

~~SECRET~~

Nº

66

## ECONOMIC INTELLIGENCE REPORT

# CHARACTERISTICS AND DISTRIBUTION OF THE POPULATION OF THE USSR



CIA/RR 109  
25 October 1957

## CENTRAL INTELLIGENCE AGENCY

OFFICE OF RESEARCH AND REPORTS

~~SECRET~~

**WARNING**

This material contains information affecting the National Defense of the United States within the meaning of the espionage laws, Title 18, USC, Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

S-E-C-R-E-T

ECONOMIC INTELLIGENCE REPORT

CHARACTERISTICS AND DISTRIBUTION OF THE POPULATION OF THE USSR

CIA/RR 109

(ORR Project 45.922)

CENTRAL INTELLIGENCE AGENCY  
Office of Research and Reports

S-E-C-R-E-T

S-E-C-R-E-T

FOREWORD

This report revises previous estimates of the characteristics and distribution of the population of the USSR to agree with the total population figure of 200.2 million persons as of April 1956 which was announced in The National Economy of the USSR (Narodnoye khozyaystvo SSSR, Moscow, 1956).\* In spite of certain reservations as to this figure, which are explained in Appendix A, it is accepted as official and exact even though it is characterized by the Russians as an estimate. Other data in National Economy also are accepted: the total population for 1940, the population by union republics, the urban and rural population, recent birth and death rates, and the distribution of workers and employees by republic. In order to obtain the population distributions in this report, it was necessary to reconcile the above figures with certain other previous announcements which are considered equally authoritative: the census of 1939; subsequent fragmentary announcements of population increase; and the number of voters, a figure which presumably gives an approximation of the population 18 years of age and over at the time of each election.

The resulting estimates include the trend of the total population projected to 1976; age and sex distribution, particularly working age and military age; distribution by administrative areas and by economic regions; breakdown by urban-rural residence; and distribution of employees in the state economy, by economic region and by sector of employment.

50X1  
50X1

50X1

- iii -

S-E-C-R-E-T

S-E-C-R-E-T

CONTENTS

|   | <u>Page</u> |
|---|-------------|
| Summary and Conclusions . . . . .   | 1           |
| I. Introduction . . . . .   | 2           |
| A. Background of CIA Overestimate of Population . . . . .                             | 2           |
| B. Validity of Data on Soviet Population . . . . .                                    | 3           |
| II. Trends in Population . . . . .  | 4           |
| A. Estimate of Population of the USSR, 1941-56 . . . . .                              | 4           |
| B. Projected Increase of Population in the US and the<br>USSR, 1956-76 . . . . .      | 5           |
| C. Factors Underlying Estimated Increase . . . . .                                    | 6           |
| III. Characteristics of the Population of the USSR . . . . .                          | 7           |
| A. Distribution by Age and Sex . . . . .  | 7           |
| B. Implications of Age Distribution on Soviet Economic<br>Potential . . . . .         | 9           |
| C. Implications of Age and Sex Distribution on Soviet<br>Military Potential . . . . . | 10          |
| D. Growth in Urban Population . . . . .   | 11          |
| IV. Geographic Distribution of Population, 1950-56 . . . . .                          | 11          |
| A. Total Population by Republics . . . . .  | 11          |
| B. Total Population by Economic Regions and Administrative<br>Subdivisions . . . . .  | 13          |
| C. Urban Population by Economic Regions . . . . .                                     | 16          |
| D. Distribution of Workers and Employees by Republics . . . . .                       | 16          |

S-E-C-R-E-T

Appendixes

|  | <u>Page</u> |
|--|-------------|
| Appendix A. Population of the USSR by Economic Region and<br>Administrative Division . . . . . | 19          |
| Appendix B. Methodology . . . . .  | 25          |

50X1

Tables

|  |    |
|--|----|
| 1. Total Population of the USSR, 1940, 1945, and 1950-61 . . .   | 5  |
| 2. Projected Population of the US and the USSR, Selected<br>Years, 1956-76 . . . . .   | 6  |
| 3. Population of the USSR, by Age and Sex, Selected Years,<br>1951-76 . . . . .  | 8  |
| 4. Males 20 to 29 Years of Age in the USSR and the US,<br>Selected Years, 1956-76 . . . . .  | 10 |
| 5. Urban and Rural Population of the USSR, 1940 and 1950-56 .  | 12 |
| 6. Population of the USSR, by Republic, 1950 and 1956 . . . .  | 13 |
| 7. Urban Population of the USSR, by Economic Region, 1939,<br>1950, and 1956 . . . . .   | 17 |
| 8. Annual Average Employment of Agricultural and Nonagri-<br>cultural Workers and Employees in the USSR, by Republic,<br>1950 and 1955 . . . . . | 18 |
| 9. Preliminary Estimates of the Population of the USSR<br>in the 0 to 17 Age Group, 1 January 1955 . . . . .                                     | 29 |

- vi -

S-E-C-R-E-T

S-E-C-R-E-T

|   | <u>Page</u> |
|---|-------------|
| 10. Preliminary Estimates of the Number of Survivors<br>of 1949-54 Births in the USSR, 1 January 1955 . . | 32          |
| 11. Approximate Life Expectancy at Birth, Selected<br>Countries, 1955 . . . . .                           | 37          |

Illustrations

|  | <u>Following Page</u> |
|--|-----------------------|
| Figure 1. US and USSR: Total Population, Selected Years,<br>1941-76 (Chart) . . . . .            | 4                     |
| Figure 2. USSR: Increase in Total Population,<br>1950-56 (Map). . . . .                          | 6                     |
| Figure 3. US and USSR: Population 15 to 59 Years<br>of Age, by Sex, 1951, 1956, and 1961 (Chart) | 8                     |
| Figure 4. USSR: Cities with More Than 100,000<br>Inhabitants, 1956 (Map) . . . . .               | 12                    |
| Figure 5. USSR: Urban Population in Percent of<br>Total Population, 1956 (Map) . . . . .         | 12                    |
| Figure 6. USSR: Estimated Distribution of Popu-<br>lation, 1956 (Map) . . . . .                  | 18                    |

CIA/RR 109  
(ORR Project 45.922)

S-E-C-R-E-T

CHARACTERISTICS AND DISTRIBUTION OF THE POPULATION OF THE USSR\*

Summary and Conclusions

The announcement in April 1956 by Soviet authorities that the total population of the USSR amounted to 200.2 million indicates, as a major conclusion, that the USSR suffered catastrophic losses in population of 40 million to 45 million persons as a result of World War II. The losses, which include the deficit in births during and following the war, amounted to an actual loss in population of 19 million to 22 million persons during 1940-45 and an increase of only 26 million to 29 million persons instead of a projected increase of 47 million to 52 million persons during 1945-56.

These war losses in the USSR are beginning to have an increasingly severe effect on both the Soviet potential for economic growth and the Soviet military forces. A sharply diminished rate of increase in the number of individuals of working age is forecast for 1956-61, as the children born during the war years reach maturity. The indicated increase from 1956 to 1961 is less than the planned increase in workers and employees. The discrepancy will force the USSR to make extraordinary efforts to exhaust all sources of additional labor. The stringency imposed by the sluggish increase in the working population will extend into the early years of the Seventh Five Year Plan (1961-65) before the effects of the postwar rise in the birth rate will materially affect the rate of growth of the labor force.

The war deficit in births will also make itself felt in the prime military ages (males aged 20 to 29, inclusive) in the USSR by 1961. From 1961 to 1971 this group will actually decrease by more than 2 million. In the US, however, the steady rate of increase will enable the US almost to equal the military manpower potential of the USSR by 1976.

The rates of natural increase in the populations of the US and the USSR are about the same, as indicated by the present excess of births

\* The estimates and conclusions contained in this report represent the best judgment of ORR as of 1 August 1957.

S-E-C-R-E-T



S-E-C-R-E-T

over deaths. The projected rates of increase, on the basis of an average-growth assumption, indicate that in the next 20 years the population of the US will increase by about 56 million persons and the population of the USSR by about 68 million persons.

Both countries have death rates which rank among the lowest in the world, but the lower Soviet death rate is partially accounted for by the concentration of the population in the younger ages. Assuming no war and a continued improvement in the level of living, the crude birth rate probably will continue at the same level in both countries until 1976. A slight drop in the Soviet rate is possible if the effects of continued industrialization are not offset by the balancing of the sexes in the childbearing ages and by an improvement in the level of living in the USSR.

The urban population of the USSR increased by 19.4 million persons from 1950 to 1956. The urban increase was only 800,000 less than the total increase in the population, indicating that practically all of the natural increase in the Soviet population was absorbed by the cities.

In spite of the movement to the Far East and Central Asia, 76 percent of the population of the USSR is in the RSFSR and the Ukraine. The remaining 24 percent is divided among the other 14 republics. The economic regions west of the Urals contain 78 percent of the total population and more than 78 percent of the urban population. Economic regions showing substantial increases from internal migration were the Urals, Kazakhstan, South Central Asia, Eastern Siberia, and the Far East.

---

I. Introduction.

A. Background of CIA Overestimate of Population.

The Soviet announcement of a total population of 200.2 million in April 1956 <sup>1/</sup>\* was about 20 million lower than the estimate in use by CIA. <sup>2/</sup> The principal factors underlying the previous overestimates are as follows:

50X1

S-E-C-R-E-T

1. Soviet announcements, beginning in 1949, that the population was about 200 million were repeated by various high officials for several years and were taken to indicate a population of 200 million about 1 January 1950. 3/

2. Khrushchev's statement at the Twentieth Party Congress 4/ that the population had increased 16.3 million during the period of the Fifth Five Year Plan (1950-55) was taken to indicate that the population as of 1 January 1955 was 216.3 million and by April 1956 was about 220 million (instead of the announced 200.2 million).

When the previous estimate of 200 million as of January 1950 is considered with the official announcement of 200.2 million as of April 1956 and 191.7 million as the annual average for 1940, 5/ it becomes evident that the following errors were made: (1) deaths during the war years were underestimated, (2) births during the same period were overestimated, and (3) births during the postwar years were slightly overestimated.

B. Validity of Data on Soviet Population.

Because of the continued use of the population figure of 200 million in earlier announcements, the April 1956 announcement raises other questions as to the nature of the data in National Economy. The two principal difficulties in coordinating the latest figure with previously announced figures and estimates which have hitherto been considered reliable are as follows: first, the fact that the total of 200.2 million in 1956 indicates war losses, including a deficit in births, of about 47 million, or 20 million greater than the most carefully prepared previous estimates; 6/ and, second, the fact that if the announced figure of more than 123 million registered voters in 1955 is accepted as a close approximation of the number of persons 18 years of age and over (exclusive of about 2.6 million forced laborers), then the residual of 74 million under 18 years of age implies an extremely abnormal age distribution.

Because the announced figures were not based on a census and were labeled as an estimate, they should be interpreted as subject to unknown errors of estimation. In this connection it is worthy of note that the US census of 1950 admits to an undercount of 2.1 million, or 1.4 percent.

S-E-C-R-E-T

The principal questions raised by these considerations are as follows:

1. How complete is the total and does it omit some categories?
2. How accurately and by what procedures was the estimate made?
3. Does it apply specifically to April 1956 or is it an estimate as of some prior date which had been carried forward unchanged?

In spite of these questions, the figures in National Economy are accepted as official totals, and the distributions in this report are adjusted to them.

II. Trends in Population.

A. Estimate of Population of the USSR, 1941-56.

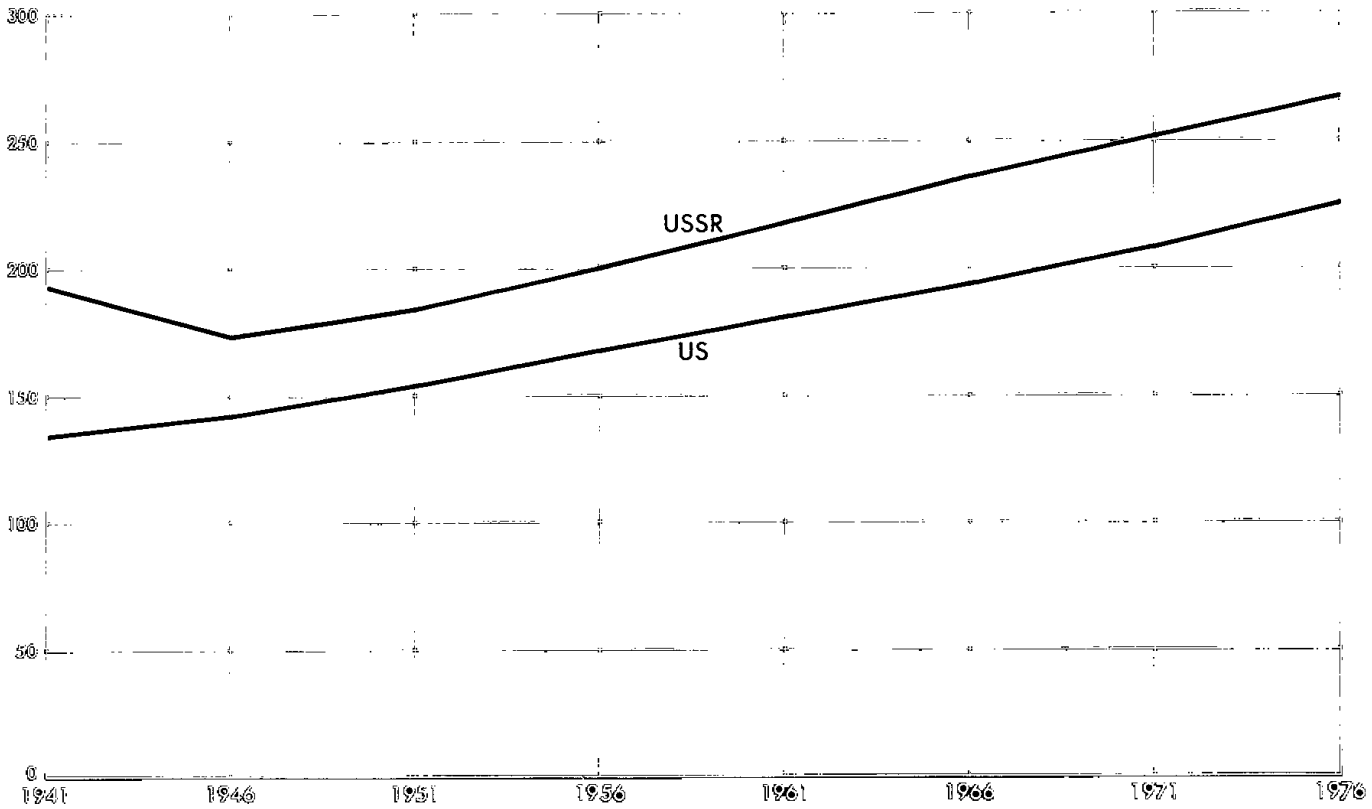
Only two recent total population figures are cited in National Economy -- the estimate of 200.2 million for April 1956 and of 191.7 million as an annual average for 1940 (just after the addition of annexed territories and before the deep penetration of German armies). The totals for intervening and future years must be inferred from other evidence. The 1956 population may be projected back to 1950 with a fair degree of certainty by means of the birth and death rates published in National Economy. The estimate may also be extended back to 1949 by reference to a separate announcement of a natural increase of more than 9.5 million in the years 1949-51. <sup>7/</sup> This yields an estimate of 180 million for 1 January 1950. The trend from 1941 to 1949 can be inferred only in general terms. Certain broad assumptions, however, are reasonable: first, that the heaviest war losses occurred from 1941 through 1944, fixing the low point about 1945; and, second, that a slow increase set in after 1945, but that at least for a year or two births were abnormally low and deaths abnormally high. The lowest point in the total population was about 170 million to 173 million in 1945, or 7 million to 10 million below the 1950 total. It may be inferred, therefore, that the population decreased by 19 million to 22 million from 1940 through 1944, increased by 7 million to 10 million by 1950; and then increased by 19 million more by 1 January 1956. Table 1\* shows the total population of the USSR in 1940, 1945, and 1950-61 (see Figure 1\*\*).

\* Table 1 follows on p. 5.

\*\* Following p. 4.

Figure 1

### US and USSR: TOTAL POPULATION, SELECTED YEARS, 1941-76 *(In millions)*



S-E-C-R-E-T

Table 1

Total Population of the USSR  
1940, 1945, and 1950-61

|                  | Million           |
|------------------|-------------------|
| <u>Year a/</u>   | <u>Population</u> |
| 1940             |                   |
| (Annual average) | 191.7             |
| 1945             | 170 to 173        |
| 1950             | 180.0             |
| 1951             | 183.1             |
| 1952             | 186.3             |
| 1953             | 189.5             |
| 1954             | 192.5             |
| 1955             | 195.9             |
| 1956             | 199.3             |
| 1957             | 202.6             |
| 1958             | 206.0             |
| 1959             | 209.6             |
| 1960             | 213.2             |
| 1961             | 216.8             |

a. 1 January.

B. Projected Increase of Population in the US and the USSR,  
1956-76.

On the basis of certain assumptions\* the population of the USSR has been projected to 1976. It should be recognized that such projections should not be considered as predictions but merely indicate possible trends which would result from assumed modifications in present trends and thus indicate the general order of magnitude of the possible increases.

The projected population of the USSR is compared with the projected population of the US in Table 2.\*\*

\* These assumptions are discussed fully in Appendix A.

\*\* Table 2 follows on p. 6.

## S-E-C-R-E-T

Table 2

Projected Population of the US and the USSR  
Selected Years, 1956-76

| <u>Year</u> <u>b/</u> | <u>Million</u> <u>a/</u> |             |
|-----------------------|--------------------------|-------------|
|                       | <u>US</u> <u>c/</u>      | <u>USSR</u> |
| 1956                  | 166.8                    | 199.3       |
| 1961                  | 179.1                    | 216.8       |
| 1966                  | 191.7                    | 234.6       |
| 1971                  | 206.3                    | 251.3       |
| 1976                  | 223.2                    | 267.7       |

a. For each country, only 1 of the 4 alternative projections is shown. The projection presented in each case is near the middle of the range of totals possible from various assumptions. The Soviet total range for 1976 is from 250 million to 285 million, and for the US the range is from 208 million to 230 million.

b. 1 January.

c. 8/

From these projections the increase from 1956 to 1976 in the total population of the USSR is about 68 million and that of the US about 56 million, widening the gap between the two populations (see Figure 2).\* The rates of natural increase indicated are about the same.

C. Factors Underlying Estimated Increase.

The factors underlying the increases in the two countries are, however, quite different. 9/

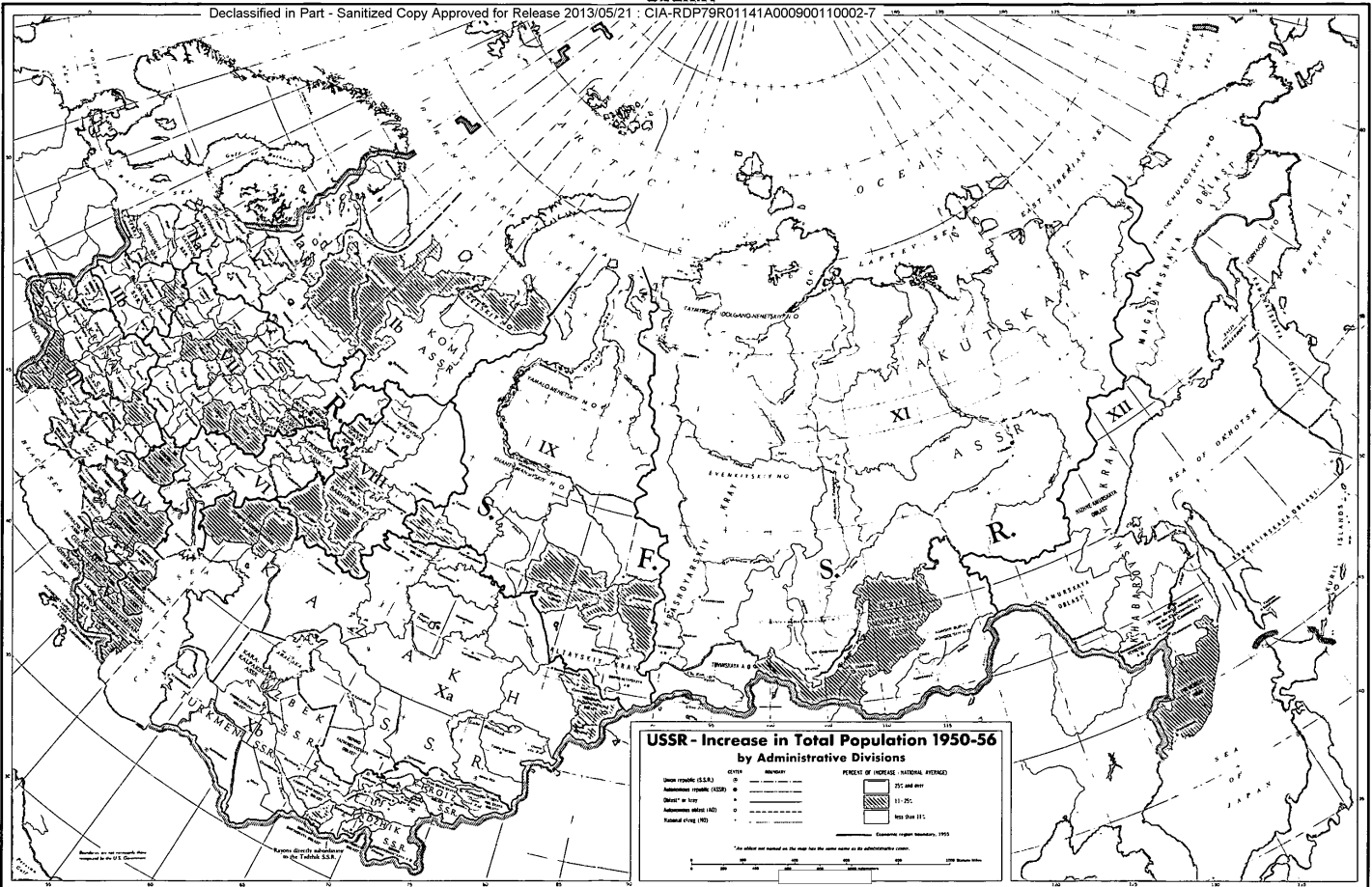
In the USSR the present level of fertility is depressed by the imbalance between the sexes in the early childbearing ages, the continued urbanization, the increased proportion of youth in school, and

\* Following p. 6.

SECRET

Declassified in Part - Sanitized Copy Approved for Release 2013/05/21 : CIA-RDP79R01141A000900110002-7

Figure 2



Declassified in Part - Sanitized Copy Approved for Release 2013/05/21 : CIA-RDP79R01141A000900110002-7

S-E-C-R-E-T

the depressed level of living. The level of fertility is upheld by the relative youth of the population and the dramatic decline in the death rate. In the immediate future the ratio of the sexes will become more equal and the youth of the population will continue, but the proportion of the population represented by women in the childbearing ages will decline. It is also probable that the level of living will rise, but urbanization will continue and there will be some increase in the proportion of older youths in school. These factors probably will result in a slightly lower birth rate, but it is estimated that there will be a compensating reduction in the death rate. These opposing factors should balance each other and produce a level natural increase.

In the US the predominant favorable factor which has probably induced a change in the size of the family considered optimum has been the pronounced and extended period of a high level of living and security. When the war babies begin to reach the age of 15, the proportion of the population represented by women in the young childbearing ages will increase slightly. It is not known, however, whether the present size of completed family will coincide with the previous optimum. In the absence of positive evidence in either direction, the projected trend in natural increase in the US also has been kept level.

III. Characteristics of the Population of the USSR.

A. Distribution by Age and Sex.

The projections of the total population of the USSR at the beginning of successive Five Year Plans shown in Table 3\* indicate that, in 1956, females outnumbered males by about 11.5 million and that much of this excess is concentrated in the age span from 30 to 45 years because it was this group in which males suffered the heaviest attrition from war casualties. The imbalance of the sexes will narrow to some extent by 1976. In the age groups below 60 years the sexes will be balanced, with the excess of females confined to the ages over 60.

The age groups in Table 3 show that 64 percent of the population of the USSR in 1956 was in the age group from 15 through 59 years (see Figure 3\*\*). This may be compared with about 58 percent in the US. This high percentage in the reproductive ages in the USSR is caused by a reduction in the percent of the population under 15

\* Table 3 follows on p. 8.

\*\* Following p. 8.



## S-E-C-R-E-T

years of age by lowered birth rates and by increased infant mortality during the war. The smaller percentage over 60 years of age in the USSR is attributable to past high death rates.

Table 3

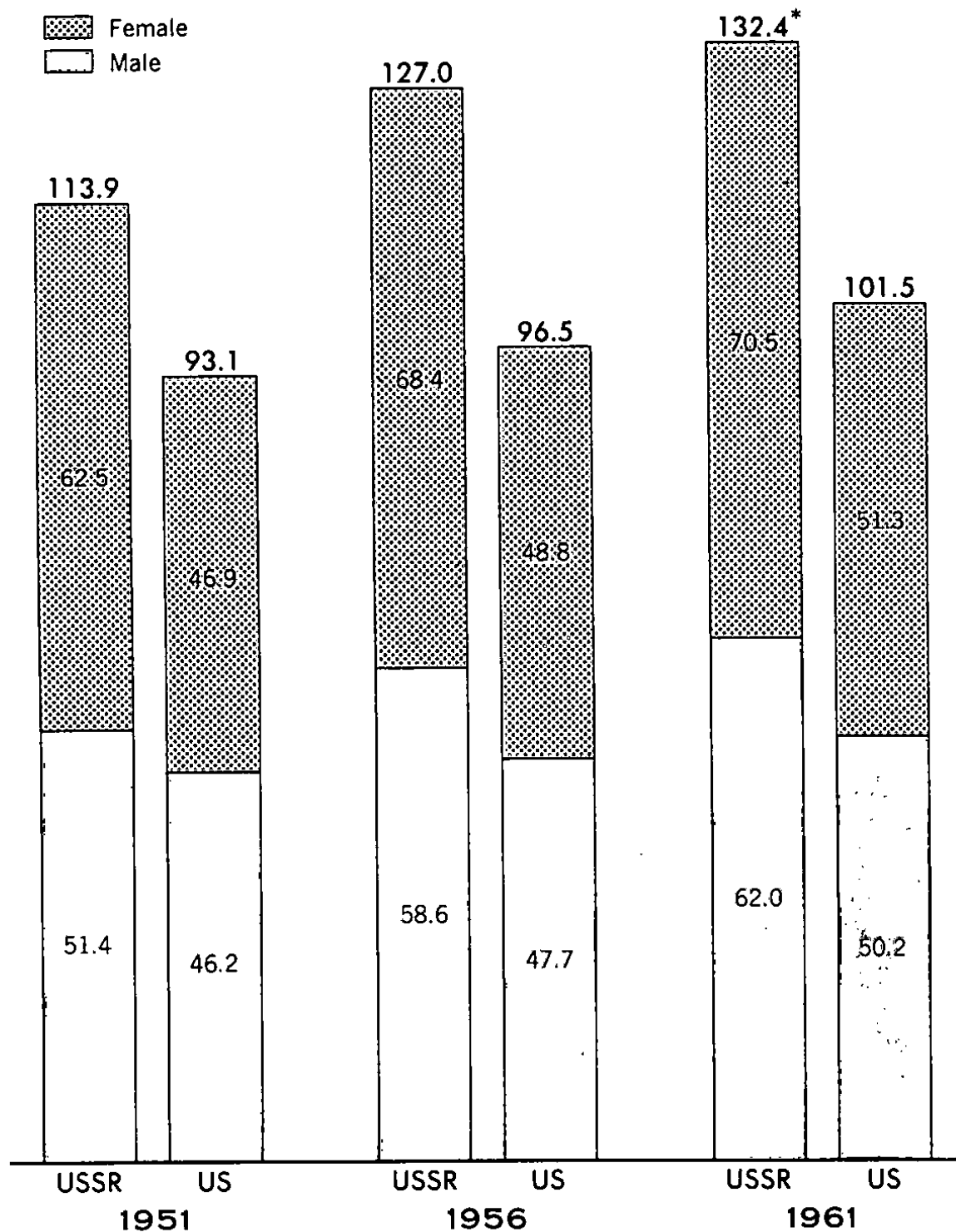
Population of the USSR, by Age and Sex a/  
Selected Years, 1951-76

|                    | Million     |             |             |             |             |             |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <u>Age and Sex</u> | <u>1951</u> | <u>1956</u> | <u>1961</u> | <u>1966</u> | <u>1971</u> | <u>1976</u> |
| Under 15           |             |             |             |             |             |             |
| Total              | 56.4        | 57.1        | 65.7        | 72.6        | 74.2        | 75.0        |
| Male               | 28.8        | 29.1        | 33.6        | 37.2        | 38.0        | 38.5        |
| Female             | 27.6        | 28.0        | 32.1        | 35.4        | 36.2        | 36.5        |
| 15 to 59           |             |             |             |             |             |             |
| Total              | 113.9       | 127.0       | 132.4       | 138.6       | 148.9       | 160.8       |
| Male               | 51.4        | 58.6        | 62.0        | 65.8        | 72.1        | 79.6        |
| Female             | 62.5        | 68.4        | 70.5        | 72.8        | 76.8        | 81.2        |
| 60 and over        |             |             |             |             |             |             |
| Total              | 12.8        | 15.2        | 18.6        | 23.4        | 28.2        | 31.9        |
| Male               | 5.1         | 6.2         | 7.6         | 9.7         | 11.5        | 12.4        |
| Female             | 7.7         | 9.0         | 11.0        | 13.7        | 16.7        | 19.5        |
| All ages           |             |             |             |             |             |             |
| Total              | 183.1       | 199.3       | 216.8       | 234.6       | 251.3       | 267.7       |
| Male               | 85.3        | 93.9        | 103.2       | 112.7       | 121.6       | 130.5       |
| Female             | 97.8        | 105.4       | 113.6       | 121.9       | 129.7       | 137.2       |

a. Projections of US Bureau of the Census "B" Series (see Appendix B). Figures have been rounded to the nearest thousand consistent with computed totals.

Figure 3

### US and USSR POPULATION 15 TO 59 YEARS OF AGE, BY SEX 1951, 1956, and 1961 (In millions)



\*Figures have been rounded to the nearest thousand consistent with computed totals.

25400 9-57

S-E-C-R-E-T

The projection of the age groups to 1976, with the addition of the survivors of children born after 1956, indicates that 60 percent of the population will be 15 to 59 years of age -- a decrease from 1956 of 4 percent. On the other hand, the proportion in the ages below 15 will be about stable, but the proportion of the population over 60 years of age will increase markedly.

B. Implications of Age Distribution on Soviet Economic Potential.

Because about 95 percent of the employed persons in the USSR are between the ages of 15 and 59 years, the fluctuations in the size of this group are indicative of future employment potential. To some extent, additional workers are drawn from males 60 years of age and over, and a few from the older females.

The age groups in Table 3 show a very slight increase in the age group from 15 through 59 years during the Sixth Five Year Plan (1956-60), only 5.4 million (see Figure 3\*). The dip in the rate of increase from 1956 to 1961 is largely attributable to the fact that the 15-year-olds entering the age group from 15 through 59 years will consist of the survivors of births in the years 1941-46, the period when the birth rate was lowest and the infant death rate highest. On the other hand, males 60 years old and over will increase by 1.4 million. Assuming that no more than 1 million of these will be employable, a maximum net increase of only 6.8 million can be expected in the employable ages during 1956-61.

This increase of 6.8 million contrasts with a planned increase in workers and employees of 6.6 million, 10/ without an allowance for an expansion in agriculture. The gap between the expansion in the number of persons of employable age and the planned expansion in employment will present the Soviet planners with some hard choices, if the expected increase in productivity does not materialize. The plans for expansion in industrial production may be scaled down, but it is more likely that every possibility of obtaining additional labor forces will be examined. One possibility is that, by heavy investment in machinery, employment in kolkhoz agriculture will be reduced. Another possible means of expanding the civilian labor force would be to carry out the announced reduction of 1.8 million in the armed forces. Still another possibility would be to increase the rate of participation of women and persons over 60 years of age, although the new retirement law does not indicate a heavy dependence on increasing the proportion of older workers.

\* Following p. 8, above.

## S-E-C-R-E-T

Insofar as economic growth is dependent upon the labor supply, therefore, the Soviet planners will be hampered during the Sixth Five Year Plan and into the Seventh.

C. Implications of Age and Sex Distribution on Soviet Military Potential.

When military potential is measured by the number of males 20 to 29 years of age, the Soviet potential, as shown in Table 4, indicates a slight rise from 1956 to 1961 and then a sharp drop to 1971 and a recovery to the 1961 level by 1976. By comparison the US potential during this period will show a fairly steady increase. The Soviet potential, which in 1956 exceeds the US by more than 7 million, will have declined by 1976 to a level only about 2.7 million above that of the US. The numbers in this age group are so large in comparison with the peacetime strength of the armed forces, however, that minor fluctuations in the total group are not significant except with reference to full mobilization.

Table 4

Males 20 to 29 Years of Age in the USSR and the US  
Selected Years, 1956-76

| <u>Year</u> | <u>Million</u> |                         |
|-------------|----------------|-------------------------|
|             | <u>USSR</u>    | <u>US <sup>a/</sup></u> |
| 1956        | 18.5           | 11.2                    |
| 1961        | 19.2           | 11.5                    |
| 1966        | 18.8           | 13.1                    |
| 1971        | 16.9           | 16.0                    |
| 1976        | 20.7           | 18.0                    |

a. See Table 2, footnote c, p. 6, above.

S-E-C-R-E-T

D. Growth in Urban Population.

The Soviet urban\* population in April 1956 was announced as 87 million, 11/ or about 44 percent of the total (see Figures 4 and 5\*\*). By contrast the 1950 urban population of the US included 96 million persons, or 64 percent of the total. In the US, 31 million in addition were classified as rural nonfarm, many of whom would have been classed in the urban category in the USSR.

An announcement in August 1953 placed the Soviet urban population at about 80 million. 12/ Presumably this figure applies to mid-1953. Another announcement, in February 1955, by Khrushchev, 13/ states that the urban population increased by 17 million from 1950 to 1955. On the basis of these three announcements the trend of the urban population from 1950 to April 1956 is shown in Table 5.\*\*\*

It will be observed that the increase of 17 million in urban population from 1950 to 1955 was greater than the 15.9-million increase for the nation, indicating a loss in the rural areas between 1950 and 1955. The urban increase during the period from 1 January 1955 to April 1956 was slower, but the rural increase, amounting to 1.8 million, was greater than that during any other corresponding period. Khrushchev's announcement giving the 17-million urban increase also states that 9 million of these had come from rural areas -- that is, by migration to the city or reclassification of rural to urban territory. The natural increase in urban territory, therefore, was about 8 million, or probably at a slightly more rapid rate than in the rural population.

IV. Geographic Distribution of Population, 1950-56.

A. Total Population by Republics.

The population of the union republics of the USSR for 1950 and 1956 is shown in Table 6.\*\*\*\*

\* The urban category in the USSR includes all large cities together with "workers settlements," towns in which more than 35 percent of the occupied workers are wage earners, and "urban type settlements" such as convalescent centers and resort centers. It therefore excludes settlements with less than 35 percent of the occupied workers employed in industry and possibly some suburban residents.

\*\* Following p. 12.

\*\*\* Table 5 follows on p. 12.

\*\*\*\* Table 6 follows on p. 13.

## S-E-C-R-E-T

Table 5

Urban and Rural Population of the USSR  
1940 and 1950-56

| <u>Year</u>      | <u>Million</u> |              |              |
|------------------|----------------|--------------|--------------|
|                  | <u>Total</u>   | <u>Urban</u> | <u>Rural</u> |
| 1940             |                |              |              |
| (Annual average) | 191.7          | 60.6         | 131.1        |
| 1950 <u>a/</u>   | 180.0          | 67.6         | 112.4        |
| 1951 <u>a/</u>   | 183.1          | 71.4         | 111.7        |
| 1952 <u>a/</u>   | 186.3          | 74.7         | 111.6        |
| 1953 <u>a/</u>   | 189.5          | 78.0         | 111.5        |
| 1954 <u>a/</u>   | 192.5          | 81.3         | 111.2        |
| 1955 <u>a/</u>   | 195.9          | 84.6         | 111.4        |
| 1956 <u>b/</u>   | 200.2          | 87.0         | 113.2        |

a. 1 January.

b. April.

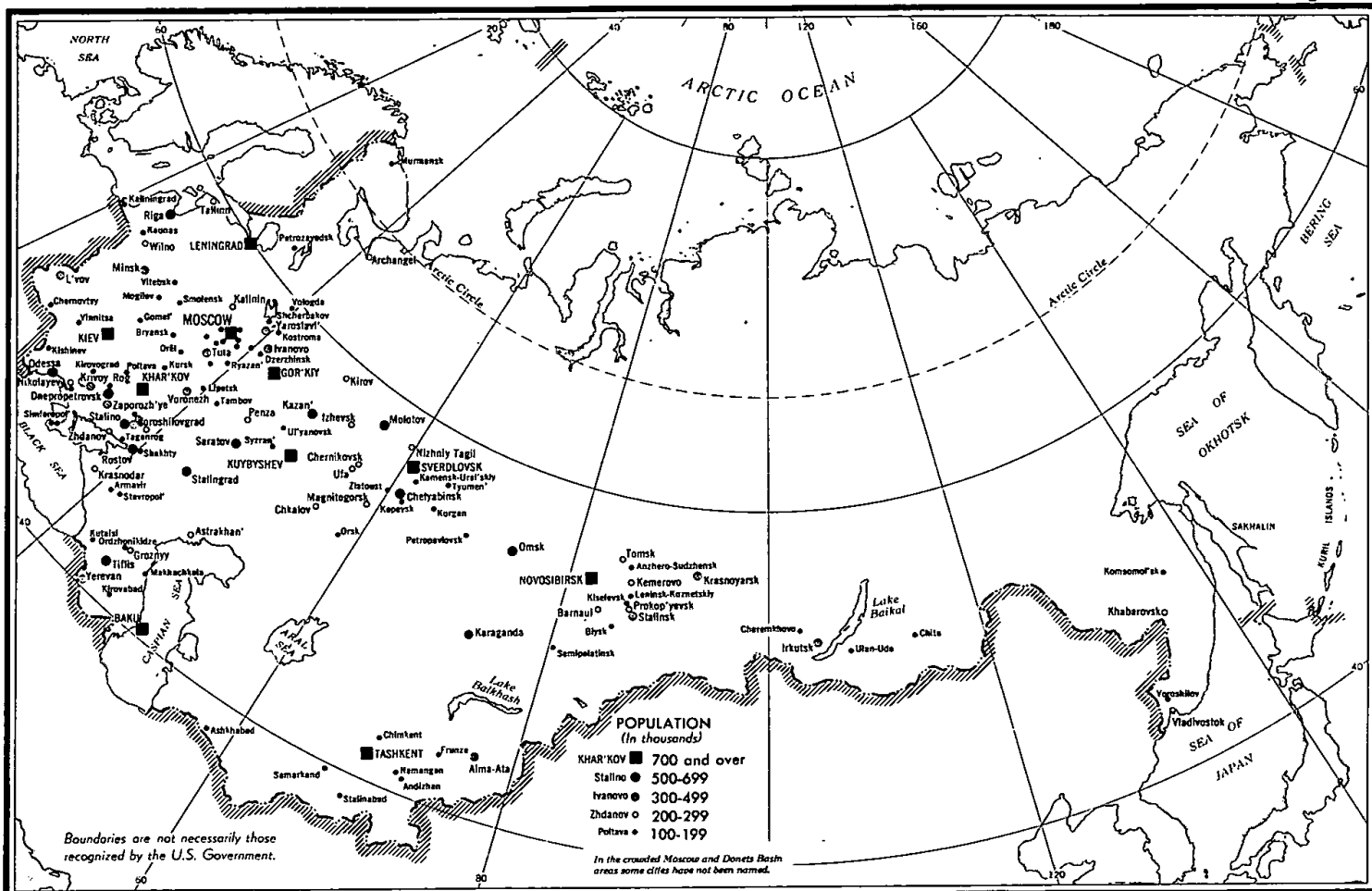
In 1956, 153 million persons, or 76 percent of the total population, were living in the RSFSR and the Ukraine. The other 47 million were scattered in 14 republics whose average size was about 3 million, or about the size of a small state in the US.

A significant southeasterly movement of population can be seen in the distribution of population by republics. Those republics with a population increase below the national average -- the RSFSR, Ukrainian, Belorussian, Latvian, Lithuanian, and Estonian -- provided the cadres, "volunteers," and pioneers for the underdeveloped resources of the east. The RSFSR, whose total rate of increase was very close to the national rate, showed an internal movement from western to eastern oblasts.\* This shift was enough in most cases to offset the entire natural increase in western areas, and in the case of the Baltic republics it overbalances the natural increase.

\* See Appendix A.

### USSR: CITIES WITH MORE THAN 100,000 INHABITANTS, 1956

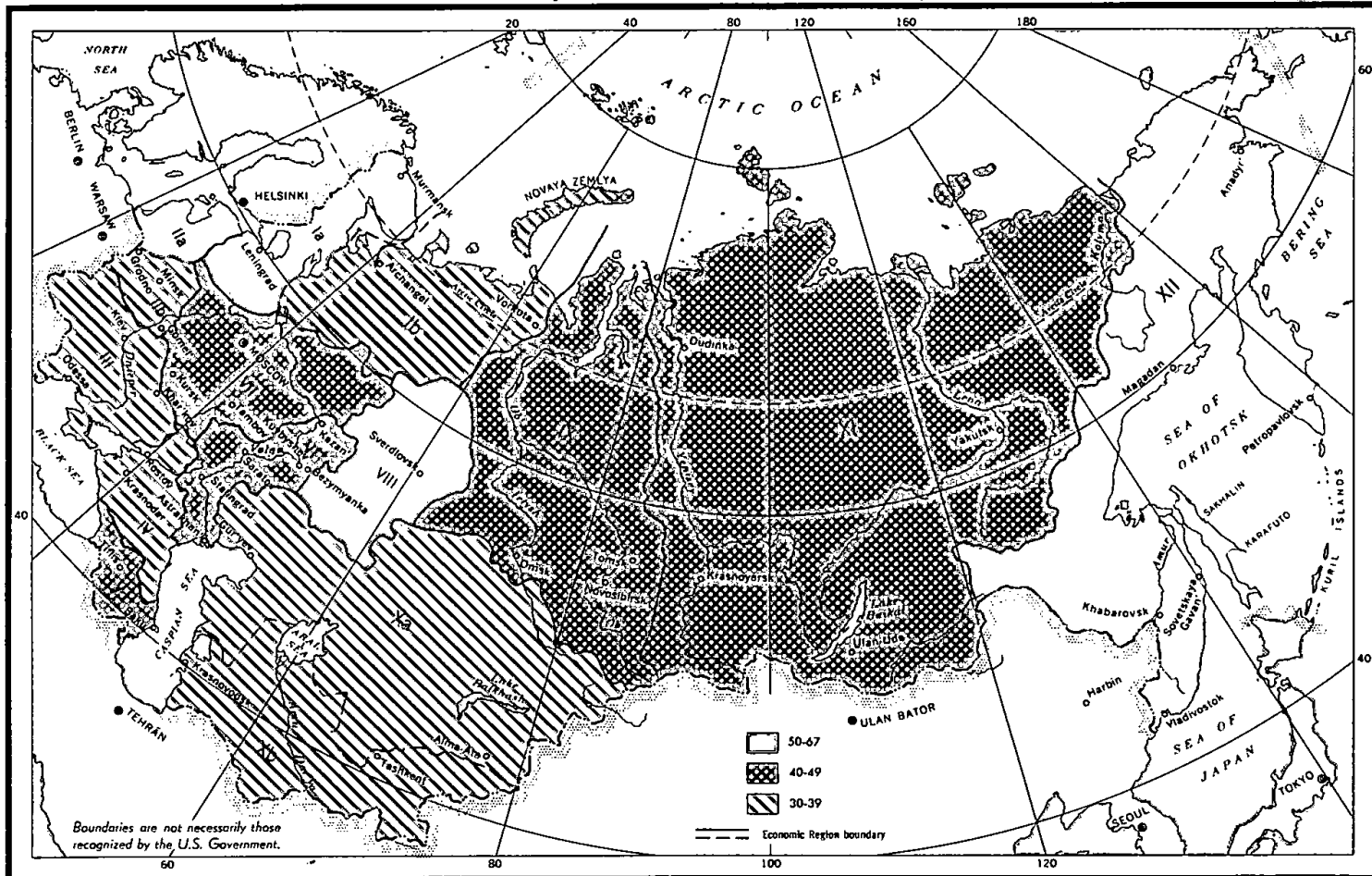
Figure 4



**SECRET**

**USSR: Urban Population in Percent of Total Population, 1956**

**Figure 5**



25404 7-56

**SECRET**



## S-E-C-R-E-T

Table 6

Population of the USSR, by Republic  
1950 and 1956

| Republic                     | Million        |              |
|------------------------------|----------------|--------------|
|                              | 1950 <u>a/</u> | April 1956   |
| RSFSR <u>b/</u>              | 101.8          | 113.2        |
| Ukrainian SSR <u>c/</u>      | 38.2           | 40.6         |
| Belorussian SSR              | 7.7            | 8.0          |
| Uzbek SSR                    | 5.7            | 7.3          |
| Kazakh SSR                   | 6.2            | 8.5          |
| Georgian SSR                 | 3.5            | 4.0          |
| Azerbaijdzhan SSR            | 2.7            | 3.4          |
| Lithuanian SSR               | 2.6            | 2.7          |
| Moldavian SSR                | 2.2            | 2.7          |
| Latvian SSR                  | 2.2            | 2.0          |
| Kirgiz SSR                   | 1.6            | 1.9          |
| Tadzhik SSR                  | 1.4            | 1.8          |
| Armenian SSR                 | 1.2            | 1.6          |
| Turkmen SSR                  | 1.2            | 1.4          |
| Estonian SSR                 | 1.3            | 1.1          |
| Karelo-Finnish SSR <u>d/</u> | 0.5            |              |
| Total                        | <u>180.0</u>   | <u>200.2</u> |

a. Compiled from the numbers of eligible voters. 14/

b. Including Krimskaya (Crimean) Oblast.

c. Excluding Krimskaya Oblast.

d. Karel'skaya ASSR was included in the RSFSR on 16 July 1956.

B. Total Population by Economic Regions and Administrative Subdivisions.

The distribution of the population of the USSR by economic regions\* and administrative subdivisions is shown in Appendix A.

\* The term region in this report refers to the economic regions defined and numbered on CIA Map 13702 (4-55), USSR: Administrative Divisions and Economic Regions, January 1955.

## S-E-C-R-E-T

This appendix also shows a considerable concentration of population, as about 43 percent of the total is in Region III (South) and Region VII (Central). In spite of the substantial eastward movements, the regions west of the Urals still contain 78 percent of the total population.\*

The increase of population in economic regions from 1950 to 1956 is as follows:

Region Ia (Northwest). Total population, 1950, 7,093,000; 1956, 6,734,000; urban 1956, 4,880,000. The region as a whole was one of out-migration despite the rapid increase in the small Karelo-Finnish SSR.

Region Ib (North). Total population, 1950, 2,912,000; 1956, 3,172,000; urban 1956, 1,296,000. The region as a whole increased somewhat slower than the national average but there was a substantial gain in Komi ASSR, which in turn was partially accounted for by the release of forced laborers, who were not included in the "free" population of the area in 1950.

Region IIa (Baltic). Total population, 1950, 6,871,000; 1956, 6,476,000; urban 1956, 2,922,000. The substantial loss of population probably was drawn proportionately from the rural areas of each oblast.

Region IIb (Belorussia). Total population, 1950, 7,657,000; 1956, 7,992,000; urban 1956, 2,084,000. The substantial loss of population was drawn uniformly from rural areas.

Region III (South). Total population, 1950, 40,380,000; 1956, 43,265,000; urban 1956, 16,489,000. Some out-migration from the Ukraine with in-migration into Moldavia. Internally the western oblasts showed some decrease while rapid increases occurred in Nikolayev, Kherson, Stalino, and some increase in Dnepropetrovsk. Some apparent decreases in the central oblasts were more a function of changes in boundaries involved in the creation of the new Cherkesskaya Oblast. 15/

Region IV (Southeast). Total population, 1950, 8,472,000; 1956, 11,020,000; urban 1956, 4,166,000. The regional total shows some in-migration. The increases were in Krasnodarskiy Kray and Rostovskaya Oblast, causing the creation of the new Kamenskaya Oblast. 16/

\* See Figure 6 following p. 18.

S-E-C-R-E-T

Region V (Transcaucasus). Total population, 1950, 7,499,000; 1956, 9,007,000; urban 1956, 3,857,000. The republics of Armenia and Azerbaydzhan increased at a rate faster than the national average, whereas the change in Georgia was slower.

Region VI (Volga). Total population, 1950, 9,530,000; 1956, 10,920,000; urban 1956, 4,933,000. The slight increase was largely in Astrakhanskaya and Kuybyshevskaya Oblasts causing the creation of the new Balashovskaya Oblast. 17/

Region VII (Central). Total population, 1950, 42,360,000; 1956, 42,396,000; urban 1956, 19,053,000. Aside from a substantial increase in Tul'skaya Oblast and a slight increase in Moskovskaya Oblast, the region as a whole was one of some out-migration which was fairly evenly distributed. Nominal decreases in some oblasts were the result of boundary adjustments associated with the setting up of three new oblasts: Arzamasskaya, Belgorodskaya, and Lipetskaya. 18/

Region VIII (Urals). Total population, 1950, 11,914,000; 1956, 15,661,000; urban 1956, 8,706,000. The substantial in-migration in the area was concentrated in Sverdlovskaya and Chelyabinskaya Oblasts.

Region IX (West Siberia). Total population, 1950, 10,324,000; 1956, 11,840,000; urban 1956, 5,216,000. This large region still receives some net migration, the increasing oblasts being Kemerovskaya, Novosibirskaya, and Tyumenskaya.

Region Xa (Kazakhstan). Total population, 1950, 6,254,000; 1956, 8,488,000; urban 1956, 3,415,000. The substantial in-migration was associated with the rapid development of the industrial complexes in Karagandinskaya and Vostochno-Kazakhstanskaya Oblasts. Some effects of the new lands programs probably were felt before 1956.

Region Xb (Central Asia). Total population, 1950, 9,812,000; 1956, 12,396,000; urban 1956, 4,018,000. The region increased at a more rapid rate than the country as a whole, the increases being around Frunze, Leninabad, and Samarkand.

Region XI (East Siberia). Total population, 1950, 5,030,000; 1956, 6,541,000; urban 1956, 3,031,000. This region continued to be one of rapid increase by in-migration, all areas except Chitinskaya Oblast and Tuvinskaya Autonomous Oblast showing substantial gains. The

## S-E-C-R-E-T

increases in northern Krasnoyarskiy Kray and in Yakutskaya ASSR probably were caused by the statistical transfer of forced laborers to the free population.

Region XII (Far East). Total population, 1950, 3,971,000; 1956, 4,320,000; urban 1956, 2,903,000. The continued development of the Vladivostok area resulted in a substantial increase in Primorskiy Kray. Magadanskaya Oblast was created partly because of continued development of the far northeast, some of the indicated population increase being caused by the release of forced laborers. The former migration to Sakhalinskaya Oblast seems to have ceased. Just after 1 January 1956 the new oblast of Kamchatka was set up, but this change seems to be largely one of administrative convenience rather than of population change.

C. Urban Population by Economic Regions.

From 1950 to 1956 the urban population of the USSR increased more rapidly than the national total, as shown in Table 7.\* The trend was less pronounced in the Baltics, Belorussia, Central Asia, and the eastern regions. In the subdivisions of the RSFSR, urbanization was rapid. In 1956 the largest percentages of urban population were found in the Leningrad regions, in the Urals, and the Far East. The most rural region was Belorussia (75 percent).

The urban population is also highly concentrated, approximately 60 percent being within a radius of 600 miles from Moscow.

The changes in absolute level of rural population were relatively minor. The rural decrease of the country as a whole was only 700,000. In Central Asia and the two Far Eastern regions, where agriculture as well as industry was expanding, there was some rural increase. Rural decreases of more than 1 million occurred in the South and Central Regions.

D. Distribution of Workers and Employees by Republics.

Table 8\*\* shows the distribution of workers and employees by republic for 1950 and 1955. The total is divided between state agricultural and nonagricultural employment. The distribution of nonagricultural employment is correlated with the distribution of urban population.

\* Table 7 follows on p. 17.

\*\* Table 8 follows on p. 18.

S-E-C-R-E-T

Table 7

Urban Population of the USSR, by Economic Region  
 1939, 1950, and 1956

| Economic Region       | Million         |                 |                 |                 |                 |                 |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                       | 1939            |                 | 1950            |                 | 1956            |                 |
|                       | Total <u>a/</u> | Urban <u>a/</u> | Total <u>b/</u> | Urban <u>c/</u> | Total <u>b/</u> | Urban <u>c/</u> |
| Ia (Northwest)        | 7.2             | 4.5             | 7.1             | 4.7             | 6.7             | 4.9             |
| Ib (North)            | 3.2             | 0.7             | 2.9             | 1.3             | 3.2             | 1.3             |
| IIa (Baltic)          | 6.4             | 2.2             | 6.9             | 2.3             | 6.5             | 2.9             |
| IIb (Belorussia)      | 9.0             | 1.9             | 7.6             | 1.8             | 8.0             | 2.1             |
| III (South) <u>d/</u> | 45.0            | 14.7            | 40.4            | 13.1            | 43.3            | 16.5            |
| IV (Southeast)        | 10.3            | 3.1             | 8.5             | 2.9             | 11.0            | 4.2             |
| V (Transcaucasus)     | 7.0             | 2.6             | 7.5             | 2.9             | 9.0             | 3.9             |
| VI (Volga)            | 10.6            | 3.1             | 9.5             | 3.5             | 10.9            | 4.9             |
| VII (Central)         | 46.8            | 14.3            | 42.4            | 15.6            | 42.4            | 19.1            |
| VIII (Urals)          | 13.4            | 4.7             | 11.9            | 5.8             | 15.7            | 8.7             |
| IX (West Siberia)     | 8.9             | 2.6             | 10.3            | 3.9             | 11.8            | 5.2             |
| Xa (Kazakhstan)       | 6.1             | 1.7             | 6.2             | 2.6             | 8.5             | 3.4             |
| Xb (Central Asia)     | 10.5            | 2.4             | 9.8             | 2.9             | 12.4            | 4.0             |
| XI (East Siberia)     | 5.3             | 1.9             | 5.0             | 2.2             | 6.5             | 3.0             |
| XII (Far East)        | 2.3             | 1.1             | 4.0             | 2.1             | 4.3             | 2.9             |
| Total <u>e/</u>       | <u>192.0</u>    | <u>61.5</u>     | <u>180.0</u>    | <u>67.6</u>     | <u>200.2</u>    | <u>87.0</u>     |

a. From the Soviet census of 1939. 19/

b. Computed by distributing estimated population by percentage of voters in each region.

c. In economic areas within the RSFSR, urban population is derived from National Economy. In other areas, it is computed by adding population of cities available from US estimates to estimates for additional cities listed in Administrative Territorial Handbook, USSR, 1951 and 1955.

d. Includes Krimskaya Oblast, which was transferred from Region IV.

e. Because of rounding, totals do not always agree with distribution.

S-E-C-R-E-T

Table 8

Annual Average Employment  
of Agricultural and Nonagricultural Workers and Employees  
in the USSR, by Republic a/  
1950 and 1955

| Republic           | Thousand          |                      |               |                   |                      |               |
|--------------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|                    | 1950              |                      |               | 1955              |                      |               |
|                    | Agri-<br>cultural | Nonagri-<br>cultural | Total         | Agri-<br>cultural | Nonagri-<br>cultural | Total         |
| RSFSR              | 1,755             | 23,728               | 25,483        | 3,367             | 27,921               | 31,288        |
| Ukrainian SSR      | 608               | 6,121                | 6,729         | 1,103             | 7,276                | 8,379         |
| Belorussian SSR    | 66                | 905                  | 971           | 138               | 1,109                | 1,247         |
| Uzbek SSR          | 186               | 638                  | 824           | 200               | 827                  | 1,027         |
| Kazakh SSR         | 157               | 1,266                | 1,423         | 550               | 1,595                | 2,145         |
| Georgian SSR       | 16                | 589                  | 605           | 40                | 662                  | 702           |
| Azerbaydzhan SSR   | 39                | 513                  | 552           | 52                | 537                  | 589           |
| Lithuanian SSR     | 51                | 277                  | 328           | 98                | 373                  | 471           |
| Moldavian SSR      | 49                | 206                  | 255           | 67                | 286                  | 353           |
| Latvian SSR        | 43                | 386                  | 429           | 80                | 451                  | 531           |
| Kirgiz SSR         | 33                | 209                  | 242           | 50                | 259                  | 309           |
| Tadzhik SSR        | 26                | 143                  | 169           | 27                | 198                  | 225           |
| Armenian SSR       | 14                | 213                  | 227           | 25                | 260                  | 285           |
| Turkmen SSR        | 30                | 170                  | 200           | 36                | 198                  | 234           |
| Estonian SSR       | 25                | 256                  | 281           | 48                | 293                  | 341           |
| Karelo-Finnish SSR | 5                 | 172                  | 177           | 9                 | 223                  | 232           |
| Total              | <u>3,103</u>      | <u>35,792</u>        | <u>38,895</u> | <u>5,890</u>      | <u>42,468</u>        | <u>48,358</u> |

a. 20/

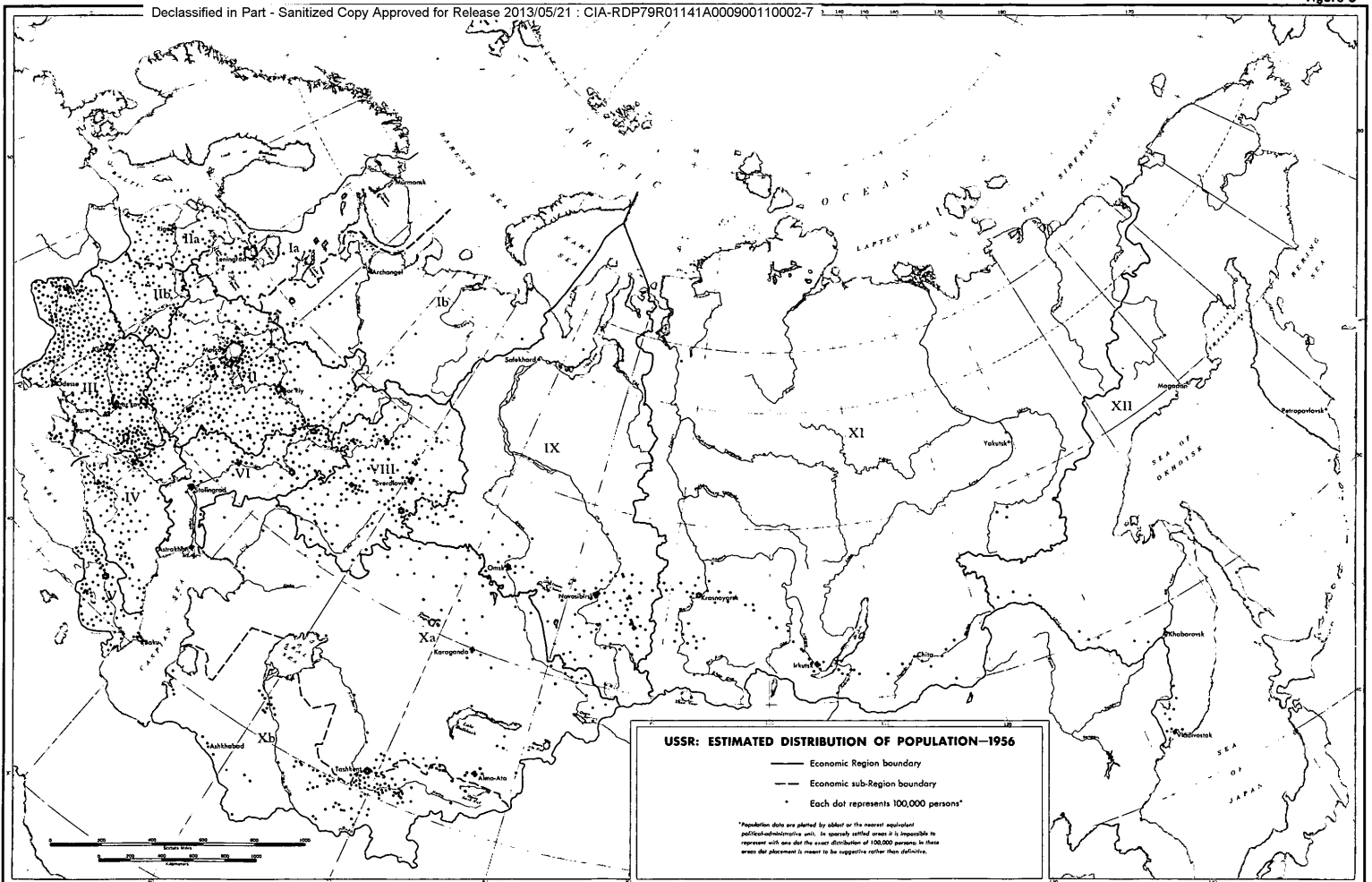
The total increase in employment in the state economy from 1950 to 1955 was 10 million, of which 2.8 million were in state agriculture.

The most rapid increases in nonagricultural employment were in the Baltic republics and Moldavia, where postwar reconstruction was supplemented by some industrial expansion. Population trends suggest that many of these workers came from surrounding farms. Expansion in both agricultural and nonagricultural areas is indicated in Kazakhstan, where workers were drawn largely from other republics.

- 18 -

S-E-C-R-E-T

Figure 6



S-E-C-R-E-T

APPENDIX A

POPULATION OF THE USSR  
BY ECONOMIC REGION AND ADMINISTRATIVE DIVISION a/\*

|                        |                                | Thousand       |                |                                  |
|------------------------|--------------------------------|----------------|----------------|----------------------------------|
| <u>Economic Region</u> | <u>Administrative Division</u> | <u>1950 b/</u> | <u>1956 c/</u> | <u>Ratio of<br/>1956 to 1950</u> |
| Ia (Northwest)         |                                | 7,093          | 6,734          | 94.9                             |
|                        | Karelo-Finnish SSR d/          | 475            | 615 e/         |                                  |
|                        | Leningradskaya Oblast          | 4,501          | 4,364          |                                  |
|                        | Murmanskaya Oblast             | 529            | 474            |                                  |
|                        | Novgorodskaya Oblast           | 794            | 718            |                                  |
|                        | Pskovskaya Oblast              | 794            | 563            |                                  |
| Ib (North)             |                                | 2,912          | 3,172          | 108.9                            |
|                        | Arkhangel'skaya Oblast         | 1,059          | 1,205          |                                  |
|                        | Komi ASSR                      | 265            | 670            |                                  |
|                        | Vologdskaya Oblast             | 1,588          | 1,297          |                                  |
| IIa (Baltic)           |                                | 6,871          | 6,476          | 94.3                             |
|                        | Estonian SSR                   | 1,296          | 1,149          |                                  |
|                        | Latvian SSR                    | 2,203          | 2,033          |                                  |
|                        | Lithuanian SSR                 | 2,592          | 2,673          |                                  |
|                        | Kaliningradskaya Oblast        | 780            | 621            |                                  |
| IIb (Belorussia)       |                                | 7,657          | 7,992          | 104.4                            |
|                        | Baranovichskaya Oblast f/      | 741            |                |                                  |
|                        | Bobruyskaya Oblast f/          | 741            |                |                                  |
|                        | Brestskaya Oblast              | 494            | 1,194          |                                  |
|                        | Gomel'skaya Oblast             | 741            | 1,323          |                                  |
|                        | Grodnenskaya Oblast            | 741            | 955            |                                  |
|                        | Minskaya Oblast                | 741            | 1,633          |                                  |
|                        | Mogilevskaya Oblast            | 741            | 1,131          |                                  |
|                        | Molodechnenskaya Oblast        | 494            | 848            |                                  |
|                        | Pinskaya Oblast f/             | 494            |                |                                  |
|                        | Polesskaya Oblast f/           | 494            |                |                                  |
|                        | Polotskaya Oblast f/           | 494            |                |                                  |
|                        | Vitebskaya Oblast              | 741            | 908            |                                  |

\* Footnotes for Appendix A follow on p. 24.

S-E-C-R-E-T



## S-E-C-R-E-T

|                        |   | Thousand                  |                           |                                  |
|------------------------|---|---------------------------|---------------------------|----------------------------------|
| <u>Economic Region</u> | <u>Administrative Division</u>          | <u>1950 <sup>b/</sup></u> | <u>1956 <sup>c/</sup></u> | <u>Ratio of<br/>1956 to 1950</u> |
| III (South)            |   | 40,380                    | 43,265                    | 107.1                            |
|                        | Chernigovskaya Oblast                   | 1,637                     | 1,568                     |                                  |
|                        | Chernovitskaya Oblast                   | 819                       | 767                       |                                  |
|                        | Cherkasskaya Oblast <sup>g/</sup>       |                           | 1,497                     |                                  |
|                        | Dnepropetrovskaya Oblast                | 1,908                     | 2,469                     |                                  |
|                        | Drogobychskaya Oblast                   | 1,091                     | 853                       |                                  |
|                        | Izmail'skaya Oblast <sup>f/</sup>       | 546                       |                           |                                  |
|                        | Khmel'nitskaya Oblast                   | 1,637                     | 1,631                     |                                  |
|                        | Khar'kovskaya Oblast                    | 2,181                     | 2,445                     |                                  |
|                        | Khersonskaya Oblast                     | 546                       | 807                       |                                  |
|                        | Kiyevskaya Oblast                       | 3,272                     | 2,686                     |                                  |
|                        | Kirovogradskaya Oblast                  | 1,091                     | 1,206                     |                                  |
|                        | Krymskaya Oblast                        | 1,091                     | 1,119                     |                                  |
|                        | L'vovskaya Oblast                       | 1,364                     | 1,236                     |                                  |
|                        | Moldavian SSR                           | 2,195                     | 2,678                     |                                  |
|                        | Nikolayevskaya Oblast                   | 546                       | 996                       |                                  |
|                        | Odesskaya Oblast                        | 1,637                     | 1,943                     |                                  |
|                        | Poltavskaya Oblast                      | 1,908                     | 1,634                     |                                  |
|                        | Rovenskaya Oblast                       | 1,091                     | 921                       |                                  |
|                        | Stalinskaya Oblast                      | 2,726                     | 3,931                     |                                  |
|                        | Stanislavskaya Oblast                   | 1,364                     | 1,100                     |                                  |
|                        | Sumskaya Oblast                         | 1,637                     | 1,526                     |                                  |
|                        | Ternopol'skaya                          | 1,364                     | 1,090                     |                                  |
|                        | Vinnitskaya Oblast                      | 2,181                     | 2,143                     |                                  |
|                        | Volynskaya Oblast                       | 1,091                     | 890                       |                                  |
|                        | Voroshilovgradskaya Oblast              | 1,637                     | 2,220                     |                                  |
|                        | Zakarpatskaya Oblast                    | 819                       | 929                       |                                  |
|                        | Zaporozhskaya Oblast                    | 1,364                     | 1,393                     |                                  |
|                        | Zhitomirskaya Oblast                    | 1,637                     | 1,587                     |                                  |
| IV (Southeast)         |   | 8,472                     | 11,020                    | 130.1                            |
|                        | Checheno-Ingushskaya ASSR <sup>h/</sup> |                           | 544                       |                                  |
|                        | Dagestanskaya ASSR                      | 794                       | 958                       |                                  |
|                        | Groznenskaya Oblast <sup>f/</sup>       | 529                       |                           |                                  |
|                        | Kabardinskaya ASSR                      | 265                       | 359                       |                                  |
|                        | Kamenskaya Oblast                       |                           | 1,350                     |                                  |
|                        | Krasnodarskiy Kray                      | 2,648                     | 3,604                     |                                  |
|                        | Severo-Osetinskaya ASSR                 | 265                       | 417                       |                                  |
|                        | Rostovskaya Oblast                      | 2,383                     | 1,922                     |                                  |
|                        | Stavropol'skiy Kray                     | 1,588                     | 1,866                     |                                  |

## S-E-C-R-E-T

|                        |  | Thousand                  |                           |                                  |
|------------------------|--|---------------------------|---------------------------|----------------------------------|
| <u>Economic Region</u> | <u>Administrative Division</u>                 | <u>1950 <sup>b/</sup></u> | <u>1956 <sup>c/</sup></u> | <u>Ratio of<br/>1956 to 1950</u> |
| V (Transcaucasus)      |  | 7,499                     | 9,007                     | 120.1                            |
|                        | Armenian SSR                                   | 1,247                     | 1,633                     |                                  |
|                        | Azerbaydzhan SSR                               | 2,719                     | 3,396                     |                                  |
|                        | Georgian SSR                                   | 3,533                     | 3,978                     |                                  |
|                        | Abkhazskaya ASSR                               | 588                       | 394                       |                                  |
|                        | Adzharskaya ASSR                               | 294                       | 238                       |                                  |
|                        | Yugo-Osetinskaya Autonomous<br>Oblast (Tiflis) | 2,650                     | 3,248                     |                                  |
| VI (Volga)             |  | 9,530                     | 10,920                    | 114.6                            |
|                        | Astrakhanskaya Oblast                          | 529                       | 666                       |                                  |
|                        | Balashovskaya Oblast <sup>g/</sup>             |                           | 964                       |                                  |
|                        | Kuybyshevskaya Oblast                          | 1,588                     | 2,196                     |                                  |
|                        | Saratovskaya Oblast                            | 2,118                     | 1,737                     |                                  |
|                        | Stalingradskaya Oblast                         | 1,588                     | 1,447                     |                                  |
|                        | Tatarskaya ASSR                                | 2,648                     | 2,784                     |                                  |
|                        | Ul'yanovskaya Oblast                           | 1,059                     | 1,126                     |                                  |
| VII (Central)          |  | 42,360                    | 42,396                    | 100.1                            |
|                        | Arzamasskaya Oblast <sup>g/</sup>              |                           | 1,068                     |                                  |
|                        | Belgorodskaya Oblast <sup>g/</sup>             |                           | 1,190                     |                                  |
|                        | Bryanskaya Oblast                              | 1,588                     | 1,551                     |                                  |
|                        | Chuvashskaya ASSR                              | 1,059                     | 1,095                     |                                  |
|                        | Gorkovskaya Oblast                             | 3,177                     | 2,398                     |                                  |
|                        | Ivanovskaya Oblast                             | 1,324                     | 1,351                     |                                  |
|                        | Kalininskaya Oblast                            | 2,118                     | 1,604                     |                                  |
|                        | Kaluzhskaya Oblast                             | 794                       | 895                       |                                  |
|                        | Kirovskaya Oblast                              | 2,118                     | 1,919                     |                                  |
|                        | Kostromskaya Oblast                            | 1,059                     | 897                       |                                  |
|                        | Kurskaya Oblast                                | 2,648                     | 1,464                     |                                  |
|                        | Lipetskaya Oblast <sup>g/</sup>                |                           | 1,131                     |                                  |
|                        | Mariyskaya ASSR                                | 529                       | 643                       |                                  |
|                        | Mordovskaya ASSR                               | 1,059                     | 1,000                     |                                  |
|                        | Moskovskaya Oblast                             | 9,531                     | 10,902                    |                                  |
|                        | Orlovskaya Oblast                              | 1,324                     | 915                       |                                  |
|                        | Penzenskaya Oblast                             | 1,324                     | 1,515                     |                                  |
|                        | Ryazanskaya Oblast                             | 1,588                     | 1,412                     |                                  |
|                        | Smolenskaya Oblast                             | 1,853                     | 1,166                     |                                  |
|                        | Tambovskaya Oblast                             | 1,324                     | 1,501                     |                                  |
|                        | Tul'skaya Oblast                               | 1,059                     | 1,498                     |                                  |

## S-E-C-R-E-T

|                              |                                     | Thousand                  |                           |                                  |
|------------------------------|-------------------------------------|---------------------------|---------------------------|----------------------------------|
| <u>Economic Region</u>       | <u>Administrative Division</u>      | <u>1950 <sup>b/</sup></u> | <u>1956 <sup>c/</sup></u> | <u>Ratio of<br/>1956 to 1950</u> |
| VII (Central)<br>(Continued) |                                     |                           |                           |                                  |
|                              | Velikolukskaya Oblast               | 794                       | 658                       |                                  |
|                              | Vladimirskaya Oblast                | 1,324                     | 1,355                     |                                  |
|                              | Voronezhskaya Oblast                | 3,442                     | 1,897                     |                                  |
|                              | Yaroslavskaya Oblast                | 1,324                     | 1,371                     |                                  |
| VIII (Urals)                 |                                     | 11,914                    | 15,661                    | 131.4                            |
|                              | Bashkirskaya ASSR                   | 2,648                     | 3,223                     |                                  |
|                              | Chelyabinskaya Oblast               | 1,853                     | 2,767                     |                                  |
|                              | Chkalovskaya Oblast                 | 1,588                     | 1,776                     |                                  |
|                              | Molotovskaya Oblast                 | 2,118                     | 2,883                     |                                  |
|                              | Sverdlovskaya Oblast                | 2,648                     | 3,727                     |                                  |
|                              | Udmurtskaya ASSR                    | 1,059                     | 1,285                     |                                  |
| IX (West Siberia)            |                                     | 10,324                    | 11,840                    | 114.7                            |
|                              | Altayskiy Kray                      | 2,383                     | 2,579                     |                                  |
|                              | Kemerovskaya Oblast                 | 2,118                     | 2,626                     |                                  |
|                              | Kurganskaya Oblast                  | 794                       | 982                       |                                  |
|                              | Novosibirskaya Oblast               | 1,853                     | 2,208                     |                                  |
|                              | Omskaya Oblast                      | 1,588                     | 1,606                     |                                  |
|                              | Tomskaya Oblast                     | 794                       | 751                       |                                  |
|                              | Tyumenskaya Oblast                  | 794                       | 1,088                     |                                  |
| Xa (Kazakhstan)              |                                     | 6,254                     | 8,488                     | 135.7                            |
|                              | Alma-Atinskaya Oblast               | 569                       | 786                       |                                  |
|                              | Aktyubinskaya Oblast                | 284                       | 383                       |                                  |
|                              | Akmolinskaya Oblast                 | 569                       | 578                       |                                  |
|                              | Dzhambul'skaya Oblast               | 284                       | 528                       |                                  |
|                              | Gur'yevskaya Oblast                 | 284                       | 280                       |                                  |
|                              | Karagandinskaya Oblast              | 569                       | 884                       |                                  |
|                              | Vostochno-Kazakhstanskaya<br>Oblast | 569                       | 710                       |                                  |
|                              | Severo-Kazakhstanskaya<br>Oblast    | 284                       | 436                       |                                  |
|                              | Yuzhno-Kazakhstanskaya<br>Oblast    | 854                       | 866                       |                                  |
|                              | Zapadno-Kazakhstanskaya<br>Oblast   | 284                       | 354                       |                                  |

## S-E-C-R-E-T

|                                |  | Thousand           |                    |                          |
|--------------------------------|--|--------------------|--------------------|--------------------------|
| Economic Region                | Administrative Division                    | 1950 <sup>b/</sup> | 1956 <sup>c/</sup> | Ratio of<br>1956 to 1950 |
| Xa (Kazakhstan)<br>(Continued) |  |                    |                    |                          |
|                                | Kokchetavskaya Oblast                      | 284                | 435                |                          |
|                                | Kustanayskaya Oblast                       | 284                | 587                |                          |
|                                | Kzyl-Ordinskaya Oblast                     | 284                | 312                |                          |
|                                | Pavlodarskaya Oblast                       | 284                | 438                |                          |
|                                | Semipalatinskaya Oblast                    | 284                | 454                |                          |
|                                | Taldy-Kurganskaya Oblast                   | 284                | 457                |                          |
| Xb (Central<br>Asia)           |  |                    |                    |                          |
|                                |  | 9,812              | 12,369             | 126.1                    |
|                                | Kirgiz SSR                                 | 1,584              | 1,911              |                          |
|                                | Dzhalal-Abadskaya Oblast                   | 317                | 278                |                          |
|                                | Frunzenskaya Oblast                        | 633                | 804                |                          |
|                                | Issyk-Kul'skaya Oblast                     | 317                | 223                |                          |
|                                | Oshskaya Oblast                            | 317                | 489                |                          |
|                                | Tyan'-Shan'skaya Oblast <sup>g/</sup>      |                    | 117                |                          |
|                                | Tadzhik SSR                                | 1,383              | 1,775              |                          |
|                                | Gorno-Badakhshanskaya<br>Autonomous Oblast |                    | 62                 |                          |
|                                | Leninabadskaya Oblast                      | 277                | 598                |                          |
|                                | Subordinate Rayons of the<br>Republic      | 1,106              | 1,115              |                          |
|                                | Turkmen SSR                                | 1,176              | 1,366              |                          |
|                                | Ashkhabadskaya Oblast                      | 294                | 489                |                          |
|                                | Chardzhouskaya Oblast                      | 294                | 300                |                          |
|                                | Maryyskaya Oblast                          | 294                | 313                |                          |
|                                | Tashauzskaya Oblast                        | 294                | 264                |                          |
|                                | Uzbek SSR                                  | 5,669              | 7,317              |                          |
|                                | Andizhanskaya Oblast                       | 567                | 712                |                          |
|                                | Bukharskaya Oblast                         | 567                | 529                |                          |
|                                | Ferganskaya Oblast                         | 567                | 863                |                          |
|                                | Kara-Kalpakskaya ASSR                      | 1,133              | 443                |                          |
|                                | Kashka-Dar'inskaya Oblast                  | 284                | 435                |                          |

## S-E-C-R-E-T

|                               |                                   | Thousand           |                    |                          |
|-------------------------------|-----------------------------------|--------------------|--------------------|--------------------------|
| Economic Region               | Administrative Division           | 1950 <sup>b/</sup> | 1956 <sup>c/</sup> | Ratio of<br>1956 to 1950 |
| Xb (Central Asia) (Continued) |                                   |                    |                    |                          |
| Uzbek SSR (Continued)         |                                   |                    |                    |                          |
|                               | Khorezmskaya Oblast               |                    | 385                |                          |
|                               | Namanganskaya Oblast              | 567                | 541                |                          |
|                               | Samarkandskaya Oblast             | 567                | 1,044              |                          |
|                               | Tashkentskaya Oblast              | 1,133              | 2,014              |                          |
|                               | Surkhan-Dar'inskaya               | 284                | 351                |                          |
| XI (East Siberia)             |                                   | 5,030              | 6,541              | 130.0                    |
|                               | Buryat Mongol'skaya ASSR          | 529                | 650                |                          |
|                               | Chitinskaya Oblast                | 1,059              | 1,009              |                          |
|                               | Irkutskaya Oblast                 | 1,059              | 1,757              |                          |
|                               | Krasnoyarskiy Kray                | 1,853              | 2,474              |                          |
|                               | Tuvinskaya Autonomous Oblast      | 265                | 168                |                          |
|                               | Yakutskaya ASSR                   | 265                | 483                |                          |
| XII (Far East)                |                                   | 3,971              | 4,320              | 108.8                    |
|                               | Amurskaya Oblast                  | 794                | 737                |                          |
|                               | Kamchatskaya Oblast <sup>g/</sup> |                    | 209                |                          |
|                               | Khabarovskiy Kray                 | 1,324              | 1,140              |                          |
|                               | Magadanskaya Oblast <sup>g/</sup> |                    | 240                |                          |
|                               | Primorskiy Kray                   | 1,059              | 1,305              |                          |
|                               | Sakhalinskaya Oblast              | 794                | 689                |                          |

a. Because of rounding, totals do not always agree with distribution.

b. Estimated (see Appendix B).

c. 21/

d. Karel'skaya ASSR was included in the RSFSR on 16 July 1956.

e. As of April 1956.

f. 1954 oblasts that were abolished.

g. Oblasts that were set up between 1950 and 1956.

h. In January 1957 the formation of Checheno-Ingushskaya ASSR and the abolition of Groznenskaya Oblast took place.

S-E-C-R-E-T

APPENDIX B

METHODOLOGY

I. Discussion of Data in "National Economy."

The figure of 200.2 million as of April 1956 as the total population of the USSR is labeled by National Economy as an estimate. In an interview granted to a visiting American, 22/ the Chief of the Soviet Central Statistical Administration stated:

The estimate of the population as of April 1956 was made on the basis of electoral statistics, the data of the economic accounts of sel'sovets [rural soviets], the data of the house books for registrations in and out of cities, and current registrations of births and deaths.

The estimate of population in April 1956 appears, in the opinion of the Central Statistical Administration, to be sufficiently reliable.

The estimate includes the total population, including the armed forces where found.

The division of the population into urban and rural concerns de facto [resident] population.

In the Soviet Union, registration of births and deaths includes the whole territory of the USSR. The data of registered births and deaths are presented monthly for each city, urban settlement, and rural soviet (including other population points). These data are made more exact for the year on the basis of statistical refinements or a second sample of the annual records of civil conditions of births and deaths. The data on birth and death rates include all areas and groups of population without exception.

It will be noted that the only official claim regarding this estimate is that it is "sufficiently reliable" and includes the total population.

- 25 -

S-E-C-R-E-T

## S-E-C-R-E-T

Examination of this statement, however, reveals several areas of doubt. Although the estimate is dated April 1956, it is doubtful whether the estimates on which it was based are so recent, especially as the last previous voter registration was early in 1955 and would have had to be brought up to date by some method of projection.

The estimate of the number of persons over 18 derived from the number of voters also raises doubt as to the method of estimating the nonvoters over 18 years of age, the mentally incompetent, and forced laborers. Although the American visitor was told that this number is small, it would not have been inconsistent with past Soviet policy deliberately to underestimate the number of forced laborers.

The method of estimating the number of persons under 18 years of age was not fully explained to the American visitor. The sources cited were sel'sovet accounts, migration registration books in the cities, and birth and death registration.

All three of these sources are subject to an unknown range of error. Sel'sovet accounts are in effect household registers which, if not accurately kept, are subject to overcounting if migrants who have moved away are not dropped from the books promptly and to undercounting if in-migrants are not picked up promptly. There are about 80,000 sel'sovets, and the collection and consolidation of statistics from such sources also open the way to error. Urban migration registers are subject to the same errors of omission and duplication.

The third body of data -- birth and death rates 23/ -- is less subject to error, because migration is not involved. The American visitor was informed by the Soviet Central Statistical Administration that these rates were corrected for underregistration, but the method of correction was not explained. Such corrections are delicate statistical operations and may introduce some error. The historical rates for 1913, 1926, and 1940 are subject to large error. 24/ Only 6 recent years are given, making possible only the estimate of children 6 years of age and under. The gap in vital rates from 1940 to 1950 makes estimates of the population from 7 to 17 years of age subject to unknown error, especially as these children were born in the war years when both birth and death rates were subject to extreme fluctuations.

The combination of these three bodies of data into a single estimate is, therefore, subject to error of unknown magnitude; possibly

S-E-C-R-E-T

as much as 6 million to 10 million. It is believed, on the basis of previous announcements of a higher figure, that the estimate of 200.2 million is on the low side.

The population figure of 191.7 million given as the annual average in 1940 is a projection of the Soviet census of 1939 and censuses of the annexed territories taken at varying dates. Because war losses were beginning to pile up in 1940, it is difficult to interpret the meaning of such an "annual average." This figure, therefore, probably is subject to as wide a margin of error as the 1956 estimate.

Another peculiarity of the 1956 figure when projected back to 1950 and compared with the 1940 figure is that war losses of 40 million to 45 million are indicated which are far above the most carefully prepared previous estimates. 25/

War-induced losses include direct military casualties, migration, excess civilian deaths, and deficit in births, none of which is subject to direct methods of estimation.

The military casualties (killed in battle and dead of wounds) were estimated previously at 7 million. The delayed result of wounds, however, probably continued for a number of years.

Excess civilian deaths are also not known, because death rates were not published during the war years.

Deficits in births are also a difficult category to estimate, because the prewar birth rates are subject to a range of error and because birth figures during the war were not published.

The combined effect of all war-induced causes can, however, be approximated as follows:

|   | <u>Million</u> |
|---|----------------|
| Population midyear 1940                               | 191.7          |
| Hypothetical increase at prewar birth and death rates | 36.0           |
| "Expected" for January 1950                           | 227.7          |
| Population 1 January 1950 (as in Table 1*)            | 180.0          |
| Deficit   | <u>47.7</u>    |

\* P. 5, above.



## S-E-C-R-E-T

This figure of 47.7 million war-induced losses is, as has been pointed out, subject to an extremely wide range of error. It is, however, fairly certain from figures in National Economy that there was an actual loss of 12 million in the Soviet population between 1940 and 1950 -- that is, deaths in the USSR amounted to a number equivalent to 12 million plus all births during the 10 years.

II. Estimate of the Structure of the Population, 1 January 1955.

The base from which the projection of the Soviet population starts is that of 1 January 1955. The total for this date of 195.9 million is estimated from the figure of 200.2 million for April 1956 by use of the birth and death rates published in National Economy. In order to distribute this total by age and sex, a variety of sources had to be used. The basic method was to divide the population into three separate groups and estimate as follows:

1. The population over 18 years of age was estimated by adding to the 123.1 million voters 26/ 2.6 million for nonvoters over 18. The latter figure is a rank guess.
2. It is possible to estimate the population under 7 years of age with reasonable accuracy from the published birth rates and the announcement of a natural increase. 27/
3. The population from 7 to 17 years of age was estimated largely from school attendance data.

The procedures of the Bureau of the Census in making these estimates are as follows:

1. The total population of the USSR on 1 January 1955 was estimated to be 195,937,000. This total is consistent with an official estimate of 200.2 million for April 1956, less the natural increase for 1-1/4 years, estimated on the assumption that the rate of natural increase for 1956 was the same as that for 1955.
2. Preliminary estimates of the Soviet population in the 0 to 17 age group are shown in Table 9.\*

\* Table 9 follows on p. 29.

S-E-C-R-E-T

Table 9

Preliminary Estimates of the Population of the USSR  
 in the 0 to 17 Age Group  
 1 January 1955

| Thousand |               |   |                                     |                |
|----------|---------------|---|-------------------------------------|----------------|
| Age      | Central Value | Error Because of Rounding <sup>a/</sup> | Adjustment Applied to Central Value | Final Estimate |
| 0 to 4   | 22,846        | ± 43                                    | N.A.                                | 22,846         |
| 5        | 4,030         | ± 143                                   | -101                                | 3,929          |
| 6 to 13  | 26,278        | ±2,977                                  | -660                                | 25,618         |
| 14 to 17 | 18,289        | ± 596                                   | -459                                | 17,830         |
| Total    | <u>71,443</u> | <u>±3,759</u>                           | <u>-1,220</u>                       | <u>N.A.</u>    |

a. For age 5 the error shown represents variations resulting from different assumptions regarding the relationship between the enrollment in the first grade in three republics and that in all the USSR. For ages 6 to 13 the error shown represents variations resulting from different assumptions regarding school enrollment rates.

3. Subtracting the population under 18 from the total,  
 $195,937,000 - 71,443,000 \pm 3,759,000$ ,  
 the population 18 years old and over must be, therefore,  
 $124,494,000 \pm 3,759,000$ .  
 The population 18 years old and over cannot be smaller than the number of eligible voters, however, or 123,174,000 (republic elections, 27 February - 6 March 1955). Therefore, the population over 18 lies between 123,174,000 and 128,253,000. The central value of this number, or 125,714,000, was used as the control for 18 years old and over.
4. Subtracting the control total for the population 18 years old and over from the total population,  
 $195,937,000 - 125,714,000$ ,  
 the control total for the population under 18, or 70,223,000, is obtained.

S-E-C-R-E-T

5. The adjustment of 1,220,000 for the population under 18 was distributed as follows: (a) the adjustment was divided between age groups 5 to 13 and 14 to 17 in proportion to the central values (no adjustment was assigned to ages 0 to 4 which had been estimated from officially reported vital rates); (b) the proportion assigned to the age group 5 to 13 was distributed into each single year of age in proportion to the central value for each year; and (c) the proportion assigned to the age group 14 to 17 was distributed by single years of age in proportion to the estimated number of births used to estimate that year of age, times the number of years of exposure to mortality (the assumption here is that the estimated mortality for these ages was too low and that those cohorts having the longest period of exposure would have the greatest probability of dying).
6. The population age 18 and 19 was adjusted in a similar manner to that for 14 to 17 in order to produce a smooth distribution for single years of age within the group 15 to 19.
7. A control total was then obtained for the population 20 years old and over by subtracting the population 18 and 19 from the control for 18 years old and over. The estimated population 20 years old and over was then adjusted to equal the control. The adjustment was distributed by age and sex in proportion to deaths during the period 1945 to 1954. The adjustment had the effect of increasing the number of deaths by less than 1 percent.

The population from 0 to 4 years of age on 1 January 1955 was estimated as follows:

1. The number of births occurring in each year between 1950 and 1954 was estimated on the basis of reported vital rates for these years and the reported official population total of 200.2 million for April 1956. These vital rates and the 1956 population total permitted the preparation of estimates of the midyear population in each of the years between 1950 and 1954 on the assumption that the rate of natural increase during the first quarter of 1956 was the same as that for 1955, and on the further assumption that there was no net foreign migration.

S-E-C-R-E-T

The birth rates were then applied to the midyear-period population estimates to yield estimates of the number of births in each calendar year.

2. Survival factors from birth to ages 0 to 4 years were computed as shown in Table 10.\*
3. The survival rates were applied to the estimated annual number of births to yield survivors at ages 0 to 4 years on 1 January 1955.

The population 5 years of age on 1 January 1955 was estimated as follows:

1. Data were obtained on the expected enrollment of new students in the first grade as of September 1956 for three republics -- the RSFSR, Kazakh SSR, and Turkmen SSR. 28/ Inasmuch as the figures were rounded, it was assumed that each would have a possible error as a result of the rounding of one-half the rounded portion of the figure. For all three republics the expected enrollment was 2.416 million plus or minus 51,000.
2. An estimate of the comparable expected enrollment in the USSR as a whole was computed as follows: first, on the assumption that the ratio of expected enrollment to population would be the same for the USSR as for the three republics combined; and, second, on the assumption that the ratio of expected enrollment to the number of students in general educational schools of all types would be the same for the USSR as for the three republics combined. These two assumptions led to 4 estimates of expected enrollment in the USSR, 2 derived from each assumption by virtue of the allowance for rounding of figures involved in each computation. The mean of the highest and lowest of these four estimates was taken as the estimate of the expected enrollment of new pupils in the schools of the USSR in September 1956. This number proved to be 4,005,000 plus or minus 142,000.

---

\* Table 10 follows on p. 32.

S-E-C-R-E-T

Table 10

Preliminary Estimates of the Number of Survivors of 1949-54 Births in the USSR  
1 January 1955

| Year | Estimated<br>Infant<br>Mortality<br>Rate<br>(Per Thousand) | Estimated<br>Mortality<br>Rate for<br>Ages 1 to 4 | Age Last<br>Birthday on<br>1 January 1955<br>(x) | Number<br>Surviving from<br>Birth to Age x<br>per 100,000<br>Births | Assumed<br>Range<br>of Error<br>per 100,000<br>Births | Number<br>of Births<br>(Thousands) | Preliminary<br>Estimate<br>of Survivors<br>Aged x on<br>1 January 1955 |
|------|--|---|--|---|---|------------------------------------|--|
| 1949 | 100.8  | 41.31   | 5 years  | 85,982  | ±1,402  | 5,307 ±572                         | 4,563 ±574   |
| 1950 | 75.0   | 27.68   | 4 years  | 90,118  | ± 988   | 4,813 ± 9                          | 4,337 ± 56   |
| 1951 | 75.0   | 27.68   | 3 years  | 90,504  | ± 950   | 4,951 ± 9                          | 4,481 ± 55   |
| 1952 | 62.5   | 22.74   | 2 years  | 92,502  | ± 750   | 4,962 ± 9                          | 4,590 ± 46   |
| 1953 | 50.0   | 15.86   | 1 year   | 94,644  | ± 536   | 4,757 ± 10                         | 4,502 ± 35   |
| 1954 | 49.4   | 15.86   | Under 1 year<br>Under 6 years                    | 96,015  | ± 398   | 5,149 ± 10                         | 4,944 ± 30<br>27,417 ±796  |

S-E-C-R-E-T

S-E-C-R-E-T

3. The estimated expected enrollment of new students in September 1956 was taken to be an estimate of survivors born during the year from 1 September 1948 to 31 August 1949. It was assumed arbitrarily that this number represented equally well the survivors born during the calendar year 1949. This is equivalent to assuming that the survivors on 1 January 1957 of births during the calendar year 1949 are equal to the survivors on 1 September 1956 of births occurring between 1 September 1948 and 31 August 1949.
4. Using mortality factors derived from the same life tables employed to compute the survivors of the population born during 1950-54, the figure of 4,005,000 plus or minus 142,000 was converted to an estimate of births during 1949. This proved to be 4,680,000 plus or minus 166,000 and corresponds to a birth rate of 26.2 plus or minus 0.9. This rate was compared with birth rates for the years 1950-54 which were officially announced. These were as follows: for 1950, 26.5; for 1951, 26.8; and for 1952, 26.4. Because of the close agreement of the rates, the estimated number of persons expected to be newly enrolled in September 1956 was accepted.
5. On the assumption that the estimate of 4,005,000 plus or minus 142,000 represents approximately the population age 7 on 1 January 1957, this figure was "revived" to 1 January 1955 when the cohort was 5 years of age, and an estimate of 4,030,000 plus or minus 143,000 was obtained (the survival factors were derived from the same life tables used to compute survivors 0 to 4 years of age on 1 January 1955).

The population from 6 to 13 years of age was estimated with the use of school enrollment data for grades 1 through 4 for the school years 1950-51, 1954-55, and 1956. The process involved the establishment of high and low estimates of age-specific enrollment rates which, when divided into numbers enrolled, produced estimates of total population of that age.

The population 14 to 19 years of age on 1 January 1955 was estimated as follows:

S-E-C-R-E-T

1. Population 14 to 19 years of age on 1 January 1955 represents persons born during the calendar years 1935-40.
2. Births during calendar year 1940 were estimated from the 1940 birth rate and the 1940 population as reported in National Economy.
3. The number of births occurring during the calendar years 1935-38 was estimated from vital statistics rates reported in the Soviet press in 1939. 29/ These births were corrected for territorial changes to yield estimates of the number of births during each calendar year for the present territory of the USSR.
4. The number of births for calendar year 1939 was obtained by interpolation between the figures for 1935-38 and that for 1940.
5. To convert these estimates of births into estimates of surviving population on 1 January 1955, it was necessary to allow for mortality. This was done by using survival factors from several life tables. Survival computations for deaths occurring during 1935-39 were based on a life table consistent with an infant mortality rate of 180. This life table was chosen on the assumption that the infant mortality rate during 1935-39 was somewhat higher than the rate of 150 plus or minus 10 estimated for 1940-41, but not higher than 200. For deaths occurring between 1 January 1940 and 1 January 1942, the survival factors used were based upon a life table including an infant mortality rate of 150, which was the approximate level of the infant mortality rate previously estimated for 1940-41. Mortality occurring during the period from 1 January 1942 to 1 January 1945 was estimated by survival factors from a life table having a mortality rate of 250. There is no substantial basis for this assumption except the generalized evidence that mortality was higher during 1942-44 than it had been before the war. Life tables used to compute the mortality to these cohorts between 1935 and 1944 inclusive yield levels of mortality comparable to those implied by the life tables used for the population 20 years old and over.

S-E-C-R-E-T

6. These three life tables were applied seriatim to the estimates of births between 1935 and 1940 to yield estimates of survivors on 1 January 1945.
7. The mortality thus accounted for represents an estimate of so-called "normal" mortality, including deaths from all causes except violent deaths which were a direct consequence of the war, such as deaths by bombing and deaths at the hands of the Germans in their extermination campaigns. Another adjustment was called for, therefore, which would account for violent deaths caused by the war. It was assumed that the population born in 1940 or earlier years was exposed equally to the risk of war-caused deaths. An adjustment procedure to allow for such deaths was derived -- as explained below in the section dealing with the population age 20 years or over -- and applied to the estimated survivors on 1 January 1945 of persons born during 1935-40.
8. The resulting estimates of survivors of both types of mortality on 1 January 1945 was carried forward to 1 January 1955 with the use of survival rates from life tables comparable to those used to project the population in 1955 of persons 20 years of age and over. The particular mortality tables employed involved an infant mortality rate of 180 and commensurable rates for other ages for the period 1945-49 and an infant mortality rate of 85 with corresponding rates for other ages for the period 1950-54.

The population 20 years of age and over on 1 January 1955 was estimated as follows:

1. A hypothetical age-sex distribution at the time of the census of 17 January 1939 was prepared by using assumed 12-year survival rates derived from Polish life tables for 1931-32 on the age-sex distribution reported for the census of 17 December 1926.
2. The hypothetical age-sex distribution for 17 January 1939 was adjusted to control totals for broad age-sex groups. These groups were derived from the few published results of the 1939 census.



## S-E-C-R-E-T

3. The resulting estimate of the age-sex distribution at the time of the 1939 census was brought forward to 1 January 1940 with the use of estimated numbers of births and deaths occurring in 1939 and 1-year survival rates calculated from the Polish life tables for 1931-32.
4. An estimate of the age-sex distribution of persons living in the acquired territories as of 1 January 1940, excluding persons who later emigrated, was added to the estimated age-sex distribution for the pre-1939 territory of the USSR for 1 January 1940.
5. The estimated age-sex distribution of the population 5 years of age and over living in the postwar territory of the USSR on 1 January 1940, excluding persons who subsequently emigrated, was brought forward to 20 years of age and over on 1 January 1955 with the use of assumed survival rates. The survival rates were computed from life tables representing several different levels of mortality, depending on the time period to which they related. The life tables used to represent mortality in the war period 1940-44 had a very low combined male and female value of expectation of life at birth -- 30 years. The life tables used for 1945-49 had a combined expectation of 40 years. The life tables used for 1950-54 were selected for their consistency with the estimated numbers of deaths in this period and had a combined expectation of 60.4 years.
6. An estimated distribution of male war losses was subtracted from the survivors on 1 January 1945, as well as an allowance for violent nonmilitary deaths caused directly by the war. This later adjustment was made as follows: an estimate 30/ of 4.4 million violent nonmilitary deaths was prorated for the survivors on 1 January 1945 of population born in 1940 or earlier, on the assumption that the entire population, regardless of age, would have been equally exposed to this kind of mortality.

III. Projected Population, 1956-76.

The fertility rates assumed for 1956-76 represent nothing more than a selection from an infinite set of possibilities. It is expected

## S-E-C-R-E-T

that the actual fertility rates will be between the extremes of the four possible projections, but even that is not certain.

The mortality rates estimated for 1955 are surprisingly low but are close to levels estimated for neighboring countries, as shown in Table 11.

Table 11

Approximate Life Expectancy at Birth  
in Selected Countries  
1955

| Country                                   | Years |        |
|---|-------|--------|
|   | Male  | Female |
| USSR                                      | 62.3  | 65.6   |
| Czechoslovakia                            | 65.2  | 69.5   |
| Hungary                                   | 63.8  | 67.5   |
| Poland                                    | 60.2  | 65.4   |
| Rumania                                   | 60.2  | 64.0   |
| Soviet Zone of Germany<br>and East Berlin | 67.2  | 71.7   |

The projections allow for rapid reductions in mortality in the future, but the declines are consistent with those observed in many countries in the postwar period. It is possible that these declines may prove to be too rapid for the USSR, but an error in estimating future mortality would not seriously affect the population projections for the large portion of the population exposed to relatively minor mortality risks.

No allowance has been made for the possibility of catastrophic events such as wars, famines, or widespread epidemics, because such events cannot be foreseen.

#### IV. Population by Union Republic.

The population figures for the union republics as of April 1956 were published in National Economy. The populations of the union republics for 1950 were estimated by distributing the total population in proportion to the percentage of voters in each republic.

## S-E-C-R-E-T

V. Population by Oblast.

Published data were used for the populations of the oblasts of the RSFSR. 31/ Population estimates as of April 1956 for oblasts outside the RSFSR were obtained from the 1957 edition of the Soviet statistical handbook. 32/

No estimate of republic population for 1950 was available. Therefore, the total population of the USSR in 1950, as given in Table 1,\* was divided by the number of election districts to obtain a nationwide average. This average was then multiplied by the number of districts in each oblast in order to obtain an estimate of the oblast population.

VI. Total Population by Economic Region.

Combinations of the appropriate oblast and republic totals were used as estimates for each region.

VII. Urban Population by Region.

The 1956 urban population of each economic region of the RSFSR has been published. 33/ Estimates for other regions were obtained as follows. National Economy lists cities of more than 100,000 inhabitants with their population. 34/ It also gives the combined total population of smaller urban areas. 35/ The cities of more than 100,000 could be allocated directly to their economic regions, and the number of smaller urban areas in each region was compiled from the administrative and territorial handbook. The population of cities of 100,000 and over was totaled for each economic area, and the population in smaller urban places was estimated on the basis of the proportion of the total number of such places which were located in the region. The total of the two figures provides an estimate of the urban population of each region.

VIII. Distribution of State Agricultural Employment.

The data used for constructing series on state agricultural labor force distributions by republic in the USSR were as follows: (1) the national average annual number of workers and employees for both machine tractor stations (MTS's) and sovkhoses for various years, (2) the distribution of MTS's and of sovkhoses by republic for various years, and (3) the two types of distribution of the MTS labor force

\* P. 5, above.

S-E-C-R-E-T

by republic. 36/ The first type of distribution by republic pertains to MTS workers who were paid wages and salaries. The second type is more comprehensive, including not only wage and salary workers but also kolkhozniki (collective farmers) working under seasonal contract for the MTS's. No comprehensive data were available in the Soviet press on sovkhos employment by republic.

Two methodological problems were posed by the paucity of data. The first was to use the 1937 data on MTS employment by republics as the basis for 1950 and 1955 distribution. The second was to find a logical method for distributing sovkhos employment by republic in 1950 and 1955 without the advantage of prewar distributions.

The average number of workers per MTS in each republic in 1950 was determined on the basis of a ratio of the average number of wage and salary workers per MTS in each republic in 1937 to the national average number of workers per MTS in 1950. (This method assumes that the change in size of MTS staffs was of a proportionate magnitude in all republics.) An estimate of the actual number of workers per MTS in each republic was then obtained by multiplying the 1950 average by the number of MTS's in each republic in 1950.

The method used to determine MTS employment by republic in 1955 was similar to that used for 1950, except that the more comprehensive distribution of MTS manpower by republic in 1937 was used for the basis of calculation. In 1953 and 1954 the large numbers of kolkhozniki employed by the MTS's under seasonal contract were transferred to the permanent staffs of the MTS's. The transfer meant that these workers were now paid wages and salaries and were considered workers and employees of the state. Use of the more comprehensive 1937 distribution meant a more comparable basis for deriving the 1955 distribution of MTS employees by republic.

The second major problem was to distribute sovkhos employment in 1950 and 1955 by republic without the advantage of prewar distributions. The method finally selected was to use the 1950 and 1955 MTS employment distributions (by republic) as the basis for distributing 1950 and 1955 sovkhos employment. This method assumes that developments which influence the expansion or reduction of the labor force in the MTS's are likely, as a general matter of state policy, to be reflected in similar developments in sovkhoses and vice versa.

**Page Denied**

Next 3 Page(s) In Document Denied

**SECRET**

**SECRET**