

AD-A093 016

DEPARTMENT OF STATE WASHINGTON DC OFFICE OF EXTERNAL--ETC F/G 5/9
SIBIRIAN MANPOWER: IMPLICATIONS FOR ENERGY DEVELOPMENT. (U)
DEC 79 D E POWELL

UNCLASSIFIED

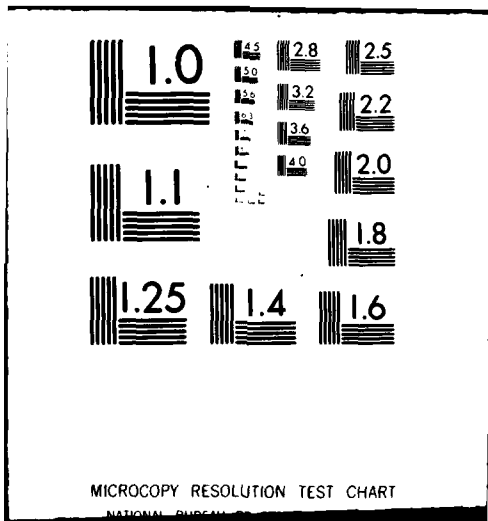
FAR-30009

NL

2 of 2
AD-A
101 .



END
DATE
FILMED
-81
DTIC



MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS-1963-A

Table 4

Changes in the Size of the Rural Population of Economic Regions of the RSFSR, 1939-1974 (in thousands)

	1939	1959	1970	1974	1959 as % of 1939	1970 as % of 1959	1974 as % of 1970
USSR	130,269	108,849	105,729	101,280	83.6	97.1	95.8
RSFSR	72,081	55,923	49,098	44,682	77.6	87.8	91.0
North-West Region	5,808	3,842	3,244	2,953	66.2	84.4	91.0
Central Region	15,661	10,341	7,949	7,008	66.6	76.2	88.2
Volga-Viatskii Region	6,917	5,036	3,936	3,481	72.8	78.1	88.4
Central-Black Earth Region	7,860	5,652	4,784	4,188	71.9	84.7	87.6
Volga Region	11,518	8,627	7,892	7,150	74.9	91.5	90.6
North Caucasus Region	7,255	6,640	7,175	7,050	91.5	108.0	98.2
Urals Region	6,085	5,321	4,745	4,186	87.5	89.2	88.1
Western Siberian Region	6,346	5,528	4,678	4,220	87.1	84.6	90.2
Eastern Siberian Region	3,040	3,060	2,851	2,632	100.6	93.2	92.3
Far Eastern Region	1,591	1,569	1,648	1,626	98.6	105.1	98.6

Source: E. D. Malinin and A. K. Ushakov, Naselenie Sibiri (Moscow, 1976), p. 20.

Table 5

Birth Rates in Different Economic Regions of the RSFSR, 1960-1974

(Number of Live Births per 1,000 Population)

	1960	1965	1970	1972	1974
USSR	24.9	18.4	17.4	17.8	18.0
RSFSR	23.2	15.7	14.6	15.3	15.6
North-West Region	20.5	14.4	13.5	14.5	14.8
Central Region	18.4	12.6	12.4	13.0	13.1
Volga-Viatskii Region	24.5	15.8	14.3	14.5	14.6
Central-Black Earth Region	21.8	14.1	12.6	12.7	12.8
Volga Region	25.6	17.7	15.1	15.5	15.6
North Caucasus Region	24.0	18.0	16.3	16.6	16.7
Urals Region	25.1	16.2	15.3	16.1	16.9
Western Siberian Region	26.7	16.3	15.2	16.8	17.5
Eastern Siberian Region	27.7	18.4	17.5	18.4	19.2
Far Eastern Region	25.0	17.9	17.8	18.7	18.6

Source: E. D. Malinin and A. K. Ushakov, Naselenie Sibiri (Moscow, 1976), p. 22.

Table 6

Population of the RSFSR, Western Siberia and Eastern Siberia, by Age,
1959-1970

Age Group	RSFSR		Western Siberia		Eastern Siberia	
	1959	1970	1959	1970	1959	1970
0-9	22.0	16.4	25.0	17.4	25.8	18.8
10-19	14.8	19.6	15.3	21.8	15.5	22.2
20-29	14.9	12.9	19.9	13.1	20.5	14.6
30-39	11.4	16.3	14.9	16.2	14.8	16.6
40-49	9.2	13.6	10.1	13.3	10.0	12.2
50-59	8.9	9.3	7.4	8.4	6.9	7.6
60 and over	100.0	11.9	7.4	9.8	6.5	8.0
Total		100.0	100.0	100.0	100.0	100.0

Source: E. D. Malinin and A. K. Ushakov, Naselenie Sibiri (Moscow, 1976), p. 32.

Table 7
Population Loss From Siberia Through Out-Migration, 1961-1973
(in thousands)

	1961-1965	1966-1967	1971-1973	1961-1973
Siberia	-285	-612	-123	-1,020
Western Siberia	-264	-495	-113	- 872
Eastern Siberia	- 21	-117	- 10	- 148

Note: Loss through out-migration is defined as the difference between the natural increase of the population and the actual increase.

Source: E. D. Malinin and A. K. Ushakov, Naselenie Sibiri (Moscow, 1976), p. 42.

TABLE 8

Motives for Coming to a Developing Region Cited by People Coming Through Various Forms of Resettlement

<u>Motives for coming</u>	<u>Number of responses</u>		<u>% of number questioned who came</u>			
		<u>% of those questioned*</u>	<u>On their own</u>	<u>Through organized recruitment</u>	<u>On assignment</u>	<u>Through departmental job transfer</u>
Desire to do good for others, sense of duty	46	3.3	2.8	2.6	2.7	6.5
Desire for adventure	106	7.7	6.9	10.5	15.1	8.0
Desire for creative, interesting work	75	5.4	4.2	6.6	12.3	9.0
Desire for higher pay	666	48.5	53.9	39.5	11.9	37.8
Desire to improve living conditions	165	12.0	12.8	15.8	6.8	8.0
Desire for family happiness	45	3.3	3.8	2.6	-	1.5
Desire for a change	200	14.6	14.6	23.7	4.1	14.4
Family circumstances	307	22.3	25.5	15.8	8.2	13.9
Other motives	283	20.6	17.8	18.4	28.8	32.8
Number of responses	1,893		1,459	103	66	265
Number of respondents who arrived after 1962	1,374		1,024	76	73	201

*Sum does not equal 100%, since those questioned could give up to three motives for coming.

Source: Sotsiologicheskie Issledovaniia, No. 2 (1976).

TABLE 9

Potential Migrants' Motives for Leaving

<u>Motives for leaving</u>	<u>Number of responses</u>		<u>% of potential migrants among those who came</u>			
		<u>% of potential migrants*</u>	<u>On their own</u>	<u>Through organized recruitment</u>	<u>On assignment</u>	<u>Through part-mental job transfer</u>
Unsatisfactory climate	115	17.2	17.8	13.6	6.4	21. .
Pay too low	123	18.4	19.4	22.7	4.2	18.3
Inadequate housing	306	45.8	50.0	34.1	27.6	38.7
Inadequate cultural and everyday services	233	34.9	33.5	31.8	51.1	35.5
Inadequate availability of foodstuffs and manufactured goods	256	38.3	36.2	61.4	23.4	46.2
Educational reasons	28	4.2	1.0	31.8	6.4	6.4
Lack of appropriate work for other family members	18	2.7	2.9	4.5	4.2	
Dismissed from enterprises	16	2.4	1.6	13.6	4.2	
Other motives	232	34.7	33.7	29.5	42.6	38.7
Number of responses	1,322		944	107	80	191

*Sum does not equal 100%, since those questioned could give up to three motives for leaving.

Source: Sotsiologicheskie Issledovania, (1976).

FOOTNOTES

1. Sovetskaya Rossiya, April 2, 1974, p.2.
2. Keith Bush, "The Infrastructure of Siberia," Exploitation of Siberia's Natural Resources, Main Findings of Round Table held 30th January - 1st February 1974 in Brussels (Brussels, 1974), p. 61. For an earlier discussion of Siberia's labor resources problem, see S. Prociuk, "The Manpower Problem in Siberia," Soviet Studies, Vol. XIX, No. 2 (October, 1967), pp. 190-210.
3. E. D. Malinin and A. K. Ushakov, Naselenie Sibiri (Moscow, 1976), p.6.
4. See, e.g., D.W. Treadgold, The Great Siberian Migration (Princeton, N.J.: Princeton University Press, 1957) and V.V. Vorob'yev, "The Settling of Eastern Siberia Before the Revolution," translated in Soviet Geography, Vol. XVI, No. 2 (February, 1975), pp. 75-85.
5. Violet Conolly, Siberia Today and Tomorrow (London: Collins, 1975), p. 176.
6. V. V. Vorob'yev, "The Population Dynamics of East Siberia and Problems of Prediction," translated in Soviet Geography, Vol. XVI, No. 9 (November, 1975), pp. 584-585.
7. Ibid, p. 585; Malinin and Ushakov, op. cit., pp. 14, 15.
8. Malinin and Ushakov, op. cit., p. 14.
9. Voprosy ekonomiki, No. 5 (1977), pp. 35-46.
10. Malinin and Ushakov, op. cit., pp. 8-9.
11. Ibid, pp. 16-17.
12. Ibid, pp. 17-18.
13. The following discussion is based on ibid, pp. 18-21.
14. This discussion of birth rates in Siberia is based on ibid, pp. 22-27.
15. The following three paragraphs are based on ibid, pp. 28-31.
16. The following materials on the age structure of the population of Siberia are based on ibid, pp. 31-37.
17. These two paragraphs are based on ibid, pp. 37-38.

18. Conolly, op. cit., p. 130.
19. Ibid, pp. 130-131.
20. See Paul E. Lydolph, Geography of the USSR, third edition (New York: John Wiley & Sons, 1977), pp. 380 and 448.
21. Ibid, p. 380.
22. Ibid, pp. 409 and 447-450.
23. K. Marx and F. Engels, Manifesto of the Communist Party (Moscow: Foreign Languages Publishing House, 1940), p. 6.
24. Conolly, op. cit., p. 131.
25. Pravda, October 27, 1978, p. 2 and September 1, 1978, p. 2.
26. Christian Science Monitor, April 12, 1979. Actually, David K. Willis, a staff correspondent of the Monitor, uses a figure of 38%, even though he acknowledges that this is an estimate.
27. Izvestia, November 14, 1978, p. 2.
28. Pravda, July 5, 1978, p. 3.
29. Ibid.
30. Pravda, October 27, 1978, p. 2. Three years earlier, another source acknowledged that, "A key problem in the development of the BAM zone will be the expansion of crop production to provide food products to the growing population." O. A. Kibal'chich, "The Baykal-Amur Mainline and the Integrated Economic Development of the Eastern Regions of the USSR," translated in Soviet Geography, Vol. XVII, No. 6 (June, 1976), p. 392.
31. Pravda, February 18, 1977, p. 1.
32. Malaja Sovetskaja Entsiklopedia, 3rd edition (Moscow, 1958), volume 1, column 804.
33. Pravda, July 5, 1978, p. 3.
34. Pravda, October 27, 1978, p. 2.
35. John M. Kramer, "Soviet Policy Towards the Automobile," Survey, Vol. 22, No. 2 (99), Spring, 1976, p. 25.
36. Voprosy ekonomiki, No. 5 (1978), pp. 78-88 and No. 11 (1978), p. 138.
37. Pravda, August 30, 1978, p. 1.
38. Ibid.

39. Ibid.

40. Pravda, October 26, 1978, p. 3.

41. Ibid.

42. Pravda, December 20, 1978, p. 2.

43. Recognizing the reluctance of officials to contribute more to Siberia's agricultural development, unscrupulous (but clever) individuals with access to farm products sometimes try to capitalize on existing shortages. For a description of one effort to smuggle a railroad box-car full of apples from Soviet Georgia to Siberia, as well as an acknowledgment of other illegal attempts to ship farm produce "at speculative prices," see Zaria vostoka, September 21, 1978, p. 4.

44. Literaturnaiia gazeta, August 30, 1978, p. 10.

45. Izvestiia, July 8, 1978, p. 6. A New York Times reporter who recently visited Yakutia reported that fresh meat is brought in by helicopter to the geologists working in the northern part of the province. While noting "the lack of fresh vegetables and fruits and the absence of milk," he nonetheless stated that food stores in the northern settlement he visited were "well stocked, even by Moscow standards." If this report is, in fact, accurate, it would be extraordinary. One suspects, however, that he was taken to a "Potemkin grocery store." See New York Times, April 9, 1979, p. A8.

46. Izvestiia, December 8, 1977, p. 5. Inadequate heating and insulation leads to another problem as well: water vapor condenses on the cold inner surfaces of roofs and walls, and sooner or later -- sooner, one would imagine, given the climatic conditions that prevail in this region -- produces structural damage.

47. Pravda, May 22, 1978, p. 3.

48. Ibid. The greenhouse was hooked up to a mobile heat source, although everyone was aware that this involved higher costs.

49. V. I. Perevedentsev, Migratsiia naseleniia i trudovye problemy Sibiri (Novosibirsk, 1966), p. 165.

50. Robert N. North, "The Soviet Far East: New Centre of Attention in the USSR," Pacific Affairs, Vol. 51, No. 2 (Summer, 1978), pp. 208, 209.

51. Pravda, September 1, 1978, p. 2; Lydolph, op. cit., pp. 409-410 and 419.

52. Pravda, September 1, 1978, p. 2.

53. Conolly, op. cit., p. 130.

54. Pravda, October 27, 1978, p. 2.

55. Izvestia, July 8, 1978, p. 6.
56. Malinin and Ushakov, op. cit., p. 41.
57. See Theodore Shabad, "News Notes," Soviet Geography, Vol. XVI, No. 7 (September, 1975), p. 472. Earlier population losses from Siberia included many who had been deported, exiled or imprisoned during the Stalin era. See Prociuk, op. cit., pp. 195-196.
58. Malinin and Ushakov, op. cit., p. 42.
59. Shabad, op. cit., pp. 471, 472. The Far East was the only Asian region of the RSFSR in which the natural increase in rural areas (17.3% of the 1959 population) exceeded net out-migration from the rural areas (12.2%). Ibid, p. 469.
60. This discussion draws extensively on my earlier study, "The Rural Exodus," Problems of Communism, Vol. XXIII, No. 6 (November-December, 1974), pp. 1-13.
61. Literaturnaiia gazeta, July 23, 1966.
62. Ibid.
63. Voprosy ekonomiki, No. 5 (1972).
64. Malinin and Ushakov, op. cit., pp. 45-46.
65. Bush, op. cit., p. 65.
66. Paul Dibb, Siberia and the Pacific (New York: Praeger Publishers, 1972), p. 171.
67. Ibid, p. 172.
68. Kommunist, No. 3 (1965), cited in Violet Conolly, Beyond the Urals (London: Oxford University Press, 1967), p. 251.
69. Conolly, Beyond the Urals, op. cit., p. 251. Significant numbers of skilled workers and engineers trained in Siberia or the Far East leave the area after completion of their studies. This, of course, only adds to the problem. See, e.g., Izvestia, November 19, 1977, p.2.
70. Conolly, Siberia Today and Tomorrow, op. cit., p. 179.
71. Bush, op. cit., p. 65.
72. Conolly, Siberia Today and Tomorrow, op. cit., p. 179.
73. The relevant legislation was adopted in 1967 but was not put into force until 1968.
74. Ibid, p. 180; Nerth, op. cit., p. 198.

75. Voprosy ekonomiki, No. 1 (1973).

76. Ibid. Others have suggested that the difference between maintenance costs for those living in the North and those in the nation's central regions is even greater. See, e. g., Izvestiia, February 28, 1978, p. 2. Because of the severe climate in the Soviet North and East, people living in this part of the country need more food energy in order to go about their business. One study has suggested that men and women in Eastern Siberia need to take in 15% more calories than those living elsewhere in the country. See V. V. Vorob'ev, Naselenie Vostochnoi Sibiri (Novosibirsk, 1977), p. 70.

77. Planovoe khoziaistvo, No. (1975). Agricultural wages are increasing more rapidly than the supply of goods (especially consumer goods) to the rural population. As a result, "there is an increase in deferred demand." The savings of the rural population at the present time are growing more rapidly than those of the urban population. Voprosy ekonomiki, No. 11 (1973).

78. Planovoe khoziaistvo, op. cit.

79. Zhurnalist, No. 10 (1974), p. 77. See also Stroitel'naiia gazeta, December 7, 1977, p. 2.

80. Literaturnaia gazeta, August 8, 1973, p. 10. According to the Chairman of the Central Committee of the Petroleum and Gas Industry Workers' Union, these problems are "especially acute" and "require that urgent steps be taken." Trud, September 3, 1978, p. 1.

81. Planovoe khoziaistvo, op. cit.

82. Izvestiia, October 2, 1974, p. 3. Building maintenance tends to be poor. The results of an inspection in Novosibirsk found that, "Many apartment houses were in a state of neglect. Yards, stairwells and entrances were cluttered; electrical heating and plumbing equipment, gutters and roofing were in disrepair. As a result, the buildings are deteriorating prematurely, and residents are experiencing inconveniences." Pravda, February 1, 1975, p. 1. This situation is by no means unique to Siberia, of course.

83. See the review of Leonid Shinkarev's book, Vtoroi Transsib, in Literaturnoe obozrenie, No. 3 (1977), translated in Current Digest of the Soviet Press (hereafter CDSPP), Vol. XXIX, No. 14, p. 11.

84. Pravda, January 23, 1974, p. 2. A year later, conditions had hardly improved at all. See ibid., June 7, 1975, p. 3. See also Sotsialisticheskaia industriia, April 4, 1978, p. 3.

85. CDSPP, op. cit., p. 11; Pravda, October 13, 1978, p. 3.

86. Izvestiia, September 16, 1975, p. 5.

87. Pravda, July 16, 1977, p. 2.

88. Literaturnaia gazeta, March 17, 1976, p. 11.

89. Izvestiia, September 16, 1975, p. 5.
90. Conolly, Beyond the Urals, op. cit., p. 252.
91. For information on the privileges available to specialists who work in Siberia and the Far East, see Trud, July 25, 1975, p. 4.
92. The following two paragraphs rely heavily on Izvestiia, January 3, 1975, p. 3.
93. Conolly, Beyond the Urals, op. cit., p. 252.
94. Trud, March 1, 1974, p. 4.
95. Dibb, op. cit., pp. 191-192.
96. Trud, March 1, 1974, p. 4.
97. Izvestiia, July 1, 1977, p. 2.
98. Trud, March 1, 1974, p. 4; Sovetskoe gosudarstvo i pravo, No. 12 (1976), pp. 41-47.
99. Izvestiia, July 1, 1977, p. 2; Radio Free Europe - Radio Liberty, "Credits for Persons Resettling are Again Raised," Radio Liberty Research, August 31, 1977, pp. 1-2.
100. "Credits for Persons Resettling are Again Raised," op. cit., p. 2.
101. Ibid, p. 1.
102. Bush, op. cit., p. 66. See also Dibb, op. cit., p. 198.
103. Bush, op. cit., p. 67; Murray Feshbach and Stephen Rapawy, "Soviet Population and Manpower Trends and Policies," Soviet Economy in a New Perspective, A Compendium of Papers submitted to the Joint Economic Committee of the Congress of the United States, 94th Congress, 2d Session (Washington, D. C., 1976), p. 127.
104. Malaja Sovetskaja Entsiklopediia, op. cit., Volume 9, Column 626.
105. Sotsiologicheskie issledovaniia, No. 2 (1976), p. 59. Plans to expand oil and gas production will, of course, require an influx of additional workers. Sovetskaja Rossiia, May 16, 1978, p. 2.
106. Malinin and Ushakov, op. cit., p. 71.
107. Sotsiologicheskie issledovaniia, op. cit., p. 59.
108. Literaturnaia gazeta, September 3, 1975, p. 10.
109. Sotsiologicheskie issledovaniia, op. cit., pp. 61-62. This phenomenon has led to sharp criticism of "romantic nomads" and "dilettantes." See Sovetskaja kul'tura, August 29, 1978, pp. 2-3.

110. The twelve centers that were investigated included the cities of Surgut, Nizhnevartovsk, Nefteugansk, Ural and Salekhard, as well as the settlements of Magien, Igrim, Pionerskii, Komsomol'skii, Sovetskii, Labytnangi and Tazovskii.
111. Sotsiologicheskie issledovaniia, op. cit., p. 59; Voprosy ekonomiki, No. 10 (1974).
112. T. I. Zaslavskaiia, Migratsiia sel'skogo naseleniia (Moscow, 1970), p. 89; Pravda, December 7, 1974, p. 2. More generally, see Dibb, op. cit., pp. 141-160.
113. Nash sovremennik, No. 11 (1972), p. 104; Zhurnalist, No. 2 (1974), p. 73; Literaturnaia gazeta, September 3, 1975, p. 10.
114. Zaslavskaiia, op. cit., p. 102; Voprosy ekonomiki, No. 5 (1973).
115. Malinin and Ushakov, op. cit., p. 78.
116. Nash sovremennik, op. cit., p. 100. See also Ekonomicheskie nauki, No. 8 (1973), in CDSP, Vol. XXVI, No. 3, p. 6.
117. Ekonomicheskie nauki, op. cit., p. 6; Dibb, op. cit., pp. 151-160.
118. Sotsiologicheskie issledovaniia, op. cit., p. 63. For a somewhat different view, see Sotsialisticheskaia industriia, May 17, 1978, p. 3.
119. Sotsiologicheskie issledovaniia, op. cit., p. 64.
120. Ibid.
121. Trud, March 14, 1976, p. 2.
122. Pravda, June 19, 1976, p. 2. See also Izvestiia, March 12, 1978, p. 1.
123. Trud, March 14, 1976, p. 2. See also Pravda, June 17, 1978, p. 2 and Sotsialisticheskaia industriia, July 14, 1978, p. 1.
124. Pravda, June 19, 1976, p. 2. Commenting on modern standardized wooden housing in Tiumen', two Soviet analysts have written that, "The appearance of the buildings is simply depressing; the quality is extremely low, and the apartments are uncomfortable." Pravda, June 17, 1978, p. 2.
125. Izvestiia, February 14, 1974, p. 2. See also ibid., September 5, 1975, p. 3 and Pravda, October 10, 1978, p. 1.
126. Pravda, September 28, 1975, p. 2.
127. Ibid.; Planovoe khoziastvo, No. 8 (1978), pp. 93-102.

128. Pravda, March 14, 1974, p. 3. In mid-1975, production of mobile homes specially designed to house "workers building gas and oil pipelines in harsh climates" was announced. They included an unusual heating system designed to keep the temperature inside at comfortable levels, no matter how cold the weather. See Izvestiia, June 4, 1975, p. 4.
129. Pravda, June 18, 1976, p. 2 and April 3, 1978, p. 2.
130. Pravda, June 19, 1976, p. 2.
131. Ibid. For similar complaints, see Pravda, April 20, 1978, p. 2 and October 17, 1978, p. 2.
132. Trud, March 14, 1976, p. 3. See also Pravda, June 19, 1976, p. 2. For a discussion of inadequate physical facilities and teaching materials -- e. g., schools housed in makeshift structures, shortages of textbooks and visual aids, lack of housing for both teachers and students -- see Izvestiia, November 2, 1976, p. 5.
133. Trud, March 14, 1976, p. 2. The disparity between investment in "infrastructure" in Western Siberia and in other oil-producing areas elsewhere in the country is said to be growing. See Ekonomika i organizatsiia promyshlennogo proizvodstva, No. 6 (1977), p. 43.
134. Trud, January 11, 1976, p. 2. "The time has come," one commentator has stated bluntly, "to give serious thought to creating comfortable living conditions in this region . . ." Sovetskaia Rossiia, March 12, 1978, p. 2.
135. Pravda, June 19, 1976, p. 2 and March 7, 1978, p. 3. For evidence that officials in Moscow finally are devoting attention to this problem, see Izvestiia, February 4, 1978, p. 2.
136. Pravda, June 19, 1976, p. 2.
137. Pravda, April 7, 1977, p. 2. The problem is by no means unique to cities and towns in the extreme north of the USSR. For a discussion of heating problems in Barnaul, for example, see Pravda, March 7, 1978, p. 3.
138. Numerous scientific institutions and groups are also involved in developing the eastern regions -- while also enhancing their status and "relevance." For a discussion of the role of science and scientists, see Izvestiia, March 31, 1978, p. 2 and February 24, 1979, p. 3, and Krasnaia zvezda, June 1, 1979, pp. 2-3.
139. Leslie Dienes and Theodore Shabad, The Soviet Energy System (New York: John Wiley & Sons, 1979), p. 264. This enumeration does not include the new Ministry of Construction for the Far East and Baikal Area, established in November, 1979. (See below.)
140. Ibid., pp. 263-264.
141. Ibid., pp. 264-265.

142. Pravda, February 27, 1977, p. 2. See also Pravda, June 5, 1978, p. 2.
143. Pravda and Izvestia, November 24, 1979, p. 2.
144. "The USSR This Week," Radio Liberty Research, RL 357/79 (November 26, 1979), pp. 4-5.
145. Pravda, October 19, 1979, p. 3. According to this same source, "the city seems to have fallen outside the field of vision of those whose official positions oblige them to take part in solving its urgent problems."
146. David Hooson, "The Outlook For Regional Development in the Soviet Union," Slavic Review, Vol. 31, No. 3 (September, 1972), p. 535.
147. Ibid, p. 539.
148. Gertrude E. Schroeder, "Soviet Regional Development Policies in Perspective," in NATO, Directorate of Economic Affairs, The USSR in the 1980's: Economic Growth and the Role of Foreign Trade (Brussels, January 17-19, 1978), p. 125; Hooson, op. cit., p. 553.
149. Schroeder, op. cit., pp. 125-126.
150. Victor L. Mote, "Pacific-Siberian Growth Centers: A New Soviet Commitment," Soviet Union/Union Sovietique, Vol. 4, Part 2 (1977), pp. 257, 270.
151. V. P. Gukov and N. G. Perevalov, "Problems of Management of Bratsk-Ilimsk Territorial-Industrial Complex," in The BIP Experience (The Bratsk-Ilimsk Industrial Complex), International Institute for Applied Systems Analysis, The Second IIASA Conference on Retrospective Case Studies of Large Scale Planning Projects (Congress House, Baden, IIASA, Laxenburg), Vol. 1, p. 7.
152. Schroeder, op. cit., p. 134. See also Gukov and Perevalov, op. cit., p. 7.
153. Dienes and Shabad, op. cit., p. 273.
154. Mote, op. cit., pp. 259-260.
155. Gukov and Perevalov, op. cit., p. 7.
156. Alan B. Smith, "Soviet Dependence on Siberian Resource Development," in Soviet Economy in a New Perspective, op. cit., p. 497; Schroeder, op. cit., p. 135.
157. Gosudarstvennyi piatiletnyi plan razvitiia narodnogo khoziaistva SSSR na 1971-1975 gody (Moscow, 1972), pp. 259-260.
158. Dienes and Shabad, op. cit., p. 265.
159. Ibid, p. 277.
160. Ekonomika i organizatsiia promyshlennogo proizvodstva, No. 3 (1979), pp. 3-28.

161. FBIS Trends, 25 April 1979, p. 21. A less optimistic prognosis is implied by the absence of any reference to such a supercommission in Aganbegian's recent interview on Siberian oil and gas in Literaturnaja gazeta, November 7, 1979, p. 11.
162. Vorob'ev, "The Population Dynamics of Eastern Siberia and Problems of Prediction," op. cit., p. 590. He goes on to argue that, "There are no more regions in the USSR that are endowed with labor surpluses . . . [that] might release them to new pioneering regions. The tight labor supply will thus get worse even over the long term." The Central Asian republics will be in no position to supply Siberia with surplus labor, he concludes, "because they will be short themselves."
163. Murray Feshbach, "Prospects for Outmigration from Central Asia and Kazakhstan in the Next Decade," in Soviet Economy in a Time of Change, A Compendium of Papers submitted to the Joint Economic Committee of the Congress of the United States, 96th Congress, 1st Session (Washington, D. C., 1979), Volume 1, p. 691.
164. Hooson, op. cit., pp. 553-554.
165. See Martin C. Spechler, "Regional Developments in the USSR, 1958-78," in Soviet Economy in a Time of Change, op. cit., Volume 1, p. 160.
166. Ibid.
167. Kommunist Uzbekistana, No. 6 (1979), p. 14. Abdusaliyev's article, on which the following discussion is based, can be found on pp. 14-21 of the journal.
168. Western scholars have reached similar conclusions. According to Feshbach and Rapawy, for example, the rate of natural increase in the population of Central Asians will be five times the national average. Feshbach and Rapawy, op. cit., p. 122.
169. Smith, op. cit., pp. 483-484.
170. V. Stanley Vardys, "Geography and Nationalities in the USSR: A Commentary," Slavic Review, Vol. 31, No. 3 (September, 1972), p. 569.
171. Smith, op. cit., p. 483.
172. Ibid, p. 492. Most of the oil is exported to Western Europe.
173. Ibid, p. 493.
174. Ibid, p. 480.
175. J. Richard Lee and James R. Lecky, "Soviet Oil Developments," in Soviet Economy in a Time of Change, op. cit., Volume 1, p. 582.
176. Hooson, op. cit., p. 554.
177. Schroeder, op. cit., p. 139.

178. Pravda, November 29, 1979, p. 2.
179. Lee and Lecky, op. cit., p. 582.
180. Ibid., pp. 581, 582.
181. Pravda, November 29, 1979, p. 2. See also the article by A. M. Lalaiants, Vice-Chairman of the USSR State Planning Committee, in Pravda, March 6, 1979, p. 2.
182. For authoritative statements underscoring the importance of nuclear energy in Soviet plans for the future, see the editorial in Pravda, May 11, 1978, p. 1, as well as the remarks of Leonid Brezhnev at the November, 1979 Party Central Committee plenum, Pravda, November 29, 1979, p. 2.
183. Keith Bush, "Soviet Economic Growth Slows," Radio Liberty Research, RL 347/79 (November 16, 1979), p. 5. See also Sovetskaia Rossiia, October 24, 1978, p. 2.
184. Feshbach and Rapawy, op. cit., p. 131. See also Voprosy ekonomiki, No. 4 (1977), pp. 123-131 and Politicheskoe samoobrazovanie, No. 6 (1977), pp. 83-87.
185. Ekonomicheskaja gazeta, No. 4 (1977), p. 10.
186. Feshbach and Rapawy, op. cit., p. 131.
187. See M. S. Lantsev, Sotsial'noe obespechenie v SSSR (Moscow, 1976), pp. 127, 131 and 137. The most recent official decree was issued jointly by the CPSU Central Committee, the Presidium of the USSR Supreme Soviet and the USSR Council of Ministers in October, 1979. See Pravda, October 2, 1979, p. 1.
188. Izvestiia, September 29, 1973, p. 1.
189. Vorob'ev, "The Population Dynamics of Eastern Siberia and Problems of Prediction," op. cit., p. 590; Malinin and Ushakov, op. cit., p. 32.
190. Voprosy ekonomiki, No. 11 (1975), pp. 34-43. An English translation of this article is available in Soviet Geography, Vol. XVII, No. 5 (May, 1976), pp. 314-324.
191. See, e. g., Izvestiia, December 18, 1976, p. 3; Literaturnaia gazeta, February 9, 1977, p. 12 and February 16, 1977, p. 13; Pravda, April 20, 1977, p. 2.
192. Krasnaia zvezda, October 10, 1973, p. 3. This kind of propaganda is designed to attract other people besides military personnel. As a rule, it emphasizes the excitement and importance of participating in a difficult task, a task which -- so to speak -- "separates the men from the boys." According to one article typical of this genre, "the North does not like whiners." Sovetskaia kul'tura, December 15, 1978, p. 3. According to an-

other, "The northern wind sweeps away human trash. Tiumen' demands the truth from everyone; in order to survive there, the highest qualities are needed. And those who have them quickly stand on their own two feet and move forward. Anyone who is mediocre will not make it. He will either grow into a strong man or else be forced to retreat altogether." Literaturnaia gazeta, March 1, 1978, p. 2. A new medal -- "For Exploration of Mineral Resources and Development of the Petroleum and Gas Complex of Western Siberia" -- was created in July, 1978. It apparently is designed not only to reward those who have worked in the North and East, but also to induce others to follow in their path. Pravda, July 29, 1978, pp. 1-2.

193. Krasnaia svezda, October 10, 1973, p. 3. See also the issues of July 31, 1975 (p. 4) and October 12, 1976 (p. 4). A very different picture of life in the smaller towns emerges from an article in a newspaper aimed at the intelligentsia. Describing her own home town (Cheremkhovo) in Siberia, a doctor writes: "The hooliganism and a certain habituation to brutality give us something to think about." Further, she points out, "Some of the streets do not even have sidewalks. Pedestrians and vehicles move alongside one another. Autumn and spring bring thick mud." Finally, she notes, "for the past ten years, we have suffered the most genuine chronic cultural famine." Literaturnaia gazeta, September 22, 1976, p. 11.

194. Izvestiia Sibirskogo Otdeleniia Akademii Nauk SSSR, No. 6 (1975).

195. Dienes and Shabad, op. cit., p. 275.

196. Ibid, citing Planovoe khoziaistvo, No. 9 (1977), pp. 88-95.

197. Dienes and Shabad, op. cit., p. 276.

198. Ibid.

199. See, e. g., Sotsialisticheskaia industriia, January 22, 1978, p. 2 and Pravda, June 5, 1978, p. 2.

200. Feshbach and Rapawy, op. cit., pp. 128-130.

201. See, e. g., Theodore Shabad and Victor L. Mote, Gateway to Siberian Resources (Washington, D. C.: Scripta Publishing Company, 1977), p. 91; Feshbach and Rapawy, op. cit., pp. 130 ff; Sovetskoe gosudarstvo i pravo, No. 9 (1973), pp. 9-16; Sovetskaiia Rossiia, August 18, 1975, p. 1; Ekonomika i organizatsiia promyshlennogo proizvodstva, No. 5 (1975), pp. 155-174; Voprosy ekonomiki, No. 8 (1976), pp. 117-128; Voprosy filosofii, No. 1 (1979), pp. 29-48; Vestnik Moskovskogo Universiteta, Seria VI (Ekonomika), No. 6 (1978), pp. 3-15.

202. See Bush, op. cit., p. 2.