths, before reaching the age of one, per thousand live births was in 1968-1969 about twice as high as in countries where infant mortality is more favourable and some half as high as in countries where infant mortality is the highest in Europe.

Mortality of older persons in reproductive age may also be regarded as average. The mortality of old age persons, primarily of males can be said unfavourable also in international respect.

The shifting of age at death i.e, the strongly decreasing share of infant and child deaths, and the rising number and share of old age deaths is rather clearly shown by the increase in the average age at death which was 65.7 and 65.8 on average in 1971 and 1972. This means a 40 year longer length of life than in the early years of the century and also by 20 years longer than before the Second World War. During the 1960 s this increase was not significant: between 1960 and 1972 the average age at death increased by somewhat less than 4 years ( 6 per cent). The difference between the average ages at death by sex which is due to the lower mortality of females has been observed over a long period and this tendency has even accelerated recently.

Average age at death

| Year | Males | Females | Total |
| :---: | :---: | :---: | :---: |
| $1900^{* /}$ | 24.53 | 26.66 | 25.57 |
| 1910 | 27.83 | 29.23 | 28.52 |
| 1920 | 31.82 | 34.00 | 32.89 |
| 1930 | 36.65 | 38.91 | 37.75 |
| 1938 | 44.13 | 47.33 | 45.68 |
| 1941 | 46.11 | 49.32 | 47.67 |
| 1948 | 46.84 | 50.71 | 48.69 |
| 1960 | 60,04 | 64.50 | 62.23 |
| 1961 | 60,23 | 64,89 | 62.51 |
| 1962 | 61.57 | 65.98 | 63.73 |
| 1963 | 61.10 | 65.66 | 63.32 |
| 1964 | 61, 79 | 66. 68 | 64.16 |
| 1965 | 62.78 | 67.47 | 65.06 |
| 1966 | 62.18 | 66.99 | 64.53 |
| 1967 | 62.46 | 67.61 | 64.96 |
| 1968 | 62,92 | 68.00 | 65.37 |
| 1969 | 63, 08 | 67.83 | 65,35 |
| 1970 | 62.95 | 68.45 | 65,59 |
| 1971 | 63.08 | 68.47 | 65, 65 |
| 1972 | 63.24 | 68.63 | 65.83 |

*/ On the pre-1920 territory of Hungary.

The figures on expectation of life calculated from the mortality rates of the given year can be better used than the average age at death
for the purpose of analysing the changes in mortality or the shifting of age at death.

## Expectation of life at birth (year)

| Year <br> (average of years) | Males | Females |
| :---: | :---: | :---: |
| $1900-1901^{*} /$ | 36.6 | 38.2 |
| $1920-1921$ | 41.0 | 43.1 |
| $1930-1931$ | 48.7 | 51.8 |
| 1941 | 54.9 | 58.2 |
| $1948-1949$ | 58.8 | 63.2 |
| 1955 | 65.0 | 68.9 |
| 1958 | 65.1 | 69.4 |
| $1959-1960$ | 65.2 | 69.6 |
| 1964 | 67.0 | 71.8 |
| 1968 | 66.6 | 71.9 |
| 1970 | 66.3 | 72.1 |

*/ On the pre-1920 of Hungary excluding Croatian-Slavonia.

Differences by sex in the expectation of life at birth also indicate the relative deterioration in the mortality of males. While in the early years of the century the surplus expectation of life at birth of the females was only 1.6 years i.e. it meant by 4 per cent longer expected life, by before the Second World War it grew to 3.3 years ( 6 per cent) and by 1960 to 4,4 years ( 7 per cent). Due to further changes in the 1960s, the life expectancy of females at birth was already by 5.3 higher in 1968 which meant an 8 per cent longer expected life for the females than for the males.

Average life expectancies at a given age, in selected years (year)

| Age | $1948-49$ |  | $1959-60$ |  | 1970 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Males | Females | Males | Females | Males | Females |
| 20 years | 47.95 | 54.34 | 50.16 | 53.79 | 49.90 | 54.94 |
| 40 years | 31.07 | 33.89 | 31.72 | 34.80 | 31.49 | 35.71 |
| 60 years | 15.78 | 17.32 | 15.30 | 17.40 | 15.16 | 18.13 |

Data unambiguously prove that the increase in the average life expectancy resulted from the decline of infant and child mortality. In higher age groups only the life expectancy of females increased somewhat.

## Differential mortality

Discovering differences is one of the mostimportant tasks also of the mortality analysis Hungarian demographers have been concerned with since the last quarter of the past century through the analysis of the differing mortality conditions in the various socio-economic groups and with revealing outside factors influencing mortality.

One of the factors that has to be mentioned here is the effect of marital status on the level of mortality. It has been subject of investigations for long, that the very fact of living in marriage, itself has a favourable influence on mortality. Most likely it is due to the circumstance that persons with ill-health generally do not enter into marriage and that mortality of single, mostly old age, persons is higher than that of married persons in the same age groups. This, however,
does not explain why the mortality of widowed and divorced persons exceeds that of married persons of the same age. To establish this, deeper sociological investigations are required, so much is, however, certain that normal family life has a favourable infuence on health conditions, which, in return influence mortality. At any rate, it is remarkable that the favourable influence of marriage on mortality presented itself mainly concerning males, which means that married life is even more important for them than for the females.

It is even more difficult to point out - especially in a compa rison over time - differences in mortality by socio-economic status and by occupations. Such kind of investigations are made especially problematic since different classifications have been applied in different periods to the individual socio-economic occupational groups and even the composition of these groups have undergone fundamental changes in the course of time due to not so much because of changing statistical accounting and processing but of major historical transformations. Suffice it to refer here to differences in the definition of peasantry (agricultural physical workers) which hinders precise comparison even over the most recent years. This is because the small scale agricultural farming was transformed just during the 1960 s into agricultural cooperative farming and while as a result of the social restratification the youngest members of this group arrived in the non-agricultural strata the majority of the older ones became pensioners or annuitants. All these make the investigation of mortality rather unfeasible and hinder the comparison in the first place.

Data for 1968 present the same general picture as indicators of 20 years before, reflecting more stable social conditons. According to them, the lowest mortality was observed for the non-manual occupations, the highest for the non-agricultural manual workers,
including industrial workers and the peasantry (agricultural manuals) took a middle position.

Of the regional differences in mortality those should be mentioned in the first place which originate from the character of the various groups of settlement (capital, other towns, villages). In terms of crude rates the general trend up to the late 1940 s was that Budapest was leading with the lowest mortality rate, followed by the villages and the mortality was the highest in the other towns. The situation has changed since 1959-1960. Since then always the country towns had the lowest mortality rates and in the early 1960s it is Budapest rather than the villages which had the highest rates. According to the 1968 figures mortality rates are indentical in the capital and the villages.

## III. POPULATION COMPOSITION

## Sex distribution

The sex distribution of the population is the following: the number of males and females are 5004 and 5318 thousand, respectivelly. The 314 thousand surplus of females implies that the number of females per thousand males is 1063 which is more than at any time over the 70 year period before the Second World War, as established by the population censuses. Nevertheless, the decrease in the excess of females has been accelerating: the sex ratio i.e. the number of females per thousand males fell from the peak 1081 in 1949 by 8 up to 1960 and by further 10 up to 1970 since more than half of the inerement of the population has been accounted for by the increase in the number of males.

| Year | Males | Females nds ${ }^{* /}$ | Sex ratio (females per 1000 males) | Changes in the number of males as percentage of the increase in the total population |
| :---: | :---: | :---: | :---: | :---: |
| 1870 | 2482 | 2529 | 1019 | - |
| 1880 | 2619 | 2710 | 1035 | 43,1 |
| 1890 | 2965 | 3044 | 1027 | 50.9 |
| 1900 | 3418 | 3436 | 1005 | 53.6 |
| 1910 | 3792 | 3820 | 1007 | 49.4 |
| 1920 | 3874 | 4113 | 1062 | 21.8 |
| 1930 | 4248 | 4437 | 1044 | 53, 6 |
| 1941 | 4561 | 4755 | 1043 | $49.5 * *$ |
| 1949 | 4424 | 4781 | 1081 | -**/ |
| 1960 | 4804 | 5157 | 1073 | 50.3 |
| 1970 | 5004 | 5318 | 1063 | 55.3 |

*/Civilian population between 1870 and 1890 and total popula tion from 1900 on. - **/ Between 1941 and 1948 the number of males decreased and that of females increased.

Age structure

Somewhat more than one fifth of the population is in childhood and some one sixth old age. The share of the former group is the lowest ever and that of persons over the productive age is much higher than at any time before at the time of the population census. This was an almost unbroken process over the past hundred years and it is a result of the ageing of the population. While in 1870 the share of population under 15 was slightly more than twice as high as that of the oldage population, one centurylater the excess was hardly one quarter. It happened between 1960 and 1970 for the first time hat the decrease in the number of children was not due to birth losses caused by war activities but to the fact that the large age group borne in 1952 and 1953 left the age group $0-14$ years, and aged into the productive age.

The share of population in working age has been considerably steadier: since 1870 from census to census some three fifth of the population has belonged to the age group 15-59 years, extreme figures were observed in the course of 1890 and 1949 censuses when this age group constituted 57 and 64 per cent of the total population. Their share was 62 per cent in 1970, slightly higher than ten years before. Their number has increased by 327 thousand, 5 per cent since 1960.

The accelartion of the ageing is equally well indicated by the declining share of the younger persons in the reproductive age group. The ratio of persons below 40 within the age group 15-59 gradually diminished between 1870 and 1910 from 69 to 67 per cent, between 1920 and 1970, however, this process accelerated and the above figure dropped from 68 to 60 per cent.

Percentage distribution of the population by age groups, 1870-1970

| Year | Age groups |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-14 | 15-59 | 15-39 | 40-59 | 60-X | Total |
| 1870 | 36.7 | 58.2 | 40.2 | 18.0 | 5.1 | 100.0 |
| 1880 | 35.2 | 58.1 | 39.8 | 18.3 | 6.7 | 100.0 |
| 1890 | 36.2 | 56.9 | 38.3 | 18.6 | 6.9 | 100.0 |
| 1900 | 34.9 | 57.6 | 38.7 | 18.9 | 7.5 | 100.0 |
| 1910 | 34.7 | 57.3 | 38.6 | 18.7 | 8.0 | 100.0 |
| 1920 | 30.6 | 60.4 | 41.3 | 19.1 | 9.0 | 100.0 |
| 1930 | 27.5 | 62.7 | 42.6 | 20.1 | 9.8 | 100.0 |
| 1941 | 26.0 | 63.3 | 40.6 | 22.7 | 10.7 | 100,0 |
| 1949 | 24.9 | 63.5 | 38.8 | 24.7 | 11.6 | 100.0 |
| 1960 | 25.4 | 60.8 | 36.8 | 24.0 | 13.8 | 100,0 |
| 1970 | 21.1 | 61.8 | 37.0 | 24.8 | 17.1 | 100, 0 |
| 1970 as percentage of 1960 | 86,0 | 105.4 | 104.3 | 107.0 | 128.2 | 103,6 |

Naturally, changes in the age composition are reflected also by data on the actual increase or decrease in the number of people belonging to the major age groups. Between 1960 and 1970 as against the decrease of 350 thousand in the number of children, an increase of nearly 400 thousand took place in the number of old age population. It is remarkable that this latter increase exceeded by itself the total increase in the population.

The ageing of the population is more pronounced for the females than for the males. The average age of the two sexes was increasing in identical manner at rather moderate rates from 1870 up to the turn of
the century, since then, however, the average age of females has been growing from decade-to-decade at higher rates than that of males. As a result of this process in 1970 the average age of females was already 2.7 years higher than the average age of males.

Average age by sex, at census dates 1870-1970

| Year | Total | Males | Females | Diver- <br> gence <br> of the averag $\epsilon$ age of females from that of males | Increase in the average age |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Total | Males | Females |
| 1870 | 25.5 | 25.9 | 25.2 | -0.7 | - | - | - |
| 1880 | 26.3 | 26.3 | 26.2 | -0.1 | 0.8 | 0.4 | 1.0 |
| 1890 | 26.4 | 26.4 | 26,4 | 0.0 | 0.1 | 0.1 | 0,2 |
| 1900 | 26.9 | 26,9 | 26,9 | 0.0 | 0.5 | 0.5 | 0.5 |
| 1910 | 27,2 | 27.2 | 27.3 | 0,1 | 0.3 | 0,3 | 0.3 |
| 1920 | 28, 7 | 28. 5 | 28.9 | 0.4 | 1.5 | 1.3 | 1.6 |
| 1930 | 29,8 | 29,3 | 30.2 | 0.9 | 1.1 | 0.8 | 1.3 |
| 1941 | 31.6 | 31.0 | 32,1 | 1.1 | 1.8 | 1.7 | 1.9 |
| 1949 | 32.4 | 31.5 | 33,3 | 1.8 | 0.8 | 0.5 | 1.2 |
| 1960 | 33.6 | 32.5 | 34.8 | 2.3 | 1.2 | 1.0 | 1.5 |
| 1970 | 35.7 | 34,3 | 37.0 | 2, 7 | 2.1 | 1.8 | 2,2 |

The age composition of the female population is characterized by the fact that the ratios of old age and child population are almost identical (19 and 20 per cent, respectively). In case of males, however, the share of non-reproductive age groups is quite different: the share
of children is one and a half times higher ( 22 per cent) than that of the old age population ( 15 per cent). The declining share of persons below the reproductive age and the increasing share of those 60 and above can be observed for both males and females: in 1960 the share of children was 27 per cent for the males and 24 per cent for the females, the respective figures of the old age population are 12 per cent for the males and 15 per cent for the females.

Analysing changes in the age composition of the population, occurred between 1960 and 1970, by five year age groups it can be pointed out that the shares of the age groups below 10 years and 50-54 years decreased considerably while those of the age groups 40-44 years, further 55 years and over increased significantly and those of the rest remained practically unchanged. The causes of changes in the relative ratios of the age groups $40-44$ and $50-54$ years are to be found in the fact the small age groups borne during the First World War survived from the former into the latter age group just between 1960 and 1970. Consequently, at the time of the last population census the number of persons in the age group 40-44 years is by nearly two thirds higher and that of those in the age group 50-54 years is one third smaller than in 1960. Of the rest of the age groups the largest increase was observed in the number of persons of the age group 80 years and over, it exceeds by two fifths the figure of ten years earlier. The increase in the age group 65-69 years is more than one third and in the 70-74 year age group it is one third. The increase by more than one fifth in the age groups 15-19 and 75-79 years may be said also significant. Apart from the age groups 5-9, 0-4 years (where the increases were of 29 and 15 per cent) considerable increase (11 per cent) took place also in the age group 30-34 years.

In the majority of age groups the changes in the number of people belonging to a given group were similar, if looked at by sex. However, the age groups $25-29$, and $20-24$ years are exceptions, where the increases in the number of males were respectively ten times and twice higher than for the females. On the other hand in the age groups 80 years and over and 75-79 years it was the number of females that increased faster, by more than twice and one and a half times, respectively, than that of the males.

Percentage distribution of the population by major age groups and sex 1960-1970

| Year | Age groups |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $0-14$ | $15-39$ | $40-59$ | $60-\mathrm{X}$ | Total |


| Males |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1960 | 26.9 | 37.2 | 23.6 | 12.3 | 100.0 |
| 1970 | 22.4 | 38,2 | 24.3 | 15.1 | 100.0 |
| Females |  |  |  |  |  |
| 1960 | 24.0 | 36.3 | 24.5 | 15.2 | 100.0 |
| 1970 | 19.9 | 35.9 | 25.4 | 18.8 | 100.0 |

Percentage distribution of the population by five year age groups
and sex
1960-1970

| Age groups (years) | Total | Males | Females | Total | Males | Females | Actual increase-or decrease (-) 1960-1969 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1960 |  |  | 1970 |  |  | Total | Males | Females |
| $0-4$ | 8.3 | 8.8 | 7.8 | 6.8 | 7.2 | 6.4 | -15.1 | -14.5 | -15.7 |
| $5-9$ | 9.2 | 9.8 | 8.7 | 6.3 | 6.7 | 5.9 | -29.0 | -28. 6 | -29.5 |
| 10-14 | 7.9 | 8.3 | 7.5 | 8.0 | 8.4 | 7.5 | 4.7 | 5.8 | 3.6 |
| 15-19 | 7.6 | 7.9 | 7.2 | 8.9 | 9.4 | 8.4 | 21.7 | 24.1 | 19.3 |
| 20-24 | 6.8 | 6,9 | 6.8 | 7.5 | 7.9 | 7.2 | 14.8 | 20,1 | 9.7 |
| 25-29 | 7.2 | 7.4 | 7.1 | 7.2 | 7.4 | 6.9 | 2.5 | 4.8 | 0.4 |
| 30-34 | 7. 6 | 7. 6 | 7. 5 | 6.5 | 6,5 | 6,5 | -10.9 | -11.2 | -10,6 |
| 35-39 | 7. 6 | 7.4 | 7.7 | 6.9 | 7, 0 | 6.8 | - 5.5 | - 2.4 | -8.3 |
| 40-44 | 4.5 | 4.4 | 4.7 | 7.1 | 7. 2 | 7.1 | 63.2 | 68.6 | 58.3 |
| 45-49 | 7.2 | 7.0 | 7.3 | 7.1 | 6.9 | 7.3 | 2.3 | 2.4 | 2.1 |
| 50-54 | 6.5 | 6.4 | 6.6 | 4.2 | 4.0 | 4.3 | -33.7 | -34.7 | -32,7 |
| 55-59 | 5.8 | 5.8 | 5.9 | 6.4 | 6.2 | 6.7 | 14.6 | 12.0 | 17.0 |
| 60-64 | 4.8 | 4.5 | 5.2 | 5.6 | 5.3 | 5.9 | 19.3 | 21.5 | 17.4 |
| $65-69$ | 3.5 | 3.1 | 3.9 | 4.6 | 4.3 | 4.9 | 36.3 | 44.1 | 30.5 |
| $70-74$ | 2.7 | 2.3 | 3.0 | 3.4 | 2.9 | 3.9 | 32.6 | 32.0 | 33.0 |
| 75-79 | 1,7 | 1.5 | 1.9 | 2.0 | 1.6 | 2.4 | 21.6 | 12.0 | 28.5 |
| $80-X$ | 1.1 | 0.9 | 1.2 | 1.5 | 1.1 | 1.9 | 41.5 | 24.8 | 53.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 3.6 | 4.2 |  |

## Marital status

Changes in the composition of the 15 year old and older population by marital status is characterized between 1960 and 1970 for both males and females by a steeply rising number and ratio of divorced persons and by slightly decreasing shares of married and widowed persons. The share of bachelors and spinters developed in the opposite direction: the share of the former ones slightly increased, that of the latter ones slightly diminished.

The growth and stagnation of the share of unmarried persons means the end of a half century long process. The explanation lies in the fact that the greatest share in the age group 15 years and over was represented by persons between 15 and 19 most of whom were unmarried. The rise in the share of widowed persons is connected with the prolongation of the life time.

The increase in the number of divorced persons was faster than experienced ever before. The number of divorced males was twice as high in 1970 as ten years earlier and the same figure for females was by 60 per cent higher than in 1960.

Percentage distribution of the 15 year old and older population by marital status and sex, 1960-1970

| Year | Never <br> married | Married | Widowed | Divorced | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Males |  |  |  |  |  |
| 1960 | 23.7 | 71.5 | 3.4 | 1.4 | 100.0 |
| 1970 | 24.7 | 69.9 | 3.2 | 2.2 | 100.0 |
| 1960 | 17.3 | Females |  |  |  |
| 1970 | 17.2 | 64.4 | 15.7 | 2.6 | 100.0 |
| 0 |  |  |  |  |  |

Examining the distribution of the population by marital status and by age groups it can be seen that the share of married persons increased between 1960 and 1970 in the male age groups below 25, and 50 years and over, as well as among the 30 year old and older females. The share of divorced persons increased considerably for both sexes and in every age group.

15 year old and older married and divorced population by age groups and sex as a percentage of the total number of people
in the corresponding age groups
1960-1970

| Age <br> group <br> (years) | Married |  |  |  |  | Divorced |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | males |  | females |  | males |  | females |  |  |
|  | 1960 | 1970 | 1960 | 1970 | 1960 | 1970 | 1960 | 1970 |  |
| $15-19$ | 1.2 | 1.3 | 14.6 | 12.3 | 0.0 | 0.1 | 0.1 | 0.2 |  |
| $20-24$ | 28.8 | 31.5 | 67.1 | 65.4 | 0.3 | 0.7 | 1.3 | 2.1 |  |
| $25-29$ | 75.9 | 74.4 | 85.6 | 85,2 | 1.1 | 2.2 | 2.6 | 3.9 |  |
| $30-34$ | 87.8 | 85.8 | 87.0 | 88.5 | 1.6 | 3.2 | 3.2 | 4.5 |  |
| $35-39$ | 91.1 | 90.1 | 85.1 | 88.1 | 1.8 | 3.4 | 3.4 | 5.3 |  |
| $40-49$ | 91.7 | 91.4 | 78.8 | 83.7 | 2.0 | 3.3 | 3.7 | 5.6 |  |
| $50-59$ | 90.0 | 90.7 | 70.2 | 71.3 | 2.0 | 2.9 | 3.4 | 5.0 |  |
| $60-\mathrm{X}$ | 78.7 | 80.1 | 39.4 | 41.4 | 1.4 | 2.9 | 2.1 | 3.1 |  |
| Total | 71.5 | 69.9 | 64.4 | 63.8 | 1.4 | 2.2 | 2.6 | 3.8 |  |

Households

On January 1st, 19709199651 persons lived in 2700393 family househods; and 780943 persons belonged to other (non-family) households the majority of which ( 8 of every ten households) were oneperson households.

|  | Households |  | Population |  |
| :--- | :---: | :---: | :---: | :---: |
|  | 1960 | 1970 | 1960 | 1970 |
| Family- <br> households <br> Other | 2587990 | 2700393 | 8992491 | 9199651 |
| households | 491111 | 677447 | 544892 | 780943 |
| $\quad$Total | 3079101 | 3377840 | 9537383 | 9980594 |

According to the definition applied in the Hungarian statistics a household is a group of individuals who live together in a dwelling or part of it, share in general their principal meals and cover the connected expenses together. Accordingly, a household is different from a family in that respect that while a family is a closed biological unit, the household is the economic community of individuals living together irrespective of whether they are relatives or not.

Households consisting of one or several families are regarded as family-households. One-person households and households consisting exclusively of "fraction families" constitute the group of so-called "other households".

The number of households increased considerably faster between two population censuses than that of household members; by 1970 the number of households rose by nearly 10 per cent at the same time the number of household members increased by hardly 5 per cent;
consequently the number of persons per 100 households diminished from 310 to 295 .

Somewhat more than 93 per cent of the family-households are one-family households, somewhat less than 7 per cent two-family households and the respective ratio of households consisting of more than two families is 0.2 per cent (their absolute number being 5 284). The number of family-households is by less than 7 per cent smaller than that of families. Every sixth one-family household shares living quarters with relatives; outside persons live in a half per cent of the total family households.

| Household composition | 1960 |  | 1970 |  | 1960 | 1970 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number |  |  |  | Percentage distribution |  |
| One-family households | 2423 | 622 | 2515 | 459 | 78.7 | 74.5 |
| Two-family households | 160 | 421 | 179 |  | 5.2 | 5.3 |
| Three- and more family households | 3 | 947 |  | 284 | 0.2 | 0.1 |
| Family-households, total | 2587 | 990 | 2700 |  | 84.1 | 79.9 |
| One-person households | 446 | 928 | 590 |  | 14.5 | 17.5 |
| Households of independe individuals |  | 611 |  | 168 | 0,2 | 0.2 |
| Households of mixed composition | 37 | 572 | 81 | 942 | 1.2 | 2.4 |
| Other households, total | 491 | 111 | 677 | 447 | 15.9 | 20.1 |
| Households, total | 3079 | 101 | 3377 | 840 | 100.0 | 100.0 |
| Persons per 100 households |  | 310 |  | 295 |  |  |

The number of family households has increased over the last ten years by 4 per cent, at the same time their share in total households diminished from 84 per cent in 1960 to 80 per cent.

About 5 per cent of the total households consist of several families and this share has remained unchanged over the past 10 years, however, their absolute number increased by 20566 , nearly 13 per cent compared to 1960 . The share of the larger families diminished over the same period. The majority of the two-family households are households of genetic relatives, so-called "parent couple - children couple".

Females account for only ten per cent of the household heads and two thirds of the single persons.

Compared to 1960 the highest increase occurred in respect of one-person households; the number of 2-4 person households increased too and the share of 3-4 person households is but slightly higher than ten years earlier. Both the share and the absolute number of the 5 and more person households diminished; within this the number of households consisting of 7 or more members is by some one quarter, and their respective share in the total households is by one third smaller than at the time of the preceding population census.

During the ten years between the two population censuses in accordance with the expansion of employment, the number of active earners living in households rose, thus more than half of the population living in households is employed in the different branches of the national economy.

In 69 per cent of the households there are in equal shares either one or two active earners and three active earners can be found only in every 11 th household. It is due to increasing pensioning of active earners that there is only inactive earner in every sixth household.

The average number of active earners per household on national average is 1.43 . In respect of two-person households the number of active earners per household remains only slightly below one. For the three-person households this figure already exceeds the national average and in the larger families it tends to be even higher.

With the size of the households the number of active earner members increases too, however, the larger the household, the more persons need support per active earner and therefore, there are great differences in the dependancy ratio between the small and large households. The number of inactive earners and dependants in the seven and more person honseholds was twice as high as in the three-person households.

In about one fifth of the households every member is an active earner. Within this in 29 per cent of the two-person households both members are active earners and the share of three active earner households in the total three-person households is about ten per cent. In 4 per cent of the four-person households every member is an active earner. Some half of the single persons is active earner and the share of inactive earners exceeds two fifths of persons living in one-person households. The share of households with inactive earners only is relatively high even in case of two-person households.

Changes taken place in the socio-occupational conditions of the country altered also the socio-occupational composition of the households. The planned development of industry, the socialist reorganization of the agriculture, shifts in the relative shares of physical and intellectual workers, pensioning of active earners and the resultant social restratification and its influence on the population composition are reflected also by the data on households.

Ten years earlier one third of the household heads was an agricultural active earner of manual occupation, the same share in 1970
was already somewhat below 15 per cent. The share of household heads of non-agricultural manual occupation changed but slightly, while that of household heads of non-manual occupations increased between the two population censuses form 14 to 19 per cent. The pensioning of agricultural manual workers contributed to the doubling of the number of household heads who are inactive earners.

The numbers of inactive earners and dependants per 100 active earners do not show a uniform picture. In households where the household heads are of manual occupation and in other employment 100 active earners are to support 116 persons. In case of household heads who are actives and belong to other socio-economic groups the number of inactive earners and dependants per 100 active earners remains below 100.

## Family

According to the statistical definition the family is the closest unit of individuals related by blood or household: it is the so-called "family nucleus". Consequently, a family is a married couple without children or with unmarried children and further one parent living together with unmarried children. In relation to the family, unmarried children are regarded as children irrespective of their age.

At the time of the population census of the 9199651 persons living in family households 8697183 lived in 2890962 families. The number of families was by nearly 5 per cent higher than 10 years earlier, at the same time the number of persons living in families rose by 1 per cent, consequently the number of family members per 100 families decreased from 312 to 301 .

|  | 1949 | 1960 | 1970 |
| :--- | ---: | :---: | :---: |
| Families | 2385112 | 2756591 | 2890962 |
| Family members | 8092481 | 8607651 | 8697183 |
| Family members per <br> $\quad 100$ families | 339 | 312 | 301 |

Some nine tenths of families are married couples while one tenth consist of a mother or father living with a child or children. The number of families consisting of married couples has increased by nearly one quarter and the number of families consisting of one parent and children has diminished by more than 4 per cent over the past 21 years.

| Family composition | Percentage dirtribution of |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: |
|  | families |  |  |  |  | persons living in family |  |  |
|  | 1949 | 1960 | 1970 | 1949 | 1960 | 1970 |  |  |
| Married couples <br> without child | 26.8 | 30.8 | 33.7 | 15.8 | 19.7 | 22.4 |  |  |
| Married couples <br> with child | 60.3 | 55.8 | 56.1 | 73.1 | 69.3 | 69.2 |  |  |
| Father with child | 1.7 | 1.2 | 1.2 | 1.5 | 0.9 | 1.0 |  |  |
| Mother with child | 11.2 | 12.2 | 8.9 | 9.6 | 10.1 | 7.4 |  |  |
| $\quad$ Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |  |  |

In nearly nine tenths of one-parent families with child it is the mother who is the "one parent". The share of those families where the family head is a female, is 9 per cent of total families, and also includes families where the father is away on job.

The most important change taken place in the demographic composition of families over the 21 years between 1949 and 1970 was the increasing number of families and decreasing size of families, the major cause of which is the declining number of children living in the family. This was the result of two different but rather heterogeneous factors. The change was partly connected with an upswing in marriages; simultaneosly with rejuvenation of those concluding marriage also the number of marriages concluded at later ages increased. The great number of new marriages increased mainly the two-person families consisting of only the married couples. The relatively short duration of the marriage in case of these marriages and the prolongation of marriage beyond the childbearing age in case of older couples which is due to the extension of the length of life, had a decreasing influence on the average number of children in families. The second factor is fertility. The influence of decreasing fertility since the end of the last century is reflected in the number of children living in families. This was strengthened by the process that an increasing number of children left the family because of higher chance of getting married earlier : getting an active earner at all.

The number of children living in family, the primHry determinant of the family size was 3208710 in 1970 by 42039 i less than in 1949. The ratio of children to family members has also decreased from 45 to 37 per cent over the past 21 years.

The share of families living without children was nearly 27 per cent in 1949, the same figure in 1960 was still some 31 per cent, however, at the time of the present population census it already exceeded one third. Simultaneously with the increase in the share of families without children, also the share of one-child families increased since 1949. The share of two-child families can be said unchanged,
however, there has been a steep decline in the number and share of families living with more chidren.

Nearly 38 per cent of married couples have no child and 32 per cent have one. The share of one-child families increased also significantly in case of one parent families. In 1949 hardly half of these families had one child while this figure in 1970 was two thirds. The share of two-child married couples has been steadily increasing over the past 21 years, while that of three-or more-child families has been gradually decreasing in case of both family types.

Due to changes in the family composition by the number of children, the average number of children per family has diminished by 27 per cent during the 21 years. The number of children per 100 families was still 152 in 1949 and 126 in 1960, in 1970, however, this figure was already 111. Calculated in relation to families with child or children, the average number of children per family was above 2 in 1949 (it was 208 per 100 families), and in 1970 this figure was already 167 children per 100 families with children.

The number of children under 15 years living in families was 2071926 , by 401429 less than 10 years earlier. The share of families where there is no child under 15 years increased from 48 to 54 per cent between 1960 and 1970. The number of children under 15 years decreased also in relation to children living in family, while in 1960 more than 71 per cent of children living in family was under 15 years, in 1970 this was not quite two thirds.

The distribution presents a true picture of the v ital events; changes in the number of children in family reflect the modifications of the Hungarian fertility history i.e. the process that young females give birth in the period directly after concluding the marriage to the first child and in most cases to the second one too, but very rarely to subsequent ones.

Due to the decreasing number of children in families there has been a change in the composition of families by the number of family members; the number of smaller (two-, three-and four-member) families increased somewhat and that of larger (four-and more-member) ones further diminished. The share of two-member families is more than two fifths, and that of three-member ones comes near to one third of the number of all families.

The share of active earners is higher in families than in the households; the explanation of this is that data on households includes the single persons and also the relatives living in family households; half of the former group is inactive earner or dependant and the majority of the latter are non-active earners.

In 35 per cent of the families there is one active earner family member and in 42 per cent two family members are active earners; three or more active earners can be found only in every eleventh family and in one eighth of the total families there are only inactive earners.

In nearly one third of married couples without a child the family head or his spouse, is an active earner, in somewhat more than two thirds both are active earners and finally, it is in one third of these families that either the family head or his spouse or both of them are inactive earners.

Similarly to the households, the changes taken place in the socio-occupational conditions of the country also transformed the sociooccupational composition of the families. In 1949 almost half of the total families were a gricultural families, this figure in 1970, however, was hardly more than one fifth. The share of families of persons in employment rose from 40 per cent in 1949 to 61 per cent in 1970, moreover three quarters of household heads who were active earners are employees; ten years earlier the household head was self-employed
or a family helper in 57 per cent of families. In 1970 this share was hardly 4 per cent. At the time of the preceding population census the share of cooperative member families was 17 per cent, in 1970 it already exceeded one fifth. The share of families of non-manuals rose over the past ten years from 16 to 22 per cent.

The share of family heads in active earner socio-economic occupational groups decreased considerably over the past ten years. Over the same period the share of families with inactive earner family head almost doubled and in 1970 already every fifth family head was an inactive earner.

## Ethnic groups

At the present territory of Hungary the questions of ethnicity, nationality are not significant because 97-98 per cent of the population are Hungarians. Nevertheless, questions relating to the mother tongue areincluded in the questionnaires of the population censuses and detailed statistical investigations are carried out in those parts of the country where non-Hungarians live in greater number.

## Educational level of the population

The level of education further increased at a considerable degree between the last two population censuses. In 1970 the highest level of education for the 29 per cent of the 7 year old and older population was the 8th class of the primary school and this share in 1960 was 18 per cent. The share of persons with maturity certificate awarded
rose from $4: 5$ to 8.3 per cent over the same period. The share of persons with certificates of higher level educational institutions was 3.2 per cent in 1970 as against 1.9 per cent in 1960 ; this was influenced also by the setting up of new higher level technical schools,

> Percentage distribution of the 7 year old and older population by the highest educational level $1949-1970$

| Highest school educational level <br> (classes attended) | 1949 | 1960 | 1970 |
| :--- | ---: | ---: | ---: |
| Primary school | 0 | 5.7 | 4.0 |
|  | $1-3$ | 12.0 | 10.9 |

The decline in the share of persons not having attended school in the ten year old and older population from 3.2 to 1,9 per cent indicates that the abolition of illiteracy may be regarded as completed. The number of illiterate persons dropped from 260 thousand to 171 thousand during the 1960 s.

In 1970 already more than half, in 1960 only one third, of the 15 year old and older population completed at least the 8th class of the primary school. The number of persons with such education increased by some two thirds in the intercensal period and this figure comes at present near to 4.2 million.

The number of persons with at least maturity certificate almost doubled between 1960 and 1970 and it is slightly below 1.2 million and their share in the 18 year old and older population increased from 9 to 16 per cent.

Of the 25 year old and older population every 25 th person has a certificate of some higher level educational institution, their absolute number (273 thousand) is by nearly 70 per cent and their share in the population of the corresponding age group is by some half higher than ten years earlier.

Population by educational level as a percentage of the corresponding age groups 1941-1970

| Year | Of the population of |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 10 years and <br> older <br> did not <br> attend <br> school | 15 years and <br> older <br> attended at <br> least 8 grades <br> of primary <br> school | 18 years and <br> older passed <br> at least <br> secondary <br> school <br> finals | 25 years and <br> older <br> graduated at <br> institutions <br> for higher <br> learning |
| 1941 | 6.4 | 15.1 | 4.2 | 1.6 |
| 1949 | 4.8 | 20.6 | 5.5 | 1.7 |
| 1960 | 3.2 | 32.8 | 8.8 | 2.7 |
| 1970 | 1.9 | 51.4 | 15.5 | 4.2 |

Differences in education by sex further diminished primarily among persons with medium and higher level education. The share of persons with at least maturity certificate in the 18 year old and older male population was in 1949 two and a half-times in 1960 by nearly twice as hight as in the corresponding female population. In 1970, however, the share of males with such education exceeded by only one third that of females. The share of persons with certificate of higher level educational institution in 25 year old and older male population in 1949 by six in 1960 by four and in 1970 by not quite four times as high as in the corresponding female population.

Population by educational level and sex as a percentage of the corresponding age groups 1941-1970

| Year | Of the population of |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10 years and older dit not attend school |  | 15 years and older attended at least 8 grades of primary school |  | 18 years and older passed at least secondary school finals |  | 25 years and older graduated at institutions for higher learning |  |
|  | males | females | males | females | males | females | males | females |
| 1941 | 4.1 | 5.5 | 21.9 | 19.5 | 8.1 | 3.3 | 3.1 | 0.5 |
| 1960 | 2.6 | 3.7 | 34.5 | 31.3 | 11.6 | 6.3 | 4.5 | 1.1 |
| 1970 | 1.5 | 2.3 | 55.1 | 48.0 | 17.8 | 13.5 | 6.4 | 2.3 |

The increasing educational level can be observed in the older age groups. This is caused in the first place by younger persons with higher educational level surviving into older age groups. Notwithstanding, the disadvantage of older persons compared to the young ones still exists in this field, e.g. the share of persons with at least 8 classes of
primary school attended in the age group 20-24 years was 29 per cent in 1949, 62 per cent in 1960, 91 per cent in 1970. The same ratio at the same dates assumed the following values in age group 40-49 years: 16,23 , and 41 per cent, respectively.

The 15 year old and older population by educational level and age group as a percentage of the corresponding age groups 1960-1970

| Age groups (years) | Persons with at least <br> 8 classes of primary school attended |  | Persons with at least maturity certificate |  | Persons with a certificate of higher level educational institution |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1960 | 1970 | 1960 | 1970 | 1960 | 1970 |
| 15-19 | 72.3 | 90.4 | 5.5 | 8.9 | - | - |
| 20-24 | 61.9 | 90.9 | 16.3 | 31.5 | 1.0 | 2.9 |
| 25-29 | 47.8 | 81.9 | 12.1 | 25.8 | 4.4 | 7.4 |
| 30-34 | 37.0 | 69.7 | 10.9 | 21.3 | 3.7 | 5.4 |
| $35-39$ | 26.5 | 57.4 | 9.2 | 16.9 | 2.9 | 5. 9 |
| 40-49 | 22, 6 | 40.7 | 7.8 | 13.8 | 2.7 | 3.5 |
| $50-59$ | 16.5 | 25.7 | 5.5 | 8.9 | 2.1 | 3.2 |
| $60-\mathrm{X}$ | 13.3 | 16.1 | 4.8 | 5.5 | 1.8 | 2.2 |

There was a considerable improvement in the educational level of females over the ten years. In the younger age groups nowadays the educational level of females is higher, but it is lower in every older age group than that of the males. However, in the age group 15-29 years more females than males complete at least the 8 classes of the primary school; even the relative share of females who have maturity
certificates is considerably higher in that age-span than for the males. In the age groups below 25 years the share of females with such education is almost one and a half times higher than that of the males as against the situation ten years before when the two ratios were nearly identical.

The 15 year old and older population by educational level, age group and sex, as a percentage of the corresponding age groups

| Age groups (years) | Persons with at least 8 classes of primary school attended |  | ```Persons with at least maturity certificate``` |  | Persons with a certificate o higher level educational institution |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1960 | 1970 | 1960 | 1970 | 1960 | 1970 |
|  | Males |  |  |  |  |  |
| 15-19 | 69.6 | 88.7 | 5.2 | 7.2 | - | - |
| 20-24 | 60.0 | 89.9 | 16.4 | 26,6 | 1.2 | 2,8 |
| 25-29 | 48.5 | 81.5 | 14.5 | 24.2 | 6.2 | 8.1 |
| 30-34 | 39.7 | 70.4 | 14.4 | 22.2 | 5,5 | 7.1 |
| 35-39 | 29.9 | 61.2 | 13.0 | 20,6 | 4.8 | 8, 6 |
| 40-49 | 25.5 | 47, 7 | 11,2 | 19.2 | 4.5 | 7.2 |
| $50-59$ | 17.4 | 30.4 | 8.2 | 13.0 | 3.6 | 5.4 |
| $60-\mathrm{X}$ | 14.5 | 17.2 | 8.1 | 8.6 | 3.6 | 4.0 |

Females

| $15-19$ | 75.1 | 92.2 | 5.7 | 10.7 | - | - |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| $20-24$ | 63.7 | 92.0 | 16.1 | 36.5 | 0.8 | 3.0 |
| $25-29$ | 47.1 | 82.3 | 9.8 | 27.3 | 2.5 | 6.7 |
| $30-34$ | 34.5 | 69.0 | 7.6 | 20.4 | 1.9 | 3.8 |
| $35-39$ | 23.5 | 53.7 | 5.8 | 13.3 | 1.2 | 3.3 |
| $40-49$ | 20.1 | 34.2 | 4.8 | 8.8 | 1.1 | 2.0 |
| $50-59$ | 15.6 | 21.6 | 3.0 | 5.3 | 0.7 | 1.3 |
| $60-X$ | 12.5 | 15.3 | 2.4 | 3.2 | 0.5 | 0.8 |

In 1970 the number of persons with maturity certificate as the highest educational level, was 780 thousand, about twice as high as ten years earlier. Within this the number of males with such education rose by some three quarters and that of females more than doubled

Of changes taken place in the composition of maturity certificates by type and character the most important is the increase in the share of certificates in technical qualifications from 14 to 21 per cent and the decline in the share of those with teacher's qualification from 17 to 6.5 per cent. The reason of the latter is that school and! kindergartenteachers arebeing trained lately in higher and not in secondary level institutions. In respect of males the decreasing share of economics qualification is also remarkable as well as the considerably decreasing trend, opposite to that of the total population, in the share of persons obtained maturity certificate in general secondary schools. The share of persons with maturity certificate increased steeply from 38 to 51 per cent in the female population.

The number of persons with a certificate of higher level educational institutions rose since 1949 (from 97 thousand) to more than its three times level (to 295 thousand) and within this the increase observed for the males was two and a half times, and five and a half times for the females. As a result, the share of females within those who obtained a university or college certificate rose from 17 per cent in 1949 to 30 per cent. The female expansion becomes especially apparent if the increase between 1949-1959 and 1960-1969 in the number females awarded "ertificate is compared; of the increment in the number of persons graduated from higher level educational institutions 31 per cent was accounted for by females in the first period and 42 per cent in the second. The share of females increased, compared to 1949 and 1960 considerably in case of every certificate-type except for those in arts. A relatively larger increase occurred in their share within those with
certificates in public administration and law where in 1960 only every thirtieth and in 1970 already every tenth person was a female. Females constitute now the majority of persons with teacher's certificate, and their share in persons with qualification in health and economics is well above one third or somewhat below it.

Some 40 thousand persons graduated from the educational institutions established after 1960 (higher level technical schools, institutes for school and kindergarten teacher's training, specialized schools), 14 thousand of them in engineering sciences, almost 12 thousand in education, more than 9 thousand in agricultural sciences and 6 thousand in economics. Exluding them from our investigation it can be said that the number of persons with advanced level i. e. high school, university or college certificates increased by 95 thousand since 1960 . Within this the number of graduates in engineering sciences and economics rose to one and a half times, that in agricultural sciences and education nearly doubled.

Changes in the composition of persons with advanced level education by the type of the certificate, taken place between 1960 and 1970, is characterized by a strong increase in the share of certificates inpublic administration and law and by a smaller decline in the shares of graduates in health, arts and other. No remarkable change occurred in the relative shares of the other certificates.

In terms of absolutenumbers the highest increase was observed for certificates in agricultural sciences, economics and engineering sciences. Compared to 1960 their number is at present more than twice as high. The number of persons with certificate in education nearly doubled and that of those in health and arts rose by some two fifths. The increase in the number of graduates in public administration and law is relatively small, it is of 5 per cent altogether.

Percentage distribution of persons with a certificate of higher level educational institution by the type of the certificate and sex

1960-1970

| Year | Total | Engineering sciences | Agricultural sciences | Economics | Health | Education | Arts | Public administration and law | Other |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1960 | 100.0 | 18.8 | 8.4 | 6.2 | 11.9 | 30.0 | 2.8 | 15.5 | 6.4 |
| 1970 | 100.0 | 22.2 | 11.3 | 7.6 | 9.8 | 33.0 | 2.3 | 9.3 | 4.5 |
| of 1960 | 174.0 | 206.2 | 234.1 | 211.2 | 143.4 | 191.2 | 140.6 | 104.9 | 123.6 |
|  |  |  |  | Males |  |  |  |  |  |
| 1960 | 100.0 | 22.6 | 9.9 | 6.5 | 11.3 | 20.3 | 2.0 | 19.4 | 8.0 |
| 1970 | 100.0 | 28.5 | 14.3 | 7.4 | 8.9 | 20.4 | 2.0 | 12.2 | 6.3 |
|  |  |  |  | Females |  |  |  |  |  |
| 1960 | 100.0 | 5.8 | 3.6 | 5.5 | 13.8 | 62.4 | 5. 5 | 2.3 | 1.1 |
| 1970 | 100.0 | 8.3 | 4.9 | 7.8 | 11.8 | 60.5 | 3.1 | 3.0 | 0.6 |
|  |  |  |  | Ratio of f | males |  |  |  |  |
| 1960 | 23.0 |  |  | 20.2 | 26.6 |  |  |  | 4.0 |
| 1970 | 31.2 | 11.7 | 13.5 | 32.3 | 37.5 | 57.4 | 42.0 | 10.0 | 4.0 |

19 per cent of the 15 year old and older population, and within this 31 per cent of males and 8 per cent of females have a certificate awarded by some vocational training school; less than half of persons with such certificate is in working age and the share of old age persons is only 15 per cent. Considerably more than half of these persons attended 8 classes of primary school and the share of those with lower educational level is 28 per cent only. Nearly one third of persons with 8 classes of primary school attended as the highest educational level supplemented their education with a certificate of vocational training. The corresponding share in persons with maturity certificate is nearly one fifth.

# IV. GEOGRAPHICAL DISTRIBUTION OF THE POPULATION 

Survey of settlement conditions; population densitiy

The settlement conditions of the Hungarian population has been shaped by historical events: one hundred fifty years of Turkish occupation (1526-1686) and the accompanying fights, subsequent wars and territorial changes, industrialization and urbanization bringing progress and dispropcrtionalities at the same time, from which the planned settlement policy of the recent years tries to create a reasonable geographical distribution of the population.

Population density in Hungary has doubled over the past hundred years increasing from 54 in 1870 to 111 inhabitants per square kilometre. Thus, considering European conditions, the country belongs to countries with higher than average density but she is far from the most densely populated countries and from showing signs of over-population.

Disregarding city agglomerations, there are no extreme differences in the densities of the regional units (counties); however, the difference between the less densely populated county ( 60 persons per square kilometre) and the most densely populated one (136 persons per square kilometre) is rather considerable. The latter figure was observed in the county of Pest surrounding the capital; but apart from this the density is outstanding only in the more industrialized counties.

The process of urbanization that gained momentum in the second half of the century was not an even one, As against the pronounced development of Budapest as a central city the country towns lagged
behind and the transitory. so-called medium town-type was especially missing. The result of this process is a one-centre town or settlement system. Large agricultural tws situated in the Great Hungarian Plain are Hungarian specialities; the concentration of the population in these settlements dates back to the time of Turkish occupation.

Another characteristic feature of the Hungarian settlement system is the great number of detached farms scattered around the villages in some parts of he country and also around the above mentioned agricultural towns n 19708.3 per cent of the total population lived in detached farms or inhabited areas. However, this share has been strongly declining especially over the recent years. In 1949 this figure was still 17.1 per cent. The number of persons living in such detached places decreased by 23 per cent even over the last ten years. (This is mainly connected with the shrinking of the proportion of the agricultural population from 39 to 26 per cent over the ten years.) Inhabitants of detached farms increasingly move into the towns or inner districts of the villages which tend to provide higher job opportunities. The economically more able detached inhabited places, as farm centres, are being transformed in many places into closed colonies or villages.

At the census date of 1970 , the population lived in 76 towns and 3135 villages. (The number of towns has increased since.) In respect of public administration, the smaller villages have been, at several occasions, merged (villages with joint local councils), however, individual villages are also presented in the statistics. The average size of villages (excluding towns) was 1800 persons in 1970, this average, however, conceals rather extreme values. There are counties with mainly small villages primarily near to the Western boarder, in South-West and in North-East. These are parts which have usually been
left intact by the old time wars, and where the average number of inhabitants is only 700-800 per village. In contrast, the population has concentrated in large settlements in the Great Hungarian Plain and the average number of inhabitants there is more than 4000 . Villages belonging to the above mentioned small-settlement type usually indicate signs of decline and depopulation, people have been increasingly moving recently into towns and larger centres.

## Towns and nural seltlements (villages)

When distinguishing between rural and urban population the Hungarian statistics sets out from the (legal) position of the settlement in the public administration. There are settlements with town organization falling under the jurisdiction of the county in respect of public administration; these were the 70 towns in 1970 with 2063 thousand inhabitants. The live largest towns (Debrecen, Gyorr, Miskolc, Pécs, Szeged) have the rank of county town coupled with a special legal standing. The number of inhabitants is above 100 thousand in each of them. The largest, in this respect, is Miskolc with 173 thousand inhabitants in 1970. Budapest the capital "sticks out" of the town system with a population coming near at present to 2 millions.

In 1970 nearly one fifth of the population lived in the capital, more than one quarter in the country towns and 55 per cent in the villages.

The continuously decreasing proportion of rural population in favour of the urban population has been a general trend of the changes taken place over the hundred years in the geographical distribution of the population. In 1870 nearly three quarters of the total population
of the country lived in villages, one century later this figure was only 55 per cent. It occurred between 1960 and 1970 tor the first time that there was a decline not only in the proportion but also in the number of the rural population. The decrease was of 1.5 thousand persons (2.7 per cent). The continuous shrinking of the rural population was broken only between 1941 and 1948 when an increase from 60 to 62 per cent took place.

Percentage distribution of the de facto, permanent and resident population by regions

$$
1870-1970
$$

| Year | Total | Budapest | Other towns | Villages |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Present-in-area (de facto) population |  |  |  |
| 1870 | 100.0 | 6.0 | 20.2 | 73.8 |
| 1880 | 100.0 | 7.6 | 20,6 | 71.8 |
| 1890 | 100.0 | 9.3 | 20.5 | 70.2 |
| 1900 | 100.0 | 12.6 | 21.0 | 66.4 |
| 1910 | 100.0 | 14.6 | 21.4 | 64,0 |
| 1920 | 100.0 | 15.4 | 21.7 | 62.9 |
| 1930 | 100.0 | 16.6 | 21,5 | 61,9 |
| 1941 | 100.0 | 18.4 | 21.7 | 59.9 |
| 1949 | 100.0 | 17.3 | 21,1 | 61.6 |
| 1960 | 100.0 | 18.1 | 23.5 | 58.4 |
| 1970 | 100.0 | 18.8 | 26.4 | 54,8 |
|  |  | Permanent population |  |  |
| 1960 | 100.0 | 17.8 | 23,0 | 59.2 |
| 1970 | 100.0 | 18.6 | 25.9 | 55,5 |
|  |  | Resident population*/ |  |  |
| 1960 | 100.0 | 17.9 | 23.5 | 58.6 |
| 1970 | 100.0 | 19.4 | 27.0 | 53.6 |

[^0]The growth rate of the population in the capital exceeded up to the turn of the century many times the national average and it has been twice as high since then. The period of the Second World War is an exception when there was a decline in the population of Budapest. The rate of increase in the population of other towns was up to 1948 much below the figures for Budapest, since than, however, it has been one and a half times or twice as high Population increase in the villages has always lagged behind that of towns, however, between 1944-1948 and the last two population censuses its trend was of opposite if compared to that of both urban categories. During the Second World War the population increased in the villages as against the towns where a decrease occurred. Between 1960 and 1969, however, as against increasing urban population rural population was decreasing.

> Average annual percentage increase* and decrease in the population

$$
1870-1969
$$

| Period | Total | Budapest | Other <br> towns | Villages |
| :---: | ---: | :---: | :---: | :---: |
| $1870-1880$ | 0.56 | 2.65 | 0.83 | 0.32 |
| $1881-1890$ | 1.21 | 3.35 | 1,15 | 0.97 |
| $1891-1900$ | 1.25 | 4.68 | 1.54 | 0.75 |
| $1901-1910$ | 1.05 | 2.57 | 1.20 | 0.69 |
| $1911-1920$ | 0,48 | 1.05 | 0.64 | 0.30 |
| $1921-1930$ | 0.84 | 1.59 | 0.73 | 0.69 |
| $1931-1940$ | 0.70 | 1.72 | 0.82 | 0.36 |
| $1941-1948$ | -0.15 | -10.93 | -0.55 | 0.21 |
| $1949-1959$ | 0.72 | 1.16 | 1.72 | 0.22 |
| $1960-1969$ | 0.36 | 0.75 | 1.51 | -0.28 |

[^1]In Budapest the 12 per cent grow th of the resident population took place simultaneously with a 13 per cent net immigration and natural decrease. In the other towns the increment arising from the natural increase account for hardly one quarter of the total population growth. On the other hand only somewhat less than half of the net migration of the rural population is compensated by the natural increase.

## Increase in resident population by regions

$$
1960-1969
$$

| Region | Actual | Natural | Net migration | Actual | Natural | Net migration |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | increase or decrease (-) |  |  | increa cre | $\begin{aligned} & \text { e or de- } \\ & \text { se }(-) \end{aligned}$ |  |
|  | In numbers |  |  | Percentages |  |  |
| Budapest | 217916 | $-17727$ | 235643 | 12.2 | $-1.0$ | 13.2 |
| Other |  |  |  |  |  |  |
| towns | 447599 | 108738 | 338861 | 19.2 | 4, 7 | 14,5 |
| Villages | $-313553$ | 260951 | -574504 | -5 4 | 4,5 | $-9.9$ |
| Total | 351962 | 351962 |  | 3. 5 | 3.5 |  |

The total population of the country has doubled over the past century. Within this the population of the capital is six times, that of other towns more than two and a half times higher than one hundred years earlier. The rural population is by only 53 per cent larger than in 1870.

The classification performed in respect of administration (towns - villages) is supplemented by an analysis of data arranged by the size of localities. Oppertunity is presented here for two kinds of investigations. One examines the population growth in localities belonging to the given size-range at the time of the population census, the other procedure classifies settlements by the prevailing size of the population. The latter presents more truly the composition of localities by size at different dates, the time series thus obtained, however,
are less suitable for comparison over time since at the different dates different settlements were included in the various size groups. Data on villages, therefore are classified in the table on page 82 only by the size broups observed in 1970. The size groups of country towns are presented in both aspects in the table on page 83.

While in 1966 the resident population of only Miskolc, Debrecen and Pécs exceeded 100 thousand, by 1970 already Szeged and Gyobr belonged to this population size group.

However, the number of towns with a population of 50-100 thousand remanined unchanged because the above mentioned two towns were replaced by Szolnok and Kaposvár, the inhabitants of which were still below 50 thousand in 1960. The inhabitants of two of the towns belonging to this size gorup comes near to 80 thousand, five of them are between 60 and 75 thousand, two of them between 50-60 thousand. The population of these towns increased with one exception. The highest rates of actual population increase between 1960-1970 were of 40 and 38 per cent, further on, 30 per cent was observed in three towns and about 25 per cent in four.

The majority of the 75 country towns, 57 of them are predominantly industrial, where at least 40 per cent of the active earners are employed in industry and construction. There are only 5 towns where the proportion of active earners in agriculture amounts to two fifths. In the remaining 13 towns the share of any of the active earners employed in industry, construction and agriculture remained below 40 per cent. These towns are regarded of mixed character.

A characteristic feature of differences in respect of the number of inhabitants between the various types of towns is that the aver-

Number and population of villages by their size

$$
1970
$$

| Size of localities (villages) |  |  |  | Number | Percentage distribution | Resident population |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1960 |  | 1970 |  |
|  |  |  |  | of villages | Thousands | Percentage | Thousands | Percentage |
| Under | r 500 | 0 inhabitants |  |  | 672 | 21.4 | 247 | 4.3 | 216 | 3.8 |
| 500 | - | 999 | " | 808 | 25.8 | 646 | 11.1 | 591 | 10.4 |
| 1000 | - | 1499 | " | 501 | 16.0 | 660 | 11.4 | 615 | 10. 9 |
| 1500 | - | 1999 | " | 325 | 10.4 | 592 | 10.2 | 564 | 9. 9 |
| 2000 | - | 2999 | " | 341 | 10.8 | 867 | 14.9 | 833 | 14.7 |
| 3000 | - | 4999 | " | 280 | 8.9 | 1084 | 18.6 | 1059 | 18.7 |
| 5000 | - 9 | 9999 | " | 152 | 4.8 | 1029 | 17.7 | 1046 | 18.6 |
| 10000 | - 19 | 9999 | 11 | 54 | 1.7 | 644 | 11.1 | 679 | 12.0 |
| 20000 - and over |  |  |  | 2 | 0, 2 | 45 | 0.7 | 52 | 1,0 |
| Total |  |  |  | 3135 | 100.0 | 5814 | 100.0 | 5655 | 100.0 |

Country towns* by the size-groups of resident population

$$
1960-1970
$$

| Population size-groups (inhabitants) | Number of towns |  | Population |  |  |  | 1970 as percentage of 1960 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Ivumber |  | Percentage |  |  |
|  | 1960 | 1970 | 1960 | 1970 | 1960 | 1970 |  |

a/ Classified according to the current population size-groups

| -20000 | 31 | 24 | 417159 | 339687 | 17.8 | 12.2 | 81.4 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $20000-50000$ | 32 | 37 | 954084 | 1128265 | 40.0 | 40.5 | 118.3 |
| $50000-100000$ | 9 | 9 | 572398 | 597543 | 25.4 | 21.5 | 104.4 |
| $100000-X$ | 3 | 5 | 392885 | 718630 | 16.8 | 25.8 | 182.9 |
| Total | 75 | 75 | 2336526 | 2784125 | 100.0 | 100.0 | 119.2 |

b/Classified according to the population size-groups in 1970

| -20000 | 24 | 24 | 300400 | 339687 | 12.9 | 12.2 | 113.1 |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $20000-50000$ | 37 | 37 | 976591 | 1128265 | 41.8 | 40.5 | 115.5 |
| $50000-100000$ | 9 | 9 | 484766 | 597543 | 20.7 | 21.5 | 123.3 |
| $100000-X$ | 5 | 5 | 574769 | 718630 | 24.6 | 25.8 | 125.0 |
| Total | 75 | 75 | 2336526 | 2784125 | 100.0 | 100.0 | 119.2 |

© * ! Note: Budapest excluded.
age number of inhabitants in industrial towns ( 42651 ) is twice as high as in the agricultural towns $\left(\begin{array}{ll}20 & 486\end{array}\right)$ or in the mixed towns (19 275).

In respect of population growth rather considerable differences exist among the various town types. Population in industrial towns was by 22 per cent, that of mixed ones by 6 per cent higher than at the time of the last population census. At the same time population in the agricultural towns decreased by 7 per cent.

It is not only the amount of net migration which is different in towns of industrial and agricultural character. There is a 17 per cent net immigration in the former and 11 per cent net emigration in the latter group, but even the rate of natural increase is much lower in the agricultural towns ( 3.5 per cent) than the figure observed in the industrial towns (4.9 per cent).

Factors of population growth have the most balanced influence in the mixed towns where some three fifths of the slight population growth comes from natural increase.

Statistics gives specific attention to settlements with villagetype administration, which, on the basis of their function maybe ragarded as towns. Including also the 154 villages of such character the share of urban population exceeds 50 per cent in Hungary.

## Population development in Budapest

The history of Budapest as a human settlement goes back for several thousand years and Buda, a part of the present capital, had fulfilled the function of the capital also in the earlier centuries. Budapest as such was established one hundred years ago in 1873 when Buda
stituated on the right bank of the Danube, Pest on the left one and the agricultural town Obuda situated in the Northern area were united under the name of Budapest. The city created in this way had a population of 280 thousand.

The territory of the capital specified at the time of the unification remained unchanged up to 1949, although meanwhile the neighbouring localities expanded considerably, merging with each other and also with the capital. In 1949 the population of 1058 thousand persons of "Inner Budapest", was expanded by uniting to it the population of 532 thousand persons of the neighbouring towns and villages. The unification of the five neighbouring towns and 19 villages with Inner Budapest was carried out in 1950. Since then this territory has remained unchanged. Statistics on Budapest now refer to the territory of the capital as created in 1950.

There were several settlements situated in the far neighbourhood of the capital also at the time of establishing Greater-Budapest in 1950, butat that time they were not parts of the Budapest agglomeration. In the meantime, however, several reasons, primarily the shortage of housing in Budapest forced the immigrants into the centre of the country to settle down beyond the boundaries of the capital. This newer agglomeration (in which 44 villages and one town are included) has already a population coming near to 400 thousand persons.

The increase in the population of Budapest through immigration was the most important in the last years of the past century. Over the 30 years between 1870 and the turn of the century the actual population increase calculated for the present territory of Budapest was 185 per cent. This figure, however, was only 67 per cent over the first 30 years of the present century, and an even smaller increase of

25 per cent was observed during 30 years between 1930 and 1960. This latter period includes also the war years when there was a pronounced decrease in the population.

The expansion of the capital was promoted beyond her function as an administrative and cultural centre also by the strong concentration of industry in her territory. The major routes, railways built in the meantime start out from Budapest in a ray-like way towards different parts of the country promoting again the one-centre urbanization.

By expanding and further developing the already existing industrial capacities the first stage of socialist industrialisation increased the job opportunities and consequently the number of inhabitants also mainly in Budapest. Calculated in terms of present-in-area population, the population of Budapest rose by 215 thousand between 1949 and 1960. In the subsequent decade industrial development policy gave preference to the country towns and industrial regions and thus the net immigration of Budapest in this decade was 135 thousand persons only. According to the data of migration statistics the net immigration of Budapest has been decreasing recently.

By transferring some industrial plants to the countryside and establishing subsidiaries of Budapest plants there present industrial policy strengthens the position of industry in the countryside trying, at the same time, to promote progress in the less developed, agricultural counties.

A Government decision was taken in March 1971 on the principles of regional development which is to determine the development of towns and villages of the country up to 2000 . This so-called "Concept of Regional Development" sets targets which include, among others, the reduction of regional differences, reasonable allocation of productive forces, high level supply of the population, reduction of adverse affects of urbanization, improvement of the relation between the place of work and residence.

The Concept sets out a hierarchy of settlements. In case of the centre of the country, Budapest the principal objective is to ensure that her population-together with the whole agglomeration - should not exceed $2.6-2.8$ million. The five county towns (Miskolc, Debrecen, Pécs, Szeged and Gyorr) are planned to develop into special higher level centres with 150-300 thousandinhabitants and with a total agglomerated population of $1.0-1.5$ million. Seven towns will be developed inta high level centres, with a population size of $80-150$ thousand, and an urban agglomeration of 400-600 thousand. Further 11 towns have been selected to fulfil the functions of partial high level centres (with 50-60 thousand inhabitants). The high level centres will fulfil economic, administrative. educational, health organizational, administrative and service functions at county level and in a common division of labour also at the inter-county level. The smaller towns consitute medium level and partial medium level centres (with 8-15 thousand inhabitants). The medium level centres cover with their activity a territory smaller than a county. The supply of the population is performed at the lowest administrative level by about one thousand low level centres.

## Internal migration

In Hungary the spatial distribution of the population is influenced by internal migration much rather than by differential fertility. Consequently, a continuous observation of this process is rather important.

Internal migration has been a subject of continuous observation since 1956. Data collection is connected with general reporting obligation. Every Hungarian citizen above 14 years is obliged to report changes in his/her permanent and temporary residence. A person is allowed to have only one permanent and one temporary residence at one time. Changes in the residence should be reported to the responsible public administration agency on a Registration Form the "Statistics Slip ${ }^{11}$ of which constitutes the basis of data collection.

Internal migration covers changes in both permanent and temporary residences provided they are within the boundaries of the country. However, observation of migratory statistics does not include those types of internal migration which are not connected with a reporting obligation such as commuting persons, persons in hotels, rest homes, patients in hospitals and sanatoria, persons in military service, persons spending less than five days at their temporary residence foreign tourists in Hungary, and persons on an official trip. Data for children under 14 are put on the Statistics Slip of the adult with whom they move together thus they are included in the observation, although the reporting obligation does not apply to them. Moving (changing of residence) within a settlement except for Budapest cannot be regarded as migration, therefore, they are not included in the interna] migration statistics.

Examining internal migration between 1960 and 1972 it can be seen that every year of 1000 inhabitants 24-34 persons change their permanent, and 44-63 their temporary residence. The declining trend in the volume of migratory movements has been almost unbroken in the above period. Higher values are relatively more frequent around 1960 and conversely lower around 1972. The rate of permanent migration decreased by 28 per cent over the past 13 years, and that of temporary migration by 30 per cent.

Despite this decrease in the size of migratory movements, their influence on the geographical distribution of the population are still significant. It was an unbroken trend during the period investigated that internal migration increased the urban population and decreased the rural one reversing by this the effect of natural increase.

| Region | Natural | Actual | Natural | Actual |
| :---: | :---: | :---: | :---: | :---: |
|  | increase per 1000 inhabitants |  |  |  |
|  | in 1960 |  | in 1972 |  |
| Budapest | -1.3 | $+21.5$ | -0.7 | + 5.3 |
| Other towns | $+4.2$ | $+26.6$ | $+5.2$ | + 15.9 |
| Villages | +6.4 | - 8.9 | $+3.8$ | - 4.3 |
| Total | $+4.5$ | + 4.5 | $+3.3$ | $+3.3$ |

In the period between 1969 and 1972 the population of Budapest increased on annual average by 13-14 thousand permanent and by 8 thousand temporary immigrants which mostly meant contribution to the young population in working ages (15-49 years) their proportion being in the balance of migration between 80-90 per cent. Since also the other towns have been having continuous net immigration, villages have lost some 40 thousand permanent inhabitants through emigration
and beyond this the temporary net emigration is also of $14-15$ thousand persons per annum.

Balance of inlernal migration over the past 13 years

$$
1960-1972
$$

| Region | Permanent | Temporary |
| :--- | :--- | :--- |
| Budapest | +176343 | +103037 |
| Other towns | +345006 | +88178 |
| Villages | -521349 | -191215 |

Apart from migration into urban areas in general, in respect of internal migration trends movements into the Budapest agglomeration and also from the Eastern and Southern parts into North Transdanubia are also important. As for significance and stability these latter processes lag far behind the migration into Budapest and the neighbouring localities as well as into the other towns.

According to data for 1972 the share of males is 49 and 60 per cent, respectively in the permanent and temporary migration. In both cases the age group 15-49 years constitute the majority, the respective relative proportions being 64 and 86 per cent.

The intensity of migration varies according to age. The 1972 data are as follows:

| Age groups | Permanent | Temporary |
| :---: | :---: | :---: |
|  | migration in 1972 per 1000 persons of the corresponding age groups |  |
| $0-4$ years | 43.8 | 16.4 |
| $5-9$ " | 26.3 | 8.2 |
| 10-14 | 18.7 | 19.7 |
| 15-19 " | 28.9 | 146.1 |
| 20-24 " | 60.3 | 145.4 |
| 25-29 | 47. 8 | 76.0 |
| 30-34 " | 28.6 | 42.0 |
| 35-39 " | 17.9 | 28.5 |
| 40-44 "' | 13.3 | 22,9 |
| 45-49 " | 9.7 | 19.0 |
| 50-54 | 8.5 | 16.6 |
| 55-59 "1 | 7.2 | 13.3 |
| 60 year old and older | 11.2 | 9.9 |
| Total | 24.5 | 44.4 |


| Year | Internal migration |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | ---: | :---: | :---: | :---: |
|  | Permanent migration |  |  |  |  | Temporary migration* |  |
|  | Number | $1960=100$ | Number | $1960=100$ |  |  |  |
| 1960 | 338206 | 100.0 | 630448 | 100.0 |  |  |  |
|  | 330424 | 97.7 | 620365 | 98.4 |  |  |  |
|  | 336714 | 99.6 | 618165 | 98.1 |  |  |  |
|  | 331185 | 97.9 | 580108 | 92.0 |  |  |  |
|  | 317862 | 94.0 | 539442 | 85.6 |  |  |  |
| 1965 | 322773 | 95.4 | 542333 | 86.0 |  |  |  |
| 1966 | 316744 | 93.7 | 575882 | 91.3 |  |  |  |
| 1967 | 311050 | 92.0 | 578345 | 91.7 |  |  |  |
| 1968 | 290241 | 85.8 | 579455 | 91.9 |  |  |  |
| 1969 | 273586 | 80.9 | 535548 | 84.9 |  |  |  |
| 1970 | 270998 | 80.1 | 525451 | 83.3 |  |  |  |
| 1971 | 272147 | 80.5 | 487455 | 77.3 |  |  |  |
| 1972 | 254258 | 75.2 | 461465 | 73.2 |  |  |  |

[^2]Balance of internal migration per 1000 inhabitanls

| Year | Budapest | Other towns | Villages |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Permanent migration |  |  |  |  |  |  |
| 1960 |  |  |  |  | +14.1 | +12.1 | -8.8 |
| 1961 | +10.9 | +11.0 | -7.6 |  |  |  |  |
| 1962 | +12.6 | +11.3 | -8.4 |  |  |  |  |
| 1963 | +9.6 | +11.4 | -7.7 |  |  |  |  |
| 1964 | +6.7 | +11.8 | -7.0 |  |  |  |  |
| 1965 | +6.6 | +12.2 | -7.3 |  |  |  |  |
| 1966 | +5.5 | +10.9 | -6.7 |  |  |  |  |
| 1967 | +5.8 | +9.6 | -6.4 |  |  |  |  |
| 1968 | +4.8 | +9.7 | -6.1 |  |  |  |  |
| 1969 | +4.5 | +8.6 | -6.0 |  |  |  |  |
| 1970 | +4.3 | +9.1 | -6.3 |  |  |  |  |
| 1971 | +3.7 | +10.2 | -6.8 |  |  |  |  |
| 1972 | +2.9 | +9.3 | -6.2 |  |  |  |  |


\left.| Year | Budapest | Other townx |  |
| :---: | :---: | :---: | :---: |
|  | Temporary migration |  |  |$\right)$ Villages

*/ Including temporary re-migration.

## V. THE LABOUR FORCE

Two different sources of data are available for analysing labour force position: data obtained in the course of population censuses performed every ten years on the one hand, and the system of statistics supplied by enterprises.

A deeper analysis of long term development, where such aspects are considered as economic activity, national economic branches, types of employment, socio-economic status, etc. as well as age and education, is feasible only from the population census data which provide the necessary break-down and a possibility for retrospective analysis. The scope of the continuous labour force statistics is narrower.

The most of the analysis i.e. that part which deals with the period up to 1970 relies, therefore on the census data, this will be supplemented by a description of the position on January 1st, 1973 for which the continuous data of labour-force balances were used.

## Economic activity

On 1st January, 1970, at the population census date nearly half of the population of 10 million 322 thousand persons ( 4 million 989 thousand, 48 per cent) were economically active. 14 per cent of the total population was pensioner or annuitant, further females on leave for child's care who are classified as inactive earners, and 38 per cent belonged to the group of dependants.

Over the period since the turn of the century the population increased to one and a half times, the number of active earners by 76 per cent while that of dependants was the same as seventy years earlier. The number of active earners rose by some 230 thousand during the past decade coming thus near to 5 million. At the same time the number and share of inactive earners increased by three times, while the number of dependants diminished by more than 800 thousand and their share in the total population went down from 48 per cent in 1960 to 38 per cent. Apart from increasing female employment, shifts in the distribution of the population by economic activity as compared to 1960 were caused almost exclusively by the highest ever increase in the number and share of inactive earners. Inactive earners had represented up to 1949 a rather small proportion in the total population, since pensioning covered only a narrow layer of the population. Subsequently major changes were brought about by including almost every worker and employee in the social security system, later by pensioning of old age agricultural labourers, and by granting benefits for child's care to mothers.

Population by economic activity

$$
1960-1970
$$

| Year | Population | Active |  | Inactive |
| :---: | ---: | ---: | ---: | ---: |
|  |  | Dependants |  |  |

## Percentage distribution

| Year | Population | Active | Inactive | Dependants |
| :---: | :---: | :---: | :---: | :---: |
|  |  | earners |  |  |
| 1900 | 100.0 | 41.4 | 1.1 | 57.5 |
| 1910 | 100.0 | 40.1 | 1.2 | 58.7 |
| 1920 | 100.0 | 44.6 | 1.3 | 54.1 |
| 1930 | 100.0 | 43.0 | 2.0 | 55.0 |
| 1941 | 100.0 | 45.1 | 2.2 | 52.7 |
| 1949 | 100.0 | 44.4 | 2.8 | 52.8 |
| 1960 | 100.0 | 47.8 | 4.4 | 47.8 |
| 1970 | 100.0 | 48.3 | 13.5 | 38.2 |

As percentage of the preceding population census

| 1910 | 111.1 | 107.5 | 116.9 | 113.5 |
| ---: | ---: | ---: | ---: | ---: |
| 1920 | 104.9 | 116.8 | 116.9 | 96.6 |
| 1930 | 108.7 | 104.8 | 171.1 | 110.5 |
| 1941 | 107.3 | 112.4 | 116.9 | 102.9 |
| 1949 | 98.8 | 97.2 | 124.0 | 99.1 |
| 1960 | 108.2 | 116.5 | 171.4 | 97.9 |
| 1970 | 103.6 | 104.8 | 319.6 | 82.6 |

As against the 51 per cent increase in the population during the 70 years since 1900 the number of active earners rose by 76 per cent. Thus the number of dependants per 100 active earners changed in a favourable direction, further there was also a favourable shift in the share of totalinactives, (dependants and inactive earners together). The positive aspect of the changes is especially apparent if data for the turn of century and 1970 are compared but significant changes have been observed in the above indicators also over the last two decades. The
number of dependants per 100 active earners was 139 in 1900, still 119 in 1949, and already 79 in 1970. The aggregate number of inactives and dependants per 100 active earners decreased from 142 in 1900 to 125 in 1949 and further to 107 in 1970. Consequently, the improvement shown for both indicators over the most recent twenty years was larger than during the preceding fifty years. The number of inactive earners rose rather steeply in relation to the active earners; the number of inactive earners per 100 active earners was 3 in 1900, 6 in 1949 and it was already 28 in 1970.

Selected indicators of economic activity

$$
1900-1970
$$

| Year | Inactive <br> earners | Dependants | Inactive <br> earners and <br> dependants | Dependants <br> per 100 active <br> and inactive <br> earners |
| :---: | :---: | :---: | :---: | :---: |
|  | 3 | 100 active earners | 139 | 142 |
| 1910 | 3 | 146 | 149 | 142 |
| 1920 | 3 | 121 | 124 | 118 |
| 1930 | 5 | 128 | 133 | 122 |
| 1941 | 5 | 117 | 122 | 111 |
| 1949 | 6 | 119 | 125 | 112 |
| 1960 | 9 | 100 | 109 | 92 |
| 1970 | 28 | 107 | 107 | 62 |

A decrease of 21 persons in the number of dependants per 100 active earners over the past ten years was a joint result of various factors. Due to a decline in births the number of 14 year old and younger children supported per 100 active earners decrased from 53 to 43 during the same period. The expansion of economically active population
and the growing number of old persons entitled to pension contributed considerably to the diminishing of the number of old persons who need support. This is corroborated by the fact that while the population beyond working age increased by 26 per cent during the past decade, the number of dependants in this age group per 100 active earner was by 2 less than ten years earlier. (It was 14 in 1960 and 12 in 1970). It is connected with the expansion of employment and partly with other factors that there was a steep decline in the number of working age dependants not attending school who can be regarded as labour reserve which is expressed by a decrease in the number of working age out-of-school dependants from 28 in 1960 to 14 in 1970. The influence of decreasing factors on the share of dependants was somewhat reduced by an increasing general tendency to obtain higher education, consequently the number of 15 year old and older pupils per 100 active earners doubled over the past ten years; it increased from 5 in 1960 to 10 in 1970.

The composition of the population by economic activity followed different patterns in case of males and females. For males the share of active earners remained practically unchanged even over a longer period, moreover due to an unfavourable shift in the age composition it declined somewhat during the recent decades. In 1970 the number of active earner males was by 135 thousand less than ten years earlier, diminishing thus the respective share in the total male population from 64 to 59 per cent. There was also a decline, although of a somewhat smaller size (from 32 to 29 per cent) in the share of dependant males while the number of inactive earner males rose in the same period to its three time level, increasing their share in the total male population from 5 to 13 per cent.

There were more significant changes in the composition of female population by economic activity. The share of economically active persons in the total female population increased considerably during the past decades. At the turn of the century some one fifth of the total female population of the country was gainfully occupied, in 1949, however, the share of females pursuing gainful occupation was one quarter. Subsequently the expansion started accelerating: in 196033 per cent of females were gainfully occupied, this figure in 1970 was already 39 per cent. In 1970 less than half of the female population was dependant and 15 per cent inactive earner.

Labour force participation rates by sex

$$
1900-1970
$$

| Year | Active | Inactive | Dependant males | Active | Inactive | Dependant females |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | earner males |  |  | earner females |  |  |
|  | as percentage of the |  |  |  |  |  |
|  | male |  |  |  | female |  |
|  | population |  |  |  |  |  |
| 1900 | 62.2 | 0.9 | 36,9 | 20.8 | 1.3 | 77.9 |
| 1910 | 62.7 | 0.9 | 36, 4 | 17.7 | 1.4 | 80.9 |
| 1920 | 64.6 | 1.2 | 34,2 | 25.8 | 1.4 | 72.8 |
| 1930 | 65.0 | 2.3 | 32.7 | 22,0 | 1.8 | 76.2 |
| 1941 | 67.0 | 2.6 | 30.4 | 24.1 | 1.9 | 74.0 |
| 1949 | 65,4 | 2.9 | 31.7 | 25,0 | 2.6 | 72.4 |
| 1960 | 63.9 | 4.6 | 31.5 | 32.8 | 4,2 | 63, 0 |
| 1970 | 58, 6 | 12.5 | 28.9 | 38.6 | 14.5 | 46.9 |

The inclusion of the wider and wider masses of females in gainful occupation leads necessarily to shifts in relative shares of males and females within the different groups of economic activity. In 1930 more than one quarter of the active earners and in 1970 already
more than two fifths of the active earners were females; during the same period the share of females in the dependant population dropped from 71 to 63 per cent.

Sex structure by economic activity

$$
1900-1970
$$

| Year | Active earners |  |  | Inactive earners |  | Dependants |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males |  | Females | Males |  |
|  | percentage distribution |  |  |  |  |  |  |
| 1900 | 74.8 | 25.2 | 39.1 | 60.9 | 32.0 | 68.0 |  |
|  | 77.9 | 22.1 | 39.1 | 60.9 | 30.9 | 69.1 |  |
| 1920 | 70.2 | 29.8 | 44.1 | 55.9 | 30.7 | 69.3 |  |
| 1930 | 73.9 | 26.1 | 55.4 | 44.6 | 29.1 | 70.9 |  |
| 1941 | 72.7 | 27.3 | 56.9 | 43.1 | 28.3 | 71.7 |  |
| 1949 | 70.8 | 29.2 | 50.9 | 49.1 | 28.8 | 71.2 |  |
| 1960 | 64.5 | 35.5 | 50.5 | 49.5 | 31.8 | 68.2 |  |
| 1970 | 58.8 | 41.2 | 44.9 | 55.1 | 36.7 | 63.3 |  |

In Budapest, the other towns and villages the composition of the population by economic activity followed different patterns during the past twenty years. In 1949 the share of active earners was the highest in the capital and the lowest in the country towns. During the two decades since then Budapest kept her leading role even despite the nation-wide expansion of employment, while the share of active earners changed but slightly in the villages and thus it lagged behind the relatively rapidly growing country towns. Accordingly the share of active earners in the capital ( 55 per cent) exceeded considerably the national average ( 48 per cent), the figure for the other towns ( 50 per cent) exceeded it but slightly and corresponding data for the villages ( 45 per cent) remained somewhat below it.

The fastest expansion in the share of inactive earners was observed in the villages over the last decade (their share rose to some five times) which is explained by the extention of the pensioning system to a wide scope of agricultural labourers.

Due to a shift in favour of the active and inactive earners the relative share of dependants in the total population diminished both in Budapest and in the countryside over the past twenty years. The decline was the most remarkable in the capital where in 1970 only slightly more than one quarter of the population was dependant as against the corresponding share of 46 per cent in 1949 .

Participation rates by regions

$$
1949-1970
$$

|  | Budapest |  |  | Other towns |  |  | Villages |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage distribution |  |  |  |  |  |  |  |  |
|  | 1949 | 1960 | 1970 | 1949 | 1960 | 1970 | 1949 | 1960 | 1970 |
| Active earner | 48.2 | 54.5 | 55.2 | 41.1 | 46.6 | 49,5 | 44.4 | 46.2 | 45.4 |
| Inactive <br> earner | 5.4 | 9.0 | 18.7 | 4, 6 | 5, 8 | 13.0 | 1.4 | 2,4 | 12,0 |
| Dependant | 46.4 | 36.5 | 26, 1 | 54.3 | 47.6 | 37.5 | 54.2 | 51,4 | 42, 6 |
| Total | 100.0 | 00.0 | 100.0 | 100.0 | 100.0 | 100,0 | 00.0 | 100,0 | 100.0 |

Economic activity by age

The number of working age (15-59 year old) population increased by 275 thousand, by 5 per cent over the past tenyears while the number of active earners in this age group grew even faster, by 476 thousand, 12 per cent. Among active earners the share of persoms work-
ing beyond the age of retirement diminished: it was 8 per cent in 1970 as against 13 per cent ten years before.

In 196087 per cent, in 197081 per cent of the inactive earners was beyond the age of retirement. It is remarkable to observe at the same time the increase (from 13 to 19 per cent) over the past ten years in the share of working age persons in the inactive earner group which is connected primarily with the introduction of the benefit for child's care.

The majority of dependants, 53 per cent in 196055 per cent in 1970, was 14 year old or younger. In 1960 one third of them was constituted by persons in working age, but by 1970 their share diminished to 30 per cent. The share of dependants beyond working age showed almost no change.

The distribution of actives and dependants by major age-groups

$$
1960-1970
$$



Persons
below working

| age | 0.5 | 0.0 | 52.6 | 0.3 | 0.0 | 54.9 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| age working age <br> in <br> beyond working | 86.2 | 12.9 | 33.5 | 91.8 | 19.2 | 30.0 |
| age | 13.3 | 87.1 | 13.9 | 7.9 | 80.8 | 15.1 |
| Total | 100.0 | 100,0 | 100.0 | 100.0 | 100.0 | 100.0 |

Among the dependants in the working age the number of persons at school or university, on daily courses increased in the recent decade from 269 thousand to 469 thousand. The former constituted 6 per cent and the latter 12 per cent of the dependants. The share of working age population not pursuing studies i.e. those who can be regarded as labour reserve diminished during the ten years from 28 to 18 per cent.

In 1970 more than three quarters of the working age population was active earner as against the 63 per cent in 1949 and 71 per cent in 1960. Due to the extension of further education opportunities and the growing population caused by the post-war baby-boom, the number of pupils rose by some 200 thousand during the ten years.

Working age population by economic activity

$$
1949-1970
$$

| Economic activity | Working age population |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Numbers |  |  | Percentage distribution |  |  |
|  | 1949 | 1960 | 1970 | 1949 | 1960 | 1970 |
| Active earners | 3512650 | 4104203 | 4579910 | 62.6 | 71.3 | 76.0 |
| Inactive earners | 81513 | 56131 | 268129 | 1.5 | 1.0 | 4.4 |
| Of which: <br> Females on leave |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| for child's care | e | - | 141183 | - | - | 2.3 |
| Dependants | 2014032 | 1594088 | 1181399 | 35.9 | 27.7 | 19.6 |
| Of which: |  |  |  |  |  |  |
| Attending schoul | . | 269134 | 468976 | . | 4.7 | 7.8 |
| Total | 3608195 | 5.754422 | 6029438 | 100.0 | 100,0 | 100.0 |
| 110 |  |  |  |  |  |  |

In respect of economic activity it was characteristic for the working age males both in 1960 and 1970 that the respective shares of non-working and non-studying persons are ratherlow. Despite the slight increase in the number of active earners in working age their share in the working age males declined, it is 87 per cent as against 92 per cent in 1960. The number of inactive earners increased to two and a half times during the ten years mainly to earlier pensioning schemes and their share in the working age male population rose from 1.2 to 2.9 per cent. The share of dependants in the working age females was 10 per cent in 1970 as against 7 per cent in 1960 which is explained by an increase of 100 thousand in the number of persons attending school.

During the ten years the number of active earners among the working age females rose by more than 435 thousand raising by this their share in the working age female population from 50 to 64 per cent. The number of working age inactive earner females is by nearly 160 thousand higher than ten years earlier, 140 of them is accounted for by females on leave for child's care. The number of females continuing studies in the working age dependant females nearly doubled over the last decade and during the same period the share of dependants not attending school diminished from 46 to 23 per cent.

Working age population by economic activity and sex

$$
1960-1970
$$

| Economic activity | Males |  | Females |  |
| :---: | :---: | :---: | :---: | :---: |
|  | in the working age percentage |  |  |  |
|  | 1960 | 1970 | 1960 | 1970 |
| Active earner | 92.1 | 87.3 | 49.9 | 63.7 |
| Inactive earner | 1.2 | 2.9 | 0.7 | 6.1 |
| Of which: |  |  |  |  |
| Females on leave for child's care |  |  |  |  |
| Dependants | 6, 7 | 9.8 | 49.4 | 30.2 |
| Of which: |  |  |  |  |
| Attending school | 5.7 | 8. 6 | 3.6 | 6.9 |
| Other | 1.0 | 1.2 | 45.8 | 23.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

Dependants by type of dependancy

In respect of the type of dependancy there was a considerable shift between 1960 and 1970 in the composition of the dependant population. Due to a considerable decrease in the number of births occurred in the early 1960s the number of, 0-13 year old children, not attending school further pupils of primary schools diminished significantly: the rate of decrease was for the ten years 227 thousand for the former and 143 for the latter group. Due to the expansion of economic activity the 14 year old and older dependant population not attending school also decreased from more than 2 million in 1960 to 1 million 320 thousand onver the ten year period.

With the expanding opportunities for further education the number of pupils attending various types of school rose considerably: the number of students in higher level educational institutions to more than double, those in vocational and specialized courses to nearly double, the number of students in vocational schools by 84 per cent, that of secondary school pupils by 63 per cent. As a consequence of these major changes 44 per cent of the dependants was pursuing studies in 1970 as against the slightly more than one third in 1960.

## Dependants by type of dependancy

$$
1960-1970
$$

| Type of dependancy | Dependants |  |  | Percentage |  |
| :--- | ---: | ---: | ---: | ---: | :---: |
|  | Number |  | 1970 | 1960 |  | 1970

[^3]Changes taken place during the past decade in the number and composition of dependants was especially remarkable in case of females. The number of dependant males diminished slightly and that of those attending school increased while the number of dependant females became considerably lower: in 1960 it was 3 million 250 thousand and in 1970 because of expanding employment their number remained below 2 and a half million. Of the dependant females the number of children below 14 and other dependants not attending school diminished. and simultaneously, the number of young females attending school increased much faster than that of young males, While the number of young males attending various schools increased at a rate of between 47-85 per cent, the number of young females attending higher level educational institutions or taking part in vocational training rose to more than two and a half times, the number of female students in secondary schools by 78 per cent. Due to expanding female employment the share of 14-54 year old dependant females not attending school decreased from 40 per cent in 1960 to 28 per cent and that of persons pursuing studies after completing primary school rose from 4 to 9 per cent.

## Distribution of the labour-force by national economic branches

The fundamental transformation of the economic structure of the country is reflected by the radical shifts in the distribution of active earners by national economic branches, primarily in terms of changing proportions of persons employed in the agricultural and non-agricultural branches. In 1949 more than half of the active earners was employed in agriculture, their number exceeding this time 2 million 2.00 thousand. Although the number of active earners in agriculture
diminished by more than 350000 by 1960 , however, their relative share in the total active earners was still close to 40 per cent. After 1960 as aresult of the socialist transformation of the agriculture, formation of large-agricultural farms, increasing mechanization of the agriculture, pensioning the old age agricultural active earners, further expanding the pension scheme to a wider scope, the number of agricultural active earners decreased by more than half a million over the last decade. Their absolute number was 1 million 282 thousand in 1970, only one quarter of the active earners.

Simultaneously with the decline in the number and share of active earners employed in agriculture their number was increasing in the other branches of national economy. From 1949 on, the rate of increase was expecially high in the industry, construction and transport. During twenty years the number of active earners in industry rose by more than 1 million, 127 per cent, of which 490 thousand during the last ten years. The number of active earners in construction increased three times between 1949-1960, after 1960, however, the expansion decelerated somewhat; their number was 370 thousand in 1970 by 81 thousand more than in 1960. The number of active earners in transport and communication doubled since 1949 and that of those in trade rose during the twenty years by 180 thousand of which by nearly 100 thousand during the last decade.

The fundamental change according to which industry and agriculture changed places during the 1960 s in respect of their share in the number of active earners employed, was caused by the increasing number of active earners in the non-agricultural branches and the decreasing number of those in the agriculture. The share of active earners in the industry rose during the past decade from 28 to 37 per cent, simultaneously with this the respective figures for those employed in the agriculture declined froin 39 to 26 per cent.

Active earners by national economic branches

$$
1930-1970
$$

| National economic branches | Active earners |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1930 | 1949 | 1960 | 1970 |
| Numbers |  |  |  |  |
| Industry | 670947 | 808520 | 1347945 | 1835556 |
| Construction | 95920 | 91120 | 289056 | 370044 |
| Agriculture 2 | 2035597 | 2200248 | 1842617 | 1282311 |
| Transport | 113691 | 164984 | 290138 | 344788 |
| Trade | 240626 | 214776 | 297714 | 394720 |
| Other | 580675 | 605283 | 692146 | 761257 |
| Total 3 | 737456 | 4084931 | 4759616 | 4988676 |
| Percentage distribution |  |  |  |  |
| Industry | 18.0 | 19.8 | 28.3 | 36.8 |
| Construction | 2.6 | 2.2 | 6.1 | 7.4 |
| Agriculture | 54.5 | 53.9 | 38.7 | 25,7 |
| Transport | 3, 0 | 4.0 | 6.1 | 6.9 |
| Trade | 6.4 | 5.3 | 6.3 | 7.9 |
| Other | 15.5 | 14.8 | 14,5 | 15.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

With the expanding female employment just in response to greater job opportunities, the sex distribution of active earners in the individual national economic branches underwent considerable changes.

Higher job opportunities are provided for the females in trade and further in the field of social, cultural services and public administration within the so called "other" branches. Consequently, due to the expanding female employment, of the national aeconomic branch-
es it was the trade where in 1960 females already constituted the majority of active earners, later their share further increased (it was 61 per cent in 1970). Within the so-called "other" national economic branch in 197057 per cent of activeearners were females. The sex structure of active earners changed considerably also in the rest of the national economic branches in favour of females, which became especially apparent during the last 20 years. The share of females expanded in the active earners in the industry at a low rate up to 1949 and started accelerating in the subsequent period. The number of females employed in the industry was 760 thousand in 1970 more than four times as high as in 1949 and by 73 per cent higher than ten years earlier. With this, the share of females in the active earners empolyed in the industry rose from 23 per cent in 1949 to 41 per cent. The share of females in the construction industry increased remarkably as compared to the preceding years ; in 1930 hardly 1 per cent of the active earners in the construction industry was female, this share was in 1949 4 per cent and in 1970 already 16 per cent.

Active earners by sex and national economic branches

$$
1930-1970
$$

| National <br> economic <br> branches | Males |  |  |  |  | Females |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- | :---: |
|  | as percentage of the active earners of the <br> corresponding national economic branch |  |  |  |  |  |  |  |  |
|  | 1930 | 1949 | 1960 | 1970 | 1930 | 1949 | 1960 | 1970 |  |
| Industry | 79.4 | 77.4 | 67.3 | 58.6 | 20.6 | 22.6 | 32.7 | 41.4 |  |
| Construction | 99.1 | 96.3 | 89.4 | 84.5 | 0.9 | 3.7 | 10.6 | 15.5 |  |
| Agriculture | 76.8 | 70.3 | 61,9 | 62,4 | 23.2 | 29.7 | 38.1 | 37.6 |  |
| Transport | 92.1 | 89.8 | 82.6 | 77.5 | 7.9 | 10.2 | 17.4 | 22.5 |  |
| Trade | 71.0 | 64.1 | 48.0 | 39.0 | 29.0 | 35.9 | 52.0 | 61.0 |  |
| Other | 50.5 | 57.0 | 54.9 | 42.6 | 49.5 | 43.0 | 45.1 | 57.4 |  |
| Total | 73.9 | 70.8 | 64.5 | 58.8 | 26.1 | 29.2 | 35.5 | 41.2 |  |

Besides the general increase in the number of active earners the branch structure of industry changed also in a direction determined by the above process. As compared to 1960 within industry the relative shares in employment rose in the food-processing industry ( 9.2 per cent - 10.4 per cent), there was a slight increase in the heavy industry +59.4 per cent -59.8 per cent) and it decreased in the light industry (31.4 per cent - 29.8 per cent). As a result of the rapid expansion of telecommunication, precision, engineering, metal mass production the proportion of machine building industry in total industrial empoyment rose from 29.6 to 31.8 per cent, the share of chemical industry increased from 4.6 to 6.4 per cent while the relative proportions in industrial employment of mining, electric energy industry, metallurgy and construction material industry decreased.

Active earners in industry by sub-branches
1960-1970

| Branches of industry | Active earners |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Numbers |  | 1970 aspercentageof 1960 | Percentage distribution |  |
|  | 1960 | 1970 |  | 1960 | 1970 |
| Mining | 144623 | 155616 | 07.6 | 10.7 | 8.5 |
| Electric energy |  |  |  |  |  |
| industry | 33542 | 38501 | 114.8 | 2.5 | 2,1 |
| Metallurgy | 87270 | 112510 | 128.9 | 6.5 | 6.1 |
| Machine building | 399732 | 584278 | 146.2 | 29.6 | 31.8 |
| Construction | 73617 | 89186 | 121.1 | 5.5 | 4,9 |
| Chemical industry | 62390 | 117916 | 189, 0 | 4.6 | 6.4 |
| Heavy industry total | 801174 | 1098007 | 137.0 | 59.4 | 59,8 |
| Light industry | 423409 | 546331 | 129.0 | 31.4 | 29,8 |
| Food-processing |  |  |  |  |  |
| industry | 123362 | 191218 | 155.0 | 9.2 | 10.4 |
| Industry, total | 1347945 | 1835556 | 136.2 | 100.0 | 100.0 |

In the regional distribution of active earners by branches it was the urbanization and the transfer of some industrial branches from the capital that played the major part here, becoming more and more pronounced over the recent years. Nearly half of the active earners in Budapest and in the towns was employed in the industry and while in Budapest it was the trade that came first after the industry in respect of the relative share of employment, engaging 12 per cent of the active earners, in the other towns the second in this respect branch with similar relative share was the agriculture. In the villages the number and share of active earners was the highest, of course, in the agriculture ( 1 million 85 thousand persons, 42 per cent). Besides this the share of industry in employment is also remarkable, in villages some 30 per cent of the active earners are employed in industry, and the share of persons employed in construction was somewhat higher in the villages than in Budapest and other towns.

Percentage distribution of active earners by national economic branches and regions

| Regions | Active earners | $\begin{aligned} & \text { Indus- } \\ & \text { try } \end{aligned}$ | Con-struction | $\begin{aligned} & \text { Agri- } \\ & \text { cul- } \\ & \text { ture } \end{aligned}$ | Transport | Trade | Services | Health | Public admin-istration and other |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Budapest | 10c. 0 | 46.3 | 7.6 | 2.7 | 8. 3 | 12.3 | 4. 2 | 10.3 | 8. 3 |
| Other <br> towns | 100.0 | 44.8 | 6.8 | 12,5 | 7.0 | 9. 1 | 2.5 | 10.4 | 6.9 |
| Villages | 100.0 | 28.6 | 7.7 | 42.2 | 6.3 | 5.5 | 0.9 | 4.9 | 3.9 |
| Total | 100.0 | 36.8 | 7.4 | 25.7 | 6.9 | 7.9 | 2.1 | 7.6 | 5.6 |

In 1970141 females took the advantage provided by the benefit for child's care. This meant 10 per cent of the inactive earners half of which was employed formerly in the industry, and 14 per cent in the agriculture. The number and share of pensioners by own right was the highest in the agriculture followed by the industry. In case of widow's pensioners this was the other way, round 31 per cent belonged to the industry and 21 per cent to the agriculture. More than one third of inactive earner males retired from the agriculture while 31 per cent of the inactive earner females worked formerly in the industry and somewhat less ( 30 per cent) in the agriculture.

## Percentage distribution of inactive earners by national economic branches

|  | In- <br> active <br> ear- <br> ners | Indus- <br> try | Con- <br> struc <br> tion | Agri- <br> cul- <br> ture | Trans- <br> port | Trade | Other |
| :--- | ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pensioners by own <br> right | 100.0 | 28.7 | 4.3 | 37.2 | 7.7 | 6.0 | 16.1 |
| Widow's pensioners <br> Females on leave for <br> child's care | 100.0 | 30.5 | 5.3 | 21.1 | 16.5 | 3.7 | 22.9 |
| Other inactive <br> earners | 100.0 | 48.7 | 2.9 | 14.0 | 4.3 | 11.6 | 18.5 |
|  | 100.0 | - | - | 19.1 | - | - | 80,9 |
| Total | 100.0 | 30.8 | 4.3 | 32.6 | 8.5 | 6.2 | 17.6 |

Of which:

| Males | 100.0 | 30.3 | 6.5 | 36.1 | 10.6 | 4.3 | 12.2 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Females | 100.0 | 31.2 | 2.5 | 29.8 | 6.8 | 7.8 | 21.9 |

The rapid industrial growth over the past ten years and the decrease in agricultural active earners had an influence on the distribution of working age active earners by national economic branches. As compared to the preceding population census there are by 278 thousand more active earners in young working ages and by this their number exceeded 2 million 800 thousand.

The number and share of active persons beyond the working age diminished considerably since 1960 but most of them ( 59 per cent) was engaged in the agriculture even in 1970. In 1960 this share was 70 per cent.

Percentage distribution of active earners by national economic branches and age groups

1960, 1970

| Age groups <br> (years) | Active <br> ear- <br> ners | Indus- <br> try | Con- <br> struc- <br> tion | Agri- <br> cul- <br> ture | Trans- <br> port | Trade | Other |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

1960

| Working age |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15-39 years | 100.0 | 33.7 | 7.1 | 29.2 | 7.0 | 6.6 | 16.4 |
| 40-59 year old males 40-54 year old females | 100.0 | 26.7 | 5.9 | 40.9 | 6.7 | 6.4 | 13.4 |
| Total | 100.0 | 31.0 | 6.7 | 33.7 | 6.9 | 6.5 | 15.2 |
| Persons beyond working age | 100.0 | 11.5 | 2.5 | 70.1 | 1.0 | 4.7 | 10.2 |
| 1970 |  |  |  |  |  |  |  |
| Working age |  |  |  |  |  |  |  |
| 15-39 years | 100.0 | 41.8 | 8.6 | 19.7 | 6.9 | 8.0 | 15.0 |
| 40-59 year old males 40-54 year old females | 100.0 | 33.3 | 6.4 | 27.9 | 8.1 | 8.1 | 16.2 |
| Total | 100.0 | 38.5 | 7.8 | 22.9 | 7.4 | 8.0 | 15.4 |
| Persons beyond working age | 100.0 | 16.7 | 3.3 | 58.5 | 1.8 | 6. 4 |  |

The educational level of active earners employed in different national economic branches was considerably influenced - beyond the increased participation in further education - by changes taken place over the recentyears in the number, age and sex structure of the active earners. In 1960 already each national economic branch was characterized by the fact that the highest educational level of the majority of the active earners was the 7 th class of the primary school or even less (the respective share in the agriculture was 86 per cent, in the construction 65 percent and in the industry 56 per cent). In 1970, however, with the exception of the agriculture, the majority of the active earners in the other national economic branches completed 8 classes of the primary school. The share of active earners with such education was 51 per cent in trade and 49 per cent in the transport.

In 196032 per cent of active earners with a maturity certificate was employed in the industry, and by 1970 this share rose to 38 per cent. More than five per cent of active earners has a certificate of a higher level educational institution, their number being by 100 thousand more in 1970 than in 1960. This increase concentrated on employees in agriculture and industry, but the progress was remarkable also in transport.

Percentage distribution of active earners by the highest educational level and national economic branches 1960, 1970

| The highest educational level | Active earners together | Industry | Construe tion | $\begin{aligned} & \text { Agri- } \\ & \text { cul- } \\ & \text { ture } \end{aligned}$ | Transport | Trade | Other |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

1960
Persons not attended school or having completed 1-7 classes of primary 8 school
$\begin{array}{lllllll}64.8 & 56.3 & 64.6 & 85.9 & 53.8 & 45.7 & 38.5\end{array}$
$\begin{array}{lllllll}24.7 & 33.7 & 24.6 & 12.6 & 35.1 & 39.3 & 28.8\end{array}$
Persons with maturity
certificate
$\begin{array}{lllllll}7.3 & 8.1 & 7.5 & 1.1 & 9.7 & 12.0 & 19.0\end{array}$
Persons with certificate of higher level edu-
cational institution $\begin{array}{llllllllll}\text { Total } & 100.0 & 100.0 & 100.0 & 100.0 & 100.0 & 100.0 & 100.0\end{array}$ 1970

Persons not attended school or having completed
1-7 classes of primary
$\begin{array}{lllllll}39.0 & 31.9 & 36.8 & 65.7 & 32.2 & 26.7 & 22.0\end{array}$ 8 school
$\begin{array}{lllllll}41.9 & 50.8 & 47.1 & 28.7 & 49.3 & 50.4 & 32.3\end{array}$
Persons with maturity
certificate
$\begin{array}{lllllll}13.9 & 14.4 & 12.2 & 4.1 & 16.5 & 19.5 & 26.1\end{array}$
Persons with certificate of higher level educational institution Total

| 5.2 | 2.9 | 3.9 | 1.5 | 2.0 | 3.4 | 19.6 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Distribution by employment status

In the prewar period independent workers and their family helpers constituted some 40 per cent of active earners. After the Liberation, as a result of nationalization and as anindication of the progress
in transforming the agriculture into socialist cooperative farming by 1960 this share dropped to 22 per cent. Later with the completion of the socialist reorganization of the agriculture it shrank to 4 per cent and in 1970 it was but slightly over 3 per cent. With the decreasing of the share and number of independent workers and their family helpers that of employees and cooperative members was increasing. In 1970 the great majority, 78 per cent, of active earners were employees as against the corresponding share of 63 per cent in 1960. The number of cooperative members (including family helpers of agricultural cooperative members) rose much faster, by 33 per cent over the ten years, raising their share in the total active earners from 15 per cent in 1960 to 19 per cent.

## Active earners by employment status 1960, 1970

| Employment status | Number |  | Percentage distribution |  |
| :---: | :---: | :---: | :---: | :---: |
|  | of active earners |  |  |  |
|  | 1960 | 1970 | 1960 | 1970 |
| Employees | 2990023 | 3883471 | 62.8 | 77.8 |
| Cooperative members | 707511 | 941195 | 14.9 | 18.9 |
| Independent workers and family helpers | 1062082 | 164010 | 22.3 | 3.3 |
| Total | 4759616 | 4988676 | 100.0 | 100.0 |

Changes taken place in the composition of active earners by employment status were caused primarily by the socialist reorganization of the agriculture. The number of active earners in the a riculture diminished by more than 560 thousand over this period, at the same time the number of independent agricultural workers and their family helpers also decreased by 860 thousand. 70 per cent of the decrease was constituted by pensioning of old age agricultural workers who were
by their age incapable of working and the majority of whom were in 1960 still independents and family helpers. Consequently, the share of employees in the agriculture rose from 17 to 30 per cent, that of cooperative members from 32 to 64 per cent, meanwhile that of independent workers and family helpers dropped from 51 to 6 per cent.

Analysing changes in respect of active earners by employment status in the other national economic branches the trend prevailing in construction is remarkable where 22 per cent of the increment in the number of active earners increased the number of cooperative members. With this the employment pattern by employment status changed considerably in the construction over the last ten years: the share of employees decreased from 89 to 87 per cent, that of independent workers and family helpers from 6 to 4 per cent, and the share of cooperative members rose from 5 to 9 per cent. The number of employees increased by 46 per cent in the industry over the ten years. 91 per cent of the increment was ensured by the industry itself, 4 per cent through a decrease in the number of cooperative members and further 4 per cent through a decrease in the number of independent craftsmen and family helpers.

Active earners by national economic branches
and employment status

| National economic branches | Employees |  | Cooperative members |  | Independent workers and family helpers |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | per 100 active earners |  |  |  |  |  |
|  | 1960 | 1970 | 1960 | 1970 | 1960 | 1970 |
| Industry | 87 | 93 | 8 | 5 | 5 | 2 |
| Construction | 89 | 87 | 5 | 9 | 6 | 4 |
| Agriculture | 17 | 30 | 32 | 64 | 51 | 6 |
| Transport | 98 | 98 | 0 | 0 | 2 | 2 |
| Trade | 96 | 98 | 0 | 0 | 4 | 2 |
| Other | 97 | 97 | 1 | 2 | 2 | 1 |
| Total | 63 | 78 | 15 | 19 | 22 | 3 |

Of the employees and cooperative members, the number of manual workers rose during the ten years by more than 680 thousand, 24 per cent, the number of non-manuals by 450 thousand, 53 per cent. Due to a steep rise in the number of the latter there was a radical change in the ratio between manual and non-manual workers. As compared with 1960 the share of non-manuals increased from 23 to 27 per cent and that of the manual workers decreased accordingly. The rise in the number of non-manuals concentrated almost exclusively on the employees.

Employees and cooperative members by type of employment

| $*$ <br> Type of <br> employment | Number |  |  | Percentage <br> distribution |  |  |
| :--- | ---: | :---: | :---: | :---: | :---: | :---: |
|  | of active earners |  |  |  |  |  |
| Manual workers | 2860 | 1970 | 1960 | 1970 |  |  |
| Non-manuals | 835928 | 3544061 | 77.4 | 73.5 |  |  |
| Total | 3697534 | 4824666 | 100.0 | 100.0 |  |  |

The composition of manual workers by type of employment changed in a favourable direction if compared to 1960 . The number of skilled workers rose by 45 per cent, that of semi-skilled ones by 38 per cent while that of not qualified workers only by 4 per cent. These changes caused considerable shifts in the relative proportions too; in 1970 out of 100 workers 32 were skilled workers, 28 semi-skilled and 40 other, while in 1960 the respective figures were 28,25 and 47.

In 1970 out of 100 workers employed 37 were skilled workers, 33 semi-skilled and 30 unskilled, while among the cooperative members there were four unskilled active earners per every skilled one.

As for the type of employment there are still great differences between males and females. Despite the fact that the number of skilled female workers increased by 50 per cent over the ten years, among the employees and cooperative members, however, their share in the manual worker females was in 1970 only 12 per cent, while the respective figure for the males was 44 per cent. Female expansion was rather remarkable for the semi-skilled workers (80 per cent) and in jobs with no skill requirement ( 46 per cent). In case of males, however, the number of skilled workers increased by 45 per cent over the ten year period that of semi-skilled ones by 15 per cent and the number of other male workers diminished by 19 per cent. The following figures give a good picture of the differences in skill levels: in 1970 of 100 skilled workers only 14 were females at the same time the share of females in the semiskilled workers was 46 per cent and in the other manual workers 49 per cent.

## Individual occupation

Active earners are classified in the Hungarian population censuses also by their individual occupation. Changes in the composition of the active earners according to individual occupation over the ten years reflects rather well the transformation of the structure of the national economy. The considerable decline in the number of persons with agricultural manual occupations was not counterbalanced by the rising number of persons with non-agricultural manual occupations, consequently the total number of those with manual occupations decreased over this period by more than 200 thousand ( 5 per cent) and their share in the total active earners dropped from 82 to 74 per cent.

The declining number of manual occupations was accompanied by a rising number of non-manuals (by 53 per cent).

In 1970 four fifths of persons with technical-type manual occupations worked in the corresponding branches. Of the rest of the national economic branches agriculture engaged nearly 8 per cent of those with technical-type manual occupations, the respective figures for construction and transport was some 4 per cent each. Construction activity shows the lowest congruency: only 45 per cent of persons pursuing construction activity is engaged in the corresponding branch, at the same time nearly one quarter of them was engaged in the industry and 17 per cent in the agriculture.

Active earners with manual occupations by main groups of individual occupation

1960, 1970

| Main groups of individual occupation | Persons with manual occupations |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Numbers |  | $\begin{aligned} & 1970 \text { as } \\ & \text { percent- } \\ & \text { age of } \\ & 1960 \end{aligned}$ | Percentage distribution |  |
|  | 1960 | 1970 |  | 1960 | 1970 |
| Industrial | 921252 | 1228185 | 133.3 | 23.5 | 33.1 |
| Construction | 216061 | 341300 | 158.0 | 5.5 | 9.2 |
| Agricultural | 1751401 | 922212 | 52.7 | 44.7 | 24.9 |
| Trade and catering | 109411 | 145060 | 132.6 | 2.8 | 3.9 |
| Services | 26119 | 31185 | 119.4 | 0.7 | 0.9 |
| Transport | 178378 | 247023 | 138.5 | 4.5 | 6.7 |
| Product handling and other physical occupations | 717276 | 790836 | 110.3 | 18.3 | 21.3 |
| Physical occupations, total | 3919898 | 3705801 | 94.5 | 100.0 | 100.0 |

The following table shows the number of persons belonging to the most popular and traditionally best known individual occupations.

Persons with selected technical-and construction-type individual manual occupations

1960, 1970

| Occupation | 1960 | 1970 | 1970 as <br> percentage <br> of 1960 |
| :--- | ---: | :---: | :---: |
| Locksmiths | 106796 | 173117 | 162 |
| Tailors, dressmakers | 67594 | 88597 | 131 |
| Bricklayers | 56765 | 80432 | 142 |
| Car and engine mechanics | 19774 | 56726 | 287 |
| Electricians | 34199 | 55759 | 163 |
| Metal lathe operators | 30013 | 51945 | 173 |
| Navvies | 38949 | 47938 | 123 |
| Cabinet makers, building | 38711 | 42872 | 111 |
| joiners | 44902 | 41753 | 93 |
| Miners | 17082 | 40589 | 238 |
| Electric machine, radio | 36194 | 38726 | 107 |
| and television mechanics | 36973 | 34.498 | 93 |
| Weavers and textile workers | 14691 | 31078 | 212 |
| Shoemakers and similar | 18014 | 22062 | 123 |
| House-painters, sign | 24126 | 17525 | 73 |
| painters | 17048 | 17507 | 103 |
| Carpenters, scaffolders | 29826 | 11449 | 38 |
| Smiths | 8652 | 9428 | 109 |
| Spinners and similar | 8091 | 8218 | 102 |
| textile workers |  |  |  |
| Group haulage-men | Bakers | Butchers, slaughterers | 17 |
| 17 |  |  |  |

More than half (54 per cent) of the increment in the number of non-manual occupations resulted from a rise in the number of office and accounting workers and one third of the increment by an increase in the number of technical managers and specialized occupations. The number of the former occupations increased over the ten years by more than 60 per cent, that of the latter nearly doubled, while occupations connected with public administration and economics diminished slightly. In 196028 per cent of those pursuing non-manual occupations worked in managing capacity, by 1970 their share declined to 22 per cent, at the same time the share of specialized occupations rose from 50 to 55 per cent.

Active earners with non-manual occupations by main groups of individual occupations

1960, 1970

| Main groups of individual occupation | Persons with non-manual occupations |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Numbers |  | 1970 as percentage of 1960 | Percentage distribution |  |
|  | 1960 | 1970 |  | 1960 | 1970 |
| Technical | 154255 | 301427 | 195.4 | 18.4 | 23.5 |
| Public administration economics | 92887 | 90482 | 97.4 | 11.1 | 7.1 |
| Health, cultural | 206919 | 267244 | 129.2 | 24.6 | 20.8 |
| Office, accounting | 385657 | 623722 | 161.7 | 45.9 | 48.6 |
| Non-manual occupations, total | 839718 | 1282875 | 152.8 | 100.0 | 100.0 |

Of which:

| Managing oc- <br> cupations | 236340 | 285673 | 120.9 | 28.1 | 22.3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Specialized <br> occupations | 417041 | 701868 | 168.3 | 49.7 | 54.7 |
| Office oc- <br> cupations | 186337 | 295334 | 158.5 | 22.2 | 23.0 |

The largest proportion ( 35 per cent) of persons with non-manual occupations are employed in the so-called "other" branches including public administration but the share of those employed by industrial enterprises ( 30 per cent) is also remarkably high. The share of non-manuals is well above the average in the public administration and "other" branches ( 60 per cent), the corresponding figure for trade is also above the national average ( 43 per cent). In this latter branch the share of also the specialized occupation was considerably higher than the national average; nearly 30 per cent of the active earners in trade were of specialized occupations, while the national average was only 14 per cent. The share of non-manuals was the lowest in agriculture, 8 per cent only.

Due to an increase of 80 per cent over the past ten years in the number of females with non-manual occupations in 1970 already females constituted the majority of non-manual active earners, their share being 53 per cent in 1970 as against 45 per cent in 1960. The sex structure of the individual main occupation groups varies widely; in certain professions it is the females in other it is the males that constitute the majority. It is traditional that jobs in offices, accounting as well as in health and education, not requiring higher level education, were taken mostly by women. This situation developed earlier and was further stabilized, while the number of females with technical occupations increased to three times over the ten years. During the same period the number of females engaged in the field of health and culture rose by 47 per cent those in office and accounting work by 85 per cent. In 197062 per cent of females with non-manual occupations worked in this latter field (in 1960 this share was 60 per cent) and by this they still represent the majority of females with non-manual occupations.

The share of females with non-manual occupations working as managers or other positions requiring higher level qualification is still much lower than the corresponding figure for males, although there was a considerable improvement over the last decade. The share of females in managing posts increased since 1960 from 21 per cent to 28 per cent, from 51 to 54 per cent in specialized occupations and from 63 to 74 per cent in office work.

Active earner females with non-manual occupations by main groups of individual occupation

1960, 1970

| Main groups of individual occupation | Females with non-manual occupations |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Numbers |  |  | Percentage distribution |  | As percentage of the active earners of the corresponding main groups of non-manual occupation |  |
|  | 1960 | 1970 |  | 1960 | 1970 | 1960 | 1970 |
| Technical | 20709 | 62.290 | 300,8 | 5.5 | 9.2 | 13.4 | 20.7 |
| Public administration, economics | 14775 | 25493 | 172.5 | 3.9 | 3.8 | 15.9 | 28.2 |
| Health, cultural | 116664 | 171008 | 146.6 | 30.9 | 25.3 | 56.4 | 64.0 |
| Office, accounting | 225126 | 417138 | 185.3 | 59.7 | 61.7 | 58.4 | 66.9 |
| Non-manual occupations, total | 377274 | 675929 | 179.2 | 100.0 | 100.0 | 44. 9 | 52.7 |
| Of which: |  |  |  |  |  |  |  |
| Managing occupations | 48363 | 79989 | 165.4 | 12.8 | 11.8 | 20.5 | 28.0 |
| Specialized occupations | 212085 | 377492 | 178.0 | 56.2 | 55, 9 | 50.9 | 53.8 |
| Office occupations | 116826 | 218448 | 187.0 | 31.0 | 32.3 | 62.7 | 74.0 |

A certain "rejuvenation" can be observed in the age structure of the active earners with manual occupations between the last two population censuses. Due to the age groups borne around the early 1950s taking up gainfui occupations, the share of the $14-29$ year old population increased, however, at the same time because of pensioning old age agricultural workers, who were former active earners, the share of 60 year old and older population decreased from 13 to 7 per cent. The influence of young persons entering working age also appeared in case of non-manuals, their share in those occupations increased over the ten years from 31 to 34 per cent, meanwhile the share of $40-59$ year old population increased faster in case of non-manuals than of manuals.

Active earners with manual and non-mamual occupations by age groups 1960, 1970

| Age groups <br> (years) | Manual occupations |  |  | Non-manual occupations |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage distribution |  |  |  |  |
|  | 1960 | 1970 | 1960 | 1970 |  |
| $14-29$ | 30.3 | 33.3 | 31.4 | 34.0 |  |
|  | 21.6 | 22.3 | 31.3 | 25.9 |  |
| $40-59$ | 35.2 | 37.3 | 33.4 | 37.8 |  |
| $60-\mathrm{X}$ | 12.9 | 7.1 | 3.9 | 2.3 |  |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |  |

The educational level of active earners developed in a favourable direction over the past ten years in case of both manuals and nonmanuals. Naturally, there are considerable differences in respect of the educational level between the two groups.

In 1970 the majority of manual workers was constituted by persons whose educational level was below the 8th class of the primary school, their share was especially high ( 77 per cent) in agricultural occupations, product handling and other manual occupations ( 58 per cent). The majority of active earners with other manual occupations (58 per cent) had their education completed at the primary school. The share of persons with maturity certificate as the highest educational level was the highest in services, 11 per cent, this was followed by trade and catering as well as the industry with respective shares of 9 and 6 per cent.

The educational level of active earners with non-manual occupations increased considerably over the past decade. The number of persons with maturity certificate as the highest school qualification doubled and that of persons with a university or college certificate increased by 76 per cent.

The number of persons with maturity certificate among tech-nical-type non-manual occupations increased to two and a half times, that of persons awarded a certificate of higher level educational institution (university or college) grew by nearly 120 per cent, but there was also a considerable increase in the educational level of office and accounting workers. The number of persons pursuing such activities with maturity certificate increased by nearly 130 per cent that of those with certificate of higher level educational institution more than doubled. The share of persons with certificate of higher level educational institution was high also in 1960 among persons engaged in health and culture, their number, however, increased at a lower rate than that of active earners with similar educational level in technical, public administration, economic, office and accounting occupations.

The labour-force position of the national economy in 1973

On the basis of the current population statistics the population of Hungary was 10 million 416 thousand on 1 st January, 1973. 49 per cent of the population, 5 million 61 thousand persons were active earners and thus the number of economically non-active persons per 100 active earners was only slightly above 100 . This ratio may be regarded favourable also by international standards and reflects practically full employment of the working age population seeking employment which promotes essentially the rise of the living standard and increases the general feeling of security.

The level of employment is determined to a great extent by the fact that a considerable and constantly increasing number and share of active earners ( 43 per cent, and 2 million 170 thousand, on January 1st, 1970) are females.

It is characteristic for the distribution of active earners by national economic branches that more than three quarters of them ( $60 \%$ ) are engaged in the non-agricultural branches, such as industry, construction, transport, trade and telecommunication, and within this industry itself engages more than one quarter of them, round 1 million 800 thousand persons.

The relative share of service (non-productive) branches is smaller. Altogether not quite one sixth of the economically active population is employed in the field of personal, housing, health and cultural services, as well as in public administration, further in other
services. However, the demand for labour-force has been increasing lately at a higher-than-average rate in these branches.

Active earners by national economic branches January 1st, 1973

| National economic <br> branches | Active earners |  |
| :--- | :---: | :---: |
|  | Number <br> (Thousands) | Percentage <br> distribution |
| Industry | 1796.8 | 35.5 |
| Construction <br> Transport and com- <br> munication | 407.8 | 8.0 |
| Trade <br> Other <br> Non-agricultural branches, <br> total | 382.6 | 7.6 |
|  | 430.4 | 8.5 |
| Agriculture | 810.7 | 16.0 |
|  | 1232.9 | 75.6 |
|  | 5061.2 | 24.4 |

Of the different national economic branches the majority of persons employed are females ( 63 or 59 per cent respectively) in trade and other branches, however, the majority of active earners are males, although the share of females is also significant e. g. 44 per cent in the industry. For the time being mainly because of the technical conditions, relatively few jobs are available for the females in construction and transport.

The majority of active earners ( 95 per cent) are employed by the enterprises and institutions belonging to the socialist sector within
this more than two thirds belong to the state sector and more than one quarter to the cooperative sector.

The distribution by type of employment is characterized by a strong overweight of the employees, besides this one fifth of the active earners are members of producers' and agricultural cooperatives (including also the family helpers of the agricultural cooperative members) while the joint share of self employed craftsmen, shopkeepers, independent farmers and their family members amounts to 3 per cent.

Beyond the 5 million 61 thousand active earners working in the Hungarian national economy some further 12 thousand persons are engaged abroad within the framework of international labour cooperation, regulated by contracts.

51 per cent of the population, nearly 54 million persons are inactive earners and dependants of which 1.6 million are in working age, the rest is made up partly by children and partly by persons beyond retirement age. Of the 1.6 million working age but economically inactive persons, 580 thousand are pupils and students of primary, secondary schools, specialized and vocational schools, universities and colleges at the day-courses, further 185 thousand are females on leave for child's care. The rest of the working age but economically inactive population is constituted by housewifes and handicapped persons.

## VI. POPULATION PROJECTION

In Hungary population projections have been prepared since 1948, they differ from each other in respect of the base-population, and the assumptions made about the future course of mortality, fertility and migration.

The former population projections were practically simple extrapolations of the current population processes so much, however, they were different from "mechanical" projections that the future fertility and mortalitylevels satisfying perspective requirements were determined after careful consideration of the population variables. In general, averages of age-specific fertility and mortality rates of two calendar years were used in the calculations.

Projections have been prepared since 1957 with the so-called "component-method". The main idea of projections based in the component method is the calculation of the number of survivors on the basis of the expected age-specific mortality rates and the calculation of the future expected number of births in view of the size of the female population in childbearing age and the expected age-specific fertility rates. In general, one assumption is applied to the expected trend of mortality and several ones to fertility.

The projections at national level have been prepared recently for calendar years with break-downs by individual ages and sex. The
calculations have been carried out on computer with a program prepared on the basis of a methodology of the CSO Demographic Research Institute.

## Determining the expected level of mortality

In order to formulate an assumption concerning the future course of mortality, the base level had to be established i.e, the agespecific mortality rates on which the further calculations are based.

Of the various death rates calculated with different methods the most suitable ones for the calculations were the generation death rates. These indicate the probability of death during a calender year of persons alive at the age $\underline{X}$ on the first day of that year.

In projections prepared after 1957 changing mortality rates were assumed on the basis of the evidence that Hungarian mortality had been declining over the past two decades and at present it may be regarded as average by European standards. The decline was of different magnitude in the different age groups, being larger in the younger ones and hardly observable in the older ones. Therefore, when projecting mortality for a longer period the different trends of mortality in the different age groups have to be taken into account.

A special method was applied to determine the values of $q_{0}$ on the basis of the characteristics of infant mortality in Hungary.

Changes in the fertility level

Projecting changes in the fertility level is a much more complicated problem than projecting mortality. In view of the difficulties
associated with projecting future fertility levels various assumptions have been introduced.

The future and present level of fertility have been measured in terms of gross reproduction rate.

For projecting fertility, fertility rates for each individual age are required. Every age-specific fertility intermediate rate between two levels of gross reproduction rates was estimated with interpolation.

The final data of the population census carried out on 1st January, 1970 as well as the expected effects of measures adopted on the basis of population policy concepts formulated in the meantime and of those to be taken in the future made it imperative in 1973 to prepare new population projections.

The tables present the summary data of the three variants denoted "73/I. ": "73/II." and "73/III. ". As for the results these may be regarded as "low", "medium" and "high" variants.

The projections have been prepared by sex for the calendar years.

The assumptions underlying the individual projections have been elaborated by a committee consisting of the experts of the Demographic Research Institute, the Department of Population Statistics of the CSO and the Perspective Planning Department of the National Planning Office.

Computations concerning the various assumptions have been carried out by the Computing Centre on a computer ICL SYSTEM. 4-70 Type.

The basic assumptions of the various projection variants

Variant "73/I." Basic population: present-in-area (de facto) population on 1st January, 1972.

Mortality: the actual age-specific mortality rates of 1970 remain unchanged up to 2000.

Fertility: the actual age-specific fertility rates of 1970 remain unchanged up to 2000 .

Variant "73/II." Basic population: present-in-area population on 1st. January, 1973.

Mortality: same as for Variant "73/I."
Fertility: the age-specific fertility rates of 1971 were changed from year-to-year up to 1990. In this process the effects of measures to be taken in the near future on the basis of population policy concepts adopted by the Party and the Government which are expected to increase the number of births and further the year-to-year changes in the age composition of females in childbearing age.

Variant "73/III. "Basic population: same as for Variant "73/I."
Mortality: same as for Variant "73/I."
Fertility: according to this assumption fertility will increase in the future and will attain, stage-by-stage the various past actual levels.

The various stage and fertility levels are as follows:

Fertility level of 1971 for the period 1972-1976 Fertility level of 1968 for the period 1977-1982 Fertility level of 1958 for the period 1983-2000.

External migration i.e, the net balance of emigration and immigration was excluded from the calculations because of its negligible size.

## Expected future population trends and levels of some selected vital statistical indicators

If the assumptions of the Variant " $73 / 1$. " are realizedi. e. the fertility and mortality rates remain unchanged up to 2000 , due to the structural composition the population would be increasing up to 1985 and it would reach the level of 10639,6 thousand persons. In the subsequent years, however, the population of the country would be gradually declining. Around the turn of the century the rate of decline would reach 11 thousand per annum. The other two assumptions imply a constant growth of the population but at different rates.

> Projection of the population of Hungary $$
(1972-2001)
$$

| Year | Males | Females | Total |
| :---: | :---: | :---: | :---: |
|  | Thousands |  |  |

Variant 73/I.:

| 1st January, $1970^{\text {a/ }}$ | 4998 | 5317 | 10315 |
| ---: | :--- | :--- | :--- |
| " | , 1980 | 5149 | 5443 |
| ", 1990 | 5180 | 5425 | 10592 |
| " | , 2000 | 5150 | 5345 |

Variant 73/II.:

| 1st January, $1970^{\text {a/ }}$ | 4998 | 5317 | 10315 |
| ---: | :--- | :--- | :--- |
| " | , 1980 | 5186 | 5478 |
| " | , 1990 | 5264 | 5503 |
| " | , 2000 | 5313 | 5497 |

Variant 73/III.:

| 1st January, $1970^{\text {a/ }}$ | 4998 | 5317 | 10315 |
| ---: | :--- | :--- | :--- |
| " | 4 1980 | 5166 | 5460 |
| " | , 1990 | 5278 | 5518 |
| " | , 2000 | 5348 | 5532 |

a/ Census data.

The ageing of the population can be observed in case of all three variants.

It is characteristic for the population pyramid that the largest cohorts borne in 1953-54 will reach the age of retirement by the turn of
the century. The loss of births caused by the First World War will completely disappear.

Expected percentage distribution of the male and female population by selected age groups

| Age groups | 0-13 |  |  | 14-59 |  |  | 60-X |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 73/1. | 73/11. | 73/ III. | 73/L. | 73/II. | 73/III. | 73/1. | 73/II. | 73/m. |  |
|  | Variants |  |  | Variants |  |  | Variants |  |  |  |
| 1st January, 1970 | 20.8 |  |  | 62.1 |  |  | 17.1 |  |  | 100.0 |
| " 1980 | 19.5 | 20.1 | 19.8 | 63.5 | 63.0 | 63.3 | 17.0 | 16.9 | 16.9 | 100.0 |
| " 1990 | 18.6 | 19.6 | 20.1 | 62.6 | 61.9 | 61.4 | 18.8 | 18.5 | 18.5 | 100.0 |
| 2000 | 17.3 | 18.6 | 19.1 | 63,4 | 62.7 | 62.3 | 19.3 | 18.7 | 18.6 | 100.0 |

The number of live births calculated on the basis of different assumptions varies between the figures 132.4 and 171.4 thousand. Consequently, they may be regarded as the most likely upper and lower limits of the number of live births.

It is a consequence of the ageing of the population that the crude mortality rates will be gradually increasing.

Expected crude live birth and death rates for Hungary (per thousand)

| Years | Crude live birth rates |  |  | Crude death rates |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Variants |  |  | Variants |  |  |
|  | $73 /$ I. | $73 /$ II. | $73 /$ III. | $73 /$ I. | $73 /$ II. | $73 /$ III. |
| 1970 | 14.7 |  |  |  |  | 11.6 |
|  | 14.6 | 15.2 | 15.6 | 12.9 | 12.8 | 12.9 |
|  | 12.5 | 13.5 | 14.1 | 13.5 | 13.3 | 13.3 |
|  | 13.0 | 14.5 | 14.7 | 14.0 | 13.7 | 13.6 |

## Regional population projections

Two kinds of regional population projections have been prepared: one for Budapest, the other towns and villages, and the other one for each of the 19 counties.

Projections for the population of the towns and villages have been prepared for the period 1966-1981 at five year periods. The agespecific death rates for towns and villages were gradually reduced up to 1981 at the same rate as in case of the national projection. The number of those to be borne in the future were estimated with varying birth rates for every five year period. In case of migration the balance of permanent migration was taken into account. Immigration into Budapest was taken at a constant level and for the immigration into the county towns two variants were prepared: assuming constant immigration, and assuming increasing immigration according to the prevailing trends.

In case of projections by counties, for the projection of the mortality level the counties have been classified into 5 groups, and for the projection of the fertility into 7 , and uniform rates have been established for these groups. For the estimation of net migration the National Planning Office provided some benchmark information, by considering the perspective labour requirements, as well as the actual trends in migratory movements observed in the preceding years. This gave an indication of the necessity whether to reduce or increase the working age population in the individual counties. The number and age structure of inactive persons participating in migration have been estimated together with those at working ages on the basis of migratory statistics of preceding years.

# VII, ECONOMIC AND SOCIAL IMPLICATIONS OF POPULATION TRENDS AND POLICY 

Many problems of economic and social implications of population growth have been discussed in the preceding chapters. Therefore, in the subsequent chapters some summary results of the family planning and birth control surveys and the main population policy measures in Hungary will be discussed.

Family planning and birth control surveys

Nowadays the number of children, the size of the family is determined basically by the decisions of the parents. Therefore, conventional sources of data of demographic analysis, such as vital statistics and population censuses have to be supplemented by new types of information in case of fertility analysis. For a survey of the present situation, for determining the prevailing trends and for estimating the future it is necessary to analyse also views concerning the expected number of children, as well as attitudes towards family planning and birth control, and data on birth control practice.

The first sample surveys on these subjects have been carried out by the Central Statistical Office in 1958-1960. The first, pilot survey included 6732 females living in the different parts of the country. The fertility, family planning and birth control survey based on that Pi-
lot survey was carried out in winter of 1965-66 and covered 8800 married females in reproductive age, 5 per cent of the total 15-49 year old married female population.

Simultaneously with this a longitudinal survey of marriages was initiated in 1966 , based on a sample of 4662 couples who concluded marriage in 1966. Data were collected from each party separately by the registrar when reporting to the marriage ceremony. There were also questions related to family planning. In order to ensure continuous observation the interviews were repeated in December, 1969, and followed by another one in November-December, 1972, with the same females.

According to the findings of the basic family planning survey of 1965-66 47 per cent of married females had definite views concerning the size of the family before concluding marriage. The planned average number of children was 2.1 somewhat smaller than in the survey of 1958-60 when the same figure was 2.3 .

There is an inverse relation between the age of the female and her attitude towards family planning which suggests that the idea of family planning has been becoming general very rapidly among females before marriage over the last three decades. The share of planners was 68 per cent in the 15-19 year old population and 39 per cent in the 45-49 year old population. The planned number of children shows a reversal pattern: it was on average $1.96-1.98$ for the two youngest five year age groups and 2.49 for the 45-49 year old females.

The share of planners varies strongly in respect of the socioeconomic situation and cultural level. Nearly two thirds of females with non-manual occupations planned the number of their children before marriage and this share is only 35 per cent in agriculture and 46 per cent for the non-agricultural manual occupations.

Economically active females are more conscious in this field than the inactive ones. Differences are even larger in respect of the cultural and aducational level.

Differences in the planned number of children are less explicit among the socio-economic groups. The planned average number of children for the above groups are $2.17 ; 2.21$ and 2.09 , respectively.

Views and opinions concerning the number of children were approached in three aspects by the survey. The question and the averaged figures of the replies are presented below:
The ideal number of children irrespective of the present conditions of the respondents 2.41
How many children would you like to have if you were to start married life again (retrospective number of children):2. 22
How many children does a large family have:5.12

According to the longitudinal survey 84.6 per cent of females who concluded marriage in 1966 reported to have plans with regard to the number of their children before the marriage, at the same time the average number of children planned was 1.90 .

Plans formulated three and six years later were indicated by the same females during the interviews repeated in 1969 and 1972 when the number of children wanted was given apart from those living. Dif-
ferences observed earlier for the individual age groups further increased in the period 1969-1972. The planned number of children in the youngest age groups was continuously increasing and by 1972 on aver.. age it was somewhat above two (2.02). In contrast the number of children planned by females belonging to the two oldest age groups especially by those aged 35-39 years in 1966 show considerable decrease as compared to the figures three years earlier and the number of children (living and desired) of females at the end of the reproductive age (aged $40-45$ years in 1972) was on average 1.87.

Family planning surveys covered also problems of birth control attitudes and those of methods and practice of contraception. According to the findings of the 1966 survey the share of married females in reproductive age not practicing birth control is 18.5 per cent. The share of females regulating the number of births by contraception is 25.6 , by induced abortion 4.2 per cent. The share of those applyiag both methods is 43.8 per cent. According to the various information registered on the questionnaires 7.9 per cent of females in reproducrive age may be regarded as sterile.

A larger part of those questionned in the course of the survey did nothing to limit births in the year the marriage was concluded, however, after a few years the share of contraceptors was already above 70 per cent.

Data on induced abortion complete the picture presented by family planning sample surveys. After the legalization of induced abortion in 1956 their number was gradually increasing up to 1969. In the last three years, a decline has taken place but even so, nearly half, 49 per cent of the total pregnancies ended with an induced abortion. In 1972 the number of induced abortions was 178000 which was 66 per thousand 15-49 year old females and 117 per 100 live births.

It is remarkable that the relative frequency of induced abortions is the highest in the age group 25-29 years which indicates that females recourse to this method mainly after the birth of the first child. The rate is relatively high also for the age group 30-34. It is regrettable that this frequency is increasing for the females under 20.

With the dangers of induced abortions widely known it is an important objective in Hungary to promote the application of oral contraceptives.

The socio-economic changes taken place after the Second World War have strengthened the declining trend of fertility prevailing already for decades. The live birth rate declined below 20 per thousand already in 1938 then after the Second World War in the late 1940s it started increasing temporarily. However, in the early 1950s another decline set in. The Government considered feasible to stop any further decline in fertility by taking severe administrative measures against induced abortion. These measures were successful in raising temporarily the live birth rate for a short period. Since the se administrative efforts aimed at raising fertility were not supported by adequate financial and health measures and also by others which could have shaped the attitudes of society, the increase in the live birth rate proved to be short lived. In the early 1960s a carefully considered long term population policy integrated with the general social and economic policy was taking shape. The main characteristic of this population policy is raising the number of births i, e, fertility and possibly gradually eliminating distortions in the age structure. The population policy aims to achieve the target of $2.4-2.4$ children on average per family necessary for reproduction, by reducing financial burdens connected with bringing up children and also through financial and social support of families with children. Apart from the above mentioned basic targets
population policy considers it also an important objective to create a responsible demographic behaviour among the population: spreading the modern, efficient methods of birth control and reducing the number of induced abortions because of their problematic impact on the health of both the mother and the child.

The Hungarian demographers are aware of the various different factors, which are preconditions of the realization of the population policy targets. Therefore, when formulating the long term population policy the main concern is to ensure the gradual and complex realization of these factors.

Both the Hungarian and foreign experiences prove that the influence of administrative measures is temporary and only financial and other economic as well as health policy measures and those influencing the thinking of people may be expected to help realizing the demographic objectives. This is the basic concept that dominates Hungarian population policy and measures, especially Goyernment decisions of the recent past have been made in this spirit.

In Hungary society contributes in many respects to the expenses of bringing up children (maintaining kindergartens, nurseries, free of charge attendance of schools, subsidizing certain articles of consumption, etc.) however, having more children means such considerable expenses which strongly limit the financial possibilities of the families. The living standard of families is directly dependent on the number of children they have. Families with large number of children have a relatively lower living standard even if the economically active members are doing better.

One of the instruments of reducing the financial burdens of families bringing up children is the family allowance. The amount of the
allowance has been steadily increasing in Hungary over the past twenty years and the raises introduced in 1972 and 1973 improved the conditions mainly of families with three or more children but not to the extent to exert a direct influence on population growth, because they covered only part of the oyer-expenses of families on children. A partial inerease in the family allowance was decided by the Government in Octo jer 1273. This decision will improve mainly the situation of the famlies with iwo children. According to this the family allowance paid in case of two children will be one third higher than earlier and it will 'each 25 per cent of the average wage of the workers and employees. The family allowance will be so increased in the subsequent years, that it couid induce families to have three children.

The population position is more successfully promotec. by the benefit for child's care introduced in 1967. This makes it possible for economically active mothers to receive a benefit of 25 per cent of her salary and toremain on leave up to the age of 3 of her child. The amount of the benefit has been so far independent of the parity of the child. Fiom January 1974 on it will be progressive and dependent on whether the mother goes on leave to care for the first, second or third child. The clianges in the system of the benefit for child's care implies that in case of the third child its amount may reach nearly 40 per cent of the average monthly earnings. About three quarters of the economically active mothers made use of this opportunity in 1972 .

A further financial assistance is the maternity allowance and the Iree of charge supply of baby outfit the total amount of which is 2500 Forints somewhat more than the average mounthly wage in 1972.

The care of the parents is partly alleviated by a new decree according to which a mother in employment may stay home on paid sickleave in case her child becomes ill, without limitation up to the age of
one of the child. From January 1st, 1974 in case the child is ill the mother may be on sick-leave for 60 days up to the age of 3 of the child and for 30 days between 4-6 years. Beyond these a mother is entitled to have pius two days of paid leave in case of having one child under 14 , 5 days in case of two children under 14, and if she has three or more children under 14 she may have plus 9 days of paid leave every year.

A considerable part of those in employment takes part in holidays organized either by the trade unions or by the enterprises. Families with more children enjoy priority in these cases.

Similarly pribrity is given to families with more children in the distribution of newly built flats. Since founding a family means considerable expenses for the couples, house or flat building and purchasing, as well as its furnishing will be assisted by long term credits, granted under favourable conditions.

Institutions which care for the infants and children during the day also serve for the realization of population policy objectives since they have been created to help working mothers with several children. These institutions can be divided into three groups depending on the age of children they care for; 1/Nurseries: for children under 3 years of age; 2/Kindergartens: for the pre-school children above 3 years of age; 3/ Day-time homes of primary schools: for pupils of 6-14 years of age at primary schools. In 1972 nearly 10 per cent of children under 3 could be accommodated in the nurseries. The corresponding figures for the other two age groups were 55 and 81 per cent, respectively.

The network of institutions for child's care will be so extended in the near future that all children at pre-school age will be accommodated in kindergartens and the number of children to be accommodated in nurseries will also be much higher than it is at present.

The quality of commercial goods for children will be improved, their variety increased and the price subsidy will be maintained also in the future.

Various labour and labour law measures ensure the increased protection of pregnant women. The future mothers are entitled to a maternity leave of five months with full pay. In order to increase the protection of the pregnant woman and the baby an increase in the compulsory pre-natal leave is planned.

Every pregnant woman is entitled to at least six free of charge medical consultations at the national health service. 98 and 99 per cent of pregnant females report to such consultations.

It is being ensured that adequate quantities and a wide variety of anti-sterility medicaments and oral contraceptives be available.

In Hungary there are at present two combined types of oral contraceptives available; and some 11 per cent of the 17-49 year old females used oral contraceptives to prevent pregnancy in the first half of 1973. The procedure of prescribing oral contraceptives has changed as compared to the practice of the preceding years. While up to 30 th September 1973 only gynaecologists of ambulatory clinics were entitled to prescribe contraceptives after a lengthy procedure, from 1st October, 1973 on, every National Health Insurance doctor and factory medical consultant has the right to prescribe contraceptives after the most necessary routine investigation.

Since 1956 there is a legalized abortion system in Hungary. Accordingly, up to the first three months of pregnancy abortion was permitted in case of every female irrespective of motive on which the pregnant female requested it, or whether she wished to give any reason. Evidences of more than 15 years prove that the completely legalized
abortion system is problematic. It retards the spread of the modern birth control methods and may lead to irresponsible behaviour in the field of family planning. Moreover, induced abortion, especially if it is done repeatedly and with traditional methods, endangers the health of the mother and of the subsequent children. In Hungary, about one tenth of live born babies are premature (under 2500 grams of weight), which can partly be explained by the fact that induced abortion have, since many years, a leading role among birth control methods.

In order to protect the health of the mother and to improve the life prospects of infants it has become necessary to modify the completely free abortion system considering at the same time that these restrictive measures should not lead to an increase in the number of illegal abortions. It should also be noted that the number of induced abortions has been gradually declining over the recent years, however, in spite of that the abortion rate and the abortion ratio were still extremely high in 1972. The number of abortions per 100 live births was 117 , and the rate per 1000 women in childbearing age was 67.

From 1st January 1974 new rules will be introduced in the regulation of the practice of induced abortions. According to the new rules, induced abortion is not permitted in case of marriedfemales under 40 years, if the request is not adequately supported by medical and social reasons. Consequently abortion will be permitted only if it is suggested on medical grounds, if the female is unmarried or lives separated or the pregnancy is a result of a criminal act. Further reasons: if the pregnant female, or her husband have no dwelling or she already has three or more children or births or she has two children living and had one further delivery. In case of females above 40 years the induced abortion can be performed with no exception in every case. Induced abortion may be permitted also in case of the third pregnancy
with two children living if the viability and future development of the foetus is or will be endangered. Further the committee may agree on the abortion if social conditions most emphatically call for it.

Applications filed in for induced abortion are supervised by a committee of three headed by a physician. In case of refusal an appeal lies. The appeal is heared before a committee of five. In cases when the abortion is requested on medical grounds or others permitting abortion without reservation, the permission may be granted by the head of committee without the convocation of the committee. After the abortion is performed the female should be registered as unable to work at least for two days.

The success of population policy requires the regular information of the population and the setting up of institutions for promoting knowledge on family planning methods. Therefore, they will be included in the schedules of the primary, and secondary schools, and universities, or other institutions of higher education. Through mass media it will be ensured that family planning will be brought over to such social groups which are inaccessible for the institutionalized education. By the help of the radio, television and the press, every effort will be made to create a public opinion which respects motherhood and contributes to a healthy cult of children i.e. to the popularization of a family type with three children.

## CONTENTS

Page
Preface
I. POPULATION GROWTH ..... 9
II. COMPONENTS OF GROW TH ..... 15
a/ Fertility ..... 15
The number of births ..... 15
Fertility by the age of the mother ..... 19
Order of birth ..... 25
Socio-economic differences in fertility ..... 29
Fertility by the educational level of the mother ..... 32
Regional differences in fertility ..... 33
The influence of fertility on reproduction ..... 34
b/ Mortality ..... 36
Development of mortality ..... 36
Mortality by sex ..... 42
Mortality by age ..... 43
Differential mortality ..... 51
III. POPULATION COMPOSITION ..... 54
Sex distribution ..... 54
Age-structure ..... 55
Marital status ..... (1)
Houselfolds ..... 63
Family ..... 67
Ethnic groups ..... 72
Educational level of the population ..... ?2
IV. GEOGRAPHICAL DISTRIBUTION OF THE POPULATION ..... 82
Survey of settlement conditions; population densitiy ..... 82
Towns and rural settlements (villages) ..... 84
Population development in Budapest ..... 92
Developing the network of settlements ..... 95
Internal migration ..... 96
V. THE LABOUR FORCE ..... 101
Economic activity ..... 101
Economic activity by age ..... 108
Dependants by type of dependancy ..... 112
Distribution of the labour-force by national economic branches ..... 114
Distribution by employment status ..... 123
Individual occupation ..... 127
The labour-force position of the national economy in 1973 ..... 135
VI. POPULATION PROJECTION ..... 138
Determining the expected level of mortality ..... 139
Changes in the fertility level ..... 139
The basic assumptions of the various projection variants ..... 141
Expected future population trends and levels of some selected vital statistical indicators ..... 142
Regional population projections ..... 145
VII. ECONOMIC AND SOCIAL IMPLICATIONS OF POPULATION TRENDS AND POLICY ..... 146
Family planning and birth control surveys ..... 146

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36. Population Projections of Hungary (1972-2001/1973/1
37. The Demographic Characteristics of the Nationalities of the County of Baranya. II. 1973/2
[^4]
[^0]:    */Permanent population: persons with permanent residence and registration in the given area.
    Resident population includes persons of permanent residence and registration in the given area excluding persons who have temporary residency elsewhere and also persons with temporary registration in the given area.
    The estimation of both the permanent and resident populations is carried out irrespective whether they were present or not at the census date.

[^1]:    */ Calculated with geometric average.

[^2]:    */ Including temporary re-migration.

[^3]:    */ Including the 14 year old dependants not attending school.

[^4]:    Formátum: B/5 Terjedelem: $14(\mathrm{~A} / 5)$ iv Statisztikai Kiado Vállalat. Nyomdalizem - 165174 Felclứs vezetö: Kecskés József igazgató

