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THE LABOUR SITUATION IN THE USSR, THE EASTERN EUROPEAN COUNTRIES AND THE SOVIET-OCCUPIED ZONE OF GERMANY

Note by the Chairman of the Ad Hoc Group on Demographic Trends in the Soviet Bloc

On 19th March, 1964, the Committee of Economic Advisers decided(1) that a meeting of the Ad Hoc Group on Demographic Trends should take place in October 1964 to bring up to date Part II of their report of 4th January, 1961, (AC/127-D/59) on the labour situation in the USSR and to carry out a similar study of the labour situation in each of the Eastern European countries and in the Soviet-occupied zone of Germany, completing it with some comparable data for NATO countries.

2. The Ad Hoc Group of Experts met on 28th, 29th and 30th October, 1964, to fulfil its mandate and consisted of the following members:

Belgium:	Mr. A. Conruyt
Denmark:	Mr. P.O.F. Nielsen
France:	Mrs. Blayo
Federal Republic of Germany:	Dr. H. Klocke
United Kingdom:	Mr. D.J. Hodges
	Mr. C.J. Curry
United States:	Mr. M. Feshbach

Mr. G. de Chollet and Mr. S. Obolensky attended the meeting as observers from SHAPE. The Group was assisted by Mr. B. Jørgensen and Mr. R. Killingbeck from the International Secretariat.

3. On the basis of the Group's work, a draft report was established by the Secretariat and circulated to the experts. The attached report takes account of suggestions made subsequently by the United Kingdom and the United States members of the Group. It is hereby submitted to the Committee of Economic Advisers.

(Signed) B. JØRGENSEN

OTAN/NATO,
Paris, XVIe.

(1) AC/127-R/131

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THE LABOUR SITUATION IN THE USSR, THE EASTERN EUROPEAN COUNTRIES AND THE SOVIET-OCCUPIED ZONE OF GERMANY

Report by the Ad Hoc Group on Demographic Trends in the Soviet Bloc

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PART I: GENERAL CONSIDERATIONS ON THE LABOUR FORCES
AVAILABLE FOR THE COMMUNIST ECONOMIES

1. The Ad Hoc Group has examined the labour situation in the USSR, Poland, Soviet-occupied zone of Germany, Czechoslovakia, Hungary, Rumania and Bulgaria. Lack of sufficient information made it impossible to consider the situation in Albania. The examination has been based on various papers prepared by the members of the Group(1) which are reproduced as Annexes III to VII and on some additional material provided by the Economics Directorate. The Group stressed that the disparity of information available on the labour and the economic situation in Communist countries, both as regards content and period of coverage, rendered it difficult to adopt a uniform approach in making assessments and forecasts. The Group is, however, satisfied that the data given in the report on manpower in the national economies and the estimates of the labour forces available for the Communist economies between 1964-1970 are based on the same broad assumptions.

2. With the exception of Poland, for which 1960 census figures had to be used, 1962 employment figures were used for the Communist countries, this being the latest year for which reasonably comparable figures were available. Two tables give data on NATO countries' labour forces in 1964, whenever possible projections of these for 1970 (Annex I) and a sectoral breakdown of these countries' labour forces in 1962 or the nearest year for which information is available (Annex II). The attempt has been made to make these tables comparable with those contained in the report for Communist countries. Comparisons are, however, hazardous in view of the differences in the economic systems and limitations of available information. Figures for labour forces in NATO countries (Annex I) include the unemployed since they aim at giving the supply of labour. In Communist countries no unemployment is officially admitted. Some undoubtedly exists, however, and part of it is probably included in official statistics in a concealed form. In those countries where a distinction is made in official statistics between the "economically active" population and the "reported employed" population (e.g. the Soviet-occupied zone of Germany, Czechoslovakia, Poland, Rumania, Bulgaria and Hungary) the former term includes unemployed persons and the latter term excludes them.

3. Within the limits set by demographic forces future supply of labour in the Communist countries examined in the report might be affected by the following factors:

- (i) Change in the definition by the Communist Authorities of the official working-age groups by raising or lowering of the minimum school-leaving age or of the retirement age.
- (ii) Voluntary withdrawal of economically active people or participation of hitherto economically inactive people. The former might be the result of higher personal incomes

(1) The experts from Denmark, France, United Kingdom and the United States

and/or a more normal sex balance. The entry of previous non-participants into the labour market might result from special incentives offered or from their own economic circumstances. This group includes housewives, retired persons and young people still outside the working-age groups.

- (iii) Changes in the size of the armed forces(1).
- (iv) Lengthening or shortening of working hours and statutory holidays.
- (v) Drafting, on a part-time basis, in the summer holidays and/or during the academic year, into the labour force of students who are within the officially defined working-age groups.

4. Whilst in the not too distant past emigration from certain Communist countries to the free world was substantial, it has now been brought almost to a stop and is unlikely to be resumed, on any significant scale, during the next few years. As shown in the report, certain Communist countries suffer from shortages of labour whilst others appear to have problems of creating sufficient employment opportunities for their potential labour force. One method of solving these imbalances would be by encouraging movements of labour between the Communist countries. Attempts in this direction have however been timid; the rigidity of the national plans together with existing nationalistic prejudices seem to have inhibited governments from fully using such possibilities as may exist. In the opinion of the Group these inhibitions are likely to continue to prevent any large-scale migrations between the Communist countries during the period up to 1970.

5. Technological advances, the introduction of automation and the mechanisation of the agricultural sector of the economy do not only affect the demand for labour but also contribute to the expansion of production by increasing the productivity of the labour force. This is of particular relevance when the labour force is either stagnant or declining; it has also a bearing on sectoral redistribution of the labour force in the economy. The introduction of mechanisation and automation will vary greatly from one Communist country to another, reflecting the different labour situations prevailing as well as the resources available for investment and the technological capabilities of each country. In the absence of sufficient information, it has not been possible for the Group to assess the impact of these developments on the labour situation. Nor is it feasible to assess the effects on the deployment of the labour force which might result from new ways of organizing the economy which have recently been widely discussed in the Communist countries.

(1) For the purpose of this paper it has been assumed that between 1965 and 1970 there will be no change in the size of the armed forces from their 1964 level.

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6. As regards the demand for labour and its sectoral distribution for the period 1965-1970, it is extremely difficult to make any forecast since little is known about the next five-year plans in the Eastern European countries, and with respect to the USSR it is not even certain what the period of the next plan will be.

PART II: ASSESSMENT OF THE LABOUR SITUATION UP TO 1970

(a) USSR(1)

7. During the past five years the amount of labour available in the Soviet Union has been affected by the entry into the labour force of the depleted wartime age groups. However, the transfer of labour from the agricultural to the non-agricultural sectors of the economy has continued and has resulted in a fairly swift increase in industrial employment. The table below shows the civilian employment in the Soviet economy in 1962.

CIVILIAN EMPLOYMENT IN THE USSR NATIONAL ECONOMY, (a)
1962, ANNUAL AVERAGES

Total	(in thousands)	%
	99,198	100.0
1. Agriculture and Forestry (including private subsidiary economy)	39,506	39.9
2. Industry	24,297	24.4
3. Construction	9,150	9.2
4. Transport and Communications	7,509	7.6
5. Trade	5,253	5.3
6. Administration, Services and other branches of the national economy	17,483	17.6

(a) Based on data in Joint Economic Committee, Congress of the United States, Annual Economic Indicators for the USSR, Washington, February 1964, pages 56-61.

8. In the coming period, there will be a rapid recovery in accessions to the working-age groups, which will benefit civilian employment and also facilitate an expansion of the armed forces, if this were deemed politically desirable by the Soviet leaders. (See table below). The major problem, however, will not lie so much in the total growth of the working population but rather in the achievement of the planned sectoral and geographical distributions of skilled labour. Measures have been taken in the past two years in an attempt to secure achievement of these aims. For example, in 1963 a directive was issued to the effect that

(1) For further details see Annex III.

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graduates of higher educational institutions would not receive their diplomas until they had spent a year in the job assigned to them by the government. A large part of Khrushchev's 1958 educational reforms have been dismantled in the course of 1964(1). The 1964 revision of the old age pension laws aims at keeping pensionable skilled personnel in employment.

(1) See Table I of Annex III for an evaluation of educational enrolment in the USSR between 1963 and 1970.

	1964	1965	1966	1967	1968	1969	1970
1st January,							
1. Total population(a)	226.3	229.3	232.2	235.1	237.8	240.5	243.2
2. Population in able-bodied ages(a)	121.7	123.3	125.0	126.7	128.6	130.6	132.5
3. Total economically active(b) population (all ages)	118.1	120.0	121.2	122.7	124.1	125.5	127.0
4. Armed forces (military and paramilitary)(c)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
5. Civilian labour forces available for the economy (of which, socialised sector)	114.6	116.5	117.7	119.2	120.6	122.0	123.5
	(104.6)	(106.5)	(107.7)	(109.2)	(110.6)	(112.0)	(113.5)
6. Civilian labour force expressed as % of 1964 taken as base year	100.0	101.7	102.7	104.0	105.2	106.5	107.8

(a) From United States Bureau of the Census, "Estimates and Projections of the Population of the USSR, and the Communist countries of Eastern Europe, by Age and Sex", Washington, April 1964; 16-59 years of age for men, 16-54 years of age for women are defined as the able-bodied ages.

(b) Derived from labour force participation rates reported in 1959 census results and United States Bureau of the Census population projections.

(c) Based on NATO information.

9. The labour situation in the Eastern and Northern parts of the USSR is a matter of particular interest to the Soviet leaders. Existing plans for economic development indicate the need to transfer several million workers to those areas. Such plans probably involve important political as well as economic considerations. Earlier plans were seriously underfulfilled for lack of adequate manpower even though a certain population surplus exists in the Western part of the country. This failure can be attributed to the unfavourable living conditions in these frontier lands and to the practice of recruiting labour on a temporary basis. The various programmes and incentive devices, especially higher wage differential, employed by the Soviet Government during the past decade to direct manpower to the east on a permanent basis have, by all accounts, produced rather meagre results. It is still not possible to determine the full impact of the various recent wage reforms in the Soviet Union upon regional or branch distributions of manpower.

10. Since 1956 the growing rate of labour turnover in the economy has been worrying the Soviet Authorities; a planned economy can less well tolerate unplanned turnover than a free economy where demand and supply influence the market. The official campaign launched earlier in 1954 for the introduction of a more comprehensive labour passport, which has not been followed by any change in the regulations, clearly had as its purpose a closer control of labour movements and reflected the concern of Soviet planners for the future.

11. Since the end of the Second World War, the participation of women in the Soviet economy has been maintained at a particularly high level. Soviet planners do not appear to foresee any decline and may even be aiming at an increase in the rôle of women in certain branches of the economy. It is, in fact, married women in urban areas who comprise the largest labour reserve.

12. In the past five years, labour productivity plans have been only partly fulfilled, largely as the result of the failure to introduce the desired level of "new technology" and a shortage of technicians. Renewed efforts are currently being made to rectify that situation.

(b) POLAND(1)

13. In the decade between 1951 and 1961, the Polish population increased by over five million due to very high birth rates. This tremendous increase resulted in considerable changes in the composition of the population by age and sex. As a proportion of total population, the working age groups decreased from 64% to 59% but at the same time the great numerical superiority of women within this category diminished. This to some extent attenuated the effects of the relative decline in the working age groups as a higher proportion of men than of women is in fact economically active.

(1) For further details see Annex IV.

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14. The officially reported working population in 1950 is shown in the table below.

REPORTED EMPLOYED POPULATION IN THE POLISH ECONOMY IN
1960(a) (CENSUS FIGURES)

	000 persons	%
Total working population	13,689	100.00
1. Agriculture	6,541	47.80
2. Industry and handicraft	3,148	23.00
3. Construction	684	5.00
4. Transport	657	4.80
5. Trade	739	5.40
6. Administration, services and other branches	1,920	14.00

(a) It has not been possible to give any reliable figures for 1962.

15. During the present decade (1961-1971) the development will take another direction. The expected population increase will only amount to 2.7-3.1 million(1), but the main increment will take place in the working-age groups as the large numbers born in the years following the war will enter them. At the same time the pre- and post-working age population will remain practically constant: a continuous growth in the older age groups will, as a consequence of the decline of birth rates since the end of the 1950s, be offset by a decrease in the number of children. The excess of women in the active age groups will further diminish and change into a male surplus of 300,000 by the end of the decade.

16. The increase in the economically active population has, in recent years, been even greater than the figures for population in the working-age groups would suggest, because a growing proportion of the population has been seeking work in the urban sectors of the economy. The increase exceeded the planned increases in employment; this development has compelled the government to take measures aiming at restricting new employment which apparently have resulted in some unemployment.

17. Between 1964 and 1970 the economically active population is likely to rise by 1.8 million, representing in 1970 112.7% of the civilian labour force in 1964. This further increase in population is likely, to an even greater extent than in recent years, to be the main preoccupation of economic planners. Great difficulties can be expected in financing sufficient investment without straining the economy in general and the balance of payments in particular. A considerable part of the newcomers in the labour force may however find employment inside the service

(1) Based on document AC/127-D/131.

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sector which has been neglected for many years and is, according to Polish sources(1), less developed than in Czechoslovakia, the Soviet-occupied zone of Germany and the USSR.

ESTIMATED ECONOMICALLY ACTIVE POPULATION AND
LABOUR FORCE IN POLAND

(figures in 000's)

1st January,	1964	1965	1966	1967	1968	1969	1970
1. Total economically active population	14,756	15019	15306	15622	15836	16260	16592
2. Armed forces(a) (military and paramilitary)	315	315	315	315	315	315	315
3. Civilian labour force available for the economy (of which in the socialist sector)(b)	14,441 (8,187)	14,704 (8424)	14,991 (8691)	15,307 (8987)	15,521 (9181)	15,945 (9585)	16,277 (9897)
4. Civilian labour force expressed as a percentage of 1954 taken as base year	100.0	101.8	103.8	106.0	107.5	110.4	112.7

(a) Based on NATO information.

(b) The non-socialist sector has been assumed to increase by 20,000 persons a year.

(c) SOVIET-OCCUPIED ZONE OF GERMANY(2)

18. Since 1950 the fall in the population of working age in the Soviet-occupied zone of Germany has been more than proportionate to the decline in the total population. There has been a continuous drive to recruit women into the labour force, and at the end of September 1963 women formed almost 46% of those reported employed. The crucial importance of increases in output per worker has been emphasised for some years.

(1) RAJKIEWICZ: Employment - a problem which is not merely economic (Radio Free Europe's Polish Press Survey No. 1727, dated 20th June, 1964).

(2) For further details see Annex V.

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19. Official statistics of the employed population in 1962 are given in the table below.

REPORTED EMPLOYED POPULATION IN THE SOVIET-OCCUPIED
ZONE OF GERMANY (including apprentices) IN 1962

	30th September 000 persons	%
Agriculture and Forestry	1,425	17.7
Industry and handicrafts	3,312	41.2
Construction	488	6.1
Transport and Communications	534	6.6
Trade	904	11.2
Administration and Services	1,380	17.2
Total working population(a)	8,043	100.0

(a) These figures are drawn from official statistics published in the Soviet-occupied zone of Germany. They do not include the armed forces, or employees in confidential branches of the economy, such as uranium mining.

More than 88% were employed either in the Socialist or semi-state sectors of the economy(1).

20. During the period 1964-70, for which the main lines of the economic plan have been laid down, the number of persons employed is expected to fall but it is not possible to deduce how large a fall the authorities in the Soviet-occupied zone themselves envisage.

21. Taking the mean of the assumptions made in the paper at Annex V, it is estimated that the economically active population and labour force will develop as in the table below.

(1) Semi-state enterprises are formed by a contract between a private entrepreneur and the State, the latter usually being represented by the German Investment Bank; the State, however, is a partner with a limited liability while the private entrepreneur has an unlimited liability. Profits are divided on the basis of size of equity capital, but the entrepreneur receives for his management services a regular payment even when the enterprise suffers a loss.

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ESTIMATED ECONOMICALLY ACTIVE POPULATION AND LABOUR FORCE
IN THE SOVIET-OCCUPIED ZONE OF GERMANY

(figures in 000's)

	1st January 1964	1965	1966	1967	1968	1969	1970
1. Total economically active population(a)	3,535	3,401	3,360	3,341	3,442	3,380	3,407
2. Armed forces(b) (military and paramilitary)	185	185	185	185	185	185	185
3. Civilian labour forces available for the economy (of which in the socialist and semi-state sectors)	3,400 2,100	3,216 1,941	3,175 1,925	3,156 1,921	3,257 2,057	3,195 2,020	3,222 2,072
4. Civilian labour force expressed as a percentage of 1964 taken as base year	100.0	97.8	97.3	97.1	98.3	97.6	97.9

- (a) In this table the figures for total economically active population have been obtained by adding to the total number of persons of both sexes within the officially defined working-age groups, the number of economically active people who are outside the defined working-age groups and by deducting the number of people who, although within the defined working-age groups, are not economically active. (In the Soviet-occupied zone of Germany the officially defined working-age groups are 17 and under 65 for men, 17 and under 60 for women, plus 5/12 of all persons between 16 and 17).
- (b) Based on NATO information.

Thus a fall of about 180,000 or 2.1% in the civilian labour force by the beginning of 1970 is indicated; moreover it would seem that the Soviet-occupied zone is already running close to the upper limit of participation by the population in the labour force.

22. Imports of labour seem unlikely to be significant. Whether there are relaxations of restrictions on emigration will depend partly on estimates by the authorities in the Soviet-occupied zone of the numbers likely to avail themselves of such freedom. If restrictions on emigration are maintained at approximately their present level the régime may well seek to raise output by increasing pressure on the labour force, in addition to technological improvements.

23. Employment in the administration and services sector will probably continue to grow, but the proportions in which this increase will be met by declines in other sectors are difficult to assess.

(a) CZECHOSLOVAKIA

24. There have been reports of labour shortages in Czechoslovakia for some years, but until fairly recently industry was able to achieve high rates of growth by drawing labour from agriculture. Now that agricultural output has been hit by the resultant shortage of workers, the régime is trying to reverse this flow. The proportion of the labour force which is in agriculture is still high by the standards of industrialised countries, and it is unlikely that a reversal of the flow will be possible but a temporary slowing down may be achieved. Labour in parts of Slovakia is under-employed; nevertheless the government is also trying to stop the drift of workers from Slovakia into Bohemia-Moravia, as part of the policy of equalising the economic levels of the different parts of the country.

25. The officially reported working population in 1962 is shown in the table below.

REPORTED EMPLOYED POPULATION IN THE CZECHOSLOVAK
ECONOMY (excluding apprentices) IN 1962

	Yearly averages 000 persons	%
Total working population(a)	6,244	100.0
1. Agriculture and Forestry	1,439	23.0
2. Industry	2,422	38.8
3. Construction	527	8.4
4. Transport and Communications	389	6.2
5. Trade	511	8.2
6. Administration and Services	956	15.4

(a) These figures are drawn from Czechoslovak official statistics; they do not include the armed forces and the undisclosed categories of employment, such as number of persons working in the uranium ore mines and people holding confidential jobs.

26. The decrease in the percentage of economically active women following the extension of the period of compulsory education has probably been more than offset by a rise in such activity among those over school age. However, there is an overall shortage of labour.

27. The demand for labour during the period of the new five-year plan (1966-1970) is extremely difficult to forecast, since not even the framework of the plan has been announced. However, it emerges from the analysis in the report at Annex(1), that if the Czechoslovak economy is to achieve even a moderate rate of growth emphasis will have to be placed on increases in productivity, and consequently on technological advances, rather than on increases in the labour force; this does not preclude some switching of labour between different sectors of the economy.

(1) See Annex VI.

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28. Czechoslovak officials said in November 1963 that "for the period up to 1970 the prospects are that roughly 500,000 more persons can be recruited. This figure covers the entire economy, the health service, education, etc.; only a very small margin will be available for industry". The table below shows the extra labour force which is envisaged for the beginning of 1970 taking the mean of the assumptions made in the report at Annex(1). It therefore seems that the Czechoslovak Authorities are assuming greater participation in the economy on the part of certain categories than has been assumed in that report. They admit that not much additional manpower can be recruited from the ranks of women in households, and the possibility of importing labour on a large scale does not seem to be great. Extra labour is probably most likely to be recruited from the part-time work of those undergoing education or from the limiting of the extension of compulsory education.

ESTIMATED ECONOMICALLY ACTIVE POPULATION AND
LABOUR FORCE IN CZECHOSLOVAKIA

(figures in 000's)

1st January,	1964	1965	1966	1967	1968	1969	1970
1. Total economically active population(a)	6,978	7,069	6,942	7,026	6,945	7,089	7,054
2. Armed forces(b) (military and paramilitary)	260	260	260	260	260	260	260
3. Civilian labour forces available for the economy (of which in the socialist sector)	6,718 (6,492)	6,809 (6,583)	6,682 (6,456)	6,766 (6,540)	6,685 (6,459)	6,829 (6,603)	6,794 (6,568)
4. Civilian labour force expressed as a percentage of 1964 taken as a base year	100.0	101.3	99.5	100.7	99.5	101.7	101.1

(a) In this table the figures for total economically active population have been obtained by adding to the total number of persons of both sexes within the officially defined working-age groups, the number of economically active people who are outside the defined working-age groups and by deducting the number of people who, although within the defined working-age groups, are not economically active. (In Czechoslovakia, the officially defined working-age groups are 15 to 59 for men and 15 to 54 for women). The import of labour is assumed to be negligible throughout the period under study.

(b) Based on NATO information.

(1) See Annex VI.

29. General reductions in working hours or increases in statutory holidays seem unlikely in the period up to 1970.

(e) HUNGARY

30. Though Hungary has the lowest birth rate of any Communist country and one of the lowest in the world, the Hungarian economy does not seem to be threatened by a labour shortage for some time to come. As with most of the other semi-industrialised countries of Eastern Europe, the Hungarian economy was able to achieve high rates of growth by drawing labour from agriculture, re-allocating labour from low productivity sectors, and raising the proportion of the active population, without worrying too much about the efficient use of such labour. During the coming years, these sources will be gradually exhausted, and from 1971 onwards, the Hungarian economy will increasingly depend on growing productivity for further growth. The officially reported employed population in 1962, as adjusted to exclude the armed forces, is shown in the table below.

REPORTED EMPLOYED POPULATION IN THE
HUNGARIAN ECONOMY AT END-1962
(excluding apprentices)

	in 000 persons	%
Total employed population	4,521	100.0
1. Agriculture and Forestry	1,628	36.0
2. Industry	1,405	31.1
3. Construction	270	6.0
4. Transport and Communication	297	6.6
5. Trade	330	7.3
6. Administration, Services and others	591	13.0

SOURCE: Hungarian Statistical Yearbook, 1962. As there is reason to believe that the official statistics included the armed forces, the overall figure and the figures for "administration, service and others" have been reduced by the estimated strength of the armed force, i.e. 140,000 or 3% of the original overall figure.

31. During the decade 1961/1970 the Hungarian population is expected to grow by only 360,000 people - from 10.04 million to 10.4 million (official figure for 1st January, 1964: 10.1 million). However, this rather low natural increase coincides with important changes in the structure of the population: as a proportion of total population, the group below working age will decline from 24% to 19%; the effects of the high birthrate during the immediate post-war years will make themselves felt during that period by an increase of the labour force; the sexes will be more equally represented; the proportion of the population group above working age will increase, and as a consequence of better pensions fewer persons in this category will continue to work; the share of students in the working-age groups will increase from 6.4% (380,000) in 1961 to 10.6% (660,000) in 1970.

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32. The economically active population is expected to grow from 4.651 million in 1961 (4.66 in 1963) to 5.1 million in 1970 (see table below), a growth of 450,000. This is considered to be sufficient to fill the long-term requirements of the non-agricultural sector of the Hungarian economy, officially estimated at close to 800,000 persons, since the natural growth will be supplemented by a reduction of agricultural labour of about 250,000 people and the entering into the labour force of 190,000 housewives. This would result in an increase of the share of women from 36% in 1961 to 42% in 1970. The share of the male population does not seem likely to increase further. It is already fully employed, and the armed forces - estimated at 140,000 men (including 35,000 men in paramilitary forces) - seem too small to contain labour reserves of any significance. The quality of labour will be increased by a reduction of the share of unskilled labour in the labour force from 40% in 1961 to 30% in 1970. Services(1) are expected to employ an ever-increasing proportion of the labour force: their share will rise from 27.8% in 1961 to 34.5% in 1970.

ESTIMATED ECONOMICALLY ACTIVE POPULATION AND LABOUR FORCE
IN HUNGARY

(in thousands)

1st January,	1964	1965	1966	1967	1968	1969	1970
1. Total economically(c) active population	4,740	4,820	4,900	4,950	5,000	5,050	5,100
2. Armed forces(b) (military and paramilitary)	141	141	141	141	141	141	141
3. Civilian labour force available for economy(c) of which:							
- in agriculture	1,614	1,600	1,586	1,572	1,558	1,544	1,529
- in non-agricultural sectors	2,985	3,079	3,173	3,237	3,301	3,365	3,430
4. Civilian labour force in % of 1964 taken as base year	100.0	101.8	103.4	104.5	105.6	106.7	107.3

(a) Figures given for the economically active populations are those forecast in an article on the "Hungarian Labour Situation in 1961/1971" by L. Berettyan and J. Tinar of the Central Planning Office, published in "KÖZGAZDASÁGI SZEMLE" of November, 1963, pages 1,257-1,270.

(b) Based on NATO information.

(c) Approximately 96% are employed in the socialist sector.

(1) Comprising in this context all sectors of the economy apart from industry, construction and agriculture.

(f) RUMANIA(1)

33. Although the Rumanian population is aging, in 1956 it was still much younger than that of most European countries.

34. In 1956, 60% of the population was still "economically active";(2) this very high rate stems from the high proportion of the labour force, notably women, employed in agriculture (70%), the proportion of women to men in this branch of the economy is 115 to 100. However, in the other sectors of the economy there are three times as many men as women.

35. There is a very high proportion of economically active men in the 15-19 and over 60 age groups. The proportion of economically active women in all the age groups is higher than in any other European country but it is worth noting that the proportion of economically active women is much lower in the towns than in the country.

36. An estimate of the employed population in 1962 is given in the table below. The agricultural sector is the largest; yet the number of persons employed in this branch has been declining since 1956 and will tend to decrease in the future. In 1970, the proportion of persons employed in agriculture will nevertheless remain one of the highest in Europe.

REPORTED EMPLOYED POPULATION IN THE RUMANIAN ECONOMY(a)
AS OF 1ST JANUARY, 1962

	in 000's	%
Agriculture and Forestry	6,524	66.1
Industry	1,490	15.1
Construction	395	4.0
Transport and Communications	188	1.9
Trade	345	3.5
Administration and Services	927	9.4
TOTAL	9,869	100.0

(a) The employed population includes all those within the official working-age groups (14-59 years for men, 14-54 years for women) from which have been deducted the inactive persons, the members of the armed forces and the employees of the Communist Party.

37. The socialisation of agriculture which has been carried out at a slower pace than that of industry was almost completed by 1st January, 1963, (94% of the economically active population in

(1) For further details see Annex VII.

(2) For a definition of this expression refer to footnote to table on Estimated Economically Active Population and Labour Force in Rumanian at paragraph 38.

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agriculture was then employed in the socialist sector, mainly in co-operatives). When the move into the socialist sector is complete it will result in a substantial decrease in the number of household members and old age persons employed in agriculture and possibly in a better assessment, in the future, of the population employed in this sector of the economy.

38. Employment opportunities in the non-agricultural sectors will increase since the industrialisation of the country may be expected to continue. This increase, however, cannot be assessed, nor can the total labour requirements of Rumania for the period after 1965 since the only plan existing to date concerns the period 1960-1965.

39. As shown in the table below, the economically active civilian population should increase by 9% between 1964-1970. This increase may, however, have been slightly over-evaluated since in order to make the projections constant rates of activity have had to be adopted as a working hypothesis. However, the proportion of economically active men in the age groups below 20 years and above 60 years may tend to decline. Concurrently, between 1964 and 1970, the overall proportion of economically active women in all age groups will tend to decline as a result of rural emigration; the increase which may be expected in the proportion of economically active women in urban areas will not be sufficient to eliminate this trend.

ESTIMATED ECONOMICALLY ACTIVE POPULATION AND
LABOUR FORCE IN ROMANIA

figures in 000's

1st January,	1964	1965	1966	1967	1968	1969	1970
1. Total economically active population(a)	11,298	11,476	11,643	11,802	11,958	12,119	12,292
2. Armed forces(b); military and paramilitary	278	278	278	278	278	278	278
3. Civilian labour forces available for the economy (of which in the socialised sector)	10,587	10,765	10,932	11,091	11,247	11,408	11,580
4. Civilian labour force expressed as a percentage of 1964 taken as base year	100.0	101.6	103.1	104.6	106.0	107.4	109.0

Notes (a) and (b) on following page

See Corr following

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(a) The "economically active" population is made up of all civilian members of the population who derive an income from their work, whether they are within or without the legally defined working-age groups, whether they belong to the urban or to the rural population. It includes the "members of social organizations", apprentices in professional schools, students in technical schools and members of the armed forces. The estimated economically active population has been obtained by applying the proportion of economically active persons in the different age groups, calculated on the basis of the data given in the 1956 census, to the population in each age group forecast by the Bureau of the Census of the United States.

(b) Based on NATO information.

40. Rumania is now in a period of transition. The aging of its population, the industrialisation of its economy will gradually make it look more and more like the other European countries from which it is still very different. It is faced with a surplus of population in the agricultural sector and the pace of industrialisation is not yet fast enough to absorb it.

(g) BULGARIA

41. Of the total Bulgarian population of 8 million, close to 5 million, i.e. about 60% are economically active. As in the case of other predominantly agrarian countries of Eastern Europe, such as Rumania, this very high percentage is mainly due to the large share (63%) of agricultural labour, including a great number of women, in the total labour force. During the decade of 1950 to 1960, the annual average increase in the total population was about 1% and in the working population 2.1%. The estimated distribution of labour in the Bulgarian economy in 1962 is given in the table below.

REPORTED EMPLOYED POPULATION IN THE BULGARIAN ECONOMY IN 1962(1)

	in 000's	%
Total employed population(a)	4,732	100.0
1. Agriculture and Forestry(b)	3,000	63.4
2. Industry	834	17.6
3. Construction	189	4.0
4. Transport and Communications	166	3.5
5. Trade	174	3.7
6. Administration, Services and others	369	7.8

(a) Excluding members of the armed forces, unemployed persons looking for work and persons holding confidential jobs.

(b) The Bulgarian Statistical Yearbook excludes collective farm labour. The latter has been taken into account by extrapolating it from the official Bulgarian figure for 1960 given in the 20-year plan, 1960-1980.

(1) Principal sources for both tables: the Bulgarian 20-year plan, 1960-1980, set up in 1962 and reproduced in the "Economic Survey for Europe in 1962", Part 1, Chapter I, pages 50 ff. (ECE, Geneva), and Bulgarian Statistical Yearbook, Sofia, 1963.

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42. During the decade 1961/70, the Bulgarian population is expected to continue to grow at a rate of close to 1% annually, and to reach approximately 9.4 million by 1970. The growth rate of the economically active population is, however, to drop to 0.9% annually (see table below).

ESTIMATED ECONOMICALLY ACTIVE POPULATION AND LABOUR FORCE
IN BULGARIA

	(in 000's)						
	1964	1965	1966	1967	1968	1969	1970
1. Total economically(a) active population	5,005	5,050	5,095	5,140	5,185	5,230	5,270
2. Armed forces, military and paramilitary(b)	162	162	162	162	162	162	162
3. Civilian labour force available for the economy(c) of which:	4,843	4,888	4,933	4,978	5,023	5,068	5,108
- in agriculture	(2,822)	(2,744)	(2,666)	(2,588)	(2,510)	(2,431)	(2,352)
- in non-agricultural sector	(2,021)	(2,144)	(2,267)	(2,390)	(2,513)	(2,637)	(2,756)
4. Civilian labour force in % of 1964 taken as base year	100.0	100.9	101.8	102.7	103.6	104.5	105.4

(a) Figures given for the economically active population are based on information given in the United Nations Economic Survey of Europe in 1962, Part 1, Chapter I, page 50 ff. on the Bulgarian 20-year "perspective" development plan.

(b) Based on NATO information.

(c) Over 90% are employed in the socialist sector.

43. One of the most striking features of the Bulgarian 20-year plan is the channelling of the increased employment into "non-productive" services to an extent that employment in the "productive" sectors will decline from 90% in 1960 to 80% in 1970. However, there will be important structural changes in the productive labour force: employment in agriculture will drop from over 65% in 1960 to about 45% in 1970, whereas labour in industry will increase from 16% to 20% and "productive services" from 7% to 13%.

44. The quantity of the labour input will be reduced by the planned shortening of the working week and a lengthening of annual leave, whereas the quality should improve as a consequence of the planned rise in the education level: by 1970, 5.5% of the industrial labour force is to have a university education (1.7% in 1960) and 39.5% a secondary school education (13.7% in 1960).

45. In contrast with previous trends, the contribution to the future growth of the Bulgarian economy of increases in the labour force will be relatively small and that of productivity far more important.

PROJECTIONS OF TOTAL LABOUR FORCE(a) (ECONOMICALLY ACTIVE POPULATION) IN NATO COUNTRIES
(In thousands)

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ANNEX I 2
AC/127-D/173

	Belgium	Canada	Denmark	France	Federal Republic of Germany	Greece	Iceland	Italy	Luxembourg	Netherlands	Norway	Portugal	Turkey	United Kingdom	United States
Total population 1.1.1964	9,320	19,100	4,700	48,130	57,870	8,500	190	50,660	330	12,030	3,680	9,070	30,660	53,990	190,810
Total labour force(a) 1.1.1964	3,685	6,970	2,270	20,410	26,960	3,430	77	20,890	153	4,605	1,535	3,465	14,770	25,700	76,600
1.1.1970	3,810	-	2,360	21,240	26,610	-	-	21,490	-	4,990	1,600	3,620	17,345	26,670	84,790
1970 in percentage of 1964	103.4	-	104.0	104.1	98.7	-	-	102.9	-	108.4	104.2	104.5	117.4	103.8	110.7
The projections are giving evaluation of labour force(a) with constant activity rates corrected for changes in:															
	A,B, C,D	-	A,C	A,C	A,D, E,C	-	-	A,C,E	-	A,C	A,C	G	-	A,C,D	-
(a) Labour force comprises:															
(i) all persons in civilian employment;															
(ii) all unemployed persons;															
(iii) the armed forces;															
for a full definition of these groups, see OECD Manpower Statistics 1950-1962 (Paris 1963).															
<u>Symbols used:</u> A - school attendance B - age of retirement C - migration D - employment of women E - other causes															

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PERCENTAGE BREAKDOWN BY ACTIVITIES OF EMPLOYED LABOUR FORCE IN NATO COUNTRIES

	Belgium	Denmark (b)	France	Federal Republic of Germany	Greece	Iceland	Italy	Netherlands	Norway	Portugal	Turkey	United Kingdom	United States
	1962	1962	1962	1962	1961	1960	1962	1961	1952	1960	1960	1962	1962
Agriculture, forestry, hunting and fishing	6.7	19.1	19.8	13.3	53.5	24.7	27.4	9.6	21.0	43.3	72.4	4.0	6.2
Industry (a)	37.8	31.1	30.0	46.3	13.5	27.4	40.3	32.1	26.3	21.9	7.3	40.4	25.6
Construction	7.3	8.1	8.3	8.3	4.1	11.0	8.7	8.7	8.3	6.8	2.2	6.8	6.0
Transport and communications	6.7	41.7	5.5	37.0	4.2	8.2	30.3	6.9	11.0	3.6	1.8	6.8	4.8
Commerce	14.8	13.3	13.3	7.2	7.2	12.3	15.7	15.7	13.3	8.1	3.0	16.1	24.1
Services	23.7	18.4	18.4	12.8	12.8	16.4	2.0	24.0	16.6	14.2	9.9	24.1	27.3
Armed forces	3.0	-	4.7	1.4	4.7	-	2.0	3.0	2.9	2.1	3.4	1.8	4.0
TOTAL	100.0	100.0 (c)	100.0	100.0	100.0	100.0 (c)	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Manpower Statistics 1950-1962 - OECD

(a) Industry includes mining and quarrying, manufacturing, electricity, gas and water.

(b) In the case of Denmark gas, water, electricity and sanitary services are included in "Services" and not in "Industry".

(c) Excluding armed forces.

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USSR. ASSESSMENT OF THE LABOUR SITUATION UP TO 1970(1)

1. Over the past several decades, the development of the Soviet economy, from the standpoint of its labour resources, has been marked by (a) a steady increase in industrial employment, and (b) a corresponding decline, both absolute and relative, in the farmwork force. In 1940, for example, approximately 60% of the labour force was engaged in agriculture. In 1953, for the first time, the number of non-farmworkers moved ahead of the total number of agricultural workers. By 1961, farmworkers constituted roughly 40% of the country's total labour force. At the same time, average annual employment(2) in non-agricultural jobs rose from 31 million in 1940 to 57.8 million in 1961; an increase of 87%.

2. In general, the Soviet Union practises its own unique version of a full employment economy. Nearly half of the entire population of the country is in the labour force, as compared with 35% in the United States. As a result, each employed person in the USSR supports only 1.1 dependants. By comparison, each employed person in the United States supports 1.8 dependants.

3. The higher rate of employment in the USSR is due, in the main, to the larger number of women drawn into the labour force, especially during and after the Second World War, partly to make good the male deficits caused by war losses. In the working-age group of 16 to 54 years, 76% of the women in the Soviet Union participate in the labour force as contrasted to 51% in the United States. (For men, the rate of participation is roughly the same in both countries, about 87%). The unusually large rôle played by women in the Soviet work force is attributed by most observers to several causes: viz., the inability of the male breadwinner to earn an adequate income, the frequent absence of a male breadwinner, and the traditional extensive utilisation of women of the countryside in agricultural work. About 58% of the labour force in agriculture today is made up of women (19% in the United States).

4. For the relatively short future (until 1970), economic growth will mainly be determined by the structure of the population, in achievement of planned goals for mechanisation of agriculture in order to release labour for work in other sectors, and the implementation of plans for introduction of "new techniques" into industry in order to attain productivity goals.

(1) This paper has been contributed by the United States member of the Ad Hoc Group.

(2) For the state sector, annual average employment figures are derived from the monthly averages of daily counts of persons on the registered staff of the organization. For collective farms, annual average figures are derived as the average over the year of the monthly numbers of persons who participated at least one day during the month.

5. In terms of population growth for the period 1964-70, the total population is expected to grow at a level of about 3.1 million per year. The continuing drop in the birth rate will tend to keep population growth in the next few years at about the same absolute level despite the higher total population base. However, for the period 1964-70, there will be a rapid recovery in accessions to the able-bodied and especially to the military ages, from the depths of wartime birth deficits.

6. The major problem, however, is not so much in total growth of the population (as was considered to be the prime difficulty in the period up to 1965), as much as it is one of the ability to obtain the desired spectrum of skills at given places and times during the period in order to achieve production and productivity plans. The present period will witness a growth adequate enough to avoid a major labour shortage in the aggregate, given what is known at this stage about the planning of the allocation of other factors of production.

7. In a country as vast as the Soviet Union regional factors play a large part not only in the production and distribution systems but also in adequacy of labour supply from local or distant sources to correct the many persistent imbalances. Educational facilities geared to supply trained personnel for intraregional economic requirements also are very imperfectly distributed throughout the USSR.

8. The employment situation in the 1963-64 period has been characterised by several major changes in labour policy affecting the supply of labour due, in large part, to increased demands for skills. Thus, for example, in May 1963, a directive was issued to the effect that graduates of higher educational institutions would not receive their diplomas until they had worked for one year on the job assigned to them. This was done in order to more fully ensure the employment of graduates in sectors and jobs as planned. At the same time, the training programme was changed so that by 1970 graduates of higher educational institutions would be instructed in wider fields, whereas graduates of secondary specialised educational schools would be instructed in narrower fields. Concurrently, in order to avoid the over-emphasis on engineering requirements in industry, construction, transport, communications and agriculture, by 1970 the planners must provide for a distribution of only one engineer to every three-four technicians as contrasted with the current ratio of one engineer for every two technicians. One major effect of this change in the training programme will be the earlier entry of skilled persons into active employment since technicians require shorter periods of training than do engineers. (See table 1 on available information on the supply of trained personnel, to the economy from various educational systems).

9. This programme of earlier entries to the labour force in order to satisfy the demand for labour was further indicated by the two changes in the educational system promulgated in 1964.

First, one of the primary foundation stones of Khrushchev's December 1958 school reforms was removed. Beginning with the 1966 school year, there will be a return to ten years' complete secondary education from the eleven-year system now in effect. Second, there was a recent announcement about reduction in the length of training in higher educational institutions of six months to one year. The impact of both these 1964 reforms is to reduce the period for school ages (in higher educational institutions) to ages 18-22 from 19-24. This allows a younger age group to enter into the military services after graduation, as well as one additional year of working life for those not continuing into higher education and two additional years for those completing higher education.

10. The demand for more skilled personnel for employment also was met by the 1964 revision of the pension laws. Rather than penalising, in terms of income, pensioners who continue to work, the March 1964 law encouraged the return of these persons to work. Effective in April 1964, and continuing for five years (i.e. almost the entire period under consideration), at least 50% of their pensions will be paid plus their wages (up to a maximum of 200 roubles per month in aggregate earnings). The Deputy Minister of Social Security of the RSPSR has estimated, perhaps over-optimistically, that one million old-age pensioners will return to work under the provisions of these new incentives. Provision is also made in the new law for more incentives to work in such undesirable areas as the Far East and Siberia as well as the Urals by paying 75% of their pensions, and in mining and agriculture by paying 100%.

11. The labour situation in the eastern and northern parts of the USSR is a matter of particular interest. It was announced that some 6 million additional persons would be required between 1961 and 1980 for development of the area. The interaction of demographic, economic and military factors making necessary a redistribution of labour to one of the more important industrial sites in the labour deficit part of the USSR can be illustrated by the following quotation(1):

"... the supplying of industrial establishments of the Yakut republic with cadres primarily came from the drawing of significant portions of the wage workers and engineering-technical personnel from other regions of the country. This was necessary because of (a) the small size of the republic's indigenous population and resulting from this the impossibility of supplying labour force to industrial establishments from local resources; (b) the beginning and development of basic industrial centres in remote unsettled regions of the republic, and (c) the necessity for an accelerated inclusion into all-union, national-economic circulation of scarce minerals in the country, which also are important for foreign exchange and defence."

(1) Akademiya nauk SSSR, Sibirskoye otdeleniye, Yakutskiy filial, Voprosy ekonomiki promyshlennosti Yakutii, edited by F.G. Melnikov, Yakutsk, 1962, page 45.

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12. Beyond this example of regional requirements, the national pattern of the territorial division of labour has been classified by N.I. Shishkin, a prominent Soviet economic geographer working in the field of labour, into three basic groups as follows:

1. Regions with inadequate labour resources - North West, Siberia, Far East and Kazakhstan
2. Regions adequately supplied with labour resources - Volga, Urals, part of the Baltic republics
3. Regions with surplus labour resources - Ukraine, Moldavia, Belorussia, North Caucasus, Transcaucasus, Center, Central Asia.

13. This particular problem is illustrated by the following three points often made about the eastern regions:

1. The Asian part of the USSR represents about 70% of the entire territory of the country. Yet it contains less than 16% of the total population and roughly the same proportion of the labour force. Population density of these regions is about one-tenth of that of the western regions.
2. The eastern regions possess a great variety of untapped sources of metal ores, fuel, timber and water power.
3. In the east, there is also to be found a significant share of the total agricultural land of the USSR which is admittedly used much less intensively than is considered possible for the area.

The justification for economic development of these regions can be challenged on various grounds; however, it would seem that the Soviet Government is committed to a policy of large-scale development of the area.

14. Over the years, official surveys have established that the planned development of such regions as West Siberia, Kazakhstan and East Siberia, has been seriously retarded for lack of adequate manpower. At the same time, the economic life of long-settled areas like Belorussia, Western Ukraine, Moldavia and Transcaucasia is regarded as being palpably weighed down by a surplus population and labour force. As a result of its persistent labour shortage, it is reported, for example, that Siberia was unable to raise its rate of industrial growth above the national level during the decade of the 1950s, despite the existence of official plans to that effect(1).

15. Manpower assistance from other countries of Eastern Europe is numerically insignificant. Western newspapers reported several years ago on Chinese labour in the USSR in the sparsely

(1) See V. Perevedentsev, "Problems of the Territorial Redistribution of Labour Resources", Voprosy Ekonomiki (Problems of Economics), No. 5, May 1963, page 49.

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populated regions. This source of labour has completely dried up in the recent past and probably will remain so for the next five years, i.e. until the end of the period under review.

16. The various programmes and incentive devices, especially higher wage differentials, employed by the Soviet Government during the past decade to direct manpower to the east on a permanent basis have, by all accounts, produced rather meagre results(1). Large numbers of youths, among others, were directed to work in the newly established state farms of the "New Lands". Organized groups of workers from the west were also transferred in large numbers to work on the construction of new giant industrial plants, power stations, railways and mines. But the net effect of this organized migration has been, on the whole, negative. Broadly, what has happened is this. During the five-year period 1956-60, more than 700,000 persons (including members of families) were moved to Siberia through various forms of organized territorial redistribution of labour resources. In addition, a still larger number of people arrived on their own initiative. However, according to one authoritative report, "the total growth in the population of Siberia during this (5-year) period was somewhat lower than its natural growth, i.e. the number of people leaving Siberia during these years exceeded the number arriving(2)".

17. Soviet manpower specialists, who have worked on this major problem of labour turnover, explain this continuing difficulty of achieving a significant, permanent shift in population and labour toward the East on the following grounds:

1. The continued backwardness of the region in regard to providing a favourable "complex" of living conditions. This factor is considered to be the most significant in explaining the phenomenon of a labour deficit area suffering from a loss of population.
2. The practice, under the present system of organized recruitment, of guaranteeing the return travel costs of the transferred worker after 1, 2 or 3 years. Often, such a worker is also guaranteed on his return to his point of origin the amount of dwelling space he occupied when he left for work in the East.
3. The severe climate of the region, which is not only a hardship itself, but also entails additional outlays for food, clothing, housing and heating.
4. The lack of rest homes, health resorts, sanatoria and recreational areas in general. This makes it necessary for the new settler to incur extra expenses on trips to Western regions for rest and medical treatment.

(1) It is still not possible to determine the full impact of the various recent wage reforms in the Soviet Union upon regional as well as branch distributions of manpower.

(2) Ibid., page 50

18. In 1962, due to "unacceptable reasons" about 20% of the total number of persons working in industry left their place of employment for other jobs (for some industries the range was between 33-40%), many of whom also changed their occupation. A planned economy can less well tolerate unplanned turnover than a free economy where demand and supply influence the market. Planned movement of labour through such systems as the Organized Recruitment System (orgnabor) contributes also to the lack of stability. Although the early 1964 agitation about labour passports, with the concomitant penalties for unnecessary job switching, will probably not come to fruition for internal political reasons, the situation reflects the concern necessarily facing Soviet planners for the future.

19. The problem of labour supply for labour deficit areas is closely connected with the rôle of women in the labour force. Throughout the Soviet economy women participate to a very high degree. For example, in 1962 they constituted 48% of all workers and employees in the national economy (68,300,000 of both sexes) and over 50% of all able-bodied collective farmers who participated in the socialised economy (about 20-22 million). The accelerated rates of growth envisaged in the Soviet plans for the branches of economy already dominated by women(1), and the opening of new employment possibilities for female workers through greater mechanisation of strenuous jobs, will both increase their opportunities and raise the economy's needs for increasingly larger numbers of women among workers and employees.

20. Soviet women already have one of the highest labour participation ratios in the world. Moreover, estimates constructed on the basis of the 1959 census data on marital status indicate that at the time of the enumeration the overwhelming majority of single women in the able-bodied ages were either working or in school (unless hospitalised or otherwise incapacitated). It is the married women(2) then, most likely urban, who comprise additional labour reserves.

21. The fuller participation of housewives in the labour force, however, must be preceded by certain preparatory measures requiring considerable greater expansion in the production of labour-saving devices(3), in the commercialisation of household

(1) The number of workers in non-productive spheres is to increase at a much faster rate during the 20-year period covered by the party programme than in branches of material production where production gains are to come mainly from increases in productivity.

(2) Their labour participation level in 1959 can be estimated at about 70%.

(3) Some indications of the active interest in the problems of the household economy are found in the surveys of the time spent on domestic chores. See V. Moskalenko, "The Main Productive Force of the Society", Ekonomicheskaya Gazeta (Economic Gazette), 26th March 1962, page 4.

services (including public dining facilities)(1), and in the network of pre-school institutions for the care of children(2). The lack of child-care facilities, even in such priority areas as Siberia and Kazakhstan, hamper women in seeking jobs. For these regions the facilities are some 20-25% less than the average for the USSR as a whole, even though the population is younger and has a higher share of pre-school children.

22. During the seven-year plan period, 1959-65, one of the basic goals was a labour productivity increase in industry of 45-50%. Underlying the attainment of such a rapid increase was the introduction of "new techniques" into the production process. So important was this factor which links production, investment and labour, that over 50% of the planned increase in labour productivity was to be contributed by it. However, the fulfilment of this goal for introduction of new techniques has been at the rate of only 60% of the level expected. (See table III for a Soviet economist's own comparisons of Soviet labour productivity with American in a wide range of industries. If the trends evident in this computation are maintained, then the labour situation in terms of relative productivity is not very promising for the USSR, especially in combination with the planned but now apparently partially deferred reduction in worktime by 20% in 1965 as compared with 1959). In agriculture also the level of mechanisation still lags well behind comparable advanced Western countries. Beyond any circumstances of nature affecting possible harvests, it has been reported that in 1962 only about 43% of the tractors officially deemed necessary for agriculture were available. In 1963 the RSFSR itself was lacking 400,000 tractor drivers, combine operators and machinists. The vocational training systems were inadequate for the needs.

23. In connection with the programme for mechanising and automating production, the Ministry of Higher and Secondary Specialised Education of the USSR issued an order in 1960 for an increase in the number of specialists in automation and tele-mechanics, mathematical and computing instruments, devices and systems, industrial electronics, and so forth. This kind of re-organization of the specialities offered in higher schools frequently reflects the need to adjust occupational training and distribution plans in order to determine the future supply of specialists to meet the demand anticipated according to current priorities and state of technology.

(1) The volume of public dining is supposed to triple by 1970. (Ibid). A new step in the direction of providing more services was the recent institution of extended-day schools in urban and rural localities. This is a system under which the children remain on school premises all day, thus relieving the parents of the burden. Moskalenko, loc. cit., reports that by 1980 about 5-6 million persons will be drawn from the household economy into social production (250,000-300,000 a year).

(2) In 1962, child-care facilities could however only accommodate about 7 million children, or slightly over 20% of all children of pre-school age. F.I. Kotov, Problemy truda i zarabotnoy platy v period perekhoda k kommunizmu (Problems of Labour and Wages in the Period of Transition to Communism), Moscow, 1963, page 212

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TABLE I

EDUCATIONAL ENROLMENT, SEPTEMBER 1963-SEPTEMBER 1970
 (in millions)(1)

	1963	1964	1965	1966	1967	1968	1969	1970
Higher Educational Institutions								
Total	3.3	3.6	3.9	4.2	4.5	4.8	5.1	5.4
Full-time	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1
Part-time and Correspondence	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.3
Secondary Specialised Educational Institutions								
Total	3.0	3.25	3.5	3.8	4.1	4.4	4.7	5.0
Full-time	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2
Part-time	1.5	1.6	1.8	2.0	2.2	2.4	2.6	2.8
Vocational-Technical Schools	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2
General Educational Schools, 8th-11th years(2)	1.1	1.1	1.1	-	-	-	-	-

(1) Based on reported enrolment in 1963 and interpolation between these figures and enrolment in 1970. The 1964 school reform programme which is discussed in the text will no doubt affect the projected figures shown here.

(2) Based on approximation of less than one quarter of total full-time enrolment in 1967 of 4.4 million students. After 1966 school year, the 11th year of school is to be dropped.

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TABLE II

PROJECTED CIVILIAN EMPLOYMENT IN THE USSR NATIONAL
ECONOMY, 1965 AND 1970(1)

(in millions)

	1965	1970
Employed in the National Economy	107.2	112.4
Industry	26.2	32.0
Construction	6.8	7.5
Agriculture and Forestry	44.1	41.7
(a) Socialised	34.1	31.7
(b) Private agriculture	10.0	10.0
Transport and Communications	6.3	9.2
Trade, public dining, procurement, and material-technical supply	6.1	8.3
Education, Culture, Art and Science	8.9	11.9
Public Health and Physical Culture	3.8	5.5
Housing - Communal Economy	2.3	3.1
Other branches	2.7	3.2

- (1). Except for private agriculture which is assumed to remain at a level of 10.0 million (man-year equivalents), this table is derived from the 20-year programme estimates made by Ye. S. Rusanov in Akademiya obshchestvennykh nauk pri TsK KPSS, Tekhnicheskii progress i voprosy truda pri perekhode k kommunizmu (Technical Progress and Labour Problems in the Transition to Communism). Moscow, 1962, page 33. The results obtained are not to be used as final estimates because of divergences which have already taken place as well as the virtual abrogation of the plan for 1970 (and 1980). For example, in 1963, the reported employment in Construction numbered only 5.2 million, whereas according to this table there should be 6.8 million only two years thereafter.

TABLE III

PRODUCTIVITY COMPARISONS

ANNUAL OUTPUT PER WAGE WORKER IN USSR AND US INDUSTRY, 1940-1959

	USSR as percent of US				
	1940/ 1939	1950/ 1947	1955/ 1954	1957/ 1956	1959/ 1958
Steel	46.7	43.2	54.7	51.9	62.4
Rolled products	41.7	38.2	49.7	46.9	56.7
Iron Ore	38.6	25.9	41.6	36.4	35.1
Coke	33.7	30.0	46.1	41.4	48.6
Coal, total of which,	51.3	31.8	35.9	28.8	32.0
Underground mining	53.7	34.7	36.7	28.6	32.1
Open pit mining	41.7	47.4	79.5	78.2	94.8
Oil refining	48.2	41.0	37.0	42.1	46.2
Machine tool building	-	47.3	74.9	69.5	62.0
Production of Synthetic Rubber	-	18.6	17.5	15.6	12.1
Production of Artificial Fibers	23.4	11.9	17.4	19.8	20.6
Sawn wood	55.9	66.5	67.6	73.8	75.4
Cement	22.8	28.1	34.3	32.9	34.8
Construction bricks	45.5	35.7	42.7	46.2	57.9
Cotton textile	39.7	38.7	41.3	38.2	42.0
Wool	50.3	45.2	45.6	42.5	41.0
Shoes (except rubber shoes)	33.1	37.5	41.4	44.0	51.1
Rubber shoes	67.4	126.1	81.0	78.9	72.6
Meat (including sub-products of 1st Category)	45.7	41.1	48.2	46.5	57.2
Milk and dairy products	29.8	29.8	43.4	52.2	50.6
Vegetable oils	57.1	39.8	34.9	27.5	30.2
Flour milling	40.1	39.0	60.4	60.8	57.6
Breadbaking	195.1	153.3	151.5	143.5	135.1

Source: A.I. Kats, Proizvoditel'nost truda v SSSR i glavnykh kapitalisticheskikh stranakh (Labour Productivity in USSR and the Main Capitalist Countries), Moscow 1964, page 149

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POLAND: ASSESSMENT OF THE LABOUR SITUATION
AND ITS POSSIBLE DEVELOPMENT(1)

1. This study attempts to evaluate the present and future labour situation in Poland. Mainly based on the Polish census in 1960 and supplemented by later information, primarily of Polish origin, it illustrates the size and the development of the working-age groups and - as far as the available information allows - it attempts to assess the proportion of these groups which are in employment.

The aim of the study has been solely to illustrate the problem from a quantitative point of view; the unquestionable influence of factors such as education and higher living standards on the quality of the labour force and consequently on the whole labour problem has been taken into consideration.

The Development of the Population

2. The Polish population has increased rapidly since World War II, namely by 6.2 million or 26% between the 1946 census and the end of 1961, mainly due to a very high birth rate. This tremendous increase has resulted in considerable changes in the composition of the population by age and sex as illustrated in table 1, which shows the distribution of the total population by pre-working, working and post-working age groups and table 2 which breaks down the increase in population according to these age groups. The working-age part of the population is here defined as males in the age groups 15-64 years and females in the age groups 15-59 years.

3. This growth of the population mainly manifested itself by an increase of the pre- and post-working population from 1951 to 1961, while in the same period the working-age groups decreased relatively from 63.5% to 58.5% of the total population. The absolute increase in the population of working age was only 1.7 million while the pre-working population grew by 2.8 million. Due to the very heavy losses of men during the war there were, in 1951, 500,000 more women than men in the working-age groups. As the age groups particularly affected by the war are gradually leaving the working-age groups the surplus of women in the total working population was reduced to only 130,000 in 1961. This development, to some extent, attenuated the effects of the relative decline in the working-age groups as a higher proportion of men than of women are economically active.

4. During the present decade (1961-71) the development will take quite another direction. Tables 1 and 2 thus indicate an expected population increase of 2.7-3.1 million depending on which of the assumptions stated in the footnotes of table 1 is chosen. These assumptions are not essentially different from those used in the NATO document AC/127-D/131: Demographic Trends

(1) Contributed by the Danish member of the Ad Hoc Group.

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in the Soviet Bloc. The increase will occur solely in the working-age groups, as a continuous growth of the older age groups will be counterbalanced by a decrease in the number of children owing to the decline of the birth rate since the end of the 1950s. The female surplus in the active age groups will further diminish and be replaced by a male surplus of 300,000 by the end of the decade.

5. Finally the development in the period 1971-81 will be intermediate between those of the two preceding decades. The growth of the working-age population and its distribution by sex will correspond to the one of the present decade, whereas both the growth in the older age groups and the decline in the number of children will be of smaller proportions than in the period 1961-71. The decline in the number of children may even be replaced by a certain increase. The growth of the total population is estimated at 3.2-4.5 million and will thus accelerate once more.

6. Compared with the development outlined above, the latest Polish prognosis carried out by the Planning Commission of the Council of Ministers displays a somewhat greater optimism regarding the growth of the population in the present decade, whereas the estimated population in 1975 and 1980 is between our two alternatives, closer in both years to the higher one. The figures are quoted in table 1.

The Labour Force

7. It has been shown above how the population in the active age groups has developed and how it is expected to develop; against this background the size, development and distribution of the labour force will be treated in the following paragraphs. Population of working age and labour force differs significantly in size, partly because a considerable portion of the working-age population is not economically active, and partly because the labour force also comprises economically active persons outside the working-age groups. The absolute changes in the size of the two aggregates may thus differ, but the direction of the changes will always be the same. In the following paragraphs the period 1950-1960 and 1960-1970 will be dealt with separately.

1950-60

8. Table 3 indicates that the labour force has increased by 1.3 million persons to 13.7 million from 1950 to 1960. The actual growth was probably somewhat greater as information about 1960 is based on results obtained by means of a representative sample survey of the basic census returns, and this survey excludes 580,000 persons living in communal households. Another Polish source(1) gives the labour force in 1960 as 13.9 million

(1) A. Rajkiewicz: Employment - A Problem Which is not Merely Economic. Nowe Drogi, June 1964

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and on this figure the total increase over the decade amounts to 1.5 million persons. This increase does not differ significantly from the growth of the working-age population, from which it may be concluded that the labour force participation rates have increased during this period. Table 4 reproduces some Polish figures showing that the participation rate of the age groups 18-59 years has increased from 77.0% in 1950 to 79.4% in 1960. The increase has been particularly pronounced among the urban population and among women. This participation rate is very high, the third highest in Europe, and tantamount to the utilisation of all labour force reserves of any importance. The rise in the female participation rate was sufficiently high to keep their share in the total labour force practically unchanged, though their share of the increment of the working-age population was considerable smaller than that of men.

9. The distribution of the total labour force by sector and branch of the economy enumerated in table 3 reflects important features of the economic development in the period. One important feature is the rapid growth of employment in the socialised sector of the economy. In 1950 this sector employed 39% of the total labour force and in 1960 59%. While the private sector outside agriculture in 1950 still employed 1.2 million persons, ten years later this number had shrunk to a few hundred thousand, and the private sector is now only of importance in agriculture. In this branch it has on the contrary grown larger and employed in 1960 94% of the agricultural labour force compared with 90% ten years earlier. Table 3 reflects further the gradual transformation of Poland from a predominantly agricultural country to one in which slightly over half the working population is engaged in non-agricultural pursuits. While the agricultural labour force declined by about 500,000 during these ten years, employment in the non-agricultural branches increased by 1,760,000, of which nearly 1,000,000 went to industry and construction. As the agricultural labour force nevertheless comes to 47% of the total labour force, Poland still must be characterised as an agricultural country.

1960-70

10. In the current decade the labour force will grow more vigorously than in the decade 1950-60. On the assumption that the age-specific labour force participation rates will remain at their 1960 level(1) it has been calculated in table 5 that it will rise from 14.37 million in 1961 to 16.92 million in 1971(2). The figure for 1961 is not comparable with the figure given above for 1960. The rise in the labour force is not uniformly distributed over the period. The table thus shows a negative increment in 1961 after which it will rise in the following years to culminate with an annual growth of more than 0.3 million persons in the

(1) See Z. Prochaska and J.W. Combs: The Labour Force of Poland (page 10). International Population Statistics Reports, Series P-90, No. 20

(2) In both years as of 1st January

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last half of the decade. During the first half of the 70s this tremendous growth will continue, although with a declining tendency, and over the fifteen years from 1961 to 1976 the total growth of the labour force should thus amount to about 4.26 million.

11. It is worth mentioning that this development apparently is not in accordance with the original Polish prognosis for the period in question. In an article written in 1959(1) on the long-term economic plan 1961-1975 Professor Michael Kalecki has calculated the increase in the labour force as 3.45 million, on the basis of which he concludes that no surplus of labour will appear during the period. On the contrary he forecasts that a certain shortage should appear as a consequence of the planned reduction of working hours to 40 hours per week by 1975. It is difficult to see what lies behind the considerable discrepancy between the assumptions in this paper and those of Kalecki as he is assuming stabilisation of the labour force participation rates after 1960. Later prognoses are more consistent with the growth calculated in table 5. Thus the above-mentioned article gives a total growth of the labour force from 1960 to 1970 of 2.6 million or practically the same as the calculated increase.

12. Table 5 indicates, however, that the actual development of the employment during the last three years has differed significantly from what had been planned. According to the stated assumptions the labour force could be expected to increase by as much as 370,000, but the actual growth of employment has been about 700,000. Only a further rise of the already very high participation rates can explain this development, as there was no unemployment of any importance prior to the 1960s. The participation rate for the age group 18-59 years is now, according to information in the above-mentioned article, close to 82% compared with 79.4% in 1960.

13. This unexpected rise in employment is primarily due to an increase in employment of women. Women thus made up 474,000 or 53.5% of the total increase over the years 1960-63 in employment in the socialised sector. Secondly, an unexpectedly large increase in the employment of young people has taken place. Attracted by the favourable employment possibilities they have entered the labour force at an earlier date than had been assumed. This growth of employment has thwarted the implementation of the economic plans and threatened the economic balance; the XIVth Plenum of the Central Committee of the Polish United Workers' Party in November 1963 decided to react against this situation by limiting the growth of employment in the socialised sector (see below in paragraph 17).

14. Table 5 attempts to throw light upon the origins of the increased demand for labour by breaking down the labour force in each year since 1960 by sectors and branches. It must be stressed that this breakdown is only a rough estimate. The division by

(1) M. Kalecki: The 1961-75 long-run economic plan. Polish Perspectives, March 1959

sectors shows that the increase has taken place solely in employment in the socialised economy, which has further absorbed 300,000 persons coming from the non-socialised sector. According to available information the agricultural labour force has declined by approximately 100,000, mainly in private agriculture. This leads to the conclusion that the private sector outside agriculture should have diminished by about 200,000 persons, a remarkable development indeed, but one which is not supported by the available information on employment in private industry and handicrafts.

15. An inconsistency seems thus to exist in the Polish figures, which may be due to the vigorous growth of the worker-peasants, i.e. private farmers with smallholdings, that seek employment in industry or other non-agricultural branches, without giving up their holdings, which are cultivated by their families and by themselves in their spare time. There are now 8-9,000,000 in this group, and it is conceivable that this growth has not been reflected fully in the statistics which would thus to a certain extent over-estimate the size of the labour force in private agriculture. It seems natural that the growth of the numbers of worker-peasants has been particularly vigorous during these last years, when the economic conditions in agriculture have been unfavourable, whereas the non-agricultural branches have offered a wide range of employment possibilities. It seems fair to conclude that the reduction by 300,000 in the labour force of the non-socialised economy derives essentially from private agriculture. It is worth noting that this considerable decline runs counter to the forecasts contained in the long-run economic plan, which counted on a certain increase in the agricultural labour force in the period 1961-65 and no significant decline in the period thereafter.

16. The demand for additional labour in the non-agricultural branches is closely linked to the economic developments during these years. Thus it has turned out that the cost of accomplishing the ambitious investment plans will be significantly higher than originally estimated. To this must be added that failure to fulfil these plans has forced the manufacturing industries to employ more labour in order to meet production targets. Finally the demand for labour has increased due to the need to expand the production targets of certain export branches in order to compensate for the decline of agricultural exports caused by the slow growth of agricultural production.

17. This unplanned increase in employment has also made it more difficult to find employment for the new influx (about 1.6 million) into the labour force expected to take place during 1966-70. With the latter in view it was decided at the XIV Central Committee meeting in December 1953 to intensify control over the growth of employment. During the remaining two years of the present five-year plan the increase in employment will be restricted to 130-150,000 and 200,000 persons respectively excluding apprentices.

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18. This decision made reduction of and redistribution within the employment sector unavoidable and consequently such measures as were taken will presumably affect first of all married women with independent employment and the worker-peasants. This new course seems already to have resulted in a perceptible increase in unemployment, though the Polish statistics do not allow an exact evaluation of its magnitude.

19. The freedom to choose between various means of solving the employment problems over the next few years are limited and economic developments during recent years have further restricted this freedom. The shortage of capital combined with the fact that there will be other tasks besides the establishment of new working places, which will absorb available investment funds (for instance there is a pressing need for the modernisation of existing working places, particularly in agriculture) will only allow small investments per worker. Better use of existing productive capacity is one of the possibilities mentioned as a partial solution, but this will on the other hand increase the demand for imports of raw materials and further strain the balance of payments. Therefore, a considerable part of the labour increase may profitably be employed within the service sector, the more so, because this sector has been neglected for many years. The proportion employed in this sector is according to Polish sources(1) far below that in Czechoslovakia, the Soviet-occupied zone of Germany and the Soviet Union.

20. The distribution of employment among the various sectors of the national economy as envisaged by the Polish Authorities would be as follows:

Industry	500-500,000
Construction	100-150,000
Agriculture	150,000
of which socialised ...	60,000
private	90,000
Other branches	700-850,000
<hr/>	
Total	1,600,000
of which urban	1,150,000
rural	450,000

Besides the large increase in employment in "other branches" it is worth noting the desire to raise employment in agriculture. If developments during the next few years follow these lines, not only the actual increase but also the distribution of that increase will deviate considerable from the present trend.

(1) RAJKIEWICZ: Employment - a problem which is not merely economic (Radio Free Europe's Polish Press Survey No. 1727 dated 20th June, 1964).

**TABLE 1: DEVELOPMENT OF POPULATION AND
DISTRIBUTION BY AGE 1945-81(1)**

(in thousands)

	Total Popu- lation	of which				
		0-14	15-59/64 years		60/65	
		Years	Total	Males	Females	Years
1981 (I)(2)	37,807	9,989	23,530	12,002	11,629)	4,288
(II)	35,966	8,240	23,438	11,955	11,484)	
Polish est.	37,351	9,877				
1976 (I)	35,396	8,972)	22,323)	11,385)	10,940)	4,101
(II)	34,312	7,888)				
Polish est.	35,372	9,240				
1971 (I)	33,237	9,034)	20,687)	10,496)	10,190)	3,552
(II)	32,813	8,575)				
Polish est.	33,412	9,340				
1966 (I)	31,521	9,696)	18,914)	9,489)	9,422)	2,911
(II)	31,428	9,603)				
Polish est.	31,567	9,807				
1961	30,133	10,040	17,627	8,747	8,880	2,466
1958	29,000	9,530	17,249	8,491	8,758	2,218
1951	25,008	7,372	15,891	7,670	8,221	1,745
1946	23,930	-	-	-	-	-

(1) The figures are for 1st January, except 1946 which is for 14th December, and 1958, and 1961 which are for 31st December.

(2) (I) Assumes that the Gross Reproduction Rate will remain constant at 125 throughout the projection period.

(II) Assumes that the Gross Reproduction Rate will decline to 115 in 1964 and that it will continue to decline by a constant annual amount until 1974, after which it will stabilise at 100.

Sources: Estimates and Projections of the USSR and of the Communist Countries of Eastern Europe by Age and Sex. United States Department of Commerce, April 1964
Concise Statistical Yearbook of Poland 1963
Rocznik Statystyczny, 1960
International Population Reports, Series P-91, No. 6, 15th May 1958

Table 2: The Absolute Growth in Five- and Ten-Year Periods, 1951-81. (in millions)

		Total Growth	0-14 Years	Of which			60/65 - Year
				15 - 59/64 Years			
				Total	Males	Females	
1976-81	(I)	2.4	1.0	1.2	0.6	0.7	} 0.2
	(II)	1.7	0.4	1.1	0.6	0.5	
1971-76	(I)	2.1	+ 0.1	} 1.6	} 0.9	} 0.7	} 0.5
	(II)	1.5	+ 0.7				
1966-71	(I)	1.8	+ 0.7	} 1.8	} 1.0	} 0.8	} 0.6
	(II)	1.4	+ 1.0				
1961-66	(I)	1.4	+ 0.3	} 1.3	} 0.7	} 0.5	} 0.4
	(II)	1.3	+ 0.4				
1971-81	(I)	4.5	1.0	2.8	1.5	1.4	} 0.7
	(II)	3.2	+ 0.3	2.7	1.5	1.3	
1961-71	(I)	3.1	+ 1.0	} 3.1	} 1.7	} 1.3	} 1.1
	(II)	2.7	+ 1.5				
1951-61		5.1	2.8	1.7	1.1	0.7	0.7

Source: Table 1.

Table 3: Size and Distribution of the Labour Force 1950 and 1960.

(in thousands)

	1950	1960
Total	12404	13689
Agriculture	7016	6541
Industry and Handcraft	2332	3148
Construction	521	684
Transport	471	657
Trade	645	739
Education, health service etc.	471	849
Other branches	948	1071
Socialised sector	4885	7366
Non-socialised sector	7519	6323
Males	6858	7545
Females	5546	6144

Source: Concise Statistical Yearbook of Poland, 1963. Table 11-14

Table 4: The Labour Force Participation Rates of the Age Group 18 - 59 Years.

	Total	Men	Women	Countryside	Town
1960	79.4	93.3	64.5	87.4	70.4
1950	77.0	93.5	63.1	85.8	64.8

Source: A. Rajkiewics: Employment - A Problem which is not merely Economic.

Nowe Drogi, June 1964.

Table 5: The Development and Distribution of the Economically Active Population and the Civilian Labour Force 1960-70: (in millions)

	1960	1961	1962	1963	1964	1966	1971
Calculated economically active population(1)	...	14.37	14.36	14.55	14.74	15.31	16.92
Civilian labour force(2)	13.90	14.11	14.36	14.60	...	...	16.50(3)
of which:							
Socialized sector	7.37	7.67	8.02	8.36	...	...	10.10(3)
Non-socialized sector	6.53	6.44	6.34	6.24	...	...	6.40(3)
Agriculture(4)	6.50	6.40	6.30	6.20	...	...	6.50(3)
Industry and construction	4.00	4.14	4.35	} 8.40	...	...	} 10.00(3)
Other branches	3.40	3.57	3.71		...	...

(1) 1st January

(2) Polish figures and prognosis. Not comparable to Table II. Yearly averages.

(3) 1970

(4) Employment in agriculture during 1962-64 has been corrected according to the text (page 6) while the figure for 1970 is uncorrected. The table thus exaggerates the rise in agricultural employment up to 1970.

Estimates based upon:

A. Rajkiewicz: Employment - a Problem which is not merely Economic. Nowe Drogi, June 1964.

Z. Prochaska and J.W. Combs: The Labour Population Statistics Reports. Series P-90, No. 20.

Concise Statistical Yearbook of Poland 1963.

SOVIET-OCCUPIED ZONE OF GERMANY. ASSESSMENT
OF THE LABOUR SITUATION UP TO 1970(1)

ASSUMPTIONS

1. The following assumptions are made for the purpose of this paper:

(a) The Soviet-occupied zone of Germany includes the Soviet sector of Berlin.

(b) There is no emigration and negligible immigration in the period under review. (Some qualification is introduced in paragraph 15).

DEFINITIONS

2. The following terms are used in the paper:

(a) "Reported employed" - This means the numbers who are given as employed in the Annual Statistical Yearbooks published in the Soviet-occupied zone of Germany.

(b) "Economically active" - The numbers in (a) above do not include those employed in certain confidential activities, e.g. uranium mining, and armed forces and security forces. "Economically active" includes all forms of employment plus the unemployed.

(c) "Working-age groups" - Until the end of 1960 the authorities in the Soviet-occupied zone of Germany defined the working-age groups as 15 and under 65 for men, and 15 and under 60 for women. Since then, due to the gradual extension of the period of compulsory education from eight to ten years, they have been defined as 17 and under 65 for men, 17 and under 60 for women, plus 5/12 of all persons between 16 and 17. In fact, however, a good deal of work is done by young persons under the defined minimum working ages:

(i) Compulsory school attendance begins at age 6, so that when the period of compulsory education was eight years, many started part-time work at 14; similarly the extension of compulsory education by two years means that many will start part-time work at 16.

(ii) In their later years at school pupils have to work part-time in factories or on farms.

PRESENT LABOUR SITUATION

3. Demographic factors, together with the projected extension of basic education from eight to ten years apparently led the Planning Commission of the Soviet-occupied zone in 1959 to assume a decline of 600,000 to 800,000 persons of working age between 1958 and 1965. They did not, however, take account of the

(1) This paper has been contributed by the United Kingdom.

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probable continued flow of refugees to the West(1). Moreover, the fall in the population in the working-age groups was more than proportionate to the fall in the total population(2).

4. The stabilisation of the reported employed population in 1961 and 1962, due to the increased employment of women, is shown in Appendix A. It was not, however, maintained in 1963. There has been a continuous drive to recruit women into the labour force. At the end of September 1963 they formed almost 46% of those reported employed and more than 70% of all fit women were reported to be working.

5. Because of the fall in available labour supply leaders in the Soviet-occupied zone have for some years emphasised the crucial importance to the fulfilment of plans of increases in output per worker.

6. The proportions of the various age groups who were economically active were estimated for 1957(3) and they are shown, together with the method of obtaining them, in Appendix B. An attempt has been made in Appendix C to bring these proportions up to date.

LABOUR REQUIREMENTS UP TO 1970

7. The main lines of the economic plan of the Soviet-occupied zone for 1964-70 were laid down at the Communist Party Congress in January 1963. Ulbricht emphasised that increased production would have to be achieved exclusively by increased productivity, as the number of persons employed was expected to fall. He said that the national income should rise by 35% during the seven years of the plan, on the basis of an average annual rise in labour productivity of 7-8%. This would mean a total increase in labour productivity of between 61% and 71% which would imply a fall in the labour force engaged in material production (i.e. contributing towards the national income) of between 16% and 21%. On 30th September, 1963, there were 6,540,000 people so

(1) Between the 1950 census and the beginning of 1964 this probably amounted to about 2,180,000.

Fall in population of the	
Soviet-occupied zone	1,207,000
(from 18,388,000 to 17,181,000)	
Excess of births over deaths	972,000
Implied net emigration	2,179,000

(2) Between the same dates it fell by 1,892,000 (from 11,646,000 to 9,754,000) so that the population in working-age groups fell from 63.3% of the total population in 1950 56.8% in 1964.

(3) United States Bureau of the Census: the Labour Force of the Soviet Zone of Germany and the Soviet Sector of Berlin. By Samuel Baum and Jerry W. Combs, Jr.

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engaged (including apprentices), excluding those engaged in confidential activities. This would, therefore, seem to suggest that the planners in the Soviet-occupied zone envisaged a fall in the labour force in material production of at least 1 million and possibly as much as 1.5 million, although there might be other explanations. Calculations below suggest that this is, even under the demographic conditions in the Soviet-occupied zone, an improbably large fall and therefore the inference drawn may not be valid. Moreover, as labour productivity in publicly-owned industry is expected to rise by only 65% it is unlikely that the average for all sectors of material production would be as much as this. It is probably dangerous, therefore, to use the relation between increase in national income and increase in labour productivity as a basis for estimating the demand for labour in 1970.

LABOUR SUPPLY UP TO 1970

8. General - The basic potential labour supply consists of persons within the officially defined working-age groups. Around this basic figure the actual civilian labour force will be determined by:

- (a) Economically active people who are outside the defined working-age groups.
- (b) People within the defined working-age groups who are not within the civilian labour force.
- (c) The import and export of labour.

The supply of labour from a given labour force can be varied by changes in the length of the working day, the number of working days in the year and the degree of effort. The overall labour force is, moreover, only a crude guide to the labour supply; it consists in fact of a number of different labour markets.

9. The above factors are dealt with in more detail in paragraphs 10 to 14 below.

10. Persons within the officially defined working-age groups
The working-age groups in the Soviet-occupied zone are defined as men between 17 and 65 together with 5/12ths of those between 16 and 17 and women between 17 and 60 together with 5/12ths of those between 16 and 17. The estimated numbers(1) in these age groups are shown below:

(1) Source: United States Department of Commerce, Bureau of the Census, Foreign Demographic Analysis Division. "Estimates and Projections of the Population of the USSR and of the Communist Countries of Eastern Europe, by Age and Sex" (April 1964). Projections assume declining mortality and negligible migration. Different assumptions about fertility trends are not relevant to this exercise since all people of working age in the period under review have already been born.

TABLE I

NUMBERS OF PEOPLE OF WORKING AGE ON 1ST JANUARY EACH YEAR (000s)

	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
Males	4,633(1)	4,606	4,583	4,576	4,682	4,599	4,613	4,529
Females	<u>5,120(1)</u>	<u>5,057</u>	<u>5,005</u>	<u>4,963</u>	<u>4,931</u>	<u>4,906</u>	<u>4,880</u>	<u>4,858</u>
	9,753	9,663	9,588	9,539	9,613	9,505	9,493	9,387

There is thus expected to be a fall of 366,000 in the number of people of working age by the end of the 1964-70 plan.

11. Economically active people who are outside the defined working-age groups - It can probably be assumed that the number of people in these age groups who are economically active but not in the civilian labour force is negligible, although a small number might be in civilian employment which is classified as confidential. The participation rates which have been estimated in Appendix C for the population outside the defined working-age groups are applied in Appendix D to obtain estimates of the numbers in those age groups who may be economically active during the period under review. The difference between the high and low assumptions for each year is so small as to be meaningless. If the average of the two sets of assumptions is taken it would appear that about 130,000 more people might become economically active in these age groups by the end of the 1964-70 plan. If, on the other hand, these participation rates do not obtain, and, for instance, the "under 16 7/12" category was eliminated from the labour force on the basis that education was being too heavily interfered with there would be 50,000 fewer economically active at the end of 1970 than in 1964.

12. People within the defined working-age groups who are not within the civilian labour force - These consist mainly of members of the armed forces, women not seeking employment and those over the minimum working age who are receiving full-time education. The unemployed, whose numbers are probably small, are included within the civilian labour force.

(a) Armed forces - The present strength of the armed forces including para-military forces of the Soviet-occupied zone is estimated at about 185,000. It is not considered likely that this figure will vary sufficiently in either direction to be a major influence on total civilian labour supply. It could, however, be significant in regard to certain types of labour.

(b) Women not seeking employment - On 30th September, 1963, about 46% of persons reported employed in the Soviet-occupied zone were women. Some 85% of these women were probably within the defined working-age groups. There will be a diminution in the numerical imbalance between males and females in the Soviet-occupied zone during the period up to 1970. This may mean that

(1) Actual numbers

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fewer women are under an economic necessity of working and may result in a reduction of female participation rates even though the régime would not approve of such a reduction. If, however, the proportions of economically active females remained as in Appendix C the actual numbers who are not economically active would be as in Appendix E. The numbers economically active, i.e. the difference between the female population of working age and the numbers not economically active, would be as follows:

TABLE II

NUMBERS OF ECONOMICALLY ACTIVE FEMALES ON 1ST JANUARY
EACH YEAR (000E) WITHIN DEFINED WORKING-AGE GROUPS

<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
3,326	3,270	3,236	3,210	3,196	3,203	3,201	3,201

Thus on those assumptions there would be a fall of about 125,000 in the numbers of economically active females within the working-age groups.

(c) Those over the present minimum working age who are undergoing education - The present minimum working age according to the definition used in the Soviet-occupied zone is approximately 16 years 7 months. It seems unlikely that, during the period under review, there will be a further extension of the period of compulsory education: the extension from eight to ten years has not yet been fully implemented and, although the published statistics do not indicate it, there is believed to be a shortage of teachers. An increase in the proportion continuing their education beyond the compulsory period may be more likely, however. If, for instance, all those between 16 years 7 months and 17 years were to be eliminated from the labour force from the beginning of 1965, the reduction in the labour force would be (in thousands):

TABLE III

<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
55	64	72	77	77	77	76

(d) Others within the defined working-age groups who are not within the civilian labour force - This group consists of males not excluded under other headings, i.e. the sick and disabled, idlers, etc. If the "non-participation" rates for males (i.e. 100 minus the percentages of economically active males shown in Appendix C) are assumed to remain constant until 1971 the numbers of non-participants would be as shown in Appendix F(1). The variations over the period are negligible.

13. The import and export of labour - It has been assumed for the purpose of this paper that there is no emigration from the Soviet-occupied zone. There have from time to time been

(1) An adjustment for the armed forces is made at the end of the paper (Appendix G).

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reports of agreements between the authorities in the Soviet-occupied zone and other countries in Eastern Europe under which those countries would send specialists of various kinds to work in the Soviet-occupied zone. There is no evidence, however, of any large-scale movements, although small numbers of qualified people may have made significant contributions in sectors where shortages have been particularly acute, e.g. doctors. In July 1964 there were reports in the press in the German Federal Republic of an agreement between Poland and the Soviet-occupied zone for the transfer to the Soviet-occupied zone of Germans still living in Poland, starting in September 1964. This has been denied by both sides. On the other hand, there is a labour surplus in Poland and it is possible that an agreement is being worked out whereby Poles will go to work in the Soviet-occupied zone. It is unlikely, however, that more than some 10,000 people will be involved in these transfers.

14. It seems likely that from time to time small-scale importations of labour from the East European countries will be arranged. There are, however, difficulties in the way of large-scale movements, including language and the appropriate wages to be paid to temporary immigrant labour from countries where wages are, generally speaking, lower than in the Soviet-occupied zone.

15. Net effect of factors listed above - Appendix G summarises the effects of taking into account the various factors in paragraphs 10 to 14 above. The figures in line 11 of Appendix G indicate that, on the assumptions made above, there would be a fall of between 160,000 and 350,000 in the civilian labour force. The authorities in the Soviet-occupied zone, it has already been noted, expect some fall, though it is not known how large. It is possible that small additional numbers could be squeezed into the labour force, over and above the figures given in line 11 of Appendix G, principally among the female and elderly population, but it seems that the Soviet-occupied zone is already running close to the upper limit of participation by the population in the labour force. Moreover, a few people, mainly of working age, have in fact managed to escape to the West even since the erection of the Berlin Wall and any who do so in the future are likely to be mainly in those age groups. If, during the period up to 1970, freer movements to the West were again allowed the numbers wishing to leave would depend partly on the degree of improvement in economic conditions in the Soviet-occupied zone; on the other hand, Soviet-occupied zone estimates of likely emigration would be the factor in determining the extent of any relaxations of restrictions. (See also paragraph 16 below).

16. Changes in the length of the working day, etc. - The supply of labour from a given labour force can be varied by changes in the length of the working day, the number of working days in the year and the degree of effort. Increased investment and technological development, e.g. automation, are regarded as basic to the 1964-70 plan. It would be surprising, however, if

the greater freedom of action which the régime has had in its labour policy since the building of the Berlin Wall did not lead it to regard "squeezes" on the labour force, such as longer hours, as partially alternative means of increasing labour productivity. The policy of the régime since 1961, of ensuring that wage increases are kept below productivity increases, is not, however, conducive to hard work, particularly over long periods.

17. Variation between sectors of the labour market - The share of the labour force which is in agriculture is now about 16.4% of the numbers reported employed compared with about 21.7% in 1952. The proportion remains higher than in some Western industrial countries, however. In recent years agriculture has been largely starved of investment, but during 1964-70 it is supposed to receive more than twice the funds of the previous seven years. If by this means it is possible to raise labour productivity in agriculture, agricultural production targets could be achieved with a lower labour force, to the benefit of other sectors of the economy. However, the high proportion of older age groups in agriculture may make it more difficult to take full advantage of the potential benefits from greater investments.

18. Labour productivity in publicly-owned industry(1) is supposed to rise by 65% during 1964-70, whilst total gross industrial production is to rise by 60%. The proportion of gross industrial production deriving from the socialist sector has remained fairly constant in recent years at about 88%. If this were to be so up to 1970 it would be possible to reduce the labour force in the socialist sector of industry by about 3%, say 70,000.

19. The numbers in the sector "Crafts (other than building trade)" has fallen steadily year by year with the decline of the private sector of the economy and it may be expected to continue to do so.

20. Numbers reported employed in sectors outside material production have, on the other hand, risen steadily. This sector includes administration and all kinds of services which are not directly related to material production. It is possible that attempts will be made between now and 1970 to reduce the numbers employed in administration. However, despite the low priority given to services in the Soviet-occupied zone it seems likely that the trend will be for these to absorb more manpower and this sector is probably the one most likely to grow.

(1) A breakdown of reported employed between the socialist, semi-state and private sectors is given in Appendix H.

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APPENDIX B

LABOUR FORCE PARTICIPATION RATES, BY AGE AND SEX: 1957

1957

<u>Age and Sex</u>	<u>% reported employed*</u>	<u>% economically active</u>	
		<u>High estimate†</u>	<u>Low estimate†</u>
<u>MALE</u>			
TOTAL, 14 years and over	74.9	82.6	81.9
14 to 17 years	67.4	70.9	67.4
18 to 24 "	66.9	94.3	91.6
25 to 39 "	84.5	96.6	96.6
40 to 49 "	90.6	96.6	96.6
50 to 64 "	89.8	89.8	89.8
65 years and over	35.0	35.0	35.0
<u>FEMALE</u>			
TOTAL, 14 years and over	44.1	46.8	44.9
14 to 17 years	58.4	60.7	58.4
18 to 24 "	67.1	78.0	74.4
25 to 39 "	50.9	57.0	55.0
40 to 49 "	55.0	55.0	55.0
50 to 64 "	40.5	40.5	40.5
65 years and over	7.3	7.3	7.3

* Excludes those employed in certain confidential activities, eg uranium mining, armed forces, security forces.

† Estimated population data, by age and sex, and age-sex distributions for employed persons in the reported categories were available for January 1957. Age-sex distributions of the economically active and total populations were available for 1946 and 1950. Participation rates could thus be obtained for the economically active population in 1946 and 1950. Using these rates as a guide, two sets of participation rates for 1957 were made, one of which was considered a minimum, the other a high but reasonable estimate. The low estimate merely corrected the observed participation rates in 1957 for the inordinately low reported participation among males, particularly at ages 25 to 49 years. For example, in 1957, when labour shortages were apparently serious, participation rates implied by the reported statistics for males at ages 25 to 39 years were only 84.5%, and for males at ages 40 to 49 years, only 90.6%. In 1950, when labour shortages were less acute and there was relatively high unemployment, the comparable percentages were 96.6% in both cases. The high estimates, with few exceptions, utilized the highest rates observed in any of the years (1946, 1950, 1955 and 1957) for which data were available.

Source: US Bureau of the Census. "The Labour Force of the Soviet Zone of Germany and the Soviet Sector of Berlin", by Samuel Baum and Jerry W. Combs, Jr.

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5. Stage 2. The resulting percentages are applied to the numbers in the age groups in 1963 to give numbers assumed to be employed in those age groups in 1963:

AGE GROUP	MALES		FEMALES	
	NUMBERS IN AGE GROUP	DERIVED NUMBERS EMPLOYED	NUMBERS IN AGE GROUP	DERIVED NUMBERS EMPLOYED
14 to 17 ^a	205,948	140,251	199,377	130,193
18 to 24	867,898	586,699	854,242	640,682
25 to 39	1,558,014	1,330,544	1,723,973	980,942
40 to 49	612,776	561,303	1,008,667	620,330
50 to 64	1,483,454	1,346,976	2,093,297	948,263
65 and over	952,780	357,284	1,514,137	124,199
TOTAL	5,680,870	4,323,057	7,393,695	3,444,569

^a = 5/12 of 15-16 age group plus 16 and 17 age groups.

The actual numbers employed were:

Males 4,299,000
Females 3,646,000

Therefore the male totals for each age group need to be reduced by $(\frac{4,323 - 4,299}{4,323} \times 100)\% = 0.6\%$

and the female totals for each age group need to be increased by $(\frac{3,646 - 3,445}{3,445} \times 100)\% = 5.8\%$.

With these adjustments the participation rates (reported employed only) are:

AGE GROUP	MALES	FEMALES
14 to 17	67.7	69.1
18 to 24	67.2	79.4
25 to 39	84.9	60.2
40 to 49	91.1	65.1
50 to 64	90.3	47.9
65 and over	32.2	8.7

6. Stage 3. To allow for those employed in confidential categories, etc., the above percentages have been raised in the following proportions:

$$\text{High estimate} = \frac{\text{High estimate 1957}^1}{\% \text{ reported employed 1957}} \times \% \text{ reported employed 1963}$$

$$\text{Low estimate} = \frac{\text{Low estimate 1957}^1}{\% \text{ reported employed 1957}} \times \% \text{ reported employed 1963}$$

giving the following percentages of economically active.

AGE GROUP	MALE		FEMALE	
	High Estimate	Low Estimate	High Estimate	Low Estimate
14 to 17	71.2 ²	67.7 ²	71.8 ²	69.1 ²
18 to 24	94.7	92.0	92.3	88.0
25 to 39	97.1	97.1	67.4	65.0
40 to 49	97.1	97.1	65.1	65.1
50 to 64	90.3	90.3	47.9	47.9
65 and over	35.2	35.2	8.7	8.7

1. See Appendix B

² These percentages only apply to those over 16 plus 5/12 of those between 15 and 16.

NUMBERS OF PEOPLE OUTSIDE WORKING AGE GROUPS WHO ARE ECONOMICALLY ACTIVE ON 1ST JANUARY EACH YEAR (000s)
(FOR ASSUMPTIONS SEE PARAGRAPH 11)

APPENDIX D

	1964		1965		1966		1967		1968		1969		1970		1971	
	High Estimate	Low Estimate														
MALES																
Under 16 7/12(1)	68	64	73	70	85	81	94	89	97	92	97	92	96	91	95	90
65 and over	338	338	345	345	352	352	361	361	369	369	376	376	383	383	390	390
	406	402	418	415	437	433	455	450	466	461	473	468	479	474	485	480
FEMALES																
Under 16 7/12(1)	66	64	72	69	82	79	90	87	93	89	93	89	93	89	92	88
60 to 64	322	322	325	325	325	325	327	327	327	327	330	330	331	331	331	331
65 and over	133	133	136	136	140	140	143	143	146	146	149	149	152	152	154	154
	521	519	533	530	547	544	560	557	566	562	572	568	576	572		
TOTAL	927	921	951	945	984	977	1015	1007	1032	1023	1045	1036	1095	1046	1062	1053
AVERAGE	924		948		980		1011		1027		1040		1050		1057	
AVERAGE EXCLUDING "UNDER 16 7/12" CATEGORY	893		806		817		831		842		855		856		875	

(1) On basis of 7/12 of those aged 16 to 17 and 5/12 of those aged 15 to 16.

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APPENDIX B

NON-ECONOMICALLY ACTIVE FEMALES WITHIN DEFINED WORKING AGE GROUPS (000s)
(1ST JANUARY EACH YEAR) (FOR ASSUMPTIONS SEE PARAGRAPH 12(b))

	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
Under 18 years	30 ₋₃₃	37 ₄₀	39 ₄₃	45 ₄₉	50 ₅₅	52 ₅₇	52 ₅₇	57 ₅₆
18 to 24 "	66 ₁₀₂	60 ₉₃	54 ₈₅	52 ₈₁	61 ₈₉	52 ₈₁	53 ₈₃	57 ₈₉
25 to 39 "	562 ₆₀₃	573 ₆₁₆	584 ₆₂₆	593 ₆₃₆	594 ₆₃₈	598 ₆₄₂	596 ₆₃₉	584 ₆₂₇
40 to 49 "	352	344	348	362	377	393	396	388
50 to 59 "	744	733	706	663	615	569	543	537
Range of High and Low Estimates	1754 ₁₈₃₄	1747 ₁₈₂₆	1731 ₁₈₀₈	1712 ₁₇₉₁	1697 ₁₇₇₄	1664 ₁₇₄₂	1640 ₁₇₁₈	1617 ₁₆₉₇
Average	1794	1787	1769	1753	1735	1703	1679	1657

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APPENDIX F

NON-ECONOMICALLY ACTIVE MALES WITHIN DEFINED WORKING AGE GROUPS (000s)
(1ST JANUARY EACH YEAR) (FOR ASSUMPTIONS SEE PARAGRAPH 12(a))

	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
Under 18 years	32 ₋₃₆	39 ₋₄₃	41 ₋₄₆	45 ₋₅₄	53 ₋₆₀	56 ₋₆₂	56 ₋₆₂	55 ₋₆₂
18 to 24 "	46 ₋₆₉	42 ₋₆₃	39 ₋₅₉	37 ₋₅₅	36 ₋₅₅	37 ₋₅₆	38 ₋₅₇	41 ₋₆₂
25 to 39 "	45	47	49	51	52	53	53	52
40 to 49 "	18	17	18	19	20	22	23	23
50 to 64 "	144	140	134	127	119	112	106	103
Range of high and low estimates	285 ₋₃₁₂	285 ₋₃₁₀	281 ₋₃₀₆	282 ₋₃₀₆	280 ₋₃₀₆	280 ₋₃₀₅	276 ₋₃₀₁	274 ₋₃₀₂
Average	298	297	293	294	293	292	288	288

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APPENDIX G

ESTIMATES OF ECONOMICALLY ACTIVE CIVILIAN LABOUR ON 1ST JANUARY EACH YEAR (FIGURES IN THOUSANDS)
(FOR ASSUMPTIONS SEE PARAGRAPHS 10 TO 14)

	1964	1965	1966	1967	1968	1969	1970	1971
1. Population within officially defined working age groups (paragraph 10)	9,753	9,663	9,588	9,539	9,613	9,505	9,493	9,387
2. Plus economically active people outside defined working age groups (for years after 1964 this is range of Appendix D including "under 16 7/12" category minus Appendix D excluding "under 16 7/12" category)	924	806 -948	817 -980	831 -1,011	842 -1,027	855 -1,040	866 -1,050	875 -1,057
3. = 1 + 2	10,677	10,469 -10,621	10,405 -10,568	10,370 -10,550	10,455 -10,640	10,360 -10,545	10,359 -10,543	10,262 -10,444
4. Less non-economically active females within defined working age groups (Appendix E)	1,794	1,787	1,769	1,753	1,735	1,703	1,679	1,657
5. = 3 - 4	8,883	8,682 -8,824	8,636 -8,799	8,617 -8,797	8,720 -8,905	8,657 -8,842	8,680 -8,864	8,605 -8,787
6. Less non-economically active males within defined working age groups (Appendix F)	298	297	293	294	293	292	288	288
7. = 5 - 6	8,585	8,385 -8,527	8,343 -8,506	8,323 -8,503	8,427 -8,612	8,365 -8,550	8,392 -8,576	8,317 -8,499
8. Less effect of eliminating from labour force persons between 16 years 7 months and 17 years (paragraph 12(c))	NIL	55	64	72	77	77	77	76
9. = 7 - 8	8,585	8,330 -8,472	8,279 -8,442	8,251 -8,431	8,350 -8,535	8,288 -8,473	8,315 -8,499	8,241 -8,423
10. Less armed forces (paragraph 12(a))	185	185	185	185	185	185	185	185
11. = 9 - 10	8,400	8,145 -8,287	8,094 -8,257	8,066 -8,246	8,165 -8,350	8,103 -8,288	8,130 -8,314	8,056 -8,238
1964 = 100	100	97.0-98.7	96.4-98.3	96.0-98.2	97.2-99.4	96.5-98.7	96.8-99.0	95.9-98.

(The import and export of labour is assumed to be negligible)

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APPENDIX H

EMPLOYED PERSONS (000s) INCLUDING APPRENTICES, BY TYPE OF OWNERSHIP AND ECONOMIC SPHERE

	<u>30th September 1963</u>			<u>30th September 1962</u>			<u>30th September 1961</u>					
	<u>Socialist</u>	<u>Semi-State*</u>	<u>Private</u>	<u>Total</u>	<u>Socialist</u>	<u>Semi-State*</u>	<u>Private</u>	<u>Total</u>	<u>Socialist</u>	<u>Semi-State*</u>	<u>Private</u>	<u>Total</u>
Industry	2,434	349	126	2,909	2,405	346	138	2,889	2,425	330	155	2,910
Construction	377	48	71	496	369	47	72	488	356	45	74	475
Crafts (other than Building Trade)	111	-	309	420	106	-	318	424	99	-	326	425
Agriculture, Forestry and Water Supply	1,267	2	30	1,299	1,392	2	32	1,426	1,372	1	39	1,412
Transport	368	2	26	396	367	2	27	396	376	2	28	406
Posts and Telegraph	156	-	-	156	159	-	-	159	136	-	-	136
Commerce	711	6	174	891	719	6	179	904	704	5	183	928
Administration and Services (Sectors outside material production)	1,212	5	179	1,396	1,195	5	182	1,382	1,154	4	187	1,345
	6,616	412	915	7,943 ¹	6,692	408	948	8,048 ¹	6,658	387	992	8,037 ¹
Percentage	83.3	5.2	11.5	100.0	83.2	5.1	11.8	100.0	82.8	4.8	12.3	100.0

*Semi-state enterprises are formed by a contract between a private entrepreneur and the State, the latter usually being represented by the German Investment Bank; the State, however, is a partner with a limited liability while the private entrepreneur has an unlimited liability. Profits are divided on the basis of size of equity capital, but the entrepreneur receives for his management services a regular pay even when the enterprise suffers a loss.

¹Totals do not quite agree with totals in Appendix A because of rounding of sub-totals.

CZECHOSLOVAKIA. ASSESSMENT OF THE LABOUR SITUATION
UP TO 1970(1)

PRESENT LABOUR SITUATION

1. Despite the central planning of the economy there have for several years been reports of labour shortages in Czechoslovakia. This has been particularly marked in coal mining and building, and, regionally, in the area around Prague. However, the drift of labour from agriculture as collectivisation proceeded enabled industry generally to achieve its planned high rates of production growth without worrying too much about the efficient use of labour. Agricultural production has, however, now been hit by the shortage of workers, especially in the younger age groups, and the régime is taking steps to reverse the flow of the labour. Thus unwillingness to contemplate the continuation of the drift of labour from agriculture, together with the failure to raise industrial output per head as planned were important factors in the abandonment of the 1961-1965 plan. The proportion of the labour force which is in agriculture is still high by the standards of industrialised countries, however, and it is unlikely that a reversal of the flow will be possible, although a temporary slowing down may be achieved.

2. Parts of Slovakia, which is economically less advanced than Bohemia-Moravia, have under-employment rather than a labour shortage. However, the central government is trying to bring Slovakia up to the economic level of the Czech-speaking regions and work is intended to be available for all. It does not, therefore, view with favour a continuation of the drift of labour from Slovakia, notwithstanding the labour shortage elsewhere.

3. The latest available figures for the distribution of manpower are given in table 1 below.

(1) This paper has been contributed by the United Kingdom.

TABLE 1

MANPOWER IN THE NATIONAL ECONOMY (EXCLUDING APPRENTICES)
(YEARLY AVERAGES: 000 PERSONS)

(Figures may not in all cases add to totals because of rounding).

	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>
					%	%	%	%
Total working population	6,049	6,059	6,139	6,244	100.0	100.0	100.0	100.0
Industry	2,168	2,286	2,363	2,422	35.8	37.7	38.5	38.8
Construction	496	501	514	527	8.2	9.3	8.4	8.4
Agriculture and Forestry	1,725	1,570	1,484	1,439	28.5	25.9	24.2	23.0
of which:								
Agriculture	1,623	1,468	1,380	1,334	26.8	24.2	22.5	21.4
Transport and Communications	361	367	379	389	6.0	6.1	6.2	6.2
Industrial supplies, Trade and Public Catering, Agriculture								
Procurement	476	480	496	511	7.9	7.9	8.1	8.2
of which Trade and Public Catering	411	416	426	436	6.8	6.9	6.9	7.0
Science and Research, Housing and Communal Services, Health and Social Services, Education, Culture, Adult Education, Physical Training	622	659	705	765	10.3	10.9	11.5	12.3
of which:								
Health and Social Services	167	178	184	193	2.8	2.9	3.0	3.1
Education, Culture, Adult Education and Physical Training	263	277	303	314	4.3	4.6	4.9	5.0
Administration and Law Courts, Banking and Insurance, Public Organizations, other employment not specified above	207	196	198	191	3.3	3.2	3.2	3.1

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4. The percentages of the various age groups who were economically active in Czechoslovakia were estimated for the beginning of 1956. These are given in Appendix A. The term "economically active", however, included, in those percentages, military and para-military forces, as well as others whose employment was of a confidential nature, together with the unemployed, whose numbers are probably small; it is therefore not comparable with published figures of manpower in the national economy.

5. From the beginning of 1960, the period of compulsory education was raised by one year, presumably reducing to nil the economically active percentage in the under 15 age group and probably also reducing that in the 15-19 age group. If the 1956 percentages are consequently amended as in Appendix B and applied to the estimated numbers in the various age groups on 1st January, 1964, (1) the figure of economically active females comes to 2,697,000. However, the announced figure for employed women at the end of 1963 was higher than this, standing at 2,792,000; and to make it fully comparable a small further addition would have to be made for women employed in unreported categories. It would appear, therefore, that the decrease in the percentage of women who are economically active in the lower age groups as a result of the extension of compulsory education has probably been more than offset by a rise in economic activity since 1956 among those in the groups above school age. This is scarcely surprising in view of the persistent shortage of labour.

6. On the other hand, if the amended 1956 male percentages are applied to the numbers in the various age groups at the beginning of 1964 the total comes to 4,134,000 or 580,000 more than that derived from the announced figures. The bulk of this discrepancy can probably be accounted for by categories not included in the announced figures and in view of the general shortage of labour it is unlikely that the fall in the percentage of males who are economically active is perceptibly greater than would be accounted for by the extension of compulsory education.

LABOUR REQUIREMENTS UP TO 1970

7. When the 1961-65 plan was abandoned in 1962 it was intended to replace it by a seven-year plan covering 1964-70 but persisting economic difficulties prevented this and a five-year plan covering 1966-70 is now envisaged. Even the framework for this has not yet been disclosed, however, and in the absence of at least the main plan targets for 1970, in particular the growth envisaged in industrial production and in labour productivity, the accurate forecasting of demands for labour from the socialist sector of the economy, always difficult, becomes virtually impossible. Thus a study of the future labour situation in Czechoslovakia has to rely for detailed examination on the labour supply. This is itself, however, partly determined by the

(1) United States Department of Commerce, Bureau of the Census, Foreign Demographic Analysis Division, April 1964

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demand: fluctuation in the demand for labour will be met partly by changes in the numbers who offer themselves for employment, particularly among women and older age groups. The demand for labour which the plan envisages will also be partly determined by the expected progress of automation and other labour-saving devices, about which the authorities have said little.

LABOUR SUPPLY UP TO 1970

8. General - The basic labour supply consists of persons within the officially defined working-age groups. Around this basic figure the actual civilian labour force within the State sector will be determined by:

- (a) Economically active people who are outside the defined working-age groups.
- (b) People within the defined working-age groups who are not within the civilian labour force in the socialist sector.
- (c) The import and export of labour.

9. The supply of labour from a given labour force can be varied by changes in the length of the working day, the number of working days in the year and the degree of effort. The output of a given labour supply will be determined by a number of factors, e.g. the degree of effort, the type of capital equipment available. The overall labour force is, moreover, only a crude guide to the labour supply; it consists in fact of a number of different labour markets.

10. The above factors are dealt with in more detail in paragraphs 11-19 below.

11. Persons within the officially defined working-age groups in Czechoslovakia these age groups are 15 to 59 for men and 15 to 54 for women. The estimated numbers(1) in these age groups are shown in table 2.

TABLE 2

NUMBERS BETWEEN AGES 15 AND 59 (MEN) AND 15 AND 54 (WOMEN) ON 1ST JANUARY EACH YEAR (000s)

	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
Men	4,112	4,147	4,187	4,222	4,160	4,294	4,324	4,358
Women	<u>3,758</u>	<u>3,778</u>	<u>3,803</u>	<u>3,832</u>	<u>3,857</u>	<u>3,878</u>	<u>3,902</u>	<u>3,969</u>
Total	<u>7,870</u>	<u>7,925</u>	<u>7,990</u>	<u>8,054</u>	<u>8,117</u>	<u>8,172</u>	<u>8,226</u>	<u>8,327</u>

(1) United States Department of Commerce, Bureau of the Census, Foreign Demographic Analysis Division, April 1964

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12. Economically active people who are outside the defined working-age groups - It can probably be assumed that the number of people in these age groups who are in the armed forces is negligible. Changes in social security regulations in February 1964 contained a mixture of incentives and disincentives to people over the normal retiring age to continue working, but the net effect on the labour force will probably be small.

13. It was noted in paragraph 5 above that the percentage of economically active females in age groups above school age appeared to have risen since 1956. It is not known how such changes have affected the age groups under consideration in this paragraph, but it may have been partly accounted for by an increase in the economically active percentages in higher female age groups (i.e. 55 and over) of, say, one twentieth. If the adjusted percentages are applied to the relevant age groups up to 1971 the numbers of workers would be as in Appendix C. If, on the other hand, it is assumed that the male percentages instead of continuing at their 1956 level now move gradually towards the average 1956 European rate, with the female rate remaining as in Appendix C, the numbers of workers might be as in Appendix D. The difference between the totals in Appendix C and Appendix D is small and it would appear, therefore, that the room for manoeuvre by virtue of changes between now and the end of 1970 in the proportions in these age groups who are economically active is also small. Depending on the proportions there would be between 140,000 and 180,000 more economically active people in these age groups in 1971 than in 1964.

14. People within the defined working-age groups who are not within the civilian labour force in the socialist sector - These consist mainly of members of the armed forces, women outside the labour force, those over the minimum working age who are receiving full-time education and those in the private sector.

(a) - Armed forces(1) - The present estimated strength of the armed forces, including para-military forces, is about 260,000. It is considered unlikely to change significantly between now and 1970, and it is not therefore likely to be a major influence on total civilian labour supply although it could be significant in regard to certain types of labour.

(b) Women outside the labour force - At the end of 1963 44% of all persons listed as employed in Czechoslovakia were women. As about two thirds of these women were probably within the defined working-age groups the proportions who do not seek employment will be a major factor in determining the available labour supply. These proportions are, however, themselves largely determined by the demand for labour. If the proportions of economically active females are assumed to be as in Appendix A, with an addition of one twentieth as in the case of age groups over 55, the numbers working would be as shown in Appendix E. On these

(1) Some members of the armed forces are used for civil work, especially in building.

assumptions there would therefore be about 170,000 more economically active females at the beginning of 1971 than at the beginning of 1964. While there is no reason for supposing that in the early part of the period demand for labour will not remain high, however, it seems unlikely that the proportion of women who are economically active will remain markedly above the European average throughout the whole period. It may be, therefore, that for the later years the figures in Appendix E will be found to be on the high side.

(c) Those over the present minimum working-age who are undergoing education - Changes in these proportions will mainly affect those in the 15-19 age group but also, to some extent, those in the 20-24 group. They may come about as a result of:

- (1) A higher school-leaving age.
- (2) Changes in the proportions who continue their education beyond the compulsory period.

The effect of either (1) or (2) on the labour force can be offset to some extent by compulsory part-time work. Although the increasing proportion of skilled work may enhance the attractions of longer periods of education, the attitude of the State will also be partly determined by the labour supply situation as well as by the possibilities for using more advanced technology to reduce the requirement for labour. If, to take the extreme case, a complete course of secondary education were made available in stages, say a one-year course in 1966, two years in 1968 and three years in 1970, the proportions of those between 15 and 18 who were economically active would fall, giving numbers as in Appendix F. These figures for females would then have to be substituted for those in Appendix E. Such a massive reduction in the labour force seems unlikely to be contemplated. If a halt were made after the 1966 reduction the figures would be shown in Appendix G.

(d) Movements between the socialist and private sectors
At the end of 1962 the private sector only accounted for 226,000, mainly farmers, out of a total reported manpower in the national economy of 6,249,000. There is thus little scope for the socialist sector to draw labour from the private sector. On the other hand, there is no evidence that the State is prepared to contemplate a loss of labour to the private sector; the consumer and personal services which were returned to the private sector in April and August 1964 are apparently intended to be run by people who are not at present in the labour force.

(e) Others within the defined working-age groups who are not within the civilian labour force in the socialist sector
This group consists of males not excluded under other headings, i.e. the sick and the disabled, idlers, etc. The "non-participation" rates for males in 1956 were as in table 3 below.

TABLE 3

	%
15-19 years	26.2
20-24 "	10.7
25-29 "	5.2
30-34 "	3.8
35-39 "	2.9
40-44 "	3.1
45-49 "	3.7
50-54 "	7.3
55-59 "	11.1

The possibility of a fall in the proportion of economically active among those aged 15 to 19 has been dealt with in (c) above. Changes in the proportion for the 20 to 24 age groups for educational reasons can probably be ignored. If the economically active proportions in the over 20 age groups are assumed to remain at their 1956 level up to 1970 the numbers of non-participants would be as in Appendix H. If the demand for labour were such as to cause the proportion of non-economically active males to fall towards the 1956 European average the figures might be as in Appendix J. The differences between the totals for Appendices H and J are small, however.

15. The import and export of labour - It was announced early in 1964 that, as part of the long-term agreement, 4,000 Poles were to work in Czechoslovak industry and agriculture. In May it was reported that 3,500 Poles (mainly miners at Ostrava) were already at work and that the number might eventually rise to 10,000 although these would only be frontier workers. This would appear a logical agreement as the Poles have a labour surplus and are currently concerned about the difficulties of finding employment for the extra labour which will be coming on to the market between now and 1970. Further limited arrangements of this kind may be expected although there are difficulties, e.g. language, housing, in the way of large-scale movements. From more distant countries the difficulties are probably even greater.

16. Net effect of factors listed above - Appendix K summarises the effects of taking into account the various factors in paragraphs 11 to 15 above. Line 15 of Appendix K includes people in confidential employment categories, apprentices and the unemployed. It cannot, therefore, be compared directly with published Czechoslovak figures for "manpower in the national economy". Czechoslovak officials themselves said in November 1963 that "for the period up to 1970, the prospects are that roughly 500,000 more persons can be recruited. This figure covers the entire economy, the health service, education, etc.; only a very small margin will be available for industry".

17. The figures in line 15 of Appendix K envisage a maximum of an extra 411,000 persons being recruited by the end of 1970. It seems therefore that the Czechs themselves are assuming greater

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participation in the economy on the part of certain categories than has been assumed in this paper. The way in which extra labour is most likely to be recruited is probably from the part-time work of those undergoing education or from the limiting of the extension of compulsory education; the Czechs themselves admit that not much additional manpower can be recruited from the ranks of women in households, and the possibility of importing labour on a large scale would not seem to be great.

18. Changes in the length of the working day, etc. - The labour obtained from a given labour force can be varied by changes in the length of the working day, the number of working days in the year and the degree of effort. The statutory hours and days of work will be at least partly determined by the general situation in the labour market and cannot therefore be regarded as an independent supply factor. Thus, unless the 1966-70 plan is so arranged as to allow for a reduction in the demand for labour it is unlikely that there will be any general reduction in working hours or extension of statutory holidays. The recent trend has been in the other direction. The actual amount of time worked will be partly determined by the incentives to the workers and there would no doubt be scope for increasing the input of effort by this means.

19. Variations between sectors of the labour market - The labour force has, up to now, been treated as a whole. This treatment, it needs to be remembered, is only a crude guide to the labour supply. Different economic sectors, different geographical areas and different qualities of labour will present different problems. The way in which Czechoslovakia deals with them will largely be determined by the planning methods which are currently being used. Recent discussion suggests that greater flexibility is likely to appear by 1970 and this may make possible smoother adjustments within the economy.

APPENDIX A

PERCENTAGES OF VARIOUS AGE GROUPS WHO WERE ESTIMATED TO BE ECONOMICALLY ACTIVE AT THE BEGINNING OF 1956

	<u>MALE</u>	<u>FEMALE</u>
0-14 years	1.3	2.8
15-19 "	73.8	73.4
20-24 "	89.3	73.3
25-29 "	94.8	59.2
30-34 "	96.2	54.3
35-39 "	97.1	52.4
40-44 "	96.9	52.4
45-49 "	96.3	52.3
50-54 "	92.7	49.8
55-59 "	88.9	43.8
60-64 "	80.1	35.7
65 years and over	36.5	19.1

These figures are based on the US Bureau of Census study, The Labour Force of Czechoslovakia, by James Ypsilantis. The percentages were calculated as follows:-

a. Figures of economically active were not available for Czechoslovakia. Figures of reported employed were not available by age groups, but only in total.

b. Averages were, therefore, taken of the percentages of economically active in each age group for a number European countries. These averages were then applied to the age groups in the 1956 Czechoslovak population with the results that

(1) The estimate of the number of economically active men was greater than the number reported employed in the Czechoslovak data. Most of this difference was reckoned to be accounted for by employment in confidential categories, but the average European rates were nevertheless reduced somewhat at all age groups to achieve more accurate figures for Czechoslovakia.

(2) The estimate of the number of economically active women was substantially lower than the number reported employed in the Czechoslovak data. Therefore additions were made to the average European rates at all age groups to achieve more accurate figures for Czechoslovakia.

The adjustments to the average European rates which were made in order to arrive at the percentages given in the table above are as follows:

	<u>MALES</u>	<u>FEMALES</u>
	Reduction in average European Percentage to arrive at estimate for Czechoslovakia	Addition to average European Percentage to arrive at estimate for Czechoslovakia
0-14 years	0.4	1.5
15-19 "	2.2	18.9
20-24 "	1.3	14.7
25-29 "	0.7	16.5
30-34 "	0.6	16.7
35-39 "	0.3	16.7
40-44 "	0.4	16.7
45-49 "	0.4	16.6
50-54 "	1.1	16.7
55-59 "	0.4	14.1
60-64 "	2.4	11.9
65 years and over	4.4	7.7

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APPENDIX 1

MEASURED PERCENTAGES OF AGE GROUPS UNDER 19 ESTIMATED TO BE ECONOMICALLY ACTIVE AFTER THE EXPIRATION OF THE COMPULSORY EDUCATION PERIOD IN 1960

	<u>MALE</u>	<u>FEMALE</u>
0-14 years	NIL	NIL
15-16 "	20.0	40.0
16-19 "	73.8	79.4

See also paragraph 4 of text.

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APPENDIX C

ECONOMICALLY ACTIVE PEOPLE OUTSIDE NORMAL WORKING AGE GROUPS (000s) (FOR ASSUMPTIONS SEE PARAGRAPH 13)

<u>MALES</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
0-14 years	0	0	0	0	0	0	0	0
60-64 "	270	279	284	291	296	303	308	313
65 years and over	196	203	211	220	229	237	246	254
<u>FEMALES</u>								
0-14 years	0	0	0	0	0	0	0	0
55-59 "	206	210	214	215	218	219	219	200
60-64 "	152	154	153	156	157	159	163	166
65 years and over	157	163	169	175	181	186	192	196
	<u>981</u>	<u>1009</u>	<u>1031</u>	<u>1057</u>	<u>1081</u>	<u>1104</u>	<u>1128</u>	<u>1129</u>

Note: Figures are for 1st January each year.

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APPENDIX D

ECONOMICALLY ACTIVE PEOPLE OUTSIDE NORMAL WORKING
AGE GROUPS (000s) (FOR ASSUMPTIONS SEE PARAGRAPH 10)
(1st JANUARY EACH YEAR)

<u>MALES</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
0-14 years	0	0	0	0	0	0	0	0
60-64 "	275	283	289	296	303	310	316	321
65 years and over	214	218	227	236	250	259	269	278
<u>FEMALES</u>								
0-14 years	0	0	0	0	0	0	0	0
55-59 "	206	210	214	215	218	219	219	200
60-64 "	152	154	153	156	157	159	163	166
65 years and over	157	163	169	175	181	186	192	196
	<u>1004</u>	<u>1028</u>	<u>1052</u>	<u>1078</u>	<u>1109</u>	<u>1133</u>	<u>1159</u>	<u>1161</u>

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APPENDIX E

ECONOMICALLY ACTIVE FEMALES WITHIN DEFINED WORKING-AGE GROUPS (000s)

	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
15-19 years	475	486	502	505	503	504	507	505
20-24 "	355	370	380	402	425	438	448	463
25-29 "	249	250	255	263	272	285	298	306
30-34 "	256	251	243	235	229	228	228	232
35-39 "	261	257	256	254	251	246	241	233
40-44 "	265	272	275	269	265	260	256	254
45-49 "	150	143	165	198	230	260	268	271
50-54 "	<u>245</u>	<u>246</u>	<u>223</u>	<u>197</u>	<u>168</u>	<u>140</u>	<u>133</u>	<u>154</u>
	2,255	2,275	2,299	2,323	2,343	2,361	2,379	2,418
Plus 1/20	<u>113</u>	<u>114</u>	<u>115</u>	<u>116</u>	<u>117</u>	<u>118</u>	<u>119</u>	<u>121</u>
TOTAL	<u>2,369</u>	<u>2,389</u>	<u>2,414</u>	<u>2,439</u>	<u>2,460</u>	<u>2,479</u>	<u>2,498</u>	<u>2,539</u>

Note: Figures are for 1st January each year. For assumptions made in this table see paragraph 14(b) of text.

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APPENDIX F

ECONOMICALLY ACTIVE PEOPLE IN AGE GROUPS 15-19 (000s)

	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
Males 15-19	382	397	317	317	219	220	125	126
Females 15-19	424	437	352	351	249	251	153	154
TOTAL	806	834	669	668	468	471	278	280

The assumptions made about the proportions of economically active as as follows:-

PROPORTION OF ECONOMICALLY ACTIVE IN AGE GROUP	COMPULSORY EDUCATION UP TO											
	14		15		16		17		18			
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES		
14-15	20	40	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL		
15-16	} 73.8	} 79.4	20	40	NIL	NIL	NIL	NIL	NIL	NIL		
16-17			} 73.8	} 79.4	20	40	NIL	NIL	NIL	NIL		
17-18					} 73.8	} 79.4	20	40	NIL	NIL	NIL	NIL
18-19							20	40	NIL	NIL	20	40
19-20			73.8	79.4	73.8	79.4	73.8	79.4	73.8	79.4	20	40
									73.8	79.4		

Note: Figures are for 1st January each year. For the assumptions behind this table see paragraph 14 c. of text.

APPENDIX G

ECONOMICALLY ACTIVE PEOPLE IN AGE GROUPS 15-19 (000s)

	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
Males 15-19	382	397	317	317	317	319	323	321
Females 15-19	424	437	352	351	351	353	356	356
TOTAL	806	834	669	668	668	672	679	677

Note: Figures are for 1st January each year. For the assumptions behind this table see paragraph 14 e. of text.

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APPENDIX H

NUMBERS OF NON ECONOMICALLY ACTIVE MALES (000s)

	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
20-24 years	53	55	57	60	63	65	67	70
25-29 "	22	22	23	24	24	24	27	27
30-34 "	18	18	17	16	16	16	16	16
35-39 "	14	14	14	14	14	14	13	13
40-44 "	15	15	15	15	15	15	14	15
45-49 "	10	10	11	13	15	17	18	18
50-54 "	34	34	31	27	23	19	18	21
55-59 "	46	47	48	48	48	49	48	44
TOTAL¹	212	215	216	217	218	219	221	224

Note: Figures are for 1st January each year. For the assumptions behind this table see paragraph 14 e. of text.

¹ An adjustment for the Armed forces and the private sector is made at the end of the paper (see Appendix K).

APPENDIX J

NUMBERS OF NON ECONOMICALLY ACTIVE MALES (000s)

	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
20-24 years	49	50	53	55	59	59	61
25-29 "	19	20	21	21	21	24	24
30-34 "	15	15	15	14	14	14	14
35-39 "	12	12	13	13	13	12	12
40-44 "	15	14	13	13	13	12	12
45-49 "	8	9	12	14	16	16	16
50-54 "	29	28	23	20	16	15	18
55-59 "	40	42	42	42	44	42	39
	<u>187</u>	<u>190</u>	<u>192</u>	<u>192</u>	<u>196</u>	<u>194</u>	<u>196</u>

Note: Figures are for 1st January each year. For the assumptions behind this table see paragraph 14 e. of text.

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APPENDIX I

ESTIMATES OF SUPPLY OF CIVILIAN LABOUR IN SOCIALIST COUNTRIES OF THE EUROPEAN AREA
FIGURES IN THOUSANDS. FOR ASSUMPTIONS SEE PARAGRAPH 11 to 14

	1964	1965	1966	1967	1968	1969	1970	1971
1. POPULATION WITHIN OFFICIALLY DEFINED WORKING AGE GROUPS (TABLE 2).	7870	7925	7990	8054	8117	8172	8226	8277
2. PLUS ECONOMICALLY ACTIVE PEOPLE OUTSIDE DEFINED WORKING AGE GROUPS (APPENDICES C AND D).	981 -1004	1009 -1028	1031 -1052	1057 -1078	1081 -1109	1104 -1133	1128 -1159	1129 -1161
3. = 1 + 2	8851 -8874	8934 -8953	9021 -9042	9111 -9132	9198 -9226	9276 -9305	9354 -9385	9456 -9485
4. LESS MALES IN 15-19 AGE GROUP WHO ARE NOT ECONOMICALLY ACTIVE (MALE POPULATION LESS RANGE OF APPENDICES 2 AND C).	232	235	339	344	344 -442	344 -443	343 -541	341 -536
5. = 3 - 4	8619 -8642	8699 -8718	8682 -8703	8767 -8788	8854 -8784	8932 -8862	9011 -8944	9115 -8952
6. LESS MALES IN OTHER WORKING AGE GROUPS WHO ARE NOT ECONOMICALLY ACTIVE (RANGE OF APPENDICES H AND J).	212	187 -215	190 -216	192 -217	192 -218	196 -219	194 -221	196 -224
7. = 5 - 6	8407 -8430	8518 -8503	8492 -8487	8575 -8571	8662 -8566	8736 -8643	8817 -8623	8919 -8728
8. LESS WOMEN IN 15-19 AGE GROUP WHO ARE NOT ECONOMICALLY ACTIVE (FEMALE POPULATION LESS RANGE OF APPENDICES 2 AND G).	174	175	280	285	283 -385	282 -384	282 -485	280 -482
9. = 7 - 8	8233 -8256	8337 -8328	8218 -8207	8290 -8286	8379 -8181	8454 -8259	8535 -8138	8639 -8246
10. LESS WOMEN IN OTHER WORKING AGE GROUPS WHO ARE NOT ECONOMICALLY ACTIVE (FEMALE POPULATION LESS NUMBERS IN OTHER WORKING AGE GROUPS IN APPENDIX E).	1266	1263	1267	1262	1335	1268	1282	1298

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	1964	1965	1966	1967	1968	1969	1970	1971
11. = 9 - 10	6,967 -6,990	7,074 -7,065	6,945 -6,940	7,028 -7,024	7,044 -6,846	7,186 -6,931	7,253 -6,856	7,341 -6,948
12. <u>LESS</u> ARMED FORCES (PARAGRAPH 11(a))	260	260	260	260	260	260	260	260
13. = 11 - 12	6,707 -6,730	6,814 -6,805	6,685 -6,680	6,768 -6,764	6,784 -6,586	6,926 -6,731	6,993 -6,596	7,081 -6,658
14. <u>LESS</u> PRIVATE SECTOR (ASSUME END 1962 FIGURES REMAIN VALID)	220	226	226	226	226	226	226	226
15. = 13 - 14 = CIVILIAN LABOUR IN SOCIALIST SECTOR OF THE ECONOMY (1) (1964 = 100 TAKING AVERAGE OF YEARLY RANGES)	6,481 (100) -6,504	6,588 (101) -6,579	6,459 (99) -6,454	6,542 (100) -6,538	6,558 (99) -6,360	6,700 (102) -6,505	6,767 (101) -6,370	6,855 (103) -6,462

(1) The import of labour is assumed to be negligible.

PRESENT MANPOWER SITUATION IN RUMANIA AND FORECASTS(1)

1. The purpose of the present study is to examine the current manpower situation in Rumania and to attempt to forecast developments over the next few years and up to 1980.

Source of data

2. The statistical data used as the basis for this study have been obtained from the publications of the Rumanian Central Statistics Office. The main source is the last census which was organized on 21st February, 1956. A fair amount of data has been published and while, at first sight, there is no reason to doubt their validity, certain discrepancies can be found; the data on the distribution by age, for example, are defective. In making their returns, people in Rumania still tend to round off their age whatever it is and older persons in addition overstate theirs.

3. The statistical yearbooks (anual statistic al RPR) supply the only information available since 1956, but this information is extremely meagre both as regards the overall population (for example, there has been no estimate of the population by age and sex since 1956) and as regards the active population. Statistics on manpower are not only incomplete but lacking in precision. Thus, data on the population "in employment" are only published in the form of percentages and the absolute figures on which they are based are never made available.

Likewise, nothing is known of the basic figures which have served for calculating indices in certain tables. Figures are available for wage-earners and salaried workers but there is no definition of this group and its proportions in the population "in employment" is unknown. Rough estimates have had to be made of all the absolute figures concerning the population "in employment".

Concepts used in Rumanian statistics

4. The population "of working age" comprises men between the ages of 14 and 59 and women between the ages of 14 and 54.

5. The population "in employment" comprises the population "of working age" other than persons who are inactive, members of the armed forces and Communist Party employees. It would seem, however, that all people in rural areas between the ages of 14 and 54 have been included in the population "in employment" whether they are active or not. Most of the data published in the Rumanian statistical yearbooks concern the population "in employment".

6. The "economically active" population comprises all civilians who obtain payment for their work regardless of whether they are "of working age" or not and of whether they are town or country dwellers, including "members of social organizations(2),

(1) The original French version of this paper has been contributed by the French member of the Ad Hoc Group.

(2) This group probably comprises the Communist Party employees.

apprentices in vocational training schools, students in secondary technical schools and members of the armed forces". This definition was adopted for the 1956 census.

I. PRESENT SITUATION OF THE RUMANIAN POPULATION AND LABOUR FORCE

7. The Rumanian population numbered about 17,500,000 at the time of the 1956 census and 18,800,000 at 1st July, 1963, (according to the estimates of the Rumanian Statistics Office).

Distribution by age and by sex

8. The population has aged since 1930, particularly as a result of a lower birth rate, but this aging process was only at an early stage in 1956 (the birth rate was relatively high towards 1950; the gross rate rose to 24.2% in 1956). Because of this, the proportion of young people (27.5%) in the overall population in 1956 was markedly higher than in most of the other European countries and that of older people much lower. Between 1930 and 1956 the changes in distribution by age were reflected by an increase in the proportion of people of active age in the overall population. The relatively large place held by this section of the population will probably only begin to shrink after 1980.

Table 1: Population by Age and Sex
(census of 21st February, 1956)

Age	Absolute numbers			%		
	male	female	male and female	male	female	male and female
0-14	2,451	2,362	4,814	28.8	26.3	27.5
15-64	5,593	5,968	11,561	65.8	66.4	66.1
65 and over	460	656	1,115	5.4	7.3	6.4
All ages	8,503	8,986	17,489	100.0	100.0	100.0

Because figures have been rounded off they do not always add up correctly.

In 1956, the proportion of males in the population was an average one as compared with ratios generally to be found in Europe (94.6 men to 100 women).

"Economically active" population

9. The economically active population consisted of 10,400,000 people in 1956, i.e. 60% of the total population. This high percentage was due to the large proportion of persons employed in agriculture. In the same year, there were 102 "economically active" men in Rumania for every 100 men between the ages of 15 and 64. This is one of the highest proportions in Europe; it is the result of high occupation rate among the older age groups, a phenomenon which is generally found in predominantly agricultural

countries. For the same reason, and also because the majority of wives of agricultural workers are systematically included in the "economically active" population, in 1956, 79 out of 100 women between the ages of 15 and 64, were considered to be "economically active", which is higher than anywhere else in Europe (between 50% and 60% in most Eastern European countries). Consequently, there are almost as many "economically active" women as there are men (4,700,000 women as compared with 5,700,000 men). In 1956, there were 115 women for every 100 men employed in agriculture but three times as many men as women in non-agricultural branches of the economy.

Table 2: Proportion of Women in the Active Population of Selected Eastern European Countries (in %)

Branch of economic activity.	Rumania(1) 1956	Soviet-occupied zone of Germany 1958	Czechoslovakia(2) 1953	Hungary(2) 1956
Agriculture	53.6	48.1	52.7	32.6
Non-agricultural branches	26.4	42.3	37.7	30.6
All branches	45.3	43.9	42.3	31.5

Occupation rate

10. As is the case in most countries, almost all men between the ages of 20 and 59 are "economically active". However, the proportion of active men under 20 and over 60 is relatively high (82.2% for the 14 to 19 age group and 77.5% for the over 60 age group). The occupation rate of women in all age groups is much greater in Rumania than in most of the other European countries. Between the ages of 14 and 55, almost three quarters of the women are "economically active" and the differences between successive five-year age groups are very slight. Forty-five per cent of women over 60 are still active. However, while the rural rates are very high, the urban rates for women are fairly low in Rumania in comparison with those for the town in the industrialised Eastern European countries.

- (1) "economically active" population
 (2) Population "in employment"

Source: "The Labour Force of Rumania" United States Department of Commerce, Bureau of the Census

Table 3: Occupation Rate According to Age, Sex and Residence (in %) - Census of 21st February, 1956

Age Group	Male sex			Female sex		
	town dwellers	country dwellers	Rumania as a whole	town dwellers	country dwellers	Rumania as a whole
14-19	66.5	90.4	82.2	45.6	88.1	75.0
20-24	88.0	98.1	94.5	53.7	89.7	78.0
25-29	95.4	98.8	97.6	47.2	88.5	74.2
30-39	97.1	98.9	98.2	44.6	89.9	73.5
40-49	96.2	98.8	97.8	44.0	91.3	75.4
50-54	92.6	98.3	96.5	37.6	89.4	72.6
55-59	86.7	97.4	94.1	29.5	85.3	67.7
60 and over	59.3	84.7	77.5	16.7	58.6	46.1

Rumania is thus essentially an agricultural country and, although industrialisation has been stepped up since 1947, 70% of the "economically active" population was still employed in agriculture in 1956.

Population "in employment" by branch of economic activity

11. The size of the population "in employment" has had to be estimated on the basis of two sets of figures published in the Rumanian yearbooks. The first gives the percentages of the population "in employment" in the different branches of the economy at 31st December of each year from 1950 to 1962 inclusive; the second gives the yearly average number of industrial wage-earners and salaried workers employed in the socialist sector (state industry and co-operative industry) and the population employed in private industry at the end of the year, from 1950 to 1962. It has been assumed that the number of wage-earners and salaried workers tallied with the population "in employment" in the socialist sector of industry and that the figures for the population in private industry, added to the former, provided the total population "in employment" in industry. This is tantamount to making the following two assumptions:

- all those working in the co-operative industry are included among the wage-earners and salaried workers;
- the figures for wage-earners and salaried workers only cover persons "of working age". It should be pointed out that the errors caused by the adoption of these two assumptions cancel to some extent one another out.

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Table 4: Estimate of the Population "in employment"
in Rumania at 1st January

(in thousands)

	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>
Wage-earners and salaried workers in State industry	1,002.1	1,066.2	1,138.4	1,212.7	1,309.9
Wage-earners and salaried workers in co-operative industry	133.6	111.0	88.0	93.8	99.4
Population "in employment" in private industry	<u>150.3</u>	<u>143.7</u>	<u>108.8</u>	<u>91.2</u>	<u>80.9</u>
Population "in employment" in industry	1,286.0	1,320.9	1,335.2	1,397.7	1,490.2
Population "in employment" in industry in % of the total population "in employment"	13.5	13.7	13.8	14.4	15.1
Total population "in employment"	9,526	9,642	9,675	9,706	9,869

Table 5: Population "in employment" in Rumania
at 1st January by branch of economic activity

(in thousands)

	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>
Industry	1,286	1,321	1,335	1,398	1,490
Building	314	318	339	398	395
Freight transport and tele-communications at the service of production	172	165	174	175	188
Freight traffic	333	328	319	330	345
Services of the unproductive sector	114	125	136	136	148
Education, culture, arts	219	222	232	252	276
Health	124	125	136	155	168
Administration	114	116	106	107	109
Other branches	<u>191</u>	<u>173</u>	<u>194</u>	<u>214</u>	<u>226</u>
Non-agricultural branches	2,867	2,893	2,971	3,165	3,345
Agriculture and Forestry	<u>6,659</u>	<u>6,749</u>	<u>6,704</u>	<u>6,541</u>	<u>6,524</u>
Total population "in employment"	9,526	9,642	9,675	9,706	9,869

Table 6: Yearly Variations in the Number of the
Population "in employment" (in thousands)

<u>Year</u>	<u>Agriculture</u>	<u>Non-agricultural branches</u>	<u>Total</u>
1958	+ 90	+ 26	+ 116
1959	- 45	+ 78	+ 33
1960	- 163	+ 194	+ 31
1961	- 17	+ 180	+ 163

Since 1959, according to these estimates the general rise in the population "in employment" results from increases in non-agricultural branches and within these, mainly in industry; an increase in the Education and Health sectors can also be noted; figures for persons "in employment" in other branches are more or less unchanged.

Distribution of the population "in employment" by sector

12. Socialisation first affected the non-agricultural branches and by 1958 almost 90% of persons "in employment" in industry were working in the socialist sector. Socialisation of agriculture was slower but had almost been completed at the start of 1963. It was reflected in the development of co-operatives and agricultural associations, but since 1960 the first have grown to the detriment of the second.

The complete transfer of agriculture to the socialised sector will lead to a sharp reduction in family labour and in the number of elderly workers; at the same time it will probably permit a more accurate estimate of the population in employment in agriculture in future assessments.

Table 7: Ratio of the Population "in employment"
in the socialist sector to the total population
"in employment" (in %) (at 1st January of each year)

<u>Branch of activity</u>	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
Industry	88.5	89.3	92.9	94.5	96.4	97.7
Agriculture	44.7	53.7	75.3	84.8	86.7	93.8

Source: Annuaire Statistique du RPR 1963

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Table 8: Population employed(1) in Agriculture,
Forestry and Woodwork (in thousands)
(at 1st January of each year)

<u>Sector</u>	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
State sector	383	397	426	445	477	-
Co-operatives	765	944	1,716	2,863	4,135	6,643
Agricultural associations	2010	2,620	3,307	2,926	2,022	452
Private sector	4302	3,578	2,059	1,493	-	-

Source: Estimates made by the "Bureau of the Census" in "Agricultural Manpower in Eastern Europe", Bureau of the Census, December 1963.

(1) The population "employed" tallies approximately with the "economically active population".

II. FUTURE TRENDS OF THE TOTAL POPULATION AND OF THE "ECONOMICALLY ACTIVE" POPULATION

A. Preparation of projections

13. Total population - The population projections by age and by sex established by the United States "Bureau of the Census" and published in February 1964 cover the period 1956 to 1987. A single mortality rate has been applied but the different fertility assumptions have led to the production of four series of projections labelled A, B, C and D. The intermediate series have been selected:

- Series B: application of the gross birth rate of 95% during the whole period covered by the projections.
- Series C: steady yearly reduction of the gross birth rate up to 1974 and subsequent stabilisation at 80%. The figures for these two series are indicated by the signs (1) and (2) respectively (see tables A and B).

14. "Economically active" population - The forecasts for the total "economically active" population are taken first. Occupation rates by age groups and by sex have been calculated on the basis of the census of 21st February, 1956. A yearly rate (14-year-olds) and five-year rates have been deducted from the sexennial rate (14 to 19 years old) and the two 10-year rates (30 to 39 years old and 40 to 49 years old) by graphic interpolation, making allowance for the necessary coherence between these rates and the size of the total population and of the active population in these age groups.

15. The rates for 14-year olds which are 75% for the boys and 73% for the girls may seem high. This is probably due to two causes:

- the agricultural population, because of its size, helps to raise the occupation rate at this age. the members of an agricultural family become "economically active" quite young, particularly as family helps;
- by definition, students in the technical schools who are over 14 are included among the "economically active" population.

16. The application of the occupation rates - without any changes - for 1956 to the total population has made it possible to establish forecasts for the "economically active" population by age (14-year olds, five-year groups between the ages of 15 and 60, 60 and over) and by sex at 30th June during the years 1956 to 1971 and during the years 1975 to 1976 and 1980 to 1981 (see tables E and F).

17. Forecasts for the "economically active" population in agriculture have been established by the following process. The calculation by age group and by sex of the proportion of those who, in the aggregate number of active persons, worked in agriculture has been made on the basis of the 1956 census. These proportions were applied unchanged to the "economically active" population to pinpoint the active population in agriculture (see tables G and H). These forecasts therefore rest on the assumption that the occupation rates and proportion of agricultural workers noted in the total active population in 1956 will remain constant; the data available are too meagre to support more sophisticated assumptions.

B. Analysis of expected trends

18. Overall population trends - According to the census of 21st February, 1956, the Rumanian population consisted of 17,489,000 people at that date, of whom 8,503,000 were men and 8,986,000 women. In the 25 years between 1956 and 1981, this population should grow by 17 or 20% depending on the fertility assumption adopted.

19. The population can be expected to age appreciably. Thus the total number of men of 60 and over and of women of 55 and over will increase by 42% between 1963 and 1981 (2,630,000, i.e. 14% of the population in 1963 as compared with 3,740,000, i.e. 18% in 1981). This aging of the Rumanian population will raise different problems. The number of "under 14s" dependent on persons of active age will fall but the number of elderly dependants will rise. Most of these old people will probably belong to the "economically active" agricultural population but agricultural under-employment will become more acute and aging in this branch will be accentuated.

20. Trends in the "economically active" population - Between 1956 and 1981, the "economically active" population should increase by 29%. The proportion of active elderly persons will increase from 12.6% to 17% and while the proportion of "economically active"

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persons in the overall population should continue to increase (60% to 65%) the number of their dependants will also increase. The "economically active" population in agriculture should develop along similar lines. In actual fact, the assumption that the rates and proportions used will remain constant have led to:

- (i) the over-estimation of the "economically active" male population at the two age extremes (under 20 and over 60);
- (ii) the over-estimation of the "economically active" female population at all ages;
- (iii) the over-estimation of the "economically active" agricultural population, both male and female, at all ages.

21. More schooling(1) will lower the occupation rate for young people of under 20 which was still very high in 1956; the aging of the population over 60 and socialisation of the economy may well have the same effect on the occupation rates for persons in that group. Lastly, industrialisation and socialisation by speeding up migration from agriculture will cause the portion of the active agricultural population in the overall active population to fall(2) as well as the number of active elderly people. It may be estimated that for men between the ages of 20 and 59 and women between the ages of 20 and 54 (excluding the effects of agricultural migration on this age group), the size of the total active population forecast will be fairly close to reality.

(1) The Rumanian plan for 1960-65 provides for 7-year schooling for all and for a marked increase in the number of pupils doing an eighth year.

(2) A cut in the length of the working day will also give impetus to the migration from agriculture.

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TABLE B
TOTAL FEMALE POPULATION AT 30th JUNE
(IN THOUSANDS)

AGE GROUPS	1955	1957	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1970	1971	1975	1976	1980	1981
0-4	909	919	916	882	850	805	762	727	703	682	672	670	671	673	679	670	678	678
5-9	807	842	882	897	891	901	901	899	872	842	800	758	699	678	691	691	726	738
10-13	529	526	530	615	662	698	723	709	705	745	722	729	743	657	545	536	540	547
14	129	142	130	134	139	137	153	185	187	173	177	171	184	195	153	142	133	133
15-19	904	777	749	691	659	623	658	678	736	799	834	877	902	888	870	891	898	817
20-24	795	795	796	813	797	797	742	741	677	651	661	657	677	708	691	676	689	840
25-29	779	795	802	794	785	785	785	790	807	794	754	740	709	694	734	796	889	885
30-34	719	729	740	764	771	785	793	800	788	781	782	772	787	791	673	648	732	797
35-39	469	516	578	687	709	728	730	732	757	766	781	788	795	814	801	787	671	645
40-44	609	569	439	439	462	507	587	669	679	701	712	724	726	759	679	732	796	782
45-49	574	589	606	629	575	555	498	421	430	455	500	570	660	693	742	750	770	767
50-54	472	485	502	530	554	571	583	610	604	681	543	477	410	446	687	679	728	736
55-59	420	439	447	451	450	463	481	488	512	534	551	569	592	585	408	453	639	660
60 AND OVER	1013	1030	1063	1121	1171	1196	1224	1257	1280	1304	1355	1395	1429	1469	1694	1722	1710	1756
TOTAL	9054	9150	9257	9559	9898	9550	9615	9677	9788	9907	9855	9913	9972	10092	10307	10415	10667	10725

(1) Series (1) is based on the assumption that the gross birth rate will remain constant at 125.
 (2) Series (2) is based on the assumption that the gross birth rate will fall from 89 in 1964 to 80 in 1974 and remain constant thereafter.
 (3) The two series are based on the assumption of a falling death rate.

TABLE C

TOTAL POPULATION AT 30th JUNE

AGE AND SEX	Absolute figures in thousands											
	1956	1961	1966	1971	1976	1981	1956	1961	1966	1971	1976	1981
MALE												
0-15	2431	2511	(1) 2349 (2) 2322	(1) 2121 (2) 2019	(1) 2061 (2) 1840	(1) 2165 (2) 1756	27	28	(1) 25 (2) 25	(1) 23 (2) 21	(1) 20 (2) 19	(1) 21 (2) 18
16-59	5425	568	6023	6391	6634	(1) 6453 (2) 5914	64	68	(1) 64 (2) 64	(1) 66 (2) 66	(1) 68 (2) 68	(1) 67 (2) 67
60 AND OVER	731	877	1034	1224	1350	1326	9	9	(1) 11 (2) 11	(1) 12 (2) 12	(1) 14 (2) 13	(1) 12 (2) 14
ALL AGES	8549	9069	(1) 9405 (2) 9178	(1) 9737 (2) 9634	(1) 10095 (2) 9875	(1) 10445 (2) 10096	100	100	100 100	100 100	100 100	100 100
FEMALE												
0-15	2246	2404	(1) 2239 (2) 2214	(1) 2078 (2) 1981	(1) 1956 (2) 1747	(1) 2053 (2) 1759	25	25	(1) 23 (2) 23	(1) 20 (2) 19	(1) 19 (2) 17	(1) 19 (2) 17
16-59	5348	5165	5300	5434	6302	(1) 6256 (2) 6220	59	58	(1) 58 (2) 58	(1) 59 (2) 60	(1) 61 (2) 62	(1) 58 (2) 60
60 AND OVER	1444	1628	1858	2090	2155	2116	16	17	(1) 19 (2) 19	(1) 21 (2) 21	(1) 20 (2) 21	(1) 23 (2) 23
ALL AGES	9034	9197	(1) 9397 (2) 9171	(1) 10092 (2) 9995	(1) 10413 (2) 10203	(1) 10725 (2) 10396	100	100	100 100	100 100	100 100	100 100
BOTH SEXES												
0-15	4578	4915	(1) 4588 (2) 4535	(1) 4140 (2) 3990	(1) 4017 (2) 3587	(1) 4219 (2) 3515	26	26	(1) 24 (2) 24	(1) 21 (2) 20	(1) 20 (2) 18	(1) 20 (2) 18
16-59/59	10873	11147	11323	12336	12985	(1) 12209 (2) 12134	62	60	(1) 61 (2) 61	(1) 62 (2) 63	(1) 63 (2) 65	(1) 62 (2) 64
60/55 AND OVER	2172	2506	2992	3314	3506	3442	12	14	(1) 15 (2) 15	(1) 17 (2) 17	(1) 17 (2) 17	(1) 18 (2) 18
ALL AGES	17523	18568	(1) 19202 (2) 19150	(1) 19890 (2) 19629	(1) 20603 (2) 20078	(1) 21189 (2) 20491	100	100	100 100	100 100	100 100	100 100

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TABLE D POPULATION TRENDS

Date	Total population both sexes	Growth Index	Total male population	Growth Index	Total female population	Growth Index	Percentage of males in population
30th JUNE, 1956	17,580,000	100	8,550,000	100	9,030,000	100	48,6
30th JUNE, 1961	18,570,000	106	9,070,000	106	9,500,000	105	48,8
30th JUNE, 1966	19,200,000	109	9,400,000	110	9,800,000	109	49,0
	19,150,000	109	9,370,000	110	9,780,000	108	49,0
30th JUNE, 1971	19,850,000	113	9,740,000	114	10,090,000	112	49,1
	19,630,000	112	9,630,000	113	9,990,000	111	49,1
30th JUNE, 1976	20,510,000	117	10,100,000	118	10,410,000	115	49,3
	20,070,000	114	9,870,000	115	10,200,000	113	49,2
30th JUNE, 1981	21,170,000	120	10,440,000	122	10,720,000	119	49,3
	20,490,000	117	10,100,000	118	10,390,000	115	49,3

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TABLE F "ECONOMICALLY ACTIVE" FEMALE POPULATION AT 30TH JUNE
(IN THOUSANDS)

AGE GROUPS	Occupation rate (%)	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	
14	73.0	95	104	97	93	91	101	100	111	135	126	127	130	125	135	133	135				112	104						
15-19	75.3	606	583	564	539	513	492	499	496	511	554	602	628	658	672	671	668				655	633						
20-24	78.0	620	620	619	621	634	622	608	673	655	685	685	676	675	678	675	622				695	691						
25-29	74.2	575	590	594	599	590	583	583	586	586	599	589	567	573	573	501	482				544	591						
30-34	73.3	527	534	542	542	560	565	575	581	576	578	573	573	573	573	505	580				595	583						
35-39	74.2	347	381	441	502	509	524	531	540	542	560	566	578	583	580	575	575				595	583						
40-44	75.6	460	430	377	324	321	349	383	444	506	513	530	539	547	568	574	574				589	585						
45-49	75.2	429	443	456	473	467	448	418	367	317	322	342	376	436	496	421	425				555	564						
50-54	72.6	349	352	365	369	386	402	414	427	444	469	472	474	476	499	306	324				477	493						
55-59	67.7	290	297	302	316	305	306	318	325	330	346	361	373	385	401	396	381				371	393						
60 AND OVER	46.1	467	476	490	496	512	512	551	564	570	590	610	625	629	619	607	607				747	747						
TOTAL		4762	4810	4877	4974	4990	4968	4966	5105	5605	5915	6285	6625	6825	6984	6984	6984				5741	5985						
UNDER 35		4400	4503	4655	4681	4681	4686	4686	4686	4686	4686	4686	4686	4686	4686	4686	4686				4686	4686						

(*) Occupation rate : calculated on the basis of the census of 21st February, 1956

TABLE G

"ECONOMICALLY ACTIVE" MALE POPULATION IN AGRICULTURE AT 30th JUNE
(IN THOUSANDS)

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AGE GROUPS	Proportion of active agricultural population in total population %	1954		1961		1968		1975		1978		1981	
		Total Active pop.	Active Agric. pop.	Total Active pop.	Active Agric. pop.	Total Active pop.	Active Agric. pop.	Total Active pop.	Active Agric. pop.	Total Active pop.	Active Agric. pop.	Total Active pop.	Active Agric. pop.
14-19	67	755	506	656	446	815	553	917	614	848	568	698	468
20-24	52	765	398	735	382	652	329	778	405	870	452	831	432
25-29	52	771	407	720	406	751	392	649	337	797	415	895	465
30-34	53	1036	549	1408	746	1555	814	1521	808	1397	794	1446	766
35-39	54	1050	567	878	474	999	559	1365	737	1493	806	1485	802
40-44	63	445	180	506	319	478	361	358	222	593	374	703	443
45-49	67	354	237	406	272	466	312	442	295	518	220	552	370
50 AND OVER	81	567	457	620	551	501	649	949	769	1047	848	1028	833
ALL AGES			3397		3596		3885		4182		4714		4579
UNDER 40			2958		3045		3240		3419		3628		3746
													3725

TABLE H "ECONOMICALLY ACTIVE" FEMALE POPULATION IN AGRICULTURE AT 30th JUNE
(IN THOUSANDS)

AGE GROUPS	Proportion of economically active population in total population (%)	1986		1983		1984		1977		1976		1981	
		Total Active pop.	Active pop. Agric. pop.	Total Active pop.	Active pop. Agric. pop.	Total Active pop.	Active pop. Agric. pop.	Total Active pop.	Active pop. Agric. pop.	Total Active pop.	Active pop. Agric. pop.	Total Active pop.	Active pop. Agric. pop.
14-19	80	701	561	593	474	729	583	803	642	737	590	607	486
20-24	75	620	465	622	467	508	381	622	467	691	518	655	491
25-29	78	818	451	583	455	525	459	482	346	591	461	657	512
30-39	79	974	690	1089	860	1139	900	1155	912	1058	836	1059	837
40-49	83	889	738	797	662	872	724	1095	909	1142	953	1165	957
50-59	87	348	298	402	350	422	367	324	282	493	429	525	465
60-69	91	290	264	306	278	361	329	381	347	393	367	447	407
60 AND OVER	95	467	444	542	515	610	590	704	669	794	754	809	769
ALL AGES			3911		3061		4323		4664		4808		4984
UNDER 35			3203		3258		3414		3858		3787		3558