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Labor and Capital in the
Soviet Union by Republics

Albina Tretyakova

Translated from Russian
by James W. Gillula

Vladimir G. Treml, Editor

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Editor's Preface

The three Soviet national ex post input-output tables constructed to date, i.e., 1959, 1966, and 1972, have supplementary employment and fixed capital matrixes fully consistent with input-output methodology and commodity classification. Needless to say, these supplementary data greatly enhance the analytical value of Soviet tables and expand the scope of possible applications. It is surprising that in the ever growing Soviet empirical and theoretical literature on regional and republican input-output tables and analyses, so little is said about labor and capital in the regional framework. All available evidence indicates that none of the numerous republican and regional tables prepared to date in the USSR carry these supplementary data, and the only possible explanation lies in the paucity and shortcomings of the Soviet regional labor and capital statistics.

Mrs. Albina Tretyakova holds a degree of candidate of economic sciences and was employed by the Institute of Economics of the Academy of Sciences of the USSR until 1974 when she emigrated to the United States. An earlier version of this study was prepared by her for the Duke University-University of North Carolina Project on Soviet Input-Output Analysis early in 1976 to assist our team in construction of Soviet republican input-output tables. However, the analytical value of detailed sets of capital, depreciation, wages, and employment data by republics clearly goes beyond the immediate needs of table preparation and Mrs. Tretyakova agreed to expand and update the earlier study for release

in the Occasional Papers series.

In working on the revised version of the paper, Mrs. Tretyakova was helped by Mr. James W. Gillula who, until January of this year, was one of the principal researchers of our team and is now employed by the Foreign Demographic Analysis Division, Bureau of Economic Analysis, U.S. Department of Commerce. Mr. Gillula also translated the text of the study into English.

Thanks are due to Mason Barnett, Paul Goldberg, and Patti Velasquez, Duke undergraduate students working with our project, and to Patricia Calebaugh, the research secretary of the project.

Vladimir G. Tremi

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INTRODUCTION

→ This study is focused on the employment of labor and capital in the 15 Soviet Union republics in 1966. The capital component (Part I) is presented in terms of values of fixed capital assets and depreciation payments and the labor component (Part II) in terms of average employment in man-years, wages, and social security payments.

Standard Soviet statistical sources such as the national and republican statistical handbooks and specialized statistical abstracts offer far less than complete coverage of the labor and capital series. In addition to major gaps in the data, there are inconsistencies among different sources and between republican and national handbooks. Thus, as will be apparent from the text below, a large share of the statistics presented had to be estimated by various methods and the collected and estimated data had to be put into a consistent format.

→ The study was undertaken for two purposes: to provide a source for estimating components of the value-added quadrants for the republican input-output tables and as a basis for subsequent analysis of regional and republican differentials in labor and capital-output ratios and other comparative studies.

All data and estimates presented in this study are consistent with the methodology, definitions, and classifications employed by the Central Statistical Administration of the USSR.

It must be noted that Soviet input-output tables are constructed in terms of commodity statistics, i.e., reflect material, labor, and capital inputs into production of strictly defined commodity or group of similar commodities. On the other hand,

most economic data published in standard statistical sources are presented in terms of establishment statistics reflecting administrative divisions in production. Thus, Soviet statisticians in the process of preparation of input-output tables go through involved commodity-establishment adjustments.

No attempt was made to introduce these commodity-establishment adjustments into the data presented in this study and they all are in establishment terms. We do have a fairly good idea of the direction and magnitudes of commodity-establishment adjustments made in the 1966 national input-output table. However, there is very little information on these adjustments in material flows in republican tables and practically no information on commodity-establishment adjustments for labor and capital.

Estimates are first made for six or seven major branches of the economy such as agriculture and industry, and then for eleven to twelve individual industrial branches. The estimates are presented in a series of tables in two appendices and the basic methodology of estimation is described in the text of the study and in notes to the corresponding appendix tables.¹

I. FIXED CAPITAL AND DEPRECIATION

Following the Soviet standard practice, fixed capital assets (osnovnye fondy) are defined as assets having useful life of more than one year or are valued at more than 50 rubles, and comprise buildings, structures, machinery and equipment as well as the productive herd in agriculture and long-term vegetation, but exclude land. Fixed capital assets are measured in so-called constant 1955 prices introduced in the general revaluation of the capital

Table I.1 A Comparison of Capital Stock in Current Prices and
in 1955 Prices: Fixed Capital in Uzbekistan,
January 1, 1969 (millions of rubles).

	1* 1955 prices	2** current prices	column 1 divided by column 2
Total fixed capital	17,310	17,254	1.0032
Productive branches	10,937	10,981	.9959
Industry & Construction	4,749	4,767	.9962
Agriculture	3,731	3,761	.9920
Transport. & Comm.	1,768	1,772	.9977
Trade & Distr. & Other br.	689	681	1.0117
Nonproductive branches	6,373	6,273	1.0159

*NK UzSSR v 1968, p. 28.

**NK UzSSR v 1969, p. 29.

stock in 1960 and used, with only few exceptions, in Soviet statistical sources.

Depreciation charges are recorded by all Soviet producers having the nominal title to capital assets and are determined by state-fixed rates applicable to various types of capital assets. Rates introduced by a government decree in 1963 are used in this study. It must be noted, however, that depreciation payments are calculated in the USSR by applying the fixed rates to average annual values of capital stock recorded at book value (po balansovoi stoimosti) while in the absence of the necessary data we will use capital values measured in constant 1955 prices. The extent of the error involved in using capital stock in 1955 prices to compute depreciation payments

should not be great though, since price changes for the major components of capital formation over the 1955-1966 period were not significant. Values of capital stock in 1969 reported in statistical handbooks for Uzbekistan in both constant and current prices provide an example of the difference in these two measures of capital stock. (See Table I.1.)

The breakdown of capital stock by major branches of the economy in the national statistical handbooks for the USSR distinguishes seven productive and three nonproductive branches. Unfortunately, less information is given in the handbooks for many republics. Separate estimates of capital stock in 'Transportation' and in 'Communications' could not be made for all republics, but a breakdown of the 'Transportation & Communications' total is reported here whenever possible. For most republics, capital stock in 'Other Branches of Material Production' is combined with the 'Trade & Distribution' branch, and no attempt was made to make separate estimates for these two branches. For nonproductive branches only the capital stock in 'Housing' was estimated separately for republics. The sum of fixed capital in all other branches was calculated as a residual from total capital stock in nonproductive branches.

Soviet statistical handbooks report the value or structure of capital stock as of January 1 of a given year. Thus, in order to estimate depreciation payments for 1966, estimates were made of capital stock by republic for both January 1, 1966 and January 1, 1967.

While the value of fixed capital by major branches of the economy is published each year in national statistical handbooks, comparable information in value terms is reported in republic statistical handbooks for less than half of all Union republics. For

all other republics, only information on the structure or rate of growth of fixed capital (in percentage terms) is published. The basic methodology used in estimating capital stock in major branches of the economy for each republic is summarized below:

1) Data in value terms for all branches on both January 1, 1966 and January 1, 1967 in 1955 prices were available for only one republic-Kirgizstan.

2) Data in value terms for all branches on January 1, 1966 but not January 1, 1967 were available for two republics - Georgia and Kazakhstan. Published growth rates for capital stock by sector were used to estimate values for January 1, 1967.

Two comments are necessary on the data for Kazakhstan. First, the published values of capital stock were reported to be the current values (po balansovoi stoimosti). However, no adjustment to these figures was made since, as noted above, the difference between capital stock in current and constant prices in 1966 was not great. Second, since these values for 1966 appeared in a statistical handbook published in 1972, it is assumed that they reflect a revision in earlier data for the republic required by the transfer of a small amount of territory from Uzbekistan to Kazakhstan in 1970.²

3) Data on capital stock in 1955 prices for all major branches of the economy have been published for some year other than 1966 or 1967 for four republics - the RSFSR, Latvia, Lithuania, and Uzbekistan.³ These value data together with published rates of growth of capital stock were used to estimate values of fixed capital by major branch on January 1, 1966 and January 1, 1967 for these

four republics.

4) For five of the remaining republics, values of capital stock for all branches were derived from the published or estimated value of industrial fixed capital stock and the branch structure of capital stock (in percentage terms) on January 1, 1966. Published information on the growth of capital stock in 1966 and/or the branch structure of capital stock at the end of the year was then used to estimate the value of fixed capital by branch on January 1, 1967.

The value of industrial fixed capital for Moldavia was taken as published in a book on the Moldavian economy (Tsaranov, 1975, p. 313).

Industrial fixed capital in Estonia was estimated from published values of fixed capital in sectors of the 'Wood & Paper Products' branch and the share of this branch in total industrial fixed capital (Margolin, 1970, p. 172-174).

Industrial fixed capital in Azerbaidzhan was estimated from the published value of fixed capital in 'Textiles & Apparel' (Allakhvesdov, 1967, p. 43) and the share of this branch in industrial fixed capital for the republic (NK USSR v 1965, p. 151).

Values of industrial fixed capital in Tadzhikistan and Turkmenistan were estimated from published shares of each of the four Central Asian republics in the industrial fixed capital for the Central Asian economic region (Mazanov, 1971, p. 151) and the known value for Kirgizstan. (See above.)

Information on the branch structure of fixed capital stock in Turkmenistan is not available for any year in the statistical

handbooks of the republic and could not be found in other sources. Therefore, using the estimated value of industrial fixed capital in Turkmenistan, the values of capital stock in other branches were estimated on the assumption that the branch structure of fixed capital in the republic was the same as the structure in the other three Central Asian republics combined.

5) Values of fixed capital stock by branch for Belorussia were based on the published branch structure (Bel SSR za 50 let, 1968, p. 41) and the estimated value of capital stock in 'Agriculture' on January 1, 1966. The value of fixed capital in kolkhozes, sovkhoses and other government agricultural organizations was published (Bel SSR za gody sov. vlasti, 1967, p. 123). It will be noted that total fixed capital in 'Agriculture' includes the value of livestock in private ownership. This value was estimated independently, using the data on the relative shares of livestock in kolkhozes, sovkhoses, and private agriculture, and the published values of livestock in kolkhozes and sovkhoses (Be SSR v tsifrakh v 1969, p. 129).

6) Estimates of fixed capital by branch for the Ukraine were based on (a) the published value of industrial fixed capital stock on January 1, 1960 (NH Uk RSR v 1960, p. 20), (b) rates of growth of industrial fixed capital to January 1, 1966 and 1967, and (c) the branch structure of fixed capital stock on these two dates (NH Uk RSR v 1968, pp. 52, 97).⁴

7) Estimates for Armenia were based on (a) published figure for the total value of fixed productive capital on January 1, 1971 and the growth of this value from January 1, 1966 (Armenia v edinoi sem'e..., 1972, pp. 13-14), (b) the branch structure of fixed capital

for the republic on January 1, 1966 (Isaakian, 1970, p. 54) and (c) rates of growth of capital stock in each branch during 1966 (NK Ar SSR v 1967, p. 22).

The values of capital stock in major branches of the economy for all republics on January 1, 1966 and 1967, estimated as described above, are presented in Appendix A, Tables A.1 and A.2. The USSR total for each branch in these two tables is the sum of estimates for all 15 republics. In all cases this branch total for all republics is less than the published branch total for the USSR. The sum of republic estimates is compared with the actual USSR capital stock in each branch on January 1, 1966, in Table I.2. While the sum of republic estimates for 'Industry' is close to the published USSR figure, for most other branches the sum of republic estimates is 3% to 6% less than the USSR value, and for 'Trade & Distribution' and 'Other Branches' combined, the sum of republic estimates falls short of the USSR total by more than 12%. While the estimates for several republics made here may be subject to considerable error, the discrepancies observed in Table I.2 may be explained in part by differences in branch classification at the national and republic levels. It is possible that the capital stock of enterprises subordinated to all-Union industries in several branches might be included in the USSR total but not assigned to any republic. Heavy construction equipment of all-Union construction trusts may be moved from one republic to another over time. In 'Transportation,' it is quite likely that the methodology of calculating the value of roads in many republics is not consistent with the methodology for the USSR as a whole. In particular all-Union highways may not be included in the values of capital stock of some republics. The

Table I.2 Fixed Capital Stock in Major Branches
of the Economy: Published USSR Totals and Sums
of Republic Estimates, January 1, 1966
(billions of rubles).

	1* sum of republics	2** actual USSR	column 1 as % of column 2
Total fixed capital	500.9	518.0	96.7%
Productive branches	301.8	312.0	96.7
Industry	149.3	150.0	99.5
Construction	10.4	11.0	94.2
Agriculture	63.4	66.0	96.1
Transport. & Comm.	63.0	67.0	94.1
Trade & Distr. & Other br.	15.7	18.0	87.4
Nonproductive branches	199.1	206.0	96.7
Housing	134.5	141.0	95.4
Other nonproductive	64.6	65.0	99.4

*Appendix A, Table A.1.

**NK SSSR v 1965, p. 64.

valuation of capital stock in 'Trade & Distribution' is complicated by the fact that all-Union trade enterprises frequently lease space in buildings (such as apartment houses) which are included primarily in the capital stock of other branches. This problem may be treated differently at the national and republic levels.

For the purpose of calculating depreciation payments, the year-average value of capital stock by major branches in 1966 for all republics was calculated using the formula recommended in the instructions for plan formulation published by Gosplan:⁵

$$\bar{K} = K_0 + 0.35 (K_1 - K_0)$$

where

\bar{K} = year-average capital stock

K_0 = capital stock at the beginning of the year

K_1 = capital stock at the end of the year.

These year-average values of capital stock are given in Appendix A, Table A.3.

Information in value terms on capital stock in individual branches of industry is not published in Soviet statistical handbooks. However, a table showing the shares of major branches in industrial fixed capital stock at the beginning of the year for all republics as well as the USSR as a whole is normally published in the annual handbook for the USSR. This table for the structure of capital stock on January 1, 1966 (from NK SSSR v 1965, pp. 150-151) is reproduced in Appendix A, Table A.4. A comparable table for January 1, 1967 is not available, however, since the shorter anniversary handbook for the USSR published in 1967 did not include this table. Since complete information was also not available in republic statistical handbooks on the growth of capital stock in all branches of industry in 1966 or the branch structure of industrial fixed capital at the end of the year, the branch structure in Table A.4 was used to calculate year-average values of industrial capital by branch for all republics on the assumption that the year-average structure was close to that at the beginning of the year. These year-

average values are given in Table A.5.

Information on the value of depreciation payments (for major branches of the economy) or depreciation payments as a percentage of year-average capital stock (for branches of industry) has been published for less than half of all Union republics, and in all cases these depreciation data cover only enterprises subordinated to the Council of Ministers of the republic. In 1970, the share of industrial output subordinated to republic Councils of Ministers was as little as 12-13% in Kazakhstan, Tadzhikistan, and Moldavia, and as high as 60% in the RSFSR.⁶ Therefore depreciation payments in branches of 'Industry' and other productive branches by republic in 1966 were approximated by applying USSR depreciation rates by branch to the estimated year-average values of capital stock for republics. The USSR depreciation rates used are given in Table I.3, and the estimated values of depreciation payments by republic are given in Appendix A, Table A.2.

Table I.3 Depreciation Rates as a Percentage of Year-Average Capital Stock for the USSR in 1966 (%)*

Industry average	7.3
Ferrous metallurgy	7.1
Fuels	8.7
Electrical & thermal power	4.9
Machine building & metal working	7.6
Chemical products	7.2
Wood & paper products	10.4
Construction materials	7.9
Glass & porcelain	7.4
Textiles & apparel	6.7
Food products	7.3
Ind. NEC & nonferrous metals	6.6
Construction	12.7
Agriculture	6.0
Transportation & Communication	5.5
Trade & Distribution & Other branches	5.2

*percentage rates for branches of industry from NK SSSR v 1967, page 220, except 'Industry NEC & Nonferrous metallurgy' calculated as a residual given the branch structure of industrial capital and the industry average depreciation rate; percentage rates for other major branches calculated from year-average capital stock and published values of depreciation payments (NK SSSR v 1967, p. 883): depreciation payments by kolkhozes estimated from Kharitonov, 1972, p. 20.

II. EMPLOYMENT, WAGES, AND SOCIAL SECURITY PAYMENTS

As with the capital data, this study employs the standard Soviet definition of employment, wages, and social security payments.

Thus, employment is defined as average annual permanent labor force measured in man-years. Workers and employees who were absent from their places of work part of the year, due to illness or leaves, are counted in terms of full-year equivalent regardless of whether they were receiving wages, leave pay, or social security benefits (e.g., female employees on pregnancy leaves).

Soviet statistics of employment in agriculture are notoriously defective. The average annual employment in sovkhozes and other state agricultural organizations is recorded in average man-years derived on a month-by-month basis. These figures are adjusted upward to reflect part-time and seasonal employees. Kolkhoz employment is reported on the basis of monthly average employment records, regardless of the number of days actually worked in the given month. The estimates of labor engaged in private agriculture are probably subject to significant error. This group is comprised of kolkhoz and sovkhoz members and urban employees who spend some time on their private plots, as well as members of their families who for one reason or another (i.e., age, status) are not registered as full or part-time employees elsewhere. The method used to distribute this total among republics is described elsewhere.

Wages are defined as direct payments to employees, including various bonuses paid out of special profit and other funds. Wage totals include annual leave pay, but not social security benefits.

In addition to money wages, Soviet workers receive other material benefits such as subsidized housing, meals served in factory cafeterias, and the like, but the cost of these benefits while comprising an element of cost of labor is not included in wages.

The case of agriculture is more difficult. Only sovkhoz workers receive wages as defined above, and this is the only wage income shown in our tables. Agricultural labor generates other types of income such as the money income and income-in-kind received by kolkhoz members; earnings from sales of produce grown on private plots by kolkhoz, sovkhoz, and some urban households as well as consumption in kind of these households. Since these income-type receipts are not wages proper, they have been excluded from this study.

Data on 1966 employment by republic for major branches of the economy and most individual branches of industry have been published in statistical handbooks. This type of information for 1966 (as well as for 1965 and 1960) was included in a statistical handbook for labor published in 1968.⁷ However, some of the data given in this handbook have been slightly revised in later statistical publications as a result of minor changes in the sectoral classification of some workers, which was instituted in 1968. For the USSR as a whole in 1966, approximately 5% of agricultural workers - according to the pre-1968 classification - were reclassified into various branches of industry and construction. Thus, in order to ensure comparability of the data presented in this paper with data for later years, an effort was made to assemble or estimate employment for all republics based on the post-1968 classification system.

Data on average annual employment (number of workers and employees) for major branches of the economy are presented in Appendix

B, Table B.1. In the process of making these estimates, employment in 'Construction' was broken down into two categories. Prior to 1970, most statistical handbooks reported only the employment in 'Construction-Assembly Work' (stroitel'no-montazhnye raboty). Recent handbooks give a total employment figure for 'Construction,' which includes capital repair, drilling, and design-survey organizations.⁸ Data on employment in these construction-related activities for 1965 have been published in recent republic statistical handbooks, but no data are available for 1966. Therefore, 1966 employment by republic was estimated by applying the share of each republic in 1965 to the USSR total employment in these construction-related activities in 1966. Agricultural employment as shown in Table B.1 includes only the two components of state agricultural employment as reported in the employment section of Soviet statistical handbooks - 'Sovkhozes and Auxiliary Agriculture Enterprises' and 'Other State Agriculture' which includes organizations serving agriculture and veterinarians. Total agricultural employment includes in addition employment in kolkhozes and in private agriculture. Employment in kolkhozes by republic in 1966 is published (NK SSSR v 1968, p. 447). Estimation of employment in private agriculture presents a number of problems. As it was pointed out above, the labor force in private agriculture is a heterogeneous group consisting of full-time kolkhoz, sovkhoz, and even urban workers and employees allocating part of their free time to private plots, and members of their families who may be spending anywhere from a couple of days to a full year on their family plots. The method used in this study was developed by the staff of the Foreign Demographic Analysis Division, Department of Commerce (Rapawy, pp. 40-41) and while not

perfect, seems to yield the best estimates in as far as they could have been checked against other data such as rural population and census employment statistics. The method consists of applying 1958 private labor inputs in man-days to the published data on land and cattle in private agriculture and then converting the total into 280-day man-year equivalents. This method yields a USSR total estimate of 12,902,000 man-years but that figure includes the kolkhoz and sovkhoz workers who have already been counted under their respective organizations and who spent only a part of their time on private plots. We will assume that private plot workers not employed elsewhere are distributed proportionally to the total and apply the percent distribution to the total of 6,020 man-years of private agricultural labor used in the 1966 input-output table (see table II.1) Total agricultural employment is summarized in Appendix B, Table B.9.

Employment in the seven 'nonproductive' branches is shown as a single total for each republic. 1966 data for six of these branches were published in Trud. However, no information was available on 1966 employment in 'Art,' and it was estimated by applying the share of each republic in 1965 to the USSR total employment in 'Art' in 1966.

Information on employment reflecting the post-1968 classification was available for nine republics and the USSR as a whole. For the remaining six republics, industrial employment was taken from NK USSR v 1968, p. 206. Employment in 'Construction-Assembly Work' and 'Sovkhozy and Auxiliary Agricultural Enterprises' was estimated by calculating a ratio of employment according to the new and old classifications in 1965 for these two sectors in each republic.

Table II.1 Estimation of Employment
in Private Agriculture Based on Land
Holdings and Animal Husbandry

	Land 1,000 hectr.	Horned animals 1,000s	Pigs 1,000s	Sheep and Goats 1,000s	Man-yrs. 1,000s	Percent	Estimates
USSR	7,760	29,264	16,537	33,303	12,902	100.0%	6,020
RSFSR	3,440	14,165	6,849	19,797	6,045	46.85	2,820
Ukraine	2,420	5,507	5,318	1,186	3,064	23.75	1,430
Moldavia	170	205	255	1,153	190	1.47	88
Belorussia	550	1,710	1,862	423	850	6.59	397
Latvia	130	360	266	327	182	1.41	85
Lithuania	270	648	767	171	364	2.82	170
Estonia	70	158	119	167	88	.68	41
Georgia	170	919	382	829	346	2.68	161
Armenia	40	251	28	923	100	.78	47
Azerbaijdh.	80	853	32	1,574	266	2.06	124
Kazakh	160	2,028	564	2,490	627	4.86	293
Uzbek	130	1,484	22	1,713	432	3.35	202
Kirgiz	70	307	63	707	128	.99	60
Tadzhik	40	454	8	838	139	1.08	65
Turkmen	20	215	2	1,005	80	.62	37

First column: NK SSSR v 1967, p. 344 and Selkhoz, 1971, 2nd, 3rd, and 4th columns. Selkhoz SSSR, 1971, pp. 253, 261, and 265, 5th column. Using the following labor inputs: land - 166 man-days per hectar, horned animals - 54.2 man-days per head, pigs - 20.6 man-days, and sheep and goats, 5.6 man-days. The total was adjusted by 1.1 coefficient to reflect private ownership of poultry and converted into 280-man-days/year equivalents (Rapawy, pp. 40-41).

These ratios were applied to 1966 employment for these sectors given in Trud. With the exception of Kazakhstan and Uzbekistan, employment in all other sectors was then taken directly from Trud. Estimates for all sectors in these two republics were made to reflect the transfer of territory from Uzbekistan to Kazakhstan mentioned in Part I. Ratios of employment in 1965 reflecting new boundaries as well as new classification to employment in 1965 based on old boundaries and classification were calculated for each sector and applied to the corresponding data for 1966 given in Trud.

In order to illustrate the effects of the 1968 classification change on employment by major branches in republics, some ratios of employment according to the new and old classifications for 'Industry,' 'Construction,' and 'Agriculture,' are presented in Table II.2.

While revised data on employment by major branches of the economy in 1966 reflecting the 1968 classification change were available for most republics, less data were found in republic statistical handbooks on the revised employment by branches of industry. In addition, employment data are not published in all republics for 'Nonferrous Metallurgy,' 'Chemical Products,' 'Glass and Porcelain,' and 'Ferrous Metallurgy,' either according to the pre-1968 classification in Trud, or according to the new classification. Three different basic methods were used to estimate industrial employment according to the revised classification, depending on the type of information which was available:

- 1) Where information was available on employment in 1965 according to both old and new classifications, a ratio was calculated to adjust data for 1966 given in Trud.

Table II.2 Revisions in Employment
for 1966 in Industry, Construction,
and Agriculture (revised data as
percentage of employment under
the old classification)*

	Industry	Construction	Agriculture
USSR	101.5%	101.8%	94.6%
RSFSR	101.4	101.9	94.2
Ukraine	100.7	102.5	94.9
Moldavia	100.8	100.9	98.5
Belorussia	102.4	100.3	95.2
Lithuania	101.0	100.9	97.3
Estonia	101.7	102.1	92.9
Armenia	100.7	101.5	97.2
Azerbaidzhan	100.5	100.8	98.4
Tadzhikistan	100.6	101.9	96.5

*old classification data: Trud, pp. 25,42-71; new classification data: Appendix B, Table B.1. (Construction employment is Construction-Assembly work only.)

2) In some cases revised 1966 data were available only for the narrower category of number of workers (rabochii), and it was necessary to calculate total employment (promyshlennenno-proizvodstvennyi personal) using a ratio of the share of workers in total employment in 1965 from Trud.

3) Many estimates of employment in branches omitted in statistical handbooks were made on the basis of information on the shares of these sectors in total employment published in other sources. Where employment could be estimated only for a year other than 1966, the rate of growth of employment from 1966 to the base year was estimated by dividing the published rate of growth of total output by the rate of growth of labor productivity (output per employee) between the two years.

The estimates of industrial employment by branch for all republics are presented in Appendix B, Table B.2. Sources and methods used in making these estimates are summarized for each republic in the notes to this table. Employment was known to be zero in the 'Metallurgy' and 'Fuels' branches for some republics, and in several instances it was assumed to be negligible.⁹ Estimates of employment in 'Glass and Porcelain' according to the revised classification were made initially for all but the three major producing republics (the RSFSR, the Ukraine, and Belorussia). The rest-of-the-USSR residual was then allocated among these three republics according to their relative shares of employment in 1966, according to the old classification (Trud, pp. 91, 93, 95).¹⁰ Estimates of employment in several branches for the RSFSR were adjusted slightly so that the sum of republic employment for each branch would agree with the published USSR total. (See the notes to Table B.2.) Employment in 'Industry N.E.C.' was calculated as a residual for all republics.

The 1968 change in employment classification affected data on average monthly wages as well. For major branches of the economy, revised data on wages in 1966 were published in the statistical handbooks of 11 republics. For Georgia, published wages in 1966 according to the old classification were adjusted slightly, using data on wages in 1965 according to both old and new classifications. For Kirgizstan and Turkmenistan, only wages in 1965 were available. For each of these republics, wages in 1966 were estimated by multiplying the 1965 wage rates by the USSR rate of growth of wages in each branch in 1966. Only a single figure for average monthly wages in the economy as a whole was published for Kazakhstan. Therefore, wages in each branch for Kazakhstan were estimated as a residual.

Total average monthly wages paid were calculated for the USSR as a whole and for the sum of all republics, excluding Kazakhstan (as a product of wage rates and employment). The difference of these two figures for each branch was then divided by the corresponding employment figure for Kazakhstan to estimate average monthly wages for this republic.

Separate wage estimates were made for each of the two components of employment in 'Construction' and in 'Agriculture.' Wages in 1966 for the major component of 'Construction' employment ('Construction-Assembly Work') were published in republic statistical handbooks. In order to estimate wages in 'Other Construction-Related Activities,' however, for most republics it was necessary to first calculate average wages for this branch in 1965.¹¹ The ratio of republic to national wages in 1965 was then applied to the national average wage in 1966 for these construction-related activities.¹² For the major component of government agricultural employment ('Sovkhozoy and Auxiliary Enterprises'), average wages in 1966 were either taken from republic statistical handbooks or derived as described above (for Georgia, Kirgizstan, Turkmenistan, and Kazakhstan). Average wages in 'Other Government Agriculture' were derived from published wage and employment data for all government agriculture and for 'Sovkhozoy and Auxiliary Enterprises' separately, with the exception of the Ukraine, Lithuania, Estonia, Kazakhstan, and Tadzhikistan. For these five republics the sum of wage payments (calculated as a residual for the USSR as a whole) was divided by the corresponding sum of employment to derive an average wage which was used for each.

For the 'Forestry' branch average wages have been published for only five republics (Moldavia, Belorussia, Estonia, Georgia, and

Kirgizstan). For all other republics the average wage in 'Forestry' was assumed to be equal to that for 'Sovkhozy and Auxiliary Enterprises.' The single average wage given here for the nonproductive sphere was calculated as a weighted average for each republic from data on wages and employment in all subdivisions.¹³ Total wage payments in 'Other Branches' was calculated as a residual, subtracting estimated wage payments in all other branches from the economy total. An average wage for 'Other Branches' was then calculated, dividing this residual by employment in 'Other Branches.' However, any errors in previous estimations will be reflected in these wage rates.

Values of average monthly wages in major branches of the economy, compiled and estimated as described above, are given in Appendix B, Table B.3.

Values of average monthly wages in individual branches of 'Industry' have been published in the statistical handbooks of only six republics - Belorussia, Latvia, Lithuania, Armenia, Uzbekistan, and Kirgizstan. A recently published table of coefficients reflecting relative wages by branch of industry on 16 economic regions provides information for estimating average monthly wages in some other republics.¹⁴ However, the usefulness of this table of coefficients is limited by the fact that coefficients are given for individual economic regions within the RSFSR and the Ukraine, while only single columns of coefficients are given for the groups of republics in the Baltic, Transcaucases, and Central Asian economic regions, and no information is given for Belorussia, Moldavia, and Kazakhstan. Furthermore, the coefficients for the 'Metallurgy,' 'Power,' and 'Wood and Paper' branches for many regions produce estimates which are inconsistent with the limited amount of wage

information available from statistical handbooks. Therefore, wages in several republics were estimated, using coefficients of relative wages in neighboring republics, for which data have been published in statistical handbooks. These estimates, which are presented and described in Appendix B, Table B.4, are probably the least reliable in this study and must be considered only an approximation of actual wages by branch for republics.

Values of total wage payments in 1966 by republic in major branches of the economy and 12 branches of industry, calculated from the wage rates estimated above, are presented in Tables B.5 and B.6. The value of social security payments in each branch by republic was estimated by applying published USSR average social security rates (as a percentage of wages) to the values of wage payments in each republic. These USSR average rates are given in Table II.3, and the values of social security payments by branch for all republics are presented in Tables B.7 and B.8.

Table II.3 USSR Social Security
Payments as a Percentage of Wages Paid*

Ferrous metallurgy	7.9%
Nonferrous metallurgy	7.9
Fuels	8.9
Electricity & thermal power	6.6
Machine building & metal working	7.7
Chemical products	8.4
Wood & paper products	4.7
Construction materials	6.1
Glass & porcelain	6.1
Textiles & apparel	6.8
Food products	6.8
Industrial N.E.C.	4.7
Construction	6.1
Agriculture & Forestry	4.4
Transportation & Communications	5.3
Trade & Distribution	4.5
Other branches	5.5
Nonproductive branches	5.5

*Zakharov and Piskov, 1972, pp. 392-393.

Footnotes

1 Citations to statistical handbooks throughout the paper are given in an abbreviated form. If the title of the handbook includes the year, no publication date is given in these short citations. However, if the title does not include the year, the publication date is given. NK = Narodnoe khoziaistvo. Full citations are given in the bibliography.

2 All estimates in this paper were made to be consistent with revised data reflecting the new boundaries of these two republics. For Uzbekistan these revisions first appeared in the annual statistical handbook for 1971, published in 1972.

3 Values of capital stock by major branch in Uzbekistan for 1966 and 1967 were also published in a 1968 Uzbek handbook (NK Uz SSR v 1967, p. 27), but these are data in current values for capital stock before the revision of the republic's boundaries.

4 The growth rates given here were for industrial capital stock at the end of each year as a percentage of year-end 1960. The rate of growth for 1960 was assumed equal to the average annual rate for the 1960-1965 period.

5 Metodicheskie ukazania ..., 1974, p. 76.

6 Granberg, 1973, p. 24 and Pavlenko, 1971, p. 46.

7 Trud v SSSR, Moscow: Statistika, 1968, hereafter referred to as Trud.

8 Prior to 1970, employment in these sectors was included in the 'Other Branches' category.

9 According to 1966 republican input-output data, there was no production of 'Nonferrous Metallurgy' in Moldavia, Belorussia, and Estonia; no 'Ferrous Metallurgy' in Turkmenistan, and no 'Fuels' in Moldavia (A. G. Granberg, 1975, p. 105). Employment was assumed to be negligible in 'Nonferrous Metallurgy' for Latvia, Lithuania, and Turkmenistan, in 'Ferrous Metallurgy' for Moldavia, Estonia, Kirgizstan, and Tadzhikistan, and in 'Fuels' for Armenia.

10 This adjustment was necessary since employment in glass and porcelain industry according to revised 1966 data is only 90.4% of that reported in Trud.

11 These wage rates were derived from data in recent republic handbooks on employment and wages in 'Construction' as a whole and in 'Construction-Assembly Work' separately. 1966 data were available for the Ukraine, Moldavia, Belorussia, and Azerbaidzhan.

12 For four republics (Georgia, Kazakhstan, Uzbekistan, and Tadzhikistan), 1965 wage data for this branch were not available. The sum of wage payments in these construction-related activities in these four republics (calculated as a residual for the USSR as a whole) was divided by the corresponding sum of employment to derive an average wage which was used for each.

13 Average wages in 'Art' (Iskusstvo) in 1966 were estimated for most republics by applying the ratio of republic to national wages in 1965 to estimated USSR monthly wages in 1966. For five republics (Belorussia, Estonia, Georgia, Kazakhstan, and Tadzhikistan), no wage data were available. An average residual wage rate was calculated for these republics.

14 Loginov, 1975, pp. 288-289. These coefficients apparently apply to wages in some year around 1970. See Feshbach, 1975.

Appendix A

Capital stock and depreciation payments in major branches
of the economy and 11 branches of industry by republic for the
USSR in 1966.

TABLE A.1
FIXED CAPITAL STOCK IN MAJOR BRANCHES OF THE ECONOMY
BY REPUBLIC FOR THE USSR, JANUARY 1, 1966
(MILLIONS OF RUBLES)

	USSR SUM	RSFSR	UKRAINE	MOLDAV	BELORUS	LATVIA	LITHUAN	ESTONIA
TOTAL FIXED CAPITAL	500925.	310300.	69433.	4075.	11617.	6660.	5759.	4069.
PRODUCTIVE BRANCHES	301613.	166800.	52676.	2429.	6960.	3823.	3525.	2470.
INDUSTRY	149294.	98400.	26025.	762.	2588.	1345.	1325.	1051.
CONSTRUCTION	10365.	6800.	1163.	69.	201.	127.	121.	61.
AGRICULTURE	63404.	31700.	12431.	1064.	2257.	1046.	1238.	541.
TRANSPORT & COMMUNIC	63021.	41200.	10195.	379.	1524.	1032.	639.	650.
TRANSPORTATION				350.	1430.	872.	576.	
COMMUNICATION				29.	94.	60.	63.	
TRADE & DIST + OTHER	15729.	6700.	2862.	155.	390.	213.	202.	127.
NONPRODUCTIVE BRANCHES	199112.	123500.	36757.	1646.	4657.	2817.	2234.	1619.
HOUSING	134489.	82200.	25846.	1210.	3486.	1865.	1549.	1068.
OTHER NONPRODUCTIVE	64623.	41300.	10911.	436.	1371.	972.	685.	571.
	GEORGIA	ARMENIA	AZERB	KAZAKH	UZBEK	KIRGIZ	TADZHIK	TURKMEN
TOTAL FIXED CAPITAL	8831.	3910.	8261.	26205.	11888.	3356.	3036.	3305.
PRODUCTIVE BRANCHES	4981.	2150.	5502.	17181.	7465.	2036.	1776.	2039.
INDUSTRY	2161.	1075.	3230.	6482.	2776.	723.	583.	738.
CONSTRUCTION	185.	82.	248.	659.	334.	45.	130.	100.
AGRICULTURE	1545.	559.	925.	5210.	2555.	839.	695.	739.
TRANSPORT & COMMUNIC	598.	328.	901.	3510.	1270.	248.	231.	316.
TRANSPORTATION	560.	289.	851.	3322.		219.	201.	
COMMUNICATION	38.	39.	50.	188.		29.	30.	
TRADE & DIST + OTHER	502.	106.	198.	1320.	530.	141.	137.	146.
NONPRODUCTIVE BRANCHES	3850.	1760.	2759.	9024.	4423.	1320.	1260.	1266.
HOUSING	2523.	1142.	1850.	6295.	2969.	842.	786.	838.
OTHER NONPRODUCTIVE	1327.	618.	909.	2729.	1454.	438.	474.	428.

TABLE A.2
FIXED CAPITAL STOCK IN MAJOR BRANCHES OF THE ECONOMY
BY REPUBLIC FOR THE USSR, JANUARY 1, 1967
(MILLIONS OF RUBLES)

	USSR SUM	RSFSR	UKRAINE	MOLDAV	BELORUS	LATVIA	LITHUAN	ESTONIA
TOTAL FIXED CAPITAL	532804.	327200.	95176.	4427.	12691.	7048.	6292.	4343.
PRODUCTIVE BRANCHES	325407.	200000.	56630.	2669.	7589.	4102.	3914.	2654.
INDUSTRY	162550.	106600.	28172.	859.	2893.	1506.	1485.	1147.
CONSTRUCTION	11699.	7500.	1333.	84.	254.	178.	145.	74.
AGRICULTURE	67131.	33000.	13134.	1155.	2398.	1141.	1384.	621.
TRANSPORT & COMMUNIC	67042.	43600.	10850.	403.	1638.	1089.	673.	673.
TRANSPORTATION				372.	1498.	1023.	604.	44.
COMMUNICATION				31.	140.	66.	69.	1.
TRADE & DIST + OTHER	16985.	9300.	3141.	168.	406.	228.	227.	139.
NONPRODUCTIVE BRANCHES	207397.	127200.	38546.	1758.	5102.	2946.	2378.	1689.
HOUSING	142253.	87100.	26744.	1268.	3720.	1935.	1630.	1081.
OTHER NONPRODUCTIVE	65144.	40100.	11802.	490.	1382.	1011.	748.	608.
	GFORGIA	ARMENIA	AZERB	KAZAKH	UZBEK	KIRGIZ	TADZHIK	TURKMEN
TOTAL FIXED CAPITAL	9414.	4234.	8756.	28763.	13651.	3830.	3299.	3650.
PRODUCTIVE BRANCHES	5346.	2417.	5855.	18913.	8654.	2884.	2001.	2279.
INDUSTRY	2347.	1219.	3408.	7263.	3359.	842.	644.	806.
CONSTRUCTION	202.	121.	282.	744.	404.	140.	168.	110.
AGRICULTURE	1624.	588.	1005.	5585.	2939.	918.	782.	857.
TRANSPORT & COMMUNIC	635.	352.	932.	3868.	1390.	330.	262.	347.
TRANSPORTATION	595.	306.	879.	3658.		297.	227.	
COMMUNICATION	40.	46.	53.	210.		33.	35.	
TRADE & DIST + OTHER	538.	137.	228.	1453.	562.	154.	145.	159.
NONPRODUCTIVE BRANCHES	4068.	1847.	2901.	9850.	4997.	1446.	1298.	1371.
HOUSING	2687.	1233.	1932.	6907.	3410.	928.	786.	892.
OTHER NONPRODUCTIVE	1381.	614.	969.	2943.	1587.	518.	512.	479.

TABLE A.5
FIXED CAPITAL STOCK IN BRANCHES OF INDUSTRY
BY REPUBLIC FOR THE USSR, YEAR-AVERAGE 1966

	USSR SUM	RSFSR	UKRAINE	MOLDAV	BELORUS	LATVIA	LITHUAN	ESTONIA	GEORGIA	ARMENIA	AZERB	KAZAKH	UZBEK	KIRGIZ	TADZHIK	TURKMEN
FERROUS METALLURGY	16031.	8709.	5998.	0.	8.	29.	3.	0.	331.	5.	132.	797.	21.	0.	0.	0.
FUELS	21118.	12051.	4980.	0.	205.	51.	39.	191.	133.	0.	1755.	878.	355.	154.	26.	340.
ELEC & THERM POWER	23114.	15292.	2838.	153.	512.	230.	282.	293.	539.	291.	415.	1216.	608.	144.	147.	114.
MACH BLDG & METAL WRKNG	29406.	21672.	4525.	74.	719.	285.	247.	123.	251.	198.	201.	493.	414.	115.	59.	34.
CHEMICAL PRODUCTS	12779.	9317.	1821.	8.	237.	103.	76.	26.	173.	174.	204.	297.	277.	1.	7.	63.
WOOD & PAPER PRODUCTS	8781.	7494.	509.	20.	164.	128.	95.	69.	62.	17.	23.	115.	57.	13.	8.	6.
CONSTRUCTION MATERIALS	9854.	6177.	1526.	85.	218.	110.	144.	91.	149.	78.	109.	628.	310.	76.	83.	70.
GLASS & PORCELAIN	898.	608.	161.	6.	40.	23.	7.	8.	9.	8.	13.	0.	9.	1.	1.	6.
TEXTILES & APPAREL	6832.	4456.	669.	57.	237.	111.	117.	90.	129.	80.	112.	196.	343.	77.	112.	46.
FOOD PRODUCTS	14037.	8304.	2731.	379.	310.	327.	319.	219.	320.	106.	122.	466.	203.	114.	69.	50.
IND N.F.C. + NONFER MET	11082.	7190.	1018.	14.	43.	30.	58.	15.	124.	169.	207.	1669.	384.	70.	56.	34.
INDUSTRY TOTAL	153934.	101270.	26776.	796.	2695.	1427.	1381.	1085.	2221.	1125.	3292.	6755.	2980.	765.	604.	762.
									FERROUS METALLURGY							
									FUELS							
									ELEC & THERM POWER							
									MACH BLDG & METAL WRKNG							
									CHEMICAL PRODUCTS							
									WOOD & PAPER PRODUCTS							
									CONSTRUCTION MATERIALS							
									GLASS & PORCELAIN							
									TEXTILES & APPAREL							
									FOOD PRODUCTS							
									IND N.E.C. + NONFER MET							
									INDUSTRY TOTAL							

Notes to Tables A.1 and A.2

RSFSR: values of capital stock by branch on 1.1.1961, 1.1.1962, and 1.1.1963. (NK RSFSR v 1962, p. 36): growth rates to 1.1.1966 and 1.1.1967 (NK RSFSR v 1967, p. 36): nonproductive branches assumed to grow at annual average rate for 1961-1963 and 1965-1970 periods (growth rates for latter period from NK RSFSR v 1975, p. 27).

Ukraine: see text.

Moldavia: industrial fixed capital, 1.1.1966: see text: branch structure 1.1.1966 (NK MSSR v 1970, p. 21): growth rates to 1.1.1967 (NK MSSR v 1970, p. 20).

Belorussia: fixed capital in 'Agriculture,' 1.1.1966: see text: branch structure 1.1.1966 and 1.1.1967 and growth rates for 1966 (Bel SSR za 50 let, 1968, p. 41).

Latvia: values of capital stock by branch on 1.1.1971, growth rates to this date from 1.1.1966, and branch structure 1.1.1966 (NK La SSR v 1971, p. 44): (growth by branch in 1966 assumed equal to annual average growth rate for 1965-1970 period).

Lithuania: total capital stock on 1.1.1972 and growth to this date from 1.1.1966 (Ekon i Kult Li SSR v 1972, pp. 70-71): growth of total capital stock in 1966 and branch structure on 1.1.1966 and 1.1.1967 (Ekon i Kult Li SSR v 1969, pp. 116, 118).

Estonia: industrial fixed capital on 1.1.1966: see text: branch structure on 1.1.1966 and 1.1.1967 and growth in 1966 (NK ESSR v 1969, pp. 44-45).

Georgia: values by branch on 1.1.1966 (Charkviani 1972 p. 150).
growth rates by branch in 1966 assumed equal to annual
average growth rates for 1960-1965 period (Ibid.).

Armenia: see text.

Azerbaidzhan: industrial fixed capital on 1.1.1966. see text.
branch structure on 1.1.1966 and 1.1.1967 and growth rates
by branch for 1966 (NK Az SSR v 1970, pp. 28-29).

Kazakhstan: values by branch on 1.1.1966 (NK Kazakh v 1971, p. 23.
see also text); growth rates by branch in 1966 assumed equal
to annual average growth rates for 1966-1971 period (Ibid.).

Uzbekistan: values of capital stock by branch in 1955 prices for
revised boundaries on 1.1.1972 and 1.1.1974 and growth rates
by branch from 1.1.1966 to each of these dates (NK Uz SSR v
1972, p. 21. NK Uz SSR za 50 let, 1974 p. 51. see also text):
growth rates by branch in 1966 assumed unaffected by territory
revision (NK Uz SSR v 1967, p. 27).

Kirgizstan: values by branch on 1.1.1966 and 1.1.1967 (Kirgizstan
v tsifrakh, 1971, p. 14).

Tadzhikistan: industrial fixed capital on 1.1.1966: see text.
branch structure on 1.1.1966 (NK Ta SSR v 1965, 1966, p. 29):
growth rates by branch for 1966 (NK Ta SSR v 1968, p. 23).

Turkmenistan: see text.

Appendix B

Average annual employment, monthly wages, total wages paid,
and social security payments in major branches of the economy and
12 branches of industry by republic for the USSR in 1966.

TABLE B.1
EMPLOYMENT IN MAJOR BRANCHES OF THE ECONOMY
BY REPUBLIC FOR THE USSR IN 1966 (THOUSANDS OF EMPLOYEES)

	USSR	RSFSR	UKRAINE	MOLDAV	BELOARUS	LATVIA	LITHUAN	ESTONIA
INDUSTRY	28513.1	18628.0	5291.0	199.6	841.9	364.5	333.4	213.6
CONSTRUCTION	7549.7	4400.0	1352.0	74.5	231.6	81.0	107.1	49.4
CONSTRUCT-ASSEMBLY WORK	5870.7	3372.0	1033.0	45.6	195.5	67.0	90.8	39.8
OTHER CONSTRUCTION	1679.0	1028.0	319.0	10.9	36.1	14.0	16.3	9.6
AGRICULTURE & FORESTRY	9302.8	5296.0	1195.0	41.6	434.9	95.5	146.4	67.8
AGRICULTURE	8894.2	5046.0	1123.0	40.8	410.4	90.5	139.2	60.4
SOVKHOZY & AUX AGR ENT	8407.0	4824.0	1029.0	75.8	388.0	80.0	131.0	50.0
OTHER STATE AGRICUL	487.2	222.0	94.0	5.0	22.4	10.5	8.2	10.4
FORESTRY	408.6	250.0	72.0	3.8	24.5	5.0	7.2	7.4
TRANSPORT & COMMUNIC	8437.0	5140.0	1521.0	77.3	255.1	104.0	90.5	64.4
TRANSPORTATION	7363.8	4479.0	1346.0	68.4	215.1	90.0	77.5	55.4
COMMUNICATION	1073.2	661.0	175.0	8.9	40.0	14.0	13.0	9.0
TRADE & DISTRIBUTION	6261.0	3715.0	1189.0	68.8	198.3	76.0	73.8	45.9
OTHER BRANCHES	853.9	487.0	157.0	8.1	29.8	13.9	10.6	6.8
NONPRODUCTIVE BRANCHES	18791.8	11317.0	3268.0	205.2	574.1	206.1	219.6	120.8
ECONOMY TOTAL	79709.3	48983.0	13973.0	720.1	2565.7	941.0	987.4	568.7
INDUSTRY	348.0	216.4	289.5	907.0	517.0	162.0	112.7	82.5
CONSTRUCTION	132.7	78.3	126.1	462.4	255.8	66.7	65.4	64.7
CONSTRUCT-ASSEMBLY WORK	113.7	69.0	88.7	369.0	206.2	55.0	55.0	50.4
OTHER CONSTRUCTION	19.0	9.3	37.4	93.4	49.6	11.7	10.4	14.3
AGRICULTURE & FORESTRY	147.0	89.0	153.6	1046.0	367.0	107.9	42.5	29.6
AGRICULTURE	139.0	86.0	150.6	1029.0	364.0	105.2	41.5	28.6
SOVKHOZY & AUX AGR ENT	126.0	78.0	134.0	1008.0	333.0	94.5	34.2	21.5
OTHER STATE AGRICUL	13.0	8.0	16.6	21.0	31.0	10.7	7.3	7.1
FORESTRY	8.0	3.0	3.0	17.0	3.0	2.7	1.0	1.0
TRANSPORT & COMMUNIC	130.0	55.0	125.0	500.4	203.6	65.8	50.9	54.0
TRANSPORTATION	113.0	46.0	109.1	440.0	176.4	56.9	44.0	47.0
COMMUNICATION	17.0	9.0	15.9	60.4	27.2	8.9	6.9	7.0
TRADE & DISTRIBUTION	102.0	46.0	85.5	327.0	200.0	54.0	40.7	39.0
OTHER BRANCHES	8.9	10.2	13.5	54.2	28.8	9.6	7.1	8.4
NONPRODUCTIVE BRANCHES	382.4	175.1	305.0	935.2	620.8	181.0	152.4	129.1
ECONOMY TOTAL	1251.0	670.0	1098.2	4232.2	2193.0	647.0	471.7	407.3
INDUSTRY	348.0	216.4	289.5	907.0	517.0	162.0	112.7	82.5
CONSTRUCTION	132.7	78.3	126.1	462.4	255.8	66.7	65.4	64.7
CONSTRUCT-ASSEMBLY WORK	113.7	69.0	88.7	369.0	206.2	55.0	55.0	50.4
OTHER CONSTRUCTION	19.0	9.3	37.4	93.4	49.6	11.7	10.4	14.3
AGRICULTURE & FORESTRY	147.0	89.0	153.6	1046.0	367.0	107.9	42.5	29.6
AGRICULTURE	139.0	86.0	150.6	1029.0	364.0	105.2	41.5	28.6
SOVKHOZY & AUX AGR ENT	126.0	78.0	134.0	1008.0	333.0	94.5	34.2	21.5
OTHER STATE AGRICUL	13.0	8.0	16.6	21.0	31.0	10.7	7.3	7.1
FORESTRY	8.0	3.0	3.0	17.0	3.0	2.7	1.0	1.0
TRANSPORT & COMMUNIC	130.0	55.0	125.0	500.4	203.6	65.8	50.9	54.0
TRANSPORTATION	113.0	46.0	109.1	440.0	176.4	56.9	44.0	47.0
COMMUNICATION	17.0	9.0	15.9	60.4	27.2	8.9	6.9	7.0
TRADE & DISTRIBUTION	102.0	46.0	85.5	327.0	200.0	54.0	40.7	39.0
OTHER BRANCHES	8.9	10.2	13.5	54.2	28.8	9.6	7.1	8.4
NONPRODUCTIVE BRANCHES	382.4	175.1	305.0	935.2	620.8	181.0	152.4	129.1
ECONOMY TOTAL	1251.0	670.0	1098.2	4232.2	2193.0	647.0	471.7	407.3

TABLE B.2
EMPLOYMENT IN BRANCHES OF INDUSTRY BY REPUBLIC FOR THE USSR IN 1966
(THOUSANDS OF EMPLOYEES)

	USSR	RSFSR	UKRAINE	MOLDAV	BELORUS	LATVIA	LITHUAN	ESTONIA
METALLURGY	1937.0	1205.5	498.8	.0	2.5	4.2	1.0	.0
FERROUS METALLURGY	1267.0	714.3	466.8	.0	2.5	4.2	1.0	.0
NONFERROUS METALLURGY	670.0	491.2	32.0	.0	.0	.0	.0	.0
FUELS	1579.0	781.7	605.6	.0	18.7	3.9	5.2	17.7
ELEC & THERM POWER	581.0	347.6	90.0	4.9	17.3	5.2	7.1	6.5
MACH BLDG & MET WRKNG	10398.0	7300.0	1834.0	42.2	290.0	123.5	104.6	47.9
CHEMICAL PRODUCTS	1346.0	949.0	214.0	2.9	29.0	19.9	12.1	4.3
WOOD & PAPER	2839.0	2192.3	300.0	14.4	101.2	48.3	38.3	23.1
CONSTRUCTION MATERIALS	1775.0	1020.7	371.0	20.9	57.7	17.7	26.2	13.2
GLASS & PORCELAIN	252.0	158.7	57.2	1.9	14.5	5.0	1.5	2.6
TEXTILES & APPAREL	4492.0	2757.6	649.0	54.7	184.1	79.2	82.8	58.4
FOOD PRODUCTS	2680.0	1523.9	565.0	50.7	95.4	46.4	48.5	31.5
INDUSTRY N.E.C.	634.1	391.0	106.4	7.0	31.5	11.2	12.1	8.4
INDUSTRY TOTAL	28513.1	18628.0	5291.0	199.6	841.9	364.5	339.4	213.6

	GEORGIA	ARMENIA	AZERB	KAZAKH	UZBEK	KIRGIZ	TADZHIK	TURKMEN
METALLURGY	27.9	8.3	16.0	137.7	24.6	6.8	3.7	.0
FERROUS METALLURGY	24.1	.3	10.7	40.2	2.9	.0	.0	.0
NONFERROUS METALLURGY	3.8	8.0	5.3	97.5	21.7	6.8	3.7	.0
FUELS	9.9	.0	42.1	64.0	11.3	10.4	2.7	5.8
ELEC & THERM POWER	9.2	5.1	9.1	48.0	17.1	5.0	3.5	5.4
MACH BLDG & MET WRKNG	70.2	69.4	66.1	214.0	153.6	50.2	19.2	13.1
CHEMICAL PRODUCTS	25.7	20.6	18.2	24.0	18.7	1.4	2.0	4.2
WOOD & PAPER	21.3	7.1	10.7	49.0	17.8	6.5	4.8	4.2
CONSTRUCTION MATERIALS	28.5	20.3	17.4	97.0	49.8	14.1	10.8	9.7
GLASS & PORCELAIN	2.0	1.2	2.4	1.0	2.2	.3	.3	1.2
TEXTILES & APPAREL	84.5	58.1	70.7	147.0	150.0	42.3	47.3	26.3
FOOD PRODUCTS	55.8	20.6	28.8	111.0	55.6	21.1	15.1	10.6
INDUSTRY N.E.C.	13.0	5.7	8.0	14.3	16.3	3.9	3.3	2.0
INDUSTRY TOTAL	348.0	216.4	289.5	907.0	517.0	162.0	112.7	82.5

TABLE R.3
AVERAGE MONTHLY WAGES IN MAJOR BRANCHES OF THE ECONOMY
BY REPUBLIC FOR THE USSR IN 1966 (RUBLES)

	USSR	RSFSR	UKRAINE	MOLDAV	RELOUS	LATVIA	LITHUAN	ESTONIA
INDUSTRY	107.8	109.1	109.1	85.9	90.8	105.9	101.8	112.1
CONSTRUCTION	116.2	119.2	106.2	89.2	99.0	115.9	110.3	124.3
CONSTRUCT-ASSEMBLY WORK	116.7	119.7	107.1	89.0	100.2	117.8	111.6	127.3
OTHER CONSTRUCTION	114.3	117.6	103.3	90.4	92.5	107.3	102.6	112.2
AGRICULTURE & FORESTRY	80.3	81.5	75.5	68.2	58.9	73.8	66.0	84.7
AGRICULTURE	80.4	81.5	75.6	68.4	58.3	73.8	66.1	84.8
SOVKHOZY & AUX AGR ENT	80.0	81.2	74.5	67.0	57.0	73.3	64.7	84.2
OTHER STATE AGRICUL	87.8	88.5	87.8	89.6	80.8	77.6	87.8	87.8
FORESTRY	78.0	81.2	74.5	64.8	68.3	73.3	64.7	84.0
TRANSPORT & COMMUNIC	106.1	110.5	96.0	91.0	92.4	109.0	100.9	109.8
TRANSPORTATION	110.5	115.3	99.2	93.5	96.4	114.4	105.4	115.2
COMMUNICATION	75.8	78.0	71.5	71.4	71.2	74.4	73.8	76.7
TRADE & DISTRIBUTION	79.7	81.8	74.8	76.8	76.6	85.0	81.5	89.3
OTHER BRANCHES	150.7	168.3	122.1	114.7	121.3	130.4	122.2	168.7
NONPRODUCTIVE BRANCHES	84.0	96.6	87.5	87.4	88.8	93.0	93.2	95.2
ECONOMY TOTAL	100.2	102.8	96.7	84.6	85.1	99.7	94.1	104.9

	GEORGIA	ARMENIA	AZERB	KAZAKH	UZBEK	KIRGIZ	TADZHIK	TURKMEN
INDUSTRY	97.4	104.8	98.5	112.5	97.5	102.4	96.5	104.0
CONSTRUCTION	115.4	124.0	119.6	122.0	121.5	111.9	120.4	137.7
CONSTRUCT-ASSEMBLY WORK	115.2	125.4	115.3	123.3	122.7	113.4	121.0	132.4
OTHER CONSTRUCTION	116.7	113.4	129.8	116.7	116.7	105.2	116.7	156.1
AGRICULTURE & FORESTRY	66.2	64.5	64.9	100.2	74.6	72.6	76.9	92.6
AGRICULTURE	66.0	64.6	64.9	100.5	74.7	72.5	76.9	92.6
SOVKHOZY & AUX AGR ENT	64.3	62.3	62.9	100.8	72.7	70.7	74.6	92.7
OTHER STATE AGRICUL	82.4	86.5	81.2	87.8	95.6	88.6	87.8	92.3
FORESTRY	69.1	62.3	62.9	78.0	72.7	77.2	74.6	92.7
TRANSPORT & COMMUNIC	89.1	98.0	97.6	108.8	103.3	99.2	105.8	116.6
TRANSPORTATION	91.8	102.6	101.3	113.8	108.2	103.2	110.5	121.6
COMMUNICATION	70.9	74.2	72.4	72.1	71.6	73.9	75.6	83.3
TRADE & DISTRIBUTION	73.2	77.8	72.5	78.2	77.2	77.6	83.5	83.9
OTHER BRANCHES	213.6	117.5	126.5	148.8	119.2	141.6	141.6	98.3
NONPRODUCTIVE BRANCHES	88.8	97.7	94.4	91.0	92.7	92.5	98.7	97.2
ECONOMY TOTAL	91.0	97.6	93.3	103.1	94.1	93.0	99.3	106.0

TABLE B.4
 AVERAGE MONTHLY WAGES IN BRANCHES OF INDUSTRY
 BY REPUBLIC FOR THE USSR IN 1966 (RUBLES)

	USSR	RSFSR	UKRAINE	MOLDAV	BELORUS	LATVIA	LITHUAN	ESTONIA
METALLURGY	142.3	149.9	121.2	.0	130.8	138.7	138.7	.0
FERROUS METALLURGY	139.8	136.8	121.5	.0	130.8	138.7	138.7	.0
NONFERROUS METALLURGY	164.0	169.0	117.5	.0	.0	.0	.0	.0
FUELS	174.6	181.9	177.3	.0	88.3	96.8	99.4	121.8
ELEC & THERM POWER	112.2	112.6	112.2	102.4	103.1	115.2	111.9	122.7
MACH BLDG & MET WRKNG	107.5	108.8	104.0	101.9	102.6	110.5	104.9	116.8
CHEMICAL PRODUCTS	111.4	113.7	101.9	110.7	111.4	106.9	112.7	118.1
WOOD & PAPER	104.9	104.8	116.8	85.8	86.4	102.9	94.8	107.5
CONSTRUCTION MATERIALS	105.4	105.3	102.5	93.8	94.4	107.8	105.6	115.3
GLASS & PORCELAIN	98.2	95.4	96.2	95.6	96.2	107.6	112.0	117.5
TEXTILES & APPAREL	82.5	82.6	80.4	77.0	77.5	92.6	87.7	97.5
FOOD PRODUCTS	93.4	98.3	83.9	76.7	77.2	116.7	120.9	128.6
INDUSTRY N.E.C.	92.1	96.9	80.9	77.8	78.7	98.4	93.8	99.2
INDUSTRY TOTAL	107.8	109.1	109.1	85.9	90.8	105.9	101.8	112.1

	GEORGIA	ARMENIA	AZERB	KAZAKH	UZBEK	KIRGIZ	TADZHIK	TURKMEN
METALLURGY	131.9	171.6	139.2	154.3	132.8	133.1	136.7	.0
FERROUS METALLURGY	130.8	137.9	130.8	130.8	130.8	.0	.0	.0
NONFERROUS METALLURGY	153.9	172.9	156.3	164.0	133.1	133.1	136.7	.0
FUELS	139.3	.0	108.3	174.6	135.9	151.6	147.3	152.7
ELEC & THERM POWER	105.1	118.3	106.9	113.2	111.0	109.8	113.7	117.9
MACH BLDG & MET WRKNG	98.1	106.9	100.4	108.4	106.8	107.3	109.8	113.8
CHEMICAL PRODUCTS	104.6	117.5	106.2	112.2	109.9	109.9	112.9	117.0
WOOD & PAPER	96.5	104.3	98.0	99.4	96.4	99.1	99.7	103.4
CONSTRUCTION MATERIALS	114.8	124.0	116.6	111.5	105.8	118.8	112.4	116.5
GLASS & PORCELAIN	90.2	101.4	91.6	96.2	95.4	95.4	98.0	101.6
TEXTILES & APPAREL	80.4	86.9	91.6	82.7	80.9	84.4	83.9	87.0
FOOD PRODUCTS	82.7	69.4	84.0	82.7	79.9	84.4	83.3	86.4
INDUSTRY N.E.C.	86.1	95.0	97.6	88.3	87.4	81.8	88.5	92.7
INDUSTRY TOTAL	97.0	104.8	94.5	112.6	97.5	102.4	96.5	104.0

TABLE R.5
TOTAL WAGE PAYMENTS TO MAJOR BRANCHES OF THE ECONOMY
BY REPUBLIC FOR THE USSR IN 1966 (MILLIONS OF RUBLES)

	USSR	RSFSR	UKRAINE	MOLDAV	BELOARUS	LATVIA	LITHUAN	ESTONIA
INDUSTRY	36884.5	24387.8	6927.0	205.7	917.3	463.2	414.6	287.3
CONSTRUCTION	10527.3	6493.8	1723.0	81.9	275.1	112.7	141.8	73.7
CONSTRUCT-ASSEMBLY WORK	8221.3	4443.5	1327.6	70.1	235.1	94.7	121.6	60.8
OTHER CONSTRUCTION	2302.9	150.7	395.4	11.8	40.1	18.0	20.1	12.9
AGRICULTURE & FORESTRY	8966.5	579.9	1083.3	65.3	307.2	84.5	115.9	68.9
AGRICULTURE	8584.0	436.3	1019.0	66.3	287.1	80.1	110.3	61.5
SOVKHOZY & AUX AGR ENT	8070.7	470.5	919.9	60.9	265.4	70.4	101.7	50.5
OTHER STATE AGRICUL	513.3	23.8	99.0	5.4	21.7	9.8	8.6	11.0
FORESTRY	382.4	24.6	64.4	3.0	4.4	4.4	5.6	7.5
TRANSPORT & COMMUNIC	10740.6	6815.9	1752.4	84.4	283.0	136.1	109.5	84.9
TRANSPORTATION	9764.4	6197.1	1602.3	76.7	248.8	123.6	98.0	76.6
COMMUNICATION	976.2	618.7	150.1	7.6	34.2	12.5	11.5	8.3
TRADE & DISTRIBUTION	5988.0	3646.6	1067.2	63.4	182.3	77.5	72.2	49.2
OTHER BRANCHES	1544.3	983.7	230.0	11.1	43.4	21.7	15.5	13.8
NONPRODUCTIVE BRANCHES	21197.2	13118.7	3431.4	215.2	611.8	230.0	245.6	138.0
ECONOMY TOTAL	95842.5	60425.4	16214.3	731.0	2620.1	1125.8	1115.0	715.9

	GEORGIA	ARMENIA	ATERRB	KAZAKH	UZBEK	KIRGIZ	TADZHIK	TURKMEN
INDUSTRY	406.7	272.1	342.2	1224.4	604.9	199.1	130.5	103.0
CONSTRUCTION	183.8	116.5	181.0	677.0	373.0	89.6	94.5	106.9
CONSTRUCT-ASSEMBLY WORK	157.2	103.8	122.7	546.0	303.6	74.8	79.9	80.1
OTHER CONSTRUCTION	26.6	12.7	58.3	130.8	69.5	14.8	14.6	26.8
AGRICULTURE & FORESTRY	116.7	68.9	119.6	1257.3	328.7	94.1	39.2	32.9
AGRICULTURE	110.1	66.6	117.3	1241.4	326.1	91.6	38.3	31.8
SOVKHOZY & AUX AGR ENT	97.2	58.3	101.1	1219.3	290.5	80.2	30.6	23.9
OTHER STATE AGRICUL	12.9	8.3	16.2	22.1	35.6	11.4	7.7	7.9
FORESTRY	6.6	2.2	2.3	15.9	2.6	2.5	.9	1.1
TRANSPORT & COMMUNIC	138.9	64.6	146.4	653.1	252.4	76.4	64.6	75.6
TRANSPORTATION	124.5	56.6	132.6	600.9	229.0	70.5	58.3	68.6
COMMUNICATION	14.5	8.0	13.8	52.3	23.4	7.9	6.3	7.0
TRADE & DISTRIBUTION	89.6	42.9	74.4	306.9	185.3	50.3	40.8	39.3
OTHER BRANCHES	22.8	14.4	20.5	96.8	41.2	9.7	12.1	9.9
NONPRODUCTIVE BRANCHES	407.5	205.3	345.5	1021.2	690.6	200.9	180.5	150.6
ECONOMY TOTAL	1366.1	784.7	1229.5	5236.1	2476.3	722.1	562.1	518.1

TABLE B.7
TOTAL SOCIAL SECURITY PAYMENTS IN MAJOR BRANCHES OF THE ECONOMY
BY REPUBLIC FOR THE USSR IN 1966 (MILLIONS OF RUBLES)

	USSR	RSFSR	UKRAINE	MOLDAV	RELOPUS	LATVIA	LITHUAN	ESTONIA
INDUSTRY	2654.5	1745.8	516.0	13.9	63.2	31.8	28.3	19.8
CONSTRUCTION	642.2	383.9	105.1	5.0	16.8	6.9	8.6	4.5
CONSTRUCT-ASSEMBLY WORK	501.5	295.5	81.0	4.3	14.3	5.8	7.4	3.7
OTHER CONSTRUCTION	140.5	88.5	24.1	.7	2.4	1.1	1.2	.8
AGRICULTURE & FORESTRY	394.5	227.9	47.7	3.0	13.5	3.7	5.1	3.0
AGRICULTURE	377.7	217.2	44.8	2.5	12.6	3.5	4.9	2.7
SOVKHOZY & AUX AGR ENT	355.1	206.8	40.5	2.7	11.7	3.1	4.5	2.2
OTHER STATE AGRICUL	22.6	10.4	4.4	.2	1.0	.4	.4	.5
FORESTRY	16.8	10.7	2.8	.1	.9	.2	.2	.3
TRANSPORT & COMMUNIC	569.3	361.2	92.9	4.5	15.0	7.2	5.8	4.5
TRANSPORTATION	517.5	328.4	84.9	4.1	13.2	6.5	5.2	4.1
COMMUNICATION	51.7	32.8	8.0	.4	1.8	.7	.6	.4
TRADE & DISTRIBUTION	269.5	164.1	48.0	2.9	8.2	3.5	3.2	2.2
OTHER BRANCHES	84.9	54.1	12.7	.6	2.4	1.2	.9	.8
NONPRODUCTIVE BRANCHES	1165.8	721.5	188.7	11.8	33.6	12.7	13.5	7.6
ECONOMY TOTAL	5780.7	3658.6	1011.1	41.7	152.7	66.9	65.5	42.4

	GEORGIA	ARMENIA	AZERR	KA7AKH	UZBEK	KIRGIZ	TADZHIK	TURKMEN
INDUSTRY	28.5	19.4	25.1	69.4	42.8	14.3	9.0	7.2
CONSTRUCTION	11.2	7.1	11.0	41.3	22.8	5.5	5.8	6.5
CONSTRUCT-ASSEMBLY WORK	9.6	6.3	7.5	33.3	18.5	4.6	4.9	4.9
OTHER CONSTRUCTION	1.6	.8	3.6	8.0	4.2	.9	.9	1.6
AGRICULTURE & FORESTRY	5.1	3.0	5.3	55.3	14.5	4.1	1.7	1.4
AGRICULTURE	4.8	2.9	5.2	54.6	14.3	4.0	1.7	1.4
SOVKHOZY & AUX AGR ENT	4.3	2.6	4.5	53.6	12.8	3.5	1.3	1.1
OTHER STATE AGRICUL	.6	.4	.7	1.0	1.6	.5	.3	.3
FORESTRY	.3	.1	.1	.7	.1	.1	.0	.0
TRANSPORT & COMMUNIC	7.4	3.4	7.8	34.6	13.4	4.2	3.4	4.0
TRANSPORTATION	6.6	3.0	7.0	31.8	12.1	3.7	3.1	3.6
COMMUNICATION	.8	.4	.7	2.8	1.2	.4	.3	.4
TRADE & DISTRIBUTION	4.0	1.9	3.3	13.8	8.3	2.3	1.8	1.8
OTHER BRANCHES	1.3	.8	1.1	5.3	2.3	.5	.7	.5
NONPRODUCTIVE BRANCHES	22.4	11.3	19.0	56.2	38.0	11.1	9.9	8.3
ECONOMY TOTAL	79.9	47.0	72.6	295.9	142.0	41.9	32.3	29.8

TABLE B.8
TOTAL SOCIAL SECURITY PAYMENTS IN BRANCHES OF INDUSTRY
BY REPUBLIC FOR THE USSR IN 1966 (MILLIONS OF RUBLES)

	USSR	RSFSR	UKRAINE	MOLDAV	BELORUS	LATVIA	LITHUAN	ESTONIA
METALLURGY	261.3	171.4	57.3	.0	.3	.6	.1	.0
FERROUS METALLURGY	157.1	92.6	53.8	.0	.3	.6	.1	.0
NONFERROUS METALLURGY	104.2	78.7	3.6	.0	.0	.0	.0	.0
FUELS	294.4	151.8	114.7	.0	1.8	.4	.5	2.3
ELEC & THERM POWER	51.6	31.0	8.0	.4	1.4	.5	.6	.6
MACH BLDG & MET WRKNG	1033.8	733.9	176.2	4.0	27.5	12.6	10.1	5.2
CHEMICAL PRODUCTS	151.1	108.8	22.0	.3	3.3	2.1	1.4	.5
WOOD & PAPER	168.0	129.6	19.8	.7	4.9	2.8	2.0	1.4
CONSTRUCTION MATERIALS	136.9	78.7	27.8	1.4	4.0	1.4	2.0	1.1
GLASS & PORCELAIN	17.7	11.1	4.0	.1	1.0	.4	.1	.2
TEXTILES & APPAREL	302.4	186.0	42.6	3.4	11.6	6.0	5.9	4.6
FOOD PRODUCTS	204.3	122.3	38.7	3.2	6.0	4.4	4.8	3.3
INDUSTRY N.E.C.	32.9	21.4	4.9	.3	1.4	.6	.6	.5
INDUSTRY TOTAL	2654.5	1745.8	516.0	13.9	63.2	31.8	28.3	19.8
METALLURGY	3.5	1.4	2.1	20.1	3.1	.9	.5	.0
FERROUS METALLURGY	3.0	.0	1.3	5.0	.4	.0	.0	.0
NONFERROUS METALLURGY	.6	1.3	.8	15.2	2.7	.9	.5	.0
FUELS	1.5	.0	4.9	11.9	1.6	1.7	.4	.9
ELEC & THERM POWER	.8	.5	.8	4.3	1.5	.4	.3	.5
MACH BLDG & MET WRKNG	6.4	6.9	6.1	21.4	15.2	5.0	1.9	1.4
CHEMICAL PRODUCTS	2.7	2.4	1.9	2.7	2.1	.2	.2	.5
WOOD & PAPER	1.2	.4	.6	2.7	1.0	.4	.3	.2
CONSTRUCTION MATERIALS	2.4	1.8	1.5	7.9	3.9	1.2	.9	.8
GLASS & PORCELAIN	.1	.1	.2	.1	.2	.0	.0	.1
TEXTILES & APPAREL	5.5	4.1	4.7	9.9	9.9	2.9	3.2	1.9
FOOD PRODUCTS	3.8	1.5	2.0	7.5	3.6	1.5	1.0	.7
INDUSTRY N.E.C.	.6	.3	.4	.7	.8	.2	.2	.1
INDUSTRY TOTAL	28.5	19.4	25.1	89.4	42.8	24.3	9.0	7.2
	GEORGIA	ARMENIA	AZERB	KAZAKH	UZBEK	KIRGIZ	TADZHIK	TURKMEN

TABLE B.9
TOTAL EMPLOYMENT IN AGRICULTURE BY REPUBLIC FOR THE USSR IN 1966
(THOUSANDS OF EMPLOYEES)

	AGRICULTURE TOTAL	SOVKHOZY & AUX AGR ENT	OTHER STATE AGRICULTURE	KOLKHOZY	PRIVATE AGRICULTURE
RSFSR	15063.0	4824.0	222.0	7197.0	2820.0
UKRAINE	8535.0	1029.0	94.0	5982.0	1430.0
MOLDAVIA	859.8	75.8	5.0	691.0	88.0
BELORUSSIA	1939.4	388.0	22.4	1132.0	397.0
LATVIA	354.5	80.0	10.5	179.0	85.0
LITHUANIA	635.2	131.0	8.2	326.0	170.0
ESTONIA	171.4	50.0	10.4	70.0	41.0
GEORGIA	741.0	126.0	13.0	441.0	161.0
ARMENIA	252.0	78.0	8.0	119.0	47.0
AZERBAIDZHAN	590.6	134.0	16.6	316.0	124.0
KAZAKHSTAN	1618.0	1008.0	21.0	296.0	293.0
LZBEKISTAN	1558.0	333.0	71.0	992.0	202.0
KIRGIZSTAN	382.2	94.5	10.7	217.0	60.0
TADZHIKISTAN	485.5	34.2	7.3	379.0	65.0
TURKMENISTAN	286.6	21.5	7.1	221.0	37.0
USSR	33372.2	8407.0	427.2	18458.0	6020.0

Notes to Table B.1

all citations to 1966 new classification data unless otherwise noted.

RSFSR: NK RSFSR v 1968, p. 326.

Ukraine: NH Uk RSR v 1968, p. 413.

Moldavia: NK MSSR, 1971, pp. 161-162.

Belorussia: NK BSSR v 1970, pp. 227-228.

Latvia: 1965 and 1966 old classification, Trud, p. 61

1965 new classification, La SSR v tsifrakh v 1968, p. 285.

Lithuania Ekon i kult Li SSR v 1970, pp. 266-267.

Estonia: NK ESSR v 1968, p. 162.

Georgia 1965 and 1966 old classification Trud, p. 53.

1965 new classification. 50 let Sov. Gruzii, 1971, p. 219.

Armenia: Trud Armianskoj SSR 1970, p. 23.

Azerbaidzhan: Azerb SSR v tsifrakh v 1968, p. 72.

Kazakhstan. 1965 and 1966 old classification and old boundaries,

Trud, p. 51.

1965 new classification and new boundaries, NK Ka SSR v 1971,

pp. 236-237.

Uzbekistan: 1965 and 1966 old boundaries and new classification,

NK Uz SSR v 1969, p. 211.

1965 new classification and new boundaries NK Uz SSR v 1971.

p. 223.

Kirgizstan: 1965 and 1966 old classification, Trud, p. 63.

1965 new classification, NK K1 SSR v 1972, pp. 149-150.

Tadzhikistan: NK Ta SSR v 1969, p. 161.

Turkmenistan: 1965 and 1966 old classification. Trud, p. 69.

1965 new classification Turk za 50 let, 1974, p. 128.

Notes to Table B.2

RSFSR initial estimates (except 'Nonferrous Metallurgy,' 'Power' and 'Glass and Porcelain') from

1965 old classification rabochii, Trud p. 91.

1965 new classification total employment NK RSFSR v 1972 p. 79.

1965 new classification rabochii, NK RSFSR v 1969 p. 47.

The use of 1965 ratios of number of rabochii to total employment apparently results in underestimation of total employment for some branches in 1966 since for the USSR as a whole the ratio of rabochii to total employment declined slightly from 1965 to 1966 (in particular for 'Machine Building and Metal Working,' 'Wood and Paper' and 'Construction Materials'). The initial estimates for these branches were increased by the amount of the residual remaining (USSR total less the sum of republics) after employment in all other republics had been estimated.

'Nonferrous Metallurgy': calculated as a residual after employment in all other republics had been estimated. USSR employment in 'Nonferrous Metallurgy' estimated from published capital/labor ratio (Pervushin, 1970, p. 313) and estimated capital stock in 'Nonferrous Metallurgy' in 1966 USSR input-output table.

'Power': from 1965 employment (Trud, p. 91) and estimated employment growth in 1966.

'Glass and Porcelain': see text.

Ukraine: 1966 new classification total employment, NH UkrSR v 1968, p. 93.

excepts: 'Nonferrous Metallurgy,' 'Power,' and 'Chemical Products' employment in 1970 estimated from shares of industrial employment (V. A. Popovkin, 1975, p. 131). Growth rates of total

employment 1967/1966 estimated from NH UkPSR v 1970, pp. 70, 104, 115-116. (Industry average growth used for 'Nonferrous Metallurgy.')

'Ferrous Metallurgy,' and 'Fuels': Trud, p. 93.

'Glass and Porcelain': see above.

Moldavia: 1966 new classification total employment, NK MSSR, 1969, p. 43

Belorussia: 1965 new classification rabochii, NK BSSR v 1971, p. 41.

1965 new classification total employment, NK BSSR v 1971, p. 41.

1966 new classification rabochii, NK BSSR v 1968, p. 75.

except: 'Ferrous Metallurgy' and 'Chemical Products' employment in 1965 estimated from shares of industrial employment (Nekrasov, 1976, p. 271). Growth of employment in 1966 estimated from NK BSSR v 1968, pp. 47, 77. (Industry average used for 'Ferrous Metallurgy.')

'Glass and Porcelain': see text.

Latvia: 1969 new classification total employment, La SSR v tsifrah v 1969, pp. 69, 90-91 (from percentage breakdown and published total).

estimated growth of employment from 1966 to 1969: Ibid. pp. 81-82, 100-101.

Lithuania: 1966 new classification total employment. Ekon i kult Li SSR v 1970, p. 100.

except: 'Chemical Products,' Promyshlennost' Litovskoi SSR, 1973, p. 129.

Estonia: 1968 new classification (?), total employment, A. B. Margolin, 1970, p. 13 (from percentage breakdown and published total). Growth of number of workers 1966 to 1968, NK ESSR v 1969, p. 73.

except: 'Chemical Products' from share in total employment in 1965 (D. M. Pinkhenson, 1970, p. 118) and growth of employment in 1966

from NK ESSR v 1969, p. 73.

1965 old classification total employment, Trud, p. 101.

1965 new classification total employment, 50 let Sovetskoi Gruzii,
1971, p. 94.

1966 old classification total employment, Trud, p. 101.

except: 'Chemical Products' from 1965 employment (50 let Sovetskoi Gruzii, 1971, p. 94) and estimated employment growth in 1966.

'Nonferrous Metallurgy': For the Transcaucasus economic region, employment in 'Nonferrous Metallurgy' was 2.4 % of total industrial employment in 1970 (A. A. Adamesku, 1973, p. 83). 'Nonferrous Metallurgy' employment in 1966 was estimated on the assumption that it accounted for 2% of industrial employment. Estimated employment for the sectors in Azerbaidzhan (see below) was subtracted, and the remaining amount was allocated to Georgia and Armenia proportionally to their relative shares of gross output of 'Nonferrous Metallurgy' in 1966 based on estimates from 1966 input-output data.

Armenia: 1966 new classification total employment, NK Ar SSR v 1968, p. 49.

except: 'Nonferrous metallurgy,' see the description of 'Nonferrous Metallurgy' for Georgia above.

'Chemical Products': residual, USSR less sum of republics.

Azerbaidzhan: 1966 new classification total employment, NK Az SSR v 1970, p. 44.

except: 'Chemical Products' and 'Nonferrous Metallurgy' number of rabochii in 1965 from shares of industrial total (Pinkhensen, 1970, p. 120). 'Chemical Products' employment calculated from estimated employment growth in 1966 and USSR ratio of rabochii to total employment. 'Nonferrous Metallurgy' total employment calculated from industry average growth of employment in 1966 for Azerbaidzhan

and USSR ratio of rabochii to total employment in 'Ferrous Metallurgy.'

Kazakhstan: 1970 new classification total employment, Checheleva, 1974, p. 68 (from percentage breakdown of published total employment after the gain of territory from Uzbekistan). Rates of employment growth 1966 to 1970 were estimated from NK Ka SSR v 1972, pp. 86, 90, 93-98, 101-103, 109, 126 and NK Ka SSR v 1968, pp. 20-21, 29-30.

except: 'Nonferrous metallurgy,' number of rabochii in 1966 estimated from the quantity of electrical power consumed in 'Nonferrous Metallurgy' and the ratio of electric power consumption per worker (Baimuratov, 1973, pp. 14-15). Total employment estimated using Kazakhstan ratio of rabochii to total employment in 'Ferrous Metallurgy' in 1966.

Uzbekistan: 1965 and 1966 new classification total employment according to old boundaries, NK Uz SSR v 1969, p. 44.

1965 new classification total employment according to new boundaries, NK Uz SSR v 1971, p. 46.

except: 'Glass and Porcelain' and 'Nonferrous Metallurgy' from employment in 1965 (NK Uz SSR v 1971, p. 46) and Uzbekistan industry average growth of employment in 1966.

Kirgizstan: 1965 and 1966 old classification total employment, Trud, p. 111.

1965 new classification total employment, Kirgizstan za gody Sovetskoi vlasti, 1970, p. 102.

except: 'Nonferrous Metallurgy': Total employment in 'Metallurgy' in the Central Asian region in 1965 was 4.0% of industrial employment in the region (Pinkhenson, 1970, p. 125). This percentage was

applied to the total employment of the four republics in 1966 to estimate employment in 'Metallurgy.' Employment in 'Metallurgy' in Uzbekistan subtracted from this value gives an estimate of the combined employment in 'Nonferrous Metallurgy' in Kirgizstan and Tadzhikistan. (Employment in all 'Metallurgy' in Turkmenistan and in 'Ferrous Metallurgy' in Kirgizstan and Tadzhikistan was assumed to be negligible.) This combined employment figure was distributed to the two republics proportionally to the gross output of 'Nonferrous Metallurgy' in each republic in 1966 based on data from their input-output tables.

'Chemical Products': Employment in 'Chemical Products' for both Kirgizstan and Tadzhikistan was estimated on the assumption that the labor/output ratio was the same for each of these republics as for Turkmenistan in 1966 (based on gross output data from input-output tables).

'Glass and Porcelain': Employment in 'Glass and Porcelain' in the Central Asian region was 0.5% of industrial employment in the region in 1965 (Pinkhenson, 1970, p. 125). This percentage was applied to industrial employment for the region in 1966, and the estimates of employment in 'Glass and Porcelain' in the other three Central Asian republics were subtracted.

Tadzhikistan: 1965 and 1966 old classification total employment. Trud, p. 113.

1965 new classification total employment. NK Ta SSR v 1972, pp. 62-63.

except: 'Nonferrous Metallurgy' and 'Chemical Products.' see Kirgizstan.

'Glass and Porcelain': accounted for 0.33% of industrial employment in 1967 (Tadzhikistan: ekonomicheskii rost i effektivnost, 1972, p. 28). This percentage was used to estimate employment in 1966.

Turkmenistan: 1965 and 1966 old classification total employment, Trud,

p. 117

1965 new classification total employment, NK Tu SSR v 1974,

p. 43.

except: 'Fuels' and 'Chemical Products,' shares of
employment in 1965 (NK Tu SSR v 1974, p. 43) applied to
1966 industry total.

Notes to Table B.3

all citations for 1966 wages unless otherwise noted.

RSFSR: NK RSFSR v 1968, p. 329.

Ukraine: NK UkrSR v 1968, p. 420.

Moldavia: NK MSSR, 1971, p. 166-167.

Belorussia: NK BSSR v 1970, p. 230.

Latvia: Lat SSR v tsifrakh v 1968, p. 313.

Lithuania: Ekon i kult Li SSR v 1970, pp. 271-272.

Estonia: NK ESSR v 1968, p. 165.

Georgia: NK GSSR v 1967, p. 208 (old classification: adjusted slightly using ratio of new:old classification wages for 1967: new classification wages: Sov Gruz po Lenin. puti, 1970, p. 121).

Armenia: Trud v Armianskoi SSR, 1970, pp. 72-73.

Azerbaijan: NK Az SSR v 1970, p. 226.

Kazakhstan: derived from residual wage payments for the USSR as a whole: see text: 1966 economy average wage: NK Ka SSR v 1971, p. 242.

Uzbekistan: NK Uz SSR v 1969, p. 214 (old boundaries; adjusted slightly for boundary change using ratio of new:old boundary wages for 1965: new boundary wages: NK Uz SSR v 1971, p. 227).

Kirgizstan: NK Ki SSR v 1972, pp. 153-154 (1965 wages relative to 1965 USSR wages applied to 1966 USSR wages: see text).

Tadzhikistan: NK Ta SSR v 1969, p. 188.

Turkmenistan: Turkmen sa 50 let, 1974, pp. 130-131 (1965 wages relative to 1965 USSR wages applied to 1966 USSR wages: see text).

USSR: NK SSSR v 1968, pp. 555-556.

Notes to Table B.4

USSR: average wages calculated from Vestnik statistiki, 1971, No. 4, pp. 87-88:

except: 'Nonferrous Metallurgy': Kostinkov, 1976, p. 67.

'Fuels': calculated as a weighted average of estimated wages in individual sectors: 'Coal' from Vestnik statistiki, 1971, No. 4,

pp. 87-88; other sectors: employment from Rapawy, 1976, p. 31;

wages from coefficients of relative wages in Gomberg 1972, p. 62.

'Industry N.E.C.': calculated from the residual value of wages in industry (total industrial wages less wages paid in all other branches) and employment in 'Industry N.E.C.'

RSFSR: derived as a residual after wages in all other republics had been estimated for each branch, total wages paid in the RSFSR were calculated by subtracting the sum of wages paid in that branch in all other republics from the USSR total. This residual value of wages paid in the USSR was then divided by employment in that branch in the RSFSR.

Ukraine: Relative wage coefficients (branch wage as a percentage of 'Industry' average wage) were derived by weighting Loginov coefficients for the three economic regions within the republic by shares of each region in gross output for the branch in 1965 (Granik and Gromov, 1970, pp. 101-102);

except: 'Power' and 'Glass and Porcelain': USSR average wages used.

'Industry N.E.C.': derived from residual value of industrial wage payments.

Moldavia: For each branch, the ratio of branch wage to 'Industry' average wage in Belorussia was applied to 'Industry' average wage in Moldavia.

Belorussia: estimated from relative wages (ratio of branch wage to

'Industry' average) in 1965, (NK BSSR v 1971, p. 42), except:

'Ferrous Metalurgy,' 'Chemical Products,' and 'Glass and Porcelain':

USSR average wage used.

'Industrial N.E.C.': derived from residual value of industrial wage payments.

Latvia: estimated from relative wages in 1965 (NK La SSR, 1973, p. 308),

except: 'Industry N.E.C.': derived from residual value of industrial wage payments.

Lithuania: 1966 wages from Ekon i kult Li SSR, 1973, pp. 69, 103, 118,

134, 170, 194, 220, 234, 274, 320, except:

'Ferrous Metalurgy': equal to wages in 'Ferrous Metallurgy' in Latvia in 1966.

'Industry N.E.C.' derived from residual value of industrial wage payments.

Estonia: weighted average wages by branch for Latvia plus Lithuania used

to calculate relative wage coefficients (ratio of branch wage to

'Industry' average), which were applied to Estonia 'Industry' average wage.

Georgia: relative wages in Armenia applied to 'Industry' average wage in

Georgia.

Armenia: 1966 wages from Trud v Armianskoi SSR, 1970, pp. 74-75, except

'Nonferrous Metallurgy,' 'Ferrous Metallurgy,' 'Power,' 'Chemical Products,' 'Glass and Porcelain' and 'Industry N.E.C.' Wages in

these branches were estimated using coefficients of relative wages of the corresponding branches for the USSR as a whole.

Azerbaidzhan: relative wages in Armenia applied to 'Industry' average wage

in Azerbaidzhan.

Kazakhstan: USSR average wages used for 'Nonferrous Metallurgy,' 'Ferrous

Metallurgy,' and 'Fuels.' Wages in all other branches estimated using coefficients of relative wages for Central Asian republics combined.

Uzbekistan: estimated from relative wages for the republic in 1965

(NK Uz SSR v 1974, p. 65):

except: 'Industry N.E.C.': derived from residual value of industrial wage payments.

Kirgizstan: estimated from relative wages for the republic in 1970

(NK K1 SSR v 1975, p. 66):

except: 'Nonferrous Metallurgy,' 'Chemical Products,' 'Glass and Porcelain,' and 'Industry N.E.C.' wages for corresponding branch in Uzbekistan used.

'Industry N.E.C.': derived from residual value of industrial wage payments.

Tadzhikistan and Turkmenistan: weighted average wages by branch for

Uzbekistan plus Kirgizstan used to calculate relative wage coefficients

(ratio of branch wage to 'Industry' average) which were applied to

'Industry' average wage in each republic.

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