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POPULATION AND LABOR FORCE
OF ECONOMIC REGIONS XI AND XII OF THE USSR
1950-55

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Map

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CIA/SC/RR 109
(ORR Project 45. 545)

POPULATION AND LABOR FORCE
OF ECONOMIC REGIONS XI AND XII OF THE USSR*
1950-55

Summary

This report is an analysis of all sources of data regarding the population of the two easternmost regions of the USSR, Economic Region XI (East Siberia) and Economic Region XII (Far East). ** There have been no detailed census publications of local areas since 1939. In the absence of such figures, three principal sources of current population estimates are presented and compared: (1) reports from local registrars summarizing population characteristics, (2) allocation of territory to All-Union election districts (each with 300,000 population), and (3) allocation of territory to RSFSR election districts (each with 150,000 population in the RSFSR). ***

The population of Regions XI and XII, which has increased at a faster rate than that of the USSR as a whole during the preceding 4 years, is estimated to be 12 million in 1954-55. Birth rates are

* The estimates and conclusions contained in this report represent the best judgment of ORR as of 1 June 1955.

** The economic regions referred to in this report are those defined and numbered on CIA Map 12048.1 (9-51), First Revision 7-52, USSR: Economic Regions.

*** A fourth method, not used in this report because of the lack of data, depends on projecting a base population by adding estimated births and immigration and subtracting deaths and emigration.

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exceptionally high, reflecting pioneer population concentration in the young adult age span. Some of the increase also stems from the transfer of previously uncounted forced laborers to the counted free population. About one-half of the population is in urban areas.

Population increases are indicated for the years between 1950-51 and 1954-55 in (1) the frontier areas of Anadyr' (Magadan Oblast), Noril'sk (Krasnoyarskiy Kray), and Yakutsk ASSR; (2) the commercial-industrial areas of Chita Oblast, Amur Oblast, and the southern urban areas of Sakhalin Oblast and Primorskiy Kray; and (3) the area of electric power development on the Angara River in Irkutsk Oblast.

Employment is concentrated in the extractive and primary processing industries -- fishing, mining (nonferrous metallurgy and coal), petroleum, and timber. The ratio of industrial employment to total employment is higher in Region XII than in the USSR as a whole.

I. Population.

The development of Siberia and the Far East has long been an objective of Russian rulers. Even before the completion of the rail link, pioneer agricultural settlements pushed into the area; and the census of 1897 indicated a population of 2.4 million in the area roughly comparable to the present Economic Regions XI (East Siberia) and XII (Far East). Substantial growth continued up to World War I, but from 1914 to 1926 the area lost heavily because of war casualties, purges, famines, epidemics, and the migration of persons exiled by the tsars. The "free" population of this area in the 1926 census numbered about 3.9 million, and in 1939, * 7.66 million. 1/** The increase from 1939 to 1954 was over 50 percent.

* Not including the 350,000 population of South Sakhalin, which was then Japanese.

** For serially numbered source references, see Appendix D.

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A. Total Population.

The population of Regions XI and XII is estimated to be 12 million (with a margin of error of plus or minus 5 percent) for 1954-55, consisting of 6.9 million in Region XI and 5.1 million in Region XII. This estimate is 1.7 million greater than the figure of 10.275 million (with a margin of error of plus or minus 5 percent) which was made for 1950-51. This is an increase of approximately 4 percent per year compared with an increase of about 1.7 percent per year in the USSR as a whole. ^{2/} The 4-percent rate is sufficient to account for the high rate of natural increase which is possibly as high as 2.5 to 3.0 percent per year in the area as well as a rate of migration below that of the late 1940's.

B. Factors of Increase.

The increase in the free population on which election district allocations are based may come from three sources: excess of births over deaths, excess of immigration over emigration, and transfers from forced labor to free labor. All three have contributed in some measure to the increase of 1,725,000 indicated in Table 1.* It is not possible to assign an exact value to any of the three.

Taking into consideration natural increase rates (see Table 2**), and the somewhat lower annual increase of 17 per 1,000 for the USSR as a whole, it is estimated that Regions XI and XII may have increased by about 2.5 to 3.0 percent per year. This rate of increase would add from 1 million to 1.2 million in the 4-year period. The 500,000 to 700,000 difference between this natural increase and the estimated total population of the two regions in Table 1 seems reasonable in view of the probable migration trends and additions to the population from amnestied forced labor in this area. Although these two elements cannot be separated statistically, it is apparent that the increase indicated in the northern areas of Krasnoyarsk, Yakutsk, and ***

* Table 1 follows on p. 4.

** Table 2 follows on p. 5.

*** Continued on p. 6.

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Table 1

Estimated Population of Soviet Economic Regions XI and XII
1950-51 and 1954-55

Administrative Unit	Thousands	
	1950-51	1954-55
Economic Region XI (East Siberia)		
Krasnoyarskiy Kray	2, 175	2, 400
Yakutsk ASSR	375	525
Irkutsk Oblast	1, 275	1, 725
Buryat-Mongol ASSR	600	600
Tuva Autonomous Oblast	225	225
Chita Oblast	1, 125	1, 425
Total Economic Region XI	5, 775	6, 900
Economic Region XII (Far East)		
Amur Oblast	825	900
Khabarovskiy Kray	1, 500	1, 725
Primorskiy Kray	1, 350	1, 575
Sakhalin Oblast	825	900
Total Economic Region XII	4, 500	5, 100
Grand total	10, 275	12, 000

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Table 2

Natural Rates of Increase per Thousand
for Soviet Economic Regions XI and XII
1949-55

<u>Administrative Unit</u>	<u>Birth</u>	<u>Death</u>	<u>Net Natural Increase</u>
Economic Region XI (East Siberia)			
Krasnoyarskiy Kray	N. A.	N. A.	N. A.
Yakutsk ASSR	N. A.	N. A.	N. A.
Irkutsk Oblast <u>a/</u>	37	12	25
Buryat-Mongol ASSR <u>b/</u>	44	12	32
Tuva Autonomous Oblast	N. A.	N. A.	N. A.
Chita Oblast <u>c/</u>	36	10	26
Economic Region XII (Far East)			
Amur Oblast	N. A.	N. A.	N. A.
Khabarovskiy Kray <u>d/ e/</u>	54	16	38
Primorskiy Kray	N. A.	N. A.	N. A.
Sakhalin Oblast <u>f/ e/</u>	64	18	46
Rates based on 1926 census <u>g/</u>			
Siberian Kray	51	25	26
Buryat-Mongol ASSR	36	19	17
Far Eastern Kray	39	18	21
a. <u>3/</u>			
b. <u>4/</u>			
c. <u>5/</u>			
d. <u>6/</u>			

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Table 2

Natural Rates of Increase per Thousand
for Soviet Economic Regions XI and XII
1949-55
(Continued)

e. The discrepancy between total population and election district estimates for 1950 indicates that these rates may be artificially high.

f. 7/

g. 8/

Magadan resulted partly from the absorption of forced laborers. Some of these laborers may also have scattered into other areas. Two facts would appear to apply to migration: (1) that increases because of migration probably were concentrated in Sakhalin and along the Trans-Siberian Railroad and (2) that during the 4 years there was a gain from this source of not over 250,000 to 500,000, or about 100,000 per year. This is a much slower rate than in the immediate postwar years.

C. Urban-Rural Residence.

Table 3* gives the urban population of areas where this is available. These areas include most of the population of Regions XI and XII. On the basis of these data it is estimated that about 50 percent of the population was urban in 1951.** This figure is considerably above the 40 percent announced for the USSR as a whole at about the same date. 9/ Application of this 50 percent to the total 1951 population of these two regions indicated by the election districts yields an urban population of 5,135,000 and an equal rural population. If the percentage of urban population had increased to 52 by 1955, then the total urban population at the latter date would be 6,240,000.

* Table 3 follows on p. 7.

** Based on Table 2 plus estimates for Primorskiy and Magadan.

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Table 3

Estimated Urban Population of Soviet Economic Regions XI and XII
by Administrative Unit
1950

<u>Administrative Unit</u>	<u>Total Population ^{a/}</u>	<u>Urban Population</u>	<u>Percent</u>
Economic Region XI (East Siberia)			
Krasnoyarskiy Kray <u>b/</u>	1, 958, 842	636, 767	33
Yakutsk ASSR <u>c/</u>	408, 339	134, 769	33
Irkutsk Oblast <u>d/</u>	1, 303, 910	615, 730	47
Buryat-Mongol ASSR <u>e/</u>	545, 766	167, 646	31
Tuva Autonomous Oblast <u>f/</u>	113, 703	20, 752	18
Chita Oblast <u>g/</u>	963, 164	428, 144	44
Economic Region XII (Far East)			
Amur Oblast <u>h/</u>	633, 802	320, 119	51
Khabarovskiy Kray <u>i/ j/</u>	812, 431	506, 717	62
Primorskiy Kray	N. A.	N. A.	N. A.
Sakhalin Oblast <u>k/</u>	614, 236	443, 509	72

a. These are population figures as reported and used here for figuring urban percentages. See Appendix B, Methodology, for the reasons they differ from other population figures presented in this report.

- b. 10/
- c. 11/
- d. 12/
- e. 13/
- f. 14/
- g. 15/
- h. 16/

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Table 3

Estimated Urban Population of Soviet Economic Regions XI and XII
by Administrative Unit
1950
(Continued)

-
- i. 17/
j. This is not the entire kray but only the lower portion around the cities of Khabarovsk and Komsomol'sk. Kamchatka Oblast, Magadan Oblast, Lower Amur Oblast, and the Jewish Autonomous Oblast are not included. The population of Kamchatka Oblast is approximately 47 percent urban. 18/
k. 19/

Estimates from various sources have been compiled in Table 5, Appendix A, * listing the latest totals available for cities of 25,000 and over. The total for all of these cities is about 4.5 million. Since some of the estimates are not up to date, it is probable that this total may be low by from 5 to 7.5 percent. On this basis the population of 6,240,000 of all urban areas in 1955 would be divided into approximately 4,750,000 in cities of over 25,000 and 1,500,000 in cities of under 25,000.

A closer scrutiny of population developments can be made by studying the administrative areas and the allocation of election districts within them. (See the map. **)

D. Population by Administrative Units:

1. Krasnoyarskiy Kray (population estimate: 1950-51, 2,175,000; 1954-55, 2,400,000).

* See Appendix A, p. 17, below.

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The increase in population as reflected in the additional allocation of election districts was in the northern part of this large administrative area. Increases in population in the southern part from either natural increase or migration apparently were sufficiently scattered not to have caused adjustments in the allocation of election districts. The northern area, particularly around Noril'sk, which is rumored to have uranium deposits as well as copper, coal, and iron, did show an additional allocation of election districts equivalent to an increase of 200,000 to 300,000 inhabitants. This area, like the better known Dal'stroy, was developed under the auspices of the MVD forced-labor camps for the exploitation of its mineral and timber resources. This exploitation resulted in the economic development of sections accessible to river transportation and also brought about the effort to build a railroad from Salekhard to Igarka. 20/ Population estimated on the basis of election districts is free population. Increases in free population probably are largely the result of the 1953 amnesty, the release of other prisoners who have been persuaded to remain in the area, and the immigration of free settlers.

2. Yakutsk ASSR (population estimate: 1950-51, 375,000; 1954-55, 525,000).

This area lies between northern Krasnoyarskiy Kray and Magadan Oblast and exhibits some of the characteristics of both. Part of Dal'stroy lies in this autonomous republic. Thus the increase of 150,000 free inhabitants here in this period probably results from the same forces which act in the other two areas, both of which are also based on mining activity. In all three areas, released prisoners are restrained from leaving, and pecuniary incentives are offered to attract new settlers.

3. Irkutsk Oblast (population estimate: 1950-51, 1,275,000; 1954-55, 1,725,000).

Angarstroy, a projected series of hydroelectric stations along the Angara River begun about 1948, 21/ probably is primarily responsible for the population increases of about 8 percent per year between 1951 and 1955. The new city of Angarsk became the center

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of a new RSFSR election district when the 3 districts (150,000 population) previously centered in the city of Irkutsk were redivided into 4 districts (Irkutsk, 2; Angarsk, 1; and Ust' Ordynskiy, 1). Another election district was added at the rail junction of Tayshet, where a northern trunkline branches from the Trans-Siberian Railroad on its way north of Lake Baikal. The amazing hydroelectric potential as well as the mineral resources of the area, the exploitation of which has apparently just begun, provides the base for probable continued rapid growth.

4. Buryat-Mongol ASSR (population estimate: 1950-51, 600,000; 1954-55, 600,000).

Although Irkutsk showed an increase in population during this period of 8 percent, no increase was shown in the neighboring Buryat-Mongol ASSR. The geography of the two areas is similar, except that Irkutsk has the Angara River development. The flat lands of Buryat-Mongol are used, for the most part, as grazing lands and support only a sparse population. Buryat-Mongol covers a small area with a small base population which makes one election district a greater proportion of the total population and thus requires a long time to grow into an additional district.

5. Tuva Autonomous Oblast (population estimate: 1950-51, 225,000; 1954-55, 225,000).

Tuva is the only administrative unit in southeastern Siberia not served by the Trans-Siberian Railroad. Its abundant mineral resources have not yet been extensively exploited. The small original population, even smaller than Buryat-Mongol ASSR, will require a similarly long period of time to grow into a new district. Intense development will be dependent on transportation for the rich mineral resources. The probability of any extensive agricultural development is slight because of the very limited amount of good agricultural lands.

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6. Chita Oblast (population estimate: 1950-51, 1,125,000; 1954-55, 1,425,000).

The high rate of growth in Chita is based on the development of scattered deposits of copper, lead, tin, and coal and on some expansion of agriculture, but not on any one centralized development project as in Irkutsk. Some increase in population has also resulted from increased activity on the Chinese Eastern Railroad, which branches off the Trans-Siberian Railroad in Chita and which requires additional warehousing and transshipment.

7. Amur Oblast (population estimate: 1950-51, 825,000; 1954-55, 900,000).

According to Shabad, Amur contains "one of the major grain-growing districts of the Soviet Far East" and has a "rural population density [which is] high for the eastern part of the Asiatic USSR." 22/ Timber and gold mining in the northern mountainous districts of Amur as well as agriculture and primary processing in the south were well established before 1950. Since then, changes in the election district allocations indicate a population growth that allows little more than would result from an expected net natural increase. The greatest concentration of population is in such cities in the south as Blagoveshchensk, Kuybyshevka-Vostochnaya, and Svobodnyy, where the processing of agricultural products and the products of the northern mines and timber regions is carried on.

8. Khabarovskiy Kray and Magadan Oblast (population estimate: 1950-51, 1,500,000; 1954-55, 1,725,000).

This area was under one administration, Khabarovskiy Kray, until 1953, when Magadan became a separate oblast. Agriculture in southern Khabarovsk is limited to truck products near the large cities. The area has grown, however, on the basis of its mineral resources and commercial location. The rivers and coastal area provide ports for fishing operations and outlets for the timber and minerals of the interior. Although iron is not abundant, Komsomol'sk is the center of the largest metallurgical activities in

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the Soviet Far East. The area, however, does not have sufficient steel capacity to use its other mineral resources beyond primary processing. The pattern of development was established after the building of Komsomol'sk in 1932, so that by 1950 migration had slackened and the growth in the southern part of Khabarovsk probably was primarily due to its high natural increase. Birth rates can be expected to decline, however, as the original migrants grow out of the reproductive ages. These conditions are reflected in the unchanged number of election districts allocated to the southern area of Khabarovsk since 1950.

The people of the Lower Amur Oblast, especially since the removal of the naval station at Nikolayevsk, are engaged almost exclusively in fishing and gold mining, with fur trapping and deer grazing occupying the native population in the interior. The potentialities are currently limited by climatic conditions and the absence of rail or road transportation in the interior. Consequently, the population has not outgrown its one election district during the period 1950-55 and probably will not in the near future.

The Magadan area, which was made into Magadan Oblast in 1953, had been developed as Dal'stroy under the auspices of the MVD for its gold and other nonferrous metals. After the reorganization in 1953 the area was taken from MVD supervision and placed under the Ministry of Nonferrous Metallurgy. At the same time, the Magadan-Kolyma area and the Chukotsk National Okrug were separated from Khabarovskiy Kray to form Magadan Oblast. This new administrative area was made into one 300,000-population All-Union election district in 1954 and two 150,000-population RSFSR election districts in 1955, replacing what had previously been one and one-half RSFSR districts in the same area. These changes seem to indicate a lesser emphasis on forced labor in the area and possibly an increase in the free population through immigration or as a result of the March 1953 amnesty. (There is, however, no measure of the extent to which this area was affected by the amnesty, which applied mainly to criminal prisoners). With the transportation facilities developed under the MVD and the rich resources, the area probably will continue to grow. The increased mining of minerals other than gold could greatly affect the primary manufacturing and therefore

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the population of the southern areas of Khabarovskiy and Primorskiy Krays.

As a result of the separation of Chukotsk and Koryaki National Okrugs, Koryaki became a separate election district. Some increased mining and fishing activities may account for this possible increase in population. For both these districts, however, the more likely deduction is that the election districts which have been recently added overestimate the population. These additions may, however, reflect the absence of additions further south where underestimates may exist, thus making the estimate for the Khabarovskiy Kray and Magadan Oblast as a whole more accurate than that for any part.

9. Primorskiy Kray (population estimate: 1950-51, 1,350,000; 1954-55, 1,575,000).

Primorskiy Kray contains the oldest settlements and is the most stable region in the Soviet Far East. Its regular growth is reflected by the increase in its election districts* and particularly by the increase in these districts around the urban area of Vladivostok, Artem, and Voroshilov. This type of growth was in part made possible by keeping the port of Vladivostok open the year round with the aid of a fleet of ice-breakers. Its continuing growth is also a result of the development along the Trans-Siberian Railroad eastward from Krasnoyarsk, for which it is the eastern terminal. It is also the terminal point for the Northern Sea Route as well as many other ocean routes from northern ports of the Far East. Coastal coalfields and some iron ore deposits made possible the numerous ship coaling stations and repair ports along its coasts. Abundant timber resources inland and the possibilities for agricultural development in the humid river valleys add further potentialities to the economic development of this area.

10. Sakhalin Oblast (population estimate: 1950-51, 825,000; 1954-55, 900,000).

* See Table 6, p. 22, below.

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Sakhalin had a Soviet population of about 100,000 to 120,000 23/ in 1946, before the acquisition of the southern half from Japan; 417,000 in 1949; and 614,000 in 1951.*

The discrepancy between the 614,000 reported for 1951 and the 825,000 median between the 1950 and 1951 election district estimates ** probably is the result of the lag in the one or anticipation in the other in adjusting for the large emigration to South Sakhalin.

The 350,000 24/ Japanese who lived in South Sakhalin were mostly evacuated and replaced by Russians by 1949. The evacuees left behind a developed rail transportation system and a fishing industry which could be used as a base for further Soviet resettlement and development. The northern part of the island has remained one RSFSR (150,000 population) election district in 1951 and 1955, while South Sakhalin rose from four districts (600,000 population) in 1951 to five districts (750,000 population) in 1955.*** It is not possible to determine the exact extent of migration to South Sakhalin, but it has been large. 25/ Although accurate records of possible emigration are not available, some reports 26/ indicate that it has not been insignificant. The natural rate of increase for Sakhalin is large, not only when compared with the USSR as a whole but even when compared with other parts of the Soviet Far East.**** The high birth rate is a result of the resettlement of a large portion of the population having a greater proportion of persons in the reproductive ages than other Soviet areas, as well as the result of an emphasis on family resettlement, for which Sakhalin was suited because of the economic pattern left by the previous occupants of the southern part of the island. The death rate, which is also higher than that of other areas, may be a product of the higher birth rate.

* See Table 3, p. 7, above, and Table 7, p. 24, below.

** See Table 6, p. 22, below.

*** See Table 5, p. 17, below.

**** See Table 2, p. 5, above.

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II. Employment.

On the basis of employment estimates for the USSR as a whole, about 45 percent of the free population is employed. 27/ Employment for the entire country at this rate would be about 94.5 million in 1954. 28/ By applying this percentage to the estimated 1954-55 populations of Regions XI and XII, their labor forces can be estimated to be 3.1 million and 2.3 million, respectively.

In the USSR as a whole, about 50 percent of the labor force is agricultural. 29/ In Region XII, where climate and topography limit agricultural activity, the percentage is considerably less. In this region, approximately 33 percent of the labor force is engaged in agriculture.*

A large proportion of the nonagricultural labor force in this area is industrial.** It is possible, to distribute much of this industrial labor force in Region XII by industry as shown in Table 4.***

Taking the 1954 population of Region XII as 5.1 million,**** employment in the industries shown in Table 4 represents about 8 percent of the population. Additional industries for which no estimates were available probably would increase the proportion to 10 to 12 percent, whereas for the USSR as a whole only 6 to 7 percent of the population is in industrial employment.

* See Appendix B, Methodology, Section 4.

** The term industry as used in the USSR includes manufacturing and mining enterprises.

*** Table 4 follows on p. 16.

**** See Table 1, p. 4, above.

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Table 4
Estimated Employment in Soviet Economic Region XII
by Selected Industries
1954

<u>Industry</u>	<u>Employment</u>
Fish <u>a/</u>	117,293
Timber <u>b/</u>	63,543
Oil <u>c/</u>	12,500
Nonferrous metallurgy <u>d/</u>	108,181
Coal <u>e/</u>	76,254
Local and fuel <u>f/</u>	8,429
Total	<u>386,200</u>

- a. Includes processing. 30/
b. About 20 to 35 percent not included here is administered by other ministries. 31/
c. Of the figure, 9,500 are employed in the refineries in Khabarovsk; the remainder are employed in extraction on Sakhalin. 32/
d. 33/
e. 34/
f. Includes a small amount of oil and coal extraction and fabrication from wood. 35/
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APPENDIX A

CITIES IN SOVIET ECONOMIC REGIONS XI AND XII
HAVING A POPULATION OF OVER 25,000 a/*
1955

Table 5

<u>City (by Administrative Unit)</u>	<u>Thousands</u> <u>Population</u>
Khabarovskiy Kray	
Birobidzhan	40
Kamenskoye	30
Khabarovsk	325
Komsomol'sk	160
Nikolayevsk	40
Okhotsk	40
Petropavlovsk	30
Sovetskaya Gavan'	75
Sakhalin Oblast	
Aleksandrovsk-Sakhalinskiy	30
Dolinsk	30
Kholmsk	30
Korsakov	40
Okha	40
Uglegorsk	40
Yuzhno-Sakhalinsk	60

* Footnote for Table 5 follows on p. 20.

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Table 5
(Continued)

	<u>Thousands</u>
<u>City (by Administrative Unit)</u>	<u>Population</u>
Magadan Oblast	
Anadyr'	25
Magadan	55
Seymchan	35
Primorskiy Kray	
Artem	90
Bikin	25
Iman	100
Lesozavodsk	35
Nakhodka	25
Razdol'noye	25
Spassk-Dal'niy	50
Suchan	40
Tetyukhe-Pristan	25
Vladivostok	300
Voroshilov	142
Krasnoyarskiy Kray	
Abakan	40
Achinsk	35
Bogotol	25
Chernogorsk	30
Dudinka	42
Igarka	45
Kansk	40
Krasnoyarsk	356
Minusinsk	40
Noril'sk	100

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Table 5
(Continued)

<u>City (by Administrative Unit)</u>	<u>Thousands</u> <u>Population</u>
Amur Oblast	
Blagoveshchensk	80
Kuybyshevka-Vostochnaya	80
Raychikhinsk	30
Svobodnyy	40
Yakutsk ASSR	
Aldan	50
Pokrovsk	50
Verkhoyansk	25
Vilyuysk	38
Yakutsk	60
Irkutsk Oblast	
Cheremkhovo	100
Irkutsk	420
Usol'ye-Sibirskoye	40
Zima	38
Chita Oblast	
Baley	50
Borzya	40
Chita	220
Khilok	18
Petrovsk	50
Sretensk	25

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Table 5
(Continued)

<u>City (by Administrative Unit)</u>	<u>Thousands</u> <u>Population</u>
Buryat-Mongol ASSR	
Babushkin	25
Gorodok	25
Ulan-Ude	175
Tuva Autonomous Oblast	
Kyzyl	30
a. <u>36%</u>	

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APPENDIX B

METHODOLOGY

1. Population Estimates.

Economic Regions XI and XII are covered by two types of elections each of which occurs at 4-year intervals -- the elections to the All-Union Supreme Soviet (1950 and 1954), which have a statutory population of 300,000 for each district, and the elections to the Supreme Soviet of the RSFSR (1951 and 1955), which have a statutory population of 150,000 for each district. Before each of these elections, election districts are listed by administrative units in decrees. Table 6* shows the estimated population for each administrative unit in Regions XI and XII. These estimates were obtained by multiplying the number of election districts by the statutory population of each district for the elections of 1950, 1951, 1954, and 1955.

Political and economic homogeneity are probably important considerations in the distribution of these election districts. There is also reason to believe that a range around the statutory population is used by those fixing the districts, if only because some districts have remained stationary over the entire period under observance here. Kray and oblast population estimates based on the larger All-Union districts are often higher than the estimates based on RSFSR election districts for the following year (in 5 out of 10 districts between 1954 and 1955). It is assumed, therefore, that the estimates based on the All-Union districts are more likely to be overestimated than underestimated. For the same reason, it can be argued that the estimates for 1951, as well as for 1955, are more likely to have been underestimated than overestimated, since these estimates were also frequently smaller than the All-Union district estimates of the preceding year.

* Table 6 follows on p. 22.

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Table 6

Estimated Population of Soviet Economic Regions XI and XII
by Administrative Unit, Based on Election Districts a/
1950-55 b/

Thousands				
Administrative Unit	1950 <u>c/</u>	1951 <u>d/</u>	1954 <u>e/</u>	1955 <u>f/</u>
Economic Region XI (East Siberia)				
Krasnoyarskiy Kray	2, 100	2, 250	2, 400	2, 400
Yakutsk ASSR	300	450	600	450
Irkutsk Oblast	1, 200	1, 350	1, 800	1, 650
Buryat-Mongol ASSR	600	600	600	600
Tuva Autonomous Oblast	300	150	300	150
Chita Oblast	1, 200	1, 050	1, 500	1, 350
Economic Region XII (Far East)				
Amur Oblast	900	750	900	900
Khabarovskiy Kray	1, 500	1, 500	1, 800	1, 650
Primorskiy Kray	1, 200	1, 500	1, 500	1, 650
Sakhalin Oblast	900	750	900	900
Total	10, 200	10, 350	12, 300	11, 700

a. Estimates for 1950 and 1954 are based on election districts for delegates to the All-Union Supreme Soviét. Each district has a statutory population of 300,000. Estimates for 1951 and 1955 are based on election districts for delegates to the Supreme Soviet of the RSFSR. Each of these districts has a statutory population of 150,000.

b. For 1939 to 1949, see Table 7, p. 24, below.

c. 37/

d. 38/

e. 39/

f. 40/

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There is the possibility, however, that a general policy of overestimating or underestimating districts prevails in the allocations of both types of election districts. Overestimating, for instance, may prevail in the setting up of new districts in newly open areas such as those around Noril'sk and Magadan. Districts which have not been changed recently for either type of election, particularly those in the southern parts of the area which have older settlements, may, on the other hand, account for underestimates of the population.

The estimated population of Regions XI and XII of 10.3 million in 1950-51 and 12 million in 1954-55 with an estimated margin of error of plus or minus 5 percent is based on the median between the populations indicated by the All-Union election district allocations in 1950 and the RSFSR election district allocations in 1951 for the 1950-51 estimate, and between the All-Union election district allocations in 1954 and the RSFSR election district allocations in 1955 for the 1954-55 estimate.*

Population estimates based on election districts are not more than 2.5 percent removed from the medians. A range of error of plus or minus 5 percent attached to the medians is believed to be adequate to allow for the possibility of overestimation or underestimation in deriving population figures from which the medians were calculated.

The percent of error for each administrative unit will vary, being larger for the smaller units where the addition or subtraction of a single district requires a population increase of 30 percent or more, and smaller for the larger units.

The 1939 census and the 1949 population figures for these areas are presented in Table 7** for the purpose of indicating a trend and supplying the basis for confidence in the general magnitude of the election district estimates. The similarity between the 1939, 1949, and 1950 figures is often so close as to indicate that no over-all recount had taken place during the period.

* See Table 6, p. 22, above.

** Table 7 follows on p. 24.

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Table 7
Reported Population of Soviet Economic Regions XI and XII
by Administrative Unit
1939 and 1949

Administrative Unit	Thousands	
	1939 <u>a/</u>	1949
Economic Region XI (East Siberia)		
Krasnoyarskiy Kray	1,940 <u>c/</u>	1,959 <u>d/</u>
Yakutsk ASSR	401 <u>e/</u>	408 <u>f/</u>
Irkutsk Oblast	1,287 <u>g/</u>	1,303 <u>h/</u>
Buryat-Mongol ASSR	542 <u>i/</u>	546 <u>j/</u>
Tuva Autonomous Oblast	<u>k/</u>	114 <u>l/</u>
Chita Oblast	1,159 <u>m/</u>	1,159 <u>n/</u>
Economic Region XII (Far East)		
Amur Oblast	<u>k/</u>	634 <u>o/</u>
Khabarovskiy Kray	1,431 <u>p/</u>	N.A. <u>q/</u>
Primorskiy Kray	907 <u>r/</u>	N.A.
Sakhalin Oblast	450 <u>s/</u>	417 <u>t/</u>

a. 1939 census

- c. 41/
d. 1946 and 1947 election districts give an estimated population of 2,100,000. 42/
e. 43/
f. 44/
g. 45/
h. 46/
i. 47/
j. 48/
k. Not in existence in 1939.

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Table 7

Reported Population of Soviet Economic Regions XI and XII
by Administrative Unit
1939 and 1949
(Continued)

-
- l. 49/
 - m. 50/
 - n. Part of Chita was separated and given to Amur in 1949, after which the reported population was 963,000. 51/
 - o. 1947 election district estimate is 600,000. 52/
 - p. Including Amur Oblast and Northern Sakhalin (100,000 population). See footnote s, below. 53/
 - q. 1947 election district estimate is 1,250,000. 54/
 - r. 55/
 - s. 100,000 Russians plus 350,000 Japanese, most of whom were evacuated in 1946. 56/ The 450,000 figure for Sakhalin Oblast should not be included in an estimate of total population for Soviet areas, because South Sakhalin belonged to Japan and North Sakhalin is included in the figure for Khabarovskiy Kray.
 - t. A 1951 figure for Sakhalin Oblast is also available -- 614,000. 57/

2. Urban Population.

Regular reports are sent from administrative centers to the Central Statistical Office in Moscow. These reports include a breakdown of population into urban and rural categories. The figures in these categories are revised by the administrative center at intervals ranging from a few months to a few years. In most cases, urban population reports have been revised more often than the total population figure. The revision may possibly have been done by simply moving rural districts into the urban category. The latest revised figure, however, was used where available and matched with the total population reported for that

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period to get the proportion of urban to total population by administrative units. The date of revisions varied from 1949 to 1952.

3. Birth and Death Rates.

The birth and death rates shown in the text were calculated on the basis of monthly reports of registrars to Moscow listing the base population estimate, the absolute number of births, the absolute number of deaths, the absolute number of infant deaths, as well as immigration and emigration, with each item being separately reported for urban areas. Rates were obtained in the usual manner by dividing births and deaths by population. Since the monthly reports were not continuous, however, it was necessary to average them to obtain an annual figure. Tests were conducted to determine if the selection of months introduced a seasonal bias, but their spread was such that they appeared to represent a "normal" monthly average.

The resulting rates were unusually high whether they were compared either with other countries or with the national rates of the USSR. Death rates range from 10 to 18 per 1,000, and birth rates from 36 to 64 per 1,000. These rates are to be compared with a national death rate of 10 to 11 per 1,000, and a national birth rate of 25 to 26 per 1,000. 58/

Certain statistical consistencies appear in the results. The expected spread between urban and rural rates was found, and the expected relation between high birth rates, high infant death rates, and high general death rates emerges.

Although the age-sex composition is not known, some inferences may be drawn from the fact that some parts of the area are still under frontier conditions and others are not much more developed. Normally in areas of this type, there is a high proportion of males and a large proportion of both sexes in the reproductive ages. The fact that the USSR as a whole has a deficit of males and that Regions XI and XII are more balanced would account in some measure for a birth rate considerably higher and a death rate somewhat higher than the national average, because male deaths are more frequent than female. It is somewhat

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surprising, however, that this youthful population does not exhibit lower death rates. This may in part be accounted for by a possible lag of the regions in participating in recent advances in public health and in part by a high infant mortality.

Some doubt remains as to whether the characteristics of the population of these regions are pronounced enough to produce the wide variations from the national average which have been noted above. This suggests the possibility of statistical inaccuracies. The usual weaknesses underlying vital rates are either (a) failure to report all births and deaths (overreporting rarely occurs) or (b) inaccuracies in the base population estimates. If underreporting existed to an appreciable extent, an effort to correct for this influence would result in even higher rates and still wider differences from the national average. It is logical to conclude, therefore, that such statistical inaccuracies as are present result mainly from errors in the population estimate. If the rates are artificially too high, it would indicate an underestimate of the population. It is reasonable to expect that if the reported population were not adjusted regularly in periods of immigration, it would lag behind the actual increase.

This hypothesis is reinforced by the fact that the rates for Sakhalin and Khabarovsk are highest, and it is in these two administrative areas that the population base is farthest below the estimate based on election districts. In these areas, rates based on population estimates from the election districts could be 20 to 25 percent below those based on the population reports.

On balance it would appear that some downward adjustment should be made to "correct" these rates if a more accurate population base were available, but the regions would still be accurately characterized as ones of birth rates which are considerably higher and death rates which are somewhat higher than in the older areas of the USSR. Consequently, the spread between births and deaths, or natural increase, is also higher. This is a phenomenon which may be expected to diminish with time as the population ages and becomes better educated.

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4. Employment.

In the USSR as a whole, 62 percent of the population is rural, and about 50 percent of the labor force is agricultural. 59/ In Region XII, 40 percent of the population is rural.* Assuming the same ratio exists between the agricultural and the nonagricultural labor forces in the rural population, approximately 33 percent of the labor force in Region XII is agricultural.

(a) Fish Industry.

The planned yearly average number of employees in the fish industry for 1954 was prepared for the entire Region XII when, for a brief period in 1953 (August to November), all fish administrations for the region were amalgamated into one chief directorate. 60/ This figure includes all enterprises under the chief directorate including canning, drying, and supply.

(b) Timber Industry.

The Khabarovsk Logging Combine, Khabarovskles, includes logging enterprises in Primorskiy Kray and Khabarovskiy Kray, including the Magadan Oblast. It also included Amur Oblast before March 1953 when the combine was known as Glavdalles.

It is probable that the growth of timber exploration in Amur Oblast was not so great as in either Khabarovskiy or Primorskiy Kray, but the third-quarter-1952 plan figure which was combined with a later Khabarovskles figure may still be somewhat of an underestimate for 1954. To this combined figure was added the figure reported for Sakhalin. The following are not included in these figures: the Far East Woodworking Trust, hydrolysis plants, wood chemistry plants, paper plants, and veneer plants. An estimated 35 to 60 percent of logging operations is performed by other industrial ministries and local administrative units. 61/

* See Table 3, p. 7, above.

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(c) Oil Industry.

The figure for the oil industry in Table 6* is taken from an estimate from 1948 to 1954. The range of the estimate was from 9,000 to 9,500. The upper figure was chosen for use in Table 6 because certain oil-processing operations on Sakhalin were omitted from the original estimate (mainly a topping plant and supply depot, both having comparatively small employment). There are also two refineries on the mainland -- one in Khabarovsk and the other in Komsomol'sk. Employment figures for these two plants were estimated on the basis of 1949 messages. 62/

(d) Nonferrous Metallurgy.

employment figures for the nonferrous metallurgical industry in Magadan was sent by the trade union. Total employees eligible for trade union membership should include all employees (including those in horizontally and vertically integrated enterprises) except guards and forced labor. Magadan is the most important area for extraction of gold and other nonferrous metals in the Far East and accounts for the greatest concentration of nonferrous metallurgical workers.

(e) Coal Industry.

Employment figures for the coal industry for either Khabarovsk or Sakhalin were not available for 1953 or 1954 as they were for Primorskiy Kray. The 1950 and 1951 figures reported were brought up to date by a factor (10 to 11 percent) based on increases in production modified by the probable increases in productivity.

(f) Local and Fuel Industry.

employment figures for these industries were reported in terms of "listed" and "unlisted" employees.

* P. 22, above.

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A thousand workers were added to the Khabarovsk figure to represent
unlisted workers,
in the same ratio in which unlisted workers from
other areas.

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APPENDIX C

GAPS IN INTELLIGENCE

The principal gaps in intelligence on the population and labor force of Economic Regions XI and XII of the USSR may be listed as follows:

1. The dates of population estimates upon which election districts are based.
2. The method used by the USSR for rounding population to equal 300,000 for an All-Union district or 150,000 for an RSFSR election district.
3. The method of accounting for slave labor deaths -- whether they are omitted or included in their place of residence.

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APPENDIX D

SOURCE REFERENCES

The last census of population in the USSR was taken in 1939. Table 6 shows the figures applicable to Economic Regions XI and XII (without adjustment for post-1939 boundary changes) as reported in Frank Lorimer's The Population of the Soviet Union: History and Prospects, 1946. Lorimer in turn cites an English-language report of the American Russian Institute entitled Information from the Central Administration of National Accounts of Gosplan, USSR, Concerning Data of the All Union Census of Population, 1939. Since the 1939 figures are not basic to this report, and since Lorimer is a generally recognized student of Soviet demography, his figures were considered adequate for the purpose of this report. For the same reasons, Theodore Shabad's prewar population figures for Sakhalin were also included in Table 6.*

The current population of the USSR, in the absence of a later census, probably is known only to the government of the USSR through reports from local registries of births, deaths, and migration as these are applied to the basic 1939 census data. For most of Regions XI and XII, local registry offices and demographic information are available. Although a number of them contain data for years as late as 1952 (after which a change in the scope of reporting makes those that continue to be available unusable), changes in population reported do not occur except over a period of years. The one year for which the information as a whole appears most consistent is 1949. Birth and death data are actually monthly figures reported with population. Urban population data followed the same pattern as total population data but received more frequent adjustment and consequently could be considered more accurate for later dates.

* P. 22, above.

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Information on election districts is complete to 1955 and is assumed to reflect the best population information currently available to the government of the USSR. The element of error between the information available to the Soviet government and the estimates based on published election districts is introduced in working back from announced districts to population. Lack of information makes it impossible to determine at what point the Soviet government considers the population of an area to have outstripped its allocated election districts and at what point it is necessary to create an additional one or more. The addition, therefore, of one All-Union election district may indicate an increase of from 200,000 to 400,000.

coverage of employment in Region XII in the industries shown in Table 4* is complete except for those cases where extrapolations were necessary to bring it up to date.** Important gaps in this field are in ferrous metallurgy, food processing, machine building, and shipbuilding, where total employment is small. Employment figures for administration, transportation, and construction were not available in usable form and probably present larger numerical gaps in this information.

The economic geography utilized in this report to place population changes into their appropriate background may be classed as common knowledge. The information is available in a number of Russian-language geographies and in the English language in Theodore Shabad's Geography of the USSR: A Regional Survey, 1951.

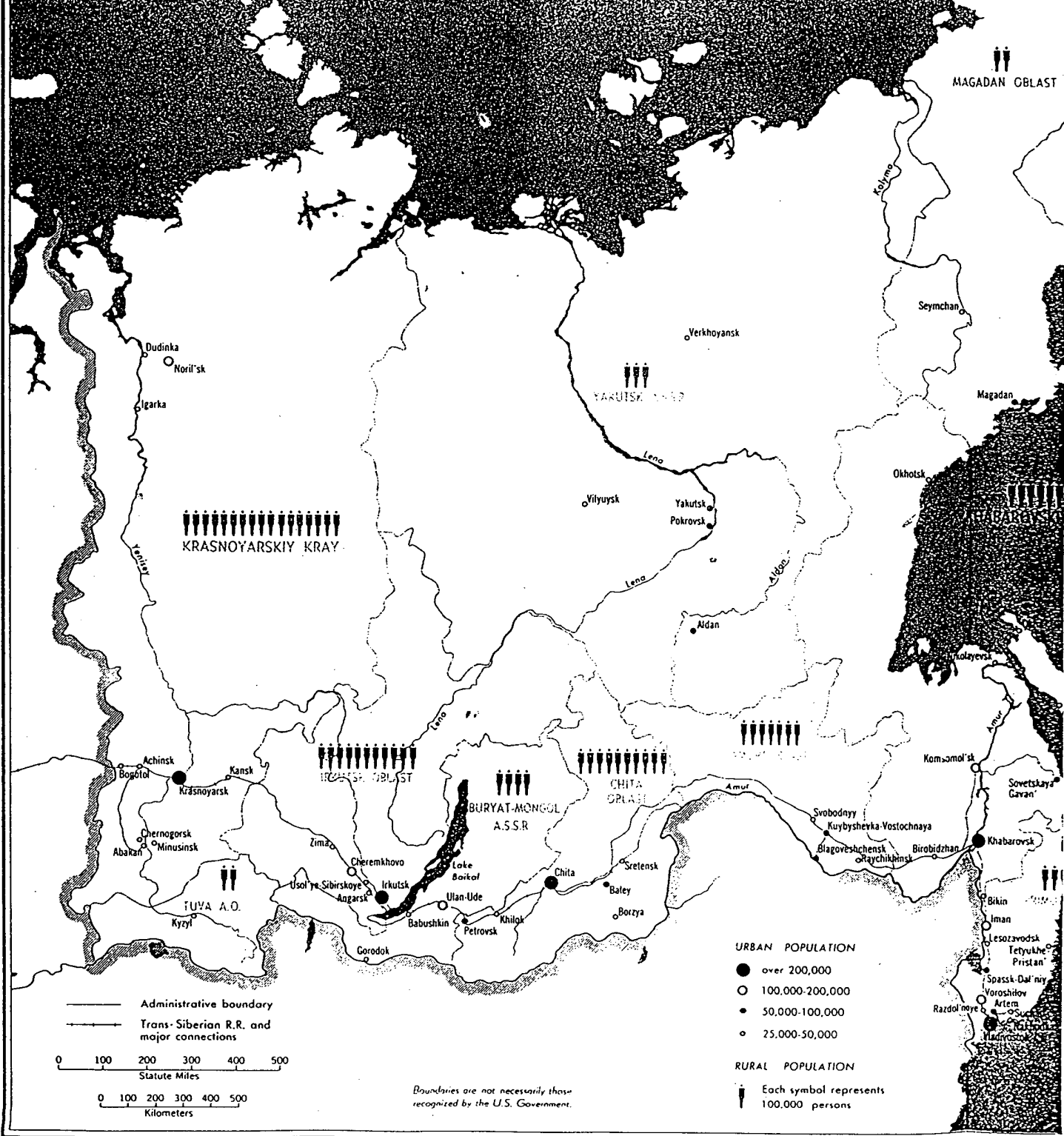
Evaluations, following the classification entry and designated "Eval.," have the following significance:

* P. 16, above.

** See Methodology, Appendix B.

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