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LETTERS OF TRANSMITTAL

FEBRUARY 25, 1964.

To Members of the Joint Economic Committee:

Transmitted herewith for the use of the Joint Economic Committee and other Members of Congress is a collection of statistical materials and interpretative articles entitled "Annual Economic Indicators for the U.S.S.R." These materials were compiled and the analyses prepared by a group of experts on the Soviet economy. They are made available to the members of the Joint Economic Committee as a continuation of the studies which appeared in December 1962 under the title "Dimensions of Soviet Economic Power."

We are grateful to the Government departments and organizations for the assistance they have furnished the committee and to the individuals who prepared various sections of this volume. The committee is also grateful to the Research Analysis Corp. for permitting staff members to prepare sections of this study.

It is understood, of course, that neither the statistics nor the interpretative materials contained herein necessarily represent the views of the committee or any of its individual members.

PAUL H. DOUGLAS, *Chairman.*

FEBRUARY 24, 1964.

Hon. PAUL H. DOUGLAS,
*Chairman, Joint Economic Committee,
Congress of the United States,
Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith is a compendium of statistical materials and interpretative articles entitled "Annual Economic Indicators for the U.S.S.R." This volume reflects the continuing interest of the committee in the development of the Soviet economy and in scholarly interpretative work in this field. The statistical materials contained herein are intended as a supplement to the technical and tabular materials to be found in the Joint Economic Committee's publication of December 1962, entitled "Dimensions of Soviet Economic Power." New materials have been included in this volume, specifically in the areas of investment, East-West trade, and input-output data. Most of the materials contained herein are revisions and updatings of materials that appear in "Dimensions;" however, no attempt has been made to reproduce tables from that volume for which revisions are not yet available.

The studies have been prepared at the committee's request by a group of professional experts who have given generously of their time. As in previous committee publications, attempt has been made to present the data in a comparative setting in order to provide perspective on current Soviet economic performance. It is hoped that this

mode of presentation will afford a more meaningful appraisal of the economic capabilities of the U.S.S.R.

The committee is grateful to the Departments of Commerce, Agriculture, and Health, Education, and Welfare, and to the Bureau of the Census for making their specialists available for this project. The committee is also grateful to the Research Analysis Corp. of McLean, Va., for making available for this project the services of Stanley H. Cohn, author of the section of national income accounts, and Vladimir Trembl on input-output data.

The committee is similarly grateful for the contributions of James W. Brackett on population; Murray Feshbach on employment and general bibliography; Frances L. Hall and Vera L. Hartman on East-West trade; Oleg Jerschowsky on Soviet bloc statistics; Seymour M. Rosen on education; and Harry E. Walters on agriculture.

Finally the committee is particularly indebted to Leon M. Herman, senior specialist in Soviet economics of the Legislative Reference Service of the Library of Congress, who in large part is responsible for this study. Mr. Gregory Guroff handled the editorial tasks for the committee staff.

JAMES W. KNOWLES,
Executive Director, Joint Economic Committee.

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FOREWORD

The present statistical report on the Soviet economy is designed primarily to bring up to date the basic quantitative data contained in the compendium "Dimensions of Soviet Economic Power" which the Joint Economic Committee published in December 1962. Beyond that, however, the body of tabular material included in the present study is also intended to provide a statistical profile of the Soviet economy in the 1960's.

In connection with a number of the Soviet statistical indicators included in this volume, an attempt has been made to present comparable data for the economy of the United States. In all such cases, appropriate adjustments have been made to align the two sets of indicators as closely as possible, as far as coverage and definition are concerned. Nevertheless, the pitfalls that surround international economic comparisons cannot be wholly circumvented. The best, therefore, that could be said about the comparative statistical data contained in the present compendium is that they are offered in the hope that they may provide the reader with a frame of reference for viewing the performance of the Soviet economy in a more meaningful way.

In general, the statistical data presented for the U.S.S.R. are a judicious combination, gradually achieved by the professional experts in this field, of official figures, independent estimates, and indexes calculated from both official data and independent estimates. Official data have been accepted for the output of individual industrial commodities and for most agricultural products, with the notable exception of grain. In the case of grain, independent estimates usually place the total far below the reported official Soviet figures; moreover, the degree of official exaggeration in regard to this highly sensitive indicator is believed to have increased in the past few years.

Indexes of Soviet production have been calculated by standard U.S. procedures, such as those in constructing the Federal Reserve index of industrial production and the USDA index of farm output. The calculated index of Soviet industrial production typically shows a growth of one or two percentage points less than the official Soviet index, whose upward bias is attributable to the use of prices and weights of a biased character.

Data on the foreign trade of the U.S.S.R. are taken directly from Soviet sources, whereas data on foreign aid have been pieced together from a variety of official and nonofficial sources.

By and large, the data presented herewith, if anything, tend to show the favorable side of the Soviet economy. This is largely due to the fact that available Soviet output data are often limited to items of special prominence in the Soviet economy. Hence, where comparisons are made with the United States, the products compared are particularly important for the Soviet economy, while they may or may not be of equally great importance in the U.S. economy with its own distinctive patterns of production.

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SECTION I
POPULATION

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TABLE I-1.—Population of the U.S.S.R., by urban and rural residence: Selected years, 1913-63

[Population figures in millions]

Territory and dates	Population			Percent		
	Total	Urban	Rural	Total	Urban	Rural
Interwar territory:						
1913.....	130.3	24.8	114.5	100	18	82
1917.....	143.5	25.8	117.7	100	18	82
1919.....	138.0	21.5	116.5	100	16	84
1920.....	136.8	20.9	115.9	100	15	85
Dec. 17, 1920.....	147.0	26.3	120.7	100	18	82
1929.....	153.4	28.7	124.7	100	19	81
1937.....	163.8	46.6	117.2	100	28	72
1938.....	167.0	50.0	117.0	100	30	70
Jan. 17, 1939.....	170.6	56.1	114.5	100	33	67
1940 territory: 1 Jan. 1, 1939.....	180.7	60.4	130.3	100	32	68
Postwar territory:						
1913.....	159.2	28.5	130.7	100	18	82
1917.....	163.0	29.1	133.9	100	18	82
Jan. 1, 1950.....	178.5	69.4	109.1	100	39	61
Jan. 1, 1951.....	181.6	73.0	108.6	100	40	60
Jan. 1, 1952.....	184.8	76.8	108.0	100	42	58
Jan. 1, 1953.....	188.0	80.2	107.8	100	43	57
Jan. 1, 1954.....	191.0	83.6	107.4	100	44	56
Jan. 1, 1955.....	194.4	86.3	108.1	100	44	56
Jan. 1, 1956.....	197.9	88.2	109.7	100	45	55
Jan. 1, 1957.....	201.4	91.4	110.0	100	45	55
Jan. 1, 1958.....	204.9	95.6	109.3	100	47	53
Jan. 15, 1959.....	208.8	100.0	108.8	100	48	52
Jan. 1, 1960.....	212.3	103.8	108.5	100	49	51
Jan. 1, 1961.....	216.1	108.3	107.8	100	50	50
Jan. 1, 1962.....	219.7	111.8	107.9	100	51	49
Jan. 1, 1963.....	223.1	115.1	108.0	100	52	48
July 1, 1963.....	224.8	116.6	108.3	100	52	48

The figures shown are official Soviet estimates "for the territory of the U.S.S.R., including the western oblasts of the Ukraine and Belorussia, Moldavia, Lithuania, Latvia, and Estonia." The figures presumably apply to the interwar territory adjusted for the annexations of 1939 and 1940, but exclude the population in the territory retroceded to Poland at the end of the war.

Source: Tsentral'noye statisticheskoye upravleniye pri sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskiy yezhegodnik* (The National Economy of the U.S.S.R. in 1962, a Statistical Yearbook), Moscow, Gosstatizdat, 1963, pp. 7-8.

TABLE I-2.—Number and population of urban places in the U.S.S.R., by size of place: Selected years, 1926-63

[Population figures in millions]

Category and size of place	Interwar territory		1940 territory ¹ January 1939	Postwar territory			
	December 1925	January 1939		January 1959	January 1961	January 1962	January 1963
NUMBER OF PLACES							
All places.....	1,925	2,373	2,759	4,619	4,842	4,943	5,012
Under 3,000.....	748	353	467	842	788	779	794
3,000 to 5,000.....	320	418	531	904	952	948	965
5,000 to 10,000.....	378	672	757	1,297	1,411	1,484	1,484
10,000 to 20,000.....	253	466	501	798	864	1,879	1,897
20,000 to 50,000.....	135	288	315	474	510	526	522
50,000 to 100,000.....	60	94	99	156	150	153	172
100,000 to 500,000.....	28	71	78	123	141	147	150
500,000 and over.....	3	11	11	25	26	27	28
POPULATION							
All places.....	26.3	56.1	60.4	100.0	108.3	111.8	115.1
Under 3,000.....	1.2	0.7	0.9	1.6	1.5	1.4	1.5
3,000 to 5,000.....	1.3	1.7	2.1	3.6	3.8	3.7	3.9
5,000 to 10,000.....	2.7	4.7	5.3	9.2	10.0	10.5	10.4
10,000 to 20,000.....	3.5	6.5	6.9	11.2	12.0	12.2	12.4
20,000 to 50,000.....	4.0	8.7	9.6	14.8	16.0	16.4	16.1
50,000 to 100,000.....	4.1	6.8	7.1	11.0	10.4	10.6	11.0
100,000 to 500,000.....	5.4	14.2	15.7	24.4	27.8	28.9	29.7
500,000 and over.....	4.1	12.8	12.8	24.2	26.8	28.1	29.2

¹ The figures shown are official Soviet estimates "for the territory of the U.S.S.R., including the western oblasts of the Ukraine and Belorussia, Moldavia, Lithuania, Latvia, and Estonia." The figures presumably apply to the interwar territory adjusted for the annexations of 1939 and 1940, but exclude the population in the territory retroceded to Poland at the end of the war.

Source: Tsentral'noye statisticheskoye upravleniye pri sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1960 godu, statisticheskyy yezhegodnik (The National Economy of the U.S.S.R. in 1960. A Statistical Yearbook)*, Moscow, Gosstatizdat, 1961, pp. 50-51, *Narodnoye khozyaystvo SSSR v 1961 godu, statisticheskyy yezhegodnik (The National Economy of the U.S.S.R. in 1961. A Statistical Yearbook)*, Moscow, Gosstatizdat, 1962, pp. 46-47, and *Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskyy yezhegodnik (The National Economy of the U.S.S.R. in 1962. A Statistical Yearbook)*, Moscow, Gosstatizdat, 1963, pp. 28-29.

TABLE I-3.—Birth, death, and natural increase rates for the U.S.S.R.: 1913-62

[Rate per 1,000 population]

Year	Birth	Death	Natural increase	Year	Birth	Death	Natural increase
1913.....	47.0	30.2	16.8	1953.....	25.1	9.1	16.0
1926.....	44.0	20.3	23.7	1954.....	26.6	8.9	17.7
1928.....	44.3	23.3	21.0	1955.....	25.7	8.2	17.5
1937.....	38.7	18.9	19.8	1956.....	25.2	7.6	17.6
1938.....	37.5	17.5	20.0	1957.....	25.4	7.8	17.6
1939.....	30.5	17.3	19.2	1958.....	25.3	7.2	18.1
1940.....	31.3	18.1	13.2	1959.....	25.0	7.6	17.4
1950.....	26.7	9.7	17.0	1960.....	24.9	7.1	17.8
1951.....	27.0	9.7	17.3	1961.....	23.8	7.2	16.6
1952.....	26.5	9.4	17.1	1962.....	22.4	7.5	14.9

Source: Tsentral'noye statisticheskoye upravleniye pri sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskyy yezhegodnik (The National Economy of the U.S.S.R. in 1962, a Statistical Yearbook)*, Moscow, Gosstatizdat, 1963, p. 30.

TABLE I-4.—Birth, death, and natural increase rates for Union Republics of the U.S.S.R.: 1961 and 1962

[Rate per 1,000 population]

Republic	Birth		Death		Natural increase	
	1961	1962	1961	1962	1961	1962
U.S.S.R.....	23.8	22.4	7.2	7.5	16.6	14.9
R.S.F.S.R.....	21.9	20.2	7.4	7.7	14.5	12.5
Ukrainian S.S.R.....	19.5	18.8	7.0	7.6	12.5	11.2
Belorussian S.S.R.....	23.5	22.2	6.5	7.3	17.0	14.9
Uzbek S.S.R.....	38.5	37.2	6.0	6.1	32.5	31.1
Kazakh S.S.R.....	35.3	32.9	6.5	6.4	28.8	26.5
Georgian S.S.R.....	24.7	23.6	6.5	7.1	18.2	16.5
Azerbaijan S.S.R.....	42.1	40.3	6.7	7.4	35.4	32.9
Moldavian S.S.R.....	22.2	20.8	7.9	8.7	14.3	12.1
Lithuanian S.S.R.....	28.2	25.6	6.4	6.8	21.8	18.8
Latvian S.S.R.....	16.7	16.1	10.1	10.8	6.6	5.3
Kirgiz S.S.R.....	35.5	33.6	6.7	6.4	28.8	27.2
Tadzhik S.S.R.....	34.4	34.1	5.2	5.8	29.2	28.3
Armenian S.S.R.....	37.6	35.1	6.5	6.7	31.1	28.4
Turkmen S.S.R.....	41.0	40.1	6.0	6.9	34.4	33.2
Estonian S.S.R.....	16.5	16.1	10.6	10.9	5.9	5.2

Source: "Statisticheski Materialy" ("Statistical Materials"), *Vestnik Statistiki (Statistical Herald)*, No. 7, August 1963, p. 92.

TABLE I-5.—Estimated and projected population of the U.S.S.R. and the United States: 1913-80

[Unless otherwise noted, figures relate to July 1. Beginning with 1939, the figures for the United States include Armed Forces overseas; prior to 1962, they exclude Alaska and Hawaii]

Year	Population of the Soviet Union in—		Population of the United States	U.S. population as a percent of the Soviet population in—	
	Present territory	Interwar territory		Present territory	Interwar territory
1913.....	159.2	139.3	97.2	61.1	69.8
1917.....	-----	143.5	103.3	-----	72.0
1920.....	-----	136.8	106.5	-----	77.9
1923.....	-----	147.0	117.4	-----	79.9
1926.....	-----	153.4	121.8	-----	79.4
1929.....	-----	170.6	131.0	-----	76.8
1939.....	200.0	-----	133.4	66.7	-----
1941.....	181.2	-----	152.3	84.1	-----
1950.....	220.9	-----	186.6	84.5	-----
1962.....	-----	-----	-----	-----	-----
1970:	244.2	-----	214.2	87.7	-----
B.....	-----	-----	208.9	86.5	-----
C.....	241.4	-----	-----	-----	-----
1980:	278.1	-----	259.6	93.3	-----
B.....	-----	-----	245.7	91.2	-----
C.....	269.2	-----	-----	-----	-----

¹ Census of Dec. 17, 1926.
² Census of Jan. 17, 1939.

Source: Soviet Union: 1913-39: Tsentral'noye statisticheskoye upravleniye pri sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1962, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1963, pp. 7-8. 1941: Estimate. 1950-80: Averages of Jan. 1 figures shown in *Dimensions of Soviet Economic Power*, Joint Economic Committee of the U.S. Congress, Washington 1962, p. 570.

United States 1913-41: U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1957*, Washington, 1960, p. 7. 1950 and 1962: "Estimates of the Population of the United States, Jan. 1, 1950, to Sept. 1, 1962," *Current Population Reports*, series P-25, No. 258, Oct. 15, 1962. 1970 and 1980: "Interim Revised Projections of the Population of the United States, by Age and Sex: 1975 and 1980," *Current Population Reports*, series P-25, No. 251, July 6, 1962. The figures shown above as series B and C are given in the source as series II and III, respectively. The series II(B) projections assume constant fertility at the 1955-57 level; the series III(C) projections assume that fertility will decline to the 1949-51 level by 1965-70 and that it will remain at that level until 1980. Both series assume that mortality will decline and that there will be a net immigration of 300,000 annually.

TABLE I-6.—Birth rates for the U.S.S.R. and the United States: 1955 to 1962
[Births per 1,000 population]

Year	Soviet Union	United States
1955		
1956	25.7	25.0
1957	25.2	25.2
1958	25.4	25.3
1959	25.3	24.6
1960	25.0	24.3
1961	24.9	23.7
1962	23.8	23.3
	22.4	22.4

Source: Soviet Union: Tsentral'noye statisticheskoye upravleniye pri soveto ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1962. A Statistical Yearbook)*, Moscow, Gosstatizdat, 1963, p. 30.
United States: U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States: 1962*, Washington, 1962, p. 52; and *Statistical Abstract of the United States: 1963*, Washington, 1963, p. 52.

TABLE I-7.—Death rates for the U.S.S.R. and the United States: 1955 to 1962
[Deaths per 1,000 population]

Year	Soviet Union	United States
1955		
1956	8.2	9.3
1957	7.6	9.4
1958	7.8	9.6
1959	7.2	9.5
1960	7.6	9.4
1961	7.1	9.5
1962	7.2	9.3
	7.5	9.5

Source: Soviet Union: Tsentral'noye statisticheskoye upravleniye pri soveto ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1962. A Statistical Yearbook)*, Moscow, Gosstatizdat, 1963, p. 30.
United States: U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States: 1962*, Washington, 1962, p. 52; and *Statistical Abstract of the United States: 1963*, Washington, 1963, p. 52.

TABLE I-8.—Total, urban, and rural population of the U.S.S.R., by republic, kray and oblast: 1959-63
 [Population figures in thousands. Figures for 1961 and 1963 are official estimates for Jan. 1. A minus (-) denotes a decrease]

Area	Total						Urban						Rural					
	1959	1961	1963	Percent change, 1959 to 1961	Percent change, 1961 to 1963		1959	1961	1963	Percent change, 1959 to 1961	Percent change, 1961 to 1963		1959	1961	1963	Percent change, 1959 to 1961	Percent change, 1961 to 1963	
U.S.S.R.	208,827	216,151	223,122	3.5	3.2		99,978	108,273	115,688	8.3	6.3		108,849	107,878	108,634	-0.9	0.1	
R.S.F.S.R.	117,534	120,554	123,441	2.6	2.4		61,611	66,195	70,039	7.4	5.8		55,923	54,359	53,402	-2.8	-1.8	
Altayskiy Kray	2,683	2,765	2,882	3.1	2.4		882	967	1,044	9.6	8.0		1,801	1,798	1,788	-0.2	-0.6	
Gorno-Altayskaya Autonomous Oblast	157	159	166	1.3	4.4		30	31	33	3.3	6.5		127	128	133	.8	3.9	
Other	2,526	2,606	2,686	3.2	2.8		852	936	1,011	9.9	8.0		1,674	1,670	1,655	-0.2	-0.9	
Krasnodarskiy Kray	3,762	3,898	4,036	3.6	3.5		1,462	1,584	1,803	8.3	13.8		2,300	2,314	2,233	-6	-3.5	
Adygeyskaya Autonomous Oblast	985	997	943	4.2	15.5		96	103	120	7.3	16.5		189	194	223	2.6	14.9	
Other	3,477	3,601	3,693	3.6	2.6		1,366	1,481	1,683	8.4	13.6		2,111	2,120	2,010	-4	-3.2	
Krasnoyarskiy Kray	2,615	2,698	2,801	3.2	3.8		1,296	1,431	1,538	10.4	7.5		1,319	1,267	1,263	-3.9	-3	
Khakasskaya Autonomous Oblast	411	425	442	3.4	4.0		222	243	254	9.5	4.5		189	182	188	-3.7	3.3	
Taymyrskiy (Dolgano-Nenetskiy) National Okrug	33	33	33	0	0		20	20	20	0	0		13	13	13	0	0	
Evenkiyskiy National Okrug	10	10	11	0	10.0		2	2	3	50.0	8		8	7	8	-12.5	14.3	
Other	2,260	2,315	2,315	3.2	3.8		1,052	1,165	1,261	10.7	8.2		1,109	1,065	1,054	-4.0	-1.0	
Primorskiy Kray	1,481	1,401	1,467	1.4	4.7		928	989	1,039	6.6	5.1		453	412	428	-9.1	3.9	
Stavropol'skiy Kray	1,883	1,937	2,040	3.9	4.2		587	635	678	8.2	6.8		1,246	1,322	1,362	2.0	3.0	
Karachayev-Cherkesskaya Autonomous Oblast	978	300	308	7.9	2.7		66	70	86	6.1	22.9		212	230	222	8.5	-3.5	
Other	1,603	1,637	1,732	3.2	4.5		521	565	592	8.4	4.8		1,094	1,092	1,140	.7	4.4	
Khabarovskiy Kray	1,142	1,166	1,206	2.1	3.4		848	891	944	5.1	5.9		294	275	262	-6.5	-4.7	
Yevreyskaya Autonomous Oblast	163	161	167	-1.2	3.7		117	117	119	0	1.7		46	44	48	-4.3	9.1	
Other	979	1,005	1,039	2.7	3.4		731	774	825	5.9	6.6		248	231	214	-6.9	-7.4	
Amurskaya Oblast	718	728	742	1.4	1.9		429	438	447	2.1	2.1		289	290	295	.3	1.7	
Arkhangelskaya Oblast	1,276	1,305	1,352	2.3	3.6		675	759	850	12.4	12.0		601	546	502	-9.2	-3.1	
Nenetskiy National Okrug	46	37	38	-19.6	2.7		28	28	18	34.6	5.9		20	20	20	0	0	
Other	1,230	1,268	1,314	3.1	3.6		649	742	832	14.3	12.1		681	526	482	-9.5	-8.4	

TABLE I-8.—Total, urban, and rural population of the U.S.S.R., by republic, kray, and oblast: 1959-63—Continued

[Population figures in thousands. Figures for 1959 refer to the census of January 15; those for 1961 and 1963 are official estimates for Jan. 1. A minus (—) denotes a decrease]

Area	Total						Urban				Rural					
	1959	1961	1963	Percent change, 1959 to 1961	Percent change, 1961 to 1963	Percent change, 1959 to 1963	1959	1961	1963	Percent change, 1959 to 1961	Percent change, 1961 to 1963	1959	1961	1963	Percent change, 1959 to 1961	Percent change, 1961 to 1963
R.S.F.S.R.—Continued																
Astrakhanskaya Oblast.....	702	734	762	4.6	3.8	3.8	365	413	433	453	13.2	4.8	321	329	359	2.5
Belgorodskaya Oblast.....	1,226	1,250	1,255	2.0	4.4	2.0	240	265	290	299	10.4	12.8	986	985	956	-1.1
Bryanskaya Oblast.....	1,560	1,557	1,571	0.3	0.9	0.9	540	584	621	6.3	6.3	6.3	1,010	973	950	-2.9
Vladimirskaya Oblast.....	1,402	1,435	1,468	2.4	2.4	2.4	796	850	889	6.8	4.6	4.6	1,006	985	971	-0.7
Vologodskaya Oblast.....	1,854	1,925	2,026	3.7	5.2	5.2	1,008	1,140	1,222	13.1	7.2	7.2	846	801	783	-1.9
Voronezhskaya Oblast.....	1,308	1,312	1,314	0.3	0.3	0.3	453	452	453	10.8	5.8	5.8	855	830	801	-2.3
Gorkovskaya Oblast.....	2,369	2,410	2,454	1.7	1.8	1.8	821	901	966	9.7	7.2	7.2	1,548	1,509	1,488	-2.3
Gor'kovskaya Oblast.....	3,591	3,657	3,660	1.8	1.1	1.1	1,882	2,021	2,130	7.4	5.4	5.4	1,709	1,636	1,488	-1.4
Ivanovskaya Oblast.....	1,322	1,338	1,345	1.2	0.5	0.5	876	919	943	4.9	2.6	2.6	1,466	1,402	1,330	-5.1
Irkutskaya Oblast.....	1,976	2,090	2,155	5.8	3.1	3.1	1,227	1,337	1,409	9.0	5.4	5.4	749	753	746	-0.9
Ust'-ordinskii Buryatskii National Okrug	133	150	164	12.8	9.3	9.3	20	20	21	0	5.0	5.0	113	130	143	15.0
Other.....	1,853	1,940	1,991	5.3	2.6	2.6	1,207	1,317	1,388	9.1	5.4	5.4	636	623	603	-2.0
Kaliningradskaya Oblast.....	611	644	645	5.4	0.2	0.2	394	430	443	9.1	3.0	3.0	217	214	202	-1.4
Kaluzhskaya Oblast.....	1,807	1,790	1,799	-0.9	0.5	0.5	788	828	859	5.1	3.7	3.7	1,019	962	910	-5.6
Kamchatskaya Oblast.....	221	231	246	4.5	6.5	6.5	141	158	171	12.1	8.2	8.2	80	73	75	-8.8
Korvatskiy National Okrug.....	28	32	35	14.3	9.4	9.4	6	8	10	33.3	25.0	25.0	22	24	25	9.1
Other.....	193	199	211	3.1	6.0	6.0	135	150	161	11.1	7.3	7.3	58	49	50	-15.5
Kemerovskaya Oblast.....	2,786	2,914	2,980	4.6	2.3	2.3	2,149	2,301	2,377	7.1	3.3	3.3	637	613	603	-3.8
Kirovskaya Oblast.....	1,916	1,843	1,821	-3.8	-1.2	-1.2	704	757	795	7.5	5.0	5.0	1,212	1,086	1,096	-10.4
Kostromskaya Oblast.....	1,920	1,914	1,897	-0.3	-0.9	-0.9	366	389	398	6.3	2.3	2.3	554	525	490	-5.0
Kuybyshevskaya Oblast.....	2,233	2,368	2,447	4.9	3.3	3.3	1,397	1,517	1,611	8.6	6.2	6.2	861	851	835	-1.2
Kurskaya Oblast.....	1,999	1,021	1,067	2.2	4.5	4.5	328	356	370	8.5	7.3	7.3	671	665	665	-0.9
Kurskaya Oblast.....	1,483	1,507	1,510	1.6	0.2	0.2	303	346	370	14.2	6.9	6.9	1,180	1,131	1,140	-4.3
Leningradskaya Oblast.....	4,566	4,718	4,860	3.3	3.0	3.0	3,949	4,130	4,290	4.6	3.6	3.6	617	658	680	7.7
Lipetskaya Oblast.....	1,141	1,162	1,190	1.8	2.4	2.4	344	380	414	10.5	8.9	8.9	797	782	770	-1.9
Magadanskaya Oblast.....	236	248	279	5.1	12.5	12.5	191	207	238	8.4	15.0	15.0	45	41	41	-8.9
Chukotskiy National Okrug.....	47	82	66	10.6	26.9	26.9	27	35	50	29.6	42.9	42.9	20	17	16	-15.0
Other.....	189	196	213	3.7	8.7	8.7	164	172	188	4.9	9.3	9.3	25	24	25	-4.0
Moskovskaya Oblast.....	10,949	11,204	11,472	2.3	2.4	2.4	8,577	9,072	9,554	5.8	5.3	5.3	2,372	2,132	1,918	-10.1
Murmanskaya Oblast.....	568	606	649	6.7	7.1	7.1	523	573	616	9.6	7.5	7.5	43	33	33	-26.7

Novgorodskaya Oblast.	2,296	730	726	-8	-5	281	303	328	7.8	8.3	455	427	398	-6.2	-6.8
Norvibirskaya Oblast.	2,376	2,450	2,450	3.3	3.1	1,276	1,374	1,440	7.7	4.8	1,023	1,002	1,010	-2.1	8.8
Omskaya Oblast.	1,645	1,698	1,781	3.2	4.1	711	782	894	10.0	6.1	1,003	1,010	1,027	-1.9	2.4
Orenburgskaya Oblast.	1,829	1,909	1,991	4.4	4.3	826	899	964	8.8	7.2	1,008	1,010	1,027	7.7	1.7
Oryol'skaya Oblast.	936	945	945	8	1.0	221	253	277	14.5	9.5	1,010	1,010	1,027	-3.5	2.2
Penzenskaya Oblast.	1,510	1,521	1,539	8	1.2	500	551	583	10.2	5.8	1,010	1,010	1,027	-4.0	1.4
Permskaya Oblast.	2,933	3,043	3,081	1.7	1.2	1,765	1,877	1,983	6.3	5.6	1,228	1,166	1,098	-5.0	5.8
Komi-Permyatskiy National Okrug.	217	233	231	7.4	-9	22	37	41	68.2	10.8	195	196	190	5	-8.1
Other.	2,776	2,810	2,850	1.2	1.4	1,743	1,840	1,942	5.6	5.5	1,033	970	908	-6.1	-6.4
Pskovskaya Oblast.	952	918	904	-3.6	-1.5	258	282	303	9.3	7.4	694	636	681	-8.4	-5.5
Rostovskaya Oblast.	3,312	3,455	3,587	4.3	3.8	1,899	2,048	2,207	7.8	7.8	1,413	1,407	1,380	-4.4	-1.9
Ryazanskaya Oblast.	1,445	1,460	1,457	1.0	-2	433	490	526	13.2	7.3	1,012	1,012	931	-4.2	-4.0
Saratovskaya Oblast.	2,163	2,221	2,289	2.7	3.1	1,164	1,246	1,310	7.0	5.1	999	975	979	-2.4	4
Sakhalinskaya Oblast.	619	630	627	2.9	-5	489	492	493	6	2	180	188	134	-13.8	-2.9
Sverdlovskaya Oblast.	4,044	4,182	4,258	2.9	2.3	3,074	3,255	3,363	5.9	3.3	977	907	895	-6.5	-1.3
Smolenskaya Oblast.	1,143	1,111	1,106	-2.8	-5	396	390	412	6.6	5.6	777	721	694	-7.2	-3.7
Tomskaya Oblast.	1,549	1,546	1,548	-2	-1	408	453	471	11.0	4.0	1,141	1,093	1,077	-4.2	-1.5
Tambovskaya Oblast.	1,747	1,744	1,764	-4	2.7	390	381	404	5.8	6.0	887	862	860	-6.2	-8
Tatarskaya A.S.S.R.	172	186	188	8.1	4	50	63	71	26.0	12.7	122	123	127	8	3.3
Tyumen'skaya Oblast.	1,920	1,928	1,928	8.1	0	1,160	1,214	1,264	4.7	4.1	760	714	664	-6.1	-7.0
Tyumen'skaya Oblast.	1,062	1,121	1,183	2.7	5.5	347	397	428	14.4	7.8	745	724	755	-2.8	4.3
Khanty-Mansiyskiy National Okrug.	124	134	161	8.1	20.1	33	43	55	30.3	27.9	91	91	106	0	16.5
Yamalo-Nenetskiy National Okrug.	62	64	65	3.2	1.6	22	24	26	9.1	8.3	40	40	39	0	-2.5
Other.	906	923	957	1.9	3.7	292	330	347	13.0	5.2	614	593	610	-3.4	2.9
Tl'yamovskaya Oblast.	1,117	1,131	1,153	1.3	1.9	404	432	477	6.9	10.4	713	699	676	-2.0	-3.3
Chelyabinskaya Oblast.	2,977	3,100	3,190	4.1	2.9	2,276	2,390	2,464	5.0	3.1	701	710	726	1.3	2.3
Chitinskaya Oblast.	1,036	1,046	1,057	1.0	1.1	564	594	606	5.3	2.0	472	452	461	-4.2	2.0
Aginskiy Buryatskiy National Okrug.	49	53	56	8.2	5.7	564	588	599	7	16.7	49	47	49	-4.1	4.3
Other.	987	963	1,001	-6	8	564	588	599	4.3	1.9	423	405	412	-4.3	1.7
Yaroslavl'skaya Oblast.	1,396	1,392	1,392	-3	0	814	835	889	4.8	4.2	582	539	503	-7.4	-6.7
Basikskaya A.S.S.R.	3,342	3,464	3,403	3.7	4.0	1,281	1,403	1,506	9.5	7.3	2,061	2,061	2,097	0	1.7
Buryatskaya A.S.S.R.	673	711	757	5.6	3.7	276	294	315	6.5	6.5	397	417	424	5.0	1.7
Dagestanskaya A.S.S.R.	1,063	1,165	1,222	9.6	4.9	315	346	375	9.8	8.4	748	819	847	7.9	3.4
Kabardino-Balkarskaya A.S.S.R.	420	455	485	8.3	6.6	166	181	196	9.0	8.3	254	274	289	7.9	5.5
Kalmyk'skaya A.S.S.R.	185	198	219	4.3	13.5	39	46	59	17.9	28.3	146	147	160	7.7	8.8
Karelo-Finskaya A.S.S.R.	651	659	673	1.2	2.1	475	499	528	4.6	6.3	242	231	218	-4.5	-5.6
Komi A.S.S.R.	806	851	903	5.6	6.1	493	519	565	9.3	8.9	331	332	338	3.8	1.8
Mariyskaya A.S.S.R.	645	662	657	2.2	-8	183	203	218	10.9	7.4	465	459	439	-1.3	-4.4
Mordovskaya S.S.R.	1,003	1,007	1,007	2.2	-8	183	203	218	27.9	9.8	817	769	750	-5.9	-2.5
Severo-Osetinskaya A.S.S.R.	451	460	487	4.0	3.8	238	252	273	5.6	5.2	1,060	1,068	1,068	-4.9	-2
Tatarskaya A.S.S.R.	2,850	2,948	3,011	3.4	2.1	594	661	707	11.3	4.8	416	513	552	23.3	3.3
Udmurtskaya A.S.S.R.	1,337	1,368	1,377	2.3	1.7	594	624	654	3.7	13.1	1,068	1,068	1,068	-4.9	-3.3
Checheno-Ingushskaya A.S.S.R.	710	840	922	18.3	9.8	263	294	317	11.8	7.8	835	826	826	1.0	-2.0
Chuvashskaya A.S.S.R.	1,088	1,137	1,145	3.6	5.5	240	265	285	10.4	14.3	248	262	274	5.6	4.6
Yakutskaya A.S.S.R.	488	527	577	8.0	9.5	240	265	303	10.4	14.3	248	262	274	5.6	4.6

TABLE I-8.—Total, urban, and rural population of the U.S.S.R., by republic, kray, and oblast: 1959-63—Continued

[Population figures in thousands. Figures for 1959 refer to the census of January 15; those for 1961 and 1963 are official estimates for Jan. 1. A minus (-) denotes a decrease]

Area	Total						Urban			Rural		
	1959	1961	1963	Percent change, 1959 to 1961	Percent change, 1961 to 1963	Percent change, 1959 to 1963	1959	1961	1963	Percent change, 1959 to 1961	Percent change, 1961 to 1963	Percent change, 1959 to 1963
Ukrainian S.S.R.	41,859	43,091	44,054	2.9	2.2	19,147	20,823	21,859	22,722	22,268	22,195	-2.0
Vinnitskaya Oblast	2,142	2,160	2,164	5.0	2.2	353	385	411	1,779	1,775	1,753	-1.2
Volynskaya Oblast	890	925	939	3.9	1.5	231	267	278	659	658	661	-2.2
Dnepropetrovskaya Oblast	2,705	2,854	2,963	5.5	3.8	1,899	2,070	2,182	806	784	781	-2.7
Zhitomirskaya Oblast	1,604	1,600	1,600	-4.0	1.1	417	442	471	1,187	1,156	1,129	-2.6
Zakarpatskaya Oblast	920	966	1,009	5.0	3.4	265	279	289	635	637	635	0.2
Zaporozhskaya Oblast	1,464	1,529	1,576	4.4	3.1	829	898	941	635	637	635	0.2
Ivano-Frankovskaya Oblast	2,823	2,934	3,034	3.9	3.4	250	292	312	845	846	850	0.1
Kiyevskaya Oblast	1,201	1,241	1,252	3.3	3.4	1,548	1,666	1,771	1,275	1,268	1,263	-0.6
Kirovogradskaya Oblast	1,218	1,241	1,252	1.9	0.9	376	417	448	842	824	824	-2.4
Kyrovskaya Oblast	2,452	2,573	2,648	4.9	2.9	1,944	2,112	2,193	426	427	427	0.0
Luganskaya Oblast	2,108	2,185	2,267	3.7	3.8	821	893	964	1,287	1,292	1,303	0.8
Lyovskaya Oblast	1,014	1,031	1,053	1.7	2.1	400	430	451	1,070	1,073	1,068	-0.4
Nikolayevskaya Oblast	2,027	2,063	2,131	2.8	2.3	957	1,010	1,063	1,148	1,131	1,104	-2.4
Odesskaya Oblast	1,632	1,647	1,662	0.9	0.9	484	526	558	1,148	1,131	1,104	-2.4
Poltavskaya Oblast	926	961	990	3.8	3.0	158	215	229	788	746	761	-5.5
Donetskaya Oblast	4,262	4,459	4,555	4.2	2.6	3,056	3,552	3,976	606	584	579	-3.6
Sumskaya Oblast	1,514	1,528	1,529	0.8	1.6	485	532	564	1,020	996	965	-3.2
Terнопольskaya Oblast	1,086	1,116	1,134	2.8	1.6	180	210	229	946	906	905	-4.4
Kharkovskaya Oblast	2,520	2,578	2,601	2.3	2.2	1,574	1,692	1,738	3,385	3,386	3,386	0.0
Khersonskaya Oblast	824	842	857	2.2	1.6	322	355	379	492	484	477	-1.7
Khmel'nitskaya Oblast	1,611	1,628	1,627	1.1	0.3	395	354	369	1,306	1,277	1,264	-2.2
Cherkasskaya Oblast	1,503	1,482	1,486	-1.4	0.6	345	377	397	1,158	1,105	1,089	-4.6
Chernigovskaya Oblast	1,554	1,561	1,570	0.4	0.6	350	434	461	1,204	1,137	1,109	-6.4
Chernovitskaya Oblast	1,774	1,785	1,814	2.7	2.4	203	237	245	1,571	1,538	1,563	2.0
Belorussian S.S.R.	8,055	8,226	8,413	2.1	2.3	2,481	2,779	3,037	5,574	5,447	5,376	-2.3
Brestskaya Oblast	1,206	1,210	1,211	4.4	1.9	284	323	346	921	887	865	-3.7
Vitebskaya Oblast	1,247	1,289	1,313	3.4	1.9	404	466	503	843	823	810	-2.4
Gomel'skaya Oblast	1,357	1,391	1,436	2.5	3.2	389	438	476	968	953	960	-1.6
Grodzenskaya Oblast	1,077	1,090	1,104	1.2	1.3	251	280	309	826	810	795	-1.9
Minskaya Oblast	2,037	2,064	2,153	1.3	4.3	738	867	972	1,244	1,197	1,181	-3.8
Mozilevskaya Oblast	1,132	1,132	1,196	4.4	1.2	360	405	431	1,272	1,277	1,265	-0.6

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	8,262	8,836	9,492	6.9	7.4	2,775	3,080	3,360	11.0	9.1	5,503	5,766	6,132	4.6	6.5
Uzbek S.S.R.	1,163	1,237	1,481	6.4	9.7	298	320	385	7.4	20.3	885	917	1,096	6.0	19.5
Andizhanskaya Oblast.	583	641	702	9.6	9.5	130	151	175	16.2	15.9	455	490	527	7.7	7.9
Bukharskaya Oblast.	1,023	1,092	1,181	6.5	8.2	314	317	334	1.0	5.4	727	847	847	6.9	9.8
Samarkandskaya Oblast.	919	1,073	1,073	8.1	8.1	132	147	160	11.4	8.8	787	946	913	7.5	7.9
Surkhandarinskaya Oblast.	512	556	602	8.6	8.3	71	106	137	49.3	29.2	441	450	465	2.0	8.2
Syrdarinskaya Oblast.	2,028	2,151	2,209	6.1	7.3	1,294	1,454	1,533	12.4	6.8	734	697	736	-3.0	8.0
Tashkentinskaya Oblast.	1,139	1,218	1,388	6.9	7.0	333	366	363	9.9	-8.8	806	852	775	3.7	-9.0
Ferganskaya Oblast.	381	404	433	6.0	7.2	64	70	77	9.4	10.0	317	334	356	3.4	6.5
Khorezmskaya Oblast.	510	544	573	6.7	5.3	139	149	176	7.2	8.1	371	395	397	6.5	-
Karakalpakskaya A.S.S.R.	9,310	10,387	11,270	11.6	8.5	4,067	4,622	5,096	13.6	10.3	5,243	5,765	6,174	10.0	-
Kazakh S.S.R.	1,070	1,167	1,237	9.1	7.7	449	485	521	8.0	7.4	621	682	736	9.8	7.0
Zapadno-Kazakhstanskii Krai	401	439	477	9.5	1.8	174	188	207	8.0	10.1	227	251	270	10.6	7.8
Akyubinskaya Oblast.	283	313	335	8.7	7.0	162	176	190	8.6	8.0	126	137	145	8.7	3.8
Guryevskaya Oblast.	381	415	445	8.9	7.2	113	121	124	7.1	2.5	268	294	321	9.7	-
Ural'skaya Oblast.	2,753	3,122	3,535	13.4	13.2	856	981	1,149	14.6	17.1	1,897	2,141	2,386	12.9	11.4
Tselinnyy Krai	493	554	612	12.4	10.5	122	139	159	13.9	14.4	371	415	453	11.9	9.2
Kokchetavskaya Oblast.	711	833	931	17.2	11.8	188	228	267	21.3	17.1	523	605	664	13.7	9.8
Kustanayskaya Oblast.	457	526	605	15.6	15.0	132	154	204	16.7	32.5	372	401	401	18.2	7.8
Pavlodarskaya Oblast.	457	495	556	8.3	12.3	156	167	181	7.1	8.4	301	328	375	9.0	14.5
Severo-Kazakhstanskii Oblast.	637	714	831	12.1	16.4	258	268	338	13.6	15.4	379	421	463	11.1	17.1
Tselinogradskaya Oblast.	1,654	1,778	1,900	7.5	6.9	637	726	780	10.5	7.4	997	1,032	1,120	5.5	6.5
Yuzhno-Kazakhstanskii Krai	562	597	637	6.2	6.7	202	230	245	13.9	6.5	360	367	392	1.9	6.8
Dzhanbul'skaya Oblast.	327	341	365	4.3	7.0	152	163	177	7.2	8.6	175	178	188	1.7	3.6
Kzyl-Ordinskaya Oblast.	765	840	898	9.8	6.9	303	333	358	9.9	7.5	462	507	540	9.7	6.5
Chimkent'skaya Oblast.	1,403	1,569	1,734	11.8	10.5	655	760	839	16.0	10.4	748	809	895	8.2	10.6
Karagandinskaya Oblast.	1,019	1,212	1,369	18.9	13.0	798	962	1,078	20.6	12.1	221	250	281	13.1	16.4
Sempalatinskaya Oblast.	735	796	834	8.3	4.8	394	428	463	8.6	8.2	292	325	375	11.3	13.4
Vostochno-Kazakhstanskaya Oblast.	4,044	4,200	4,342	3.9	3.4	1,713	1,818	1,968	6.1	8.3	2,331	2,382	2,374	2.2	-3
Georgia S.S.R.	405	426	442	5.2	3.8	150	155	172	3.3	1.0	255	271	270	6.3	-4
Abkhazskaya A.S.S.R.	245	260	273	6.1	5.0	111	117	123	5.4	5.1	134	143	150	6.7	4.9
Adjarskaya A.S.S.R.	67	98	101	1.0	3.1	24	31	34	29.2	9.7	73	67	67	-8.2	0
Yugo-Osetinskaya Autonomous Oblast.	3,297	3,416	3,526	3.6	3.2	1,428	1,515	1,639	6.1	8.2	1,869	1,901	1,877	1.7	-7
Other	3,698	3,973	4,292	7.4	6.5	1,767	1,938	2,194	10.8	7.5	1,931	2,015	2,128	4.4	5.6
Azerbaijan S.S.R.	141	154	162	9.2	5.2	38	41	41	7.9	0	103	113	121	9.7	7.1
Nakhichevanskaya A.S.S.R.	131	139	143	6.1	2.9	27	40	43	48.1	7.5	104	99	100	-4.8	1.0
Nagorno-Karabakhskaya Autonomous Oblast.	3,426	3,680	3,927	7.4	6.7	1,702	1,877	2,020	10.3	7.6	1,724	1,803	1,907	4.6	5.8
Other															

TABLE I-8.—Total, urban, and rural population of the U.S.S.R., by republic, kray, and oblast: 1959-63—Continued

[Population figures in thousands. Figures for 1959 refer to the census of January 15; those for 1961 and 1963 are official estimates for Jan. 1. A minus (-) denotes a decrease]

Area	Total						Urban						Rural					
	1959	1961	1963	Percent change, 1959 to 1961	Percent change, 1961 to 1963		1959	1961	1963	Percent change, 1959 to 1961	Percent change, 1961 to 1963		1959	1961	1963	Percent change, 1959 to 1961	Percent change, 1961 to 1963	
Lithuanian S.S.R.	2,711	2,804	2,878	3.4	2.6		1,046	1,123	1,203	7.4	7.1		1,665	1,681	1,675	1.0	-4	
Moldavian S.S.R.	2,885	3,040	3,172	5.4	4.3		1,643	1,727	1,793	13.1	7.7		2,242	2,313	2,389	3.2	3.3	
Latvian S.S.R.	2,093	2,142	2,187	2.3	2.1		1,174	1,233	1,303	5.0	5.7		919	909	884	-1.1	-2.8	
Kirgiz S.S.R.	2,066	2,225	2,379	7.7	6.9		666	775	894	11.4	13.4		1,370	1,450	1,485	5.8	2.4	
Oshskaya Oblast	870	933	986	7.2	5.7		270	312	322	11.3	8.7		361	621	647	5.1	4.2	
Other	1,196	1,292	1,363	8.0	7.8		417	463	555	11.0	19.9		779	829	838	6.4	1.1	
Tadzhik S.S.R.	1,980	2,104	2,267	6.3	7.7		646	723	778	11.9	7.6		1,334	1,381	1,489	3.5	7.8	
Gorno-Badakhshanskaya Autonomous Oblast	73	80	83	9.6	3.8		8	9	10	12.5	11.1		65	71	73	9.2	2.8	
Other	1,907	2,024	2,184	6.1	7.9		638	714	768	11.9	7.6		1,269	1,310	1,416	3.2	8.1	
Armenian S.S.R.	1,703	1,893	2,007	7.4	6.0		882	973	1,069	10.3	9.9		881	920	938	4.4	2.0	
Turkmen S.S.R.	1,516	1,626	1,744	7.3	7.3		700	771	844	10.1	9.5		816	855	900	4.8	5.3	
Estonian S.S.R.	1,197	1,221	1,244	2.0	1.9		676	706	751	4.4	6.4		521	515	493	-1.2	-4.3	

Source: Tsentral'noye statisticheskoye upravleniye pri soveta ministrov SSSR, Narodnoye khozyaystvo SSSR v 1959 godu, statisticheskii yezhegodnik (The National Economy of the U.S.S.R. in 1959, A Statistical Yearbook), Moscow, Gosstatizdat, 1960, pp. 27-33; Narodnoye khozyaystvo SSSR v 1960 godu, statisticheskii yezhegodnik (The National Economy of the U.S.S.R. in 1960, A Statistical Yearbook), Moscow, Gosstatizdat, 1961, pp. 49-49; Narodnoye khozyaystvo SSSR v 1961 godu, statisticheskii yezhegodnik (The National Economy of the U.S.S.R. in 1961, A Statistical Yearbook), Moscow, Gosstatizdat, 1962, pp. 15-19; Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskii yezhegodnik (The National Economy of the U.S.S.R. in 1962, A Statistical Yearbook), Moscow, Gosstatizdat, 1963, pp. 16-22.

TABLE I-9.—Population of cities in the U.S.S.R. with 1963 populations of 100,000 inhabitants or more, by republic and oblast, 1959, 1959, 1961, 1962, and 1963

[Population figures in thousands. Figures for 1959 presumably relate to the beginning of the year; those for 1961 to the census of Jan. 15. Figures for other years are official estimates for Jan. 1. Data for 1963 are available for administrative centers of oblasts, krais, and republics only; thus, no totals are shown for administrative subdivisions for that year, and (n.a.) indicating not available, has been placed in all cells for which data are missing. Figures enclosed in parentheses are not official Soviet estimates. A minus sign (-) in the percent column denotes a decrease]

Republic, kray, oblast, and city	Population						Percent change					
	1959	1961	1962	1963	1959-61	1961-62	1959-61	1961-62	1962-63	1959-61	1961-62	1962-63
U.S.S.R.	35,119	56,420	57,989	(n.a.)	60.7	50.1	7.0	2.7	(n.a.)	2.7	(n.a.)	(n.a.)
R.S.F.S.R.	22,724	36,762	37,621	(n.a.)	61.7	51.7	6.6	2.3	(n.a.)	2.3	(n.a.)	(n.a.)
Altayskiy Kray	266	623	639	(n.a.)	134.2	111.3	10.9	2.6	(n.a.)	2.6	(n.a.)	(n.a.)
Barnaul	148	305	347	357	128.4	106.1	10.8	2.9	2.9	2.9	2.9	2.9
Birsk	80	146	165	(n.a.)	102.5	82.5	11.0	1.9	(n.a.)	1.9	(n.a.)	(n.a.)
Rubtsovsk	38	111	127	(n.a.)	223.7	192.1	10.8	3.3	(n.a.)	3.3	(n.a.)	(n.a.)
Khabarovskiy Kray	278	500	555	(n.a.)	93.3	79.9	7.6	3.2	(n.a.)	3.2	(n.a.)	(n.a.)
Khabarovsk	207	323	363	377	68.6	56.0	8.0	4.0	3.9	4.0	3.9	3.9
Komsomol'sk-na-Amure	71	177	192	(n.a.)	166.2	149.3	6.8	1.6	(n.a.)	1.6	(n.a.)	(n.a.)
Krasnodarskiy Kray	443	644	755	(n.a.)	63.4	45.4	12.4	4.3	(n.a.)	4.3	(n.a.)	(n.a.)
Armavir	84	111	123	(n.a.)	42.9	32.1	8.1	2.5	(n.a.)	2.5	(n.a.)	(n.a.)
Krasnodar	193	313	354	368	77.7	62.2	9.6	3.2	4.0	3.2	4.0	4.0
Novorossiysk	95	93	101	(n.a.)	6.3	2.2	8.6	3.0	(n.a.)	3.0	(n.a.)	(n.a.)
Sochi	71	127	174	(n.a.)	123.4	78.9	26.0	8.8	(n.a.)	8.8	(n.a.)	(n.a.)
Krasnoyarskiy Kray	190	412	465	(n.a.)	146.3	116.8	13.6	-1.6	(n.a.)	-1.6	(n.a.)	(n.a.)
Krasnoyarsk	190	412	465	483	146.3	116.8	13.6	-1.6	3.9	-1.6	3.9	3.9
Primorskiy Kray	278	395	428	(n.a.)	54.0	42.1	8.4	2.3	(n.a.)	2.3	(n.a.)	(n.a.)
Ussuriysk	72	104	113	(n.a.)	54.2	44.4	6.7	1.8	(n.a.)	1.8	(n.a.)	(n.a.)
Vladivostok	206	291	325	338	53.9	41.3	8.9	2.5	4.0	2.5	4.0	4.0
Staropoli'skiy Kray	85	141	154	158	77.6	65.9	7.1	2.0	2.6	2.0	2.6	2.6
Staropoli'	85	141	154	158	77.6	65.9	7.1	2.0	2.6	2.0	2.6	2.6

TABLE I-9.—Population of cities in the U.S.S.R. with 100,000 inhabitants or more, by republic and oblast, 1939, 1959, 1961, 1962, and 1963—Continued

[Population figures in thousands. Figures for 1939 presumably relate to the beginning of the year; those for 1959 to the census of Jan. 15. Figures for other years are official estimates for Jan. 1. Data for 1963 are available for administrative centers of oblasts, krais, and republics only; thus, no totals are shown for administrative subdivisions for that year, and (n.a.), indicating not available, has been placed in all cells for which data are missing. Figures enclosed in parentheses are not official Soviet estimates. A minus sign (—) in the percent column denotes a decrease]

Republic, kray, oblast, and city	Population						Percent change			
	1939	1959	1961	1962	1963	1939-61	1939-59	1959-61	1961-62	1962-63
R.S.F.S.R.—Continued										
Karachayo-Cherkesskaya Autonomous Oblast.....	52	85	95	99	103	82.7	63.5	11.8	4.2	4.0
Cherkassy.....	52	85	95	99	103	82.7	63.5	11.8	4.2	4.0
Amurskaya Oblast.....	59	95	99	101	104	67.8	61.0	4.2	2.0	3.0
Blagoveshchensk.....	59	95	99	101	104	67.8	61.0	4.2	2.0	3.0
Arkhangel'skaya Oblast.....	251	256	271	276	286	8.0	2.0	5.9	1.8	3.6
Arkhangel'sk.....	251	256	271	276	286	8.0	2.0	5.9	1.8	3.6
Astrakhanskaya Oblast.....	254	296	313	320	324	23.2	16.5	5.7	2.2	1.3
Astrakhan.....	254	296	313	320	324	23.2	16.5	5.7	2.2	1.3
Bryanskaya Oblast.....	174	207	231	241	249	32.8	19.0	11.6	4.3	3.3
Bryansk.....	174	207	231	241	249	32.8	19.0	11.6	4.3	3.3
Chelyabinskaya Oblast.....	616	1,421	1,502	1,528	(n.a.)	143.8	130.7	5.7	1.7	(n.a.)
Chelyabinsk.....	273	689	753	751	767	168.5	152.4	6.4	2.5	2.1
Kopeysk.....	60	161	168	168	(n.a.)	180.0	168.3	4.3	0	(n.a.)
Magnitogorsk.....	146	311	328	333	(n.a.)	124.7	112.0	3.5	1.5	(n.a.)
Mias.....	38	99	107	109	(n.a.)	181.6	160.5	8.1	1.9	(n.a.)
Zlatoust.....	99	161	166	167	(n.a.)	67.7	62.6	3.1	.6	(n.a.)
Chitinskaya Oblast.....	121	172	182	185	189	50.4	42.1	5.8	1.6	2.2
Chita.....	121	172	182	185	189	50.4	42.1	5.8	1.6	2.2
Gor'kovskaya Oblast.....	747	1,106	1,179	1,205	(n.a.)	57.8	48.1	6.6	2.2	(n.a.)
Dzerzhinsk.....	103	164	176	180	(n.a.)	70.9	59.2	7.5	2.3	(n.a.)

	644	942	1,003	1,025	1,042	55.7	46.3	6.5	2.2	1.7
Gor'kiy.....	306	623	656	664	(n.a.)	114.4	103.6	5.3	1.2	(n.a.)
Irkutskaya Oblast.....	(1) 56	134	154	160	(n.a.)	(?)	(?)	14.9	3.9	(n.a.)
Angarsk.....	250	123	122	119	(n.a.)	117.9	119.6	-2.5	-2.5	(n.a.)
Cheremkhovo.....	386	380	380	385	380	52.0	46.4	3.8	1.3	1.3
Irkutsk.....	285	335	352	360	368	23.5	17.5	5.1	2.3	2.2
Ivanovskaya Oblast.....	285	335	352	360	368	23.5	17.5	5.1	2.3	2.2
Kaliningradskaya Oblast.....	(2) 204	204	226	232	238	(?)	(?)	10.8	2.7	2.6
Kaliningrad.....	(2) 204	204	226	232	238	(?)	(?)	10.8	2.7	2.6
Kalininskaya Oblast.....	216	261	279	286	292	29.2	20.8	6.9	2.5	2.1
Kalinin.....	216	261	279	286	292	29.2	20.8	6.9	2.5	2.1
Kaluzhskaya Oblast.....	89	134	145	151	157	62.9	50.6	8.2	4.1	4.0
Kaluga.....	89	134	145	151	157	62.9	50.6	8.2	4.1	4.0
Kamohatskaya Oblast.....	35	86	96	100	106	174.3	245.7	11.6	4.2	6.0
Kamohatskiy.....	35	86	96	100	106	174.3	245.7	11.6	4.2	6.0
Petropavlovsk-Kamchatskiy.....	645	1,422	1,508	1,527	(n.a.)	133.8	120.5	6.0	1.3	(n.a.)
Kemerovskaya Oblast.....	60	116	119	120	(n.a.)	72.5	68.1	2.6	.8	(n.a.)
Anzhero-Sudzhensk.....	43	107	115	118	(n.a.)	157.4	148.8	7.5	2.6	(n.a.)
Belovo.....	133	278	298	305	328	124.1	100.0	7.2	2.3	7.5
Kemerovo.....	44	130	141	142	(n.a.)	220.3	195.5	8.5	1.4	(n.a.)
Kiselevsk.....	83	132	138	140	(n.a.)	66.3	59.0	4.5	1.4	(n.a.)
Leninsk-Kuznetskiy.....	107	282	292	292	(n.a.)	172.9	153.6	3.5	0	(n.a.)
Prokopyevsk.....	166	377	405	410	(n.a.)	144.0	127.1	7.4	1.2	(n.a.)
Novokuznetsk.....	144	252	269	277	284	86.8	75.0	6.7	3.0	2.5
Kirovskaya Oblast.....	144	252	269	277	284	86.8	75.0	6.7	3.0	2.5
Kirov.....	121	172	184	189	193	52.1	42.1	7.0	2.7	2.1
Kostromskaya Oblast.....	121	172	184	189	193	52.1	42.1	7.0	2.7	2.1
Kostroma.....	53	146	164	173	182	209.4	175.5	12.3	5.5	5.2
Kurganskaya Oblast.....	53	146	164	173	182	209.4	175.5	12.3	5.5	5.2
Kurgan.....	53	146	164	173	182	209.4	175.5	12.3	5.5	5.2

See footnotes at end of table, p. 26.

TABLE I-9.—Population of cities in the U.S.S.R. with 1963 populations of 100,000 inhabitants or more, by republic and oblast, 1959, 1959, 1959, 1961, 1962, and 1963—Continued

Population figures in thousands. Figures for 1959 presumably relate to the beginning of the year; those for 1960 to the census of Jan. 15. Figures for other years are official estimates for Jan. 1. Data for 1963 are available for administrative centers of oblasts, krais, and republics only; thus, no totals are shown for administrative subdivisions for that year, and (n.a.), indicating not available, has been placed in all cells for which data are missing. Figures enclosed in parentheses are not official Soviet estimates. A minus sign (-) in the percent columns denotes a decrease.

Republic, kray, oblast, and city	Population						Percent change					
	1959	1961	1962	1963	1959-61	1961-62	1959-61	1961-62	1962-63	1959-61	1961-62	1962-63
R.S.F.S.R.—Continued												
Kurskaya Oblast.....	120	205	222	228	233	233	233	233	233	8.3	2.7	2.2
Kursk.....	120	205	222	228	233	233	233	233	233	8.3	2.7	2.2
Kurybyshevskaya Oblast.....	473	955	1,020	1,040	(n.a.)	115.6	101.9	106.7	106.7	6.8	2.0	(n.a.)
Kuybyshev.....	390	806	883	881	901	121.3	106.7	106.7	106.7	7.1	2.1	2.3
Syzran.....	83	149	157	139	(n.a.)	89.2	79.5	79.5	79.5	5.4	1.3	(n.a.)
Leningradskaya Oblast.....	3,385	3,321	3,445	3,498	3,552	1.8	-1.9	-1.9	-1.9	3.7	1.5	1.5
Leningrad.....	3,385	3,321	3,445	3,498	3,552	1.8	-1.9	-1.9	-1.9	3.7	1.5	1.5
Lipetskaya Oblast.....	67	157	183	194	205	173.1	134.3	134.3	134.3	16.6	6.0	5.7
Lipetsk.....	67	157	183	194	205	173.1	134.3	134.3	134.3	16.6	6.0	5.7
Moskovskaya Oblast.....	5,028	6,764	7,103	7,103	(n.a.)	39.2	34.5	34.5	34.5	3.5	1.5	(n.a.)
Moskovskaya Oblast.....	5,028	6,764	7,103	7,103	(n.a.)	39.2	34.5	34.5	34.5	3.5	1.5	(n.a.)
Elektrostal.....	43	97	102	105	(n.a.)	137.2	125.6	125.6	125.6	5.2	2.9	(n.a.)
Kolonna.....	75	100	124	125	(n.a.)	65.3	33.3	33.3	33.3	24.0	0.8	(n.a.)
Lyubertsy.....	46	91	100	100	(n.a.)	117.4	97.8	97.8	97.8	9.9	1.4	(n.a.)
Moskva.....	4,542	6,059	6,208	6,296	6,354	36.7	33.0	33.0	33.0	2.8	2.0	0.9
Mytishchi.....	60	99	104	107	(n.a.)	73.3	65.0	65.0	65.0	5.1	2.0	(n.a.)
Orekhovo-Zuyevo.....	99	108	112	113	(n.a.)	13.1	9.1	9.1	9.1	3.1	2.0	(n.a.)
Podolsk.....	72	124	139	144	(n.a.)	93.1	72.2	72.2	72.2	12.1	3.6	(n.a.)
Serpukhov.....	91	106	111	113	(n.a.)	22.0	16.5	16.5	16.5	4.7	1.8	(n.a.)
Murmanskaya Oblast.....	119	222	237	245	254	99.2	86.6	86.6	86.6	6.8	3.4	3.7
Murmansk.....	119	222	237	245	254	99.2	86.6	86.6	86.6	6.8	3.4	3.7
Novosibirskaya Oblast.....	404	886	963	985	990	138.4	119.3	119.3	119.3	8.7	2.3	.5
Novosibirsk.....	404	886	963	985	990	138.4	119.3	119.3	119.3	8.7	2.3	.5

Omskaya Oblast.....	289	581	680	650	674	118.0	101.0	8.4	3.2	3.7
Omsk.....	289	581	680	650	674	118.0	101.0	8.4	3.2	3.7
Orenburgskaya Oblast.....	238	443	477	487	(n.a.)	100.4	86.1	7.7	2.1	(n.a.)
Orenburg.....	172	287	282	283	293	64.0	55.2	5.6	2.1	1.7
Orsk.....	66	176	195	199	(n.a.)	195.5	166.7	10.8	2.1	(n.a.)
Oriovskaya Oblast.....	111	150	167	174	183	50.5	35.1	11.3	4.2	5.2
Orel.....	111	150	167	174	183	50.5	35.1	11.3	4.2	5.2
Penzenskaya Oblast.....	160	255	277	286	296	73.1	59.4	8.6	3.2	3.5
Penza.....	160	255	277	286	296	73.1	59.4	8.6	3.2	3.5
Permskaya Oblast.....	357	735	795	821	(n.a.)	122.7	105.9	8.2	3.3	(n.a.)
Berezniki.....	51	106	117	120	(n.a.)	120.4	107.8	10.4	2.6	(n.a.)
Perm.....	306	629	678	701	722	121.6	104.6	7.8	3.4	3.0
Pskovskaya Oblast.....	60	81	83	98	101	55.0	35.0	14.8	5.4	3.1
Pskov.....	60	81	83	98	101	55.0	35.0	14.8	5.4	3.1
Rostovskaya Oblast.....	882	1,102	1,168	1,190	(n.a.)	32.4	24.9	6.0	1.9	(n.a.)
Novoskakhinsk.....	48	104	108	108	(n.a.)	125.0	116.7	3.8	0	(n.a.)
Rostov-na-Donu.....	510	600	643	601	689	20.3	17.6	7.3	2.5	4.2
Snakhty.....	135	196	201	201	(n.a.)	48.9	46.2	2.6	0	(n.a.)
Taganrog.....	189	202	214	220	(n.a.)	13.2	6.9	5.9	2.8	(n.a.)
Ryazanskaya Oblast.....	95	214	240	252	282	152.6	125.3	12.1	5.0	4.0
Ryazan'.....	95	214	240	252	282	152.6	125.3	12.1	5.0	4.0
Saratovskaya Oblast.....	441	672	724	737	(n.a.)	64.2	52.4	7.7	1.8	(n.a.)
Engel's.....	69	91	102	106	(n.a.)	47.8	31.9	12.1	3.9	(n.a.)
Saratov.....	372	581	622	631	644	67.2	56.2	7.1	1.4	2.1
Smolenskaya Oblast.....	157	147	159	164	170	1.3	-6.4	8.2	3.1	3.7
Smolensk.....	157	147	159	164	170	1.3	-6.4	8.2	3.1	3.7

TABLE I-9.—Population of cities in the U.S.S.R. with 100,000 inhabitants or more, by republic and oblast, 1959, 1959, 1959, 1961, 1962, and 1963—Continued

[Population figures in thousands. Figures for 1959 presumably relate to the beginning of the year; those for 1960 to the census of Jan. 15. Figures for other years are official estimates for Jan. 1. Data for 1963 are available for administrative centers of oblasts, krais, and republics only; thus, no totals are shown for administrative subdivisions for that year, and (n.a.), indicating not available, has been placed in all cells for which data are missing. Figures enclosed in parentheses are not official Soviet estimates. A minus sign (-) in the percent columns denotes a decrease]

Republic, kray, oblast, and city	Population						Percent change				
	1939	1959	1961	1962	1963	1939-61	1939-59	1959-61	1961-62	1962-63	
R.S.F.S.R.—Continued											
Sverdlovskaya Oblast.....	743	1,447	1,541	1,570	(n.a.)	107.4	94.8	6.5	1.9	(n.a.)	
Kamensk-Ural'skiy.....	51	141	151	152	(n.a.)	196.1	176.5	7.1	1.7	(n.a.)	
Nizhniy Tagil.....	100	339	355	359	(n.a.)	121.0	111.9	4.7	1.1	(n.a.)	
Pervouralsk.....	44	90	101	104	(n.a.)	139.5	104.5	12.2	3.0	(n.a.)	
Sverdlovsk.....	423	779	882	883	869	96.7	84.2	6.8	2.5	1.9	
Serov.....	65	98	102	102	(n.a.)	56.9	50.8	4.1	0	(n.a.)	
Tambovskaya Oblast.....	106	172	186	189	194	75.5	62.3	8.1	1.6	2.6	
Tambov.....	106	172	186	189	194	75.5	62.3	8.1	1.6	2.6	
Tomskaya Oblast.....	145	249	269	275	282	85.5	71.7	8.0	2.2	2.5	
Tomsk.....	145	249	269	275	282	85.5	71.7	8.0	2.5	2.5	
Tul'skaya Oblast.....	348	423	445	456	(n.a.)	27.9	21.6	5.2	2.5	(n.a.)	
Novonoo-Kovsk.....	76	107	112	114	(n.a.)	47.4	40.8	4.7	1.8	(n.a.)	
Tula.....	272	315	323	342	351	22.4	16.2	5.4	2.7	2.6	
Tyumen'skaya Oblast.....	79	150	168	174	178	112.7	89.9	12.0	3.6	2.3	
Tyumen.....	79	150	168	174	178	112.7	89.9	12.0	3.6	2.3	
Taymirskiy National Okrug.....	14	109	109	117	(n.a.)	678.6	678.6	0	7.3	(n.a.)	
Nord'sk.....	14	109	109	117	(n.a.)	678.6	678.6	0	7.3	(n.a.)	
Ulyanovskaya Oblast.....	98	206	226	239	247	130.6	110.2	9.7	5.8	3.3	
Ulyanovsk.....	98	206	226	239	247	130.6	110.2	9.7	5.8	3.3	
Vladimirskaia Oblast.....	134	253	270	279	(n.a.)	101.5	88.8	6.7	3.3	(n.a.)	
Vladimir.....	67	154	167	174	181	149.3	136.9	8.4	4.2	4.0	

Korov	67	99	103	105	(n.a.)	53.7	47.8	4.0	1.9	(n.a.)
Vologodskaya Oblast	127	231	261	273	(n.a.)	105.5	81.9	13.0	4.6	(n.a.)
Cherepovets	82	92	113	124	(n.a.)	253.1	187.5	22.8	9.7	(n.a.)
Vologda	96	139	148	149	152	55.8	46.3	6.5	7.7	2.0
Volgogradskaya Oblast	445	592	632	649	663	42.0	33.0	6.8	2.7	2.2
Volograd	445	592	632	649	663	42.0	33.0	6.8	2.7	2.2
Voronezhskaya Oblast	344	448	496	516	535	44.2	30.2	10.7	4.0	3.7
Voronezh	344	448	496	516	535	44.2	30.2	10.7	4.0	3.7
Yaroslavl'skaya Oblast	453	589	625	638	(n.a.)	38.0	30.0	6.1	2.1	(n.a.)
Rybinsk	144	182	192	195	(n.a.)	33.3	26.4	5.5	1.6	(n.a.)
Yaroslavl	309	407	433	443	454	40.1	31.7	6.4	2.3	2.5
Bashkirskaya A.S.S.R.	297	659	713	741	(n.a.)	140.1	121.9	8.2	3.9	(n.a.)
Sterlitamak	39	112	125	131	(n.a.)	220.5	187.2	11.6	4.5	(n.a.)
Ufa	258	547	588	610	630	127.9	112.0	7.5	3.7	3.3
Buryatskaya A.S.S.R.	126	175	188	196	201	49.2	38.9	7.4	4.3	2.6
Ulan-Ude	126	175	188	196	201	49.2	38.9	7.4	4.3	2.6
Checheno-Ingushskaya A.S.S.R.	172	242	270	280	300	57.0	40.7	11.6	3.7	7.1
Grozny	172	242	270	280	300	57.0	40.7	11.6	3.7	7.1
Chuvashskaya A.S.S.R.	31	104	123	134	142	296.8	235.5	18.3	8.9	6.0
Cheboksary	31	104	123	134	142	296.8	235.5	18.3	8.9	6.0
Dagestanskaya A.S.S.R.	87	119	129	135	140	48.3	36.8	8.4	4.7	3.7
Makhachkala	87	119	129	135	140	48.3	36.8	8.4	4.7	3.7
Kabardino-Balkarskaya A.S.S.R.	48	88	98	102	106	104.2	83.3	11.4	4.1	3.9
Nal'chik	48	88	98	102	106	104.2	83.3	11.4	4.1	3.9
Karelskaya A.S.S.R.	70	136	139	142	145	98.6	94.3	2.2	2.2	2.1
Petrozavodsk	70	136	139	142	145	98.6	94.3	2.2	2.2	2.1

TABLE I-9.—Population of cities in the U.S.S.R. with 100,000 inhabitants or more, by republic and oblast, 1939, 1959, 1961, 1962, and 1963—Continued

Population figures in thousands. Figures for 1939 presumably relate to the beginning of the year, those for 1959 to the census of Jan. 15. Figures for other years are official estimates for Jan. 1. Data for 1963 are available for administrative centers of oblasts, krais, and republics only; thus, no totals are shown for administrative subdivisions for that year, and (n.a.), indicating not available, has been placed in all cells for which data are missing. Figures enclosed in parentheses are not official Soviet estimates. A minus sign (—) in the percent columns denotes a decrease.

Republic, kray, oblast, and city	Population						Percent change					
	1939	1959	1961	1962	1963	1939-61	1939-59	1959-61	1961-62	1962-63		
R.S.F.S.R.—Continued												
Mariyskaya A.S.S.R.	27	89	103	110	116	281.5	229.6	15.7	6.8	5.5		
Yoshkar-Ola	27	89	103	110	116	281.5	229.6	15.7	6.8	5.5		
Mordovskaya A.S.S.R.	41	91	105	112	124	163.4	122.0	18.7	9.3	5.1		
Saransk	41	91	108	118	124	163.4	122.0	18.7	9.3	5.1		
Savenn-Osetinskaya A.S.S.R.	131	164	175	183	194	83.6	25.2	6.9	4.6	6.0		
Ordzhonikidze	131	164	175	183	194	83.6	25.2	6.9	4.6	6.0		
Tatarskaya A.S.S.R.	303	647	693	711	725	74.1	62.6	7.1	2.6	2.0		
Kazan'	303	647	693	711	725	74.1	62.6	7.1	2.6	2.0		
Udmurtskaya A.S.S.R.	176	285	312	322	330	77.3	61.9	9.5	3.2	2.5		
Izhevsk	176	285	312	322	330	77.3	61.9	9.5	3.2	2.5		
Ukrainian S.S.R.	6,736	8,839	9,437	9,659	(n.a.)	40.1	31.2	6.8	2.4	(n.a.)		
Chernigovskaya Oblast	69	90	101	107	113	46.4	30.4	12.2	5.9	5.6		
Chernigov	69	90	101	107	113	46.4	30.4	12.2	5.9	5.6		
Chernovitskaya Oblast	106	146	147	150	152	38.7	37.7	.7	2.0	1.3		
Chernovitsy	106	146	147	150	152	38.7	37.7	.7	2.0	1.3		
Dnepropetrovskaya Oblast	864	1,242	1,346	1,377	(n.a.)	55.8	43.8	8.4	2.3	(n.a.)		
Dneprodzerzhinsk	148	194	203	207	(n.a.)	37.2	31.1	4.6	2.0	(n.a.)		
Dnepropetrovsk	527	600	707	722	788	34.2	25.2	7.1	2.1	2.2		
Krivoy Rog	189	383	436	448	(n.a.)	130.7	103.3	12.4	2.8	(n.a.)		

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	1,205	1,749	1,870	1,897	(n.a.)	55.2	45.1	6.8	1.4	(n.a.)
Donetskaya Oblast.....										
Gorlovka.....	181	298	307	309	(n.a.)	69.6	61.9	4.8	7	(n.a.)
Kramatorsk.....	104	115	125	126	(n.a.)	30.9	22.3	7.0	2.4	(n.a.)
Makayevka.....	338	381	381	381	(n.a.)	57.4	47.9	6.4	0	(n.a.)
Dонецк.....	466	689	749	760	774	90.7	80.0	7.2	1.5	1.8
Зиданов.....	222	284	310	321	(n.a.)	38.6	27.9	9.2	3.5	(n.a.)
Khar'kovskaya Oblast.....	833	934	976	990	1,006	17.2	12.1	4.5	1.4	1.6
Khar'kov.....	833	934	976	990	1,006	17.2	12.1	4.5	1.4	1.6
Khersonskaya Oblast.....	97	138	174	183	192	73.4	62.9	10.1	3.2	4.9
Kherson.....	97	138	174	183	192	73.4	62.9	10.1	3.2	4.9
Kirovograd Oblast.....	100	128	134	138	142	34.0	28.0	4.7	3.0	2.9
Kirovograd.....	100	128	134	138	142	34.0	28.0	4.7	3.0	2.9
Kiyevskaya Oblast.....	847	1,104	1,174	1,208	1,248	38.6	30.3	6.3	2.9	3.3
Kiyev.....	847	1,104	1,174	1,208	1,248	38.6	30.3	6.3	2.9	3.3
Krymskaya Oblast.....	361	432	463	478	(n.a.)	28.3	19.7	7.2	3.2	(n.a.)
Kerch'.....	104	98	104	107	(n.a.)	0	-5.8	6.1	2.9	(n.a.)
Sevastopol'.....	114	143	163	169	(n.a.)	43.0	24.8	10.1	3.7	(n.a.)
Simferopol'.....	145	186	196	202	203	37.1	30.1	5.4	3.1	5
Luganskaya Oblast.....	405	553	598	608	(n.a.)	47.7	36.5	8.1	1.7	(n.a.)
Kadiyevka.....	135	180	191	192	(n.a.)	41.5	33.3	6.1	5	(n.a.)
Lugansk.....	215	275	300	306	314	39.5	27.9	9.1	2.0	2.6
Kommunarsk.....	55	98	107	110	(n.a.)	94.5	78.2	9.2	2.8	(n.a.)
L'vovskaya Oblast.....	340	411	436	447	469	28.2	20.9	6.1	2.5	4.9
L'vov.....	340	411	436	447	469	28.2	20.9	6.1	2.5	4.9
Nikolayevskaya Oblast.....	169	226	242	258	263	43.2	33.7	7.1	6.6	1.9
Nikolayev.....	169	226	242	258	263	43.2	33.7	7.1	6.6	1.9
Odeskakaya Oblast.....	602	667	696	704	709	15.6	10.8	4.3	1.1	.7
Odesa.....	602	667	696	704	709	15.6	10.8	4.3	1.1	.7
Poltavskaya Oblast.....	128	143	130	154	138	17.2	11.7	4.9	2.7	2.6
Poltava.....	128	143	130	154	138	17.2	11.7	4.9	2.7	2.6

TABLE I-9.—Population of cities in the U.S.S.R. with 1963 populations of 100,000 inhabitants or more, by republic and oblast, 1959, 1959, 1959, 1961, 1962, and 1963—Continued

[Population figures in thousands. Figures for 1959 presumably relate to the beginning of the year; those for 1959 to the census of Jan. 15. Figures for other years are official estimates for Jan. 1. Data for 1963 are available for administrative centers of oblasts, krais, and republics only; thus, no totals are shown for administrative subdivisions for that year, and (n.a.), indicating not available, has been placed in all cells for which data are missing. Figures enclosed in parentheses are not official Soviet estimates. A minus sign (—) in the percent columns denotes a decrease.]

Republic, kray, oblast, and city	Population					Percent change					
	1959	1961	1962	1963	1959-61	1959-61	1961-62	1962-63	1959-61	1961-62	1962-63
Ukrainian S.S.R.—Continued											
Sumskaia Oblast.....	64	108	113	117	68.8	53.1	4.6	3.5	10.2	4.6	3.5
Sumy.....	64	108	113	117	68.8	53.1	4.6	3.5	10.2	4.6	3.5
Vinnitskaia Oblast.....	93	122	131	139	40.9	31.2	7.4	2.2	7.4	3.8	2.2
Vinnitsa.....	93	122	131	139	40.9	31.2	7.4	2.2	7.4	3.8	2.2
Zaporozhskaya Oblast.....	358	530	577	(n.a.)	61.2	48.0	2.9	(n.a.)	8.9	2.9	(n.a.)
Melitopol.....	76	95	102	(n.a.)	34.2	25.0	7.4	(n.a.)	7.4	2.0	(n.a.)
Zaporozh'ye.....	282	435	475	507	68.4	54.3	3.2	3.5	9.2	3.2	3.5
Zhitomirskaia Oblast.....	95	106	114	120	20.0	11.6	7.5	2.6	7.5	2.6	2.6
Zhitomir.....	95	106	114	120	20.0	11.6	7.5	2.6	7.5	2.6	2.6
Belorussia S.S.R.....	726	1,045	1,208	(n.a.)	59.0	43.9	10.4	4.7	10.4	4.7	(n.a.)
Gomel'skaya Oblast.....	139	168	184	199	32.4	20.9	9.5	3.1	20.9	4.9	3.1
Gomel'.....	139	168	184	199	32.4	20.9	9.5	3.1	20.9	4.9	3.1
Minskaya Oblast.....	237	509	570	644	140.5	114.8	12.0	7.5	12.0	5.1	7.5
Minsk.....	237	509	570	644	140.5	114.8	12.0	7.5	12.0	5.1	7.5
Mogilevskaya Oblast.....	183	220	238	247	30.1	20.2	8.2	(n.a.)	20.2	3.8	(n.a.)
Bobruysk.....	84	98	104	108	23.8	16.7	6.1	(n.a.)	16.7	3.8	(n.a.)
Mogilev.....	99	122	134	139	35.4	23.2	9.8	3.7	23.2	3.7	4.3
Vitebskaia Oblast.....	167	148	162	174	-3.0	-11.4	9.5	4.3	-11.4	9.5	4.3
Vitebsk.....	167	148	162	174	-3.0	-11.4	9.5	4.3	-11.4	9.5	4.3

Uzbek S.S.R.	986	1,466	1,568	1,617	(n.a.)	67.5	56.6	7.0	3.1	(n.a.)
Andizhanskaya Oblast.	165	263	275	283	(n.a.)	66.7	53.3	8.7	2.9	(n.a.)
Andizhan	85	130	141	145	150	65.9	52.9	8.5	2.8	3.4
Namangan	80	122	134	138	(n.a.)	67.5	53.8	8.9	3.0	(n.a.)
Ferganskaya Oblast.	85	105	113	117	(n.a.)	32.9	23.5	7.6	3.5	(n.a.)
Kokand	85	105	113	117	(n.a.)	32.9	23.5	7.6	3.5	(n.a.)
Samarqand	136	196	209	215	220	53.7	44.1	6.6	2.9	2.3
Samarqand	136	196	209	215	220	53.7	44.1	6.6	2.9	2.3
Tashkent	550	912	971	1,002	1,029	76.5	65.8	6.5	3.2	2.7
Tashkent	550	912	971	1,002	1,029	76.5	65.8	6.5	3.2	2.7
Kazakh S.S.R.	954	2,112	2,331	2,503	(n.a.)	150.6	121.4	13.2	4.7	(n.a.)
Tselinnyy Kray	187	400	459	490	(n.a.)	145.5	118.7	12.2	6.8	(n.a.)
Kustanayskaya Oblast.	84	86	98	102	105	88.2	152.9	14.0	4.1	2.9
Kustanay	84	86	98	102	105	88.2	152.9	14.0	4.1	2.9
Pavlodarskaya Oblast.	29	90	107	115	120	269.0	210.3	18.9	7.5	4.3
Pavlodar	29	90	107	115	120	269.0	210.3	18.9	7.5	4.3
Severo-Kazhustanskaya Oblast.	92	131	140	146	153	52.2	42.4	6.9	4.3	4.8
Petrovoplovsk	92	131	140	146	153	52.2	42.4	6.9	4.3	4.8
Tselinogradskaya Oblast.	32	102	114	127	139	256.3	218.8	11.8	11.4	9.4
Tselinograd	32	102	114	127	139	256.3	218.8	11.8	11.4	9.4
Aktyubinskaya Oblast.	40	97	107	111	116	118.4	98.0	10.3	3.7	4.5
Aktyubinsk	40	97	107	111	116	118.4	98.0	10.3	3.7	4.5
Alma-Atinskaya Oblast.	222	456	508	534	580	128.8	105.4	11.4	5.1	8.6
Alma-Ata	222	456	508	534	580	128.8	105.4	11.4	5.1	8.6
Dzhambul'skaya Oblast.	64	113	131	136	139	104.7	76.6	15.9	3.8	2.2
Dzhambul	64	113	131	136	139	104.7	76.6	15.9	3.8	2.2

TABLE I-9.—Population of cities in the U.S.S.R. with 1963 populations of 100,000 inhabitants or more, by republic and oblast, 1959, 1959, 1959, 1961, 1962, and 1963—Continued

[Population figures in thousands. Figures for 1959 presumably relate to the beginning of the year; those for 1961 to the census of Jan. 15. Figures for other years are official estimates for Jan. 1. Data for 1963 are available for administrative centers of oblasts, krais, and republics only; thus, no totals are shown for administrative subdivisions for that year, and (n.a.), indicating not available, has been placed in all cells for which data are missing. Figures enclosed in parentheses in parentheses are not official Soviet estimates. A minus sign (-) in the percent columns denotes a decrease.]

Republic, kray, oblast, and city	Population						Percent change				
	1959	1961	1962	1963	1959-61	1961-62	1959-61	1959-59	1961-62	1962-63	
Kazakh S.S.R.—Continued											
Karagandinskaya Oblast.....	161	474	554	582	(n.a.)	244.1	195.0	16.6	5.1	(n.a.)	
Karaganda.....	156	397	441	459	462	182.7	151.5	11.1	4.1	(n.a.)	
Temirtau.....	5	77	113	123	(n.a.)	2,160.0	1,440.0	49.8	8.8	(n.a.)	
Semipalatinskaya Oblast.....	110	156	177	182	188	60.9	41.8	13.5	2.8	3.3	
Semipalatinsk.....	110	156	177	182	188	60.9	41.8	13.5	2.8	3.3	
Yuzhno-Kazakhstanskiy Kray.....	74	153	171	178	185	131.1	106.8	11.8	4.1	3.9	
Chimkent.....	74	153	171	178	185	131.1	106.8	11.8	4.1	3.9	
Vostochno-Kazakhstanskaya Oblast.....	20	150	173	181	195	765.0	650.0	15.3	4.6	7.7	
Ust'-Kamenogorsk.....	20	150	173	181	195	765.0	650.0	15.3	4.6	7.7	
Zapadno-Kazakhstanskiy Kray.....	67	104	111	109	111	65.7	55.2	6.7	-1.8	1.8	
Ural'sk.....	67	104	111	109	111	65.7	55.2	6.7	-1.8	1.8	
Georgia S.S.R.....	597	823	861	884	(n.a.)	44.2	37.9	4.6	2.7	(n.a.)	
Kutaisi.....	78	128	137	141	(n.a.)	75.6	64.1	7.0	2.9	(n.a.)	
Tbilisi.....	519	695	724	743	768	39.5	33.9	4.2	2.0	3.4	
Azerbaydzhan S.S.R.....	874	1,087	1,161	1,193	(n.a.)	32.8	24.4	8.6	2.8	(n.a.)	
Baku.....	775	971	1,038	1,067	1,086	33.0	25.3	6.9	2.8	1.8	
Kirovabad.....	99	116	124	126	(n.a.)	24.2	17.2	6.0	1.6	(n.a.)	
Lituanian S.S.R.....	3 367	3 640	3 687	616	(n.a.)	32.7	22.6	8.7	4.9	(n.a.)	
Kaunas.....	152	214	232	247	(n.a.)	52.6	40.8	8.4	6.5	(n.a.)	
Khaypeda.....	(3)	90	100	105	(n.a.)	(3)	(3)	11.1	5.0	(n.a.)	

Vil'nyus.....	215	236	255	264	271	18.6	9.8	8.1 ¹	3.5	2.7
Moldavian S.S.R.....	112	216	236	244	254	110.7	92.9	9.3	3.4	4.1
Kishinev.....	112	216	236	244	254	110.7	92.9	9.3	3.4	4.1
Latvian S.S.R.....	348	580	607	620	632	74.4	66.7	4.7	2.1	1.9
Riga.....	348	580	607	620	632	74.4	66.7	4.7	2.1	1.9
Kirgiz S.S.R.....	93	220	252	312	326	171.0	136.6	14.5	23.8	4.5
Frunze.....	93	220	252	312	326	171.0	136.6	14.5	23.8	4.5
Tadzhik S.S.R.....	83	224	248	260	276	198.8	169.9	10.7	4.8	6.2
Dushanbe.....	83	224	248	260	276	198.8	169.9	10.7	4.8	6.2
Armenian S.S.R.....	272	617	671	700	(n.a.)	146.7	126.8	8.8	4.3	(n.a.)
Yerevan.....	204	509	588	583	578	173.5	149.5	9.6	4.5	—, 9
Leninakan.....	68	108	113	117	(n.a.)	66.2	58.8	4.6	3.5	(n.a.)
Turkmen S.S.R.....	127	170	187	197	207	47.2	33.9	10.0	5.3	5.1
Ashkhabad.....	127	170	187	197	207	47.2	33.9	10.0	5.3	5.1
Estonian S.S.R.....	160	282	298	305	311	86.3	76.3	5.7	2.3	2.0
Tallin.....	160	282	298	305	311	86.3	76.3	5.7	2.3	2.0

¹ Angarsk was established in 1951.
² Because most of the prewar population of Kaliningrad (formerly the East Prussian city of Königsberg) has apparently been expelled and replaced by Russians, no figure for 1939 is shown.
³ Because much of the prewar population of Klaipeda (formerly Memel) has apparently been expelled and replaced by Russians, no figure for 1939 is shown. The percent change between 1939 and 1959 and between 1939 and 1961 for Lithuanian S.S.R. excludes Klaipeda.

Source: Based on data reported in Tsentral'noye statisticheskoye upravleniye pri sovetse ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1990 godu, statisticheskiy yezhogodnik* (The National Economy of the U.S.S.R. in 1990, A Statistical Yearbook). Moscow, Gosstatizdat, 1961, pp. 52-56; *Narodnoye khozyaystvo SSSR v 1961 godu, statisticheskiy yezhogodnik* (The National Economy of the U.S.S.R. in 1961, A Statistical Yearbook), Moscow, Gosstatizdat, 1962, pp. 20-26; and *Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskiy yezhogodnik* (The National Economy of the U.S.S.R. in 1962, A Statistical Yearbook), Moscow, Gosstatizdat, 1963, pp. 25-27.

SECTION II
AGRICULTURE

TABLE II-1.—Agricultural resources

Item	Year	Unit	United States	Soviet Union	U.S.S.R. as percent of United States
Population	July 1, 1962	Million	189.3	224.8	119
Civilian labor force (work experience)	1962	do	¹ 82.0	² 115.0	152
Annual average employment	1962	do	³ 67.8	⁴ 99.4	146
Agricultural labor force (work experience)	1962	do	⁵ 7.2	⁶ 47.0	653
Annual average employment in agriculture	1962	do	5.2	36.7	706
Percent farm of total labor force (work experience)	1962	Percent	8.2	40.8	-----
Percent farm employment of total (annual average)	1962	do	7.6	37.0	-----
Sown cropland	1963	Million acres	⁷ 309	⁸ 539	174
Sown cropland per capita	1963	Acre	1.6	2.4	150
Tractors on farms	Jan. 1, 1963	Thousand	⁹ 5,170	¹⁰ 1,329	26
Motortrucks on farms	do	do	⁹ 2,900	⁹ 875	30
Grain combines on farms	do	do	⁹ 1,020	⁹ 520	51
Agricultural consumption of electricity	1960	Billion kilowatt-hours	31.7	9	28
Primary commercial fertilizer consumption in terms of available plant nutrients					
Total	1962	1,000 short tons	⁹ 8,400	¹⁰ 3,369	40
Per acre of sown area	1962	1'ound	56	13	23

¹ Work experience includes all persons who worked 1 hour or more during the year according to the Bureau of Labor Statistics.

² U.S. Department of Agriculture (USDA) estimate based on Soviet census of 1959.

³ "Statistical Abstract of the United States, 1963" (household survey estimates of the Bureau of Labor Statistics), p. 223.

⁴ Estimate of the U.S. Census Bureau. For methodology and comparability see "Employment in the U.S.S.R.: Comparative U.S.S.R.-United States Data," by M. Weitzman, M. Feshbach, and L. Kulcheyka in "Dimensions of Soviet Economic Power," Joint Economic Committee, Congress of the United States, December 1962, p. 649.

⁵ Persons who worked more than 1 hour during the year.

⁶ Based on Soviet census of 1959, persons employed in agriculture including persons working on their own private plots.

⁷ "Crop Production, 1963 Annual Summary," Statistical Reporting Service, U.S. Department of Agriculture, p. 6. [Acreage of 59 major crops planted or grown.]

⁸ Pravda, July 20, 1963 (midyear plan fulfillment).

⁹ "Changes in Farm Production and Efficiency, a Summary Report," 1963, Statistical Bulletin No. 233, U.S. Department of Agriculture.

¹⁰ "Narodnoe khozyaistvo SSSR v 1962 godu," Moscow 1963.

¹¹ ERS-Foreign-53, Economic Research Service, U.S. Department of Agriculture, 1963.

TABLE II-2.—Farm numbers and size

Farm numbers, 1962:		
All U.S. farms ¹	-----	3, 688, 000
Soviet collective farms ²	-----	39, 700
Soviet state farms ²	-----	8, 570
Farm size, average in 1962:		Acres
Land area per U.S. farm ³	-----	316
Sown area per U.S. farm	-----	82
Land area per Soviet collective farm ²	-----	15, 404
Sown area per Soviet collective farm ²	-----	7, 010
Land area per Soviet state farm ²	-----	77, 588
Sown area per Soviet state farm ²	-----	24, 991
		Number
Workers per U.S. farm	-----	1. 5
Housholds per Soviet collective farm ²	-----	404
Workers per Soviet state farm ²	-----	804

¹ "Farm Income Situation," FIS-191, Economic Research Service, USDA, July 1963, p. 42, and "Number of Farms and Land in Farms," USDA Statistical Reporting Service, Feb. 23, 1962. In 1959 slightly more than half of all U.S. farms had sales of over \$2,500. Farms with sales of \$2,500 or more accounted for about 94 percent of all farm sales.

² "Narodnoe khozyaistvo SSSR, 1962." Does not include private plots of individuals which account for about 3-4 percent of sown area and a much larger percentage of livestock. These plots account for about 1/4 of total agricultural production.

³ Land area for U.S. farms with sales of more than \$2,500 was slightly above 400 acres in 1959.

TABLE II-3.—Crop acreage, 1962

Crop	United States ¹	Soviet Union ²	U.S.S.R. as percent of United States
	<i>Thousand acres</i>	<i>Thousand acres</i>	
Corn for grain.....	56,609	17,297	31
Wheat.....	43,541	166,545	383
Rye.....	1,987	41,760	2,102
Oats.....	22,675	17,049	75
Barley.....	12,430	35,335	284
Grain sorghum.....	11,536	(³)	-----
Rice.....	1,773	247	13
Cotton, lint.....	15,569	5,906	38
Soybeans for beans.....	27,604	1,964	7
Sunflowers.....	(³)	10,848	-----
Peanuts, picked and threshed.....	1,412	(³)	-----
Flaxseed.....	2,808	4,200	150
Hemp.....	(³)	730	-----
Sugarbeets.....	1,103	7,833	710
Sugarcane, for sugar and seed.....	512	(³)	-----
Tobacco.....	1,225	4,255	21
Makhorka.....	(³)	4,54	-----
Potatoes.....	1,376	21,498	1,562
Sweetpotatoes.....	224	(³)	-----
Vegetables ⁴	3,449	3,563	103
Fruits and berries, including citrus ⁵	2,639	3,259	123
Citrus.....	853	(³)	-----
Tea.....	(³)	1,628	-----
Hay, all.....	67,646	(³)	-----

- ¹ USDA: "Crop Production, 1963 Annual Summary" (area harvested).
² Official Soviet data: "Narodnoe khozyaistvo S.S.S.R., 1962" (reported as sown area but actually closer to U.S. area harvested concept due to exclusion of winterkill and other crops written off).
³ Not available.
⁴ USDA estimate.
⁵ United States: Commercial acreage only; U.S.S.R.: Excluding area sown for seed.
⁶ United States: Excludes berries.

TABLE II-4.—Yields per acre of major crops, 1962

Crop	Unit per acre	United States ¹	Soviet Union ²	U.S.S.R. as percent of United States
Corn for grain.....	Bushel.....	64.2	22.3	35
Wheat.....	do.....	25.1	12.0	48
Rye.....	do.....	20.5	12.9	63
Oats.....	do.....	45.0	22.9	51
Barley.....	do.....	35.1	20.4	58
Grain sorghum.....	do.....	44.2	(³)	-----
Rice.....	Pound.....	3,726.0	2,412.0	65
Cotton, lint ⁴	do.....	457.0	545.0	119
Soybeans for grain.....	Bushel.....	24.2	6.4	26
Sunflower seeds.....	Pound.....	(³)	894.0	-----
Flaxseed.....	Bushel.....	11.5	4.0	35
Sugarbeets.....	Ton.....	16.5	6.6	40
Tobacco.....	Pound.....	1,890.0	882.0	47
Makhorka.....	do.....	(³)	1,222.0	-----
Potatoes.....	Hundredweight.....	193.8	63.5	33

- ¹ "Crop Production 1963 Annual Summary."
² Calculated from tables II-3 and II-5.
³ Not available.
⁴ All U.S.S.R. cotton irrigated, only 25 to 30 percent U.S. cotton irrigated.

TABLE II-5.—Crop production, 1962

Crop	Unit	United States ¹	Soviet Union ²	U.S.S.R. as percent of United States
Corn for grain.....	1,000 bushels.....	3,636,673	\$ 385,806	11
Wheat.....	do.....	1,093,667	\$ 2,000,000	183
Rye.....	do.....	40,803	\$ 539,971	1,323
Oats.....	do.....	1,020,371	\$ 385,806	38
Barley.....	do.....	436,448	\$ 719,891	165
Grain sorghum.....	do.....	509,685	(⁴)	-----
Rice, rough.....	1,000 tons.....	3,302	298	9
Cotton, ginned.....	1,000 bales.....	14,867	6,715	45
Soybeans for beans.....	1,000 bushels.....	669,211	\$ 12,566	2
Sunflower seed.....	1,000 tons.....	(⁴)	\$ 4,850	-----
Peanuts, picked and threshed.....	do.....	905	(⁴)	-----
Flaxseed.....	1,000 bushels.....	32,230	\$ 16,800	52
Sugarbeets.....	1,000 tons.....	18,254	\$ 52,029	285
Sugarcane, for sugar and seed.....	do.....	20,037	(⁴)	-----
Sugar production ⁵	do.....	5,572	6,000	118
Tobacco.....	1,000 pounds.....	2,060,992	224,869	11
Makhorka.....	do.....	(⁴)	66,138	-----
Fiber flax.....	1,000 tons.....	(⁴)	435	-----
Potatoes.....	1,000 hundredweight.....	266,703	\$ 1,364,647	511
Sweetpotatoes.....	do.....	19,362	(⁴)	-----
Vegetables.....	1,000 tons.....	20,075	17,637	87
Citrus.....	do.....	6,478	(⁴)	-----
Grapes.....	do.....	3,239	3,276	-----
Total fruits (including citrus, grapes, and berries).....	do.....	\$ 18,648	6,590	40
Tree nuts.....	do.....	205	(⁴)	-----
Tea.....	do.....	(⁴)	188	-----
Hay, all.....	do.....	121,566	\$ 85,097	70

- ¹ "Crop Production 1963 Annual Summary."
² "Narodnoe khozyalstvo SSSR, 1962" unless otherwise noted.
³ USDA estimates.
⁴ Not available.
⁵ For factory sugar production only.
⁶ For United States includes continental beet and cane and Hawaii, Puerto Rico, and U.S. Virgin Islands. For U.S.S.R. includes sugar produced from domestic beets only.
⁷ U.S. commercial vegetable production only.
⁸ For United States includes 20 major fruits exclusive of most berries.
⁹ Hay and green feed calculated in terms of hay, including natural hay harvested by individual farmers.

TABLE II-6.—Livestock numbers, 1963¹

Kind	United States ²	Soviet Union ³	U.S.S.R. as percent of United States
All cattle.....	103.7	87.0	84
Cows ⁴	\$ 18.7	\$ 38.0	203
Hogs.....	58.7	70.0	119
Sheep.....	30.2	139.7	463
Horses.....	73.1	9.1	294
Poultry.....	\$ 371.8	\$ 550.4	148

- ¹ Beginning of year.
² "Livestock and Poultry Inventory," USDA Statistical Reporting Service, Feb. 13, 1963.
³ Official Soviet figure: "Narodnoe khozyalstvo SSSR, 1962."
⁴ Included in all cattle.
⁵ 2 years old and for milk.
⁶ All cows.
⁷ 1961. USDA horse estimates discontinued after 1961.
⁸ Chickens and turkeys only.
⁹ All poultry.

TABLE II-7.—Production of livestock commodities, 1962

Commodity	Unit	United States ¹	Soviet Union ²	U.S.S.R. as percent of United States
Beef and veal	Million pounds	16,311	³ 6,184.0	38
Pork	do.	11,841	³ 6,614.0	56
Mutton, lamb, and goat	do.	809	³ 1,940.0	240
Poultry meat	do.	6,938	1,760.0	25
Lard	do.	2,480	³ 1,240.0	-----
Margarine and shortening	do.	4,168	1,201.0	-----
Tallow and grease	do.	4,029	³ 445.0	-----
Milk (cows)	do.	125,927	³ 120,371.0	96
Butter	do.	1,576	2,072.0	131
Eggs	Billion	63	30.1	48
Wool	Million pounds	249	371.0	149

¹ USDA figures.
² Unless otherwise noted, "Narodnoe khozyaistvo SSSR, 1962."
³ USDA estimates.

TABLE II-8.—Production, sown area, and yields of major grains, international trade in grains, and selected livestock numbers, average 1955-59 and 1963

	Unit	Average 1955-59			1963		
		United States ¹	Soviet Union ²	U.S.S.R. as percent of United States	United States ³	Soviet Union ²	U.S.S.R. as percent of United States
Production:							
Wheat	Million bushels	1,095	1,910	174	1,138	1,470	129
Rye	do.	27	599	2,214	29	472	1,602
Barley	do.	424	441	104	400	680	170
Oats	do.	1,278	828	65	981	261	27
Corn for grain	do.	3,597	297	8	4,081	386	9
Sown area:⁴							
Wheat	Thousand acres	40,128	158,722	323	45,256	163,086	360
Rye	do.	1,729	44,742	2,688	1,611	44,972	2,791
Barley	do.	14,301	24,809	172	11,538	45,714	396
Oats	do.	33,093	36,109	109	21,757	14,826	68
Corn	do.	76,121	11,853	15	60,664	17,297	29
Yields:							
Wheat	Bushels per acre	19.5	12.0	62	25.1	9.0	36
Rye	do.	22.3	13.4	60	18.3	10.5	57
Barley	do.	29.5	17.8	60	34.7	14.9	43
Oats	do.	38.6	22.9	59	45.1	18.1	40
Corn	do.	47.3	25.0	53	67.3	22.3	33
International trade in grain:							
Exports	Thousand tons	⁶ 19,542	⁶ 5,268	-----	⁷ 41,277	⁸ 3,000	-----
Imports	do.	⁹ 1,123	⁹ 398	-----	⁷ 471	¹⁰ 11,000	-----
Livestock:							
Cattle	Million head	⁹ 94.0	¹¹ 62.9	67	¹² 106.8	¹³ 85.3	80
Pigs	do.	⁹ 53.4	¹¹ 39.9	75	¹² 56.2	¹³ 40.7	69

¹ "Agricultural Statistics, 1962," USDA, 1963.
² USDA estimates, for production, area, and yields.
³ "Crop Production 1963 Annual Summary," for production, area, and yields of grains.
⁴ For the U.S. harvested area; for the Soviet Union see footnote 2, table II-3.
⁵ "U.S. Foreign Agricultural Trade by Commodities, Calendar Year 1962," USDA Economic Research Service.
⁶ "Vnesnnyaya trgovlya SSSR za 1955-59 gody," Moscow, 1961.
⁷ Preliminary estimates, Foreign Agricultural Service, U.S. Department of Agriculture, 1963-64.
⁸ USDA preliminary estimate, 1963-64.
⁹ "Agricultural Statistics, 1962," U.S. Department of Agriculture.
¹⁰ Approximate amount of known Soviet import commitments as of Jan. 20, 1964.
¹¹ "Narodnoe khozyaistvo SSSR," 1962.
¹² Preliminary estimates, Economic Research Service, U.S. Department of Agriculture, 1963-64.
¹³ Pravda, Jan. 24, 1964. The sharp decline in pig numbers during 1963 is claimed to have resulted from the crop failure during 1963. Pig numbers on Jan. 1, 1963, were claimed to be 70,000,000 (see table II-6).

TABLE II-9.—Net agricultural production index, U.S.S.R.

	[1955=100]		
1955	100	1960	124
1958	126	1961	134
1959	121	1962	128

SECTION III
INDUSTRY

TABLE III-1.—U.S.S.R.: Selected economic indicators 1958, 1962, and 1965 plan

Commodity	Unit	1958	1962	Original plan, 1965	Revised plan, 1965 ¹	Percent	
						Average annual increase, 1959-62	Required annual increase, 1963-65 ²
Primary energy ³	Million M T/SF ⁴	616.4	779.8	1,010	§ 952.8	6.1	6.9
Electric power	Billion kilowatt-hours	235.4	309.3	500-620	608	11.9	11.2
Crude oil	Million metric tons	113.2	186.2	230-240	240	13.3	8.8
Natural gas	Billion cubic meters	28.1	73.5	148.3	128	27.2	20.3
Pig iron	Million metric tons	39.6	55.3	65-70	65.7	8.7	5.9
Crude steel	do	54.9	76.3	86-91	89.3	8.6	5.4
Cement	do	33.3	57.3	75-81	§ 71-72	14.5	7.4-7.9
Mineral fertilizers ⁵	do	12.4	17.3	35	Same	8.7	26.5
Artificial and synthetic fibers	Thousand metric tons	166	277	666	444	13.7	17.0
Textiles ⁶	Billion square meters	5.82	6.65	8.26	Same	3.4	7.5
Leather footwear	Million pairs	356.4	456.3	515	Same	6.4	4.1
Chemical industry	Index (1958=100)	100	161	§ 300	(*)	12.6	23.0
Gross industrial production ⁷	Index (1958=100)	100	145	180	186	9.7	8.7

¹ Unless otherwise indicated, revisions of plan are as of December 1963.
² Based on the revised plan data for 1965 when available.
³ Primary energy expressed in terms of standard fuel. Including coal, crude oil, natural gas, peat, shale, and firewood, but excludes hydroelectric power.
⁴ Million metric tons of standard fuel.
⁵ Unofficial revision.
⁶ In standard Soviet units.
⁷ Including cotton, wool, linen, and silk.
⁸ Although a new and apparently lower goal has been set for 1965, the coverage of the industry may be smaller than that contemplated under the original plan.
⁹ Gross value of production of industry at constant prices.

TABLE III-2.—Production of major chemicals in the U.S.S.R., 1955 and 1958-62, and in the United States, 1962

Commodity	Unit	U.S.S.R.						United States, 1962
		1955	1958	1959	1960	1961	1962	
Sulfuric acid (100 percent)	Thousand metric tons	3,798	4,803	5,082	5,398	5,728	6,132	17,555
Soda ash (95 percent)	do	1,437	1,692	1,728	1,887	2,116	2,332	4,399
Caustic soda (92 percent)	do	563	709	757	765	897	961	5,388
Mineral fertilizers ¹	do	0,660	12,420	12,917	13,867	15,315	17,262	§ 36,500
Plastics	do	181	260	294	332	408	475	3,347
Rubber tires	Thousand units	10,190	14,305	15,480	17,225	18,996	20,846	137,641
Chemical fiber	Thousand metric tons	110	166	180	211	250	277	1,017

¹ In standard Soviet units.
² Estimated.

TABLE III-3.—Production of consumer goods in the U.S.S.R., 1955 and 1958-62, and in the United States, 1962¹

Commodity	Unit	U.S.S.R.						United States, 1962 (preliminary)
		1955	1958	1959	1960	1961	1962	
Fabrics:								
Cotton	Million square meters	4,227	4,308	4,615	4,838	4,875	4,914	9,074
Wool	do	318	385	415	438	454	460	434
Rayon, synthetic, and silk	do	415	690	663	675	682	787	3,044
Linen	do	272	440	485	516	493	485	(2)
Leather footwear	Million pairs	271	356	390	419	443	456	3,619
Sewn garments	Million rubles (in wholesale prices)	(4)	7,346	8,108	8,739	9,328	9,688	(4)
Knit outerwear	Million pieces	85	97	104	112	118	125	204
Knit underwear	do	346	399	439	472	488	519	(4)
Hosiery	Million pairs	772	888	926	964	1,000	1,033	2,070
Sewing machines	Thousand	1,611	2,686	2,941	3,096	3,292	3,341	(4)
Refrigerators	do	151	360	426	530	686	838	3,775
Washing machines	do	87	464	648	896	1,286	1,797	3,795
Radios	do	3,549	3,902	4,035	4,165	4,228	4,251	19,200
Television sets	do	495	979	1,277	1,726	1,949	2,168	6,485

¹ Statistical Abstract of the United States, 1963. Official Soviet sources (U.S.S.R., Central Statistical Administration. "Narodnoye khozyaystvo v 1962 godu," Moscow, 1963; and "Narodnoye khozyaystvo v 1960 godu," Moscow, 1961.

² Negligible.

³ Includes slippers—excludes rubber footwear and sneakers.

⁴ Not available.

⁵ Figures are for total retail sales.

⁶ Including approximately 6,000,000 auto radios.

TABLE III-4.—Production of selected metals in the U.S.S.R., 1955 and 1958-62, and in the United States, 1962

[In thousands of metric tons]

Commodity	U.S.S.R.						United States, 1962
	1955	1958	1959	1960	1961	1962	
Crude steel	45,271	54,920	59,971	65,293	70,755	76,306	89,183
Aluminum (primary)	430	510	600	700	800	900	1,921
Copper (refined)	377	406	450	490	530	500	1,726
Lead (primary)	258	288	294	314	326	346	341
Tin (primary)	13	16	17	18	19	20	5
Zinc (primary)	222	315	344	364	377	403	798

TABLE III-5.—Production of selected fuels in the U.S.S.R., 1955 and 1958-62, and in the United States, 1962

Commodity	Unit of measure	U.S.S.R.						United States, 1962
		1955	1958	1959	1960	1961	1962	
Coal	Million metric tons	391.3	496.1	506.6	513.2	510.5	517.4	399.1
Crude oil	do	70.8	113.2	129.6	147.9	166.1	186.2	361.7
Natural gas	Billion cubic meters	9.0	28.1	35.4	45.3	59.0	73.5	384.5

TABLE III-6.—U.S.S.R.: Indexes of per capita consumption, 1955 and 1958-62
[1955=100]

	1955	1958	1959	1960	1961	1962
Total consumption ¹	100	112.4	118.2	120.7	122.5	126.6
Personal consumption ²	100	113.0	118.9	121.2	122.4	126.6

¹ Indexes of per capita total consumption are derived from estimates of consumption of food products, nonfood goods, and services weighted 61.4 percent, 23.3 percent, and 15.3 percent, respectively.
² Indexes of total consumption less health and education services.

TABLE III-7.—U.S.S.R.: Indexes of civilian industrial production in the U.S.S.R., 1955 and 1958-62

	1955 valu- added weights (percent)	1955=100					
		1955	1958	1959	1960	1961	1962
Industrial materials.....	52.3	100	131.8	144.9	153.9	162.3	173.3
Electric power.....	3.3	100	138.6	155.7	171.8	192.6	217.3
Coal.....	9.3	100	127.2	130.5	132.8	132.7	135.1
Petroleum products and natural gas.....	2.4	100	161.4	184.8	210.5	236.4	268.2
Ferrous metals.....	6.0	100	122.0	133.1	144.2	156.4	167.9
Nonferrous metals.....	4.8	100	117.7	129.2	142.0	154.0	168.5
Forest products.....	14.2	100	116.0	124.6	119.2	114.8	115.5
Paper products.....	.8	100	125.1	130.7	136.5	144.6	154.7
Construction materials.....	6.8	100	169.3	190.5	229.6	253.6	275.7
Chemicals.....	4.7	100	142.5	160.9	176.3	191.2	209.8
Civilian machinery, including electronics.....	22.2	100	148.8	159.4	172.5	191.8	211.5
Machinery, excluding elec- tronics.....	19.5	100	143.7	151.7	162.0	175.5	190.6
Electronics.....	2.7	100	185.3	214.7	247.7	308.3	360.6
Nondurable consumer goods.....	25.5	100	124.3	133.5	139.3	146.1	152.6
Soft goods.....	16.2	100	123.0	131.3	139.0	143.4	149.3
Processed foods.....	9.3	100	126.5	137.2	139.9	150.7	158.5
Aggregate civilian industrial production.....	100.0	100	133.7	145.2	154.3	164.7	176.5

NOTE.—For methodology, see "Dimensions of Soviet Economic Power," pp. 119-136.

TABLE III-8.—U.S.S.R.: Annual rates of growth in industrial production, 1959-62

	Percent			
	1959	1960	1961	1962
Industrial materials.....	9.9	6.2	5.5	6.8
Electric power.....	12.3	10.3	12.1	12.8
Coal.....	2.6	1.8	-0.1	1.8
Petroleum products and natural gas.....	14.5	13.9	12.3	13.5
Ferrous metals.....	9.1	8.3	8.5	7.4
Nonferrous metals.....	9.8	9.9	8.4	9.4
Forest products.....	7.4	-4.3	-3.7	.6
Paper products.....	4.5	4.4	5.9	7.0
Construction materials.....	17.8	15.1	10.5	8.7
Chemicals.....	12.9	9.6	8.5	9.7
Civilian machinery, including electronics.....	7.1	8.2	11.2	10.3
Machinery, excluding electronics.....	5.6	6.8	8.3	8.6
Electronics.....	15.9	15.4	24.5	17.0
Nondurable consumer goods.....	7.4	4.3	4.9	4.4
Soft goods.....	6.7	5.9	3.2	4.1
Processed foods.....	8.4	2.0	7.7	5.2
Aggregate civilian industrial production.....	8.6	6.3	6.7	7.2

NOTE.—For methodology, see "Dimensions of Soviet Economic Power," pp. 119-136.

SECTION IV
INVESTMENT

TABLE IV-1.—U.S.S.R.: *New fixed investment, by function, 1955 and 1958-62*
[In millions of rubles ¹]

	1955	1958	1959	1960	1961	1962
Total investment.....	19,931	30,012	33,986	36,705	38,271	40,150
Construction.....	12,832	19,348	22,313	24,245	24,533	24,827
Equipment.....	5,463	8,000	9,338	9,904	11,172	12,239
Other capital outlays.....	1,636	2,655	2,335	2,466	2,566	3,084
Productive investment.....	13,599	18,210	20,771	22,631	23,938	25,811
Of which:						
Construction.....	7,418	9,283	10,812	12,127	12,808	13,812
Equipment.....	4,719	7,499	8,059	8,440	8,736	9,646
Nonproductive investment.....	6,332	11,802	13,215	14,074	14,333	14,339
By function:						
Of which:						
Construction.....	5,414	10,065	11,501	12,118	11,725	11,015
Equipment.....	744	1,110	1,279	1,554	2,436	2,593
By use:						
Housing.....	3,799	7,536	8,319	8,275	7,870	7,720
Other.....	2,533	4,266	4,896	5,799	6,454	6,610

¹ Expressed in terms of new rubles at 1955 prices.
Source: Based on official statistical yearbooks of the U.S.S.R.

TABLE IV-2.—U.S.S.R.: *Index of growth of new fixed investment, by function, 1955 and 1958-62*
[1955=100]

	1955	1958	1959	1960	1961	1962
Total investment.....	100	151	171	184	192	201
Construction.....	100	151	174	189	191	193
Equipment.....	100	158	171	183	205	224
Other capital outlays.....	100	126	143	151	157	189
Productive investment.....	100	134	153	166	176	190
Of which:						
Construction.....	100	125	146	163	173	186
Equipment.....	100	159	171	179	185	204
Nonproductive investment.....	100	186	209	222	226	226
By function:						
Of which:						
Construction.....	100	186	212	224	217	203
Equipment.....	100	149	172	209	327	349
By use:						
Housing.....	100	198	219	218	207	203
Other.....	100	108	193	229	255	261

TABLE IV-3.—U.S.S.R.: *Annual rates of growth of new fixed investment, by function, 1958-62*
[In percent]

	1958	1959	1960	1961	1962
Total investment.....	16.2	13.2	8.0	4.3	4.9
Construction.....	17.3	15.3	8.7	1.2	1.2
Equipment.....	15.6	8.5	7.0	11.8	9.6
Other capital outlays.....	8.9	13.6	5.6	4.1	20.2
Productive investment.....	13.3	14.1	9.0	5.8	7.8
Of which:					
Construction.....	17.0	16.5	12.2	5.6	7.8
Equipment.....	12.3	7.5	4.7	3.5	10.4
Nonproductive investment.....	21.0	12.0	6.5	1.8	(¹)
By function:					
Of which:					
Construction.....	17.5	14.3	5.4	-3.2	-6.1
Equipment.....	44.0	15.2	21.5	56.8	6.4
By use:					
Housing.....	21.3	10.4	-5	-4.8	-1.9
Other.....	20.5	14.8	18.4	11.3	2.4

¹ Negligible.

TABLE IV-4.—U.S.S.R.: *New fixed productive investment, by sector, 1955 and 1958-62*

[In millions of rubles ¹]

	1955	1958	1959	1960	1961	1962
Productive investment, all sectors.....	13,599	18,210	20,771	22,631	23,938	25,811
Industry, total.....	8,249	11,231	12,978	14,323	14,935	15,763
Ferrous metallurgy.....	580	871	1,089	1,219	1,327	² 1,360
Chemicals.....	278	447	608	915	1,070	² 1,174
Fuels and power.....	2,979	3,870	4,028	4,213	4,397	² 4,640
Machine building.....	1,139	1,251	1,484	1,756	1,991	² 2,150
Construction materials and construction.....	823	1,446	1,739	2,004	2,092	² 1,950
Consumer goods.....	903	1,476	1,756	1,962	1,771	1,845
Others.....	1,541	1,870	2,184	2,254	2,287	² 2,644
Agriculture.....	3,804	4,741	5,071	5,192	5,723	6,415
Transport and communications.....	1,546	2,238	2,722	3,116	3,280	3,633

¹ Expressed in terms of new rubles at 1955 prices.

² Estimated.

³ Data for 1958-62 are from a revised Soviet investment series published in *Vestnik statistiki*, No. 1, 1964, p. 94. This series, which represents a revision upward as compared with the previously published series, may reflect a change in the Soviet classification of the chemical industry. The new data are believed to be inclusive of all, or virtually all, investment in the chemical industry (the element of uncertainty is due to the possible exclusion from the revised series of small amounts of investment expenditures from "noncentralized" sources).

TABLE IV-5.—U.S.S.R.: *Index of growth of new fixed productive investment, by sector, 1955 and 1958-62*

[1955=100]

	1955	1958	1959	1960	1961	1962
Productive investment, all sectors.....	100	134	153	166	176	190
Industry, total.....	100	136	157	174	181	191
Ferrous metallurgy.....	100	149	186	208	226	¹ 232
Chemicals.....	100	161	251	329	385	¹ 422
Fuels and power.....	100	130	135	141	148	¹ 156
Machine building.....	100	110	130	154	175	¹ 189
Construction materials and construction.....	100	176	211	243	254	¹ 237
Consumer goods.....	100	163	194	217	196	204
Others.....	100	121	142	146	148	¹ 172
Agriculture.....	100	125	133	136	160	169
Transport and communications.....	100	145	176	202	212	235

¹ Estimated.

TABLE IV-6.—U.S.S.R.: *Annual rates of growth of new fixed productive investment, by sector, 1958-62*

[In percent]

	1958	1959	1960	1961	1962
Productive investment, all sectors.....	13.3	14.1	9.0	5.8	7.8
Industry, total.....	13.0	15.6	10.4	4.3	6.5
Ferrous metallurgy.....	35.9	25.0	11.9	8.9	12.5
Chemicals.....	51.0	56.1	31.1	18.9	19.7
Fuels and power.....	9.0	4.1	4.6	4.4	15.5
Machine building.....	2.1	18.6	18.3	13.4	18.0
Construction materials and construction.....	15.3	20.3	15.2	4.4	¹ -6.8
Consumer goods.....	22.2	19.0	11.9	-9.7	4.2
Others.....	6.0	16.8	3.2	1.5	¹ 15.6
Agriculture.....	12.8	7.0	2.4	10.2	12.1
Transport and communications.....	15.8	21.6	14.5	5.3	10.8

¹ Estimated.

SECTION V
EMPLOYMENT AND WAGES

Part A.—Employment

TABLE V-A-1.—Population of the U.S.S.R., by socioeconomic category, sex, and age group: Jan. 15, 1959
 [Figures for all ages in thousands. Figures in parentheses are estimated. Leaders indicate negligible or nonexistent. Figures are independently rounded and may not add to totals]

Socioeconomic category	Total				Male			Female				
	All ages ¹	Under- aged ²	Able- bodied ³	Over- aged ⁴	All ages ¹	Under- aged ²	Able- bodied ³	Over- aged ⁴	All ages ¹	Under- aged ²	Able- bodied ³	Over- aged ⁴
Total population.....	208,827	163,496	1,119,822	125,501	94,050	22,331	6,640	114,776	31,165	64,751	18,361	
Total labor force.....	108,995	49,793	10,706	52,440	3,022	258	44,722	56,555	237	44,203	2,061	
Armed Forces.....	3,623	3,623			48,817	298	45,077	56,555	238	40,093	11	
Civilian labor force.....	103,372	49,170	10,706	52,440	47,739	258	44,722	56,555	237	44,203	2,061	
Socialized sector.....	95,241	49,170	88,925	5,820	47,739	258	44,722	56,555	237	44,203	2,061	
Workers and employees.....	62,961	123	60,774	2,063	33,570	66	32,390	29,391	57	28,394	988	
Nonagricultural branches.....	56,350	59	54,522	1,733	29,072	29	28,631	26,678	30	25,841	805	
Agricultural branches.....	6,611	94	6,242	305	3,898	37	3,689	2,713	27	2,553	133	
Collective farmers.....	32,280	372	28,151	3,757	14,169	192	12,312	18,111	180	15,909	2,123	
Nonagricultural branches.....	557		537		437		437	126		126		
Agricultural branches.....	31,723	372	27,394	3,757	13,731	192	11,905	17,992	180	15,639	2,123	
Private independent sector.....	266	1	210	56	165	0.4	142	101	1	68	33	
Independent artisans.....	174		160	15	133		123	42		37	5	
Individual peasants.....	92	1	50	41	32	0.4	19	60	1	31	28	
Private agricultural subsidiary sector.....	9,865		5,035	4,830	914		213	8,951		1,822	4,129	
Members of families of workers and employees.....	3(4,165)		3(3,357)	3(808)	3(651)		2(13)	3(3,514)		3(3,144)	3(370)	
Members of families of collective farmers.....	15,700		1(1,678)	3(4,022)	3(263)		6(213)	3(5,437)		3(1,678)	3(3,759)	

	56,822	3(52,093)	3(22,029)	3(14,795)	41,611	3(32,073)	3(6,380)	3(3,157)	56,221	3(30,927)	3(15,657)	3(11,688)
Population outside labor force.....												
Dependents.....	82,122	3(68,000)	112,800	3(6,255)	35,007	3(32,073)	3(1,402)	3(431)	50,415	3(30,927)	111,465	3(5,824)
Able-bodied students.....	3,300		13,300		943		6(1,100)		775		6(2,200)	
Stipendiaries.....	1,717		11,717		5,850		1,943		6,843		1,775	
Pensioners.....	12,423		14,097	3(8,326)			3(2,935)	3(2,645)	188		3(1,162)	3(6,081)
Other.....	269		3(55)	3(214)	81			6(81)			6(65)	3(133)

* Undereaged comprise both males and females 12-15 years of age. The able-bodied age group includes males 16-59 years of age and females 16-54 years of age. The overaged group relates to males 60 years of age and over and females 55 years of age and over.

¹ TSSU pri Sovete ministroy SSSR, *Dogi vnesenyuznoy peretvizi naseleniya 1959 goda*, SSSR (Stodnyy tom) (Results of the All-Union Census of Population of 1959 U.S.S.R. (Summary Volume)), Moscow, Gosstatizdat, 1962, tables 13, 30, 32, 33, pp. 50-51, 96-97, 98-99, 104-105.

² Zhenshchiny i deti v SSSR, statistichesky sbornik (Women and Children in the U.S.S.R., A Statistical Compilation), Moscow, Gosstatizdat, 1961, p. 57.

³ Derived either by addition or subtraction as appropriate.

⁴ A closing error of 62,000 able-bodied persons out of 37,768,000 appears at this point. The figure shown in the table is the sum of the parts listed horizontally and vertically. According to the summary volume of census results (*Dogi* * * * op. cit. table 32, pp. 98-99), the number of able-bodied persons having employment or engaged in the private subsidiary economy was 97,731,159 persons.

⁵ Computed from *ibid.*, tables 38 and 33, pp. 117-122 and 104-105. Rates of employment by sex and age were applied to total employment, by sex, for corresponding branches. In computing employment in the socialized sector from employment in the total national economy (excluding private subsidiary economy), the armed forces was subtracted, as well as the employment in the private independent sector. Employment by sex and age for workers and employees in agricultural branches was determined by subtracting the computed employment for collective farmers and individual peasants from the computed employment for all agriculture.

⁶ To estimate certain unreported categories, the following assumptions were made:

a. Collective farm employment in monagricultural branches was assumed to be composed only of able-bodied persons;

b. Employment for overaged male and female independent artisans was arbitrarily estimated at 10,000 and 5,000 persons, respectively;

c. The distribution of the total able-bodied population employed in the private subsidiary economy (5,035,000 persons) was estimated as two-thirds for the members of families of workers and employees and one-third for the members of families of collective farmers;

d. Males engaged in the private subsidiary economy was estimated as follows: All able-bodied males in this category were assumed to be members of families of workers and employees; overaged males were assumed to be allocated in the proportion of five-eighths to members of families of workers and employees, and three-eighths as members of families of collective farmers;

e. It was assumed that there were no underaged persons in the entire category of the private subsidiary economy following the methodology prescribed for the census taking;

f. Able-bodied students in the "Population outside labor force" category were arbitrarily distributed as one-third males and two-thirds females;

g. It was assumed that all males in the "Other" category of "Population outside labor force" were overaged.

⁷ V. Rodzayevskaya, "Employment of U.S.S.R. Citizens According to Data of the 1959 Census of Population," *Vestnik statistiki* (Statistical Herald), no. 3, March 1961, p. 4. Given as 5.7 million persons.

TABLE V-A-2.—Civilian labor force of the U.S.S.R., by socioeconomic category, branch, and sex, Jan. 15, 1959

[Absolute figures in thousands. Figures are independently rounded and may not add to totals.]

Labor force category	Total	Males	Females	Females as a percent of total
Total civilian labor force.....	105,372	48,817	56,555	53.7
I. Socialized and private independent sector.....	95,507	47,903	47,604	49.8
A. Branches of material production.....	80,863	42,520	38,342	47.4
Industry, construction, transport, and communications ¹	38,575	22,423	14,152	38.7
Agriculture.....	38,426	17,662	20,764	54.0
Collective farmers.....	31,723	13,731	17,992	56.7
Workers and employees.....	6,611	3,898	2,713	41.0
Individual peasants.....	92	32	60	65.2
Trade, public dining, etc.....	5,171	1,993	3,178	61.5
Other branches.....	691	443	248	35.9
B. Branches of nonmaterial production.....	14,453	5,249	9,204	63.7
Education, science, public health.....	9,793	2,865	6,928	70.7
Housing, communal economy, administration, finance-credit system.....	4,660	2,385	2,275	48.8
C. Unknown.....	191	133	58	30.4
II. Private agricultural subsidiary sector.....	9,865	914	8,951	90.7

¹ The census classification of material and nonmaterial production does not differentiate between productive and nonproductive transport and communications; regular annual reports do make this distinction.

Source: TsSU pri Sovete ministrov SSSR, *Itogi vsesoyuznoy perepisi naseleniya 1959 goda, SSSR*, (Svodnyy tom) (Results of the All-Union Census of Population of 1959, U.S.S.R. [Summary Volume], Moscow Gosstatizdat, 1962, tables 30 and 33, pp. 96-97 and 104-105.

TABLE V-A-3.—Population and employment, U.S.S.R.: Selected years, 1940-65
 [In thousands. Population figures are as of July 1; employment figures are annual averages. Figures are independently rounded and may not add to totals: (n.a.) indicates data not available and no estimate made]

Population characteristic	1940	1950	1953	1955	1956	1957	1958	1959	1960	1961	1962	1965
Total population.....	138,000	180,085	189,484	196,128	199,600	203,146	206,806	210,510	214,249	217,977	221,505	232,694
I. Population aged 12 years and over.....	139,513	138,995	147,862	150,296	150,701	151,737	153,643	155,909	158,454	161,285	164,225	173,638
Excluding population aged 12 to 15 years.....	120,126	122,508	130,227	137,022	140,082	142,791	144,641	145,377	145,760	146,777	148,645	156,002
A. Able-bodied group.....	104,049	103,448	109,444	114,740	116,896	118,680	119,613	119,418	118,872	118,971	119,896	124,022
1. Males aged 16 to 59 years.....	50,908	44,339	48,104	51,338	52,750	53,986	54,799	55,048	55,120	55,515	56,336	59,510
2. Females aged 16 to 54 years.....	53,141	59,059	61,340	63,402	64,146	64,694	64,814	64,370	63,752	63,456	63,560	64,512
B. Overaged group.....	16,077	19,060	20,733	22,282	23,186	24,111	25,028	25,959	26,888	27,806	28,749	31,981
1. Males aged 60 years and over.....	5,042	5,104	5,508	5,861	6,078	6,304	6,528	6,760	7,001	7,249	7,516	8,475
2. Females aged 65 years and over.....	11,035	13,956	15,275	16,421	17,108	17,807	18,500	19,199	19,887	20,557	21,233	23,506
C. Underaged group.....	19,387	16,487	17,685	13,274	10,619	8,946	9,002	10,532	12,694	14,508	15,880	17,655
1. Males aged 12 to 15 years.....	9,770	8,163	8,799	6,655	5,341	4,523	4,580	5,370	6,466	7,376	7,903	8,948
2. Females aged 12 to 15 years.....	9,617	8,324	8,886	6,619	5,278	4,423	4,422	5,162	6,228	7,132	7,977	8,687
II. Civilian employment.....	79,019	79,593	81,942	87,476	90,313	91,512	93,790	94,352	95,692	97,622	99,395	(n.a.)
A. Socialized sector.....	61,292	67,695	70,860	74,980	77,437	78,648	80,805	82,409	84,332	86,561	88,300	(n.a.)
1. Workers and employees.....	31,192	38,895	43,431	46,462	48,715	51,583	54,105	56,509	62,032	63,861	68,300	(n.a.)
2. Members of producers' cooperatives.....	2,200	1,500	1,600	1,800	1,200	1,200	1,300	1,400	(1)	(1)	(1)	(1)
3. Members of collective farms.....	27,900	27,300	25,829	26,718	27,522	25,865	25,400	24,500	22,300	20,700	20,000	(n.a.)
B. Nonsocialized sector.....	17,727	11,898	11,082	12,496	12,876	12,864	12,985	11,943	11,360	11,061	11,095	(n.a.)
1. Private agricultural sector.....	17,123	11,634	10,868	12,332	12,681	12,719	12,829	11,769	11,186	10,887	10,921	(n.a.)
(a) Workers and employees.....	2,039	2,543	2,599	3,003	3,009	3,542	3,654	3,418	3,898	4,176	4,277	(n.a.)
(b) Collective farmers.....	9,184	7,939	8,090	9,143	9,505	9,045	9,050	8,259	7,218	6,671	6,613	(n.a.)
(c) Individual peasants.....	5,950	1,152	179	186	167	132	125	92	75	40	31	(n.a.)
2. Independent artisans.....	604	264	214	164	195	145	156	174	174	174	174	(n.a.)

See footnotes at end of table, p. 45.

TABLE V-A-3.—Population and employment, U.S.S.R.: Selected years, 1940-65—Continued

[In thousands. Population figures are as of July 1; employment figures are annual averages. Figures are independently rounded and may not add to totals: (n.a.) indicates data not available and no estimate made]

Population characteristic	1940	1950	1953	1955	1956	1957	1958	1959	1960	1961	1962	1965
III. Other activities of persons aged 12 years and over—line I less line II—armed forces, domestics, day laborers, students, housewives, disabled, unemployed, etc.-----	60,494	59,402	65,920	62,820	60,388	60,225	59,853	61,557	62,762	63,663	64,830	(n.a.)
Excluding youths aged 12 to 15 years.....	41,107	42,915	48,285	49,546	49,769	51,279	50,851	51,025	50,098	49,155	49,250	(n.a.) ¹

¹The system of producers' cooperatives was abolished in October 1960. Employment for this sector is now included in the workers and employees category.
 Source: Population: 1940: U.S. Bureau of the Census, *The Magnitude and Distribution of Civilian Employment in the U.S.S.R.: 1923-59*, by Murray S. Weitzman and Andrew Elias.
 International Population Reports, Series P-95, No. 58, Washington, D.C., Foreign Demographic Analysis Division, April 1961, p. 55.
 1950-65: Estimates and projections prepared by the Foreign Demographic Analysis Division, Bureau of the Census.
 Employment: Table 4.

TABLE V-A-4.—Civilian employment, by socioeconomic category, U.S.S.R.: Selected years, 1940-62
 [Absolute figures are annual averages and are in thousands; (n.a.) indicates data not available and no estimate made]

Socioeconomic category	1940	1950	1953	1955	1956	1957	1958	1959	1960	1961	1962
I. Nonagricultural branches^{1, 2}											
Total ^{1, 2}	79,019	79,593	81,942	87,476	90,313	91,512	93,790	94,332	95,692	97,622	99,395
A. Nonagricultural branches ^{1, 2}	31,020	36,778	41,032	43,798	45,447	47,323	49,499	51,893	54,724	57,819	59,866
A. Workers and employees ¹	28,216	35,014	39,218	41,834	44,052	45,978	48,043	50,319	54,550	57,645	59,692
1. Industry ³	10,967	14,144	16,261	17,367	18,500	19,144	19,675	20,207	22,291	23,475	24,297
2. Construction ⁴	1,563	2,569	2,643	3,190	3,550	4,000	4,421	4,800	5,143	5,373	5,150
3. Transport and communications ⁵	3,903	4,624	5,352	5,650	5,840	5,996	6,332	6,663	7,017	7,406	7,509
4. Trade and public dining ⁶	3,503	3,920	3,463	3,725	3,826	4,017	4,190	4,389	4,675	5,010	5,253
5. Public health and education ⁷	4,531	6,080	6,815	7,607	7,963	8,273	8,775	9,273	10,027	10,553	11,532
6. Other ⁷	3,949	4,272	4,484	4,295	4,403	4,471	4,650	4,985	5,397	5,729	5,931
B. Members of producers' cooperatives ⁸	2,200	1,500	1,600	1,800	1,200	1,200	1,300	1,400	(⁹)	(⁹)	(⁹)
1. Industry ⁹ (industrial-production personnel)	1,700	1,300	1,400	1,600	1,100	1,100	1,100	1,200	(⁹)	(⁹)	(⁹)
2. Services ¹⁰	500	200	200	200	100	100	200	200	(⁹)	(⁹)	(⁹)
C. Independent artisans ¹¹	604	264	214	164	195	145	156	174	174	174	174
II. Agriculture^{1, 12}	47,999	42,815	40,910	43,678	44,866	44,189	44,291	42,459	40,968	39,803	39,529
A. Workers and employees ^{1, 13}	5,015	6,424	6,812	7,631	7,672	9,147	9,716	9,608	11,375	12,392	12,885
1. Socialized sector ^{1, 14}	2,976	3,881	4,213	4,628	4,663	5,605	6,062	6,190	7,432	8,216	8,608
a. State farms, etc. ¹⁵	1,760	2,425	2,552	2,832	2,925	3,961	4,614	4,957	6,324	7,366	7,730
b. Machine tractor stations and repair-technical stations ¹³	530	678	889	1,147	1,058	989	719	469	348	348	389
c. Forestry ¹⁶	279	444	416	389	390	377	367	352	359	378	389
d. Agricultural activities not specifically identified ¹⁷	407	334	356	260	290	278	362	412	451	469	489
2. Private sector (in conventional man-year equivalents) ¹⁴	2,039	2,543	2,599	3,003	3,009	3,542	3,654	3,418	3,883	4,176	4,277

See footnotes at end of table, pp. 50, 51.

TABLE V-A-4.—*Civilian employment, by socioeconomic category, U.S.S.R.: Selected years, 1940-62—Continued*
 [Absolute figures are annual averages and are in thousands; (n.a.) indicates data not available and no estimate made]

Socioeconomic category	1940	1950	1953	1955	1956	1957	1958	1959	1960	1961	1962
II. Agriculture—Continued											
B. Collective farmers in collective farm economy¹	37,084	35,239	33,919	35,861	37,027	34,910	34,450	32,759	29,518	27,371	26,613
1. Socialized sector—total ^{1a}	27,900	27,300	25,829	26,718	27,522	25,865	25,400	24,500	22,300	20,700	20,000
a. Nonagricultural collective farms ^{1a}	500	600	371	520	542	685	325	300	567	877	216
b. Agricultural collective farms ^{1b}	27,400	26,700	25,458	26,198	26,980	25,280	25,075	24,101	21,733	20,323	19,784
(1) Agricultural activities ^{1c}	24,700	24,200	23,100	23,900	24,600	23,000	22,400	21,400	20,100	18,700	18,100
(2) Nonagricultural activities ^{1c}	2,700	2,600	2,400	2,300	2,400	2,300	2,700	2,700	1,600	1,600	1,700
(a) Industry (in conventional man-year equivalents) ^{1c}	615	600	413	617	665	659	627	688	(n.a.)	(n.a.)	(n.a.)
(b) Construction (in conventional man-year equivalents) ^{1c}	687	967	979	1,083	1,046	1,174	1,118	1,163	(n.a.)	(n.a.)	(n.a.)
2. Private sector (in conventional man-year equivalents) ^{1c}	9,184	7,939	8,090	9,143	9,505	9,045	9,050	8,250	7,218	6,671	6,613
C. Individual peasants ²	5,960	1,152	179	186	167	132	125	92	75	40	31

¹ Sum of the components.
² Excludes workers and employees hired by collective farms; the additional employment of workers and employees having more than one job in State establishments and/or performing tasks for private individuals; domestic, day laborers, etc.; (probably) people working full time for the Communist Party; (probably) civilians working in military establishments; and unpaid labor "volunteers" set by "social" organizations, such as the Komsomol, in order to plant trees, construct beams on State farms, collect scrap metal, etc.
³ Includes workers and employees, members of producers' cooperatives, and independent artisans who are engaged in economic activities other than those of agriculture and forestry. Workers and employees engaged in normally nonagricultural-type activities of sovkhozy, machine tractor stations, and other State agricultural establishments (industry, construction, health and education, etc.) are included in agricultural establishments. All collective farm members are included in agricultural establishments.
⁴ The system of producers' cooperatives was abolished in October 1960. Employment for this sector is now included in the workers and employees category.
⁵ Table 7.
⁶ Table 7.
⁷ Table 7. Includes housing-communal economy, administrative organs, credit and insurance organizations, and undistributed residual.
⁸ TSU pri Sovete ministrov SSSR, *Narodnyye Khozyaystvo SSSR v 1960 godu, statisticheskiy zhurnal* (The National Economy of the U.S.S.R. in 1960, A Statistical Yearbook), Moscow, Gosstatizdat, 1961, p. 633 (cited hereafter as *Nar. Khoz. v 1960*).
⁹ By year:
 1940: Estimated as 2.2 percent (of total employment of 79,019,000) reported in TSU pri Sovete ministrov SSSR, *Narodnyye Khozyaystvo SSSR v 1936 godu, statisticheskiy zhurnal* (The National Economy of the U.S.S.R. in 1936, A Statistical Yearbook), Moscow, Gosstatizdat, 1957, p. 202 (cited hereafter as *Nar. Khoz. v 1936*). It should be noted that the 2.2 percent covers all material production branches. Industry, however, is the largest component.
 1950: Estimated by assuming the same relationship between the total membership and that employed in industry as in 1933 (87.5 percent).
 1963: S. A. Gorelik, *Statistika* (Statistics), Part II, (Leningrad), KOIZ, 1966, p. 97.
 1955: TSU pri Sovete ministrov SSSR, *Narodnyye Khozyaystvo SSSR, statisticheskiy zhurnal* (The National Economy of the U.S.S.R., A Statistical Computation), Moscow, Gosstatizdat, 1956, p. 44.
 1956: *Nar. Khoz. v 1956*, p. 50. Between 1955 and 1956 a number of enterprises employing 600,000 members in the producers' cooperatives system were transferred to the state sector. Of this number 500,000 were in industry.
 1957: Estimated. The figure of 900,000 for wage workers in industry (members of producers' cooperatives) reported in TSU pri Sovete ministrov SSSR, *SSSR v tsifrah, statisticheskiy zhurnal* (The U.S.S.R. in Figures, A Statistical Computation), Moscow, Gosstatizdat, 1958, p. 59, was expanded by 17 percent (rounded) to cover the entire industrial-production personnel. The expansion factor was derived on the basis of the reported 1960 relationship between wage workers and total industrial-production employ-

225,000 for 1953, 1,918,000 for 1955, 1,322,000 for 1956, 1,565,000 for 1957 and 500,000 for 1958. The values for 1955 and 1956 are believed to be somewhat overstated but the lack of additional information does not permit further refinement. See Weitzman and Elias, p. 134. The 1953-58 estimates of collective farmers transferred to the rolls of machine tractor stations are included in this table in the estimate of annual average employment in the socialized sector of the collective farm economy. It should be noted that these adjustments of Soviet data were not made in table 1.

¹⁴ Table 9.
¹⁵ 1940 and 1950: Sum of the components.
 1953, 1955, 1956-60: *Nar. khoz. v 1950*, p. 521, adjusted for the years 1953-58 for the transfers described in note 13.
 1956-57: TSU pri Sovetskom ministroy SSSR, *Sel'skoye khozyaystvo SSSR, statisticheskiy sbornik (Agriculture of the U.S.S.R., A Statistical Compilation)*, Moscow, Gosstatizdat, 1960, p. 450 (cited hereafter as *Sel. khoz.*).
 1961-62: TSU pri Sovetskom ministroy SSSR, *Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1962, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1963, p. 308 (cited hereafter as *Nar. khoz. v 1962*).

¹⁶ Consists essentially of hunting and fishing.
¹⁷ 1940 and 1950: Weitzman and Elias, table 2, p. 57.
¹⁸ 1953-62: Difference between total employment in the socialized sector of collective farms and that in agricultural kolkhozy.

¹⁹ 1940 and 1950: Murray S. Weitzman, Murray Feshbach, and Lydia Kulcheyka, "Employment in the U.S.S.R.: Comparative U.S.S.R.-U.S. Data," in *Joint Economic Committee, Congress of the United States, Dimensions of Soviet Economic Power*, Washington, U.S. Government Printing Office, 1962, Table A3, col. (6), p. 566.
 1953, 1955, 1956-60: *Nar. khoz. v 1960*, p. 522.

1956, 1957: *Sel. khoz. v 1956*, p. 459.
 1961-62: *Nar. khoz. v 1962*, p. 369.
²⁰ 1940 and 1950: Weitzman, Feshbach, and Kulcheyka, *loc. cit.*, column (8a), adjusted for agricultural employment in nonagricultural kolkhozy.

²¹ 1940 and 1950: Weitzman, Feshbach, and Kulcheyka, *op. cit.*, Table A9, p. 667.
²² 1953, 1955-59: *Sel. khoz.*, p. 450, adjusted for the transfers described in note 13 and for the agricultural employment in nonagricultural kolkhozy. The latter adjustment was made on the basis of the assumption that agriculture comprises only a small part of the economic activities on nonagricultural collective farms, arbitrarily set at 20 percent of total employment.

1960: *Nar. khoz. v 1960*, p. 521. See note immediately above.
²³ 1961-62: *Nar. khoz. v 1962*, pp. 368-369. See note for 1953, 1955-59 above.
²⁴ The difference between total employment on agricultural collective farms and their agricultural employment (line II.B-I-B.I.B.(f)). Rounded.

²⁵ Weitzman, Feshbach, and Kulcheyka, *op. cit.*, Table A9, p. 667.
²⁶ 1940 and 1950: In estimating annual average employment of individual peasants for 1940 and 1950, it was assumed that their participation in peasant agriculture per household was approximately equivalent to the number of labor force participants in collective farming per collective farm household. A second assumption involved the use of a constant peak month employment factor of 80 percent, which is taken to represent the proportion of individual peasants who participated at some time during the year in individual peasant agriculture.

1959: *Nar. khoz. v 1960*, p. 26.
 1953, 1955-58, 1960-62: In estimating employment for years other than 1959, the 1959 census estimate of 92,000 was moved by the computed annual percent change in conventional man-year equivalent employment for individual peasants and other categories of population given in table 9.

ment in industry of producers' cooperatives (1,000,000 and 1,400,000, respectively). *Nar. khoz. v 1960*, pp. 216-217.
 1958: TSU pri Sovetskom ministroy SSSR, *Narodnoye khozyaystvo SSSR v 1958 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1958, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1959, p. 131.
 1959: *Narodnoye khozyaystvo SSSR v 1959 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1959, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1960, p. 138.

¹⁰ Residual.
¹¹ 1940, 1950, 1955-58: Approximations derived as follows (in thousands):

Categories	1940	1950	1955	1956	1957	1958
Non-socialized personnel ^a -----	7,604	1,619	350	382	277	281
Individual peasants (line II C, table 4) ^b 7,000		1,355	186	167	152	125
Independent artisans (residual) -----	604	264	164	195	145	156

^a U.S. Bureau of the Census, *The Magnitude and Distribution of Civilian Employment in the U.S.S.R., 1928-59*, by Murray S. Weitzman and Andrew Elias. International Population Reports, Series P-65, No. 48, Washington, D.C., Foreign Manpower Research Office, Bureau of the Census, April 1961, table 2A, p. 59 (cited hereafter as Weitzman and Elias).

^b The unadjusted value for the individual peasants (see note 21) was subtracted from the total number of non-socialized personnel. This was done in the belief that the Soviet Union did not use an annual average measurement standard for individual peasant employment but more likely a demographic count.

1953: The average of the 1950 and 1955 estimates.
 1959: Census figure from TSU pri Sovetskom ministroy SSSR, "On the Distribution of the U.S.S.R. Population by Social Group, Branch of the National Economy, and Occupation and On the Educational Level of Persons Performing Physical and Mental Labor," *Vestnik statistiki (Statistical Herald)*, No. 12, December 1960, pp. 4-5.

1960-62: In the absence of necessary information, assumed to be the same as for 1959.
¹² Agricultural employment differs slightly in concept from nonagricultural employment in that agricultural employment, in addition to the annual average employment of persons by branch of agricultural economy, also includes a synthetic employment figure for kolkhoz industry, construction, and the work performed on the private agricultural plots of collective farmers and of workers and employees and their families. The figure for employment relating to private agricultural plots is derived, mainly on the basis of labor input requirements for the care and cultivation of private agricultural holdings, and represents a man-year equivalent employment concept based on 280 man-days per man-year.

¹³ Table 7. In 1953, machine tractor stations were reorganized into repair-technical stations and many of the tractors and other agricultural machines were sold to collective farms.
 For purposes of consistency with pre-1953 and post-1958 data, the figures for 1953-58 were adjusted to remove collective farmers transferred to the employment rolls of machine tractor stations from collective farms following the October 1953 resolutions of the Communist Party and U.S.S.R. Government. These employment adjustments totaled

TABLE V-A-5.—*Workers and employees, by branch of the national economy, U.S.S.R.: Selected years, 1928-62*

[Employment figures are annual averages and are in thousands; (n.a.) indicates data not available and no estimate made]

Year	Total	Nonagri-cultural branches	Agri-cultural branches ¹	Year	Total	Nonagri-cultural branches	Agri-cultural branches ¹
1928.....	10,790	9,055	1,735	1955.....	48,380	41,834	6,546
1932.....	22,601	19,553	3,048	1956.....	50,537	44,052	6,485
1937.....	26,744	23,887	2,857	1957.....	53,148	45,978	7,170
1940.....	31,192	28,216	2,976	1958.....	54,605	48,043	6,562
1945.....	27,263	(n.a.)	(n.a.)	1959.....	56,509	50,319	6,196
1950.....	38,895	35,014	3,881	1960.....	62,032	54,550	7,482
1952.....	42,204	38,049	4,155	1961.....	65,861	57,645	8,216
1953.....	43,660	39,218	4,442	1962.....	68,300	59,692	8,608
1954.....	47,300	(n.a.)	(n.a.)				

¹ No adjustment has been made for transfers of some of the collective farmers to the rolls of machine tractor stations between 1953-58, as was done in table 4. Includes forestry.

Source: Unless otherwise indicated, tables 5 to 7 are based principally on the following:
 1928-59: U.S. Bureau of the Census, *The Magnitude and Distribution of Civilian Employment in the U.S.S.R. 1928-59*, by Murray S. Weltzman and Andrew Elias. International Population Reports, series P-95, No. 58, Washington, D.C., Foreign Manpower Research Office, Bureau of the Census, April 1961, 193 pages especially pp. 55-68.

1955, 1959: TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1960 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1960, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1961, pp. 216-217, 312, 626, 636-637, 708.

1960-61: ———, *Narodnoye khozyaystvo SSSR v 1961 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1961, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1962, pp. 181-182, 560, 567-568, 650.

1952, 1962: ———, *Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1962, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1963, pp. 130, 446, 453-454, 530.

TABLE V-A-6.—Wage workers in selected branches of industry, U.S.S.R.: Selected years, 1940-62
 [Employment figures are annual averages and are in thousands; (n.a.) indicates data not available and no estimate made. Figures in parentheses are estimated.]

Branch of industry	1940	1950	1952	1953	1955	1956	1957	1958	1959	1960	1961	1962
Total 1.....	8,290	11,308	12,474	(13,131)	14,281	15,226	15,760	16,279	16,793	18,574	19,548	20,176
Machine-building and metalworking, including repair enterprises 1.....	2,365	(n.a.)	3,581	(n.a.)	4,256	4,539	4,796	4,932	5,149	5,655	6,207	6,551
Machine-building and metalworking 2.....	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	4,335	(n.a.)	(n.a.)	(n.a.)	(n.a.)
Heavy machine-building 3.....	72.9	96.2	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)
Repair enterprises 2.....	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	577	(n.a.)	(n.a.)	(n.a.)	(n.a.)
Coal 1.....	436	(n.a.)	763	(n.a.)	897	968	1,021	1,071	1,074	1,031	1,005	996
Oil extraction and refining 1.....	45	(n.a.)	102	(n.a.)	122	125	1,128	1,138	1,140	1,145	1,154	150
Oil extraction.....	4 28	4 53	(n.a.)	(n.a.)	(n.a.)	5 64	5 65	5 63	5 70	5 72	(n.a.)	(n.a.)
Oil refining.....	6 17	(n.a.)	(n.a.)	(n.a.)	(n.a.)	6 61	6 63	7 70	6 70	6 73	(n.a.)	(n.a.)
Gas extraction 5.....	(n.a.)	(n.a.)	(n.a.)	(2.1)	(2.1)	(2.7)	(2.8)	(3.2)	(3.4)	(n.a.)	(n.a.)	(n.a.)
Shale extraction 5.....	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(13.6)	(13.9)	(13.9)	(n.a.)	(n.a.)	(n.a.)	(n.a.)
Ferrous metallurgy.....	1,405	(n.a.)	1,675	(n.a.)	1,742	1,751	1,764	1,812	1,841	1,886	1,923	1,947
Nonferrous metallurgy 11.....	(n.a.)	(458)	(490)	(497)	(466)	(n.a.)	(n.a.)	(494)	(n.a.)	(500)	(n.a.)	(n.a.)
Logging 12.....	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	1,172	(n.a.)	(n.a.)	(n.a.)	(n.a.)
Woodworking 7.....	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	951	(n.a.)	(n.a.)	(n.a.)	(n.a.)
Paper 7.....	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	129	(n.a.)	(n.a.)	(n.a.)	(n.a.)
Food.....	1,049	(n.a.)	1,332	(n.a.)	1,478	1,579	1,645	1,662	1,688	1,743	1,827	1,854
Chemical 14.....	(433)	(442)	(n.a.)	(563)	(667)	(654)	(684)	(719)	(766)	(740)	(n.a.)	(n.a.)
Light 1.....	1,489	(n.a.)	1,885	(n.a.)	2,158	2,385	2,467	2,515	2,579	2,871	3,472	3,543
Construction materials 1.....	1,282	(n.a.)	1,619	(n.a.)	830	(n.a.)	(n.a.)	1,072	1,162	1,310	1,375	1,383
Cement.....	15 26	15 37	(n.a.)	(n.a.)	15 42	16 44	15 48	16 51	15 57	16 60	16 62	15 66
Glass and chinaware 7.....	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	181	(n.a.)	(n.a.)	(n.a.)	(n.a.)
Electric power.....	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	7 223	(n.a.)	17 247	(n.a.)	(n.a.)
Printing.....	(n.a.)	13 125	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)

See footnotes at end of table, p. 54.

20-percent correction factor was applied in the case of the 1956 and 1957 employment. See source note to table 5.

¹ For 1960, estimated as follows: Leningradskiy gosudarstvennyy universitet im. A. Zhdanova, *Fabrychnaya proizvoditel'nost' truda v narodnom khozyaystve (Reserves for the Growth of Labor Productivity in the National Economy)*, edited by A. I. Kiyuyev, Leningrad, Leningradskogo universiteta, 1962, p. 84, gives 22.7 million persons employed in industry (including collective farm industry) for 1960. Subtracting 22,291,000 industrial-production personnel in that year (*Nar. khoz. v 1961*, p. 181, excluding collective farm industry employment) yields an estimated 409,000 for collective farm industry wage workers (other categories of collective farm industrial-production personnel are probably minimal). Adding this to the reported Labor Section datum of 18,574,930 wage workers, a total estimate of 18,983,000 wage workers in industry is obtained. To this, the reported 1960 share of ferrous and nonferrous metallurgy (7.3 percent, in L. B. Al'ter et al., eds.), *Rosl. obshchestvennogo proizvodstva i promyshlennosti khozyaystva SSSR [Growth of Social Production and Proportions in the U.S.S.R. National Economy]*, Moscow, Sorskiz, 1962, p. 304 is applied. From the resultant (1,353,800), the reported 1960 employment in ferrous metallurgy is subtracted and an estimate of 500,000 is obtained. This figure is probably minimal because the estimating procedure omitted any estimated small-scale state industry employment not included in the Labor Section datum.

² Employment estimates for other years also are rough approximations based on production-productivity indexes given in *Nar. khoz. v 1961*, p. 174; *Nar. khoz. v 1959*, p. 147; TSSU pri Sovetskom ministre SSSR, *Promyslennost' SSSR, statisticheskiy sbornik (Industry of the U.S.S.R., A Statistical Compilation)*, Moscow, Gosstatizdat, 1957, p. 35; S. A. Pervushin et al., *Ekonomika i tekhniko-metallurgiya SSSR (Economics of U.S.S.R. Nonferrous Metallurgy)*, Moscow, Metallurgizdat, 1960, p. 362; A. Kh. Benumi and S. A. Pervushin, *Technicheskiy progress i povysheniye proizvoditel'nosti truda v tsel'noy metallurgii SSSR (Technical Progress and Raising Labor Productivity in U.S.S.R. Nonferrous Metallurgy)*, Moscow, Metallurgizdat, 1963, p. 9; and M. Gorbunov and A. Zalkind, "Growth of Labor Productivity in the U.S.S.R. National Economy During the First Two Years of the Seven-Year Plan," in Nauchno-issledovatel'skiy Institut truda Gosudarstvennogo komiteta Soveta ministrov SSSR po voprosam truda i zarabotnoy platy, *Voprosy proizvoditel'nosti truda v sverkhvostochnykh rayonakh (Questions of Labor Productivity in the Seven-Year Plan, Collection)*, Uchebnye zapiski VII truda, *Voprosy truda*, Issue VI, Moscow, n.d., pp. 19-21. For 1951 (491,000) and for 1954 (488,000) wage workers can be estimated from the sources cited above.

³ Kheyman, *op. cit.*, p. 56.

⁴ Adjusted by 1 percent. (Percent increase between new and old classifications: 1940, 101.9 percent; 1958, 100.8 percent; 1959, 100 percent.) See footnote 10 above and source note to table 5.

⁵ For 1960, estimated by using the same procedure as in footnote 11 above. The reported proportion of wage workers in the chemical industry for 1960 is 3.9 percent (Al'ter, *loc. cit.*). Multiplying this by the estimate of 18,983,000 wage workers yields 740,000. Estimated employment for other years also are rough approximations based on production-productivity indexes given in *Nar. khoz. v 1961*, p. 173; *Nar. khoz. v 1959*, p. 225; *Nar. khoz. v 1959*, pp. 146 and 155; *Nar. khoz. v 1958*, pp. 139 and 154; and Vysshaya partiynaya shkola pri TsK KPSS, Katedra politicheskoy ekonomii, *Sotsialisticheskiy spetsial'nyy proizvodnyy voprosnik (Specialist's Production and Distribution)*, edited by G. A. Koroly, Moscow, Izdatel'stvo VPSH, i AON pri TsK KPSS, 1962, p. 188. Differences due to the change in branch classification indicated in *Nar. khoz. v 1959* (for the 1940, 1959, and

¹ See source note to table 5.

² S. A. Kheyman, *Organizatsiya proizvodstva i proizvoditel'nost' truda v promyshlennosti SSSR (na primere mashinostroyeniya i chernoy metallurgii) (Organization of Production and Labor Productivity in U.S.S.R. Industry [By the Example of Machine-Building and Ferrous Metallurgy])*, Moscow, Gosplanizdat, 1961, p. 59.

³ A. V. Smurov, "Changes in the Number and Composition of Wage Workers in U.S.S.R. Heavy Machine-Building in the Years of the Fourth Five-Year Plan (1946-1950)," in Akademiya nauk SSSR, Institut istorii, *Zmeneniya v chislennosti i sostave sovet'skogo rabochego klassa, Sbornik statey (Changes in the Number and Composition of the Soviet Working Class, A Collection of Articles)*, edited by D. A. Bayevskiy et al., Moscow, Izdatel'stvo Akademii nauk SSSR, 1961, pp. 236-237. This source also reports wage worker employment in heavy machine-building for other years as follows: 1945, 59,449; 1946, 67,825; 1947, 64,907; 1948, 74,159; 1949, 83,497.

⁴ M. N. Brenner, *Ekonomika nefteyanoy promyshlennosti SSSR (Economics of the U.S.S.R. Oil Extraction Industry)*, Moscow, Ekonomizdat, 1962, p. 344.

⁵ Calculated from an index given in I. I. Ryzhnikov et al., "Basic Factors in the Growth of Labor Productivity in the U.S.S.R. Oil Extraction Industry," in Gosudarstvennyy komitet Soveta ministrov SSSR po toplivnoy promyshlennosti, *Vsesoyuznyy nefte-gazovyy nauchno-issledovatel'skiy institut, Ekonomika nefteobogatnykh promyshlennosti (Economics of the Oil Extraction Industry)*, (Transactions, Issue XXXIX, Moscow, Gosstatizdat, 1963, p. 194, and an absolute datum for 1958 from Kheyman, *op. cit.*, p. 58.

⁶ Residual (total oil extraction and refining minus oil extraction).

⁷ Kheyman, *loc. cit.*

⁸ Estimated from productivity data given in L. M. Smyslyayeva, *Razvitiye gazovoy promyshlennosti i ekonomicheskaya effektivnost' kapitalooblocheniya (Development of the Gas Industry and Economic Effectiveness of Capital Investments)*, Moscow, Izdatel'stvo Akademii nauk SSSR, 1964, p. 87, and output data from TSSU pri Sovetskom ministre SSSR, *Narodnoye khozyaystvo SSSR v 1958 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1958, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1959, p. 213 (cited hereafter as *Nar. khoz. v 1959*); *Narodnoye khozyaystvo SSSR v 1960 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1960, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1962, p. 211 (cited hereafter as *Nar. khoz. v 1961*); and United Nations, *Statistical Office, Statistical Yearbook, 1962*, Fourteenth Issue, New York, United Nations, 1963, p. 146 (for 1954 output). In addition to the figures shown in the table an estimate for 1954 of 2,000 wage workers employed in gas extraction can be derived.

⁹ Estimated by expanding reported employment in the Estonian shale industry, given in D. T. Kuznetsov, *Osherba razvitiya slantsenoy promyshlennosti Estonskoy SSR (Lessons from the Development of the Shale Industry of the Estonian S.S.R.)*, Leningrad, Gosstatizdat, 1960, p. 137, by the proportion of production in the Estonian S.S.R. to the total production of U.S.S.R. production from TSSU pri Sovetskom ministre SSSR, *Narodnoye khozyaystvo SSSR v 1950 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1950, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1960, p. 191 (cited hereafter as *Nar. khoz. v 1950*), and *Nar. khoz. v 1951*, p. 212.

¹⁰ Adjusted to correspond to the most recent classification on the basis of the observed relationship for years for which both sets of data are available. (Percent increase between new and old classifications: 1940, 122 percent; 1958, 120 percent; 1959, 119 percent.) A.

Development, Moscow, Gosstroizdat, 1963, p. 20, and output data from *Nar. khoz. v 1964*, pp. 184-185, and *Nar. khoz. v 1961*, p. 239. Estimated by using the same procedure and sources as in footnote 11 (18,983,000 wage workers times 1.3 percentage workers in 1948. As of March 1, 1949, there are reported to be 130,370 wage workers in this industry. See N. I. Buzlyakov, *Voprosy planirovaniya produktivnosti SSSR* (Questions of Planning Productivity in the U.S.S.R.), Moscow, Gosstatizvennoye izdatel'stvo "Izdatstvo", 1957, p. 178.

1953 estimates) have been disregarded inasmuch as the index numbers available for both series do not vary greatly. Calculated from productivity data given in Z. I. Loginov, *Tsementnaya promyshlennost' SSSR i perspektivy yeye razvitiya* (U.S.S.R. Cement Industry and Perspectives of its Development), Moscow, Gosplanizdat, 1960, p. 111, and output data from *Nar. khoz. v 1968*, p. 259. Calculated from productivity data given in F. G. Panit et al., *Tsementnaya promyshlennost', sostoyaniye i perspektivy razvitiya* (Cement Industry, Status and Future

TABLE V-A-7.—Workers and employees by branch of

[Employment figures are annual averages and are in thousands; figures in parentheses are estimated;

	1928	1932	1937	1940	1945
Total.....	10,790	22,601	26,744	31,192	27,263
Industry (industrial-production personnel).....	3,773	8,000	10,112	10,967	9,508
Construction (construction-installation personnel).....	723	2,289	1,576	1,563	1,515
Agriculture.....	1,735	3,048	2,857	2,976	(n.a.)
Sovkhozy and other state agricultural establishments.....	345	2,259	1,748	1,760	2,147
MTS/RTS ¹		144	566	530	385
Unspecified agricultural establishments ²	1,315	545	295	407	(n.a.)
Forestry.....	75	100	248	279	(n.a.)
Transport and communications.....	1,365	2,241	3,026	3,903	3,537
Transport.....	1,270	2,017	2,651	3,425	3,111
Railroad transport.....	971	1,297	1,512	1,762	1,841
Water transport.....	104	146	180	203	190
Motor vehicle, urban electrical and other transport; freight handling; and road economy.....	195	574	959	1,470	1,080
Communications.....	95	224	375	478	426
Trade, procurement, material-technical supply and sales, and public dining.....	(583)	(2,184)	(2,500)	3,303	2,462
Trade, procurement, and material-technical supply and sales.....	³ (528)	³ (1,551)	³ (2,038)	2,519	1,747
Of which, retail trade.....	(n.a.)	855	1,264	1,382	(n.a.)
Public dining.....	55	633	471	784	715
Public health and education.....	1,206	2,106	3,495	4,531	(n.a.)
Public health.....	399	609	1,127	1,507	1,419
Education.....	807	1,437	2,368	3,024	(n.a.)
Educational institutions.....	725	1,292	2,089	2,663	} 2,551
Science.....	82	145	279	361	
Of which—					
Geological prospecting.....	10	23	30	70	(n.a.)
Hydrometeorological services.....	8	12	15	24	(n.a.)
“Other branches”.....	1,405	2,733	3,169	3,949	(n.a.)
Housing-communal economy.....	147	661	1,023	1,221	(n.a.)
Administrative organs.....	1,010	1,650	1,488	1,825	1,645
Credit and insurance organizations.....	95	128	193	262	197
Residual (capital repair of buildings and structures, drilling, project-survey organizations, literature and publishing, art, and other unidentified).....	153	294	465	641	(n.a.)

¹ No adjustment has been made for transfers of some of the collective farmers to the rolls of machine tractor stations between 1953 and 1958, as was done in table V-A-4.

² Includes veterinary services, artificial insemination stations, research stations, etc.

³ Adjusted for reclassification of the personnel engaged in collection of secondary raw materials. The adjustment involved transferring the following number of persons from the “Trade, procurement, and material-technical supply” category to the “Other” category: 1928, 4,000; 1932, 13,000; and 1937, 16,000 (0.8 percent of total, based on the 1940 relationship:

$\frac{2,519}{2,539} = 99.2$ percent).

⁴ In the handbook, TsSU pri Sovete ministrov RSFSR, *Narodnoye khozyaystvo RSFSR v 1961 godu, statisticheskiy yezhegodnik* (*The National Economy of the R.S.F.S.R. in 1961, A Statistical Yearbook*), Moscow, Gosstatizdat, 1962, p. 442, for the first time in the postwar period is reported the employment in “Administrative organs” and “Administrative organs of cooperative and social organs.” The sum of these two subbranches equals that shown for the R.S.F.S.R. in the republic breakdown of the national employment figures in TsSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1961 godu, statisticheskiy yezhegodnik*

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 ANNUAL ECONOMIC INDICATORS FOR THE U.S.S.R. 37

the national economy, U.S.S.R.: Selected years, 1928-62

(n.a.) indicates data not available and no estimate made; and leaders indicate inapplicable]

1950	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
38,895	42,204	43,660	47,300	48,380	50,537	53,148	54,605	56,509	62,032	65,861	68,300
14,144 2,560	15,556 2,788	16,261 2,843	17,016 3,179	17,367 3,190	18,560 3,550	19,144 4,000	19,675 4,421	20,207 4,800	22,291 5,143	23,475 5,270	24,297 5,150
3,881	4,155	4,442	(n.a.)	6,546	6,485	7,170	6,562	6,190	7,482	8,216	8,608
2,425 678 334 444	2,538 794 366 462	2,552 1,118 356 416	2,639 (2,960) (n.a.)	2,832 3,665 200 389	2,925 2,850 290 390	3,961 2,554 278 377	4,614 1,219 362 367	4,057 469 412 352	0,324 348 461 359	7,366 3 469 378	7,730 0 489 389
4,624	5,160	5,352	(n.a.)	5,650	5,840	5,996	6,332	6,663	7,017	7,308	7,509
4,082	4,595	4,770	(n.a.)	5,039	5,216	5,355	5,668	5,972	6,279	6,518	6,677
2,068 222	2,232 244	2,275 260	2,321 (n.a.)	2,302 285	2,307 300	2,323 317	2,330 320	2,338 317	2,348 322	2,311 327	2,295 327
1,792	2,119	2,235	(n.a.)	2,452	2,609	2,715	3,018	3,317	3,609	3,880	4,055
542	565	582	(596)	611	624	641	664	691	738	790	832
3,325	3,495	3,463	(3,668)	3,725	3,826	4,017	4,190	4,389	4,675	5,010	5,253
2,666 1,308 659	2,775 1,435 720	2,608 1,404 765	2,848 1,519 820	2,869 1,634 856	2,935 1,666 801	3,089 1,739 928	3,231 1,888 959	3,398 2,050 991	3,606 2,226 1,009	3,852 2,403 1,168	4,015 2,562 1,238
6,080	6,608	6,815	(n.a.)	7,607	7,933	8,350	8,775	9,275	10,027	10,853	11,552
2,051 4,029	2,226 4,582	2,308 4,607	(n.a.)	2,627 4,980	2,736 5,197	2,892 5,458	3,059 5,716	3,245 6,030	3,401 6,566	3,677 7,176	3,818 7,734
3,315 714	3,553 829	3,647 860	(n.a.)	3,988 992	4,103 1,094	4,260 1,208	4,378 1,338	4,556 1,474	4,803 1,763	5,165 2,011	5,521 2,213
245 32	(n.a.) (n.a.)	320 39	(n.a.) (n.a.)	356 42	379 42	382 45	398 47	(n.a.) (n.a.)	(n.a.) (n.a.)	(n.a.) (n.a.)	(n.a.) (n.a.)
4,272	4,442	4,484	(n.a.)	4,295	4,403	4,471	4,650	4,985	5,397	5,729	5,931
1,210 1,831 264	1,315 1,786 262	1,345 1,723 263	(n.a.) (n.a.) (n.a.)	1,400 1,361 265	1,503 1,342 266	1,579 1,294 261	1,632 1,294 260	1,713 1,273 260	1,920 1,245 265	2,030 1,295 277	2,096 1,316 283
967	1,079	1,150	(n.a.)	1,269	1,292	1,337	1,464	1,739	1,967	* 2,127	2,236

(The National Economy of the U.S.S.R. in 1961, A Statistical Yearbook), p. 570, and in other handbooks for 1958 and 1960. For all of these five years shown in the R.S.F.S.R. handbook, the proportion of the first subbranch to the total of the two subbranches varies no more than two-tenths of a percentage point from 90.0 percent. Using this proportion, estimates for U.S.S.R. employment in these years for each subbranch can be made as follows (in thousands): "State and economic administrative organs"—1955, 1,225; 1958, 1,165; 1959, 1,143; 1960, 1,120; 1961, 1,106; and for "Administrative organs of cooperative and social organs"—1955, 136; 1958, 129; 1959, 127; 1960, 124; 1961, 130.

* Estimates of subbranch employment can be derived for the first time in the postwar period for the "Residual" category of "Other branches" by the following procedure: The R.S.F.S.R. handbook (*ibid.*) reports employment in "Other branches" to be 1,347,000 workers and employees in 1961, and the U.S.S.R. handbook (*ibid.*) indicates 2,127,000 workers and employees in the same year for the country as a whole. The ratio of the two data (U.S.S.R./R.S.F.S.R. of 1.58) is then applied to each of the reported R.S.F.S.R. subbranches to obtain approximations of the U.S.S.R. 1961 employment in these subbranches, as follows (in thousands): 1. Capital repair of buildings and structures—740 (468 times 1.58); 2. Drilling—130 (82 times 1.58); 3. Project-survey organizations—430 (270 times 1.58); 4. Literature and Publishing—90 (58 times 1.58); 5. Art—315 (200 times 1.58); 6. Other unidentified residual—425 (269 times 1.58).

Source: See source note to table V-A-5.

TABLE V-A-8.—Measures of collective farm employment, U.S.S.R.: Selected years, 1937-63
 (Figures in parentheses are estimated; (n.a.) indicates data not available and no estimate made)

Year	Number of collective farmers who participated in the socialized economy during the year (in thousands)		Number of able-bodied collective farmers who did not earn 1 labor-day 2 nor work 1 man-day 3 (in thousands)		Annual average number of collective farmers who participated in the socialized economy (in thousands)		Annual average number of labor-days earned or man-days worked by—		Total number of labor-days earned (in millions)	Conversion factor (number of labor-days per 1 man-day)	Total number of man-days (in millions)	Number of able-bodied farmers who worked (in thousands)		
	Total	Of which, able-bodied 1	Total	Percent of total able-bodied	Total activity	Of which, in agriculture	All ages	Of which, able-bodied						
													Excluding fishing collective farms	Including fishing collective farms
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1937	5 40,716	6 (35,900)	14 517.4	7 10.4	(n.a.)	(n.a.)	9 194	9 (149)	9 218	(n.a.)	7 893	10 1.30	11 (6,072)	12 (36,206)
1940	13 42,673	13 31,923	(n.a.)	7 1.3	15 29,000	15 26,100	16 222	16 (171)	16 254	(n.a.)	9 319	17 1.30	11 (7,188)	15 (36,689)
1950	5 (39,837)	18 28,903	(n.a.)	(n.a.)	19 27,000	19 24,800	8 (208)	9 (179)	20 251	(n.a.)	8 286	17 1.16	11 (7,143)	21 32,600
1951	5 (38,371)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	(n.a.)	8 (221)	9 (178)	(n.a.)	(n.a.)	8 480	17 1.24	11 (6,839)	(n.a.)
1952	5 (37,487)	(n.a.)	(n.a.)	22 2.6	23 25,458	23 23,300	8 (236)	9 (170)	24 295	(n.a.)	8 847	17 1.39	11 (6,826)	(n.a.)
1953	5 (37,365)	18 26,761	(n.a.)	(n.a.)	15 25,000	15 23,300	8 (241)	9 (166)	25 209	(n.a.)	9 005	17 1.45	11 (6,210)	13 (30,525)
1954	5 (37,603)	18 27,265	(n.a.)	(n.a.)	15 24,000	15 22,500	9 (242)	9 (168)	25 225	(n.a.)	9 852	17 1.58	11 (6,315)	13 (31,079)
1955	5 (40,044)	27 (28,419)	(n.a.)	(n.a.)	15 24,500	15 22,500	8 (271)	9 (166)	24 335	(n.a.)	10 852	17 1.63	11 (6,668)	12 (32,394)
1957	28 36,452.1	31 27,500	(n.a.)	(n.a.)	19 24,700	19 21,900	8 (268)	9 (159)	24 331	(n.a.)	11 103	17 1.69	11 (6,810)	12 (33,544)
1958	28 35,411.1	31 27,500	(n.a.)	(n.a.)	15 24,500	15 22,500	8 (268)	9 (159)	24 335	(n.a.)	11 103	17 1.74	11 (6,810)	12 (33,544)
1959	(n.a.)	37 738.5	(n.a.)	27 3.0	38 24,101	38 22,500	33 193	33 170	33 214	(n.a.)	24 300	17 1.78	38 (6,940)	12 (30,117)
1960	(n.a.)	(n.a.)	(n.a.)	(n.a.)	43 20,323	43 20,100	33 170	33 170	33 205	(n.a.)	(n.a.)	46 1.7	41 (6,145)	21 30,700
1961	(n.a.)	(n.a.)	(n.a.)	(n.a.)	43 20,323	43 20,100	33 170	33 170	33 205	(n.a.)	(n.a.)	46 1.7	41 (6,145)	21 30,700
1962	(n.a.)	(n.a.)	(n.a.)	(n.a.)	44 19,784	44 18,100	33 170	33 170	33 205	(n.a.)	(n.a.)	46 1.7	41 (6,145)	21 30,700

See footnotes at end of table, pp. 59, 60.

¹² Column 12 divided by column 10.
¹³ Yu. V. Arutyunyan and V. P. Danilov, "Official Collection of Collective Farm Reports in the Country During the Period of the Farmland War," *Istoricheskii arkhiv (Historical Archive)*, no. 6, November-December 1962, p. 30. Excluding Yakut A.S.S.R. *Ibid.*, p. 37. Excluding Yakut and Komi A.S.S.R.'s.
¹⁴ TSSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1960 godu, statisticheskiy mezhgodnik (The National Economy of the U.S.S.R. in 1960, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1961, p. 521 (cited hereafter as *Nar. khoz. v 1960*). The employment data for 1955 through 1958 including fishing collective farms are lower than that reported as excluding this type of collective farm because of the shift of collective farmers to MTS tractor brigades.

¹⁵ Arutyunyan and Danilov, *op. cit.*, pp. 19-20.
¹⁶ A. A. Ivanchenko and P. S. Minakov, *Voprosy metodiki planirovaniya proizvoditel'nosti truda v sel'skoy khozyaystve (Questions of the Method of Planning Labor Productivity in Agriculture)*, Moscow, Gosplanizdat, 1930, p. 25.
¹⁷ Yu. V. Arutyunyan, *Mekhanizatsiya sel'skogo khozyaystva SSSR v 1929-1957 gg. (Farm Mechanization in the U.S.S.R., 1929-1957)*, Moscow, Izdatel'stvo Akademii nauk SSSR, 1959, p. 271. Figure for 1954 relates to May; the figures for 1950, 1953, and 1957 evaluate able-bodied farmers working in industry, transport, etc.

¹⁸ TSSU pri Sovete ministrov SSSR, *Sel'skoye khozyaystvo SSSR, statisticheskiy sbornik (Agriculture of the U.S.S.R., A Statistical Compilation)*, Moscow, Gosstatizdat, 1960, p. 450 (cited hereafter as *Sel. khoz.*). See also footnote 15.
¹⁹ N. G. Badir'yan and A. K. Il'vichev (Eds.), *Ekonomika sotsialisticheskogo sel'skogo khozyaystva (Economics of Socialist Agriculture)*, Moscow, Sel'khozizdat, 1962, p. 181.
²⁰ N. V. Zharin, *Issledovaniye skiy institut truda Gosudarstvennogo komiteta Soveta ministrov SSSR po voprosam truda i zarabotnoy placy. Trudovoye resury SSSR (Problemy razvedeniya ispol'zovaniya) (Labor Resources of the U.S.S.R. [Problems of Distribution and Utilization])*, edited by N. I. Shishkin, Moscow, Ek'onomizdat, 1961, p. 97 (cited hereafter as Shishkin).
²¹ Shishkin, p. 108. This source notes that 1.4 percent male and 3.3 percent female able-bodied farmers did not earn a single labor-day.
²² *Sel. khoz.*, p. 459. See also Shishkin, p. 109.
²³ TSSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1958 godu, statisticheskiy mezhgodnik (The National Economy of the U.S.S.R. in 1958, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1959, p. 495.

²⁴ K. G. Koshorn, *Nekotoryye voprosy ekonomiki i organizatsii sel'skogo khozyaystva SSSR (Some Problems in the Economics and Organization of U.S.S.R. Agriculture)*, Moscow, Uchebnaya kniga SSSR, Institut ekonomiki, *Voprosy organizatsionno-khozyaystvennogo upravleniya kolhozami (Problems of Organizational and Economic Strengthening of Collective Farms)*, edited by V. P. D'yachenko et al., Moscow, Gospolitizdat, 1957, p. 244 (cited as *Farms*).
²⁵ This source also reports an average of 65-70 labor-days per one overaged farmer in 1953-1954 (p. 347) and an average of 133 labor-days per one overaged farmer in 1954 (p. 348).

²⁶ Estimated from the average number of able-bodied collective farmers per farm given in V. G. Yezner, *Voprosy ispol'zovaniya zakona stoinosti v kolhoznom proizvodstve (Problems in the Utilization of the Law of Value for Collective Farm Production)*, Moscow, Gosplanizdat, 1960, p. 79 and the number of agricultural collective farms for these years (1953 and 1956) reported in TSSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1956 godu, statisticheskiy mezhgodnik (The National Economy of the U.S.S.R. in 1956, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1957, p. 140, and _____, *Narodnoye*

¹ The definition of "able-bodied" collective farmers has varied over time. In the prewar period, the able-bodied category included both males and females 16 years of age and over. In the postwar period, but also including the 1940 data shown here, the age limits have been set at 16 to 50 for males and 16 to 54 for females. The data in this column do not include able-bodied farm members employed as workers and employees in State industry, transport, construction, etc., and full-time able-bodied student members who are not required to earn or work the minimum number of labor-days or man-days.
² A labor-day (*trudovaya*) is not a measure of time, but an artificial measure of quantities of work, related to quality and amount of work and varying by type of activity, crop, region, and local rates based on national minimums. Beginning in 1969, all collective farms also had to report the number of man-days worked (see footnote 3 below), and many farms discontinued reporting labor-days completely. For this reason, all data related to labor-days from 1959 on are incomplete.

³ One man-day (*chetyreko-den'*), sometimes designated workday (*rabochiy den'*), is much closer to a measure of time input than a labor-day. It is, however, related to "appearances for work" (*vykhody na rabotu*), and the number of hours of inputs is not standardized as yet.

⁴ The concept of able-bodied farmers is used in Soviet planning and statistics to estimate the prime labor input on farms. The number is calculated by dividing the total number of labor-days earned or man-days worked (by persons of all ages who participated in the socialized economy) by the average number of labor-days earned (or man-days worked) by able-bodied farmers alone. *Actual* able-bodied collective farmers will, of course, convert to able-bodied equivalent farmers on a one-to-one basis. It should be noted, however, that in 1969 the 9,242,300 actual nonable-bodied farmers (column 1 minus column 2) convert to less than half the number, or 4,581,000 able-bodied equivalent farmers (column 15 minus column 2).

⁵ U. S. Bureau of the Census, *The Magnitude and Distribution of Civilian Employment in the U.S.S.R.: 1923-1959*, by Murray S. Weitzman and Andrew Elias, International Population Reports, Series P-36, No. 58, Washington, D.C., Foreign Manpower Research Office, Bureau of the Census, April 1961, table C-1, p. 142 (cited hereafter as Weitzman and Elias).

⁶ Estimated from total money income of collective farms and average money income per one able-bodied collective farmer who worked on the collective farm. A. Arutyunyan, *Collective Farms in 1958 (From Materials of the Collective Farm Annual Report 1959, Sotsialisticheskoye sel'skoye khozyaystvo (Socialist Agriculture))*, No. 12, December 1959, p. 64.

⁷ Percentages shown relate to total number of on-hand able-bodied collective farmers at end of year, including both those who did and those who did not participate in the socialized economy. M. I. Fedorova, *Utrepleniye obshchestvennogo khozyaystva kolhozov i izmeneniya v politike zapoyatki sel'skoye khozyaystvennykh produktov v mirovye gody tretyey izmeneniya (Strengthening the Socialized Economy of Collective Farms and Changes in the Policy of Procurement of Agricultural Products During the Peaceful Years of the Third Five-Year Plan, Lectures)*, Moscow, Izdatel'stvo Moskovskogo universiteta, 1960, p. 94.

⁸ Weitzman and Elias, table C-2, p. 143. Average number of labor-days for the prewar period relate to all farmers 16 years of age and over; data for the postwar period relate to current definition of able-bodied collective farmers. See footnote 1.

⁹ Column 8 divided by column 13.
¹⁰ ISUNKHU Gosplana SSSR, *Proizvoditel'nost' i ispol'zovaniye truda v kolhozakh po mirovye kvartalye (Productivity and Utilization of Labor in Collective Farms in the Second Five-Year Plan)*, Moscow-Leningrad, Gosplanizdat, 1959, p. 83.

¹¹ Column 12 divided by column 15.

khozyaistvo SSSR v 1959 godu, statisticheskiy gnezhdovnik (The National Economy of the U.S.S.R. in 1959, A Statistical Yearbook), Moscow, Gosstatizdat, 1960, p. 428.

37 Computed from an index of the annual average number of workdays, 1964=100, in T. Zaslavskaya, "Economic Conditions for the Introduction of Monetary Payments for Collective Farmer Labor," *Voprosy ekonomiki* (Problems of Economics), no. 11, November 1959, p. 60.

38 Shishkin, p. 99. Probably excluding persons working permanently in State industry, etc.

Moscow, Sel'khozizdat, 1962, p. 94. Of this total of 10.3 billion labor-days, 9.2 billion, or 89.3 percent, were earned by able-bodied collective farmers (*ibid.*).

39 A. Goltsov, "Utilization of Labor Resources in Collective Farms," *Nauchnyye doklady vysshey shkoly, Ekonomicheskiye nauki* (Scientific Reports of Higher Schools, Economic Sciences), no. 1, 1961, p. 47. Total number of man-days worked in the private subsidiary economy in 1958 is reported to be 3,353.0 million (*ibid.*).

40 S. I. Samin, *Nedzhimnye fondy i puti sblizheniya kolhozno-kooptativnoy sobstvennosti s obshchenarodnoy (Indivisible Funds and Means for Drawing Collective Farm-Cooperative Property Closer to Public Property)*, Moscow, Ekonomizdat, 1961, p. 79.

41 Shishkin, p. 91. Total number of man-days worked in the private subsidiary economy in 1959 is reported to be 3,537.3 million (*ibid.*). Additional data in the 1959 labor inputs into the socialized and private subsidiary economies by sex and age, in terms of a detailed percentage distribution of man-hours, is given in M. P. Vasilenko, *Prat proizvodstva sezonnoi truda v kolhozakh* (Means for Overcoming Seasonal Work in Collective Farms), Moscow, Izdatel'stvo SSSR, Narodnoye khozyaystvo SSSR, 1963, pp. 23 and 24.

42 TSSU pri Sovete ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1961 godu, statisticheskiy gnezhdovnik* (The National Economy of the U.S.S.R. in 1961, A Statistical Yearbook), Moscow, Gosstatizdat, 1963, p. 369 (cited hereafter as *Nar. khoz.*, A Statistical Yearbook), 1962, p. 461.

43 Shishkin, *loc. cit.*

44 *Nar. khoz.* v 1963, p. 368.

Biznesnyye nauchnyye informatsii. Trud i zarabotnaya plata (Bulletin of Scientific Information, Labor and Wages), no. 6, June 1969, p. 42.

45 Akademiya nauk SSSR, Institut ekonomiki, *Osnovnyye i faktory razmeshcheniya obrabotkiv narodnogo khozyaystva SSSR* (Characteristics and Factors of the Location of Branches of the National Economy of the U.S.S.R.), edited by Ya. G. Fingert et al., Moscow, Izdatel'stvo Akademii nauk SSSR, 1960, p. 404. Excluding part-time students and members working in State establishments and institutions. This source also reports the total number of participants in collective farm production for 1958 as 36.8 million. The difference between this figure and that shown in column 1 probably represents the students and members working outside the collective farm sector. An estimate of 26,941,000 able-bodied participants also can be computed from data in Venzher, *op. cit.*, pp. 79 and 81; another estimate of 27,246,000 can be derived by dividing the total collective farm indivisible funds (see *khoz.*, pp. 72-73) by the ruble amount of indivisible funds per one on-hand able-bodied collective farmer, in V. P. Rozhin, *Velikoye nablyudeniye ekonomiki selyeh kolhozov* (Some Problems in Raising the Economy of Peak Collective Farms), Moscow, Ekonomizdat, 1961, p. 87.

46 A. P. Teryayeva, "Progressive Forums of Payment for Work in Collective Farms," in Akademiya nauk SSSR, Institut ekonomiki, *Formy razvitiya obshchestvennogo khozyaystva kolhozov* (Development of the Socialized Economy of Collective Farms), edited by P. S. Buyanov et al., Moscow, Sel'khozizdat, 1960, p. 154.

47 A. Voronin, "On the Combining of Agricultural and Industrial Production in the Village," *Voprosy ekonomiki*, no. 10, October 1961, p. 85.

48 B. I. Braginskii, *Prizvoditel'skiy truda v sel'skom khozyaystve, Metodiya ucheta i planirovaniya* (Labor Productivity in Agriculture, Methods of Recording and Planning),

TABLE V-A-9.—*Employment in the private agricultural economy, by subsector, U.S.S.R.: Selected years, 1940-62*

[Absolute figures are 250-day man-year equivalents and are in thousands; (n.a.) indicates data not available and no estimate made]

Year	Total	Collective farmers	Workers and employees	Individual peasants and other categories of population
Conventional man-year equivalents: ¹				
1940.....	(n.a.)	9,133.7	2,038.6	(n.a.)
1950.....	(n.a.)	7,938.0	2,542.6	(n.a.)
1953.....	10,737.1	8,000.3	2,599.1	47.7
1955.....	12,196.0	9,143.2	3,003.3	49.5
1956.....	12,553.6	9,505.1	3,009.0	44.5
1957.....	12,622.8	9,045.4	3,542.2	35.2
1958.....	12,736.6	9,049.8	3,653.5	33.3
1959.....	11,701.3	8,259.0	3,417.8	24.5
1960.....	11,130.8	7,217.8	3,593.0	20.
1961.....	10,858.1	6,671.0	4,176.4	10.7
1962.....	10,898.2	6,612.0	4,277.0	8.3

¹ Estimated on the basis of the labor-input requirements to cultivate and care for the agricultural holdings in private ownership.

Source: TsSU pri Soveto ministrov SSSR, *Narodnoye khozyaystvo SSSR v 1950 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1950, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1957, pp. 114-115; ———, *Sel'skoye khozyaystvo SSSR, statisticheskiy sbornik (Agriculture of the U.S.S.R., A Statistical Compilation)*, Moscow, Gosstatizdat, 1960, pp. 128-129, 206-207; ———, *Narodnoye khozyaystvo SSSR v 1960 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1960, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1961, pp. 389-391; ———, *Narodnoye khozyaystvo SSSR v 1961 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1961, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1962, pp. 316-317, 382-383; ———, *Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskiy yezhegodnik (The National Economy of the U.S.S.R. in 1962, A Statistical Yearbook)*, Moscow, Gosstatizdat, 1963, pp. 252-253, 303-304; and A. Gol'tsov, "Utilization of Labor Resources in Collective Farms," *Nauchnyye doklady vysshey shkoly, Ekonomicheskoye nauki (Scientific Reports of Higher Schools, Economic Sciences)*, No. 1, 1961, pp. 46-47.

TABLE V-A-10.—U.S.S.R. and U.S. employment, by nonagricultural and agricultural sectors: Selected years, 1940-62

[Absolute figures in thousands]

Year	U.S.S.R.			United States					
	Total, excluding domestics, day laborers, etc.	Non-agricultural sector	Agricultural sector	Constructed series			Household interview series		
				Total, excluding employment in private households	Nonagricultural sector	Agricultural sector	Total, excluding employment in private households	Nonagricultural sector	Agricultural sector
1940.....	79,019	35,129	43,890	47,433	37,893	9,540	45,320	35,730	9,540
1950.....	79,593	41,100	38,493	58,995	51,488	7,507	57,962	50,455	7,507
1953.....	81,942	45,334	36,608	63,426	56,864	6,562	60,231	53,669	6,562
1955.....	87,476	48,250	39,226	64,324	57,594	6,730	60,973	54,248	6,730
1956.....	90,313	49,929	40,384	66,101	59,516	6,585	62,620	56,035	6,585
1957.....	91,512	51,757	39,755	66,333	60,111	6,222	62,683	56,461	6,222
1958.....	93,790	53,845	39,945	64,432	58,588	5,844	61,510	55,666	5,844
1959.....	94,352	50,133	38,215	66,588	60,752	5,836	63,961	57,225	5,836
1960.....	95,692	57,985	37,707	67,461	61,738	5,723	64,192	58,469	5,723
1961.....	97,622	60,702	36,920	67,091	61,628	5,463	64,202	58,739	5,463
1962.....	99,395	62,728	36,667	68,451	63,261	5,190	65,221	60,031	5,190

¹ Beginning in 1960, all U.S. data include Alaska and Hawaii. For 1959, only the Bureau of Labor Statistics component data, based on establishment payroll records, include Alaska and Hawaii. See Table 12.

Source: U.S.S.R.: Table 4. Nonagricultural and agricultural employment as shown in table 4 was adjusted in order to achieve greater comparability for U.S.S.R.-United States comparisons. Employment in U.S.S.R. agriculture for such activities as repair of machinery and equipment, and industrial and construction activities was transferred to the nonagricultural sector. Detailed numerical adjustments are shown in table 11. United States: No adjustments were made to transfer from agricultural employment are such farm activities as the repair of machinery and equipment, and logging operations of farmers. A Soviet economist, Ya. Ioffe, contends that United States agricultural employment statistics omit women who cook for hired laborers on farms, whereas in the U.S.S.R. employment of cooks in field camps is included. (Ya. Ioffe, "The Level of Labor Productivity in the U.S.S.R. and the U.S.A.," *Planovoye khozyaystvo [Planned Economy]*, No. 3, March 1960, p. 51.) Constructed series: Table 12. Household interview series: For all years except 1940, the subtraction of employment in private households from total employment and the nonagricultural sector is based on data given in the annual reports for this series. The 1940 estimate for employment in private households, 2,200,000, is based on national income data (U.S. Department of Commerce, Office of Business Economics, *National Income, 1954 Edition, A Supplement to the Survey of Current Business*, 1954, table 25, pp. 196 and 197). 1940: U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1960*, table 263, p. 205. 1950: U.S. Department of Commerce, Bureau of the Census, *Annual Report on the Labor Force, 1950*, Series P-50, No. 31, March 1951, table 9, p. 23. 1953: U.S. Department of Commerce, Bureau of the Census, *Annual Report on the Labor Force, 1954*, Series P-50, No. 59, April 1955, table C-9. 1955: U.S. Department of Commerce, Bureau of the Census, *Annual Report on the Labor Force, 1955*, Series P-50, No. 67, March 1956, table 12, p. 28. 1956: U.S. Department of Commerce, Bureau of the Census, *Annual Report on the Labor Force, 1956*, Series P-50, No. 72, March 1957, table 12, p. 28. 1957-60: U.S. Department of Labor, "Labor Force and Employment in 1960," by Robert L. Stein and Herman Travis, *Special Labor Force Report*, No. 14, table C-4, p. A-21. 1961: U.S. Department of Labor, "Labor Force and Employment in 1961," by Carol Kalish, Frazier Kellogg, and Matthew Kessler, *Special Labor Force Report*, No. 23, table C-4, p. A-20. 1962: U.S. Department of Labor, "Labor Force and Employment, 1960-1962," by Jane L. Meredith, *Special Labor Force Report*, No. 31, table C-4, p. A-18.

TABLE V-A-11.—Adjustment of U.S.S.R. civilian employment to correspond to U.S. nonagricultural and agricultural sectors: Selected years, 1940-62

[In thousands. Leaders indicate not applicable]

Employment category	1940	1950	1953	1955	1956	1957	1958	1959	1960	1961	1962
Total civilian employment.....	79,019	78,563	81,942	87,476	90,313	91,512	93,790	94,352	95,662	97,622	99,305
Nonagricultural branches.....	35,129	41,100	45,334	48,250	49,929	51,767	53,845	56,133	57,985	60,702	62,725
Workers and employees (excluding agricultural establishments and forestry).....	28,216	35,014	39,218	41,834	44,052	45,978	48,043	50,319	54,550	57,645	59,692
Members of producers' cooperatives.....	2,200	1,500	1,600	1,800	1,200	1,200	1,300	1,400	1,700	1,700	1,700
Independent artisans.....	604	264	214	104	1,105	1,145	1,166	1,174	1,054	1,902	1,873
Collective farms.....	3,100	3,060	2,697	2,716	2,894	2,768	2,960	3,019	2,054	1,902	1,873
Agricultural.....	2,700	2,600	2,400	2,300	2,400	2,300	2,700	2,700	1,600	1,600	1,700
Nonagricultural ¹	400	400	297	416	484	468	290	319	454	302	173
State agricultural establishments.....	730	878	1,189	1,347	1,258	1,289	1,019	869	848	908	600
State farms and subsidiary state agricultural establishments.....	200	200	300	200	200	300	300	400	500	600	600
Machine tractor stations (repair-technical stations).....	530	678	889	1,147	1,058	989	719	469	348	3	3
Forestry.....	279	444	416	389	390	377	367	352	359	378	389
Agricultural branches.....	43,890	38,493	36,608	39,276	40,384	39,755	39,945	38,219	37,707	36,920	36,667
Workers and employees.....	4,006	5,102	5,297	5,895	6,024	7,481	8,330	8,387	10,168	11,411	11,896
State farms and subsidiary state agricultural establishments.....	1,560	2,225	2,252	2,632	2,725	3,661	4,314	4,557	5,324	6,766	7,130
Agricultural activities not specifically identified.....	1,407	334	356	260	250	3,278	3,662	412	451	469	489
Private subsidiary economy.....	2,039	2,543	2,589	3,003	3,009	3,542	3,654	3,418	3,893	4,176	4,277
Collective farms.....	33,934	32,239	31,264	33,147	34,213	32,162	31,515	29,739	27,431	25,446	24,756
Agricultural.....	24,700	24,200	23,100	23,900	24,600	23,000	22,400	21,400	20,100	18,700	18,100
Nonagricultural ¹	9,134	7,939	8,060	9,143	9,503	9,045	9,050	8,259	7,218	6,671	6,613
Private subsidiary economy.....	5,950	1,152	179	186	167	132	125	92	75	40	31
Individual peasants.....	0	0	-42	-2	-20	-20	-23	+1	+33	+23	-16
Correction for rounding.....											

¹: 80 percent of all employment in nonagricultural collective farms was allocated to the nonagricultural branches and 20 percent to agricultural branches.
 Source: Table 4.

TABLE V-A-12.—*Civilian employment in the United States, by major employment categories: Selected years, 1940-62*
 (In thousands. Figures are independently rounded and may not add to totals)

Source of information and major employment category ¹	1940	1950	1953	1955	1956	1957	1958	1959	1960 ²	1961 ²	1962 ²
Total civilian employment, excluding private household workers ³	47,433	58,965	63,426	64,324	66,101	66,353	64,432	66,588	67,461	67,091	68,451
BLS data based on establishment payroll records—wage and salary employment ⁴	32,376	45,222	50,232	50,675	52,408	52,904	51,423	53,404	54,370	54,224	55,841
Mining.....	825	901	866	792	822	828	751	782	712	672	652
Contract construction.....	1,204	2,333	2,623	2,802	2,999	2,923	2,778	2,900	2,885	2,816	2,909
Manufacturing.....	10,965	15,241	17,549	16,882	17,243	17,174	15,949	16,975	16,796	16,327	16,859
Transportation, communications, and public utilities.....	3,638	4,094	4,290	4,141	4,244	4,241	3,976	4,011	4,004	3,903	3,903
Wholesale and retail trade.....	6,750	9,386	10,247	10,535	10,858	10,886	10,750	11,127	11,381	11,337	11,582
Finance, insurance, and real estate.....	1,022	1,919	2,146	2,335	2,420	2,477	2,519	2,594	2,669	2,731	2,798
Services and miscellaneous.....	3,681	5,382	5,867	6,274	6,536	6,749	6,811	7,115	7,392	7,610	7,949
Government.....	4,202	6,026	6,645	6,914	7,277	7,626	7,893	8,190	8,520	8,828	9,188
BLS-Census data based on household interviews—wage and salary, self-employed, and unpaid family employment ⁵	10,060	7,911	6,985	7,254	7,166	6,848	6,449	6,433	6,338	6,125	5,813
Agriculture.....	9,540	7,507	6,562	6,730	6,585	6,292	5,844	5,836	5,723	5,463	5,190
Unpaid family employment (nonagricultural).....	520	404	423	524	581	626	605	597	615	662	623
NID data—self-employed (nonagricultural) ⁶	4,997	5,862	6,209	6,395	6,527	6,581	6,560	6,751	6,753	6,742	6,797

¹ 1949: Agriculture: Figure is reported in U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1960*, table 202, p. 232. Unpaid family employment (nonagricultural): Unpublished estimate from U.S. Department of Labor, Bureau of Labor Statistics, 1950: U.S. Department of Commerce, Bureau of the Census, *Annual Report on the Labor Force, 1950*, Series P-50, No. 31, March 1951, table 9, p. 23, 1953: U.S. Department of Commerce, Bureau of the Census, *Annual Report on the Labor Force, 1953*, Series P-50, No. 59, April 1955, table C-9, p. 49, 1955: U.S. Department of Commerce, Bureau of the Census, *Annual Report on the Labor Force, 1955*, Series P-50, No. 67, March 1956, table 12, p. 28, 1956: U.S. Department of Commerce, Bureau of the Census, *Annual Report on the Labor Force, 1956*, Series P-50, No. 72, March 1957, table 12, p. 28, 1957-1960: U.S. Department of Labor, "Labor Force and Employment, 1961," by Robert L. Stein and Herman Travis, *Special Labor Force Report*, No. 14, table C-4, p. A-21, 1961: U.S. Department of Labor, "Labor Force and Employment in 1961," by Carol Kalish, Frazier Kellogg, and Matthew Kessler, *Special Labor Force Report*, No. 23, table C-4, p. A-20, 1962: U.S. Department of Labor, "Labor Force and Employment in 1962," by Jane L. Meredith, *Special Labor Force Report*, No. 31, table C-4, p. A-20.

² Computed from various national income publications of the U.S. Department of Commerce, Office of Business Economics. The reported number of full-time equivalent employees, by industry, less those for farms, were subtracted from the number of persons engaged in production by industry, less those for farms, 1940: U.S. Department of Commerce, Office of Business Economics, *National Income, 1954 Edition, A Supplement to the Survey of Current Business, 1954*, table 25, pp. 196 and 197, and table 28, pp. 202 and 203, 1960, 1963, 1965: U.S. Department of Commerce, Office of Business Economics, *U.S. Income and Output, A Supplement to the Survey of Current Business, 1958*, table VI-13, p. 211, and table VI-16, p. 214, 1956-1958: U.S. Department of Commerce, Office of Business Economics, *Survey of Current Business*, July 1960, tables 52 and 53, p. 29, 1959-60: U.S. Department of Commerce, Office of Business Economics, *Survey of Current Business*, July 1962, tables 52 and 55, p. 29, 1961-1962: U.S. Department of Commerce, Office of Business Economics, *Survey of Current Business*, July 1963, tables 52 and 55, pp. 33-34.

¹ BLS refers to the U.S. Department of Labor, Bureau of Labor Statistics; Census refers to the U.S. Department of Commerce, Bureau of the Census; NED refers to the U.S. Department of Commerce, Office of Business Economics, National Income Division.

² Beginning in 1960, all data include Alaska and Hawaii. For 1959, only BLS data based on establishment payroll records include Alaska and Hawaii.

³ Employment excludes that for private household workers since no employment estimates are available for the U.S.S.R. for domestics, day laborers, etc. Employment estimates for private household workers are reported in the former series of *Annual Reports on the Labor Force*, issued by the U.S. Department of Commerce, Bureau of the Census, and now in the *Special Labor Reports*, prepared by the U.S. Department of Labor, Bureau of Labor Statistics. A similar series for workers in private households is presented in the various National Income editions of the *Survey of Current Business*. In 1961, employment for private household workers was 2,694,000 (U.S. Department of Labor, "Labor Force and Employment in 1961," by Carol Kalish, Frazier Kellogg, and Matthew Kessler, *Special Labor Force Report*, No. 23, table C-4, p. A-20). In the National Income series, 1960 employment for full-time and part-time employees in private households is 2,692,000 (U.S. Department of Commerce, Office of Business Economics, *Survey of Current Business*, July 1961, table 53, p. 29). Employment also excludes that for prisoners. For the United States, by the Bureau of Labor Statistics for fiscal year 1940 reported 191,776 prisoners, of whom: employed, 85,515; engaged in prison duties, 68,894; attended school, 11,983; sick or otherwise unavailable, 16,519; and idle, 10,980 (U.S. Department of Labor, Bureau of Labor Statistics, *Prison Labor in the United States, 1940*, by Richard F. Jones, Jr., Bulletin No. 698, 1941, table 5, p. 11). The reported population in Federal and State prisons at the end of 1960 was 213,142 (U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1963*, table 209, p. 160).

⁴ U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings*, Annual Supplement issue, vol. 10, No. 3, September 1963, table B-1, p. 13.

Part B. Wages

TABLE V-B-1.—Estimated average annual money earnings of wageworkers in Soviet industry, selected years, 1928-61

Year	Amount (new rubles)	Index			Year	Amount (new rubles)	Index		
		1928=100	1940=100	1950=100			1928=100	1940=100	1950=100
1928.....	84	100	-----	-----	1950.....	925	1,100	208	100
1929.....	90	107	-----	-----	1953.....	971	1,150	219	105
1930.....	100	118	-----	-----	1954.....	1,010	1,200	227	109
1931.....	115	136	-----	-----	1955.....	1,020	1,210	230	110
1932.....	139	165	-----	-----	1956.....	1,040	1,230	234	112
1933.....	151	179	-----	-----	1957.....	1,100	1,300	247	119
1934.....	176	209	-----	-----	1958.....	1,130	1,340	254	122
1935.....	222	263	-----	-----	1959.....	1,160	1,380	262	126
1940.....	443	526	100	-----	1960.....	1,190	1,410	269	129
1945.....	616	731	139	-----	1961.....	1,240	1,470	280	134
1947.....	825	978	186	-----					

TABLE V-B-2.—Estimated average annual money earnings of wageworkers in Soviet industry by branch of industry, 1928, 1935, 1950, 1956, and 1959

Branch of industry	1928		1935		1950		1956		1959	
	Average earnings in rubles	Percent of the average for all industry	Average earnings in rubles	Percent of the average for all industry	Average earnings in rubles	Percent of the average for all industry	Average earnings in rubles	Percent of the average for all industry	Average earnings in rubles	Percent of the average for all industry
All industry	84.3	100.0	222.4	100.0	925	100.0	1,040	100.0	1,160	100.0
Electric power	105.0	124.5	260.2	117.0	941	101.7	1,091	99.1	n.a.	n.a.
Coal	75.9	90.1	233.6	104.9	1,572	170.4	1,636	162.1	2,119	182.7
Peat	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,814	78.3	n.a.	n.a.
Petroleum	84.2	111.7	265.0	120.5	651	70.4	1,154	111.0	1,202	103.9
Nonferrous metallurgy	89.4	106.0	280.2	126.0	1,113	126.9	1,345	129.3	1,495	n.a.
Ferrous metallurgy (including ore mining)	109.5	n.a.	n.a.	n.a.	n.a.	n.a.	1,483	144.0	n.a.	n.a.
Nonferrous metallurgy	98.5	115.8	237.1	108.0	989	108.0	1,080	104.1	1,158	92.7
Machine building and metalworking	n.a.	130.0	251.3	104.0	935	101.1	1,050	101.0	1,075	n.a.
Chemicals	n.a.	115.9	n.a.	n.a.	1,147	124.0	1,178	113.3	n.a.	n.a.
Mining of nonmetallic minerals	n.a.	n.a.	n.a.	n.a.	818	88.4	981	90.4	n.a.	n.a.
Construction materials	n.a.	n.a.	n.a.	n.a.	811	87.7	940	90.4	n.a.	n.a.
Glass, china, and pottery	n.a.	n.a.	n.a.	n.a.	784	84.8	974	93.7	n.a.	n.a.
Logging and woodworking	73.2	86.8	192.0	86.7	754	81.5	874	84.0	934	85.7
Woodworking	80.4	95.4	185.9	83.6	967	104.5	1,111	107.0	1,191	102.7
Paper	69.3	n.a.	n.a.	n.a.	n.a.	n.a.	865	78.0	n.a.	n.a.
Light	95.7	82.2	184.6	83.0	791	86.3	n.a.	n.a.	914	78.8
Sewing	103.2	113.6	174.5	78.4	635	65.3	n.a.	n.a.	763	65.8
Fur, leather, and footwear	81.7	96.9	172.1	77.4	725	78.4	877	84.3	962	82.9
Food	108.4	128.6	224.0	100.7	672	72.1	780	75.0	856	73.8
Printing	n.a.	n.a.	n.a.	n.a.	886	93.8	900	86.5	n.a.	n.a.

n.a.—Not available.

SECTION VI
EDUCATION

Part A. Elementary and secondary education

[NOTE.—Some of the tables contain higher education data]

TABLE VI-A-1.—*Enrollment in schools and training programs of various types at all levels: U.S.S.R., selected years, 1914-15 to 1962-63*

[Thousands of students at beginning of school year]

Schools and training programs	1914-15	1940-41	1952-53	1958-59	1959-60	1960-61	1961-62	1962-63
Total enrollment.....	10,588	47,547	47,717	46,057	48,741	52,600	56,340	61,268
General education schools of all types.....	9,656	35,552	32,043	31,483	33,364	36,187	39,087	42,445
Primary, 7-year, 8-year, and complete secondary schools.....	9,656	34,784	30,953	29,567	31,046	33,417	35,813	38,485
Schools for workers and rural youth and schools for adults (including correspondence study).....		768	1,090	1,916	2,318	2,770	3,274	3,960
Trade-technical and factory schools.....	106	717	774	904	996	1,113	1,266	1,397
Secondary specialized educational institutions ¹	54	975	1,477	1,876	1,908	2,060	2,370	2,698
Higher educational institutions.....	127	812	1,441	2,179	2,267	2,306	2,640	2,944
Training programs for new trades and raising qualifications in factory and other courses (excluding political education).....	645	9,491	11,382	9,615	10,206	10,844	10,977	11,814

¹ These are industrial technicums and other secondary specialized schools, providing vocational-technical training.

TABLE VI-A-2.—*Schools of general education of all types, number of schools, enrollment, and number of teachers: U.S.S.R., 1952-53 and 1958-59 to 1962-63*

[Figures in thousands (at beginning of school year)]

	1952-53	1958-59	1959-60	1960-61	1961-62	1962-63
Schools of general education of all types.....	217	215	221	224	228	¹ 227
Total enrollment.....	32,643	31,483	33,364	36,187	39,087	² 42,445
Grades 1-4.....	13,627	17,779	18,518	18,650	18,962	19,428
Grades 5-7.....	14,991	8,938	10,439	12,271	13,329	³ 18,234
Grades 8-11.....	3,900	4,656	4,285	5,121	6,644	⁴ 4,596
Special schools for mentally and physically handicapped children.....	125	111	122	136	152	187
Teachers.....	1,583	1,900	1,953	2,043	2,132	2,234

¹ Includes over 25,000 (complete) secondary general education labor-polytechnical schools.
² Includes over 2,000,000 pupils enrolled in boarding schools and extended day schools and groups.
³ In grades 5-8.
⁴ In grades 9-11.

TABLE VI-A-3.—Primary, 7-year, 8-year, and complete secondary schools, number of schools, enrollment, and number of teachers: U.S.S.R., 1952-53 and 1958-59 to 1962-63

[At beginning of school year]

	1952-53	1958-59	1959-60	1960-61	1961-62	1962-63
Total number of schools (thousands) ¹	198.3	199.7	199.3	199.2	198.8	197.6
Primary.....	115.8	112.4	111.6	110.1	108.0	105.4
7-year.....	62.0	55.7	54.4	36.4	21.1	21.1
8-year.....	19.7	30.7	2.1	22.5	40.5	62.8
Complete secondary.....	.8	.9	1.0	1.0	1.2	1.3
Special schools for mentally and physically handicapped children.....						
Total enrollment (millions).....	30.9	29.6	31.0	33.4	35.8	38.5
Primary.....	4.5	4.5	4.5	4.4	4.4	4.3
7-year.....	13.6	8.9	9.3	6.1	3.1	4.3
8-year.....	12.7	16.1	.8	5.9	11.2	16.0
Complete secondary.....	.1	.1	16.3	16.9	17.0	18.0
Special schools.....			.1	.1	.1	.2
Total number of teachers (thousands).....	1,531.0	1,813.0	1,855.0	1,933.0	2,024.0	2,119.0

¹ Excluding schools for working and rural youth and schools for adults.

TABLE VI-A-4.—Higher and secondary specialized educational institutions, number of schools and enrollments by type of instruction: U.S.S.R., 1962-63 and 1958-59 to 1962-63

	1952-53	1958-59	1959-60	1960-61	1961-62	1962-63
Higher schools:						
Total number.....	827	766	753	739	731	738
Total enrollments (thousands).....	1,441	2,179	2,267	2,396	2,640	2,944
Day division.....	933	1,180	1,146	1,156	1,204	1,287
Evening division.....	38	163	196	245	307	374
Correspondence instruction.....	470	846	925	995	1,129	1,283
Secondary specialized schools:						
Total number.....	3,604	3,346	3,330	3,323	3,416	3,521
Total enrollments (thousands).....	1,477	1,876	1,908	2,060	2,370	2,668
Day division.....	1,219	1,125	1,067	1,091	1,203	1,310
Evening division.....	82	303	318	370	431	489
Correspondence instruction.....	176	448	523	599	736	869

TABLE VI-A-5.—Enrollment in secondary specialized educational institutions, by groups of specialties; U.S.S.R., 1952-53 and 1958-59 to 1962-63

[Thousands of students]

Groups of specialties	1952-53	1958-59	1959-60	1960-61	1961-62	1962-63
All specialties, total.....	1,477.4	1,875.9	1,907.8	2,059.5	2,369.7	2,667.7
Geology and prospecting for mineral resources.....	19.9	11.1	10.8	11.8	12.5	13.8
Mining of mineral resources.....	49.0	54.3	47.8	42.6	38.5	35.1
Power engineering.....	57.6	77.5	84.3	98.4	115.1	130.7
Metallurgy.....	19.9	24.0	24.3	27.3	30.2	33.1
Machine building and instrument making.....	155.3	339.7	330.2	348.2	387.8	428.1
Electromachine building and electro-instrument making.....	20.8	27.7	33.2	45.5	60.4	78.8
Radiotechnics and communication.....	40.4	59.3	61.4	71.1	79.5	93.6
Chemical technology.....	27.2	31.6	34.6	43.5	51.9	58.8
Timber engineering and technology of wood, cellulose, and paper.....	17.8	29.7	27.3	28.7	30.7	32.8
Technology of food products.....	23.7	51.6	59.3	66.6	75.6	86.1
Technology of consumer goods.....	27.7	42.1	51.8	59.7	63.9	71.7
Construction.....	108.6	161.4	145.6	152.0	165.9	183.8
Geodesy and cartography.....	5.4	7.3	6.3	6.4	6.2	6.3
Hydrology and meteorology.....	4.1	6.2	5.9	6.3	6.0	6.9
Agriculture.....	219.7	293.5	301.3	292.4	314.8	340.9
Transport.....	52.8	98.8	101.0	112.3	126.8	147.1
Economics.....	130.8	220.2	236.2	261.5	317.4	371.2
Health and physical culture.....	153.2	164.6	169.5	176.3	232.9	257.6
Education.....	303.2	136.5	142.2	154.3	183.0	212.8
Art.....	25.2	37.3	44.8	54.6	69.4	78.5

TABLE VI-A-6.—Admissions to secondary specialized educational institutions by type of instruction, and admissions and graduations by branch group of educational institutions: U.S.S.R., 1952, 1958-1962

[Thousands of students]

	1952	1958	1959	1960	1961	1962
Admissions:						
Type of instruction:						
Day division.....	412.0	363.7	378.4	415.0	451.3	466.3
Evening division.....	28.1	75.2	98.7	130.0	139.1	141.4
Correspondence instruction.....	59.9	145.2	179.1	224.3	280.7	297.9
Branch groups of educational institutions, total.....	500.0	584.1	658.2	769.3	871.1	905.6
Industry and construction.....	193.8	221.5	271.2	322.2	347.6	360.0
Transport and communications.....	35.5	46.6	51.0	60.8	68.4	73.0
Agriculture.....	85.0	108.4	111.3	120.3	134.7	146.3
Economics and law.....	35.7	70.3	77.0	92.7	117.2	122.0
Health, physical culture, and sports.....	58.0	67.5	70.5	85.5	92.3	91.3
Education.....	84.2	58.5	61.9	72.1	91.4	92.9
Art and cinematography.....	7.8	11.3	12.7	15.7	19.5	20.1
Graduations:						
Branch groups of educational institutions, total.....	280.6	551.2	527.9	483.5	429.5	452.2
Industry and construction.....	79.3	219.7	224.3	189.9	170.9	163.6
Transport and communications.....	14.7	42.2	40.5	36.6	37.1	34.6
Agriculture.....	47.0	96.3	89.5	80.2	77.7	74.8
Economics and law.....	23.7	45.2	50.3	56.5	56.2	59.8
Health, physical culture, and sports.....	41.0	77.2	71.0	64.2	31.3	58.6
Education.....	70.2	63.4	45.1	48.9	48.6	51.9
Art and cinematography.....	4.7	7.2	7.2	7.2	7.7	8.9

Source (tables 1-6): Data in the above 6 tables on education are from the following source: Narodnoe khoziaistvo S.S.S.R. v. 1962 g., statisticheskii ezhegodnik (National Economy of the U.S.S.R. in 1962, statistical yearbook), published by the Central Statistical Administration attached to the U.S.S.R. Council of Ministers, Moscow, 1963.

Part B. Higher Education

[NOTE.—The following education statistics (tables VI-B-1 to VI-B-20) have been updated wherever possible by recent data in official Soviet publications, made available after publication of the U.S. Office of Education Bulletin, 1963, No. 16, *Higher Education in the U.S.S.R.*, in which the translated tables first appeared. Also the State budget expenditure tables contain elementary and secondary education data.]

TABLE VI-B-1.—*Total State budget expenditures, and expenditures for specified education categories: U.S.S.R., 1961-65*

[The Soviet State budget for 1964-65 was announced in the Soviet press in December 1963; although the breakdown of the planned educational expenditures is not complete, available data are presented below, along with data for 1961-63]

Budget category	Billions of rubles				
	1961 (announced December 1960)	1962 (announced December 1961)	1963 (announced December 1962)	1964 (announced December 1963)	1965 (announced December 1963)
Total, State budget expenditures	77.5	80.3	86.1	91.3	100.4
Education, training of cadres, science and culture, total	11.3	12.4	13.8	14.6	15.4
General education	3.5	¹ [4.3]	4.0	³ 4.3	
Preschool institutions (nurseries, kindergartens)	1.2	1.4	1.6		1.9
Boarding and extended day schools	.6	.6	.7	(3)	
Higher educational institutions and technical schools	² 2.2	² 1.8	² 2.7	(4)	(4)
Scientific research and science	3.8	4.3	4.7	5.2	5.4

¹ This figure has been derived as a residual; it may include vocational as well as general education.

² The 1961 figure of 2,200,000,000 rubles includes vocational schools. The 1,800,000,000 figure for 1962 is not announced as including vocational schools. U.S.S.R. Minister of Finance, V. F. Garbuzov, stated (*Izvestia*, Dec. 7, 1961) that expenditures for higher educational institutions and technical schools for 1962 would be 7.9 percent higher than in 1961. The 1963 figure of 2,700,000,000 rubles apparently includes vocational schools.

³ The 1964 general education figure includes boarding schools.

⁴ The 1964 and 1965 figures are reported lumped together as "almost 4,000,000,000 rubles," excluding vocational schools which total "over 1,500,000,000" for the 2 years.

TABLE VI-B-2.—Total State budget expenditures and expenditures budgeted for enlightenment: U.S.S.R., 1955 and 1958-62

[Data for 1955-60 are from Narodnoe khoziaistvo v 1960 godu (National Economy in 1960), statistical year-book published by the Central Statistical Administration attached to the U.S.S.R. Council of Ministers, Moscow 1961. Pp. 846-847. The 1961-62 data, from the yearbooks published in 1962 and 1963]

Budget category	Millions of rubles					
	1955	1958	1959	1960	1961	1962
Total State budget expenditures.....	54,000 (100%)	64,300 (100%)	70,400 (100%)	73,100 (100%)	76,300 (100%)	82,200 (100%)
Total social-cultural expenditures.....	14,717 (27%)	21,418 (33%)	23,118 (33%)	24,937 (34%)	27,187 (36%)	28,967 (36%)
Enlightenment: total (included in preceding line).....	6,894 (13%)	8,603 (13%)	9,412 (13%)	10,323 (14%)	11,349 (15%)	12,435 (15%)
1. General education and education of children and youth, and general adult education, total.....	3,354 361	3,979 525	4,435 600	5,002 697	5,606 824	6,208 1,001
(a) Kindergartens.....						
(b) Children's homes and boarding schools for deaf and blind children.....	286	306	315	305	290	291
(c) General education schools of all types.....	2,520	2,779	2,998	3,262	3,590	3,913
2. Cultural-educational work.....	253	318	328	333	336	327
3. Training cadres, total.....	2,326	2,352	2,389	2,420	2,532	2,723
(a) Higher educational institutions.....	1,021	1,141	1,152	1,167	1,208	1,286
(b) Technicums and schools for training of cadres of secondary qualification.....	592	541	523	527	552	585
(c) Trade and railroad schools.....	166	187	220	262	312	337
(d) Factory schools.....	90	68	33	24		
(e) Technical schools.....	40	69	73	83	90	91
(f) [Other] factory, trade, and mechanical schools, schools for mechanization of agriculture.....	305	230	277	236	252	325
4. Science.....	825	1,696	2,004	2,339	2,679	3,006
5. Press.....	62	88	88	74	75	68
6. Art and radio.....	74	129	122	105	90	92

The Russian word "prosveshchenie" is translated here as "enlightenment." Soviet sources translate it as "education," leading to a conceptual error and overstatement of the total education budget.

TABLE VI-B-3.—Number of specialists with higher education working in the national economy, by specialty; U.S.S.R., selected years, 1928-60

The 20 tables of statistics which follow have been selected and translated from Vysshee obrazovanie v SSSR (Higher Education in the U.S.S.R.), a statistical compilation prepared and published in 1961 by the Central Statistical Administration, attached to the U.S.S.R. Council of Ministers, Moscow. Statistics are for the beginning of the school year, unless otherwise indicated. Additional statistics, for the 1961-62 and 1962-63 school years have been added to a number of the tables. The source for these statistics is the 1962 and 1963 publications of the Central Statistical Administration, Narodnoe khoziaistvo SSSR (National Economy of the U.S.S.R.) in 1961 and in 1962.

[Figures in parentheses are percent of total]

	Thousands of specialists								
	1928	Jan. 1, 1941	Jan. 1, 1946	July 1, 1950	Apr. 1, 1954	July 1, 1955	Dec. 1, 1957	Dec. 1, 1959	Dec. 1, 1960
Total specialists with higher education working in the national economy.....	233.0 (100)	900.0 (100)	890.9 (100)	1,442.8 (100)	2,008.5 (100)	2,184.0 (100)	2,805.5 (100)	3,235.7 (100)	3,545.2 (100)
Engineers.....	47.0 (20.2)	289.9 (31.9)	277.5 (30.9)	392.4 (27.2)	530.2 (26.4)	585.9 (26.8)	816.1 (29.1)	986.6 (30.5)	1,115.5 (31.5)
Agronomists, zootechnicians, veterinarians, and foresters.....	28.0 (12.0)	69.6 (7.7)	59.4 (6.6)	109.5 (7.6)	134.5 (6.7)	158.7 (7.3)	193.1 (6.9)	222.4 (6.9)	241.8 (6.8)
Economists, economist-statisticians.....	13.0 (5.6)	57.0 (6.2)	48.3 (5.4)	72.8 (5.1)	96.0 (4.8)	105.2 (4.8)	145.2 (5.2)	177.6 (5.5)	197.7 (5.6)
Commodities experts.....		2.3 (.3)	1.8 (.2)	4.7 (.3)	7.8 (.4)	8.6 (.4)	12.3 (.4)	16.3 (.5)	19.3 (.5)
Lawyers.....	13.0 (5.6)	20.9 (2.3)	15.6 (1.7)	25.1 (1.7)	40.7 (2.0)	47.1 (2.2)	57.8 (2.1)	65.5 (2.0)	69.8 (2.0)
Doctors (excluding dentists).....	63.2 (27.0)	141.8 (15.6)	126.2 (14.1)	232.4 (16.1)	280.4 (14.0)	299.0 (13.7)	346.0 (12.3)	378.6 (11.7)	400.6 (11.3)
Teachers, and university graduate librarians and cultural-educational workers.....	59.0 (25.3)	370.4 (33.1)	333.3 (37.2)	556.7 (38.6)	867.8 (43.2)	906.4 (40.5)	1,144.9 (40.8)	1,278.9 (39.5)	1,378.1 (38.9)

TABLE VI-B-4.—Number and percent of women specialists with higher education working in national economy, by specialty: U.S.S.R., 1941, 1954, and 1960

Specialties	Thousands of women			Women as percent of total specialists	
	Jan. 1, 1941	Apr. 1, 1954	Dec. 1, 1960	Jan. 1, 1941	Dec. 1, 1960
Total women specialists with higher education working in national economy.....	312.3	1,098.3	1,864.6	34	53
Engineers.....	43.2	151.5	320.1	15	29
Agronomists, zootechnicians, veterinarians, and foresters.....	17.6	54.9	94.5	25	39
Economists, economist-statisticians, commodities experts.....	18.1	56.3	112.7	31	57
Lawyers.....	3.1	13.0	22.3	15	32
Doctors (excluding dentists).....	85.4	214.3	302.0	60	75
Teachers, university graduate librarians, and cultural-educational workers.....	144.5	581.0	901.3	49	65

TABLE VI-B-5.—Number of higher educational institutions and enrollment:
 U.S.S.R., 1914-15 and 1922-23 to 1962-63

School year	Number of educational institutions	Thousands of students	School year	Number of educational institutions	Thousands of students
1914-15 (current boundaries).	105	127.4	1950-51	890	1,247.4
1922-23	248	216.7	1951-52	887	1,356.1
1923-24	187	208.3	1952-53	827	1,441.5
1924-25	169	169.5	1953-54	818	1,562.0
1925-26	145	167.0	1954-55	798	1,730.5
1926-27	148	168.0	1955-56	765	1,867.0
1927-28	148	168.5	1956-57	767	2,001.0
1928-29	152	176.6	1957-58	763	2,099.1
1929-30	190	204.2	1958-59	766	2,178.9
1930-31	579	287.9	1959-60	753	2,267.0
1931-32	701	405.9	1960-61	739	2,395.5
1932-33	832	504.4	1961-62	731	2,640.0
1933-34	714	458.3	1962-63	738	2,944.0
1934-35	688	527.3	1960-61 as a percent (or multiple) of—		
1935-36	718	563.5	1914-15	(7 times)	(19 times)
1936-37	700	542.0	1927-28	(5 times)	(14 times)
1937-38	683	547.2	1932-33	89	(5 times)
1938-39	708	602.9	1940-41	90	295
1939-40	750	619.9	1950-51	84	192
1940-41	817	811.7	1955-56	97	128
1945-46	789	730.2	1958-59	96	110
1946-47	805	871.7			
1947-48	807	903.6			
1948-49	823	1,032.1			
1949-50	864	1,132.1			

TABLE VI-B-6.—Enrollment in higher education, by type of instruction: U.S.S.R., 1940-63

School year	Thousands of students			
	Total	In day divisions	In evening divisions	In correspondence
1940-41	811.7	558.1	26.9	2267
1945-46	730.2	625.2	14.0	191.0
1946-47	871.7	636.2	13.3	222.2
1947-48	963.6	690.4	15.2	258.0
1948-49	1,032.1	716.0	18.4	297.7
1949-50	1,132.1	755.9	22.3	353.9
1950-51	1,247.4	817.9	27.2	402.3
1951-52	1,356.1	836.1	32.1	437.9
1952-53	1,441.5	933.6	37.9	470.0
1953-54	1,562.0	994.4	48.3	519.3
1954-55	1,730.5	1,084.1	62.4	584.0
1955-56	1,867.0	1,147.0	80.9	639.1
1956-57	2,001.0	1,177.1	100.8	723.1
1957-58	2,639.1	1,193.1	127.2	778.8
1958-59	2,178.9	1,179.6	153.3	848.0
1959-60	2,267.0	1,145.8	195.8	925.4
1960-61	2,395.5	1,155.5	244.9	995.1
1961-62	2,640.4	1,204.0	307.0	1,129.0
1962-63	2,944.0	1,257.0	374.0	1,283.0
1960-61 as a percent (or multiple) of—				
1940-41	295	207	(9 times)	439
1945-46	328	220	(17 times)	(5 times)
1950-51	192	141	(9 times)	247
1955-56	128	101	303	156
1958-59	110	98	160	118

TABLE VI-B-7.—Number of higher educational institutions and enrollment, by branch groups of institutions: U.S.S.R., selected years, 1914-61

Branch group of institutions	1914-15	1940-41	1945-46	1950-51	1955-56	1959-60	1960-61
Number of institutions							
All institutions, total.....	105	817	789	880	765	753	739
Industry and construction.....	18	136	148	147	165	164	169
Transport and communications.....	14	28	28	35	38	38	37
Agriculture.....	14	91	92	94	99	100	96
Economics and law.....	15	47	44	47	39	58	51
Health, physical culture, and sport.....	6	78	80	89	94	98	98
Education.....	52	407	349	417	285	248	241
Art and cinematography.....		30	48	51	45	47	47
Enrollment in thousands							
All institutions, total.....	127.4	811.7	730.2	1,247.4	1,867.0	2,267.0	2,396.5
Industry and construction.....	24.9	168.4	168.0	272.8	550.6	788.1	872.6
Transport and communications.....	4.6	36.2	29.3	47.9	99.0	145.1	148.7
Agriculture.....	11.4	52.1	49.8	104.1	195.9	261.4	246.4
Economics and law.....	5.0	36.3	44.5	80.2	106.7	153.9	161.9
Health, physical culture, and sport.....	5.0	109.8	115.6	111.5	158.8	184.4	188.9
Education.....	81.5	398.6	321.9	607.0	741.6	737.2	759.6
Art and cinematography.....		10.3	11.1	14.9	14.4	16.9	19.4

TABLE VI-B-8.—Enrollment in higher education, by groups of specialties: U.S.S.R., selected years, 1950-63

Groups of specialties	Thousands of students				1960-61 as percent of—		1961-62 (rounded)	1962-63 (rounded)
	1950-51	1955-56	1959-60	1960-61	1950-51	1955-56		
All specialties, total.....	1,247,382	1,860,994	2,266,979	2,395,545	192	128	2,639,900	2,943,700
Geology and prospecting for mineral resources.....	16,251	32,259	21,820	21,276	131	66	22,100	23,000
Mining of mineral resources.....	20,860	36,471	30,924	30,248	145	83	32,100	31,600
Power engineering.....	23,840	52,493	68,663	74,608	313	142	78,400	71,800
Metallurgy.....	14,708	24,713	29,323	31,500	214	127	33,400	34,500
Machine building and instrument making.....	86,332	172,634	270,116	302,684	351	175	344,300	376,400
Electro-machine building and electro-instrument making.....	14,156	36,250	69,988	91,380	(1)	262	121,600	175,100
Radiotechnics and communication.....	15,630	39,795	65,025	78,228	(2)	197	90,000	112,700
Chemical technology.....	23,908	37,610	47,280	56,194	235	149	60,900	69,200
Timber engineering and technology of wood, cellulose, and paper.....	8,659	20,499	22,277	22,863	264	112	24,300	25,700
Technology of food products.....	10,049	18,165	27,195	31,349	312	173	36,200	41,300
Technology of consumer goods.....	9,464	20,144	26,645	28,821	305	143	32,000	35,000
Construction.....	37,092	93,202	135,116	147,024	396	158	164,400	180,800
Geodesy and cartography.....	2,793	3,507	5,354	5,870	210	167	6,500	6,700
Hydrology and meteorology.....	2,848	4,123	4,583	5,158	181	125	5,500	5,900
Agriculture and forestry.....	107,682	191,796	264,108	236,008	219	123	253,300	273,700
Transport (exploitation).....	23,741	36,628	58,319	65,617	276	179	73,600	81,700
Economics.....	72,591	131,461	198,413	217,674	300	168	248,900	277,300
Law.....	45,383	38,803	38,820	40,301	89	104	43,400	46,600
Health and physical culture.....	113,300	159,711	186,249	189,161	167	118	197,000	206,300
Specialties in universities.....	87,452	126,668	176,962	186,969	214	148	200,100	216,800
Specialties in pedagogical and library institutes.....	496,283	576,278	512,515	512,803	103	89	552,000	624,600
Art.....	14,362	13,894	17,224	19,875	138	143	23,000	27,000

¹ 6 times.
² 5 times.

TABLE VI-B-9.—Enrollment in engineering, by engineering specialty: U.S.S.R., selected years, 1950-61

Groups of specialties	1950-51	1955-56	1959-60	1960-61	1960-61 as percent of—	
					1950-51	1955-56
Total, all engineering specialties.....	346,424	700,983	977,795	1,080,535	312	154
Geology and prospecting for mineral resources.....	16,251	32,259	21,820	21,276	131	66
Mining of mineral resources.....	20,860	36,471	30,924	30,248	145	83
Power engineering.....	23,840	52,049	68,663	74,608	313	142
Metallurgy.....	14,708	24,713	29,823	31,500	214	127
Machine building and instrument making.....	86,382	172,534	270,116	302,684	351	175
Electro-machine building and electro-instrument making.....	14,156	36,250	60,988	91,330	(1)	252
Radiotechnics and communications.....	15,630	39,795	65,025	78,228	(2)	197
Chemical technology.....	23,906	37,610	47,280	56,194	235	149
Timber engineering and technology of wood, cellulose, and paper.....	8,659	20,499	22,277	22,863	264	112
Technology of food products.....	10,049	18,165	27,195	31,349	312	173
Technology of consumer goods.....	9,464	20,144	26,645	28,821	305	143
Construction.....	37,092	93,202	135,116	147,094	396	158
Geodesy and cartography.....	2,793	5,507	5,354	5,870	210	167
Hydrology and meteorology.....	2,848	4,123	4,583	5,158	181	125
Specialties in agriculture and forestry:						
Organization of land exploitation.....	2,754	5,043	4,950	4,209	153	83
Agricultural mechanization.....	12,756	36,540	60,991	50,945	446	156
Agricultural electrification.....	3,388	6,120	7,830	6,705	198	110
Irrigation.....	5,117	10,281	7,671	7,009	137	68
Forestry.....	12,080	14,606	13,725	12,898	107	88
Transport (exploitation).....	23,741	36,628	58,319	65,617	276	179

¹ 6 times.
² 5 times.

TABLE VI-B-10.—Women students as percent of total enrollment in higher education, by main areas: U.S.S.R., selected years, 1927-63

Main area	1927-28	1940-41	1945-46	1950-51	1955-56	1960-61	1961-62	1962-63
Number of women students (in thousands).....	(47)	(471)	(562)	(661)	(971)	(1,042)	(1,109)	(1,236)
Women as percent of total enrollment.....	28	58	77	53	52	43	42	42
Women as percent of total students in:								
Industry, construction, transport, and communications.....	13	40	60	30	35	30	28	28
Agriculture.....	17	48	79	39	39	27	26	25
Economics and law.....	21	64	77	57	67	49	49	49
Health, physical culture, and sport.....	52	74	90	65	69	56	55	54
Education, art, and cinematography.....	49	66	84	71	71	63	62	62

TABLE VI-B-11.—Number and percent of women students in higher education, by type of instruction: U.S.S.R., 1960-61

Type of instruction	Thousands of students		Women as percent of total students
	Both sexes	Women	
Total.....	2,395,545	1,041,645	43
Day divisions.....	1,155,554	520,768	45
Evening division.....	244,894	95,780	39
Correspondence instruction.....	995,097	425,107	43

TABLE VI-B-12.—Admissions to higher educational institutions, by type of instruction: U.S.S.R., 1940-41, and 1945-46 to 1962-63

Year	Thousands of students			
	Total	Day division	Evening division	Correspondence instruction
1940-41	263.4	154.9	6.6	101.9
1945-46	285.7	171.6	4.9	109.2
1946-47	327.2	201.6	4.4	121.2
1947-48	281.1	189.5	4.7	86.9
1948-49	291.8	187.2	6.4	98.2
1949-50	324.3	203.3	6.9	114.1
1950-51	349.1	228.4	9.1	111.6
1951-52	374.4	245.2	10.3	118.9
1952-53	287.3	249.0	11.8	126.5
1953-54	430.8	265.1	16.6	149.1
1954-55	469.0	276.2	22.9	169.9
1955-56	461.4	257.2	28.4	175.8
1956-57	458.7	231.2	32.6	194.9
1957-58	438.3	219.7	34.7	183.9
1958-59	455.9	215.5	42.2	198.2
1959-60	511.7	227.1	63.5	221.1
1960-61	593.1	257.9	77.0	258.2
1961-62	669.9	279.4	93.1	294.4
1962-63	727.5	312.1	102.3	313.1

1960-61 as a percent (or multiple) of—				
1940-41	225	166	(12 times)	263
1950-51	170	113	(8 times)	231
1955-56	129	110	271	147
1959-60	116	114	121	117

TABLE VI-B-13.—Number and percent of admissions to higher educational institutions by branch group of institutions: U.S.S.R., selected years, 1940 to 1963

Branch group	1940-41	1945-46	1950-51	1955-56	1959-60	1960-61	1961-62	1962-63
Admissions in thousands								
Total admissions	263.4	285.7	349.1	461.4	511.7	593.1	666.9	727.5
Industry and construction	45.4	52.5	74.0	144.8	185.6	225.1	245.8	270.8
Transport and communications	8.3	9.5	12.0	29.8	32.2	34.1	37.6	40.0
Agriculture	11.9	17.9	28.5	51.1	57.3	62.7	71.9	81.3
Economics and law	12.6	20.3	25.5	28.5	40.1	43.9	50.7	47.3
Health, physical culture, and sport	23.0	26.7	23.7	32.3	33.2	36.8	38.0	40.8
Education	59.0	155.0	182.6	172.0	159.0	185.2	216.0	241.0
Art and cinematography	2.2	3.8	2.8	2.9	4.3	5.3	6.0	6.3
Percent of total								
Total	100	100	100	100	100	100	100	100
Industry and construction	17.2	18.4	21.2	31.4	36.3	38.0	36.9	37.2
Transport and communications	3.2	3.3	3.4	6.4	6.3	5.7	5.6	5.5
Agriculture	4.5	6.3	8.2	11.1	11.2	10.6	10.8	11.2
Economy and law	5.2	7.1	7.3	6.2	7.8	7.4	7.6	6.5
Health, physical culture, and sport	8.7	9.3	6.8	7.0	6.5	6.2	5.8	5.6
Education	60.4	54.3	52.3	37.3	31.1	31.2	32.4	33.1
Art and cinematography	.8	1.3	.8	.6	.8	.9	.9	.9

TABLE VI-B-14.—Number and percent of graduations of specialists from higher educational institutions, by branch group: U.S.S.R., selected years, 1940-62

Branch group	1940	1945	1950	1955	1959	1960	1961	1962
Graduations in thousands								
Total graduations.....	126.1	54.6	176.9	245.8	338.0	342.1	325.5	316.6
Industry and construction.....	24.2	8.5	30.0	56.4	92.3	95.0	97.1	99.7
Transport and communications.....	5.9	1.6	6.1	9.5	16.3	16.1	17.0	15.9
Agriculture.....	10.3	2.9	12.7	24.1	34.5	34.7	31.8	30.8
Economics and law.....	5.7	2.4	11.4	15.6	25.0	24.7	24.7	24.1
Health, physical culture, and sport.....	17.4	6.6	20.0	16.9	29.5	30.0	30.6	30.3
Education.....	61.6	32.0	94.1	120.8	138.0	139.1	121.8	113.2
Art and cinematography.....	1.0	.6	2.6	2.5	2.4	2.5	2.5	2.6
Percent of total								
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Industry and construction.....	19.2	15.5	17.0	23.0	27.3	27.8	29.9	31.5
Transport and communications.....	4.7	3.1	3.4	3.8	4.8	4.7	5.3	5.0
Agriculture.....	8.2	5.3	7.2	9.8	10.2	10.1	9.5	9.7
Economics and law.....	4.6	4.4	6.4	6.4	7.5	7.2	7.6	7.6
Health, physical culture, and sport.....	13.8	12.0	11.3	6.8	8.7	8.8	9.4	9.6
Education.....	48.9	58.6	53.2	49.2	40.8	40.7	37.6	35.8
Art and cinematography.....	.7	1.1	1.5	1.0	.7	.7	.8	.8

TABLE VI-B-15.—Graduations of specialists from higher educational institutions by groups of specialties: U.S.S.R., selected years, 1950-62

Group of specialties	Number of specialties				1960 as percent of—		1961 (rounded)	1962 (rounded)
	1950	1955	1959	1960	1950	1955		
Total.....	176,889	245,846	337,909	342,050	193	139	325,500	316,600
Geology and prospecting for mineral resources.....	1,721	3,976	5,351	3,898	226	98	3,500	2,900
Mining of mineral resources.....	1,353	5,290	6,230	5,246	388	99	4,600	4,000
Power engineering.....	2,380	4,957	8,441	8,425	354	170	8,400	7,300
Metallurgy.....	1,416	2,656	4,005	3,884	274	146	3,900	3,800
Machine building and instrument making.....	9,101	15,736	28,349	30,408	334	193	32,400	34,100
Electro-machine building and electro-instrument making.....	1,433	2,981	6,833	8,138	(1)	273	8,500	11,000
Radiotechnics and communications.....	1,427	2,950	6,074	6,299	441	214	7,200	8,100
Chemical technology.....	2,580	4,954	5,404	5,702	220	115	5,600	6,000
Timber engineering and technology of wood, cellulose, and paper.....	727	1,885	3,497	3,724	(2)	198	3,100	2,700
Technology of food products.....	2,295	1,878	3,064	3,390	148	181	3,600	3,400
Technology of consumer goods.....	1,240	1,669	3,068	3,100	251	186	3,300	3,300
Construction.....	4,873	9,440	17,335	17,760	364	188	17,900	17,600
Geodesy and cartography.....	294	540	466	612	208	113	500	700
Hydrology and meteorology.....	379	628	657	668	176	106	700	700
Agriculture and forestry.....	12,859	24,563	33,908	34,391	267	140	31,500	30,600
Transport (exploitation).....	3,059	4,236	6,275	6,620	216	156	6,900	4,600
Economics.....	10,103	16,138	30,718	30,415	301	188	31,700	30,300
Law.....	5,648	8,126	6,263	6,016	107	74	5,600	6,100
Health and physical culture.....	20,747	16,943	29,803	29,953	144	177	30,800	30,600
Specialties in universities.....	12,323	15,560	30,200	29,876	242	192	28,400	25,900
Specialties in pedagogical and library institutes.....	78,529	98,249	99,656	101,003	129	103	84,800	79,100
Art.....	2,376	2,491	2,342	2,507	106	101	2,600	2,800

¹ 6 times.
² 5 times.

TABLE VI-B-16.—Graduations of engineers from higher educational institutions, by groups of specialties: U.S.S.R., selected years, 1950-60

Groups of specialties	Number of engineers ¹				1960 as percent of—	
	1950	1955	1950	1960	1950	1955
Total by engineering specialties.....	37,343	74,569	117,543	120,132	321	161
Geology and prospecting for mineral resources.....	1,721	3,976	5,851	3,898	226	98
Mining of mineral resources.....	1,363	5,290	6,230	5,246	388	99
Power engineering.....	2,380	4,957	8,441	8,425	354	170
Metallurgy.....	1,416	2,656	4,006	3,884	274	146
Machine building and instrument making.....	9,101	15,736	28,349	30,408	334	193
Electro-machine building and electro-instrument making.....	1,433	2,981	6,833	8,138	(6 times)	273
Radio-technics and communications.....	1,427	2,950	6,074	6,299	441	214
Chemical technology.....	2,586	4,954	5,404	5,702	220	115
Timber engineering and technology of wood cellulose and paper.....	727	1,885	3,497	3,724	(5 times)	198
Technology of food products.....	2,295	1,878	3,094	3,396	143	181
Technology of consumer goods.....	1,240	1,669	3,068	3,109	251	186
Construction.....	4,873	9,440	17,335	17,760	364	188
Geodesy and cartography.....	294	540	466	612	208	113
Hydrology and meteorology.....	379	628	657	668	176	106
Specialties in group "agriculture and forestry":						
Organization of land exploitation.....	202	511	893	826	409	162
Agricultural mechanization.....	1,033	5,068	6,631	6,742	(7 times)	133
Agricultural electrification.....	152	887	1,044	1,021	(7 times)	115
Irrigation.....	311	1,576	1,512	1,330	423	84
Forestry.....	1,452	2,751	2,384	2,324	160	84
Transport (exploitation).....	3,050	4,326	6,275	6,620	216	156

¹ The total number of engineers graduating in 1961 was 122,000, and in 1962 was 123,000 (rounded).

TABLE VI-B-17.—Number of universities and enrollments: U.S.S.R., selected years, 1940-61

Years	Number of universities	Number of students
1940-41.....	29	75,682
1950-51.....	33	109,737
1955-56.....	33	165,256
1959-60.....	40	223,441
1960-61.....	40	248,962

TABLE VI-B-18.—Number of admissions and graduations in universities: U.S.S.R., selected years, 1940-60

Years	Number of students	
	Admissions of freshmen	Graduations
1940.....	23,334	7,963
1950.....	27,127	15,626
1955.....	36,690	22,866
1959.....	52,904	39,064
1960.....	65,590	38,354

TABLE VI-B-19.—Enrollments of aspirants (graduate students), by type of instruction: U.S.S.R., selected years, 1940-62

Type of instruction	Number of aspirants				1960 as percent (or multiple of)—			1961	1962
	1940	1950	1955	1960	1940	1950	1955		
Total.....	16,863	21,995	29,362	36,754	218	168	125	47,500	61,809
In higher educational institutions.....	13,169	12,487	16,774	20,406	155	163	122	27,066	36,334
Training with interruption from production (full time).....	11,506	11,199	13,212	13,463	177	120	102	17,367	23,130
Training without interruption from production (part time).....	1,663	1,288	3,562	6,943	(4.2 times)	(5.4 times)	195	9,699	13,204
In scientific organizations.....	3,694	9,418	12,588	16,348	(4.4 times)	174	130	20,494	25,475
Training with interruption from production (full time).....	2,919	6,944	8,145	9,515	(3.3 times)	137	117	11,308	13,584
Training without interruption from production (part time).....	775	2,474	4,443	6,833	(8.8 times)	276	154	9,186	11,891

TABLE VI-B-20.—Number of admissions to aspirantura (graduate study) by type of instruction: U.S.S.R., selected years, 1940-60

Type of instruction	1940	1950	1955	1960	1960 as percent (or multiple) of—		
	Number of admissions				1940	1950	1955
Total.....	3,530	7,717	7,367	14,399	(4.1 times)	187	195
In higher educational institutions.....	2,768	4,783	4,193	8,271	299	173	197
With interruption from production.....	2,223	4,253	3,225	5,374	242	126	167
Without interruption from production.....	545	530	968	2,897	(5.3 times)	(5.5 times)	299
In scientific organizations.....	762	2,934	3,174	6,128	(8 times)	209	193
With interruption from production.....	559	2,124	2,159	3,641	(6.5 times)	171	169
Without interruption from production.....	203	810	1,015	2,487	(12.3 times)	(3.1 times)	245

TABLE VI-B-21.—Number of graduations of aspirants (graduate students) by type of instruction: U.S.S.R., selected years, 1940-61

Years	Total	Number of graduations by type of instruction			
		In higher educational institutions		In scientific organization	
		With interruption from production	Without interruption from production	With interruption from production	Without interruption from production
1940	1,978	1,411	61	454	52
1945	1,366	1,092	108	129	37
1946-50	16,295	10,087	733	4,767	708
1951-55	31,475	18,128	1,371	9,887	2,089
1956	8,453	4,805	496	2,408	744
1957	8,250	4,288	653	2,523	786
1958	6,802	3,119	707	2,053	923
1959	5,603	2,585	745	1,604	760
1960	5,517	2,407	613	1,718	779
1961	6,921	3,145	650	2,262	864

TABLE VI-B-22.—Enrollment of aspirants (graduate students) by branches of study: U.S.S.R., 1950, 1960-62 (at end of year)

Branch of study	1950		1960		1960 as percent (or multiple) of 1950		1961	1962	
	Number of aspirants	Number in higher educational institutions	Number of aspirants	Number in higher educational institutions	Number of aspirants	Number in higher educational institutions	Number of aspirants	Number of aspirants	Per cent of total
Total	21,905	12,487	36,754	20,406	168	163	47,500	61,809	100
Physics-mathematics	972	618	3,435	2,726	(3.5 times)	(4.4 times)	4,887	6,345	10.3
Chemistry	1,319	697	2,402	1,296	182	194	3,001	3,886	5.8
Biology	1,247	611	1,877	732	151	120	2,396	3,821	6.2
Geology-minerology	563	233	1,313	533	261	229	1,659	2,273	3.7
Technical	5,809	2,854	13,936	6,720	240	235	17,630	22,433	36.3
Agriculture and veterinary	2,105	835	2,877	1,077	133	129	3,953	4,786	7.7
History and philosophy	2,607	1,745	1,726	1,184	66	68	2,194	3,020	4.9
Economics	1,386	1,014	2,776	1,681	203	164	3,504	4,627	7.5
Philology	1,980	1,457	1,471	1,087	74	73	1,830	2,453	4.0
Geography	328	190	402	254	123	134	505	731	1.2
Law	748	489	402	280	54	57	497	707	1.1
Pedagogy	862	568	956	691	111	122	1,291	1,832	2.9
Medicine and pharmacy	1,386	832	2,585	1,846	187	214	3,441	4,057	6.5
Art	459	290	448	314	98	108	598	785	1.3
Architecture	154	54	148	25	96	46	174	353	0.6

SECTION VII
TRANSPORTATION

TABLE VII-1.—Growth of freight traffic in the U.S.S.R., by type of carrier, 1955, and 1958-62

	Billion ton-kilometers ¹						
	All carriers	Railroads	Motor transport	Pipelines	Inland water	Maritime	Air
1955	1,165.0	970.9	42.5	14.7	67.7	68.9	0.252
1958	1,604.8	1,302.0	76.8	33.8	85.5	106.3	.399
1959	1,768.4	1,429.5	87.6	41.6	93.6	115.7	.439
1960	1,885.7	1,504.3	98.5	51.2	99.6	131.5	.563
1961	1,998.2	1,566.6	105.7	60.0	106.0	159.1	.802
1962	2,116.9	1,646.3	111.9	74.5	109.9	173.4	.89
Index (1955=100)							
1955	100	100	100	100	100	100	100
1958	138	134	181	230	126	154	158
1959	152	147	206	283	138	168	174
1960	162	155	232	348	147	191	223
1961	172	161	249	408	157	231	318
1962	182	170	263	507	162	252	353

¹ All data are from official Soviet statistics. (U.S.S.R., Central Statistical Administration. "Narodnoye khozyaystvo SSSR v 1962 godu, statisticheskiy yezhogodnik," Moscow 1963, p. 379; "Narodnoye khozyaystvo SSSR v 1961 godu" Moscow, 1962, p. 519; and "Narodnoye khozyaystvo SSSR v 1960 godu" Moscow, 1961, p. 574.)

TABLE VII-2.—Value and volume indexes of the growth of total freight traffic in the U.S.S.R., 1955, and 1958-62

	Value ¹		Volume	
	Million rubles	Index (1955=100)	Billion ton-kilometers	Index (1955=100)
1955	8,628	100	1,165.0	100
1958	13,370	155	1,604.8	138
1959	14,972	174	1,768.4	152
1960	16,379	190	1,885.7	162
1961	17,462	202	1,998.2	172
1962	18,468	214	2,116.9	182

¹ Expressed in terms of new rubles at 1955 prices. Sum of the value of production for each carrier. This was obtained by multiplying ton-kilometers by estimated average revenue for 1955 (new kopeks per ton-kilometer) as follows:

- Railroads 0.448 (1).
- Motor transport 8.78. Calculated from the rate per ton for class 2 freight (presumed typical) at the average haul distance in 1955, according to rates established July 1, 1955 (2).
- Pipelines 0.20. Estimated same as cost per ton-kilometer, which was calculated from ton-kilometers and total costs (3).
- Inland water 0.387. Cost plus profit (4).
- Maritime 0.297. Estimated same as cost per ton (5).
- Air 20.

SOURCE REFERENCES

- (1) Minsker, S. S., compiler. "Razvitiye zheleznodorozhnogo transporta v semiletii, sbornik statey," Moscow, 1960, p. 320.
- (2) U.S.S.R., Ministry of Automobile Transport and Highways. "Spravochnik yedinykh tarifov na perevozku грузов avtomobil'nym transportom," Moscow, 1956, p. 5.
- (3) Akademiya Nauk SSSR, Institut Kompleksnykh Transportnykh Problem. "Transportnyye izderzhki v narodnom khozyaystve SSSR," Moscow, 1956, p. 34.
- (4) U.S.S.R., Central Statistical Administration. "Transport i svyaz' SSSR, statisticheskiy sbornik," Moscow, 1957, p. 24. "Rechnoy transport," No. 2, 1957, p. 7.
- (5) U.S.S.R., Central Statistical Administration. "Transport i svyaz' SSSR, statisticheskiy sbornik," Moscow, 1957, p. 24.

SECTION VIII
NATIONAL INCOME ACCOUNTS

EXPLANATION OF TABLES RELATING TO NATIONAL INCOME ACCOUNTS*

The Soviet Union appears to have entered upon a period of secular deceleration in its growth following 1958 (table VIII-1). In the period 1950-58 its national product rose by an annual average of 6.8 percent, second only to West Germany among the major industrial economies. In no year since 1958 has this rate been attained and the average for the past 4 years has been only 4.6 percent, below the growth of Japan, Italy, and West Germany, and equal to that of France. Even if the unfavorable year of 1958 for the market economies be omitted from the comparison, the secular deceleration in growth has been far sharper for the U.S.S.R. than for other major economies. On a per capita basis the performance of the Soviet economy is even less favorable, in recent years being below Japan and the large continental economies.

The reduced pace of Soviet growth can be explained in part by examining the performance of the three sectors which originate over 80 percent of GNP—industry, agriculture, and services (table VIII-2). During the 1958-62 period industrial output was increasing by somewhat more than 7 percent per year compared with over 10 percent for the preceding 8 years. Agricultural production has nearly stagnated compared to an annual growth of over 5 percent in the previous period. The services have moved contrary to the general trend, rising over 4 percent a year compared with only about 1 percent for the earlier years. What decline has occurred in military services has been more than offset by accelerations in educational, medical, housing, and especially scientific services.

If provisional information for 1963 is introduced, an even slower growth than for 1962 appears. The record of the past 2 years is below the long-term trend as it is heavily influenced by two disastrous agricultural years in succession. If weather factors are discounted and it is assumed that the agricultural growth trend for 1958-61 would have prevailed under normal conditions, the growth of Soviet GNP would have been close to 5.0 percent. Even this normalized rate, however, still represents a substantial decline over the performance of the early and middle 1950's.

Part of the explanation for the decline in the rate of growth lies in a less favorable manpower situation, the rate of increase in employment having declined to 1.3 from 1.7 percent, but more striking has been the declining rate of productivity advancement, even if cyclical weather influences are removed. In this respect, too, the reduction in the Soviet rate of increase is the largest of the seven economies (table VIII-3).

There has been a noticeable decline in the rate of increase in per capita consumption, largely the result of the stagnation in farm output (table VIII-4) and to a lesser extent because of the decline in new housing construction. During the 1958-62 period the rate of growth was less than that for German and Italian and about equal to French consumers, all of whom enjoy considerably higher real living standards (see table VIII-5) than their Soviet counterparts. The rate of increase in investment also fell significantly contrary to the experience of

*A considerable portion of the methodology and data included in this section was originally presented in the author's contribution to the 1962 compendium of the committee, "Dimensions of Soviet Economic Power," pp. 67-90.

the other major economies. During the past 3 years the rate has averaged little better than 5.0 percent. Of equal importance is the sharply reduced return on investment. In the earlier period the Soviet Union obtained about the same increase in output per employee from a unit of nonhousing investment as did France and Germany, though less than that of Japan. Since 1958 the productivity of investment has been much less, in fact, the lowest (highest marginal capital-output ratio) of all major economies except the United Kingdom. This decline might be explained by a shift of investment from industry and agriculture into the service sectors (education, health, municipal facilities, science, etc.) with their slow payoffs and within industry out of coal, electric power, and machinery into the unfamiliar chemical technology.

In 1962 the U.S.S.R. was the world's second largest economy with a GNP approximately 46 percent the size of the United States and approximately equal to that of the principal Common Market economies combined (table VIII-5). In per capita terms its relative position is less favorable—about three-eighths of the United States, more than a third below France, Germany, and the United Kingdom, about equal to Italy, and a third higher than Japan. Soviet allocation priorities are graphically illustrated by relative per capita consumption levels. With unmeasured Japan excluded, Soviet consumption levels are only a quarter of those of the United States, half those of France, Germany, and the United Kingdom, and about 80 percent of Italy's. As would be expected in an economy in which growth is part of the ideology, the investment position of the U.S.S.R. is more favorable—about three-fourths of the U.S. level and above that of the major Western European market economies other than Germany. The really striking Soviet resource priority is found in defense. Its per capita level is two-thirds as high as that of the United States and about double the average for France, Germany, and Italy.

Soviet resource priorities are also emphasized in comparisons of industrial output (table VIII-6). Soviet industrial production (value added) in 1962 bears about the same ratio to U.S. output as does GNP, about 48 percent. While total output is approximately double the level of the nearest West European producer, the United Kingdom, its industrial output per employee is about equal to that of the three leading West European economies and about a third of the U.S. level. In per capita terms (a rough indicator of the degree of industrialization) its position is lower than that of the three largest West European economies.

The projections for the OECD countries and Japan are the official national target estimates submitted to the OECD within its overall growth rate of 4.5 percent per annum and the official Japanese plan goal (table VIII-7). Japan and the continental economies in the first 3 years of the decade have either exceeded or nearly matched targeted growth rates. Given prospective labor force increments and productivity advances they should be able to achieve their growth goals. The United Kingdom has lagged in its growth performance. However, the establishment of comprehensive national planning under the National Economic Development Council with a 4-percent growth rate set for 1961-66 and a 4.5-percent rate for the latter part of the decade, presumably supported by Government policies, implies that Britain should meet the OECD target rate and probably exceed it. The U.S. upper limit projection presumes that unemployment will be reduced to

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4 percent of the labor force even though the rate of new additions to the labor force will be almost double that of the previous decade, and that fuller use of resources will stimulate accelerated productivity advances. Our inability thus far to realize the assumptions casts doubt on the ability of the United States to meet its growth target. Continuation of recent employment and productivity performance imply a GNP growth rate for the United States of about 3.6 percent, the average for 1947-62.

There being no official Soviet growth target beyond 1965, except for the ephemeral 20 year goals set for 1980, and a major difference in Soviet and western concepts of national product, the projection of Soviet GNP growth is based on recent historic trends. If the premise that 1958 represented a kink in the Soviet growth path is assumed, then the base for extrapolation should lie in the post-1958 period. In view of the nonrepetitive measures adopted during the past decade to increase labor force participation and the high participation of women in remunerative employment, it is unlikely that employment can be increased much beyond the 1.2 percent annual increment projected in the labor force. As for productivity expectations, a minimum would appear to be established by the 1958-62 performance with its 7 percent industrial growth rate and virtual stagnation in agriculture. The upper limit presumes the same industrial growth rate but resumption of the 2 percent annual growth in agricultural output which prevailed from 1958-61 before adverse weather factors intervened. Both rates also assume that growth in nonmilitary services will continue to be rapid, as seems fitting to an economy of increasing sophistication and sensitivity to consumer requirements.

The likelihood of the growth rate disparity between the U.S.S.R. and the United States being closed is, therefore, contingent upon the extreme assumptions of maximum United States and minimum Soviet growth rates (table VIII-7). A more probable set of projections would see the disparity being narrowed from the respective performances of the 1950's, but with Soviet expansion still exceeding that of the United States by 1 to 1½ percent. However, the Soviet Union will grow little or no faster than France and Italy and considerable slower than Japan.

TABLE VIII-1.—Growth index of Soviet gross national product
[1955=100]

Sector	1955 weights	1950	1958	1959	1960	1961	1962
Industry.....	39.3	61.7	133.6	145.0	154.1	164.7	176.5
Construction.....	8.8	56.6	150.8	173.8	188.9	193.1	197.6
Agriculture.....	36.2	81.3	126.6	121.5	124.9	135.1	128.4
Transportation.....	5.1	61.2	137.7	151.7	161.2	171.4	181.8
Communications.....	.8	73.6	120.7	129.9	136.8	147.1	157.5
Trade (internal).....	3.9	73.7	115.9	121.0	125.2	130.6	136.3
Services.....	14.9	88.6	97.6	99.7	103.5	109.5	114.9
Of which—							
Defense.....	34.3	87.0	70.3	66.7	61.1	61.1	61.1
Education.....	28.5	83.1	109.8	114.2	120.4	129.5	138.0
Health.....	11.8	78.1	116.4	123.5	131.7	140.0	145.2
Government administration.....	9.8	134.5	95.1	93.5	91.5	95.2	97.8
Housing.....	6.2	86.4	110.6	122.4	137.1	145.0	151.3
Finance.....	1.9	99.6	98.1	98.1	100.0	104.5	106.4
Science.....	7.4	72.0	134.9	148.6	177.7	198.8	221.2
Gross national product ¹	100.0	72.7	126.5	131.4	138.0	147.0	160.2
Link relative for GNP ¹			9.9	3.9	5.0	6.5	2.2

¹ For alternative calculations of growth, see 3d paragraph in following methodological discussion.

SOURCES AND METHODOLOGY

1955 weights

The sector weights are based initially on the distribution of Soviet national income by sector of origin at adjusted prices (factor cost) in Morris Bornstein and others, "Soviet National Accounts for 1955," Center for Russian Studies, University of Michigan, 1961 (p. 84). The weight of their statistical discrepancy has been distributed among the component sectors on the basis of supplementary information, largely manpower statistics, as to the distribution of residual factor payments. The Bornstein calculation makes no allowance for a factor return of rent on superior land. Although procurement prices at which farm products are purchased by state agencies make no allowance for rent, there is no corresponding saving in the prices paid by retail consumers of processed farm products since retail prices include large turnover taxes. Therefore, for purposes of international comparability some upward adjustment should be made to agricultural incomes to include the omitted land rent. D. Gale Johnson has computed the ratio between land rent and agricultural labor income in the United States for the years 1910-14 and 1940-44 (Journal of Farm Economics, November 1948, p. 742). The average ratio for these two periods is around 40 percent. Johnson obtained similar results for other economies with varying states of development. On this basis the Bornstein estimate of agricultural factor payments has been increased by 40 percent. The weights of the nonagricultural sectors have been reduced in proportion to the increase in the agricultural weight.

Because of its large share in total product the size of the agricultural weight selected exerts an important influence on trends in calculated GNP. The magnitude of the agricultural weight depends in turn upon controversial assumptions as to the treatment of land rent and the valuation of farm income-in-kind. While experimental indexes using different weights for agriculture indicate imperceptible differences in longrun trends of GNP during the postwar years, there are marked differences in individual years characterized by adverse or unusually favorable weather conditions.

If no imputation is made for agricultural rent on the grounds that no Soviet data is available for an adjustment and that some rent payment may be included in the evaluation even though not explicitly costed, the agricultural weight in table I would be reduced to 27.1 from 36.2. The GNP index for 1962 (1958=100) would be unchanged but the link relative for 1958 would be reduced to 9.6 from 9.9 percent and that for 1962 increased to 3.0 from 2.2 percent.

Derivation of sector indexes

Industry.—See table III-7, Civilian Production.

Construction.—Indexes in 1955 prices of state and cooperative (p. 44), collective farm (p. 164), and private housing (pp. 188-189) in *Tsentral'noe Staticheskoe Upravlenie, "Kapital'noe Stroitel'stvo v S.S.S.R."* (Central Statistical Administration, "Capital Investment in the U.S.S.R."), Moscow, 1961, for data through 1960; 1961 and 1962 data from same author, "Narodnoe Khoziaistvo S.S.S.R. v 1962 Godu" ("National Economy of the U.S.S.R. in 1962"), (pp. 433, 437).

Agriculture.—See table II-9.

Transportation.—The index of ton-kilometers of railroad traffic is used to represent all traffic. Over the period the dominant rail proportion remains almost unchanged as a share of total freight traffic. Data obtained from "Narodnoe Khoziaistvo S.S.S.R. v 1962 Godu" (p. 379).

Communications.—Total revenues of communications sector, "Narodnoe Khoziaistvo, 1962," p. 422.

Trade.—Value added in trade is assumed to be represented by the index of wages and profits in unchanged prices. The 1955 base year wage figure is derived from Ts.S.U., "Sovetskaiia Torgovlia" (Soviet Trade), Moscow, 1956 (pp. 114, 121, 123). It is moved by indexes of employment in trade obtained from "Narodnoe Khoziaistvo, 1958" (p. 659), "Narodnoe Khoziaistvo, 1962" (p. 453). The profit figures are obtained from "Narodnoe Khoziaistvo, 1962" (p. 627).

Services.—Indexes for service subsectors are based on employment trends. As such, they exclude productivity improvements and thereby understate trends in value added. The defense manpower estimates are obtained from "Dimensions

of Soviet Economic Power" (p. 43), the column on million man-years. The employment trends for the other subsectors are obtained from "Narodnoe Khoziaistvo, 1958" (p. 659); and "Narodnoe Khoziaistvo, 1962" (p. 453).

TABLE VIII-2.—Comparative growth rates of gross national product

Country	1958	1959	1960	1961	1962	Aggregate		Per capita	
						Average rate, 1950-58	Average rate, 1958-62	Average rate, 1950-58	Average rate, 1958-62
France.....	1.8	2.3	0.2	4.4	5.8	4.4	4.8	3.5	3.5
Germany (Federal Republic).....	3.3	6.7	8.0	5.3	4.1	7.6	6.2	6.4	4.9
Italy.....	4.4	7.7	6.9	8.0	6.0	5.6	7.2	5.0	6.6
United Kingdom.....	2.2	2.5	4.3	2.0	1.4	2.4	2.8	1.9	2.0
Japan ¹	-1	18.3	13.0	16.1	5.7	6.1	13.2	5.0	12.2
U.S.S.R.....	9.9	3.9	5.0	6.5	2.2	² 6.8	² 4.6	² 5.0	² 2.8
United States.....	-1.2	6.6	2.7	1.9	6.1	2.9	4.3	1.2	2.5

¹ 1953-58 for earlier period.

² Some adjustment must be introduced to reflect the impact of arms production not included in the computed index. According to Greenslade and Wallace in "Dimensions of Soviet Economic Power," p. 123, if arms production is added to the computed civilian industrial production index, the latter trend is increased between 1950 and 1952, reduced between 1952 and 1957, and increased after 1957. Application of their suggested numerical adjustments to my calculated GNP trend would yield the noted average growth rates.

SOURCES

OECD countries: (France, Germany, Italy, United Kingdom, United States) GNP, 1950-61. OECD, General Statistics, September 1962. 1962, Economic Commission for Europe, Economic Survey of Europe in 1962, p. II-3. OECD, Economic Surveys of the OECD-France, July 1963, p. 6. Population, OECD, Manpower Statistics, 1950-60, and OECD, General Statistics, September 1963, p. 33.

Japan: GNP, Bank of Japan, Economic Statistics Monthly, October 1963, pp. 156-157. Population, same source p. 9.

U.S.S.R.: GNP. (See table VIII-1.) Population, 1950-61, from Joint Economic Committee, U.S. Congress, "Dimensions of Soviet Economic Power," p. 615. 1962 estimate from Table I-1.

TABLE VIII-3.—Role of increases in employment and labor productivity in comparative growth of GNP (average annual rates)

Country	GNP	1950-58 employment	Productivity	GNP	1958-62 employment	Productivity ¹
France.....	4.4	0.4	4.0	4.8	0.9	3.8
Germany (Federal Republic).....	7.6	2.4	5.1	6.2	1.4	4.8
Italy.....	5.6	1.6	3.9	7.2	1.2	5.9
United Kingdom.....	2.4	.4	1.9	2.8	.8	2.0
Japan ²	6.1	2.1	4.0	13.2	1.6	11.5
U.S.S.R.....	6.8	1.7	5.0	4.6	1.3	3.3
United States.....	2.9	1.0	1.9	4.3	1.5	2.7

¹ Index of GNP ÷ index of employment expressed in man-years. No adjustment has been made for reductions in working hours. In the 2 time periods under consideration there was a larger reduction in annual hours worked in manufacturing in the U.S.S.R., 13 percent ("Narodnoe Khoziaistvo S.S.R. v 1962 Godu," p. 488) than in the other economies—France, 0.5; Germany, 7.8; United Kingdom, 2.5; and the United States, 3.2 percent (OECD, Productivity Measurement Review, November 1962, p. 12). Japanese working hours rose by 3.9 percent (Japan, Ministry of Foreign Affairs, "Statistical Survey of Economy of Japan, 1962," p. 11). Therefore, in terms of man-hours Soviet productivity accomplishments are relatively understated, but a precise adjustment cannot be made in the absence of information on hours of work in nonmanufacturing occupations for most of the countries in the comparison.

² 1953-58 for earlier comparison.

SOURCES

OECD countries: GNP. (See table VIII-2.) Employment, 1950-61, OECD, Economic Surveys by the OECD—France, July 1962, p. 7. 1962, ECE, Economic Survey of Europe, 1962, p. 11-19.
 Japan: GNP. (See table VIII-2.) Employment. (See source for population estimate in table VIII-2.)
 U.S.S.R.: GNP. (See table VIII-1.) Employment. (See table V-A-3.)

TABLE VIII-4.—Comparative growth of consumption and investment (average annual rates)

Country	Consumption per capita		Investment		Marginal capital/output ratios ¹	
	1950-58	1958-62	1950-58	1958-62	1950-58	1958-62
France.....	3.3	2.9	5.5	5.4	3.4	3.6
Germany (Federal Republic).....	6.3	5.7	9.6	9.7	3.2	3.9
Italy.....	3.1	5.6	8.2	11.0	3.8	2.7
United Kingdom.....	1.6	1.9	4.4	5.5	5.9	6.4
Japan ²	2.3	7.5	7.7	22.0	1.5	.9
U.S.S.R.....	5.0	3.0	10.8	7.7	3.3	6.2
United States.....	1.1	1.6	1.3	4.1	6.3	5.3

¹ Increase in nonhousing investment required to obtain a unit of increase in output per employee. The lower the ratio the higher the return (productivity) of investment. The ratio is increased to the extent unutilized productive capacity exists. Thus the apparent decrease in the U.S. ratio in the later period reflects the utilization of capacity idled during the 1958 recession.

² 1953-58 for the earlier period comparison.

SOURCES

OECD countries. (See sources to tables VIII-2 and VIII-3.)

Japan. (See sources to tables VIII-2 and VIII-3.)

U.S.S.R.:

Consumption. (See table III-6.)

Investment. (See sources for construction index in table VIII-1.)

Employment. (See source reference in table VIII-3.)

TABLE VIII-5.—Comparative per capita uses and value of gross national product in 1962 (market prices)

Country	Per capita				Value of gross national product ³ (billions)
	Private consumption ¹	Fixed investment ¹	Defense ¹	Gross national product ¹	
France.....	1,185	294	108	1,810	83.6
Germany (Federal Republic).....	1,047	461	100	1,780	96.2
Italy.....	607	224	40	1,058	52.8
United Kingdom.....	1,098	283	125	1,730	91.5
Japan.....	(³)	(³)	(³)	811	77.0
U.S.S.R.....	486	373	192	1,158	256.3
United States.....	1,889	480	300	3,004	551.8

¹ 1961 dollars.

² Billions of 1961 dollars.

³ Not available.

SOURCES AND METHODOLOGY

GNP

OECD: The 1962 breakdown of GNP is initially expressed in the countries' own currencies. These estimates are based on 1961 estimates in OECD, General Statistics, September 1963 moved to 1962 by link relatives obtained from ECE, "Economic Survey of Europe, 1962," (p. II-3). Ratios for converting these estimates to dollars are initially based on 1950 ratios in Gilbert and Kravis, "An International Comparison of National Products and the Purchasing Power of Currencies," OEEC, Paris, 1954. The geometric mean of United States and European weighted ratios are used. The ratios are moved to 1962 by the quotients of relevant European prices indexes divided by U.S. prices indexes. The price indexes can be derived from the previously cited General Statistics volume as the ratios between values expressed in terms of both current and constant prices.

Japan: The same methodology is followed for Japan. The 1961 division of GNP in yen and 1962 link relatives are obtained from Bank of Japan, Economic Statistics Monthly, October 1963. A 1960 geometric conversion ratio has been constructed by Irving Kravis in Journal of Political Economy, August 1963 (p. 327). This ratio is expressed in 1961 prices by the same procedure used for the OECD economies.

U.S.S.R.: The same methodology is followed for the U.S.S.R. The 1962 division of GNP in 1955 rubles is obtained in the manner described in footnotes to

table 4, with the 1962 defense link relative derived in similar fashion from the 1962 state budget as the earlier estimates, as noted in "Dimensions of Soviet Economic Power" (p. 72).

The procedure for converting 1955 rubles into dollars has been described in "Dimensions" (p. 76). There is no available Soviet price index for moving the ratio to 1962 values, but available scattered statistics indicate little change in price levels for national income (1959 to 1962) and for 1955 to 1962 for industrial products and consumer goods sold in state outlets. Therefore, the movement in geometric ruble-dollar ratios from 1955-62 are assumed to be only a function of changes in U.S. prices.

Population estimates

See footnotes to table VIII-2.

TABLE VIII-6.—Industrial output per employee, 1962

Country	Industrial ¹ output (billions of dollars)	Industrial ² employment (thousands)	Industrial output per employee (dollars)	Industrial output per capita (dollars)
France.....	21.3	5,324	4,000	461
Germany (Federal Republic).....	32.8	9,273	3,537	609
Italy.....	15.0	4,915	3,052	301
United Kingdom.....	39.3	10,420	3,772	743
Japan.....	18.4	11,200	1,643	194
U.S.S.R.....	86.7	24,297	3,531	392
United States.....	180.2	17,714	10,100	981

¹ Value added in manufacturing, mining, and electric and gas utilities.
² Wage and salaried employees.

SOURCES AND DERIVATIONS OF ESTIMATES

OECD: Value added relationships for European OECD economies in 1959 obtained from OEEC, Industrial Statistics, 1900-1959 (p. 4); 1953 ratio of U.S. and Common Market economies industrial value added (OECD, General Statistics, September 1963, p. 2) moved to 1959 by respective industrial production indexes; 1959 weights moved to 1962 by respective industrial production indexes (OECD, General Statistics, September 1963, p. 2); 1962 value of value added in U.S. manufacturing, mining, and public utilities obtained from U.S. Department of Commerce, Survey of Current Business, September 1963 (p. 10).

Employment data from OECD "Manpower Statistics 1900-1960," ECE, "Economic Survey of Europe in 1962" (p. II-19), and Survey of Current Business, July 1963 (p. 33).

Japan: 1953 ratio of Japanese and Common Market industrial value added (National Institute Economic Review, November 1963, p. 89) moved to 1962 by respective production indexes (Bank of Japan, Monthly Statistics, October 1963, p. 17).

Employment from ECAFE, "Economic Survey of Asia and the Far East in 1962" (p. 188). Excludes utilities and is average of first three quarters.

U.S.S.R.: Estimate of Allen Dulles of Soviet industrial output as one-third of United States in 1955 (Joint Economic Committee, U.S. Congress, "Dimensions of Soviet Economic Power," p. 127) moved to 1962 by respective industrial production indexes.

Employment estimate sourced in table VIII-3.

TABLE VIII-7.—Comparative projections of GNP

Country	Projected ¹ average annual growth rate, 1960-70	Performance, ² 1960-63
France		
Germany (Federal Republic)	5.0	5.1
Italy	4.1	3.9
United Kingdom	5.6	6.3
Japan	3.3	2.4
U.S.S.R.	7.2	10.2
United States	4.5-5.0	3.5
	3.6-4.6	3.8

¹ For OECD countries rates represent official national projections of growth within overall OECD target of 4.5 percent OECD, "Policies for Economic Growth," Paris, 1962, p. 28. Lower U.S. estimate is annual average for 1947-62.

The projection for Japan is the official plan goal, Japan, Economic Planning Agency, "New Long Range Economic Plan of Japan, 1961-70," Tokyo, 1961, p. 2.

The U.S.S.R. projection represents a range bounded at the lower limit by the average annual rate of growth of GNP per employee from 1958-62 of 3.3 percent (table VIII-3) and at the upper limit the rate which would have been achieved had agricultural output continued to rise by the 2.2 percent average annual increase of 1958-61—3.7 percent. When these 2 GNP productivity projections are multiplied by the 1.2 percent growth projected for the labor force ("Dimensions of Soviet Economic Power, p. 88) the range of growth for GNP is derived.

² France, Germany, Italy—1963 estimates from European Economic Community, Economic Situation in the Community, September 1963, pp. 36, 46, 59.

United Kingdom—Estimate on 1963 from National Institute of Economic and Social Research, National Institute Economic Review, November 1963, p. 5.

United States—U.S. Department of Commerce, Office of Business Economics, *Survey of Current Business*, January 1964.

Japan—1963 preliminary estimate of Economic Planning Agency.

U.S.S.R.—1963 estimate based on preliminary calculations of industrial and agricultural performance and assumption of continuation of 1962 rate of growth for other origin sectors, except for deceleration in services from 4.9 to 4.5 percent to reflect resumption of military demobilization.

SECTION IX
SOVIET BUDGET

TABLE IX-1.—Revenues of the state budget of the U.S.S.R., by budget category, 1955 and 1958-62¹

[In billions of current rubles]

	1955	1958	1959	1960	1961	1962
Social sector.....	47.62	60.40	66.61	70.14	71.0	76.7
Turnover tax.....	24.24	30.45	31.07	31.34	30.9	32.9
Deductions from profits.....	10.28	13.64	15.96	18.63	20.7	23.9
Revenue from MTS-RTS's ²62	.97	.18	³ (0)	³ (0)	³ (0)
Other taxes on organizations.....	1.24	1.66	1.90	1.84	1.2	1.3
Social insurance receipts.....	2.61	3.26	3.58	3.74	4.2	4.5
Revenue residual.....	8.63	10.52	13.92	14.59	14.0	14.1
Total.....	8.82	6.83	7.41	6.94	6.9	7.6
Private sector:						
State taxes on the population.....	4.83	5.19	5.52	5.60	5.8	6.0
State loans from savings deposits.....	.53	.65	1.33	.85	.76	1.1
Other state loans.....	3.14	.40	.16	.66	.63	.1
Local taxes and state lottery revenue.....	.32	.59	.40	.43	.3	.4
Total.....	56.43	67.24	74.01	77.08	78.0	84.3

¹ Due to rounding, components may not add to the totals shown. Rubles are expressed in terms of new rubles.

² Machine tractor stations (MTS's) until 1958, repair technical stations (RTS's) thereafter.

³ Figures in parentheses are estimates.

SOURCES

G. F. Dundukov (ed.), Gosudarstvenny byudzhnet S.S.S.R. i byudzhety soyuznykh respublik: statisticheskiy sbornik, p. 7, 8, 9.
 TsSU S.S.S.R., Narodnoye Khozyaystvo S.S.S.R. v 1961 godu, p. 761.
 TsSU S.S.S.R., Narodnoye Khozyaystvo S.S.S.R. v 1962 godu, p. 635.

TABLE IX-2.—Expenditures of the state budget of the U.S.S.R., by budget category, 1955 and 1958-62¹

[In billions of current rubles]

	1955	1958	1959	1960	1961	1962
Financing the national economy.....	23.31	29.03	32.37	34.12	32.6	36.2
Industry and construction.....	10.95	13.67	14.88	15.59	(²)	(²)
State agriculture.....	5.09	4.00	3.52	4.42	(²)	(²)
Agricultural procurement.....	.76	⁴ (.60)	(.50)	(.50)	(²)	(²)
Trade (domestic and foreign).....	1.07	2.03	3.21	3.59	(²)	(²)
Transportation and communications.....	1.95	2.41	2.68	2.81	(²)	(²)
Municipal economy and housing.....	.90	1.90	2.75	3.21	(²)	(²)
Residual.....	2.59	(4.51)	(4.83)	(4.00)	(²)	(²)
Total.....	14.72	21.42	23.12	24.94	27.2	28.9
Social-cultural measures.....						
Education and science.....	6.89	8.60	9.41	10.32	11.3	12.4
Health and physical culture.....	3.11	4.11	4.46	4.82	5.0	4.9
Social welfare.....	4.71	8.70	9.24	9.70	10.9	11.6
Total.....	10.74	9.36	9.37	9.30	11.6	12.7
Defense.....	1.25	1.20	1.12	1.09	1.1	1.1
Administration.....	1.43	.37	.69	.7	.8	.8
Loan service.....	2.50	2.90	3.73	2.97	3.0	2.5
Budgetary expenditure residual.....						
Total.....	53.95	64.28	70.40	73.13	76.3	82.2

¹ Due to rounding, components may not add to the totals shown. Rubles are expressed in terms of new rubles.

² Not available.

³ Including machine tractor stations and repair tractor stations.

⁴ Figures in parentheses are estimates.

SOURCES

G. F. Dundukov (ed.), Gosudarstvenny byudzhnet S.S.S.R. i byudzhety soyuznykh respublik: statisticheskiy sbornik, p. 18, 19.
 TsSU S.S.S.R., Narodnoye Khozyaystvo S.S.S.R. v 1958 godu, p. 900.
 TsSU S.S.S.R., Narodnoye Khozyaystvo S.S.S.R. v 1961 godu, p. 761.
 TsSU S.S.S.R., Narodnoye Khozyaystvo S.S.S.R. v 1962 godu, p. 635.

SECTION X
FOREIGN TRADE AND AID

Part A—Soviet Trade

TABLE X-A-1.—Geographic distribution of Soviet foreign trade, 1955-62
 (In millions of current U.S. dollars)

Year	Total foreign trade	Communist countries						Free world			
		Total	European satellites		Communist China	Other Asian	Other ¹	Total	Industrial West	Under-developed countries	Other
			European satellites	Communist China							
1955—Exports	3,426.6	2,722.9	1,792.1	748.3	166.1	16.4	703.7	543.7	112.3	47.7	
1955—Imports	3,060.5	2,418.3	1,662.8	643.5	94.6	17.4	642.2	430.6	210.4	1.2	
1956—Exports	3,615.0	2,729.5	1,767.7	733.0	159.5	69.1	885.7	597.2	170.5	109.0	
1956—Imports	3,611.6	2,755.7	1,815.0	764.2	106.8	49.7	876.9	578.8	206.5	1.6	
1957—Exports	4,331.4	3,304.5	2,545.9	544.1	137.4	73.1	1,076.9	690.1	282.8	104.0	
1957—Imports	3,937.8	2,922.7	1,914.8	738.1	115.9	56.9	1,112.1	672.5	435.3	4.3	
1958—Exports	4,207.5	3,136.3	2,320.2	634.0	131.0	31.1	1,161.2	669.6	390.3	102.3	
1958—Imports	4,340.2	3,242.0	2,205.7	881.2	104.2	50.9	1,107.5	683.6	481.6	3.7	
1959—Exports	5,442.7	4,123.9	2,950.5	954.5	172.7	46.2	1,316.8	855.5	532.2	117.8	
1959—Imports	5,073.2	4,123.9	2,950.5	954.5	172.7	46.2	1,283.7	756.5	532.2	3.7	
1960—Exports	5,561.2	4,207.5	3,117.7	1,100.3	146.8	53.1	1,354.1	971.8	574.8	6.0	
1960—Imports	5,628.0	4,310.0	3,117.7	1,100.3	146.8	53.1	1,354.1	971.8	574.8	6.0	
1961—Exports	5,998.2	4,510.0	3,399.8	1,110.2	154.1	125.9	1,650.4	1,069.5	611.8	6.1	
1961—Imports	5,827.2	4,346.8	3,044.2	1,302.6	210.8	332.1	1,688.2	1,059.0	507.3	121.0	
1962—Exports	7,024.7	4,909.3	3,971.2	1,551.4	163.0	388.2	1,680.8	1,087.7	584.1	9.0	
1962—Imports	6,449.7	4,562.6	3,587.5	1,178.3	261.6	443.1	1,887.1	1,105.1	637.7	452.9	
						280.0	1,887.1	1,264.0	614.0	8.5	

¹ Other Communist countries include Yugoslavia 1955-62, Albania 1961-62, and Cuba 1960-62. Prior to 1961 Albania is included in the European satellites and prior to 1960 Cuba is included in underdeveloped countries of the free world.

Source: Figures based on Vneshtnaya Torgovlia S.S.S.R. za 1962 god, Ministerstvi Vneshej Torgovli S.S.S.R. (Moskva, 1963) and earlier volumes. Values converted from rubles to dollars at rate of 1 ruble=\$1.11.

ANNUAL ECONOMIC INDICATORS FOR THE U.S.S.R.

TABLE X-A-2.—Commodity composition of Soviet exports, 1955-62

[In millions of current U.S. dollars and percent of total]

	1955		1956		1957		1958		1959		1960		1961		1962	
	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent
Total exports ¹	3,426.6	100.0	3,615.0	100.0	4,381.4	100.0	4,297.5	100.0	5,440.7	100.0	5,561.6	100.0	5,998.2	100.0	7,034.7	100.0
Machinery and equipment.....	599.0	17.5	694.4	19.2	652.1	14.9	794.8	18.5	1,168.1	21.5	1,141.2	20.5	964.6	16.1	1,168.0	16.6
Complete plants.....	276.8	8.1	299.6	8.3	321.9	7.3	339.9	7.9	1,689.1	31.0	568.5	10.2	355.8	5.9	418.9	5.9
Fuels, lubricants, and related materials.....	329.0	9.6	428.2	11.8	648.3	14.8	651.2	15.2	797.8	14.7	902.5	16.2	1,044.8	17.4	1,138.9	16.4
Coal and coke.....	297.8	8.7	428.8	11.9	249.5	5.7	219.8	5.1	299.1	5.5	242.1	4.4	284.9	4.7	340.4	4.9
Petroleum and petroleum products.....	231.1	6.7	284.4	7.9	397.6	9.1	428.9	10.0	567.0	10.4	657.9	11.8	757.6	12.6	807.3	11.5
Ores and concentrates.....	135.4	3.9	130.0	3.6	183.9	4.2	190.0	4.4	215.8	4.0	242.9	4.4	252.6	4.2	273.9	3.9
Iron ore.....	81.6	2.4	86.5	2.4	124.9	2.8	137.4	3.2	154.3	2.8	175.0	3.1	187.8	3.1	213.5	3.0
Base metals.....	431.8	12.6	543.0	15.0	642.5	14.7	692.1	16.1	743.1	13.7	837.2	15.1	922.9	15.4	1,008.5	14.3
Ferrous metals.....	321.0	9.4	385.7	10.7	439.6	10.0	494.5	11.5	547.2	10.1	642.3	11.5	711.7	11.9	792.3	11.2
Nonferrous metals.....	192.7	5.6	233.6	6.5	202.9	4.6	197.6	4.6	266.2	4.9	428.8	7.7	478.2	8.0	640.3	9.1
Aluminum and duraluminum.....	131.0	3.8	157.3	4.4	107.7	2.4	107.6	2.5	149.9	2.7	194.9	3.5	211.1	3.5	217.3	3.1
Chemicals.....	28.0	.8	38.3	1.1	51.1	1.2	63.7	1.5	70.6	1.3	99.6	1.8	88.1	1.5	111.0	1.6
Wood and wood products.....	79.4	2.3	82.1	2.3	87.6	2.0	113.8	2.6	123.3	2.3	139.0	2.5	173.9	2.9	176.9	2.5
Textile raw materials and semimanufactures.....	174.5	5.1	161.7	4.5	281.1	6.4	240.9	5.6	259.9	4.8	305.1	5.5	361.7	6.0	420.3	6.0
Lumber.....	84.3	2.4	86.0	2.4	135.1	3.1	136.9	3.2	150.4	2.8	182.8	3.3	206.6	3.4	221.3	3.1
Cotton fiber.....	246.7	7.2	272.4	7.5	305.0	7.0	283.6	6.6	308.0	5.7	358.6	6.4	364.9	6.1	341.5	4.9
Consumer goods.....	407.3	11.9	369.2	10.2	773.6	17.6	597.7	13.9	733.9	13.5	690.2	12.4	790.4	13.2	864.0	12.3
Food.....	288.5	8.4	269.7	7.5	566.0	12.9	388.8	9.0	487.2	9.0	487.8	8.7	473.8	7.9	523.4	7.4
Grain.....	111.3	3.2	107.6	3.0	144.1	3.3	157.7	3.7	157.7	2.9	203.2	3.7	216.1	3.6	234.8	3.3
Other consumer goods.....	144.8	4.2	179.3	5.0	178.5	4.1	177.2	4.1	221.7	4.1	204.4	3.7	219.2	3.7	228.8	3.2
Other merchandise.....	161.8	4.7	160.2	4.4	524.5	12.0	478.4	11.2	647.4	11.9	598.5	10.7	687.1	11.5	1,148.2	16.3
Unspecified.....	693.4	20.3	660.2	18.3	524.5	12.0	478.4	11.2	647.4	11.9	598.5	10.7	687.1	11.5	1,148.2	16.3

¹ Because of rounding, components may not add to the totals shown. * Negligible.

TABLE X-A-3.--Commodity composition of Soviet imports, 1955-62
 (In millions of current U.S. dollars and percent of total)

	1955		1956		1957		1958		1959		1960		1961		1962	
	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent
Total imports 1.....	3,050.5	100.0	3,612.6	100.0	3,937.8	100.0	4,349.5	100.0	5,073.2	100.0	5,628.0	100.0	5,827.6	100.0	6,449.7	100.0
Machinery and equipment.....	925.3	30.2	895.3	24.8	940.4	23.9	1,064.6	24.5	1,351.9	26.6	1,675.2	29.8	1,794.5	29.8	2,239.8	34.7
Transportation equipment.....	386.3	12.5	494.2	13.7	407.3	10.3	427.2	9.8	542.4	10.7	659.2	11.7	594.3	9.2	743.8	11.6
Fuels, lubricants, and related materials.....	250.0	8.2	255.4	7.1	206.1	5.3	212.2	4.9	231.3	4.6	297.3	4.2	217.0	3.7	198.3	3.1
Coal and coke.....	126.9	4.1	118.6	3.3	138.7	3.5	77.0	1.8	85.7	1.7	163.3	2.6	98.6	1.6	95.3	1.5
Petroleum and petroleum products.....	123.1	4.0	137.5	3.8	119.4	3.0	135.2	3.1	145.6	3.1	143.7	2.6	123.4	2.1	103.0	1.6
Ores and concentrates.....	251.3	8.2	374.6	10.4	453.3	11.5	403.5	9.3	331.1	6.5	344.0	5.6	291.4	5.0	297.6	4.6
Base metals and manufactures.....	204.1	6.7	288.2	8.0	291.1	7.4	316.5	7.3	435.0	8.6	543.9	9.7	494.3	8.5	563.4	8.7
Iron and steel.....	71.0	2.3	145.2	4.0	168.5	4.2	183.4	4.2	265.2	5.2	373.9	6.6	348.4	6.0	427.0	6.6
Nonferrous metals.....	133.1	4.3	88.2	2.4	119.5	3.0	127.8	2.9	122.0	2.4	173.8	3.2	160.4	2.8	192.7	3.0
Copper.....	47.9	1.6	32.1	0.9	45.5	1.2	39.5	0.9	41.8	0.8	54.8	1.0	45.9	0.8	30.5	0.5
Zinc.....	43.5	1.4	46.2	1.3	44.2	1.1	54.5	1.3	74.3	1.5	71.9	1.3	58.0	1.0	68.7	1.1
Rubber and rubber products.....	52.1	1.7	77.5	2.1	76.5	1.9	96.8	2.3	110.3	2.2	141.3	2.5	137.7	2.4	212.0	3.3
Wood and wood products.....	41.4	1.4	124.5	3.5	127.7	3.2	182.2	4.2	195.5	3.9	196.2	3.5	273.5	4.7	251.8	3.9
Textile raw materials and semimanufactures.....	92.9	3.0	107.7	3.0	120.2	3.1	104.8	2.4	94.0	1.9	104.8	1.9	124.3	2.1	118.5	1.8
Cotton.....	166.4	5.4	216.3	6.0	317.8	8.1	309.3	7.1	329.7	6.5	364.4	6.5	303.4	5.2	282.8	4.4
Wool.....	20.1	0.7	54.0	1.5	122.9	3.1	135.2	3.1	163.9	3.2	179.9	3.2	180.1	2.2	118.6	1.8
Consumer goods.....	89.7	2.9	90.0	2.5	127.7	3.2	107.7	2.5	100.8	2.0	118.0	2.1	103.8	1.8	93.4	1.4
Food.....	661.9	21.6	824.3	22.8	913.9	23.2	1,161.3	26.7	1,436.5	28.3	1,577.3	28.0	1,782.6	30.6	1,822.6	28.3
Other consumer goods.....	144.8	4.7	326.8	9.0	480.4	12.2	559.9	12.9	542.7	10.7	611.8	10.9	776.0	13.3	712.8	11.0
Other merchandise.....	308.6	10.1	369.8	10.2	433.5	11.0	601.5	13.8	893.8	17.6	965.6	17.2	1,006.6	17.3	1,109.8	17.2
Unspecified.....	106.5	3.4	81.9	2.3	89.4	2.3	97.7	2.2	107.2	2.1	93.7	1.7	127.6	2.2	108.9	1.7

1 Because of rounding components may not add to the totals shown.

TABLE X-A-4.—Commodity composition of Soviet exports to European satellites, 1955-62
 (In millions of current U.S. dollars and percent of total)

	1955		1956		1957		1958		1959		1960		1961		1962	
	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent
Total exports ¹	1,792.1	100.0	1,767.7	100.0	2,549.9	100.0	2,320.2	100.0	2,950.5	100.0	3,117.7	100.0	3,399.8	100.0	3,971.2	100.0
Machinery and equipment.....	304.4	17.0	218.1	12.3	220.5	8.6	248.4	10.7	368.5	12.5	414.2	13.3	450.0	13.3	606.6	15.3
Complete plants.....	129.7	7.2	65.4	3.7	50.4	2.0	41.5	1.8	87.5	3.0	108.6	3.5	108.0	3.2	141.9	3.6
Fuels, lubricants, and related materials.....	120.4	6.7	163.9	9.3	313.7	12.3	301.8	13.0	351.3	11.9	413.7	13.3	485.0	14.3	583.4	14.7
Coal and coke.....	64.3	3.6	90.1	5.1	176.8	6.9	153.9	6.6	162.5	5.5	171.2	5.5	204.0	6.0	252.5	6.4
Petroleum and petroleum products.....	55.1	3.1	72.8	4.1	135.6	5.3	146.3	6.3	187.1	6.3	240.7	7.7	279.5	8.2	328.4	8.3
Grains and concentrates.....	102.3	5.7	106.7	6.0	153.2	6.0	135.2	5.8	151.3	5.1	170.8	5.5	184.1	5.4	211.0	5.3
Iron ore.....	81.6	4.6	86.5	4.9	124.9	4.9	455.2	19.6	520.5	17.6	594.1	18.7	651.6	19.2	727.1	18.3
Base metals and manufactures.....	249.6	13.9	302.2	17.1	415.2	16.3	245.2	10.4	322.3	10.9	451.7	14.3	373.5	11.0	422.3	10.6
Ferrous metals.....	164.3	9.2	118.2	6.7	173.1	6.8	109.4	4.7	128.2	4.3	132.4	4.2	143.4	4.3	152.8	3.8
Nonferrous metals.....	85.3	4.8	184.0	10.4	242.1	9.5	135.8	5.9	194.1	6.6	319.3	10.0	230.1	6.8	269.5	6.8
Aluminum.....	13.3	0.7	13.7	0.8	13.5	0.5	24.4	1.1	21.7	0.7	30.6	1.0	42.5	1.3	36.6	0.9
Chemicals.....	36.1	2.0	39.7	2.2	48.1	1.9	52.8	2.3	58.3	2.0	63.2	2.0	74.3	2.2	83.4	2.1
Wood and wood products.....	20.5	1.1	35.6	2.0	84.6	3.3	82.9	3.6	87.7	3.0	98.7	3.2	116.8	3.4	148.1	3.7
Lumber.....	4.0	0.2	14.3	0.8	43.9	1.7	46.7	2.0	49.6	1.7	58.6	1.9	68.8	2.0	75.2	1.9
Textile raw materials and semimanufactures.....	264.3	14.7	262.2	14.8	248.7	9.8	243.9	10.5	241.8	8.2	283.2	9.1	293.0	8.6	273.3	6.9
Cotton.....	233.8	13.0	241.2	13.6	667.9	26.2	423.8	18.3	660.2	22.4	575.7	18.5	507.0	14.9	643.5	16.2
Consumer goods.....	262.3	14.6	201.9	11.4	457.0	17.9	269.8	11.6	353.7	12.0	382.6	12.2	273.0	8.0	347.5	8.8
Food.....	230.4	12.8	121.9	6.9	70.2	2.8	74.7	3.2	73.8	2.5	78.0	2.5	82.5	2.4	91.5	2.3
Other consumer goods.....	28.4	1.6	82.1	4.6	316.8	12.4	194.1	8.4	279.9	9.5	304.6	9.8	190.5	5.6	107.9	2.7
Other merchandise.....	68.0	3.8	816.0	46.2	316.8	12.4	281.3	12.1	388.2	13.2	383.9	12.3	489.7	14.4	552.3	13.9
Unspecified.....	340.9	19.0	316.0	17.9	316.8	12.4	281.3	12.1	388.2	13.2	383.9	12.3	489.7	14.4	552.3	13.9

¹ Because of rounding, components may not add to the totals shown.

² Negligible.

TABLE X-A-5.—Commodity composition of Soviet imports from European satellites, 1955-62
 [In millions of current U.S. dollars and percent of total]

	1955		1956		1957		1958		1959		1960		1961		1962	
	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent
Total imports 1.....	1,662.8	100.0	1,815.0	100.0	1,914.8	100.0	2,265.7	100.0	2,519.3	100.0	2,910.4	100.0	3,044.2	100.0	3,587.3	100.0
Machinery and equipment.....	733.6	44.1	655.0	36.1	716.9	37.3	881.6	39.1	1,040.0	41.3	1,208.6	42.9	1,215.2	40.9	1,621.5	45.2
Transportation equipment.....	274.6	16.5	269.3	14.8	302.5	15.8	330.7	14.6	422.3	16.8	522.2	18.3	450.6	14.8	571.1	16.1
Fuels, lubricants, and related materials.....	533.9	32.1	527.8	29.1	584.6	30.5	640.1	28.3	709.0	28.2	809.9	27.8	812.2	26.7	919.9	25.6
Coal and coke.....	121.4	7.3	116.6	6.4	126.4	6.6	141.1	6.2	156.1	6.2	170.9	6.2	182.1	6.0	202.2	5.6
Petroleum and petroleum products.....	122.6	7.4	111.2	6.1	128.1	6.7	149.0	6.6	162.9	6.5	189.0	6.7	192.0	6.3	218.1	6.1
Ores and concentrates.....	152.9	9.2	152.5	8.4	140.7	7.3	160.8	7.1	122.0	4.8	125.8	4.3	100.8	3.3	90.2	2.5
Base metals and manufactures.....	37.2	2.2	39.6	2.2	30.4	1.6	35.1	1.5	42.4	1.7	42.4	1.4	44.8	1.5	46.9	1.3
Iron and steel.....	11.0	.7	13.2	.7	17.4	.9	23.6	1.0	26.2	1.0	24.8	.9	24.8	.8	26.9	.8
Non-ferrous metals.....	4.8	.3	5.9	.3	17.4	.9	23.6	1.0	26.2	1.0	24.8	.9	24.8	.8	26.9	.8
Rolled ferrous metals.....	26.3	1.6	26.4	1.5	13.0	.7	10.1	.5	9.6	.4	9.4	.4	11.4	.4	11.5	.3
Copper.....	36.7	2.2	40.5	2.2	34.8	1.8	41.2	1.8	52.8	2.1	69.8	2.4	80.3	2.8	102.9	2.9
Rubber and rubber products.....	14.5	.9	14.9	.8	17.4	.9	19.0	.9	19.6	.8	21.3	.9	21.3	.7	21.4	.6
Wood and wood products.....	36.2	2.2	39.5	2.2	37.5	2.0	35.9	1.6	37.0	1.5	45.2	1.6	43.8	1.4	41.0	1.1
Textile raw materials and semimanufactures.....	6.5	.4	12.5	.7	11.0	.6	9.5	.4	7.0	.3	8.3	.3	10.4	.3	11.5	.3
Cotton.....	183.8	11.2	299.7	16.5	325.4	17.0	445.0	19.6	541.2	21.5	668.5	23.0	797.1	26.2	885.9	24.7
Other consumer goods.....	111.6	6.7	85.1	4.7	77.7	4.1	122.5	5.4	122.4	4.9	168.8	5.8	168.8	5.5	218.0	6.1
Other merchandise.....	85.3	5.1	110.0	6.1	247.7	12.9	322.5	14.2	418.8	16.6	493.7	17.3	546.8	18.0	667.8	18.6
Unspecified.....	137.2	8.2	222.1	12.2	308.7	16.1	294.4	13.0	299.9	11.9	297.2	10.2	281.1	9.2	332.4	9.3

1 Because of rounding, components may not add to the totals shown.

2 Negligible.

TABLE X-A-6.—Commodity composition of Soviet exports to Communist China, 1955-62
 [In millions of current U.S. dollars and percent of total]

	1955		1956		1957		1958		1959		1960		1961		1962	
	Value	Per-cent	Value	Per-cent	Value	Per-cent	Value	Per-cent	Value	Per-cent	Value	Per-cent	Value	Per-cent	Value	Per-cent
Total exports ¹	748.3	100.0	733.0	100.0	544.1	100.0	634.0	100.0	954.5	100.0	817.1	100.0	867.3	100.0	233.4	100.0
Machinery and equipment.....	229.6	30.7	304.7	41.6	271.6	49.9	313.0	49.4	597.5	62.6	503.9	61.7	108.1	29.4	27.3	11.7
Complete plants.....	141.5	18.9	216.9	29.6	209.0	38.4	166.2	26.2	399.8	41.9	373.8	45.7	178.9	21.5	8.8	3.8
Fuels, lubricants, and related materials.....	79.0	10.6	86.0	11.7	90.4	16.6	92.4	14.6	117.7	12.3	113.1	13.8	120.7	21.5	80.5	34.5
Petroleum and petroleum products.....	79.0	10.6	86.0	11.7	90.4	16.6	92.4	14.6	117.7	12.3	113.1	13.8	120.7	21.5	80.5	34.5
Ores and concentrates.....	88.5	11.8	78.4	10.7	40.8	7.5	76.7	12.1	54.5	5.7	69.8	8.5	41.2	11.2	33.8	14.5
Base metals and manufactures.....	53.7	7.2	60.5	8.3	32.4	6.0	60.9	9.6	48.0	5.0	59.3	7.3	34.7	9.4	28.2	12.1
Ferrous metals.....	53.7	7.2	43.7	6.0	21.4	3.9	36.8	5.8	23.4	2.4	39.2	4.8	19.3	5.3	17.9	7.7
Nonferrous metals.....	12.8	1.7	17.0	2.4	8.4	1.5	15.8	2.5	6.4	0.7	10.5	1.3	6.5	1.8	3.6	2.4
Aluminum.....	4.8	0.6	2.1	0.3	3.2	0.6	3.9	0.6	3.9	0.4	9.7	1.2	5.7	1.6	4.3	1.8
Chemicals.....	12.9	1.6	10.8	1.5	6.0	1.1	9.2	1.5	6.6	0.7	4.7	0.6	2.9	0.7	10.4	4.4
Wood and wood products.....	16.3	2.2	6.0	0.8	7.7	1.4	9.2	1.5	6.6	0.7	4.7	0.6	2.9	0.7	31.0	13.3
Consumer goods.....	1.0	0.1	5.3	0.7	6.8	1.2	8.1	1.3	6.1	0.6	4.7	0.6	3.8	1.0	10.2	4.4
Food.....	5.3	0.7	5.7	0.8	6.8	1.2	8.1	1.3	6.1	0.6	4.7	0.6	3.8	1.0	10.2	4.4
Other consumer goods.....	5.3	0.7	5.7	0.8	6.8	1.2	8.1	1.3	6.1	0.6	4.7	0.6	3.8	1.0	10.2	4.4
Other merchandise.....	5.3	0.7	5.7	0.8	6.8	1.2	8.1	1.3	6.1	0.6	4.7	0.6	3.8	1.0	10.2	4.4
Unspecified.....	322.4	43.1	239.1	32.6	120.6	22.2	120.9	19.1	165.5	17.3	107.0	13.1	19.1	5.2	45.2	19.4

¹ Because of rounding, components may not add to the totals shown.

² Negligible.

TABLE X-A-7.—Commodity composition of Soviet imports from Communist China, 1955-62
 [In millions of current U.S. dollars and percent of total]

	1955		1956		1957		1958		1959		1960		1961		1962	
	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent
Total imports ¹	648.5	100.0	764.2	100.0	788.1	100.0	831.2	100.0	1,100.3	100.0	848.1	100.0	551.4	100.0	516.3	100.0
Machinery and equipment.....	10.3	1.6	9.2	1.2	6.4	.9	4.3	.5	12.4	1.1	.7	(?)	.3	(?)	8.7	1.7
Transportation equipment.....	10.3	1.6	9.2	1.2	6.4	.9	4.3	.5	12.1	1.1	2.6	(?)	2.4	0.4	2.7	.5
Fuels, lubricants, and related materials.....	5.0	.8	2.1	.3	1.9	.3	3.0	.3	2.8	.3	2.6	.3	2.4	.4	2.1	.3
Coal and coke.....	5.0	.8	2.1	.3	1.9	.3	3.0	.3	2.7	.3	2.6	.3	2.4	.4	2.1	.3
Petroleum and petroleum products.....	62.2	9.7	75.5	9.9	89.9	12.2	74.0	8.4	73.3	6.7	61.2	7.2	48.3	8.8	35.3	6.8
Ores and concentrates.....	82.5	12.8	77.7	10.2	58.5	7.9	68.1	7.7	62.5	5.7	61.7	7.3	42.0	7.3	32.5	6.3
Base metals and manufactures.....	26.3	4.1	27.3	3.6	6.8	.9	19.2	2.2	7.6	.7	12.8	1.5	8.7	1.6	6.6	1.3
Iron.....	56.2	8.7	50.4	6.6	51.7	7.0	48.9	5.5	54.9	5.0	48.9	5.6	34.2	6.2	25.9	5.0
Nonferrous metals.....	7.7	1.2	20.5	2.7	14.0	1.9	17.3	2.0	10.5	1.0	13.0	1.5	7.3	1.4	17.5	3.4
Tin.....	47.9	7.4	32.4	4.2	45.5	6.2	39.3	4.5	41.7	3.8	34.8	4.1	22.4	4.1	17.5	3.4
Chemicals.....	7.4	1.1	3.3	.4	5.5	.7	8.3	.9	7.6	.7	11.0	1.3	7.3	1.1	5.3	1.1
Wood and wood products.....	4.4	.7	2.0	.3	1.0	.1	1.0	.1	1.0	.1	1.0	1.1	1.0	.1	1.1	.1
Rubber and rubber products.....	1.1	.2	1.1	.1	37.2	5.0	28.1	3.2	23.1	2.1	11.6	1.4	8.4	.6	4.9	.9
Textile raw materials and semi-manufactures.....	59.5	9.2	58.6	7.7	49.0	6.6	37.5	4.3	91.6	8.3	65.3	7.7	22.9	4.2	13.9	2.7
Cotton.....	23.6	3.7	21.4	3.8	23.9	3.2	21.2	2.4	52.3	4.8	33.9	4.0	26.0	4.5	13.9	2.7
Wool.....	245.0	38.1	316.5	41.4	294.8	39.9	481.3	54.6	219.9	20.0	19.4	2.3	10.4	1.9	5.9	1.1
Food.....	183.5	28.5	209.5	27.4	137.9	18.7	230.1	26.1	643.1	58.4	516.9	60.3	361.2	65.5	382.3	74.0
Other consumer goods.....	61.5	9.6	107.0	14.0	156.9	21.3	251.2	28.5	219.1	19.9	127.9	15.0	97.5	17.5	38.1	7.4
Other merchandise.....	170.1	26.4	190.8	25.0	184.3	25.0	162.5	18.4	424.0	38.5	359.0	43.0	343.8	62.4	344.2	66.7
Unspecified.....	1.1	(?)	.1	(?)	1.6	.2	4.1	.5	172.9	15.7	37.2	4.5	31.3	5.7	26.6	5.2
Unspecified.....	1.1	(?)	.1	(?)	1.6	.2	4.1	.5	7.1	.6	16.8	2.0	30.5	5.5	3.6	.7

¹ Because of rounding, components may not add to the totals shown.

² Negligible.

TABLE X-A-8.—Commodity composition of Soviet exports to the industrial West, 1955-62
 [In millions of current U.S. dollars and percent of total]

	1955		1956		1957		1958		1959		1960		1961		1962	
	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent
Total exports ¹	543.7	100.0	597.2	100.0	690.1	100.0	693.6	100.0	855.5	100.0	971.8	100.0	1,093.9	100.0	1,105.1	100.0
Fuels, lubricants, and related materials.....	72.3	13.3	101.8	17.0	145.1	21.0	143.7	20.7	207.7	24.3	245.8	25.3	279.3	25.3	320.9	29.0
Coal and coke.....	27.2	5.0	39.0	6.5	49.1	7.1	53.3	8.0	55.0	6.4	57.1	5.9	65.1	6.1	77.7	7.0
Petroleum and petroleum products.....	45.1	8.3	62.8	10.6	9.0	13.9	90.4	13.5	152.7	17.9	188.7	19.4	214.0	20.2	243.3	22.0
Ores and concentrates.....	12.7	2.4	22.4	3.8	28.6	4.1	23.9	3.6	25.6	3.0	33.1	3.4	31.4	3.0	25.1	2.3
Manganese ore.....	1.4	0.3	1.6	0.3	2.7	0.4	1.6	0.2	1.4	0.2	1.7	0.2	1.3	0.1	0.1	0.0
Base metals and manufactures.....	52.2	9.6	90.4	15.1	112.9	16.4	95.3	14.2	95.5	11.2	111.3	11.5	118.6	11.2	118.2	10.7
Iron.....	42.2	7.8	63.9	10.7	65.8	9.5	33.1	4.9	47.0	5.5	70.9	7.3	90.9	7.6	94.0	7.6
Steel.....	24.8	4.6	34.7	5.8	17.8	2.6	12.4	1.9	23.8	2.8	34.7	3.6	40.6	3.8	46.0	4.2
Nonferrous metals.....	10.0	1.8	26.5	4.4	47.1	6.8	62.3	9.3	48.5	5.7	40.3	4.1	37.7	3.6	34.2	3.1
Aluminum.....	5.8	1.1	17.9	3.0	14.5	2.1	32.2	4.8	23.7	2.8	13.1	1.3	1.8	0.2	14.7	1.3
Wood and wood products.....	112.4	20.7	95.2	16.0	115.8	16.8	122.9	18.4	129.4	15.1	157.2	16.2	177.3	16.7	200.9	18.2
Lumber.....	73.2	13.5	63.7	10.7	79.5	11.5	75.1	11.2	83.8	9.8	99.0	10.2	106.7	10.1	109.6	9.9
Textile raw materials and semi-manufactures.....	65.4	12.0	58.7	9.8	42.0	6.1	39.3	5.9	60.5	7.1	70.1	7.2	52.1	4.9	52.6	4.8
Cotton fibers.....	37.4	6.9	34.5	5.8	26.6	3.9	29.0	4.2	39.2	4.6	50.3	5.2	34.7	3.3	28.8	2.6
Consumer goods.....	107.8	19.8	117.0	19.6	135.9	19.7	123.4	18.4	171.7	20.1	169.1	17.4	207.3	19.6	183.8	16.6
Food.....	70.5	13.0	74.1	12.4	96.1	13.9	85.0	12.7	126.4	14.8	117.2	12.1	158.1	14.9	103.1	9.3
Grain.....	57.8	10.6	54.6	9.1	68.2	9.9	63.1	9.4	45.3	5.3	51.9	5.3	49.2	4.6	53.7	4.9
Other consumer goods.....	34.8	6.4	36.2	6.1	35.7	5.2	34.1	5.1	39.9	4.7	44.2	4.5	41.4	3.9	46.2	4.2
Furs and pelts.....	68.4	12.6	73.8	12.7	83.1	12.0	93.4	13.9	120.1	14.0	146.1	15.0	128.4	12.1	122.0	11.0
Other merchandise.....	52.4	9.7	33.8	6.0	29.9	3.9	27.6	4.1	45.2	5.3	39.1	4.0	65.6	6.2	81.6	7.4

¹ Because of rounding, components may not add to the totals shown.

TABLE X-A-9.—Commodity composition of Soviet imports from the industrial West, 1955-62
 [In millions of current U.S. dollars and percent of total]

	1955		1956		1957		1958		1959		1960		1961		1962	
	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent	Value	Per- cent
Total imports ¹	430.6	100.0	578.8	100.0	672.5	100.0	692.2	100.0	758.5	100.0	1,059.5	100.0	1,087.7	100.0	1,264.6	100.0
Machinery and equipment.....	181.5	42.1	229.2	39.6	217.3	32.3	194.1	31.2	293.9	38.8	458.4	42.7	499.8	45.8	596.0	47.1
Transport equipment.....	101.4	23.5	145.7	25.2	97.3	14.5	119.5	17.4	177.8	23.3	336.4	31.7	331.9	30.5	388.0	30.6
Base metals and manufactures.....	53.4	12.4	123.0	21.3	146.3	21.8	161.9	23.4	219.1	28.9	327.2	30.3	241.9	22.2	294.9	23.3
Ferrous metals.....	12.8	2.9	74.0	12.8	104.2	15.5	106.3	15.3	175.0	23.1	252.1	23.6	162.9	14.9	242.7	19.2
Rolled ferrous metals.....	8.1	1.9	65.9	11.4	88.8	13.2	97.6	14.1	134.4	17.7	235.1	22.2	136.5	12.5	199.9	15.8
Pipes.....	1.3	0.3	2.6	0.4	5.3	0.8	1.1	0.2	68.6	9.1	13.7	1.3	96.5	8.9	109.9	8.7
Nonferrous metals.....	41.1	9.5	49.1	8.5	42.1	6.3	55.6	8.0	43.3	5.7	101.9	9.5	80.7	7.4	119.6	9.5
Copper.....	40.2	9.3	45.9	7.9	40.5	6.0	54.1	8.0	35.7	4.7	46.1	4.2	49.0	4.5	52.2	4.1
Textile raw materials and semi-manu- factures.....	48.9	11.4	63.5	11.0	77.4	11.5	63.4	10.2	48.2	6.5	32.2	3.0	70.1	6.4	64.5	5.1
Wood and wood products.....	29.6	6.9	40.7	7.0	61.2	9.1	50.7	7.3	43.3	5.7	79.5	7.4	83.8	7.7	77.3	6.1
Synthetic fibers.....	18.4	4.3	20.2	3.5	34.4	5.1	17.1	2.5	10.2	1.3	46.1	4.5	37.1	3.4	29.5	2.3
Consumer goods.....	7.3	1.7	15.4	2.7	15.0	2.2	18.9	2.7	26.8	3.5	12.9	1.2	28.7	2.6	20.9	1.6
Other merchandise.....	43.1	10.0	64.3	11.1	64.6	9.6	71.5	10.3	58.3	7.7	46.0	4.3	73.5	6.8	59.2	4.7
Unspecified.....	28.7	6.7	54.2	9.4	67.9	10.1	70.0	10.1	83.4	11.0	113.2	10.6	126.5	11.6	147.9	11.7
Unspecified.....	45.5	10.6	3.9	0.7	37.8	5.6	10.6	1.5	8.8	1.2	23.0	2.2	22.1	2.0	24.8	2.0

¹ Because of rounding, components may not add to the totals shown.

TABLE X-A-10.—Commodity composition of Soviet exports to underdeveloped countries, 1955-62
[In millions of current U.S. dollars and percent of total]

	1955		1956		1957		1958		1959		1960		1961		1962	
	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent
Total exports ¹	112.3	100.0	179.5	100.0	282.8	100.0	389.3	100.0	343.5	100.0	345.6	100.0	507.3	100.0	567.7	100.0
Machinery and equipment.....	5.4	4.8	23.4	13.0	87.7	31.0	160.5	41.2	112.8	32.8	125.7	36.4	235.9	46.5	285.9	50.4
Complete plants.....	1.1	1.0	7.6	4.2	47.2	16.7	112.3	28.8	69.3	20.2	68.6	19.8	138.8	27.4	184.9	32.6
Petroleum and petroleum products.....	31.9	28.4	39.3	21.9	49.9	17.6	78.2	20.1	80.2	23.3	61.3	17.7	67.4	13.3	62.2	11.0
Roller ferrous metals.....	16.2	14.4	43.5	24.2	45.6	16.1	33.4	8.6	29.2	8.5	24.3	7.0	23.4	4.6	31.7	5.6
Wood and wood products.....	10.5	9.4	15.4	8.6	21.0	7.4	30.5	7.8	30.5	8.9	38.8	11.2	38.1	7.5	34.0	6.0
Food.....	10.5	9.4	25.0	13.9	40.0	14.1	45.6	11.7	45.2	13.2	39.3	11.4	47.6	9.4	68.7	12.1
Other merchandise.....	28.8	25.7	31.7	17.7	36.4	12.9	38.1	9.8	40.8	11.9	50.2	14.5	56.0	11.0	64.9	11.4
Unspecified.....	4.1	3.7	.2	.1	2.3	.8	2.9	.7	4.9	1.4	6.0	1.7	88.9	7.7	20.3	3.6

¹ Because of rounding, components may not add to the totals shown.

TABLE X-A-11.—Commodity composition of Soviet imports from underdeveloped countries, 1955-62
[In millions of current U.S. dollars and percent of total]

	1955		1956		1957		1958		1959		1960		1961		1962	
	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent
Total imports ¹	210.4	100.0	296.5	100.0	435.3	100.0	481.6	100.0	522.2	100.0	574.8	100.0	584.1	100.0	614.0	100.0
Cotton.....	18.0	8.6	53.5	18.0	122.6	28.2	135.2	28.1	111.6	21.4	139.4	24.3	122.0	20.9	112.0	18.2
Natural rubber.....	23.5	11.2	98.8	33.3	67.6	15.5	131.4	27.3	144.0	27.5	151.8	26.4	224.8	38.5	205.9	33.5
Food.....	36.8	17.5	80.4	27.1	143.0	32.8	91.9	19.1	106.8	20.5	123.3	21.5	98.7	16.9	140.3	22.8
Nonferrous metals.....	47.5	22.6	65.4	22.1	100.9	23.2	121.8	25.3	83.9	6.5	33.2	5.8	19.9	3.4	20.4	3.3
Other merchandise.....	28.7	13.7	65.4	22.1	100.9	23.2	121.8	25.3	124.4	23.8	126.4	22.0	114.1	19.5	128.7	21.0
Unspecified.....	22.1	10.5	.1	.1	1.1	.3	1.2	.2	1.5	.3	.8	.1	4.6	.8	6.6	1.1

¹ Because of rounding, components may not add to the totals shown.

² Negligible.

TABLE X-A-12.—Trends in foreign trade between the U.S.S.R. and selected free world countries, 1955-62¹

[In millions of current U.S. dollars]

	1955	1956	1957	1958	1959	1960	1961	1962
Free world, total.....	1,345.9	1,762.6	2,189.0	2,268.7	2,600.5	3,004.5	3,369.0	4,012.5
Industrial West.....	974.3	1,176.0	1,362.6	1,291.8	1,612.0	2,041.3	2,147.6	2,369.7
Of which:								
Finland.....	294.0	261.0	315.7	254.4	246.6	283.4	278.9	385.4
United Kingdom.....	247.3	222.6	288.2	218.5	256.6	300.6	355.0	329.6
West Germany.....	52.1	109.9	133.2	137.7	209.4	318.0	298.1	338.8
France.....	93.8	120.2	114.5	167.7	188.3	203.7	199.9	238.4
Italy.....	33.8	59.9	74.5	73.9	130.8	193.0	223.2	230.0
Sweden.....	45.2	60.7	86.6	58.3	86.0	99.6	103.2	129.6
Belgium.....	32.3	61.3	69.2	39.2	37.0	51.4	67.6	78.8
Netherlands.....	60.3	51.8	85.8	74.7	79.8	69.9	75.9	90.0
United States.....	24.4	32.0	26.1	30.9	43.5	84.6	75.0	44.4
Underdeveloped countries.....	322.7	476.0	718.1	870.9	865.7	920.4	1,091.4	1,181.7
Of which:								
United Arab Republic (Egypt).....	26.4	88.8	193.1	194.7	180.6	191.1	204.9	176.3
India.....	11.7	38.7	126.7	180.9	128.5	115.6	162.3	196.4
Malaya.....	21.6	94.3	49.4	118.0	127.6	113.7	171.6	163.3
Afghanistan.....	24.5	33.4	35.7	35.7	44.0	48.9	59.1	64.8
Argentina.....	52.7	32.1	25.5	33.2	44.7	35.7	30.4	17.8
Iran.....	41.6	34.4	50.2	53.9	36.7	37.0	36.4	32.6
Indonesia.....	8.8	13.1	25.5	38.8	26.8	47.7	65.2	97.2
Other countries.....	48.9	110.6	108.3	106.0	122.8	42.8	130.0	461.1

¹ Because of rounding, components may not add to the totals shown.

TABLE X-A-13.—*Total Soviet economic credits and grants extended to non-Communist underdeveloped countries, Jan 1, 1954, to Dec 31, 1963*¹

[Millions of current U.S. dollars]

<i>Area and recipient country</i>	
Total	2 3, 377
Latin America: Argentina	100
Middle East	962
Iran	39
Iraq	184
Syrian Arab Republic	150
Turkey	10
United Arab Republic (Egypt)	553
Yemen	26
Africa	524
Algeria	101
Ethiopia	102
Ghana	89
Guinea	70
Mali	55
Somali Republic	57
Sudan	22
Tunisia	28
Asia	1, 788
Afghanistan	500
Burma	14
Cambodia	21
Ceylon	30
India	811
Indonesia	369
Nepal	10
Pakistan	33
Europe: Iceland	3

¹ Data for 1963 are preliminary.² Actual drawings under these credits and grants during this period totaled \$1.2 billion.

TABLE X-A-14.- *Soviet imports from the underdeveloped countries,¹ 1955-62*
 [Millions of current U.S. dollars]

Area and country	1955	1956	1957	1958	1959	1960	1961	1962
Total	210.4	206.5	435.3	481.6	522.2	574.8	584.1	614.0
Latin America	78.0	43.1	88.3	67.5	56.5	35.6	50.7	74.0
Argentina	28.1	13.0	20.9	16.0	27.9	21.7	19.9	9.8
Brazil	1.9	3.1	2.2	0.9	4.8	9.3	24.0	35.8
Cuba	35.8	14.7	47.1	15.6	7.4	(1)	(1)	(1)
Mexico	2.2	(2)	(2)	.2	1.3	3.3	.3	7.3
Peru	0	0	0	0	0	0	2.4	5.2
Uruguay	10.0	12.3	18.1	24.8	15.1	1.3	4.1	15.3
Middle East	44.9	83.7	152.4	188.2	141.4	181.9	152.7	134.6
Cyprus	0	0	0	0	0	.6	1.6	1.6
Greece	2.3	6.3	9.6	16.9	12.2	19.0	16.9	21.7
Iran	13.1	15.1	18.6	26.4	18.8	19.0	18.3	16.4
Iraq	.3	0	0	(3)	2.3	3.4	4.7	3.8
Israel	1.9	2.0	(2)	(2)	(2)	(2)	(2)	(2)
Lebanon	.9	1.8	1.6	2.1	3.9	3.9	3.8	4.0
Libya	0	0	0	.3	0	.4	.6	.2
Syrian Arab Republic	0	1.6	5.4	23.3	6.1	7.8	4.3	6.9
Turkey	5.1	6.6	5.4	11.4	4.8	5.2	4.9	5.4
United Arab Republic (Egypt)	13.3	50.3	110.9	107.1	92.7	121.3	96.2	73.0
Yemen	0	0	.9	.7	.6	1.3	1.4	1.6
Africa	15.5	11.3	32.8	13.1	76.0	79.6	51.3	57.9
Algeria	0	0	0	.1	0	0	(3)	(3)
Cameroon	0	0	.1	6.6	8.4	.2	0	(2)
Ethiopia	0	.2	2.8	1.0	.7	.5	.7	1.2
Federation of Rhodesia and Nyasaland	0	0	0	0	28.6	26.4	13.2	13.6
Ghana	11.6	8.2	18.9	2.7	8.2	21.7	6.8	16.7
Guinea	0	0	0	0	.8	2.2	4.2	2.7
Ivory Coast	2.6	2.0	2.4	0	7.7	5.4	0	(2)
Mali	0	0	0	0	0	0	3.8	4.3
Morocco	2.3	.9	5.2	1.7	1.3	4.0	5.2	6.0
Nigeria	0	0	2.2	.3	7.3	7.0	.1	(2)
Somali Republic	0	0	0	0	0	0	0	.3
Sudan	0	0	2.9	0	5.0	5.8	10.4	10.7
Togo	0	0	0	0	0	0	0	2.2
Tunisia	0	0	.3	.7	1.0	1.6	2.8	2.2
Uganda	0	0	0	0	7.0	4.9	4.1	(2)
Asia	57.6	143.2	145.7	204.9	229.2	252.7	322.1	334.4
Afghanistan	10.9	15.1	20.7	12.7	15.6	16.9	19.7	25.3
Burma	16.8	12.2	9.1	0	4.0	5.0	2.4	12.3
Cambodia	0	0	0	0	0	3.0	6.2	6.1
Ceylon	0	0	.2	4.3	4.7	8.6	9.0	6.1
India	4.4	18.3	42.0	50.9	60.6	38.4	66.9	71.7
Indonesia	3.7	12.9	19.8	11.6	11.0	31.4	33.9	38.7
Malaya	2.8	84.0	48.8	118.0	126.7	111.6	169.6	161.0
Nepal	0	0	0	0	0	0	.3	0
Pakistan	0	.7	5.1	7.4	3.7	4.4	4.3	3.9
Thailand	0	0	0	0	2.9	3.4	9.8	9.3
Europe	13.4	15.2	16.1	17.9	19.1	25.0	7.3	12.8
Iceland	10.0	12.4	13.8	11.0	12.3	10.6	5.2	11.8
Portugal	3.4	2.8	2.3	1.9	1.8	2.6	(2)	(2)
Spain	0	0	0	5.0	5.0	11.8	2.1	1.0

¹ Imports are valued f.o.b. Because of rounding, components may not add to the totals shown. Excludes Yugoslavia for all years and Cuba for 1960-62. Imports from Cuba and Yugoslavia were as follows (in millions of current U.S. dollars): From Cuba: 1960, 103.8; 1961, 311.9; 1962, 234.0. From Yugoslavia: 1955, 17.4; 1956, 49.7; 1957, 56.9; 1958, 50.9; 1959, 53.1; 1960, 53.1; 1961, 54.6; 1962, 46.0.

² Not reported.

³ Less than \$50,000.

Source: Official Soviet foreign trade publications.

TABLE X-A-15.—Soviet exports to the underdeveloped countries, ¹ 1955-62

[Millions of current U.S. dollars]

Area and country	1955	1956	1957	1958	1959	1960	1961	1962
Total.....	112.3	179.5	282.8	389.3	343.5	345.6	507.3	567.7
Latin America.....	24.3	22.0	4.8	23.4	27.5	31.9	29.6	38.4
Argentina.....	24.0	19.1	4.7	17.2	16.8	14.0	10.6	8.0
Brazil.....	0	.1	0	0	1.0	15.8	18.3	30.1
Cuba.....	0	0	0	0	0	(¹)	(¹)	(²)
Mexico.....	0	0	0	.6	.4	.8	.1	.1
Peru.....	0	0	0	0	0	0	0	0
Uruguay.....	.3	2.8	.1	5.6	9.3	1.3	.6	.2
Middle East.....	53.7	80.2	142.8	156.2	172.2	162.5	217.6	211.2
Cyprus.....	.3	0	0	0	0	.6	1.4	1.1
Greece.....	4.2	7.2	12.2	14.0	16.0	25.8	21.1	20.7
Iran.....	22.4	19.2	31.7	27.4	18.0	18.0	18.1	16.1
Iraq.....	0	0	0	(²)	23.3	20.2	37.3	52.0
Israel.....	6.8	5.9	(²)	(²)	(²)	(²)	(²)	(²)
Lebanon.....	1.3	1.7	2.2	1.1	3.3	4.3	4.7	4.3
Libya.....	0	0	0	.2	0	1.0	1.4	1.9
Syrian Arab Republic.....	.3	1.6	4.3	15.2	15.1	11.0	17.0	5.2
Turkey.....	7.4	6.0	9.0	9.4	5.6	8.2	5.8	4.3
United Arab Republic (Egypt).....	11.0	38.4	82.2	87.7	88.0	69.8	108.7	103.3
Yemen.....	0	.2	1.2	1.2	2.9	3.6	2.1	2.3
Africa.....	2.5	3.7	5.6	4.7	9.2	29.0	68.5	58.7
Algeria.....	.9	1.8	3.8	2.0	1.3	2.3	1.4	(²)
Cameroon.....	0	0	0	0	0	0	0	(²)
Ethiopia.....	0	0	.2	.7	.6	.9	.9	.9
Ghana.....	0	0	0	0	0	5.6	15.4	9.9
Guinea.....	0	0	0	0	.9	5.8	27.2	20.0
Mali.....	0	0	0	0	0	0	8.6	8.6
Morocco.....	1.4	1.4	.9	1.1	1.7	5.8	3.3	5.7
Nigeria.....	0	0	0	0	0	(²)	(²)	(²)
Somali Republic.....	0	0	0	0	0	0	(²)	.9
Sudan.....	.2	.4	.7	.3	3.9	5.4	9.3	10.4
Togo.....	0	0	0	0	0	0	.1	.4
Tunisia.....	0	.1	0	.6	.8	3.2	2.3	1.9
Asia.....	21.5	63.6	118.0	186.2	118.4	106.1	180.4	250.1
Afghanistan.....	13.6	18.2	18.1	23.1	28.3	32.0	39.4	39.4
Burma.....	.2	4.3	6.4	2.6	1.6	1.8	3.9	5.9
Cambodia.....	0	0	(²)	.4	1.3	2.1	1.6	2.2
Ceylon.....	0	(²)	(²)	.6	.6	1.0	1.8	10.1
India.....	7.3	40.4	84.7	130.0	68.0	47.1	95.4	124.8
Indonesia.....	.1	.2	5.7	27.2	15.8	16.2	31.3	58.6
Malaya.....	0	.3	.7	0	.9	2.1	2.0	2.2
Nepal.....	0	0	0	0	0	0	.3	.8
Pakistan.....	.3	.1	1.7	2.0	1.0	2.4	3.0	5.1
Thailand.....	0	.1	.7	.3	.9	1.4	1.7	1.0
Europe.....	10.3	10.0	11.6	18.8	16.2	16.1	11.2	9.2
Iceland.....	10.3	10.0	11.6	12.3	12.0	10.6	9.3	8.6
Portugal.....	0	0	0	.9	1.3	2.2	0	(²)
Spain.....	0	0	0	5.6	2.9	3.3	1.9	.6

¹ Exports are valued f.o.b. Because of rounding, components may not add to the totals shown. Excludes Yugoslavia for all years and Cuba for 1960-62. Exports to Cuba and Yugoslavia were as follows (in millions of current U.S. dollars): To Cuba: 1960, 70.8; 1961, 287.0; 1962, 370.8. To Yugoslavia: 1955, 10.4; 1956, 69.1; 1957, 73.1; 1958, 51.1; 1959, 46.2; 1960, 55.1; 1961, 35.9; 1962, 72.3.

² Less than \$50,000.

³ Not reported.

Source: Official Soviet foreign trade publications.

Part B—East-West Trade

TABLE X-B-1.—Free world trade with the European Soviet bloc, 1961-62
[In millions of dollars]

Period	U.S.S.R.	European satellites
Free world exports (f.o.b.):		
1961.....	1,524.8	2,313.0
1962.....	1,770.5	2,322.1
Percentage change.....	+16.1	+0.4
Free world imports (c.i.f.):		
1961.....	1,593.6	2,259.7
1962.....	1,753.8	2,318.1
Percentage change.....	+10.1	+2.6
Free world trade, total:		
1961.....	3,118.4	4,572.7
1962.....	3,524.3	4,640.2
Percentage change.....	+13.0	+1.5

NOTE.—Free world trade does not include the trade of Cuba.
European satellites include Albania, Bulgaria, Czechoslovakia, Soviet Zone of Germany, Hungary, Poland, and Rumania.

Source: Official trade statistics of free world countries.

Prepared by International Trade Analysis Division, Bureau of International Commerce, U.S. Department of Commerce, January 1964.

TABLE. X-B-2.—Free world trade with the European Soviet bloc, by country groups and areas, 1961-62 and January-June 1963

[In millions of dollars]

Groups and areas	U.S.S.R.	European satellites
Exports, total:		
1961.....	1,524.8	2,313.0
1962.....	1,770.5	2,322.1
COCOM countries, total:		
1961.....	821.4	1,354.5
1962.....	897.5	1,397.7
January to June 1963.....	422.3	708.8
European COCOM countries:		
1961.....	686.2	1,185.2
1962.....	724.8	1,233.6
January to June 1963.....	346.9	609.3
Other Europe:		
1961.....	282.6	459.7
1962.....	391.0	453.7
Near East:		
1961.....	110.0	169.1
1962.....	94.7	140.9
Africa:		
1961.....	28.8	49.3
1962.....	33.6	60.6
Far East, except Japan:		
1961.....	224.5	120.5
1962.....	254.0	144.2
Oceania:		
1961.....	23.1	46.2
1962.....	32.1	32.7
Latin America:		
1961.....	34.4	113.7
1962.....	66.7	92.3
Imports, total:		
1961.....	1,593.6	2,259.7
1962.....	1,753.8	2,313.1
COCOM countries, total:		
1961.....	952.4	1,289.4
1962.....	1,015.7	1,344.8
January to June 1963.....	477.1	714.6
European COCOM countries:		
1961.....	781.0	1,194.0
1962.....	850.6	1,252.4
January to June 1963.....	399.3	606.6
Other Europe:		
1961.....	319.7	453.5
1962.....	355.5	489.0
Near East:		
1961.....	143.1	163.5
1962.....	112.8	190.8
Africa:		
1961.....	23.8	87.8
1962.....	40.7	77.4
Far East, except Japan:		
1961.....	119.7	138.9
1962.....	187.1	135.8
Oceania:		
1961.....	2.6	12.0
1962.....	1.6	11.9
Latin America:		
1961.....	32.3	109.6
1962.....	40.4	68.4

NOTE.—The above country group and area totals include values for all the countries in the free world, for which figures are available, that are known to have exported to or imported from Sino-Soviet bloc countries \$1,000,000 or more in any year since 1955. Figures for 1962 are preliminary and in some cases incomplete. The Coordinating Committee in Paris (COCOM) coordinates strategic trade controls of the following countries: Total COCOM—United States, Canada, Japan, and European COCOM, i.e., Belgium, Denmark, France, Federal Republic of Germany, Greece, Italy, Luxembourg, Netherlands, Norway, Portugal, Turkey, and United Kingdom.

Free world trade does not include the trade of Cuba.

Source: Official trade statistics of free world countries.

Prepared by International Trade Analysis Division, Bureau of International Commerce, U.S. Department of Commerce, January 1964.

TABLE X-B-3.—Exports of selected free world countries to the world and to the European Soviet bloc, 1960-63

[Millions of dollars]

Exporting country and year	World	U.S.S.R.		European satellites	
		Value	Percent of world	Value	Percent of world
United States:					
1960.....	20,557.8	30.3	0.2	154.6	0.8
1961.....	20,962.1	45.6	.2	87.7	.4
1962.....	21,628.3	20.1	.1	105.0	.5
January to October 1963.....	18,949.9	16.9	.1	101.6	.5
Australia:¹					
1960.....	2,054.7	29.8	1.5	40.4	2.0
1961.....	2,374.4	17.7	.7	39.2	1.7
1962.....	2,362.4	29.6	1.3	26.8	1.1
January to October 1963.....	2,258.0	26.9	1.2	25.3	1.1
Austria:					
1960.....	1,120.3	39.3	3.5	114.4	10.2
1961.....	1,202.4	43.2	3.6	132.9	11.1
1962.....	1,263.5	53.9	4.3	133.6	10.6
January to August 1963.....	847.7	38.5	4.5	87.9	10.4
Belgium-Luxembourg:					
1960.....	3,791.2	19.0	.5	77.4	2.0
1961.....	3,924.4	27.3	.7	66.0	1.7
1962.....	4,323.6	25.6	.6	60.9	1.4
January to September 1963.....	3,519.8	9.7	.3	43.7	1.2
Brazil:					
1960.....	1,268.8	13.3	1.0	57.7	4.5
1961.....	1,403.0	19.2	1.4	55.6	4.0
1962.....	1,214.2	39.0	3.2	34.2	3.5
January to July 1963.....	709.1	23.0	3.2	29.4	4.1
Canada:					
1960.....	5,428.8	8.5	.2	28.3	.5
1961.....	5,656.6	24.2	.4	69.6	1.2
1962.....	5,775.8	3.1	.1	42.5	.7
January to October 1963.....	5,090.2	20.6	.4	33.4	.7
Denmark:					
1960.....	1,471.0	16.4	1.1	41.9	2.8
1961.....	1,514.3	5.4	.4	44.9	3.0
1962.....	1,629.9	23.8	1.5	57.7	3.5
January to October 1963.....	1,509.2	29.6	2.0	48.8	3.2
France:					
1960.....	6,868.3	115.6	1.7	105.0	1.5
1961.....	7,226.3	109.9	1.5	125.0	1.7
1962.....	7,361.0	138.1	1.5	129.1	1.8
January to September 1963.....	5,875.5	60.9	.9	98.4	1.7
Germany, Federal Republic of:					
1960.....	11,643.3	185.3	1.6	483.5	4.2
1961.....	12,903.9	204.0	1.6	489.2	3.8
1962.....	13,477.2	206.8	1.5	510.9	3.8
January to September 1963.....	10,576.0	117.6	1.1	356.6	3.4
Ghana:					
1960.....	294.2	20.4	6.9	.7	.2
1961.....	292.8	8.6	2.9	1.7	.6
1962.....	291.1	13.5	4.6	10.4	3.6
January to July 1963.....	161.3	16.5	10.2	9.2	5.7
Greece:					
1960.....	203.2	18.8	9.3	26.1	12.8
1961.....	223.3	18.8	8.4	33.5	15.0
1962.....	248.6	19.2	7.7	31.2	12.6
January to August 1963.....	159.2	20.0	2.6	23.8	14.9
India:					
1960.....	1,331.0	62.8	4.7	33.2	2.5
1961.....	1,386.2	65.3	4.7	46.7	3.4
1962.....	1,414.6	75.3	5.3	88.0	6.2
January to August 1963.....	1,040.7	65.9	6.3	64.2	6.2
Indonesia:					
1960.....	840.4	28.1	3.3	6.8	.8
1961.....	783.6	31.5	4.0	9.5	1.2
January to October 1962.....	560.5	27.0	4.8	9.2	1.6
Iran:¹					
1960.....	96.9	17.6	18.2	10.4	10.7
1961.....	130.3	17.7	13.6	15.6	12.0
1962.....	116.1	17.1	14.7	12.8	11.0
Iraq:¹					
1960.....	30.8	1.1	3.6	1.4	4.5
1961.....	37.1	2.2	5.9	1.1	3.0
1962.....	65.5	3.3	5.5	2.2	3.4
January to June 1963.....	29.0	.5	1.7	.7	2.4

¹ Excludes exports of petroleum and products.

TABLE X-B-3.—Exports of selected free world countries to the world and to the European Soviet bloc, 1960-63—Continued

[Millions of dollars]

Exporting country and year	World	U.S.S.R.		European satellites	
		Value	Percent of world	Value	Percent of world
Italy:					
1960.....	3,648.4	78.5	2.2	93.3	2.6
1961.....	4,187.7	89.5	2.1	126.4	3.0
1962.....	4,666.1	102.5	2.2	137.8	3.0
January to September 1963.....	3,691.6	88.2	2.4	116.6	3.2
Japan:					
1960.....	4,054.5	60.0	1.5	3.6	.1
1961.....	4,235.6	65.4	1.5	11.9	.3
1962.....	4,916.0	149.4	3.0	16.6	.3
January to September 1963.....	3,834.7	105.9	2.8	12.0	.3
Malaya, Federation of, and Singapore:					
1960.....	1,538.2	53.9	3.5	61.6	4.0
1961.....	1,412.8	89.9	6.3	35.5	2.5
1962.....	1,428.6	110.6	7.7	20.6	1.4
January to June 1963.....	740.4	68.0	9.3	15.5	2.1
Netherlands:					
1960.....	4,028.4	11.8	.3	50.8	1.3
1961.....	4,306.4	19.8	.5	58.2	1.4
1962.....	4,583.9	32.0	.7	44.4	1.0
January to September 1963.....	3,647.7	18.2	.5	36.4	1.0
Norway:					
1960.....	880.8	12.9	1.5	25.6	2.9
1961.....	931.2	12.5	1.3	24.9	2.7
1962.....	972.0	10.4	1.1	27.2	2.8
January to August 1963.....	665.9	8.1	1.2	21.9	3.3
Sudan:					
1960.....	182.0	5.8	3.2	8.4	4.6
1961.....	178.6	9.8	5.4	7.4	4.1
1962.....	226.8	10.3	4.5	11.5	5.1
January to March 1963.....	55.2	6.5	11.8	4.0	7.2
Sweden:					
1960.....	2,564.3	38.2	1.5	70.8	2.8
1961.....	2,743.1	43.8	1.6	71.4	2.6
1962.....	2,922.5	78.7	2.7	75.2	2.6
January to September 1963.....	2,270.1	42.5	1.9	60.0	2.6
United Arab Republic (Egypt):					
1960.....	568.0	88.7	15.6	111.0	19.5
1961.....	485.2	73.0	15.0	122.8	25.3
1962.....	404.8	62.5	15.4	78.1	19.3
January to June 1963.....	202.8	57.9	19.8	58.1	19.8
United Kingdom:					
1960.....	10,348.7	149.3	1.4	122.5	1.2
1961.....	10,752.3	194.6	1.8	187.2	1.7
1962.....	11,058.6	161.0	1.8	207.8	1.9
January to September 1963.....	8,728.9	136.7	1.6	149.7	1.7

NOTE.—In this table, exports include reexports for Australia, Denmark, Ghana, India, Federation of Malaya and Singapore, Norway, Sudan, Sweden, United Kingdom, and the United States.

Source: Official statistics of listed countries.

Prepared by International Trade Analysis Division, Bureau of International Commerce, U.S. Department of Commerce, January 1964.

TABLE X-B-4.—Imports of selected free world countries from the world and from the European Soviet bloc, 1960-63

[Millions of dollars]

Importing country and year	World	U.S.S.R.		European satellites	
		Value	Percent of world	Value	Percent of world
United States:					
1960	15,017.5	22.6	0.2	58.2	0.4
1961	14,713.0	23.2	.2	57.9	.4
1962	16,366.5	16.2	.1	62.8	.4
January to October 1963	14,210.0	17.5	.1	51.1	.4
Australia:					
1960	2,367.6	1.3	.1	13.4	.6
1961	2,034.6	2.4	.1	9.6	.5
1962	2,287.4	1.4	.1	10.5	.5
January to October 1963	2,064.6	1.1	.1	10.0	.5
Austria:					
1960	1,415.8	40.3	2.8	118.0	8.3
1961	1,484.7	45.8	3.1	108.5	7.8
1962	1,551.9	43.8	2.8	127.4	8.2
January to August 1963	1,092.4	36.2	3.3	91.7	8.4
Belgium-Luxembourg:					
1960	3,069.4	28.6	.7	48.9	1.2
1961	4,219.0	35.3	.8	51.9	1.2
1962	4,555.4	46.0	1.0	56.7	1.2
January to September 1963	3,695.8	37.5	1.0	44.1	1.2
Brazil:					
1960	1,462.1	17.6	1.2	62.0	4.2
1961	1,460.1	19.2	1.3	51.0	3.5
1962	1,475.0	31.8	2.2	33.1	2.2
January to July 1963	812.9	27.0	3.3	24.2	3.0
Canada:					
1960	5,643.6	3.3	.1	10.1	.2
1961	5,694.2	2.7	(¹)	13.0	.2
1962	5,852.8	1.7	(¹)	14.0	.2
January to August 1963	3,915.3	.9	(¹)	9.9	.3
Denmark:					
1960	1,799.5	29.3	1.6	49.6	2.8
1961	1,867.2	28.7	1.5	50.4	2.7
1962	2,122.5	24.3	1.1	62.3	2.9
January to October 1963	1,731.7	22.4	1.3	49.5	2.9
France:					
1960	6,283.8	94.7	1.5	60.0	1.0
1961	6,679.6	97.3	1.5	69.2	1.0
1962	7,516.7	110.7	1.5	86.8	1.2
January to September 1963	6,296.4	101.3	1.6	78.6	1.2
Germany, Federal Republic of:					
1960	10,369.0	136.4	1.3	511.3	4.9
1961	11,174.9	142.9	1.3	503.6	4.5
1962	12,508.1	186.8	1.5	514.0	4.1
January to September 1963	9,758.1	153.9	1.6	380.6	3.9
Ghana:					
1960	362.0	1.6	.4	10.4	2.9
1961	394.2	6.2	1.6	12.5	3.2
1962	333.4	5.1	1.5	13.2	4.0
January to July 1963	206.0	6.0	2.9	14.1	6.8
Greece:					
1960	702.0	28.3	4.0	27.1	3.9
1961	714.0	19.9	2.8	30.4	4.3
1962	701.3	20.3	2.9	34.4	4.9
January to August 1963	490.7	15.4	3.1	24.8	5.1
India:					
1960	2,293.1	29.0	1.3	39.8	1.7
1961	2,263.9	54.5	2.4	77.5	3.4
1962	2,230.4	122.5	5.5	89.6	4.0
January to August 1963	1,413.1	75.0	5.3	61.8	4.4
Indonesia:					
1960	574.2	6.7	1.2	7.5	1.3
1961	794.0	11.5	1.4	27.4	3.4
Iran: ²					
1960	580.5	17.3	3.0	13.1	2.3
1961	599.3	18.3	3.1	15.3	2.6
1962	531.6	16.4	3.1	10.6	2.0
Iraq:					
1960	390.0	7.4	1.9	23.4	6.0
1961	407.9	21.2	5.2	22.8	5.6
1962	360.0	24.3	6.8	25.2	7.0
January to June 1963	156.7	14.6	9.3	10.1	6.4

¹ Less than 0.05 percent.² Excludes duty-free imports in 1960 and 1961.

TABLE X-B-4.—Imports of selected free world countries from the world and from the European Soviet bloc, 1960-63—Continued

[Millions of dollars]

Importing country and year	World	U.S.S.R.		European satellites	
		Value	Percent of world	Value	Percent of world
Italy:					
1960.....	4,725.1	125.8	2.7	139.1	2.9
1961.....	5,222.4	150.1	2.9	159.1	3.0
1962.....	6,056.4	165.8	2.7	165.3	2.7
January to September 1963.....	5,633.1	132.4	2.4	132.5	3.3
Japan:					
1960.....	4,491.1	87.0	1.9	7.0	.2
1961.....	5,810.4	145.4	2.5	24.6	.4
1962.....	5,637.0	147.3	2.6	15.6	.3
January to September 1963.....	4,874.5	117.7	2.4	15.1	.3
Malaya, Federation of, and Singapore:					
1960.....	1,480.7	2.2	.1	4.7	.3
1961.....	1,496.2	2.8	.2	8.8	.6
1962.....	1,571.7	3.3	.2	6.4	.1
January to June 1963.....	836.1	2.0	.2	3.9	.5
Netherlands:					
1960.....	4,531.4	44.4	1.0	53.0	1.2
1961.....	5,110.1	39.3	.8	64.9	1.3
1962.....	5,346.7	36.4	.7	62.7	1.2
January to September 1963.....	4,338.4	37.5	.9	52.2	1.2
Norway:					
1960.....	1,462.5	19.4	1.3	26.6	1.8
1961.....	1,616.0	19.5	1.2	28.8	1.8
1962.....	1,654.3	18.3	1.0	29.3	1.8
January to August 1963.....	1,179.5	14.7	1.2	18.8	1.6
Sudan:					
1960.....	180.9	6.5	3.6	8.0	4.4
1961.....	238.0	8.9	3.7	10.9	4.6
1962.....	256.6	8.4	3.3	14.6	5.7
January to March 1963.....	63.3	1.9	3.0	4.0	6.3
Sweden:					
1960.....	2,910.8	62.5	2.1	58.9	2.0
1961.....	2,927.2	63.9	2.2	64.0	2.2
1962.....	3,114.1	63.6	2.0	76.5	2.5
January to September 1963.....	2,428.9	57.3	2.4	53.6	2.2
United Arab Republic (Egypt):					
1960.....	667.7	65.8	9.9	75.7	11.3
1961.....	700.1	79.4	11.3	67.7	9.6
1962.....	750.5	58.3	7.8	87.6	11.7
January to June 1963.....	416.0	16.6	4.0	43.4	10.4
United Kingdom:					
1960.....	12,713.9	209.9	1.7	178.4	1.4
1961.....	12,306.4	238.1	1.9	198.0	1.6
1962.....	12,577.6	235.5	1.9	206.3	1.6
January to September 1963.....	9,908.2	178.4	1.8	161.9	1.6

Source: Official import statistics of listed countries.

Prepared by International Trade Analysis Division, Bureau of International Commerce, U.S. Department of Commerce, January 1964.

TABLE X-B-5.—Free world exports to the U.S.S.R. and European satellites, by selected commodities and commodity groups, 1961-62

[In millions of dollars]

Commodity and commodity group	U.S.S.R.				European satellites			
	Free world		European COCOM countries		Free world		European COCOM countries	
	1961	1962	1961	1962	1961	1962	1961	1962
Exports, total.....	1,524.8	1,770.5	686.0	724.8	2,313.0	2,322.1	1,185.2	1,233.6
Food, beverages, and tobacco.....	115.7	175.0	24.8	40.5	338.5	407.5	128.6	164.1
Live animals and meat.....	2.6	28.4	2.0	19.9	43.8	69.4	23.2	42.2
Dairy products and eggs.....	3.9	3.9	2.6	2.6	16.1	11.4	11.0	8.3
Fish and preparations.....	7.3	12.5	1.0	1.8	26.8	30.0	15.6	19.0
Wheat and wheat flour.....	13.0	(1)	(2)	(2)	86.8	83.1	3.3	20.6
Rice.....	(2)	20.9	(2)	.9	13.4	22.7	4.7	9.0
Barley.....	(2)	(2)	(2)	(2)	6.9	13.3	3.7	2.2
Cereals and preparations, other.....	1.1	(2)	(2)	(2)	6.7	7.7	1.1	.7
Fruit and vegetables.....	30.9	30.6	10.6	9.0	36.4	47.7	25.3	26.7
Coffee.....	15.7	16.4	(2)	(2)	20.6	20.4	.1	.5
Cocoa and preparations.....	9.0	17.9	(2)	(2)	13.5	15.4	2.1	1.6
Tea.....	18.3	24.2	(2)	(2)	.5	1.9	(2)	(2)
Food and beverages, other.....	4.5	3.9	.6	.5	31.6	47.8	13.5	11.6
Tobacco and manufactures.....	9.4	18.3	8.0	5.8	35.4	36.7	25.0	21.7
Crude materials.....	456.5	429.4	110.1	78.5	585.2	531.7	116.8	116.9
Hides, skins, and fur skins.....	23.1	30.2	1.9	2.5	65.0	62.4	16.8	14.4
Oilseeds.....	6.2	3.6	(2)	(2)	13.0	18.6	1.6	.9
Crude rubber.....	211.4	173.0	79.7	47.7	59.1	47.5	6.8	9.5
Wood, cork, and pulp.....	24.5	24.2	.9	.6	50.1	44.2	6.9	10.5
Wool and other animal hair.....	46.9	55.3	3.0	1.7	92.5	69.1	32.3	26.6
Cotton.....	99.6	97.5	2.3	4.9	160.6	139.0	12.2	12.6
Manmade fibers.....	29.2	29.9	17.4	15.0	20.7	30.1	9.8	15.2
Textile fibers, other.....	5.5	4.4	.2	.3	37.5	25.2	14.2	11.4
Fertilizers and nonmetallic minerals, crude.....	3.1	6.0	1.8	3.8	22.4	27.7	4.9	4.1
Iron ore and concentrates.....	.1	(2)	(2)	(2)	41.8	42.0	1.8	1.8
Crude materials, other.....	6.9	5.3	2.9	2.0	22.5	25.9	9.5	9.9
Mineral fuels and related materials.....	.5	1.0	.2	.2	14.2	16.6	12.4	13.7
Fats and oils.....	33.9	17.4	7.9	5.3	28.1	37.1	13.1	16.9
Chemicals.....	46.6	61.5	34.2	50.7	189.6	183.2	143.6	137.0
Organic and inorganic chemicals.....	21.2	32.3	17.6	27.6	65.9	66.8	51.6	51.8
Dyeing, tanning, and coloring materials.....	4.9	4.5	2.0	2.5	29.7	30.2	18.0	18.5
Medicines and pharmaceuticals.....	1.3	2.0	1.0	1.0	15.9	17.0	11.7	12.5
Manufactured fertilizers.....	(1)	(2)	(2)	(2)	8.5	1.9	7.7	1.6
Plastic materials.....	12.7	12.3	9.8	11.4	36.2	37.7	28.3	31.0
Chemicals, other.....	6.5	10.4	3.8	8.2	33.4	29.6	26.3	21.6
Manufactured goods.....	377.0	475.7	205.9	276.1	655.7	607.0	449.2	415.5
Wood and cork manufactures; paper and products.....	47.2	42.3	1.6	1.9	47.2	39.6	13.5	12.6
Cotton yarn, fabrics, and manufactures.....	.5	5.4	.2	.6	19.5	14.5	10.7	5.9
Manmade fiber yarn, fabrics, and manufactures.....	17.1	35.6	5.5	14.8	29.8	32.0	24.1	25.9
Textile yarns, fabrics, and manufactures, other.....	23.3	19.2	4.6	4.9	15.2	19.0	6.1	5.2
Iron and steel plates and sheets.....	57.5	86.8	44.1	63.2	113.2	96.8	85.8	75.9
Iron and steel tubes, pipes, and fittings.....	92.3	121.4	77.7	107.7	90.5	78.7	79.1	66.1
Iron and steel and semimanufactures, other.....	23.5	48.7	25.2	31.4	142.7	112.1	102.8	75.9
Copper and semimanufactures.....	24.1	38.2	6.9	16.7	56.3	57.4	42.1	47.0
Base metals and manufactures, other.....	44.0	30.4	20.5	15.1	57.6	69.5	29.9	41.0
Professional and scientific instruments and apparatus.....	7.8	5.8	5.2	3.6	14.3	15.4	11.4	12.3
Manufactured goods, other.....	34.7	41.9	14.4	16.2	69.4	72.0	43.7	47.7
Machinery.....	396.7	427.6	275.4	233.6	373.6	410.0	279.9	309.8
Power-generating machinery.....	10.5	12.6	6.6	6.8	35.2	27.5	21.9	16.4
Metalworking machinery.....	27.1	20.4	19.4	15.8	29.1	50.6	23.2	43.5
Textile and leather machinery.....	47.5	28.6	27.3	15.3	22.3	33.6	20.3	30.8

¹ Less than \$50,000.² None or negligible.

TABLE X-B-5.—Free world exports to the U.S.S.R. and European satellites, by selected commodities and commodity groups, 1961-62—Continued

[In millions of dollars]

Commodity and commodity group	U.S.S.R.				European satellites			
	Free world		European COCOM countries		Free world		European COCOM countries	
	1961	1962	1961	1962	1961	1962	1961	1962
Paper and pulp mill machinery.....	20.6	75.3	5.0	18.6	7.9	19.5	4.3	14.2
Heating and cooling equipment.....	55.5	97.4	41.7	51.1	20.3	21.2	17.5	17.7
Pumps and centrifuges.....	19.5	27.7	16.5	21.0	12.9	21.0	9.0	14.6
Mechanical handling equipment.....	11.3	12.0	6.8	8.3	8.5	10.7	4.9	8.1
Nonelectric machinery, other.....	135.3	91.4	110.7	61.8	141.3	128.0	112.5	95.9
Electric power machinery and switch-gear.....	20.6	24.9	16.3	16.0	33.5	29.4	24.0	18.4
Insulated wire and cable.....	23.2	24.0	3.1	3.4	13.4	14.0	5.0	7.8
Electric apparatus, other.....	25.6	18.3	22.0	14.0	49.2	54.5	37.3	42.4
Transport equipment.....	74.3	159.7	20.8	36.1	42.2	73.0	21.6	45.6
Railway vehicles.....	15.2	8.0	6.4	2.9	5.3	20.8	2.6	13.5
Ships and boats.....	56.9	147.9	13.4	32.3	22.1	38.6	7.5	19.4
Transport equipment, other.....	2.2	3.8	1.0	.9	14.8	13.6	11.5	12.7
All other merchandise ³	23.6	23.2	6.7	3.8	85.9	56.0	20.0	14.1

³ The major part of the free world values for "All other merchandise" represents exports by countries for which commodity detail could not be shown above.

NOTE.—Because of limitations in original source materials, values of commodities and groups shown above are known to be somewhat understated and should not be considered exact measures of exports in each commodity group. Figures for 1962 are preliminary.

Source: Official export statistics of free world countries.

Prepared by International Trade Analysis Division, Bureau of International Commerce, U.S. Department of Commerce, January 1964.

TABLE X-B-6.—Free world imports from the U.S.S.R. and European satellites, by selected commodities and commodity groups, 1961-62

[In millions of dollars]

Commodity and commodity group	U.S.S.R.				European satellites			
	Free world		European COCOM countries		Free world		European COCOM countries	
	1961	1962	1961	1962	1961	1962	1961	1962
Imports, total.....	1,593.6	1,753.8	781.0	850.6	2,259.7	2,318.1	1,193.9	1,252.4
Food, beverages, and tobacco.....	237.2	219.4	146.9	108.2	638.6	574.0	370.1	383.3
Live animals and meat.....	1.6	2.6	1.2	2.1	192.2	199.3	138.2	138.8
Butter.....	(1)	(1)	(1)	(1)	17.2	21.9	16.8	20.6
Eggs.....	(1)	(2)	(1)	(2)	56.6	45.7	45.5	35.2
Fish and preparations.....	13.3	13.8	9.5	11.5	3.1	3.3	2.5	2.6
Wheat.....	91.5	90.7	65.4	44.6	6.2	5.5	4.8	3.1
Barley.....	35.1	8.3	32.4	4.6	8.7	5.0	6.8	4.1
Corn.....	9.8	12.1	2.6	7.6	45.7	44.9	35.5	35.5
Cereals and preparations, other.....	12.3	18.1	5.6	10.3	19.5	24.4	7.3	14.5
Fruit and vegetables.....	.7	1.6	.2	.8	61.7	84.5	47.2	61.7
Sugar, sugar preparations, and honey.....	28.0	32.2	.1	2.2	96.3	97.6	45.4	41.9
Feedstuffs for animals.....	41.1	35.1	28.1	22.0	2.6	4.1	2.4	4.0
Food and beverages, other.....	1.8	2.2	.5	.5	18.0	19.9	9.4	12.1
Tobacco and manufactures.....	2.0	2.8	1.3	2.0	10.8	17.9	8.3	14.1
Crude materials.....	397.7	436.7	299.7	315.8	231.2	253.7	184.3	195.5
Fur skins, undressed.....	45.8	48.2	36.0	37.7	6.5	9.3	3.5	5.3
Oilseeds.....	.1	.1	(2)	.1	20.7	13.1	16.6	10.0
Wood and pulp.....	223.7	256.2	179.5	191.4	122.2	142.1	104.3	117.6
Wool and other animal hair.....	3.2	4.0	3.1	3.8	5.9	4.0	5.5	3.2
Cotton.....	34.8	35.6	20.8	24.4	3.4	1.9	3.3	1.9
Textile fibers, other.....	11.5	15.0	9.7	12.8	5.6	9.2	4.1	8.1
Fertilizers, crude.....	14.2	16.6	10.0	11.7	7.0	6.5	2.6	1.5
Nonmetallic minerals, other.....	17.3	17.2	11.7	11.5	18.2	19.2	10.3	9.9
Base metal ores and scrap.....	40.9	37.2	25.3	19.8	8.5	8.9	8.2	8.2
Bristles.....	2.3	1.5	1.6	1.1	1.2	.9	.7	.5
Feathers.....	(2)	(1)	(2)	(1)	8.4	10.0	7.0	8.4
Crude materials, other.....	3.9	5.1	2.0	1.5	23.6	28.6	18.2	20.9
Mineral fuels and related materials.....	440.0	499.6	199.8	220.2	310.4	342.6	198.7	222.8
Coal, coke, and briquettes.....	104.4	114.3	45.3	51.3	188.2	199.9	107.9	120.4
Crude petroleum.....	187.5	177.4	90.7	98.9	1.7	2.3	1.1	1.5
Gasoline and light oils.....	15.0	15.7	7.5	7.8	24.3	31.9	22.9	28.2
Fuel oils.....	147.5	173.6	50.0	57.2	78.0	87.4	57.0	62.0
Petroleum products, other.....	15.6	18.6	6.3	5.0	18.2	21.1	9.8	10.7
Fats and oils.....	4.1	8.6	2.5	7.4	17.6	17.3	10.8	8.7
Chemicals.....	51.9	51.6	20.2	18.5	168.0	162.6	82.5	77.4
Inorganic and organic chemicals.....	16.4	14.9	11.9	9.5	71.7	71.0	36.1	32.3
Mineral tar and crude coal-tar chemicals.....	10.3	3.8	2.0	2.0	16.3	11.6	11.9	9.5
Fertilizers, manufactured.....	18.8	26.3	3.8	3.9	37.7	36.3	12.8	15.3
Chemicals, other.....	6.4	6.6	2.5	3.1	42.3	43.7	21.7	20.3
Manufactured goods.....	257.3	316.2	94.2	166.2	511.8	532.7	245.0	255.0
Wood manufactures, paper, and paper manufactures.....	21.1	22.9	15.1	15.5	30.2	31.1	17.0	18.7
Cotton yarn, fabrics, and manufactures.....	16.3	9.9	1.0	.6	44.3	39.2	10.9	12.6
Manmade fiber yarn, fabrics, and manufactures.....	1.1	.3	(2)	(1)	10.3	14.1	1.5	3.2
Textile yarns, fabrics, and manufactures, other.....	1.9	1.9	1.1	1.3	49.0	42.3	30.0	23.0
Glass, glassware, and pottery.....	1.1	1.9	.3	.4	39.5	43.3	21.0	23.5
Nonmetallic mineral manufactures, other.....	5.6	2.7	.3	(2)	25.1	29.4	11.8	10.9
Silver and platinum.....	24.2	27.2	10.9	15.0	4.0	4.2	3.8	3.5
Pig iron.....	48.6	51.5	13.0	29.4	16.7	10.3	6.6	6.8
Iron and steel ingots and other primary forms.....	18.9	68.1	10.8	62.2	17.2	12.9	12.7	8.5
Iron and steel girders, bars, and similar shapes.....	9.0	11.0	.6	.4	17.1	32.5	7.1	10.1
Iron and steel plates and sheets, uncoated.....	18.3	14.1	.4	1.3	23.3	31.4	3.2	9.0

See footnotes at end of table, p. 127.

TABLE X-B-6.—Free world imports from the U.S.S.R. and European satellites, by selected commodities and commodity groups, 1961-62—Continued

[In millions of dollars]

Commodity and commodity group	U.S.S.R.				European satellites			
	Free world		European COCOM countries		Free world		European COCOM countries	
	1961	1962	1961	1962	1961	1962	1961	1962
Iron and steel and semimanufactures, other.....	34.3	31.7	6.1	4.9	38.1	35.9	9.1	8.4
Aluminum.....	8.2	17.8	4.1	11.3	2.5	2.0	2.2	1.8
Zinc.....	17.0	13.5	13.6	10.1	6.6	10.0	5.0	7.6
Tin.....	4.6	.3	.8	(¹)	(¹)	(¹)	(¹)	(¹)
Base metals and manufactures, other.....	15.3	22.9	7.5	4.9	30.1	30.0	12.0	13.5
Clothing and footwear.....	.8	1.0	.1	(²)	51.9	50.2	35.8	33.6
Professional and scientific instruments.....	2.2	2.2	.7	.5	15.3	16.1	7.1	8.0
Manufactured goods, other.....	13.8	15.3	7.8	8.4	90.6	97.2	48.2	52.3
Machinery.....	83.2	131.2	12.6	8.1	232.1	223.7	73.9	79.4
Power-generating machinery.....	8.0	7.8	.3	.2	12.3	10.1	2.2	2.6
Agricultural tractors.....	5.6	4.4	1.0	.4	15.9	12.6	2.4	2.9
Metalworking machinery.....	6.5	11.1	2.6	2.3	61.2	63.1	23.5	28.0
Textile and sewing machinery.....	3.5	6.6	3.2	.7	13.6	10.7	6.0	4.4
Construction and mining machinery.....	8.6	21.5	.2	2.2	5.2	6.5	.5	.9
Electric machinery and apparatus.....	9.7	9.7	2.3	1.3	46.3	43.8	14.9	16.4
Machinery, other.....	41.3	70.1	3.0	1.0	77.6	76.9	24.4	24.2
Transport equipment.....	24.5	31.3	2.6	3.4	79.6	58.8	22.0	20.0
Railway vehicles.....	.9	1.1	(¹)	(¹)	20.7	8.3	(¹)	.6
Road motor vehicles.....	19.3	20.0	2.6	3.3	40.0	32.5	16.5	13.0
Transport equipment, other.....	4.3	10.2	(¹)	.1	18.9	18.0	5.5	6.4
All other merchandise ³	97.7	59.2	2.5	2.8	170.4	152.7	6.6	5.3

¹ None or negligible.

² Less than \$50,000.

³ The major part of the free world values for "all other merchandise" represents imports by countries for which commodity detail could not be shown above.

NOTE.—Because of limitations in original source materials, values of commodities and groups shown above are known to be somewhat understated and should not be considered exact measures of imports in each commodity group. Figures for 1962 are preliminary.

Source: Official import statistics of free world countries.

Prepared by International Trade Analysis Division, Bureau of International Commerce, U.S. Department of Commerce, January 1964.

SECTION XI
ECONOMIC INDICATORS FOR
THE SOVIET BLOC

TABLE XI-1.—Gross national product of the Sino-Soviet bloc, 1959-62
[In billions of dollars]

Country	1959	1960	1961	1962
Sino-Soviet bloc.....	384	413	418	436
European Soviet bloc.....	299	322	336	353
U.S.S.R.....	214	231	240	253
Other European Soviet bloc countries ¹	85	91	96	100
Asian Soviet bloc.....	85	91	82	83
Communist China.....	82	88	79	80
Other Asian Soviet bloc countries ²	3	3	3	3

¹ Includes Albania, Bulgaria, Czechoslovakia, Hungary, Poland, Rumania, and the Soviet Zone of Germany.

² Includes Mongolia, North Korea, and North Vietnam.

Sources: Department of State Intelligence Reports, "Indicators of Economic Strength of Western Europe, Canada, United States, and Soviet Bloc, 1959-62."

TABLE XI-2.—Intrabloc trade as percentage of total trade by countries of the Sino-Soviet bloc, 1959-62

	Exports				Imports			
	1959	1960	1961	1962	1959	1960	1961	1962
Albania.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Bulgaria.....	85.2	82.0	81.3	(1)	77.2	82.1	82.5	(1)
Czechoslovakia.....	71.0	70.5	68.2	70.9	71.4	69.8	66.7	69.8
Hungary.....	66.1	67.1	70.3	(1)	70.2	68.3	66.7	(1)
Poland.....	57.7	59.0	59.2	59.6	66.0	63.5	61.8	63.4
Rumania.....	78.5	71.9	67.6	(1)	80.1	72.4	65.7	(1)
Soviet Zone of Germany.....	75.8	74.0	73.0	78.9	82.2	77.8	81.8	80.0
U.S.S.R.....	74.9	73.4	66.7	63.5	74.7	68.3	66.3	66.5
Communist China.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Mongolia.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
North Korea.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
North Vietnam.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)

¹ Not available.

Source: Official foreign trade statistics of Soviet bloc countries.

TABLE XI-3.—Area sown to principal crops in Sino-Soviet bloc countries, 1937, 1950, 1960-62
 [In thousands of hectares]

	Sino-Soviet bloc, total	European Soviet bloc, total ¹	Albania	Bulgaria	Czechoslovakia	Hungary	Poland	Rumania	Soviet zone of Germany	U.S.S.R.	Asian Soviet bloc, total	Communist China	Mon-golia	North Korea	North Vietnam
Grain crops, total:															
1937.....	(2) 137,650	(2) 137,650	(2) 154	(2) 2,576	(2) 3,435	(2) 3,991	(2) 11,547	(2) 11,447	(2) 2,718	(2) 104,500	(2) (2)	(2) (2)	(2) 51	(2) (2)	(2) (2)
1950.....	(2) 151,852	(2) 151,852	(2) 227	(2) 3,026	(2) 3,435	(2) 4,557	(2) 14,557	(2) 14,557	(2) 2,718	(2) 102,877	(2) (2)	(2) (2)	(2) 247	(2) (2)	(2) (2)
1960.....	(2) 164,916	(2) 164,916	(2) (2)	(2) 2,537	(2) 2,598	(2) 3,330	(2) 8,304	(2) 7,666	(2) 2,822	(2) 121,656	(2) (2)	(2) (2)	(2) 335	(2) (2)	(2) (2)
1961.....	(2) (2)	(2) (2)	(2) (2)	(2) 2,583	(2) 2,576	(2) 3,270	(2) 8,029	(2) 7,029	(2) 2,267	(2) 128,248	(2) (2)	(2) (2)	(2) 380	(2) (2)	(2) (2)
1962.....	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) 2,618	(2) 3,267	(2) 8,678	(2) (2)	(2) 2,260	(2) 135,900	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
Of which:															
Wheat:															
1937.....	(2) 50,330	(2) 50,330	(2) 40	(2) 1,309	(2) 853	(2) 1,483	(2) 1,683	(2) 3,552	(2) 475	(2) 41,400	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1950.....	(2) 46,939	(2) 46,939	(2) 88	(2) 1,449	(2) 755	(2) 1,275	(2) 1,430	(2) 2,750	(2) 475	(2) 38,528	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1960.....	(2) 67,962	(2) 67,962	(2) (2)	(2) 1,249	(2) 652	(2) 1,051	(2) 1,361	(2) 2,837	(2) 419	(2) 60,393	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1961.....	(2) 70,722	(2) 70,722	(2) (2)	(2) 1,311	(2) 642	(2) 1,014	(2) 1,301	(2) 2,969	(2) 385	(2) 63,000	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1962.....	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) 673	(2) 1,095	(2) 1,383	(2) (2)	(2) 427	(2) 67,400	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
Rye:															
1937.....	(2) 30,647	(2) 30,647	(2) 4	(2) 211	(2) 967	(2) 606	(2) 5,721	(2) 438	(2) (2)	(2) 22,700	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1950.....	(2) 31,642	(2) 31,642	(2) 11	(2) 230	(2) 626	(2) 507	(2) 5,060	(2) 294	(2) 1,294	(2) 23,000	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1960.....	(2) 23,177	(2) 23,177	(2) (2)	(2) 78	(2) 431	(2) 301	(2) 3,122	(2) 98	(2) 947	(2) 16,200	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1961.....	(2) 23,362	(2) 23,362	(2) (2)	(2) 71	(2) 463	(2) 263	(2) 4,880	(2) 30	(2) 830	(2) 16,700	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1962.....	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) 441	(2) 232	(2) 4,700	(2) (2)	(2) 814	(2) 16,900	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
Corn:															
1937.....	(2) 10,214	(2) 10,214	(2) 92	(2) 682	(2) 185	(2) 1,204	(2) 92	(2) 5,159	(2) (2)	(2) 2,800	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1950.....	(2) 9,848	(2) 9,848	(2) 123	(2) 756	(2) 120	(2) 1,151	(2) 4	(2) 2,853	(2) 3	(2) 4,823	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1960.....	(2) 18,173	(2) 18,173	(2) (2)	(2) 634	(2) 100	(2) 1,401	(2) 129	(2) 3,572	(2) 3	(2) 11,239	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1961.....	(2) 18,809	(2) 18,809	(2) (2)	(2) 635	(2) 201	(2) 1,340	(2) 143	(2) 3,426	(2) 2	(2) 13,150	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1962.....	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) 237	(2) 1,288	(2) 136	(2) (2)	(2) 2	(2) 14,200	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
Rice:															
1937.....	(2) (2)	(2) (2)	(2) (2)	(2) 6	(2) (2)	(2) 14	(2) (2)	(2) (2)	(2) (2)	(2) 200	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1950.....	(2) 145	(2) 145	(2) 2	(2) 12	(2) (2)	(2) 25	(2) (2)	(2) 17	(2) (2)	(2) 100	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1960.....	(2) 159	(2) 159	(2) (2)	(2) 10	(2) (2)	(2) 22	(2) (2)	(2) 21	(2) (2)	(2) 100	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1961.....	(2) 143	(2) 143	(2) (2)	(2) 10	(2) (2)	(2) 19	(2) (2)	(2) 11	(2) (2)	(2) 100	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1962.....	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) 100	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
Potatoes:															
1937.....	(2) 11,205	(2) 11,205	(2) 1	(2) 22	(2) 772	(2) 285	(2) 2,960	(2) 7,235	(2) (2)	(2) 6,900	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1950.....	(2) 13,184	(2) 13,184	(2) 4	(2) 30	(2) 600	(2) 279	(2) 2,616	(2) 229	(2) 812	(2) 8,534	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1960.....	(2) 13,949	(2) 13,949	(2) (2)	(2) 43	(2) 509	(2) 253	(2) 2,876	(2) 292	(2) 772	(2) 9,144	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1961.....	(2) 13,504	(2) 13,504	(2) (2)	(2) 41	(2) 513	(2) 240	(2) 2,819	(2) 293	(2) 718	(2) 8,878	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1962.....	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) 308	(2) 209	(2) 2,910	(2) (2)	(2) 752	(2) 8,700	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
Annual feeds, total:															
1937.....	(2) (2)	(2) (2)	(2) (2)	(2) 511	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) 10,600	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1950.....	(2) 64,033	(2) 64,033	(2) (2)	(2) 757	(2) 1,207	(2) 1,409	(2) 1,409	(2) 757	(2) 781	(2) 20,739	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1960.....	(2) 1,504	(2) 1,504	(2) (2)	(2) 1,665	(2) 1,207	(2) 1,665	(2) 1,665	(2) 1,097	(2) 1,180	(2) 57,027	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)
1961.....	(2) 59,238	(2) 59,238	(2) (2)	(2) 727	(2) 1,573	(2) 1,829	(2) 1,829	(2) 1,206	(2) 1,207	(2) 51,914	(2) (2)	(2) (2)	(2) (2)	(2) (2)	(2) (2)

Year	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Industrial crops, total:	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1937	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1950	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1960	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1961	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1962	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Of which:	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Cotton:	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1937	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1950	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1960	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1961	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1962	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Flax:	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1937	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1950	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1960	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1961	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1962	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Sunflower seeds:	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1937	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1950	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1960	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1961	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1962	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Sugarbeets:	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1937	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1950	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1960	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1961	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1962	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Tobacco:	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1937	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1950	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1960	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1961	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1962	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Total:	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1937	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1950	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1960	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1961	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1962	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)

1 Total excludes Albania whenever data are not available.
 2 Not available.
 3 Includes area sown under wheat, rye, rice, barley, oats, corn.
 4 1949 data.
 5 No area sown.
 6 Less than smallest unit reported.
 7 League of Nations estimate.
 8 Includes area sown under lucerne, red clover, mixture of oats and vetches, cattle turnips, and maize for silage.
 Sources: Official statistics of the Sino-Soviet bloc countries; League of Nations statistical yearbooks.

TABLE XI-4.—Harvest of selected crops in Sino-Soviet bloc countries, 1937, 1950, 1960-62
 [In thousand metric tons]

	Sino-Soviet bloc total	European Soviet bloc total 1	Albania	Bulgaria	Czechoslovakia	Hungary	Poland	Rumania	Soviet Zone of Germany	U.S.S.R.	Asian Soviet bloc total	Communist China	Mon-golia	North Korea	North Vietnam
Grain crops:															
1937.....	(3)	133,025	202	1,767	4,711	6,179	11,373	10,393	(4)	97,400	(3)	(3)	(2)	(2)	2,300
1950.....	(3)	117,825	250	1,155	4,720	5,900	11,720	5,149	(4)	81,200	(3)	(3)	(2)	(2)	2,460
1960.....	(3)	182,833	220	2,839	3,735	6,860	14,419	9,826	(4)	134,400	(3)	(3)	(2)	(2)	3,803
1961.....	(3)	182,449	280	4,384	5,661	6,109	15,560	10,612	(4)	138,000	(3)	(3)	(2)	(2)	4,670
1962.....	(3)	(3)	(3)	(3)	5,688	6,728	(3)	(3)	5,937	147,500	(3)	(3)	(2)	(2)	4,970
Of which:															
Wheat:															
1937.....	(3)	49,758	45	1,766	1,395	1,964	1,928	3,780	(4)	38,900	(3)	(3)	(2)	(2)	(3)
1950.....	(3)	41,778	85	1,757	1,450	2,065	2,219	2,219	(4)	31,100	(3)	(3)	(2)	(2)	(3)
1960.....	(3)	77,150	(3)	2,379	1,503	1,768	2,303	3,450	(4)	64,300	(3)	(3)	(2)	(2)	(3)
1961.....	(3)	76,950	(3)	2,379	1,666	1,886	2,792	3,990	(4)	66,500	(3)	(3)	(2)	(2)	(3)
1962.....	(3)	(3)	(3)	2,028	1,654	1,959	2,700	(3)	1,315	70,600	(3)	(3)	(2)	(2)	(3)
Rye:															
1937.....	(3)	(3)	8	238	1,372	618	5,638	451	(4)	(3)	(3)	(3)	(2)	(2)	(3)
1950.....	(3)	(3)	(3)	238	1,147	769	6,488	182	(4)	(3)	(3)	(3)	(2)	(2)	(3)
1960.....	(3)	27,730	(3)	32	895	555	7,878	103	(4)	16,300	(3)	(3)	(2)	(2)	(3)
1961.....	(3)	24,023	(3)	70	694	297	8,356	104	(4)	16,700	(3)	(3)	(2)	(2)	(3)
1962.....	(3)	(3)	(3)	(3)	915	233	6,700	(3)	1,726	16,900	(3)	(3)	(2)	(2)	(3)
Corn:															
1937.....	(3)	14,853	137	859	3,432	2,770	103	4,752	(4)	2,800	(3)	(3)	(2)	(2)	(3)
1950.....	(3)	11,477	109	694	2,18	1,805	4	2,101	(4)	6,600	(3)	(3)	(2)	(2)	(3)
1960.....	(3)	30,013	(3)	1,305	572	3,594	47	5,680	(4)	18,700	(3)	(3)	(2)	(2)	(3)
1961.....	(3)	34,676	(3)	1,424	461	2,715	33	5,740	(4)	24,300	(3)	(3)	(2)	(2)	(3)
1962.....	(3)	(3)	(3)	(3)	471	3,241	(3)	(3)	3	23,300	(3)	(3)	(2)	(2)	(3)
Rice:															
1937.....	(3)	(3)	(3)	16	(3)	(3)	(3)	(3)	(4)	334	(3)	(3)	(2)	(2)	(3)
1950.....	(3)	(3)	(3)	38	(3)	(3)	(3)	36	(4)	(3)	(3)	(3)	(2)	(2)	(3)
1960.....	(3)	316	(3)	32	(3)	45	(3)	49	(4)	190	(3)	(3)	(2)	(2)	212
1961.....	(3)	355	(3)	36	(3)	38	(3)	31	(4)	250	(3)	(3)	(2)	(2)	4,663
1962.....	(3)	(3)	(3)	(3)	(3)	36	(3)	(3)	(4)	260	(3)	(3)	(2)	(2)	4,566
Potatoes:															
1937.....	(3)	116,500	3	146	12,363	2,960	40,221	2,107	(4)	58,700	(3)	(3)	(2)	(2)	(3)
1950.....	(3)	150,700	27	150	8,196	1,350	36,130	1,601	(4)	88,500	(3)	(3)	(2)	(2)	150
1960.....	(3)	148,235	23	478	5,093	2,698	37,855	3,009	(4)	84,400	(3)	(3)	(2)	(2)	700
1961.....	(3)	148,244	20	445	5,331	1,630	45,203	2,875	(4)	84,300	(3)	(3)	(2)	(2)	215
1962.....	(3)	(3)	29	5,002	5,002	1,852	37,800	(3)	13,284	95,800	(3)	(3)	(2)	(2)	290
Vegetables:															
1937.....	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(4)	15,400	(3)	(3)	(2)	(2)	(3)
1950.....	(3)	(3)	(3)	573	(3)	(3)	1,972	1,127	(4)	9,300	(3)	(3)	(2)	(2)	1,797

TABLE XI-5.—Sino-Soviet intrabloc trade, 1959-62

[In millions of dollars]

Exporting country and year	Importing country														
	Sino-Soviet bloc, total	European Soviet bloc, total	Albania	Bulgaria	Czechoslovakia	Hungary	Poland	Rumania	Soviet Zone of Germany	U.S.S.R.	Asian Soviet bloc, total	Communist China	Mon-golia	North Korea	North Viet-nam
Sino-Soviet bloc, total:															
1959	()	()	()	447	1,133	555	936	414	1,632	3,792	()	()	()	()	()
1960	()	()	()	521	1,262	663	949	460	1,702	3,845	()	()	()	()	()
1961	()	()	()	549	1,388	681	1,042	529	1,865	3,905	()	()	()	()	()
1962	()	()	()	()	1,445	()	1,196	()	1,384	3,280	()	()	()	()	()
European Soviet bloc, total:															
1959	()	7,400	77	485	1,029	508	873	382	1,522	2,574	()	()	()	()	()
1960	()	8,105	66	509	1,155	620	893	431	1,588	2,943	()	()	()	()	()
1961	()	9,003	46	544	1,301	659	1,014	504	1,794	3,161	()	()	()	()	()
1962	()	()	()	()	1,419	()	1,164	()	()	3,396	()	()	()	()	()
Albania:															
1959	()	33	()	1	7	3	2	()	5	15	()	()	()	()	()
1960	()	43	()	1	7	3	2	()	4	24	()	()	()	()	()
1961	()	48	()	2	11	3	4	()	6	22	()	()	()	()	()
1962	()	()	()	()	10	()	5	()	()	()	()	()	()	()	()
Bulgaria:															
1959	398	390	4	()	42	11	22	5	47	259	8	()	()	()	()
1960	469	461	8	()	55	12	30	8	50	307	8	()	()	()	()
1961	540	531	2	()	66	14	22	14	70	337	9	()	()	()	()
1962	()	()	()	()	65	()	31	()	()	389	()	()	()	()	()
Czechoslovakia:															
1959	1,226	1,090	10	53	()	86	115	61	178	687	136	6	24	6	6
1960	1,362	1,228	8	61	()	112	128	64	196	609	134	7	12	6	6
1961	1,394	1,346	11	57	()	104	164	77	220	713	48	4	()	()	()
1962	1,554	1,543	9	62	()	125	201	88	230	828	11	11	6	4	4
Hungary:															
1959	509	462	3	16	87	()	39	18	90	209	47	1	4	2	2
1960	588	538	2	12	94	()	46	26	101	257	90	2	5	5	3
1961	725	687	4	14	138	()	60	23	110	332	38	2	4	3	3
1962	()	()	()	()	139	()	63	()	()	389	()	()	()	()	()
Poland:															
1959	661	607	4	17	81	37	()	18	137	313	54	1	6	4	4
1960	788	728	3	28	113	46	()	23	125	390	60	3	1	6	6
1961	891	856	4	22	147	55	()	33	110	455	50	3	1	1	4
1962	983	960	4	24	146	64	()	35	118	569	15	3	3	2	2

TABLE XI-6.—Production of selected basic commodities in Sino-Soviet bloc countries, 1937, 1950, and 1960-62

Commodities and year	Albania	Bulgaria	Czechoslovakia	Germany: Soviet Zone	Hungary	Poland	Rumania	U.S.S.R.	European Soviet bloc total	Communist China	Mon-golia	North Korea	North Viet-nam	Asian Soviet bloc total	Sino-Soviet bloc total
Electric power (million kilowatt-hours):															
1937.....	19	202	4,115	(*) 1,061	3,628	1,135	2,113	36,200	46,350	(*) 4,550	(*) 70	(*) 4,924	(*) 255	(*) 10,544	(*) 145,869
1950.....	21	797	9,280	3,001	9,421	2,113	9,421	91,226	135,325	55,000	(*) 106	9,130	(*) 276	63,500	155,869
1960.....	194	4,657	24,500	7,617	29,307	7,626	292,300	292,300	406,506	58,500	123	10,040	276	93,939	471,006
1961.....	227	5,411	26,962	8,382	32,254	8,631	327,600	327,600	451,962	58,500	145	11,445	388	93,939	523,321
1962.....	242	6,943	28,700	9,118	35,400	10,100	369,000	369,000	503,666	(*) 2	(*) 145	(*) 11,445	(*) 388	(*) 93,939	(*) 523,321
Coal (million metric tons):															
1937.....	(*) 3	2	35	8	36	2	128	128	211	(*) 431	(*) 3	(*) 44	(*) 3	(*) 35	(*) 642
1950.....	(*) 3	6	50	13	89	4	261	261	607	430	(*) 1	11	3	449	1,428
1960.....	(*) 3	17	82	27	113	8	513	513	988	430	1	12	3	449	1,428
1961.....	(*) 3	16	88	28	117	9	511	511	1,012	(*) 1	1	12	3	449	1,428
1962.....	(*) 3	21	93	29	121	10	517	517	1,040	(*) 1	1	13	3	449	1,428
Oil (thousand metric tons):															
1937.....	108	(*) 6	18	2	499	7,153	28,501	28,501	38,281	(*) 422	(*) 3	(*) 3	(*) 3	(*) 122	(*) 43,916
1950.....	132	(*) 6	68	512	1,62	5,047	37,878	37,878	43,794	5,500	(*) 3	(*) 3	(*) 3	5,500	167,385
1960.....	728	200	137	1,217	1,94	11,500	147,859	147,859	161,855	6,200	(*) 3	(*) 3	(*) 3	6,200	168,641
1961.....	770	207	154	1,457	203	11,882	166,068	166,068	180,441	6,000	(*) 3	(*) 3	(*) 3	6,000	186,641
1962.....	790	(*) 6	177	1,641	203	11,864	186,200	186,200	200,875	6,000	(*) 3	(*) 3	(*) 3	6,000	206,875
Cement (thousand metric tons):															
1937.....	19	154	1,350	362	1,289	464	5,454	5,454	9,112	(*) 1,400	(*) 380	(*) 380	(*) 407	1,780	20,341
1950.....	16	602	1,998	797	2,514	1,028	10,194	10,194	18,561	16,000	(*) 380	2,285	407	15,682	37,178
1960.....	73	1,586	5,651	1,571	6,599	3,054	45,620	45,620	68,486	16,000	(*) 380	2,285	407	15,682	57,178
1961.....	(*) 8	1,749	5,343	1,601	7,364	3,308	50,864	50,864	75,504	(*) 380	(*) 380	2,285	407	15,682	57,178
1962.....	(*) 8	1,893	5,710	1,733	7,541	3,489	57,300	57,300	83,088	(*) 380	(*) 380	2,285	407	15,682	57,178
Pig iron (thousand metric tons):															
1937.....	(*) 6	(*) 3	1,675	357	720	127	14,487	14,487	17,366	(*) 4246	(*) 380	(*) 380	(*) 380	(*) 412	(*) 24,192
1950.....	(*) 6	3	1,961	461	1,533	320	19,175	19,175	23,780	27,500	(*) 380	(*) 380	(*) 380	(*) 412	24,192
1960.....	(*) 6	192	686	1,246	4,563	1,014	46,757	46,757	60,463	27,500	(*) 380	(*) 380	(*) 380	28,333	88,816
1961.....	(*) 6	206	4,971	1,306	4,770	1,059	50,593	50,593	64,376	(*) 380	(*) 380	(*) 380	(*) 380	28,333	88,816
1962.....	(*) 6	218	5,177	1,381	5,311	1,511	55,300	55,300	70,973	(*) 380	(*) 380	(*) 380	(*) 380	28,333	88,816

TABLE XI-7.—Production of selected manufactured products, 1937, 1950, 1960, 1962

Commodities and year	Albania	Bulgaria	Czechoslovakia	Germany: Soviet Zone	Hungary	Poland	Rumania	U.S.S.R.	European Soviet bloc total ¹	Communist China	North Korea	North Vietnam	Asian Soviet bloc total	Sino-Soviet bloc total
Automotive vehicles, (thousand units):														
1937.....	(2)	(2)	15	(2)	(2)	34	(4)	200	(2)	(2)	(2)	(2)	(2)	(2)
1950.....	(2)	(2)	31	(2)	5	1	(4)	363	(2)	(2)	(2)	(2)	(2)	(2)
1960.....	(2)	(2)	70	(2)	5	37	(4)	524	(2)	(2)	(2)	(2)	(2)	(2)
1961.....	(2)	(2)	73	(2)	5	39	(4)	555	(2)	(2)	(2)	(2)	(2)	(2)
1962.....	(2)	(2)	78	(2)	6	45	(4)	578	(2)	(2)	(2)	(2)	(2)	(2)
Tractors (thousand units):														
1937.....	(2)	(2)	(4)	(2)	81	(4)	(4)	51	(2)	(2)	(2)	(2)	(2)	(2)
1950.....	(2)	(2)	11	(2)	4	4	(4)	117	(2)	(2)	(2)	(2)	(2)	(2)
1960.....	(2)	(2)	32	(2)	3	9	(4)	239	(2)	(2)	(2)	(2)	(2)	(2)
1961.....	(2)	(2)	28	(2)	2	13	(4)	264	(2)	(2)	(2)	(2)	(2)	(2)
1962.....	(2)	(2)	32	(2)	3	15	(4)	287	(2)	(2)	(2)	(2)	(2)	(2)
Rolling stock (freight) (thousand units):														
1937.....	(2)	(2)	1	(2)	(2)	(4)	(4)	30	(2)	(2)	(2)	(2)	(2)	(2)
1950.....	(2)	(2)	2	(2)	1	14	(4)	51	(2)	(2)	(2)	(2)	(2)	(2)
1960.....	(2)	(2)	5	(2)	(2)	14	(4)	86	(2)	(2)	(2)	(2)	(2)	(2)
1961.....	(2)	(2)	7	(2)	(2)	14	(4)	99	(2)	(2)	(2)	(2)	(2)	(2)
1962.....	(2)	(2)	5	(2)	(2)	16	(4)	90	(2)	(2)	(2)	(2)	(2)	(2)
Metalworking machinery (thousand units):														
1937.....	(2)	(2)	5	(2)	(2)	4	(4)	52	(2)	(2)	(2)	(2)	(2)	(2)
1950.....	(2)	(2)	13	(2)	3	4	(4)	186	(2)	(2)	(2)	(2)	(2)	(2)
1960.....	(2)	(2)	24	(2)	7	25	(4)	281	(2)	(2)	(2)	(2)	(2)	(2)
1961.....	(2)	(2)	25	(2)	7	25	(4)	196	(2)	(2)	(2)	(2)	(2)	(2)
1962.....	(2)	(2)	26	(2)	7	28	(4)	209	(2)	(2)	(2)	(2)	(2)	(2)
Antifriction bearings (million units):														
1937.....	(2)	(2)	(2)	(2)	(2)	(4)	(4)	40	(2)	(2)	(2)	(2)	(2)	(2)
1950.....	(2)	(2)	6	(2)	3	1	(4)	98	(2)	(2)	(2)	(2)	(2)	(2)
1960.....	(2)	(2)	37	(2)	12	12	(4)	370	(2)	(2)	(2)	(2)	(2)	(2)
1961.....	(2)	(2)	41	(2)	17	17	(4)	395	(2)	(2)	(2)	(2)	(2)	(2)
1962.....	(2)	(2)	43	(2)	20	20	(4)	430	(2)	(2)	(2)	(2)	(2)	(2)
Chemical fertilizers (thousand tons):														
1937.....	(2)	(2)	81	(2)	82	86	(4)	3,240	(2)	(2)	(2)	(2)	(2)	(2)
1950.....	(2)	(2)	96	(2)	212	160	(4)	5,497	(2)	(2)	(2)	(2)	(2)	(2)
1960.....	(2)	(2)	287	(2)	477	477	(4)	13,867	(2)	(2)	(2)	(2)	(2)	(2)
1961.....	(2)	(2)	314	(2)	687	517	(4)	15,871	(2)	(2)	(2)	(2)	(2)	(2)
1962.....	(2)	(2)	334	(2)	777	573	(4)	17,534	(2)	(2)	(2)	(2)	(2)	(2)

SECTION XII
BIBLIOGRAPHY

Part A

**SELECTED BIBLIOGRAPHY OF RECENT SOVIET
MONOGRAPHS**

This bibliography is limited primarily to monographs which have been examined in the course of this compiler's pursuits in the fields of Soviet economics, labor force, and population. With several exceptions, the selection is restricted to those monographs which have appeared since 1959. Entries marked with an asterisk (*) have been added to the original bibliography appearing in Joint Economic Committee, *Dimensions of Soviet Economic Power*, 1962, pp. 671-688. Relatively few purely technical books are included, and statistical handbooks are omitted entirely.

The bibliography is arranged according to subject and branch of the national economy. The subject listing is in alphabetical order, whereas the branch listing approximates the sequence used in Soviet statistical handbooks. Each entry appears only once in either the subject or branch classification. The arrangement within the subject listing and the branch listing is as follows:

SUBJECT LISTING

Background
Capital Investment
Communist Party
Cooperatives
Cost of Production
Economy—General
Geography, Urbanization, Location of Industry
Input-Output
International Comparisons
Labor
Law
Level of Living
National Income, State Budget, Taxes
Planning
Population and Vital Statistics
Prices
Regional Economy
Statistics, Accounting, Mechanized Data Processing
Trade Unions
Wages

BRANCH LISTING

Agriculture
Industry—General
 Electric Power
 Fuels
 Metallurgy
 Machine Building and Metalworking
 Chemical
 Construction Materials
 Logging, Woodworking, and Paper
 Light
 Food
Construction
Forestry
Transportation—General
 Railroad
 Automotive
 Sea
 River
 Air
Communications
Trade and Material-Technical Supply
Public Health
Education
Science and Scientific Services
Banking
Government
Housing-Communal Economy
Armed Forces

SUBJECT LISTING

BACKGROUND

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CAPITAL INVESTMENT

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Part B

SELECTED SOVIET BIBLIOGRAPHY ON INPUT-OUTPUT

This bibliography lists Soviet sources directly related to input-output analysis and techniques in the Soviet Union. All Soviet and Western (English language) sources known to the compiler are shown; only a few selected papers and books from other East European Socialist countries are listed. It is very difficult to delineate the boundaries of input-output analysis, as in the context of Soviet economics it merges with national income statistics, material balances, the theory of reproduction on one hand and linear programming on the other. In order to present this bibliography in manageable dimensions, the sources related to these areas are omitted unless they refer directly to input-output analysis.

The bibliography covers books, volumes of collected papers, journal papers, as well as newspaper articles, book reviews, conference reports, and the like. The few Western books on input-output translated and published in the U.S.S.R. are also included.

Papers included in volumes completely devoted to input-output are not shown separately. The listings are divided into books, journal papers, and other sources, and are arranged alphabetically by author within each of these three divisions. In each non-English reference a transliterated Soviet title is followed by an English translation. The Soviet term "mezhotraslevoi" is translated as "intersectoral" rather than as "input-output" to be as close to the Soviet content of the term as possible.

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APPENDIXES

APPENDIX 1

ECONOMIC INTERRELATIONS IN THE SOVIET UNION
(Summary and Reconstruction of the 1959
Soviet Interindustry Table)

APPENDIX 1

ECONOMIC INTERRELATIONS IN THE SOVIET UNION

INTRODUCTION ¹

This study is focused on the summary, analysis, and reconstruction of the first operational large-scale Soviet input-output flow table which was completed in the U.S.S.R. in 1961 but never fully published. The importance of the intersectoral balance, to use the Soviet term, cannot be overemphasized. It is too early to say whether the new techniques which are being gradually adopted in the U.S.S.R. would improve the efficiency of economic planning and affect Soviet economics performance. But for a Western student of Soviet economics an interindustry model of the Soviet economy, all its shortcomings notwithstanding, offers a wealth of data opening a completely new dimension in our studies. The flow and coefficient tables give us a bird's-eye view of the technology and the intricacies of interindustry relations as well as the production and distribution pattern of the Soviet economy. In addition to the model itself this study offers two sets of Soviet economic data which have always been kept secret in the U.S.S.R.; i.e., a list of values of gross outputs and employment in some 70 sectors of the Soviet economy. Parenthetically it may be noted that although the tables refer to 1959, the model is of more than historical interest as, at least in the eyes of Soviet economists, the basic interindustry relations revealed in the model remain relevant. Thus, out of 4,260 input coefficients shown in the 1959 intersectoral balance only 500 were adjusted when the first planning balance was being prepared for 1962.² The end product of the study is a fully reconstructed 1959 balance showing the grid of interindustry relations as well as consumption, value added, and employment of 38 aggregated sectors of the Soviet economy. A table of flow coefficients and the $(I-A)^{-1}$ table of inverse coefficients have also been prepared. The gross output and employment data are also given in a disaggregated form.³

¹ This paper offers a brief summary of a study "Soviet 1959 Interindustry Model: Reconstruction and Analysis" prepared under the auspices of the Research Analysis Corporation, McLean, Va., by Dr. Vladimir G. Trembl, associate professor of economics, Franklin and Marshall College. The complete study will be published later this year. The author gratefully acknowledges the assistance of Dr. John P. Hardt and Dr. Stanley Cohn and, on earlier stages of the work, of Marvin Hoffenberg and Prof. James M. Blackman. All calculations were made at RAC's Computer Laboratory. References are made only to the most important sources. A complete bibliography of input-output analysis in the U.S.S.R. is given separately in this volume.

² L. Berri, F. Klotsvog, and S. Shatalin, "Planovoe khoziaistvo," No. 9, 1962, pp. 34-43.

³ See supplementary tables, sections A and B.

HISTORICAL BACKGROUND

For some time now Western students of Soviet economics have been aware of a gradual reorientation of the Soviet economic science toward more rigorous analytical methods and, broadly speaking, toward a more pragmatic approach in economic analysis. The extensive exploration of various mathematical techniques, such as linear programming or input-output analysis, is but one manifestation of this trend.

But in the light of the current enthusiasm for applying mathematical tools to economic analysis, it is easy to forget that only a few years ago the mathematical approach to economic problems was frowned upon.⁴ Soviet partisans of the adoption of input-output analysis were especially severely handicapped. In addition to the general antimathematical bias of the Soviet economics profession several specific factors made input-output unpalatable to Soviet party controllers and to the majority of economists. In the first place input-output techniques were developed and perfected in the West and were therefore summarily dismissed and discredited in the Soviet Union on numerous occasions in the past. A number of other ideological obstacles, rather minor in the eyes of a Western student, had to be overcome. The n -product input-output models were considered to be in conflict with the two-product Marxian schemes of development. Leontief's input-output models are, of course, directly related to the Walrasian general equilibrium theory and this, again, poses a problem in the context of Soviet economics in which general equilibrium is associated with planning methods advocated in the late twenties by Bazarov and Groman and subsequently strongly condemned by Stalin.⁵ The proposed adoption of input-output techniques also raised some policy questions. All Soviet advocates of input-output strongly suggest that planning should start with national income, or in the framework of an input-output model with final demand vectors. This recommendation is contrary to the time-honored Soviet practice of planning with gross product and treating national income as a residual.⁶

Some of these ideological issues have been partially resolved and some simply dropped, and the partisans of input-output techniques appear to have gained the upper hand. At the same time it must be noted that, all the impressive efforts of constructing numerous operational models notwithstanding, input-output techniques have not yet been formally incorporated in Soviet planning. It is impossible

⁴ For a discussion of this trend see Wassily Leontief, "The Decline and Rise of Soviet Economic Science," *Foreign Affairs*, January 1960, pp. 261-272; Alfred Zauberman, "New Winds in Soviet Planning," *Soviet Studies*, XII, No. 1, July 1960, pp. 1-13; and "The Present State of Soviet Planometrics," *Soviet Studies*, XIV, No. 1, July 1962, pp. 62-74.

⁵ Reluctance of Soviet economist to use the term "equilibrium" is amazing. A prominent Soviet statistician, A. Volodarskii, recently published an article discussing intersectoral balance methods under the title: "Tempy, proporsii, harmoniia" (*Ekonomicheskaya gazeta*, No. 9, Oct. 2, 1961, pp. 5-6). The word "harmony" in this context in Russian is highly inappropriate, almost ridiculous, and its use can be explained only by the author's refusal to use "ravnovesie" (equilibrium).

⁶ See also G. M. Sorokin, "Planirovaniye narodnogo khoziaistva S.S.S.R." (Moscow, 1961), pp. 367-368. M. Z. Bor, "Voprosy metodologii planovogo balansnogo khoziaistva S.S.S.R." (Moscow, 1960), pp. 24-26.

⁷ Aganbegian and Belkin (editors) "Primeneniye matematiki i elektronnoi tekhniki v planirovanii" (Moscow, 1961), p. 13. Herbert S. Levine, "The Centralized Planning of Supply in Soviet Industry," in "Comparison of the United States and Soviet Economies," 86th Cong. (Washington, D.C., 1959), pt. I, pp. 151-176. Herbert S. Levine, "Input-Output Analysis and Soviet Planning," "Papers and Proceedings," *The American Economic Review*, LII, No. 2, May 1962, pp. 127-137.

to tell from the scarce data available the exact role played by the 1962 and 1963 planning balances, but it is clear that they have not replaced the traditional methods of planning.⁷

First Soviet input-output studies were started in the midfifties, but all of this experimental work was and still is shrouded in complete secrecy. We do have some evidence that several highly aggregated pilot tables were prepared; some of these utilized Soviet statistical data but United States and Japanese input-output analog data was also used.⁸

The veil of secrecy was partially lifted in 1961 when the completion of the first two large-scale operational ex-post intersectoral balances based on 1959 data was announced.⁹ One balance was prepared in value terms and showed 83 productive sectors; the second was in physical units and showed 157 commodities. About a year after the construction of the two balances, labor input complements were completed.¹⁰ There is also some evidence that a capital capacity vector was added to the balances later. Satisfied with the results of these ex-post studies Soviet economists moved almost immediately to the preparation of ex-ante models, and early in 1962 the first two planning intersectoral balances were completed. The balance in value terms was very similar to the 1959 ex-post balance and employed the same sector classification, but the coverage of the balance in physical units was substantially expanded with a total of 346 commodities being shown.¹¹

In contrast to the ex-post 1959 balances, which were given wide publicity, only one paper discussing the method of construction of the planning balance in value terms appeared. Almost nothing has been reported on three planning balances which were completed in 1963 for that year: two of these were in physical units with, respectively, 435 and 372 commodities, while nothing is known of the balance in value terms.¹² There is also some evidence that a long-range model is being prepared for 1970.¹³

The work on these ex-post and ex-ante models of the entire economy is centered at the Economic Research Institute of Gosplan. At the same time, extensive studies of regional and interregional intersectoral models were pursued at the Laboratory of Mathematical Applications in Economics of the Academy of Sciences of the U.S.S.R. Between 1958 and the end of 1963 a total of 15 regional flow models, both of the ex-post and ex-ante variety, were prepared covering 8 large economic regions, such as the Belorussian, Estonian, and Latvian Republics.¹⁴

The exploration and gradual adoption of input-output techniques in the U.S.S.R. was paralleled in other countries of the Soviet bloc. One could even find sufficient evidence to suggest that Poles and Hungarians, less dogmatic and better acquainted with Western

⁷ Belkin in discussion, "Voprosy ekonomiki," No. 6, 1963, p. 112. M. Z. Bor, "Voprosy ekonomiki," No. 3, 1963, p. 5.

⁸ Aganbegian and Belkin (editors), op. cit., p. 53.

⁹ M. R. Eidel'man, Vestnik statistiki, No. 7, 1961, pp. 9-29; Voprosy ekonomiki, No. 10, 1961, pp. 61-74.

¹⁰ L. Berri, F. Klotsvog, and S. Shatalin, Planovoe khoziaistvo, No. 2, 1962, pp. 61-62.

¹¹ M. R. Eidel'man, Vestnik statistiki, No. 12, 1962, pp. 3-17, and Sotsialisticheskiĭ trud, No. 2, 1963, pp. 12-23.

¹² L. Berri, F. Klotsvog, and S. Shatalin, Planovoe khoziaistvo, No. 9, 1962, pp. 34-43.

¹³ N. Kovalov, Voprosy ekonomiki, No. 5, 1963, pp. 76-77.

¹⁴ P. N. Shevtakov, Tekhnicheskii progress i struktura proizvodstva, series III, issue No. 15 (Moscow, 1963), p. 11.

¹⁵ Iu. R. Leibkind, Vestnik Akademii Nauk S.S.S.R., No. 10, 1963, p. 16.

studies, pioneered the input-output methods in the bloc and probably influenced their Soviet colleagues. The impressive list of flow tables completed or under construction in the bloc is shown in table 1.

TABLE 1.—*Intersectoral balances in the Soviet bloc*

Country	Year	Number of sectors		Units	Type
		Total	Industrial		
U.S.S.R.	1959	83	73	Purchaser's prices	Ex-post.
	1959	157	157	Physical units	Do.
	1962	83	73	Purchaser's prices	Planning.
	1962	346	323	Physical units	Do.
	1963	(1)	(1)	Purchaser's prices	Do.
	1963	{ 435 372	{ 407 344	Physical units	Do.
Yugoslavia	1955	27	15	Producer's prices	Ex-post.
Poland	1957	20	14	Purchaser's prices	Do.
Hungary	1957	40	31	do	Do.
	1959	100	82	do	Do.
	1965 ²	(1)	(1)	(1)	Planning.
East Germany	1959	27	21	Purchaser's prices	Ex-post.
Bulgaria	1960 ²	75	(1)	(1)	Do.
Czechoslovakia	1962 ²	80-100	(1)	Value terms	Do.
	1962 ²	200	(1)	Physical units	Do.
Rumania	(1 ²)	(1)	(1)	(1)	(1)

¹ Information not available.
² In preparation.

SOURCES AND NOTES

The table does not show highly aggregated pilot models constructed in these countries nor the numerous Soviet regional tables. For Soviet bibliography see text. Selected bibliography for other countries of the bloc:

Yugoslavia: *Zaverni Zavod za Statistiku, Medusobni Odnosi Privrednih Delatnosti Jugoslavija v 1955 godini* (Beograd, 1957).

Poland: *Główny Urząd Statystyczny, Rocznik Statystyczny* (Warszawa, 1961), pp. 61-65. Oskar Lange, *Introduction to Econometrics*, 2d edition, (Warsaw: Pergamon Press, 1962), appendix. B. Szybisz, "The Input-Output Tables of the National Economy of Poland," "Input-Output Tables," edited by O. Lukacs (Budapest: Akademia Kiado, 1962), pp. 39-46. Pawel Sulmicki, "Prezelywy miedzygaleziowe" (Warsaw, 1959).

Hungary: Z. Kenessey, *Vestnik statistiki*, No. 4, 1961, pp. 33-37. Z. Kenessey, *Vestnik statistiki*, No. 11, 1962, pp. 45-48. O. Lukacs, "Hungarian Input-Output Tables and the Statistical Basis for Their Compilation," edited by O. Lukacs, pp. 19-28.

East Germany: Werner Karbstein, *Statistische Praxis*, No. 6, 1961, pp. 141-145, and No. 7, 1961, pp. 175-179. Hans Fuller, *Einheit*, No. 6, 1963, pp. 72-83.

Bulgaria: Z. Kenessey, "International Comparison of the Compilation and Use of Input-Output Tables," edited by O. Lukacs, p. 49.

Czechoslovakia: Z. Tlusky in *Discussion*, edited by O. Lukacs, pp. 249-250.

Rumania: United Nations, "The European Economy in 1961," *Economic Survey of Europe* (Geneva, 1962), p. 41.

In summary we may suggest that while admittedly the theoretical frame and the statistical paraphernalia of presently used Soviet intersectoral models is not too sophisticated and has hardly advanced beyond the level of Western studies of the early forties, the Soviet partisans of input-output techniques have accomplished surprisingly much. This should be viewed against the background of ideological obstacles and resistance to change from many quarters. Nor should we lightly dismiss the technical difficulties, such as the lack of trained personnel and the limitations of Soviet computer facilities.

SUMMARY OF THE LAYOUT AND STRUCTURAL FEATURES OF THE
 BALANCE

The 1959 Soviet intersectoral balance in rubles can be described as a static, ex-post, Leontief-type open input-output flow table. The flows were measured in current 1959 purchaser's prices, that is, prices which include trade and transportation margins as well as the turnover tax whenever applicable.¹⁵

The table is divided into four subtables or quadrants. The first or the northwest quadrant is a square 83 x 83 table showing sales of products (horizontally) and purchases of inputs of 83 sectors. Following the Marx-inspired Soviet definition of national income and product, the table shows only sectors producing material goods or sectors directly related to production of material goods, e.g., freight transportation, communications serving material production, repair of machinery, and all trade and distribution services. Out of the total of 83 sectors, 73 are industrial sectors.¹⁶

All other services such as health, education, defense, and administrative services, passenger transportation, communications serving population, and the like are shown in quadrant II¹⁷ as final demand claimants along with consumption, investment, and exports. It may be noted that the entire output of construction and capital repair is shown in the second quadrant under investment (the construction row in the first quadrant shows only zeros). The entire output of trade and distribution services, freight transportation, and communications serving production is allocated within the first quadrant, and therefore their contribution to final demand is zero.

Thus in terms of the Soviet national income and product theory the two upper quadrants of the balance can be interpreted as showing the distribution of gross output (gross social product) with the distribution of the net product (national income) to consumption, gross investment, and exports shown in the second quadrant. The third quadrant shows depreciation, various types of labor income (wages, salaries, income-in-kind, etc.), state income such as turnover and other taxes, profits, social security contributions, and finally imports. It will be observed then that the two left-hand quadrants (I and II) conveniently show the Marxian breakdown of the value of the gross output into c (material inputs or elements of quadrant I), v (labor income), and m (surplus value or product).

Construction of the 1959 balance enabled Soviet economists to estimate for the first time the relative weights of consumer and producer goods as well as the distribution of the c , v , and m value elements in the gross social product and its subdivisions¹⁸ as shown in table 2.

¹⁵ For the nonspecialist discussion of input-output analysis, see H. Chenery and P. Clark, *Interindustry Economics*, New York, Wiley, 1959.

¹⁶ See Section B, table I, for an 83-sector detail classification.

¹⁷ The Soviet practice of numbering quadrants is used in this study.

¹⁸ Soviet statisticians and planners do calculate and operate with producer goods (group A) and consumer goods (group B) subdivisions of the industrial gross product. Estimates of these two subdivisions (groups I and II) in the entire product although continuously discussed in abstracts were never actually made. Estimates of relative weights of the value elements were also never attempted prior to the publication of the 1959 balance.

TABLE 2.—*Distribution of value elements in the gross social product, 1959*

	Total gross social product	Producer goods	Consumer goods
Material cost (c).....	50.8	52.1	49.0
Labor income (v).....	26.1	29.5	21.3
Surplus product (m).....	23.1	18.4	29.7
Total.....	100.0	100.0	100.0

Source, table 2: M. R. Eidel'man, *Vestnik statistiki*, No. 7, 1961, p. 22.

One departure from the customary Soviet practice may be noted: Soviet statisticians calculate gross social product by origin in terms of producer's prices, and the use of purchaser's prices in the 1959 balance led to double counting of trade and transportation costs and consequently to distortions in the GSP distribution.

The fourth quadrant shows how the national product recorded in the third quadrant is redistributed through the state budget. Information on the fourth quadrant is rather scarce, and several Soviet authors expressed dissatisfaction with its layout. It is interesting to note that in the 1962 planning balance Soviet framers followed the practice of Polish and Hungarian models and left the fourth quadrant blank.¹⁹

Sector classification used in the 1959 balance is the official sector classification employed by the Central Statistical Administration of the U.S.S.R. However, in the framework of the balance the sectors are defined as producing homogeneous output. In the process of constructing the flow table, products were removed from sectors for which they were secondary and added to sectors for which they were primary. The cost structure of sectors for which these adjustments were made was then correspondingly corrected.²⁰ We do not know the overall magnitude of these adjustments, but apparently it was substantial. Thus one Soviet source indicated that "nonsectoral" output comprised as much as 35.1 percent of output of the sector producing hoisting and transporting equipment, 34.1 percent of output of forging and pressing equipment, or 27.8 percent of output of transportation machinery. The share of nonsectoral output was especially large in machine building; in such sectors as coal mining it was only 0.4 percent.²¹

The data for the construction of the balance was obtained in the following way. A stratified-random sampling survey covering 20 percent of all enterprises was employed to get the cost data for the 73 industrial sectors and construction. Cost data for other sectors as well as for the final demand and value added quadrants were taken from the records of the Central Statistical Administration.²²

No unallocated entries were shown and the entire balance was made to agree with official national income and product accounts prepared by the Central Statistical Administration. It may be noted, however, that because of the use of purchaser's instead of producer's prices, the use of artificially created "pure" sectors and other statisti-

¹⁹ L. Berri, F. Klotsvog, and S. Shatalin, *Planovoe khoziaistvo*, No. 9, 1962, pp. 35-36.

²⁰ M. R. Eidel'man, *Vestnik statistiki*, No. 7, 1961, p. 15.

²¹ M. R. Eidel'man, *Vestnik statistiki*, No. 5, 1963, p. 17.

²² M. R. Eidel'man, *Vestnik statistiki*, No. 7, 1961, pp. 9-10.

cal discrepancies the flow and coefficient data of the balance is not directly translatable or comparable with the data used in statistical reports or planning.

The coverage appears to be fairly comprehensive—the full unabridged 83-sector first quadrant matrix has 4,260 nonzero entries, or 62 percent of the total.²³ At the same time it may be noted that the degree of concentration of flows is high; a Soviet study revealed that some 500 entries in the technology matrix accounted for 95 percent of all flows shown in the matrix.²⁴

Construction of the two 1959 balances was completed early in 1961. In contrast to the almost complete secrecy which shrouded the earlier Soviet input-output studies, the 1959 balances and especially the balance in value terms were given a high degree of publicity and a substantial amount of intersectoral data was published. The most important was the publication of a truncated 73-sector segment of the first quadrant in the 1960 Statistical Abstracts of the U.S.S.R.²⁵ Three sectors (radioelectronics, miscellaneous machine building products, and miscellaneous industrial products) were completely omitted from the published flow table. Thirteen sectors were grouped into different aggregates: thus, for instance, four metallurgy sectors were grouped into one, three trade sectors were grouped into one, transportation and communications were also combined. It is rather difficult to offer the rationale for all omissions and aggregations. Omission of radioelectronics and miscellaneous machine building product sectors, which probably produce military hardware, was apparently dictated by considerations of military secrecy. The aggregation of the bread and bakery sector with the flour and cereals sector is rather difficult to explain.

About a year after the completion of the 1959 balance its labor input complement was prepared. Labor inputs were expressed in man-years (average for the year) of total employment in each sector. The employment figures were obtained by the sampling survey referred to above and adjusted to reflect employment in "pure" sectors.²⁶ Essentially the labor complement consisted of a row of employment figures for the 83 sectors of the balance (or, of course, a row of labor input coefficients defined as employment in man-years per 1,000 rubles of gross output). However, the framers of the balance chose to multiply each row of the ruble balance by a respective labor input coefficient creating a semblance of a new "labor balance." The new balance then reads horizontally as direct labor embodied in the flow of product of the given sector and vertically as direct labor embodied in material purchases of the sector. This new table was published in a truncated format similar to the ruble balance in the 1961 Statistical Abstract of the U.S.S.R.²⁷

The appearance of the labor balance was hailed in the Soviet Union as the first step in the direction of determining the "true value" of commodities and therefore of utmost importance for price formation.²⁸ Several projects for determining the "labor value" of commodities of varying degrees of complexity and scope were reported in the literature,

²³ L. Berri, F. Klotsvog, and S. Shatalin, *Planovoe khoziaistvo*, No. 9, 1962, p. 38.

²⁴ L. Berri, F. Klotsvog, and S. Shatalin, *Planovoe khoziaistvo*, No. 2, 1962, p. 55.

²⁵ Ts.S.U., "Narodnoe khoziaistvo S.S.S.R. v 1960 godu" (Moscow, 1961), pp. 103-151.

²⁶ M. R. Eidel'man, *Vestnik statistiki*, No. 10, 1962, p. 4.

²⁷ Ts. S. U., "Narodnoe khoziaistvo S.S.S.R. v 1961 godu" (Moscow, 1962), pp. 77-117. Also appended to Eidel'man, *Vestnik statistiki*, No. 10, 1962.

²⁸ V. S. Nemchinov, "Ekonomiko-matematicheskie metody i modeli," (Moscow, 1962), pp. 368-377. V. N. Starovskii, *Vestnik Akademii Nauk S.S.S.R.*, No. 5, 1962, pp. 43-53.

but there is no evidence that these were carried beyond an experimental stage.²⁹ This is not surprising especially since the debate on theoretical aspects of "the law of value and price formation" continues unabated among Soviet theoreticians.³⁰

It is too early yet to fully assess the analytical and operational value of the 1959 intersectoral balance. By and large the layout and the structure of the balance, as well as the methods of its construction, follow closely the earlier Western models. The discussion of the merits and demerits of input-output techniques applied to a centrally planned economy, aside from involved and often obscure ideological issues, is not very revealing. In spite of the increasing volume of papers and monographs concerned with input-output in the U.S.S.R. the coverage is by no means comprehensive. Many technical details of construction of intersectoral models were never openly discussed. Some questions which occupy Western partisans of input-output analysis, such as the consequences of the linearity assumption, the problem of aggregation, the choice of prices, stability of input coefficients and the like, were not discussed in the Soviet literature or were dismissed in a few words. From the point of view of a Western observer the two most important shortcomings of the 1959 balance in rubles would be the employment of the official census classification of economic activities and the choice of purchaser's prices. It is quite clear that expediency considerations dictated the adoption of the existing sector classification and that production functions and distribution patterns of sectors were not seriously considered when the format and the degree of aggregation of the model were being discussed. The choice of purchaser's prices definitely reduces the predictive value of the model. This is of special importance in a Soviet model where purchaser's prices include trade and transportation charges as well as a significant addition (subject to erratic change) of the turnover tax. It may be noted, however, that recently several Soviet economists voiced criticism of the prices used and the entire balance was recomputed in terms of producer's prices.³¹

However, some points of Western criticism may not be relevant. Soviet framers of intersectoral balances view these as essentially tools of planning, and the 1959 balance was used as a basis for the subsequent planning balances. The question of stability of input coefficients (and hence the question of prices) is of lesser importance in ex-ante models in which input coefficients are largely given by government fiat.³²

²⁹ A. Berg, *Pravda*, No. 297, Oct. 24, 1962, p. 2. I. Doroshin, *Planovoe khoziaistvo*, No. 2, 1963, pp. 8-19. V. Chernysheva, *Voprosy ekonomiki*, No. 3, 1963, p. 140.

³⁰ Robert W. Campbell, "Marx, Kantorovich, and Novozhilov: Stoimost versus Reality," *Slavic Review*, vol. xx, No. 3, October, 1961, pp. 402-418.

³¹ L. Berri and Ju. Shvyrykov, *Voprosy ekonomiki*, No. 1, 1963, pp. 133-144.

³² N. Solov'ev in discussion, *Planovoe khoziaistvo*, No. 5, 1963, p. 23.

³³ Thus a leading paper in the authoritative journal *Kommunist* states: "To become a tool of optimal planning an intersectoral balance must be based not on actual input coefficients but on scientifically determined progressive input coefficients." L. Al'ter, P. Krylov, and B. Miroshnichenko, *Kommunist*, No. 16, 1962, p. 75.

RECONSTRUCTION

The reconstruction of the entire balance was very tedious and drawn out. The end result of the reconstruction, the 38-sector flow table presented in appendix B, table 2, has, counting zeros, 1,520 entries out of which 994 were directly obtained from the Soviet published flows, and 526, or almost 35 percent, had to be estimated. Most estimates were made on the basis of published Soviet intersectoral data, but in some instances independently available Soviet statistical data was used. The accuracy of the estimates varies substantially, with some estimates being nothing but educated guesses and others being very close to the actual values. It may be noted that for about two-thirds of the estimates the margin of probable error can be determined; that is, the range into which the true value would fall can be specified.

It is next to impossible to summarize the process of estimating omitted values and of reconstructing the entire table, as this essentially amounted to a simultaneous solution of n equations with n unknown and as such defies comprehensive description.

The reconstruction was done in three stages. First, the entire balance was reconstructed in terms of six major aggregated branches; e.g., industry, agriculture, construction. Secondly, gross output, labor input coefficients, and total employment were estimated for some 70 sectors out of the original unabridged 83-sector table.³³ Most of the estimates of gross output values were made on the basis of the published segment of the first quadrant and published selected direct input coefficients.³⁴ Most of labor input coefficients were estimated by comparing the entries of the ruble balance with the entries of the "embodied labor" balance and were equally easily made.³⁵ Unfortunately, this straightforward method could not be applied to all gross output values and labor input coefficients which had to be estimated, and more elaborate and less accurate methods had to be used in a number of instances.

In the third stage of reconstruction the sectors which were aggregated for publication (such as metallurgy) were disaggregated and the values of omitted flows and totals were estimated. The latter constituted the most difficult part of the reconstruction and the margin of possible error is substantial. In addition to some intersectoral data, other Soviet statistics were used. Omissions appear to be great: comparing the published truncated segment of the first quadrant with the fully reconstructed table, we see that 6,431 million rubles, or approximately 4 percent of all interindustry flows were omitted.

³³ See Section A, tables 1 and 2.

³⁴ A direct input coefficient is defined as $a_{ij} = x_{ij}/X_j$ where x_{ij} is the input of commodity i into production of commodity j (or an entry of the flow table) and X_j is the gross output of sector j . With a_{ij} 's and x_{ij} 's available calculation of X_j 's is simple.

³⁵ The "embodied labor" flow table was prepared by simple multiplication of each row of the ruble table by the appropriate labor input coefficient c_i defined as $c_i = L_i/X_i$ where L_i is total employment and X_i gross output of sector i . Thus a division of any entry of the labor table by the appropriate entry of the ruble table would give us the value of the labor input coefficient.

TESTING THE ACCURACY OF THE RECONSTRUCTION

Two types of tests were applied to estimates obtained in the process of reconstruction. For lack of better terms, we can call them tests of consistency and tests of overall accuracy.

Tests of consistency were applied to individual estimates and groups of estimates whereby consistency with other intersectoral data or with independently available Soviet statistical data was ascertained. In a number of instances the same estimate could be made on the basis of more than one set of statistical data. In such cases the best set of data would be chosen for making the estimate (the criterion of choice being the number of statistically significant digits in available sets), and the estimate would then be checked against other sets of data. The second type of consistency tests used in this study involved comparison of various estimates made in the process of reconstruction with the independently available Soviet nonintersectoral data. This type of test was limited by the availability of Soviet data and, of course, by the fact that some of the available data was itself used in the making of the estimate. Furthermore, as was pointed out above, Soviet intersectoral data is not, strictly speaking, comparable with other statistical data because of prices used in the measurement of flows and adjustment made in the process of creating artificially "pure" sectors. While the margin of possible error varied greatly from estimate to estimate and not all estimates could be tested this way, these tests produced satisfactory results.

As contrasted with tests of consistency, which were applied to individual entries, tests of overall accuracy were applied to the entire reconstructed table. The general framework of these tests is as follows. There is the original unabridged Soviet flow table A_s , not available to us, and this study offers a reconstructed version of it, A_r . To establish some benchmark of error a test table A_e is constructed similar to A_r in all but one respect—a random error is introduced into one of the most important segments of the table, the vector of gross output. While the original complete Soviet table is not available, we do have a sample of certain coefficients and derived measures. The test then proceeds with a comparison of errors found between A_s and A_r on one hand, and A_s and A_e on the other.

Following the methodology developed in the reconstruction of the 38-sector table a 66-sector test table was constructed³⁰—the two tables differ only in the level of aggregation. Two additional test 66-sector tables were prepared with alternating ± 5 and 10 percent error injected into the gross output vector. The usual calculations made with input-output tables were performed with all three test tables: a matrix of direct input coefficients was calculated and its inverse of the $(I-A)^{-1}$ form was obtained; finally the vector of full labor coefficients was calculated by multiplying one row of direct labor inputs by the inverse.

The first of the two tests of overall accuracy dealt with coefficients. Different Soviet sources published, mainly for illustrative purposes, some 102 "full input coefficients," that is elements of the $(I-A)^{-1}$

³⁰ The test 66-sector tables are too large to be appended to this paper. They are available at Dr. John P. Hardt's office, Research Analysis Corp., McLean, Va.

inverse of the original 83-sector table. The 66-sector test table was prepared in such a way that for all these 102 coefficients, comparable coefficients would be available. The test consisted in comparing and determining the error first between the coefficients from the original Soviet and the reconstructed 66-sector table, and then between the coefficients from the original Soviet and the test ± 5 percent and ± 10 percent error tables. The results are shown in Table 3.

TABLE 3.—Average percent error found between 102 original Soviet inverse coefficients and inverse coefficients obtained from test tables

	Unweighted average error	Error weighted by the value of the coefficient
1. Soviet and the 66-sector table.....	3.00	1.62
2. Soviet and the test 66-sector table with alternating ± 5 percent error.....	6.29	4.76
3. Soviet and the test 66-sector table with alternating ± 10 percent error.....	10.70	8.63

It must be noted that this test cannot be considered an ultimate proof of the "correctness" of our reconstructed tables and estimates, nor does this test offer a rigorously defined quantitative measure of the overall error. Nevertheless the average errors shown in the table above definitely indicate that the overall error in the reconstruction is probably rather small.

The second test of overall accuracy in which the test 66-sector table was used was as follows. One Soviet source analyzing the 1959 intersectoral balance and its inverse introduced three derived measures. Without going into the economic meaning of these measures, they can simply be listed, using Soviet terms:

1. "The coefficient of gross output" defined as

$$k_1 = \sum_{i=1}^n r_{ij} \quad (j=1,2,3 \dots n)$$

where r_{ij} stands for elements of the inverse.

2. "The coefficient of doublecounting" defined as

$$k_2 = \left(\sum_{i=1}^n r_{ij} - 1 \right) : \left(\sum_{i=1}^n a_{ij} \right) \quad (j=1, 2, 3 \dots n)$$

where a_{ij} stands for elements of the table of flow coefficients.

3. "The coefficient of full labor utilization" defined as

$$k_3 = \sum_{i=1}^n c_i r_{ij} \quad (j=1, 2, 3 \dots n)$$

where c_i stand for labor input coefficient.

The actual values of these three coefficients for 13 aggregated Soviet industries were published.³⁷ Using the 66-sector test table, comparable coefficients were computed for the 13 industries and compared with the original Soviet coefficients. Under the circumstances the best method of comparing the Soviet and our sets of coefficients was chosen to be Kendall's rank correlation test. The rank correlation coefficients for the three sets of *k*'s were calculated to be respectively +0.82, +0.82, and +0.68; all coefficients were significant on a 0.01 probability level. Thus, similarly to the results of the tests with coefficients, the test of overall accuracy applied to derived measures shows a high degree of agreement between Soviet data and data from the reconstructed 66-sector table.

Supplementary Tables—Section A

TABLE A-1.—Gross output of selected sectors, 1959 intersectoral balance
[In millions of rubles]

Sector code No.	Sector designation	Gross output
1	Ferrous ores.....	562.1
2	Ferrous metals.....	6,470.0
3	Coke chemistry.....	1,351.7
4	Refractory materials.....	228.6
5	Industrial metal products.....	747.6
6	Nonferrous ores.....	827.5
7	Nonferrous metals.....	3,830.0
8	Coal.....	6,381.0
9	Oil extraction.....	969.0
10	Oil refining and processing.....	5,744.0
11	Gas.....	266.0
12	Peat.....	379.5
13	Oil shales.....	82.4
14	Other fuels.....	88.1
15	Electrical and thermal power.....	3,576.0
16	Energy and power machinery and equipment.....	622.1
17	Electrotechnical products.....	1,850.0
18	Cable products.....	770.0
19	Radioelectronic products.....	(1)
20	Metal and wood machine tools.....	591.0
21	Forging and pressing equipment.....	123.0
22	Casting equipment.....	29.0
23	Tools and instruments.....	252.0
24	Industrial instruments.....	857.0
25	Miscellaneous household durables.....	1,930.0
26	Mining and metal machinery and equipment.....	1,500.0
27	Pumps and compressors.....	490.0
28	Woodworking and paper machinery and equipment.....	37.0
29	Light industry machinery and equipment.....	485.0
30	Food industry machinery and equipment.....	232.0
31	Printing machinery and equipment.....	25.6
32	Lifting and transportation equipment.....	326.0
33	Construction machinery.....	400.0
34	Construction materials machinery and equipment.....	132.0
35	Transportation machinery and equipment.....	2,010.0
36	Automobiles and automotive products.....	3,084.0
37	Tractor and agricultural machinery.....	2,430.0
38	Ball and roller bearings.....	244.0
39	Other machinery not elsewhere classified.....	(1)
40	Sanitary engineering equipment.....	480.0
41	Other metalwares and products.....	2,022.0
42	Metal frames and structures.....	443.0
43	Repair of all machinery and equipment.....	3,760.0
44	Abrasive and graphite products.....	124.6
45	Mineral chemistry products.....	126.0
46	Basic chemistry products.....	1,231.0
47	Aniline dyes.....	160.0
48	Synthetic resins and plastics.....	334.0
49	Synthetic fibers.....	357.0

See footnote at end of table, p. 197.

³⁷ Expressed as ratios of the coefficient of a given industry to the coefficient for metallurgy. In Iarenenko Planovoe khoziaistvo, No. 4, 1963, pp. 34-41.

TABLE A-1.—Gross output of selected sectors, 1959 intersectoral balance—Continued
 [In millions of rubles]

Sector code No.	Sector designation	Gross output
50	Synthetic rubber.....	1,871.0
51	Organic synthetic products.....	984.0
52	Paints and lacquers.....	1,007.0
53	Rubber and asbestos products.....	2,000.0
54	Other chemicals, not elsewhere classified.....	(1)
55	Logging and timber.....	5,000.0
56	Lumber and woodworking.....	4,280.0
57	Furniture.....	1,200.0
58	Other woodworking products.....	250.0
59	Paper products.....	1,237.0
60	Forest chemistry products.....	308.0
61	Construction materials.....	7,304.0
62	Glass and porcelain-falence.....	877.4
63	Textiles.....	26,700.0
64	Sewn goods and apparel.....	8,800.0
65	Footwear, tanner and fur products.....	8,700.0
66	Fish and fish products.....	57,800.0
67	Meat and meat products.....	
68	Milk and dairy products.....	
69	Sugar.....	
70	Flour and cereals.....	(1)
71	Bread and bakery products.....	
72	Other food products not elsewhere classified.....	
73	Other industry products not elsewhere classified.....	28,711.9
74	Construction.....	53,700.0
75	Crops (agriculture).....	
76	Animal husbandry.....	
77	Forestry.....	308.0
78	Freight transportation.....	10,843.3
79	Communications.....	412.7
80	Trade and public dining.....	11,364.0
81	Procurement of agricultural products.....	
82	Supply and distribution services.....	
83	Other sectors not elsewhere classified.....	6,787.0

¹ Not available.

NOTES

Sector code number refers to the original unabridged 83-sector table.
 All figures are in 1959 purchaser's prices. Gross output of industry (sectors 1 through 73) is defined following the Soviet so-called plant method (zavodskoi metod) as the value of all finished products produced in a given period. Both shipments outside the enterprise and changes in inventories of finished goods are included. Changes in inventories of unfinished products is included as an exception in some machine-building plants. Intraplant turnover is as a rule excluded but there are some exceptions (textile and food industry sectors). Gross output of construction is defined as the value of all finished construction projects, changes in unfinished projects and capital repair and improvements of buildings and structures. Gross output of agriculture includes all shipments outside of agricultural units (kolkhoz, sovkhov, etc.) as well as all internal turnover. Gross output of forestry, freight transportation, communications serving production, and other branches of material production is defined as gross revenue of these sectors. Gross output of trade and distribution organizations is defined total cost of conducting trade activities (izderzhki obrashcheniia) less transportation expenses plus the realized profit margin.

TABLE A-2.—Labor input coefficients and total employment, 1959 intersectoral balance
 [Labor input coefficients expressed in man-years per 1,000 rubles of gross output, employment in man-years]

Sector code No.	Sector designation	Labor input coefficient	Employment
1	Ferrous ores.....	0.263	147,729
2	Ferrous metals.....	.10786	697,854
3	Coke chemistry.....	.032498	43,927
4	Refractory materials.....	.23336	53,340
5	Industrial metal products.....	.06307	47,150
6	Nonferrous ores.....	.200	130,726
7	Nonferrous metals.....	.08501	328,942
8	Coal.....	.196455	1,253,600
9	Oil extraction.....	.089688	86,000
10	Oil refining and processing.....	.015751	90,500
11	Gas.....	.0533	14,180
12	Peat.....	.58517	222,000
13	Oil shales.....	.19499	16,070
14	Other fuels.....	.08158	7,200
15	Electrical and thermal power.....	.11336	405,400
16	Energy and power machinery and equipment.....	.21216	132,000
17	Electrotechnical products.....	.181145	341,000
18	Cable products.....	.06129	47,200
19	Radioelectronic products.....	(¹)	(¹)
20	Metal and wood machine tools.....	.25446	150,000
21	Forging and pressing equipment.....	.1446	17,800
22	Casting equipment.....	.1462	4,200
23	Tools and instruments.....	.2979	75,100
24	Industrial instruments.....	.25608	220,000
25	Miscellaneous household durables.....	.08747	169,000
26	Mining and metal machinery and equipment.....	.20852	310,000
27	Pumps and compressors.....	.18148	89,000
28	Woodworking and paper machinery and equipment.....	.12524	4,600
29	Light industry machinery and equipment.....	.21520	104,000
30	Food industry machinery and equipment.....	.1926	45,000
31	Printing machinery and equipment.....	.3071	7,900
32	Hoisting and transportation equipment.....	.1386	44,400
33	Construction machinery.....	.167481	67,000
34	Construction materials machinery and equipment.....	.12268	18,200
35	Transportation machinery and equipment.....	.17552	353,000
36	Automobiles and automotive products.....	.11247	347,000
37	Tractors and agricultural machinery.....	.17504	425,000
38	Ball and roller bearing.....	.3152	77,000
39	Other machinery not elsewhere classified.....	(¹)	(¹)
40	Sanitary engineering equipment.....	.30136	130,000
41	Other metalwares and products.....	.233003	471,000
42	Metal frames and structures.....	.172236	76,300
43	Repair of all machinery and equipment.....	.329508	1,236,000
44	Abrasive and graphite products.....	.22204	27,700
45	Mineral chemistry products.....	.208295	26,200
46	Basic chemistry products.....	.08604	105,900
47	Aniline dyes.....	.11674	18,700
48	Synthetic resins and plastics.....	.098	32,700
49	Synthetic fibers.....	.167	59,600
50	Synthetic rubber.....	.030	18,000
51	Organic synthetic products.....	.12617	124,000
52	Paints and lacquers.....	.03812	38,400
53	Rubber and asbestos products.....	.05211	100,000
54	Other chemicals not elsewhere classified.....	.108	140,000
55	Logging and timber.....	.32722	1,600,000
56	Lumber and woodworking.....	.210106	900,000
57	Furniture.....	.22395	270,000
58	Other woodworking.....	.1993	50,000
59	Paper products.....	.11571	147,000
60	Forest chemistry products.....	.10825	32,800
61	Construction materials.....	.222236	1,623,300
62	Glass and porcelain-faience.....	.241194	214,300
63	Textiles.....	.070793	1,820,000
64	Sewn goods and apparel.....	.13268	1,200,000
65	Footwear, tanner and fur products.....	.08287	720,000
66	Fish and fish products.....	.13615	
67	Meat and meat products.....	.084450	
68	Milk and dairy products.....	.05799	
69	Sugar.....	.027121	2,530,000
70	Flour and cereals.....	(¹)	
71	Bread and bakery products.....	(¹)	
72	Other food products not elsewhere classified.....	.027011	
73	Other industry products not elsewhere classified.....	(¹)	
74	Construction.....	.2162	6,208,000
75	Crops (agriculture).....		
76	Animal husbandry.....	.617251	33,100,000

See footnote at end of table, p. 199.

TABLE A-2.—Labor input coefficients and total employment, 1959 intersectoral balance—Continued

[Labor input coefficients expressed in man-years per 1,000 rubles of gross output, employment in man-years]

Sector code No.	Sector designation	Labor input coefficient	Employment
77	Forestry.....	1.14302	352,000
78	Freight transportation.....	(1)	5,300,000
79	Communications.....	(1)	
80	Trade and public dining.....	.52	5,171,000
81	Procurement of agricultural products.....	(1)	
82	Supply and distribution services.....	.331	
83	Other sectors not elsewhere classified.....	.25181	1,709,000

1 Not available.

NOTES

In the framework of an intersectoral balance employment is defined as total employment (i.e., productive workers, engineering supervisory, and clerical personnel and apprentices), expressed in man-years and averaged for the year. It will be noted that the industrial employment coverage used in the balance is broader than the coverage shown in Soviet statistical yearbooks. In addition to workers and other employees of state industrial enterprises the employment figure shown in the balance includes members of producer cooperatives (artel) and those employed in small-scale industrial shops such as collective farm flour mills or blacksmith shops. As was noted in the text the balance is showing sectors and branches adjusted to represent homogeneous output with the production of all auxiliary and secondary products removed.

Supplementary Tables—Section B

TABLE B-1.—Sector classification

Sector code No.	Sector designation	Description	Including sectors numbered	
			As published	Full
1	Ferrous ores.....	Ferrous ores.....	(1)	1
2	Ferrous metals.....	Ferrous metals.....	(1)	2
3	Nonferrous ores.....	Nonferrous ores.....	(1)	6
4	Nonferrous metals.....	Nonferrous metals.....	(1)	7
5	Coking chemistry.....	Coking coal and coking chemistry products.....	(1)	3
6	Metal products.....	Industrial metal products and refractory materials.....	2 3-4	3 4-5
7	Coal.....	Coal.....		5
8	Oil.....	Oil extraction and oil processing.....	5	8
9	Gas.....	Gas.....	6-7	9-10
10	Other fuels.....	Peat, oil shales, other fuels.....	8	11
11	Electrical power.....	Electrical and thermal power.....	9-11	12-14
12	Electrical and power machinery and equipment.....	Boilers, turbines, diesel and steam engines, electrical machinery, equipment, and appliances.....	12 13-14	15 16-17
13	Tools and instruments.....	Cable products, tools and instruments, industrial instruments, household durables, roll bearings.....	15, 19-21, 34	18, 23-25, 38
14	Machinery and equipment.....	Machine tools, forging and pressing equipment, casting equipment; machinery and equipment for mining, metallurgical, chemical, woodworking, paper, light, food and printing industries; hoisting and transporting equipment, construction machinery and equipment, machinery and equipment for construction materials industry.....	16-18, 22-30	20-22, 20-34
15	Transportation machinery and equipment.....	Machinery and equipment of railroads; shipbuilding, aircraft production.....	31	35
16	Automobiles.....	Automobiles.....	32	36
17	Agriculture machinery and equipment.....	Tractors and other agricultural machinery and equipment.....	33	37
18	Machinery not elsewhere classified.....	Radioelectronics and other machinery and equipment not elsewhere classified.....	None	10, 30
19	Metalworking.....	Sanitary engineering equipment, other metalwares and products, metal frames and structures.....	35-37	40-42
20	Repair of all machinery and equipment.....	Repair of all machinery and equipment.....	38	43
21	Abrasives and graphite.....	Abrasives and graphite products.....	39	44
22	Mineral and basic chemistry.....	Mineral and basic chemistry products.....	40-41	45-46
23	Other chemical products.....	Aniline dyes, synthetic resins and plastics, synthetic fibers, other organic synthetic products, paints and lacquers, synthetic rubber and chemicals not elsewhere classified.....	42-46, 48	47-52, 50, 54
24	Rubber products.....	Rubber and asbestos products.....	47	53
25	Woodworking.....	Logging and timber, lumber and woodworking, furniture, matches and other wood products, not elsewhere classified, forest chemistry products.....	40-52, 54	55-58, 60
26	Paper.....	Paper.....	53	50
27	Construction materials.....	Construction materials.....	55	61
28	Glass.....	Glass and porcelain-felence.....	56	62
29	Textiles.....	Textiles.....	57	63
30	Apparel, footwear.....	Apparel, sewn goods, footwear, tanner and fur products.....	58-59	64-65
31	Food.....	Fish, meat, milk and dairy products, sugar, flour, bread and bakery products, tobacco products, all beverages and all food not elsewhere classified.....	60-65	66-72
32	Industrial products.....	Industrial products not elsewhere classified: toys, musical instruments, printing, etc.....	None	73

¹Part of 1.

TABLE B-1.—Sector classification—Continued

Sector code No.	Sector designation	Description	Including sectors numbered	
			As published	Full
33	Construction.....	Construction.....	66	74
34	Agriculture.....	Crops and animal husbandry.....	68-69	75-76
35	Forestry.....	Forestry.....	70	77
36	Transport and communications.	Transportation and communications.....	71	78-79
37	Trade and distribution.	Trade and public dining, procurement of agricultural products, supply and distribution services.	72	80-82
38	Other sectors not elsewhere classified.	Metal scrap, publishing, noncommercial fishing and hunting, etc.	73	83

NOTES

Sector numbers "As published" refer to the published 73-sector segment of quadrant I.
Sector numbers designated as "Full" refer to the original, unabridged 83-sector flow table.

TABLE B-2.—THE 1959 SOVIET INTERSECTORAL BALANCE (RECONSTRUCTED)
Part I. Flow table

[In 1,000,000 rubles; employment in 1,000 man-years]

Producing sectors	Consuming sectors																						
	(1) Ferrous ores	(2) Ferrous metals	(3) Nonferrous ores	(4) Nonferrous metals	(5) Coke	(6) Metal products	(7) Coal	(8) Oil	(9) Gas	(10) Other fuels	(11) Electrical power	(12) Electrical and power machinery and equipment	(13) Tools and instruments	(14) Machinery and equipment	(15) Transportation machinery and equipment	(16) Autos	(17) Tractors and agricultural machinery and equipment	(18) Machinery not elsewhere classified	(19) Metalworking	(20) Repair of all machinery and equipment	(21) Abrasives and graphite products	(22) Mineral and basic chemistry	
1. Ferrous ores.....	0.9	291.5	0	47.3	0	28.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Ferrous metals.....	8.6	854.2	15.9	0	0	1,640.5	9.9	0	0	0	3.6	374.0	176.6	650.6	192.3	220.4	292.6	50.0	564.4	0	2.0	1.7	1.7
3. Nonferrous ores.....	0	0	0.8	798.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4. Nonferrous metals.....	0	552.7	0	551.5	0	5.8	0	0	0	0.5	0.9	193.2	484.6	145.8	48.1	146.6	31.6	50.0	88.7	118.7	2.5	1.7	3.0
5. Coke.....	6.0	733.0	0	154.1	91.3	16.7	2.8	6.8	1	0	0	3.0	31.6	21.2	2.5	6.6	0.3	50.0	30.5	12.6	1.2	43.2	10.0
6. Metal products.....	3.8	89.8	3.2	22.8	8.8	31.3	13.2	2.5	1	1.6	2.2	19.7	31.6	28.5	14.2	97.3	26.0	13.9	39.4	50.4	1.5	3.5	15.6
7. Coal.....	13.9	523.6	10.8	34.1	968.6	18.0	841.2	10.5	6.8	796.9	19.0	17.8	11.9	28.9	17.2	14.0	0	0	14.2	50.3	3.1	21.6	21.6
8. Oil.....	3.1	101.6	22.6	71.7	1.6	14.2	7.9	1,066.5	4.1	11.7	243.5	24.3	11.9	46.5	16.0	25.4	14.6	18.0	10.2	59.7	4.4	15.1	15.1
9. Gas.....	0.1	2.4	5	1.7	1.9	1.4	1.1	1.4	1.1	3.3	68.4	4.4	3.3	15.0	2.3	5	0.4	1.0	2.8	1.4	0	1	1
10. Other fuels.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11. Electrical power.....	25.1	92.9	12.3	201.5	35.2	30.5	138.8	173.8	2.0	22.3	4.4	45.5	31.3	76.1	22.4	20.1	40.6	34.3	26.3	59.2	8.9	66.7	66.7
12. Electrical and power machinery and equipment.....	1.5	7.0	2.1	2.3	6	7.7	6.1	1.1	2	2.0	8.0	191.2	29.6	210.3	238.4	18.0	19.5	278.8	16.3	53.0	0.2	1.9	1.9
13. Tools and instruments.....	3.3	15.5	4.7	5.1	5	7.7	27.2	3.2	3	4.7	3.2	127.1	123.5	111.0	33.6	37.5	49.8	197.8	12.7	88.2	0.6	3.5	3.5
14. Machinery and equipment.....	9.4	43.9	13.3	14.6	5	4.3	57.1	22.3	4	7.8	0.3	2.3	1.9	198.6	11.9	1.1	3.6	11.6	2.0	20.7	0.1	7.0	7.0
15. Transportation machinery and equipment.....	0.3	1.6	5	5	0	2.2	0.6	0	0	1.5	0	0	0.4	12.5	91.2	0	0	7.1	0	65.2	0	1	1
16. Autos.....	0.8	3.8	1.1	1.3	0	1.0	0.5	1.1	1	0.7	0.5	3.1	8.2	133.2	3.6	315.1	11.4	86.7	3.7	252.0	0.1	1.9	1.9
17. Tractors and agricultural machinery.....	0.3	1.3	0.4	0.5	0	0.1	0.7	1.7	0	4.6	0.1	18.5	0	87.8	3.6	0.1	217.5	60.4	2.2	204.2	0	0.3	0.3
18. Machinery not elsewhere classified.....	0	0	0	0	0	0	88.3	28.0	1.0	20.4	21.0	25.3	6.6	91.5	47.7	9.5	14.0	136.3	0	50.0	0	10.8	10.8
19. Metalworking.....	1.3	5.8	1.8	1.9	0.2	1.5	10.1	0.7	0	0.5	1.1	20.7	2.9	33.8	42.1	14.7	3.7	0	46.6	46.7	0.4	3.1	3.1

20. Repair of all machinery and equipment.....	21.9	101.7	30.8	33.9	3.3	4.9	2.1	32.3	2.0	1.3	59.6	6.5	7.0	12.6	6.1	6.4	2.4	0	3.1	0	2.8	10.6
21. Abrasives and graphite products.....	1.2	3.2	1.7	1.1	0	1.8	.3	.1	0	.1	.1	47.3	8.4	5.3	3.9	3.2	3.4	0	2.2	3.1	8.6	.1
22. Mineral and basic chemistry.....	6.4	39.0	9.1	13.0	15.5	2.3	4.2	41.2	4	2.3	3.9	15.5	6.1	10.3	5.9	6.4	3.1	7.9	6.4	10.1	3.7	151.6
23. Other chemistry.....	2.5	14.7	3.4	4.9	.5	2.3	1.7	10.1	1.2	.7	1.4	72.4	95.0	41.1	23.8	36.2	17.9	48.6	35.2	64.4	.3	36.5
24. Rubber products.....	2.5	15.3	3.5	5.1	.7	1.7	26.9	1.2	1.1	3.0	.8	21.4	15.3	85.8	16.4	375.8	92.2	38.9	5.0	23.8	.2	2.2
25. Lumber and wood-working.....	14.3	38.6	20.0	12.9	.9	15.3	396.5	5.1	.5	13.6	2.9	28.2	32.9	59.1	56.7	26.9	33.7	35.4	15.0	107.3	.5	14.9
26. Paper.....	6.6	1.6	.9	.5	.1	9.8	.5	.8	0	.1	2.2	11.5	9.6	3.7	1.0	3.7	1.6	4.6	2.0	3.9	.4	7.8
27. Construction materials.....	2.3	6.3	3.3	2.1	.2	1.6	11.9	4.4	2	.8	1.8	5.6	2.4	7.5	14.7	2.6	2.0	0	5.0	30.0	.5	3.5
28. Glass.....	1.5	1.2	.6	.4	.1	.2	.5	.3	0	.1	1.4	13.3	12.6	1.3	3.5	13.8	.7	0	4.6	6.3	.1	1.2
29. Textiles.....	1.4	8.7	1.9	2.9	.3	22.8	1.9	1.0	1.1	.6	1.0	30.5	34.2	9.8	16.0	18.0	14.1	35.0	6.4	27.4	11.8	7.8
30. Apparel and footwear.....	8.0	51.5	11.3	17.2	3.6	15.9	132.3	9.0	.8	15.3	9.5	13.8	19.4	39.8	16.5	35.2	18.1	20.0	20.0	27.4	1.1	20.2
31. Food.....	1.0	6.2	1.3	2.1	.6	.4	1.7	1.9	.1	.3	1.5	4.7	3.2	3.8	2.2	2.1	1.1	0	1.8	3.3	2.7	20.2
32. Industrial products not elsewhere classified.....	0	0	0	0	0	0	0	0	0	0	0	22.8	20.7	38.0	15.1	25.3	18.1	17.6	0	0	0	5.3
33. Construction.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34. Agriculture.....	0	0	0	0	0	.3	2.6	.1	0	.2	0	0	.1	.3	.5	0	0	0	0	.2	0	.3
35. Forestry.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36. Transportation and communications.....	50.0	400.0	35.2	140.9	44.3	37.3	1,528.2	184.1	2	66.5	4.8	58.7	44.0	195.2	17.6	116.6	131.8	23.0	238.1	17.0	4.5	514.0
37. Trade and distribution.....	19.0	219.4	27.3	129.6	0	30.7	146.2	680.8	14.4	1.5	8.3	36.7	63.5	18.8	0	51.7	49.2	77.1	102.9	0	0	21.7
38. Other sectors not elsewhere classified.....	0	88.7	0	88.6	0	0	0	0	0	0	0	4.8	3.9	17.1	8.5	2.8	16.2	8.0	13.6	7.4	0	0
39. Total quad I use.....	240.04	321.52	240.42	365.41	150.1	1735.83	451.33	298.9	50.1	1215.6	1,484.0	1,432.4	1,302.9	2,465.0	994.6	1,565.1	1,149.9	1,249.2	1,322.5	1,810.3	65.5	1,025.3
40. Value added.....	822.12	145.5	587.1	464.6	161.6	240.4	2,899.7	3,404.1	215.9	234.4	2,092.0	1,949.7	2,760.1	1,899.6	1,015.4	1,488.9	1,280.1	1,862.1	1,572.5	1,939.7	59.1	331.7
41. Total outlay.....	562.16	470.0	827.53	830.0	1,351.7	976.26	381.06	708.0	265.0	550.0	3,576.0	502.14	683.04	364.62	1,010.0	1,084.0	2,430.0	5,111.2	3,995.0	3,750.0	124.6	357.0
42. Employment.....	147.7	697.9	130.7	828.9	43.9	100.5	1,253.6	176.5	14.2	245.3	405.4	473.0	588.3	800.1	353.0	347.0	425.0	1,240.8	677.3	1,236.0	27.7	132.1

Part I. Flow table—Continued
[In 1,000,000 rubles; employment in 1,000 man-years]

Producing sectors	Consuming sectors—Continued														Final demand (40)	Gross output (41)				
	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)			(37)	(38)	(39)	
1. Ferrous metals.....	18.0	0	0	0	4.7	6.2	0	0	0	0	0	0	0	0	0	0	0	382.3	179.8	562.1
2. Nonferrous metals.....	0	3.7	18.1	5.4	199.6	5.0	7.8	2.7	69.1	70.0	1,365.0	0	0	0	0	0	0	6,099.0	571.0	6,470.0
3. Nonferrous metals.....	124.7	0	0	0	22.8	0	0	0	0	0	0	0	0	0	0	0	0	827.5	0	827.5
4. Nonferrous metals.....	49.1	3.9	3.0	1.9	47.3	4.0	2.5	2.7	18.4	30.0	21.7	0	0	0	0	0	0	2,720.1	1,109.9	3,830.0
5. Coke.....	3.2	7.4	45.2	1.1	13.2	1.1	5.5	1.1	12.9	0	282.6	0	0	0	0	0	0	1,253.0	98.7	1,351.7
6. Metal products.....	46.4	4.8	55.4	1.9	42.8	10.7	9.5	12.9	12.4	20.8	49.5	11.7	0.2	0	0	0	0	961.0	45.2	976.2
7. Coal.....	124.2	14.4	28.1	13.0	148.5	20.4	20.4	12.4	194.7	20.9	366.5	1,051.7	3.1	0	0	0	0	5,057.6	1,643.4	6,381.0
8. Oil.....	16.9	2.2	4.4	1.1	12.7	9.9	1.2	3.3	4.4	4.4	9.7	0	0	0	0	0	0	3,063.3	1,639.7	4,703.0
9. Gas.....	1.6	2.2	27.5	9.6	27.8	13.9	21.3	8.0	15.1	1.9	8.5	0	0	0	0	0	0	130.3	135.7	266.0
10. Other fuels.....	100.3	26.8	47.8	42.7	223.8	13.4	112.5	48.6	111.5	60.7	200.6	88.3	0	0	0	0	0	444.3	1,133.9	3,576.0
11. Electric power.....	3.9	5.5	6.8	1.0	4.9	9.9	3.9	2.4	5.6	34.4	127.3	38.8	0	4.6	14.8	1.1	0	1,334.7	1,167.4	2,502.1
12. Machinery and equipment.....	3.7	2.8	21.7	2.4	23.5	1.6	5.9	3.8	10.3	45.5	551.1	11.8	0	29.0	9.6	1.1	0	1,589.0	2,464.0	4,053.0
13. Tools and instruments.....	6.0	1.7	21.2	6.3	36.4	1.1	40.8	9.6	24.0	23.7	84.0	0	0	2.5	49.1	0	0	741.1	3,623.5	4,364.6
14. Machinery and equipment.....	1.1	0	2.6	0	1.1	0	0	0	4	11.5	6.4	3.5	0	132.2	0	0	0	338.5	1,651.5	2,010.0
15. Transportation and communications.....	1.7	1.6	67.7	5	20.9	4	1.5	6	4.1	38.4	70.6	19.0	0	206.8	0	0	0	1,261.4	1,822.6	3,084.0
16. Autos.....	1.1	0	57.4	1	7.2	1	4	0	6	27.7	45.4	159.0	3.5	1.5	0	0	0	907.3	1,522.7	2,430.0
17. Tractors and agricultural machinery and equipment.....	10.6	4.8	0	0	92.7	0	0	0	82.0	61.0	228.8	414.9	0	69.0	136.7	0	0	1,650.9	3,460.4	5,111.3
18. Machinery not elsewhere classified.....	11.7	3.9	92.1	3.0	15.6	11.2	20.8	28.3	57.3	62.8	1,208.9	156.6	3.1	0	3.7	0	0	1,915.6	979.4	2,895.0
19. Metal working.....	38.3	3.2	47.1	3.4	89.5	24.5	14.4	5.5	229.2	64.7	0	1,028.1	0	86.3	0	0	0	1,980.5	1,769.5	3,750.0
20. Repair of all machinery and equipment.....	1.1	1.1	5.1	1.1	1.0	1.5	2	1.5	2	0	9.5	5.2	0	0	1.5	0	0	121.6	3.0	124.6
21. Abrasives and graphite products.....	206.1	4.4	15.0	18.4	4.7	2.1	2	11.3	27.7	80.3	17.7	355.6	2.7	9.2	7.5	1.1	0	1,128.3	228.7	1,357.0
22. Mineral and basic chemistry.....																				

TABLE B-2.—THE 1959 SOVIET INTERSECTORAL BALANCE (RECONSTRUCTED)
Part II. Table of direct input coefficients—Technology matrix

[Material coefficients in rubles per ruble of gross output; labor input coefficients in man-years per 1,000 rubles of gross output]

Producing sectors	Consuming sectors																		
	(1) Ferrous ores	(2) Ferrous metals	(3) Nonferrous ores	(4) Nonferrous metals	(5) Coke	(6) Metal products	(7) Coal	(8) Oil	(9) Gas	(10) Other fuels	(11) Electrical power	(12) Electrical and power machinery and equipment	(13) Tools and instruments	(14) Machinery and equipment	(15) Transportation and equipment	(16) Autos	(17) Tractors and agricultural machinery and equipment	(18) Machinery not elsewhere classified	(19) Metalworking
1. Ferrous ores	0.00160	0.04505	0	0.01235	0	0.02368	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Ferrous metals	.01530	.13202	0.1921	0	.00118	.41641	.00451	.00148	.00226	.00545	.00101	.14947	.04357	.14906	.09592	.07147	.12041	.06978	.19496
3. Nonferrous ores	0	0	.00097	.20846	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4. Nonferrous metals	0	.08543	0	.14399	0	.00594	.00044	.00018	0	.00091	0	.03241	.11957	.03241	.02933	.04754	.01300	.06978	.02891
5. Coke	.11360	0	0	.04023	.06754	.01711	.00005	.00101	.00038	0	.00025	.00120	.00020	.00124	.00124	.00214	.00383	.00037	.01054
6. Metal products	.00676	.01388	.00387	.00695	.00059	.03206	.00207	.00037	.00038	.00231	.00062	.00787	.00782	.01340	.00706	.01209	.01070	.00272	.01361
7. Coal	.02473	.08124	.01305	.00890	.71658	.01844	.13183	.00001	.03947	.01236	.22285	.00759	.00192	.00465	.00850	.00453	.00370	.00178	.00491
8. Oil	.00552	.01570	.02731	.01872	.00118	.01455	.00124	.15911	.01541	.02127	.08865	.00971	.03204	.00461	.00799	.00824	.00601	.00254	.00877
9. Gas	.00018	.00037	.00060	.00044	.00067	.00143	.00002	.00021	.00038	.00055	.01913	.00016	.00012	.00016	.00025	.00019	.00029	.00006	.00014
10. Other fuels	0	.00003	.00012	.00003	.01346	.00010	.00002	.00003	.03985	.03782	.08479	.00040	.00007	.00444	.00159	.00016	.00016	.00037	.00097
11. Electric power	.04465	.01436	.01486	.05261	.02804	.03124	.02175	.02593	.00752	.04055	.00123	.01818	.00772	.01744	.01114	.00632	.01671	.00671	.00908
12. Electrical and power machinery and equipment	.00287	.01108	.00254	.00060	.00044	.00072	.00096	.00016	.00075	.00384	.00224	.07642	.00730	.04818	.11363	.00584	.00802	.05455	.00663
13. Tools and instruments	.00587	.00240	.00568	.00133	.00037	.00739	.00426	.00048	.00113	.00855	.00089	.05060	.03195	.02543	.01672	.01216	.02049	.03870	.00439
14. Machinery and equipment	.01672	.00679	.01607	.00381	.00037	.00440	.00895	.00333	.00150	.01418	.00008	.00092	.00047	.04550	.00592	.00036	.00148	.00227	.00069
15. Transportation machinery and equipment	.00053	.00025	.00060	.00013	0	.00020	.00009	0	0	.00273	0	0	.00010	.04370	0	0	0	.00139	0
16. Autos	.00142	.00059	.00133	.00034	0	.00102	.00008	.00016	.00038	.00127	.00014	.00124	.02302	.02351	.00428	.10217	.00469	.01696	.00128

Part II. Table of direct input coefficients—Technology matrix—Continued

Producing sectors	Consuming sectors—Continued																			
	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	
	Repair of all machinery and equipment	Abraives and graphitic products	Mineral and basic chemistry	Other chemistry	Rubber products	Lumber and wood-working	Paper	Construction materials	Glass	Textiles	Apparel and footwear	Food	Industrial products not elsewhere classified	Construction	Agriculture	Forestry	Transportation and communications	Trade and distribution	Other sectors not elsewhere classified	
1. Ferrous ores.....	0	0.01605	0.00129	0	0	0	0.00064	0.00064	0.00707	0	0	0	0	0	0	0	0	0	0	0
2. Ferrous metals.....	0.01364	0.0516	0.0516	0.00382	0	0.00164	0.00426	0.02733	0.00370	0	0.00030	0.00120	0.01266	0	0	0	0	0.00566	0	0.00027
3. Nonferrous metals.....	0.02006	0	0.0221	0	0	0	0.06312	0.06312	0	0	0	0	0	0	0	0	0	0	0	0
4. Nonferrous metals.....	0.03165	0.0006	0.0737	0.0246	0.00195	0.0027	0.0048	0.0048	0.0456	0.0010	0.0015	0.0032	0.0542	0.0076	0.0001	0	0	0.00205	0.00143	0.00003
5. Coke.....	0.00336	0.0063	0.0189	0.0142	0.0010	0.0010	0.0008	0.0181	0.0011	0.0002	0.0001	0.0002	0	0	0	0	0	0.0002	0	0
6. Metal products.....	0.01344	0.00401	0.00405	0.0068	0.00370	0.00502	0.00180	0.0386	0.0120	0.0037	0.0074	0.0021	0	0.0610	0	0	0	0.0002	0.00185	0.00037
7. Coal.....	0.01341	0.02488	0.01887	0.0085	0.00240	0.00280	0.03717	0.03438	0.0732	0.0026	0.0098	0.0316	0.0376	0.00172	0.00023	0	0	0.00338	0.00604	0.00043
8. Oil.....	0.01592	0.05331	0.01113	0.02335	0.00720	0.02548	0.02026	0.02033	0.0325	0.0079	0.0071	0.0337	0.0378	0.01278	0.01958	0	0	0.07134	0.00604	0.00043
9. Gas.....	0.00274	0.00080	0.0044	0.00359	0.00010	0.00044	0.0008	0.0174	0.0103	0.0035	0.0002	0.0008	0.0009	0.0034	0	0	0	0.08543	0.00287	0.00052
10. Other fuels.....	0.0037	0	0.0029	0.0034	0.00010	0.00240	0.00788	0.00351	0.01884	0.0085	0.0046	0.0026	0.0034	0.0030	0.0001	0	0	0	0	0
11. Electrical power.....	0.01579	0.07143	0.04915	0.02128	0.01340	0.00438	0.03370	0.03654	0.01527	0.00438	0.00278	0.0193	0.0108	0.06699	0.00164	0	0	0.01334	0.00370	0.00038
12. Electrical and power machinery and equipment.....	0.01547	0.00161	0.0140	0.00683	0.00025	0.00082	0.00079	0.00687	0.0103	0.0015	0.0014	0.0010	0.0622	0.0443	0.00072	0	0	0.00041	0.00130	0.00016
13. Tools and instruments.....	0.02352	0.00482	0.00238	0.00079	0.0140	0.0197	0.0189	0.00322	0.0182	0.0023	0.0019	0.0015	0.00323	0.01919	0.00022	0	0	0.00258	0.00084	0.00001
14. Machinery and equipment.....	0.00552	0.00080	0.00516	0.0127	0.00085	0.00192	0.00497	0.00498	0.0125	0.0159	0.0055	0.0042	0.0429	0.00288	0	0	0	0.00022	0.00432	0
15. Transportation machinery and equipment.....	0.01739	0	0.00007	0.00002	0	0.00024	0	0.0001	0	0	0	0.0001	0.0208	0.00023	0.00007	0	0	0.01352	0	0.00010
6. Autos.....	0.06720	0.00080	0.00140	0.00015	0.00080	0.00614	0.00039	0.00286	0.0046	0.0006	0.0003	0.0007	0.00694	0.00246	0.00035	0	0	0.01837	0	0

17. Tractors and agricultural machinery and equipment	.05445	0	.00022	.00002	0	.00008	.00096	.00011	.00002	0	.00001	.00501	.00158	.00236	.01136	.00013	0	0
18. Machinery not elsewhere classified	.13333	0	.00796	.00225	.00240	0	.01289	0	0	.00142	.01103	.00797	.00773	0	.00613	.01203	0	0
19. Metalworking	.01165	.00321	.00228	.00248	.00195	.00835	.00214	.01276	.00081	.00069	.01136	.04210	.00292	.01006	0	.00033	0	0
20. Repair of all machinery and equipment	0	.02247	.00781	.00707	.00160	.00437	.00238	.01225	.00056	.00031	.00397	.01170	0	.01915	0	.00767	0	0
21. Abrasives and graphite products	.00083	.06902	.00007	.00023	.00005	.00046	.00008	.00014	.00001	.00009	0	0	.00033	.00010	0	.00013	0	0
22. Mineral and basic chemistry	.00299	.02970	.11172	.04373	.00220	.00136	.01452	.00064	.00001	.00065	.00048	.01452	.00062	.00662	.00877	.00082	.00066	.00001
23. Other chemistry	.01717	.00241	.02690	.20892	.30950	.00721	.00238	.00149	.01302	.01189	.00075	.04324	.00710	.00103	0	.00459	.00106	.00174
24. Rubber products	.00635	.00161	.00162	.00274	.10485	.00557	.00103	.00103	.00112	.00160	.00013	.02195	.00241	.00023	0	.03197	.00479	.00043
25. Lumber and woodworking	.02861	.00401	.01086	.01714	.00855	.24565	.01673	.03579	.00177	.00423	.00501	.01168	.10387	.00211	.00857	.01520	.01804	.00029
26. Paper	.00104	.00321	.00575	.00970	.00055	.00048	.06322	.00359	.00027	.00099	.00128	.01725	.00114	.00000	.00130	.00028	.05121	.02409
27. Construction materials	.00800	.00401	.00258	.00076	.00045	.00057	.00537	.17454	.00026	.00021	.00044	0	.18671	.00080	.00292	.00537	.00002	.00001
28. Glass	.00168	.00080	.00088	.00583	.00010	.00359	.00032	.01482	.00005	.00005	.00085	0	.01112	.00009	0	.00052	0	0
29. Textiles	.00736	.09470	.00575	.01229	.19755	.01841	.00663	.00134	.00661	.00148	.00148	.00170	.00104	.00086	0	.00658	.05308	.00342
30. Apparel and footwear	.00731	.00883	.01489	.00477	.00255	.01397	.00481	.00583	.01087	.00068	.00188	0	.01865	.00186	.00065	.00629	.00734	.00016
31. Food products not elsewhere classified	.00088	.02157	.01489	.08606	.00350	.00231	.00103	.00107	.00080	.03426	.23124	.14822	.00297	.02947	0	.00069	0	0
32. Industrial products not elsewhere classified	0	0	.00391	.00284	.00375	0	.01271	0	.00097	.00143	0	0	0	.00239	0	0	0	0
33. Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34. Agriculture	.00005	0	.00022	.00244	0	.00295	.00087	.00008	.00084	.02803	.28490	.03757	.00089	.28159	.01461	.00169	0	0
35. Forestry	0	0	0	0	0	.01294	0	0	0	0	0	0	.00232	0	.02013	0	0	.00233
36. Transportation and communication	.00453	.03612	.37878	.00745	.02790	.14729	.05754	.23632	.01108	.00912	.02097	.00762	.00135	.01419	.01623	.00437	.01025	.01179
37. Trade and distribution	0	0	.01599	.01042	.00865	.03665	.07064	.04637	.02725	.04021	.06370	.13068	0	.05321	0	0	0	.00172
38. Other sectors not elsewhere classified	.00197	0	0	.01173	.00535	0	.06164	.00705	0	.00559	.00140	.05280	.00043	.00011	0	0	0	0
39. Labor input coefficients	.329508	.222640	.097347	.091534	.050000	.258370	.115710	.222236	.244104	.070739	.043772	.109024	.216200	.617251	1.143020	.470852	.455037	.251810

TABLE B-2.—THE 1959 SOVIET INTERSECTORAL BALANCE (RECONSTRUCTED)
 Part III. Table of full input coefficients—Inverse of the technology matrix (I-A)⁻¹

Producing sectors	Consuming sectors																		
	(1) Ferrous ores	(2) Ferrous metals	(3) Nonferrous ores	(4) Nonferrous metals	(5) Coke	(6) Metal products	(7) Coal	(8) Oil	(9) Gas	(10) Other fuels	(11) Electrical power	(12) Electrical and power machinery and equipment	(13) Tools and instruments	(14) Machinery and transportation machinery and equipment	(15) Transportation machinery and equipment	(16) Autos	(17) Tractors and agricultural machinery and equipment	(18) Machinery not elsewhere classified	(19) Metalworking
1. Ferrous ores	1.00383	0.05524	0.00211	0.01576	0.00110	0.05404	0.00109	0.00060	0.00041	0.00124	0.00068	0.01183	0.00518	0.01146	0.00653	0.00656	0.00872	0.00206	0.01249
2. Ferrous metals	0.83904	1.17614	0.85334	0.1940	0.817	0.51361	0.1824	0.0094	0.00736	0.02087	0.1120	2.0603	0.6335	21.708	1.5961	1.0978	1.6969	0.8332	24.572
3. Nonferrous ores	0.0233	0.2567	1.00306	0.0306	0.0151	0.1351	0.0153	0.0094	0.0056	0.0104	0.1103	0.2669	0.3225	0.1648	0.1574	0.1691	0.0876	0.0621	0.1826
4. Nonferrous metals	0.1063	1.2270	0.0956	1.17422	0.0694	0.6435	0.0719	0.0435	0.0261	0.0913	0.0485	1.2694	1.5421	0.7554	0.6505	0.8071	0.4166	0.2657	0.6326
5. Coke	0.1820	1.5078	0.0651	0.5435	0.7846	0.6324	0.0371	0.0345	0.0179	0.0396	0.0238	0.2450	0.1576	0.9736	0.2568	0.1240	0.2844	0.0664	0.4548
6. Metal products	0.1047	0.2094	0.0673	0.1044	0.4848	1.0440	0.0550	0.0247	0.0141	0.0661	0.1524	0.1576	0.2151	0.1375	0.1828	0.1684	0.0543	0.0200	
7. Coal	0.8101	2.6714	0.8977	0.9348	0.3208	1.7751	1.9409	0.8527	0.5226	0.4862	2.7532	0.8296	0.6547	0.6545	0.8321	0.6491	0.1868	0.8849	
8. Oil	0.8717	0.6320	0.4814	0.5498	0.4364	0.8837	0.4315	2.1923	0.2525	0.5155	0.9869	0.1831	0.4083	0.3148	0.8411	0.8047	0.1178	0.3151	
9. Gas	0.0443	0.0159	0.0119	0.0227	0.0197	0.0306	0.0080	0.0107	0.0070	0.0166	0.0157	0.0140	0.0130	0.0116	0.0124	0.0117	0.0050	0.0095	
10. Other fuels	0.0450	0.0550	0.0217	0.0827	0.1049	0.0800	0.0234	0.0232	0.4248	0.4318	0.6947	0.0430	0.0214	0.0724	0.0437	0.0260	0.0164	0.0370	
11. Electrical power	0.6541	0.4398	0.2336	0.7697	0.5828	0.6029	0.8868	0.1313	0.5007	0.1813	1.01640	0.4234	0.2309	0.8821	0.2807	0.2458	0.3230	0.1415	
12. Electrical and power machinery and equipment	0.0630	0.0469	0.0550	0.0378	0.0451	0.0441	0.0444	0.0224	0.0092	0.0902	0.0909	0.0947	0.5907	1.3276	0.8959	0.1181	0.6220	0.6220	
13. Tools and instruments	0.1063	0.0765	0.0822	0.0378	0.0767	0.1362	0.0844	0.0280	0.0283	0.1351	0.0462	0.6071	0.8527	0.8544	0.2882	0.1700	0.2633	0.4577	
14. Machinery and equipment	0.1990	0.1405	0.1867	0.1118	0.1061	0.1292	0.1241	0.0571	0.0337	0.1701	0.0488	0.0565	0.0319	1.05202	0.1001	0.0350	0.0494	0.0387	
15. Transportation machinery and equipment	0.0428	0.0358	0.0234	0.0234	0.0458	0.0345	0.0486	0.0358	0.0073	0.0557	0.0210	0.0179	0.0100	0.0521	0.4833	0.0162	0.0186	0.0197	
16. Autos	0.1018	0.0781	0.0736	0.0558	0.0623	0.0804	0.0875	0.0634	0.0214	0.0723	0.0461	0.0583	0.0445	0.3869	0.0918	1.11730	0.0663	0.2082	
17. Tractors and agricultural machinery and equipment	0.0428	0.0281	0.0382	0.0238	0.0192	0.0246	0.0184	0.0136	0.0122	0.1135	0.0246	0.1042	0.0094	0.2532	0.0496	0.0126	1.09954	0.1430	
18. Machinery not elsewhere classified	0.0532	0.0766	0.0357	0.0465	0.1777	0.0659	0.2086	0.0978	0.0775	0.4331	0.1480	0.1537	0.0388	0.2745	0.3017	0.0720	0.1010	0.2963	
19. Metalworking	0.0420	0.0307	0.0375	0.0233	0.0314	0.0390	0.0353	0.0484	0.0454	0.0221	0.0163	0.1097	0.0184	0.1960	0.2505	0.0722	0.0319	0.0128	
20. Repair of all machinery and equipment	0.4372	0.2655	0.4035	0.2367	0.0801	0.2066	0.0524	0.0914	0.0868	0.0627	0.1987	0.1267	0.0746	0.1169	0.1031	0.0614	0.0773	0.0255	
21. Abrasives and graphite products	0.0264	0.0111	0.0251	0.0029	0.0016	0.0032	0.0016	0.0011	0.0011	0.0055	0.0025	0.2257	0.0274	0.0305	0.0524	0.0172	0.0220	0.0150	
22. Mineral and basic chemistry	0.1567	0.1384	0.1467	0.1028	0.1678	0.0391	0.0292	0.0343	0.0612	0.0917	0.0343	0.0343	0.0612	0.0917	0.0941	0.0969	0.0663	0.0459	
23. Other chemistry	0.1739	0.1450	0.1381	0.1049	0.1370	0.1387	0.1132	0.0843	0.1281	0.0670	0.5394	0.3704	0.5394	0.3704	0.5394	0.3704	0.5394	0.3704	
24. Rubber products	0.1583	0.1440	0.1077	0.0943	0.1353	0.1409	0.2016	0.1111	0.0310	0.1562	0.0736	0.1818	0.0836	0.3896	0.1756	1.5785	0.5427	0.1480	

25. Lumber and woodworking	05207	04536	04385	02972	08898	05722	10961	01651	01287	04589	03150	03788	02259	08944	05635	03043	03629	01739	02610
26. Paper	04462	00528	04327	00508	00278	01624	03303	00761	00356	00182	00176	00971	00553	00468	00406	00573	00469	00346	00610
27. Construction materials	00739	00427	00629	00355	00480	00635	00528	00288	00153	00350	00250	00503	00185	00435	01115	00280	00275	00075	00415
28. Glass	00157	00087	00125	00071	00088	00100	00090	00041	00019	00072	00048	00688	00377	00184	00332	00588	00104	00085	00219
29. Textiles	02117	02865	02268	01892	02968	06322	03220	01604	00932	03056	01369	04086	02400	03184	03362	06791	03788	01961	02145
30. Apparel and footwear	02343	02391	02038	01602	03136	03450	03405	00689	00760	03798	01428	01622	01061	02037	01797	02146	01646	00343	01658
31. Food	00686	00588	00434	00434	00641	00668	00485	00280	00226	00509	00274	01402	00788	01011	01004	01574	00684	00466	00563
32. Industrial products not elsewhere classified	00079	00063	00067	00047	00068	00072	00069	00040	00022	00091	00087	01089	00571	01094	00897	01047	00806	00486	00050
33. Construction	00069	00944	00759	00681	01074	01778	01141	00527	00321	01061	00488	01537	00886	01230	01259	02150	01255	00620	00771
34. Agriculture	00069	00065	00065	00046	00118	00078	00145	00022	00017	00061	00042	00052	00031	00035	00077	00042	00051	00024	00037
35. Transportation and communications	19450	18448	08261	10562	29612	18093	32002	28681	02964	18462	10852	04570	04579	11616	07114	06840	11099	02584	14508
37. Trade and distribution	04871	06530	04673	06183	08540	07446	04207	12878	06073	01800	02428	04588	03349	05319	02580	04505	04335	02553	05824
38. Other sectors not elsewhere classified	00187	01905	00170	02828	00127	01028	00133	00109	00063	00144	00075	01029	00676	01109	01023	00749	01238	00394	01230
39. Labor input coefficients	46649	39139	32840	30848	44735	41159	47377	23987	14379	62233	29575	40668	25796	41499	36789	29292	35964	33055	42907

Part III. Table of full input coefficients—Inverse of the technology matrix (I-A)⁻¹—Continued

Producing sectors	Consuming sectors—Continued													Other sectors not classified elsewhere					
	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)		(33)	(34)	(35)	(36)	(37)
1. Ferrous ores.....	0.00808	0.01937	0.00305	0.00143	0.00110	0.00126	0.00113	0.00386	0.00909	0.00028	0.00034	0.00048	0.00168	0.00483	0.00048	0.00035	0.00110	0.00063	0.00009
2. Nonferrous metals.....	0.14011	0.3127	0.2468	0.0145	0.0125	0.0106	0.0174	0.0388	0.2730	0.0443	0.0512	0.0812	0.2970	0.0746	0.0823	0.0591	0.1783	0.0159	0.00129
3. Nonferrous ores.....	0.14011	0.3127	0.2468	0.0145	0.0125	0.0106	0.0174	0.0388	0.2730	0.0443	0.0512	0.0812	0.2970	0.0746	0.0823	0.0591	0.1783	0.0159	0.00129
4. Nonferrous metals.....	0.14011	0.3127	0.2468	0.0145	0.0125	0.0106	0.0174	0.0388	0.2730	0.0443	0.0512	0.0812	0.2970	0.0746	0.0823	0.0591	0.1783	0.0159	0.00129
5. Coke.....	0.0896	0.0321	0.0446	0.0377	0.0201	0.0100	0.0150	0.0201	0.0258	0.0253	0.0299	0.0347	0.1732	0.1958	0.0387	0.0173	0.0897	0.0439	0.00033
6. Metal products.....	0.0287	0.0864	0.0885	0.0659	0.0601	0.0434	0.0597	0.1138	0.0667	0.0148	0.0170	0.0657	0.0657	0.1403	0.0194	0.0147	0.0358	0.0200	0.00033
7. Coal.....	0.0700	0.0815	0.0851	0.0451	0.0338	0.0204	0.0337	0.1434	0.0387	0.0126	0.0198	0.0163	0.0281	0.1423	0.0161	0.0141	0.0555	0.0292	0.00063
8. Oil.....	0.0408	0.0724	0.0759	0.0570	0.0427	0.0266	0.0352	0.0595	0.0494	0.0335	0.0290	0.1539	0.2543	0.0429	0.0971	0.0590	0.1021	0.1766	0.00416
9. Gas.....	0.0125	0.0281	0.0245	0.0346	0.0245	0.0152	0.0421	0.0585	0.0337	0.0177	0.0065	0.0029	0.0085	0.0142	0.0019	0.0009	0.0063	0.0022	0.00006
10. Other fuels.....	0.0340	0.0600	0.0648	0.0420	0.0282	0.0191	0.0300	0.0602	0.0191	0.0089	0.0191	0.0109	0.0249	0.0395	0.0063	0.0029	0.0191	0.0137	0.00039
11. Electrical power.....	0.0282	0.0127	0.0430	0.0400	0.0384	0.0191	0.0480	0.0280	0.0722	0.0913	0.0964	0.0745	0.2162	0.2496	0.0664	0.0271	0.2337	0.0660	0.00205
12. Electrical and power machinery and equipment.....	0.0287	0.0416	0.0451	0.0298	0.0228	0.0274	0.0319	0.0487	0.0345	0.0124	0.0125	0.0190	0.0985	0.0772	0.0282	0.0045	0.0383	0.0284	0.00322
13. Tools and instruments.....	0.0309	0.0846	0.0793	0.0323	0.0382	0.0312	0.0328	0.0668	0.0698	0.0124	0.0131	0.0185	0.1175	0.2389	0.0228	0.0069	0.0525	0.0231	0.00025
14. Machinery and equipment.....	0.0084	0.0430	0.0460	0.0402	0.0338	0.0436	0.0863	0.0956	0.0418	0.0298	0.0294	0.0176	0.0686	0.0673	0.0111	0.0041	0.0243	0.0552	0.00029
15. Transportation machinery and equipment.....	0.1950	0.0920	0.0754	0.0140	0.0137	0.0086	0.0299	0.0555	0.0283	0.0039	0.0038	0.0111	0.0334	0.0220	0.0117	0.0048	0.1532	0.0053	0.00028
16. Aircraft.....	0.0628	0.0628	0.1440	0.0681	0.0414	0.0340	0.0770	0.1412	0.0704	0.0162	0.0122	0.0290	0.0779	0.0403	0.0381	0.0097	0.2332	0.0159	0.00061
17. Tractors and agricultural machinery and equipment.....	0.0141	0.0234	0.0235	0.0175	0.0140	0.00885	0.0387	0.0380	0.0298	0.0155	0.0122	0.0290	0.0779	0.0403	0.0381	0.0097	0.2332	0.0159	0.00061
18. Machinery not elsewhere classified.....	0.1814	0.0491	0.1706	0.0719	0.0723	0.0428	0.0543	0.2715	0.0556	0.0374	0.0350	0.0847	0.1690	0.1430	0.1286	0.0063	0.0109	0.1348	0.00033
19. Metalworking.....	0.1485	0.0512	0.0442	0.0486	0.0480	0.1285	0.0669	0.0442	0.1485	0.0231	0.0348	0.0343	0.1358	0.1496	0.0467	0.1071	0.0144	0.00119	0.00024
20. Repair of all machinery and equipment.....	0.0086	0.0342	0.1700	0.1471	0.0971	0.0975	0.0828	0.2157	0.3252	0.0696	0.0564	0.1688	0.1799	0.0814	0.2968	0.0119	0.1060	0.0153	0.00042
21. Abrasives and graphite products.....	0.0101	0.0744	0.0040	0.0053	0.0034	0.0086	0.0047	0.0050	0.0215	0.0011	0.0021	0.0017	0.0042	0.0089	0.0028	0.0006	0.0023	0.0027	0.00002
22. Miscellaneous basic chemistry.....	0.0309	0.0389	0.1315	0.0504	0.0274	0.0516	0.0289	0.0438	0.0602	0.0373	0.0435	0.0544	0.2274	0.0488	0.1101	0.1075	0.0396	0.0259	0.00074
23. Other chemistry.....	0.0309	0.0389	0.1315	0.0504	0.0274	0.0516	0.0289	0.0438	0.0602	0.0373	0.0435	0.0544	0.2274	0.0488	0.1101	0.1075	0.0396	0.0259	0.00074
24. Rubber products.....	0.0271	0.0876	0.2424	0.0987	0.0360	0.0202	0.1619	0.1735	0.2497	0.2477	0.0079	0.0590	0.1650	0.2051	0.0577	0.0206	0.2958	0.0669	0.00325
25. Lumber and woodworking.....	0.0312	0.0206	0.0473	0.0458	0.0340	0.0202	0.1249	0.2126	0.1012	0.0385	0.0333	0.0397	0.3077	0.1162	0.0366	0.0207	0.4277	0.00770	0.01839
26. Paper.....	0.0408	0.0605	0.1035	0.1805	0.0882	0.0604	0.17508	0.38123	0.0304	0.0080	0.01615	0.1975	0.3978	1.5670	0.1140	0.0773	0.3461	0.4645	0.10333
27. Construction materials.....	0.1140	0.0724	0.0784	0.0977	0.0227	0.0054	0.0919	0.2149	0.1154	0.0095	0.0107	0.0162	0.0141	0.2797	0.0134	0.0389	0.0075	0.0083	0.00036
28. Glass.....	0.0236	0.0140	0.0203	0.0803	0.0512	0.0088	0.0208	0.1573	0.0088	0.0032	0.0046	0.0141	0.0105	0.1288	0.0059	0.0011	0.0108	0.00030	0.00008

29. Textiles.....	.09216	.15058	.04921	.08550	.31069	.09888	.09822	.02085	.03257	.52553	.60870	.61475	.02815	.02904	.01061	.60274	.03029	.05725	.00682
30. Apparel and footwear.....	.01736	.01802	.02951	.01307	.01026	.02643	.01813	.01739	.01953	.00381	1.14879	.00673	.00636	.03059	.00528	.00188	.01253	.01138	.00089
31. Food.....	.00844	.03600	.03199	.14890	.06138	.01039	.00896	.00879	.00683	.01546	.06817	1.32137	.20761	.01016	.05278	.00148	.00473	.00864	.00090
32. Industrial products, not elsewhere classified.....	.00223	.00082	.00332	.00481	.00629	.00069	.00065	.01509	.00038	.00214	.00289	.00140	1.00122	.00353	.00345	.00028	.00086	.00033	.00005
33. Construction.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34. Agriculture.....	.01124	.04486	.02318	.06721	.08772	.02274	.01444	.01136	.01088	.27394	.18828	.49345	.13201	.01264	1.32383	.02071	.01069	.01368	.00170
35. Forestry.....	.00076	.00032	.00062	.00066	.00049	.01771	.00520	.00073	.00094	.00013	.00023	.00027	.00066	.00447	.00015	1.02065	.00046	.00062	.00252
36. Transportation and communications.....	.07074	.10743	.49550	.07826	.07794	.29274	.16611	.35022	.15290	.02933	.03397	.05251	.05239	.11810	.03890	.03167	.06832	.03121	.01747
37. Trade and distribution.....	.02567	.02643	.04239	.04332	.04252	.06571	.10334	.07923	.11922	.05533	.08087	.11685	.16367	.03500	.08109	.00538	1.02060	1.01149	.00496
38. Other sectors not elsewhere classified.....	.00733	.00222	.00269	.01796	.01308	.00163	.06738	.01197	.01469	.00089	.00767	.00295	.05719	.01428	.00120	.00050	.00147	.00897	1.00170
39. Labor input coefficients.....	.50509	.42529	.47076	.29008	.27797	.56869	.43860	.57091	.46885	.31972	.24957	.46752	.37823	.46153	.90340	1.21121	.58091	.52350	.27557

APPENDIX 2

OFFICIAL SOVIET ECONOMIC DATA FOR 1963

Excerpted from the Annual
"Communique of the Central Statistical Administration
of the Council of Ministers of the U.S.S.R."

[*Pravda*, January 24, 1964]

TABLE 1.—Industry—Production of principal commodities

Commodity	Unit	Produced in 1963	Percent of 1962
Electric power	Billion kilowatt-hours	412.0	112
Steel	Million metric tons	80.2	105
Iron ore	do	137.0	107
Petroleum, crude	do	206.0	111
Coal	do	532.0	103
Cement	do	61.0	106
Timber, hauled	Million cubic meters	263.0	104
Paper	Million metric tons	2.9	104
Turbines	Million kilowatts	11.9	100
Machine tools, metal-cutting	Thousand units	183.0	103
Machine tools, metal-forming	do	33.8	101
Metallurgical equipment	Thousand metric tons	236.0	98
Petroleum equipment	do	115.0	95
Chemical equipment	Million rubles	287.0	109
Weaving looms	Thousand units	24.1	105
Autos and trucks	do	587.0	102
Tractors	do	325.0	113
Farm machinery	Million rubles	1,371.0	117
Excavators	Thousand units	17.9	104
Fertilizers, mineral	Million metric tons	10.9	115
Manmade fibers	Thousand metric tons	308.0	111
Soda, caustic	do	1,049.0	109
Soda ash	do	2,500.0	109
Sulfuric acid	do	6,887.0	112
Automobile tires	Million units	22.6	108
Fabrics:			
Cotton	Million square meters	5,069.0	103
Wool	do	471.0	100
Linen	do	509.0	105
Silk	do	801.0	102
Shoes, leather	Million pairs	463.0	101
Watches and clocks	Million units	27.1	104
Radio sets	do	4.8	113
Television sets	do	2.5	114
Refrigerators	Thousand units	911.0	109
Washing machines	do	2,300.0	127
Meat:			
Slaughtered*weight	Million metric tons	10.2	107
Factory-produced only	do	5.4	113
Fish catch	do	4.7	112
Butter	Thousand metric tons	874.0	93
Chocolate	do	222.0	107
Whole milk products	Million metric tons	9.5	102
Granulated sugar, beet	do	5.5	95
Vegetable oils	do	2.1	105
Soap	do	1.8	108
Canned goods	Billion*standard cans	6.4	108

TABLE 2.—Agriculture

Indicator	Unit	1962	1963
PRODUCTION			
Meat, slaughtered weight.....	Million metric tons.....	9.5	10.2
Milk.....	do.....	63.9	61.2
Eggs.....	Billions.....	30.1	28.8
PROCUREMENT			
Government procurement:			
Grain.....	Million metric tons.....	56.6	44.8
Cotton, raw.....	do.....	4.3	5.2
Sugar, beet.....	do.....	3.9	41.4
Potatoes.....	do.....	5.7	8.0
Livestock, slaughtered weight.....	do.....	5.3	5.6
Milk.....	do.....	29.2	28.5
Eggs.....	Billions.....	8.5	8.7
Wool.....	Thousand metric tons.....	374	379
LIVESTOCK			
Livestock numbers (end of year):			
Large horned cattle.....	Million heads.....	87.0	85.3
Cows.....	do.....	38.0	38.2
Hogs.....	do.....	70.0	40.7
Sheep and goats.....	do.....	146.4	139.2
Sheep.....	do.....	139.7	133.6

TABLE 3.—Transport

Indicator	Unit	1963	Percent of 1962
Freight carried:			
Railroad.....	Billion ton-kilometers.....	1,745	106
River.....	do.....	114	104
Sea.....	do.....		130
Truck.....	do.....	34	108
Oil pipeline.....	do.....	91	122
Freight originated:			
Railroad.....	Million metric tons.....	2,144	104
River.....	do.....	239	104
Sea.....	do.....		112
Truck.....	do.....	2,012	104
Oil pipelines.....	do.....	185	112

TABLE 4.—Other economic indicators for 1963

Population, as of Jan. 1, 1964.....	226,000,000 (223,100,000 Jan. 1, 1963).
Number of workers and employees, yearly average.....	70,500,000 (68,300,000 in 1962).
Gross social product ¹	Increased by 5 percent over 1962 (by 39 percent over 1958).
Retail trade sales.....	91,600,000,000 rubles (5 percent over 1962).
Foreign trade turnover (exports plus imports).....	12,700,000,000 rubles (5 percent over 1962).
New housing (total space).....	77,000,000 square meters (80,500,000 in 1962) or about 2,000,000 apartments.
Number of school graduates:	
Elementary (8 years).....	3,000,000.
Secondary, general (11 years).....	900,000.
Secondary, specialized.....	510,000.
Higher education.....	330,000.
Engineers.....	125,000.

¹ For 1962 and preceding years, the annual communique used the indicator "National income" rather than "Gross social product" as a measure of the total national product. It also provided an absolute figure for "National income," namely 161,500,000,000 rubles (later revised to 165,100,000,000 rubles in *Nar. Khoz.*, 1963 (p. 482)).

