

Note this is the summary of the original poverty line we created for the min of labor and pensions that became a law in about 1992. Subsequently our economies of scale paper helped with revisions. After that there have been some minor changes inside Russia that we at the RLMS are not part of. Ours is no longer the official poverty line though it is the method followed in any minor changes the Russian government and Min of Labor have made. Barry Popkin

The Development of a Subsistence Income level
in the Russian Federation

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Towards the Development of a Subsistence Income level
in the Russian Federation¹

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Executive Summary

For many years, the Russian Federation and its predecessor, the USSR, had neither created a subsistence income level nor ever considered the issue of poverty as an important one for social policy. The Russian social system provided for full employment and it was believed that subsidies and pensions covered the remaining population with uncovered food and other needs. With the recent rapid changes in the economic and the social circumstances of its population, the Russian Federation has felt it was important to create a subsistence income level to provide a basis for effective targeting of social support. Families whose income levels fall below this minimum income could then be assured of having a basic diet and standard of living.

Russia is unique in allowing the nutrition community to play a central role in this endeavor. With the help of the World Health Organization and a team of world experts on this topics, changes have been made to develop a more nutritionally appropriate subsistence food basket for the Russian population.

The earlier social minimum food basket is replaced with one oriented toward the goal of identifying those most in need of support. A subsistence food basket is created from consumption patterns of low income persons based on surveys from the second quarter of 1991. **The food basket provides for a margin of safety and with this intake normal physiological and social function should be maintained.** This is then revised to accommodate the actual dietary recommendations of the World Health Organization-Food and Agriculture Organization of the United Nations and to fit the food habits of the Russian population. The revisions are based on a diet similar to the consumption pattern resulting in 1992 from changes in relative and absolute price resulting from the elimination of subsidies for most Russian food products.

Finally, the cost of this food basket is multiplied by 1.25 to create an income level associated with this food basket. This leads to an average monthly food basket which would cost Rubles 930.3 and an overall subsistence income level of

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Rubles 1162.9 per month for the average person in the Russian Federation. This is calculated for June 1992 prices.

I. Introduction

In many ways, there has never been a concept of poverty in Russia. Much of the literature about poverty in Russian social science research is focused on the concept of a socially acceptable standard of living. This standard is based on an ideal diet and set of living conditions which it is hoped all Russians will attain. The concept of a subsistence diet and a minimal level of living below which a person should not fall is a concept heretofore not addressed in depth. This has meant that the current poverty line utilized by Russian researchers and politicians is really the social minimum income and is based on a standard of living which would mean that about 70% of the population of the Russian Federation would live below this standard.

The majority of Russian economists and politicians have described poverty or, in Russian terminology, indigence or inadequacy of income, as a relative category. Treated as poor were the low-income families whose living standard trailed much behind the socially desirable minimum level, often the average for society. A minimal level of living may be based on either perceived or real changes in society's living standards. The way this socially acceptable minimum income level was defined led to a level which left close to 70% of the population with income levels below it in the 1990's. This was used as the basis for developing a concept of poverty for all social policies and meant that poverty was defined such that over 70% of the population of the Russian Federation would live below this standard.

Asserting that 70% of the population are poor can only mean denial of the very chance to help the truly poor. Subsidy and other social welfare programs must benefit far too large a proportion of society. To do this effectively, the much needed assistance can be generated only by way of sharing wealth through taxes levied on small proportion of the population defined as the rich. Or, as happened in the last 3-4 years in the Soviet Union and the initial months of the Russian Federation, money was printed to cover such subsidies and resulted in both in tremendous fiscal difficulties and hyperinflation.

REWRITTEN SMALL COMPONENTS

Russia is unique in allowing the nutrition community to play a central role in developing the subsistence food basket on a scientific basis. With the help of the World Health Organization and a team of world experts on this topics, changes have been made to develop a more nutritionally appropriate subsistence food basket for the Russian population. The social minimum income which was utilized in the past is criticized and important changes are proposed to develop a true subsistence food basket. The social minimum income is based on a diet which provides an exceptionally high consumption of energy, animal protein, and fat and quite a low assumption about the proportion of the budget which is expended on food. This paper examines this diet and its deficiencies and then proposes an alternative approach which leads to the development of a "subsistence" diet and subsistence income level based on the income needed to attain this diet under normal consumption patterns of the poor. Following the suggestions of this paper and the proposed change in the subsistence food basket will lead to a much more healthful diet which will directly enhance the health of the Russian population.

II. The Social Minimum Income

The social minimum income used for many decades in Russia is based on a high protein, moderately high fat level, higher cost food items, and a small proportion

of income spent on food. The market basket which was used in 1989 and **1992** is presented in Table 1. The 1989 market basket provided approximately 2800 kilocalories of energy for males. Of this energy, approximately 32.0% consists of fat, of which 74.5% came from animal fats.

This represents a high proportion of energy from saturated fats. It is based on nutrition guidelines which are now felt to provide excessive fat, particularly saturated fat, and inadequate carbohydrates and fiber levels of consumption. A number of chronic disease patterns are felt to be associated with this diet and it is no longer being promoted as a healthful diet. **This diet provides inadequate level of a number important elements needed for a good diet, such as fruit and vegetables and more carbohydrates.** Moreover, this food basket will most certainly change once consumers are faced with prices that are less distorted by excessive government subsidies of meat and dairy products.

--Table 1 about here--

This minimum household basket was chosen under the previous economic system. One of its major objectives was to meet the so-called "rational" needs of the whole population on a planned development basis. In terms of the average current free prices (operating outside of Moscow, in Russia generally) this method of accounting really places almost the whole population below the poverty line. And this approach is clearly at odds with the very concept of social protection of the poor.

The minimal level of living reported in the Soviet publications was based on pre-perestroika indicators, i.e., the conditions before the crisis. It represented a household market basket, in fact, an acceptable minimum based on the then living standards. Calculation for the basket was based on highly subsidized state retail prices.

When in 1975 the allowance for children in the poor families was granted, the monthly household minimum income, below which a person should not fall, was estimated at 50 rubles per family member. By 1985, this was raised to 70 rubles. In both instances, during the period under review, the minimal level of living corresponded to about half the average per capita income.

The current WHO/FAO recommended daily energy requirement for active males aged 30-60 years and weighing 75 kilograms is 2800 kilocalories. For females in the same age group who weigh 60 kilograms, the recommendation is for 2200 kilocalories. For both groups, it is recommended that total fat as a % of energy fall in the 15-30% range, **saturated fat should represent no more than 10% of total energy**, and protein in the 10-13% range. It is important to note that these allowances allow some margin for individual variation and are not to be viewed as a basic minimum. The basic minimum has added to it two standard deviation and this is used as the recommended daily allowance for protein and most other nutrients (energy intake is the exception). For example, the **safe** level of protein for an adult male is 60 gr. per day (the same quality of protein as in milk and eggs). In Russia the standard protein requirement is 65-94 gr. per day for persons not engaged in hard labor. The Russian protein standard, presented below in table 3, recommends that the proportion of protein from animal products should be as high as 55%. **In the past two decades, nutrition researchers throughout the world have found that this is an excessive requirement which does not support good health but rather hinders it in a number of ways and the emphasis has shifted to a need**

for adequate energy and other nutrients crucial for growth, development and adequate health.

In the past, the government of Russia then used consumer equivalencies to convert the adult male food basket into the needs for each age-sex grouping. The minimum household food basket is based on the market basket for an average adult, adjusted for household size and composition as well as food prices.

There are several major deficiencies related to the current calculation of a socially minimum income. They are as follows:

- i) Excessive generosity: As noted above, the quantity of the food basket is overly generous as an estimate of minimal requirement.
- ii) Inappropriate composition: The 1989 food basket (cf. Table 1) contains a high proportion of fat from food products containing saturated fat (74.5% animal fat) **and excessive levels of animal protein and inadequate levels of important foods such as fruits and vegetables and carbohydrates.**
- iii) The food basket was based on a person with a **moderate** level of activity, an assumption which is inappropriate for older age groups.
- iv) In addition, given the heavy subsidies for housing, heating, and basic services, the definition of a social minimum as twice the cost of the food basket is also generous. Under current production, consumption and subsidy patterns, it is very difficult to estimate the real proportion of income expended for food, in particular, if one considers all the time spent in food purchasing and home production.

III. Alternative Subsistence Income Level:

We propose an alternate approach which will lead to a subsistence diet and income associated with it. Essentially we propose to review current consumption patterns and ascertain the income level associated with a nutritionally acceptable diet. We utilize the following information in this activity: information about current consumption patterns of the poor; the recommended daily allowances for energy, protein and other nutrients (FAO/WHO/UNU, 1985); Russian calculations of the chemical composition of foods; the age-sex composition for the Russian federation; and average June 1992 prices from Goskomstat.

Current consumption level of the Poor: We begin by examining the diet of low income households in the second quarter of 1991. This is the most recent period for which food consumption data are available. In addition, this is the consumption data that was collected after the large increase in state food prices which occurred in 1991. In addition, data constraints make this the only feasible approach at this time.

Table 2 presents data for the consumption pattern of households with incomes below 150 rubles per capita per month, since this is the group whose diet is found to be barely acceptable. Energy intake is only slightly (5-10%) above the acceptable level and **fat intake is at the higher level of that recommended for**

a healthful diet.² Those with incomes above this consume a higher level of energy and fat. For example, in 1989, the last year for which highly detailed income and consumption data were available, there was a significant increase in energy and fat consumption for persons as income per capita rose.

In general the poor in the Russian Federation have a diet marginal in calories. The calorie content of the diet of the poorest 13% of the population in the second quarter of 1991 was 2121 if the conversion levels of Goskomstat were used and a higher level of 2439 kilocalories per capita per day when other assumptions about conversion from food as purchased to food consumed are used. Similarly the proportion of energy from fat is found to be 31.6% using Goskomstat conversions and is higher with other assumptions. These data represent both food consumed at home and away from home.

--Table 2 about here--

Nutritional Adequacy of this diet of low income Russian families: Food consumption according to this diet exceeds the recommended daily allowance (RDA) based on WHO/FAO norms for a physically active person. Using the Russian Federation average household size of 3.2 persons and average age structure of 2.05 adults (1.05 females) and 1.15 children under sixteen, we calculate that the average RDA would be 2257. The diet of the households with a monthly per capita income below rubles 150 slightly exceeds the RDA as well as contains a high proportion of animal products. This diet will need to be adjusted to conform with the average RDA for energy and fat (Table 3). **The Russian RDA's and the WHO/FAO RDA's provide for a margin of safety and with this intake normal physiological and social function should be maintained (WHO,1992).**

--Table 3 about here--

Adjustments to the current diet of the poor to calculate an ideal market basket under current economic conditions: The current economic reforms will considerably shift the diet of the poor since relative prices of food will change drastically with price liberalization and removal of most subsidies and controls on food prices. Maintenance of adequate nutrition for the poor during the period of economic change need not imply continuation of the current diet of this group. In fact the most obvious change, a reduction in the proportion of the diet from meat and dairy products is expected as the relative prices of these food products increases. The proportion of energy from fat could be reduced considerably without adversely affecting the nutritional adequacy of the diet. **Increased**

² **The Russian RDA for energy includes all sources of energy; however the food intake data often excludes alcohol intake, which is either not reported or significantly underreported. Estimates of alcohol intake as a source of energy range from 5-15% of energy for adults. If this is true, the adequacy of the diet of the Russian low income population should be adjusted by increasing their food intake by 5-15%.**

consumption of carbohydrates such as potatoes, bread, and pasta and fruits and vegetables will come as prices change. Such changes are associated with a more healthy eating pattern.

The revision of this market basket represents an important element in this process. It is necessary to retain a similar energy intake but reduce the proportion of energy from fat, particularly saturated fat. A desirable level of total fat is **20-28%**. The present level of animal fat in the diet reflects far too high an overall level of total fat. **It is also important to increase the consumption of carbohydrates and fruits and vegetables for similar reasons.** Table 4 presents a revision of this diet which achieves the required nutritional requirements for energy and a wide range of nutrients. In this food basket the proportion of animal protein represents 40.8% and 46.1% of total protein for the overall average diet and for children, respectively. This may be considered too high by some nutrition authorities. The food basket in Table 4 attains this standard of 20-28% energy from fat and attains a related standard for energy from saturated fat as the average diet has 11.6% energy from saturated fat.

In developing this market basket, attention was paid to the traditional food patterns of the Russian population. Specifically, the consumption of meat and meat products and milk and milk products would be reduced and that of bread products, potatoes increased considerably. There would be a reallocation away from lard and butter toward vegetable oil and margarine and from red meat toward fish and poultry products. **And there is a need to increase the consumption of fruits and vegetables which can only be partly reflected in this proposed basket due to the limited current production levels of these foodstuffs.** The food basket has been worked out to provide a comparable energy level and a much lower saturated fat level (Table 4). Items which either are relatively unavailable or are seldom consumed (e.g., margarine produced in Russia) are not emphasized.

--Table 4 about here--

An alternate scientific approach is to develop a diet which minimizes the cost of a combination of foods subject to constraints placed on food selection by a set of nutrient requirements. The use of linear programming allows us to develop such a low-cost 'scientific' diet. The result is presented in Table 5. As can be seen, this diet, while nutritionally adequate, consists of a very small number of food products - rye bread, potatoes, edible roots, sugar, milk, cottage cheese, cheese, and vegetable oil. It would cost only Rubles 694 in June, 1992 prices but would be unacceptable to the Russian public. The authors do not adopt this approach; rather it is only presented to highlight an alternative cost-effective but politically unacceptable approach.

--Table 5 about here--

Creation of a current income level associated with the subsistence diet:

The previous minimum market basket assumed 50% expenditure on food, which was generally representative of a de facto composition of spending by the poor families when the food prices remained very low. At an average income level, about one third of the family budget was expended on food. Already in December 1991, this lower income group consumed about half of its income on food, the current figures reaching close to 80% of the same. Given the limited exposure to up-turns

in food spending, lower income groups have raised the cost of its diet to 80%. Thus we assume that the proportion of income the poor will spend on food is 80% and we use an inflator of 1.25 to adjust the cost of the minimum food basket to create an overall poverty income level.³

There are two alternative approaches used by most researchers to adjust for price changes. One focuses on inflating the prices of food consumed from the baseline period to current levels and then multiplying this current cost of the food basket by the multiplier 1.25. The alternative is to inflate the overall income level using some type of overall consumer price index. The first approach is preferable since this focuses on the cost of diet and assumes that the main purpose of this subsistence income level is to protect the diet of the most vulnerable group in the Russian Federation.

The prices paid by this income group for the second quarter of 1992 are used to develop the total cost of the diet for each demographic group presented in Table 4. Selection of prices paid for this income group in 1992 is complex and requires timely price data. One important element is that prices are changing in state stores, free markets, cooperative markets, and elsewhere at different rates and directions. For instance many free (private) market prices have been reduced and the opposite is the case for state stores. In addition, the composition of food purchases has shifted and will continue to shift. Finally, the proportion of food purchased in state stores in 1991 will be different from that in 1992. Appropriate price data are unavailable and official Goskomstat figures, which do not reflect changes in the market shares of food purchased in different sectors, are used.

Table 6 presents a summary of the cost of the food basket and the subsistence income level calculated with published Goskomstat prices for six months during 1992. On the average, the cost of this food basket have doubled (increase of 200.2%) between this period. The June subsistence income level is 1147 for the average person and 959 for retired persons.

All current Russian food baskets and the subsistence income levels associated with them utilize the same proportion of income spent on food. The remainder of the income is assumed to be spent on other essential services and expenditures such as personal hygiene, utilities, transportation, housing, and so forth.

Thus far, the subsistence income levels have been developed without consideration of the differences in cost of living among the regions in Russia. Cost indices can be used to adjust the minimum food basket for each region in the country.

IV. Discussion

³With current high levels of subsidies for housing, transportation, utility and other basic living expenses, 20% is a realistic proportion of income for nonfood expenditures. As major reductions in subsidies occur, this inflator of 1.25 will need to be increased.

It is important, in this time of economic adjustment when there is a great need for economic austerity and potential hardship among economically vulnerable groups, that the Russian government develop a reasonable subsistence income level which can identify the very poorest. In turn, this subsistence level would be used to identify the poorest Russians and use available government goods and services to ensure their living standards do not fall below this level of living.

Currently, the social minimum income used in Russia is so high and unreasonable, that over 70% of the population has income levels lower than this income. This provides essentially no guidelines for the identification of the most vulnerable segments of Russian society and no basis for effective targeting of resources to help these vulnerable segments.

During this first phase of the economic reforms, the Russian Federation's government is being forced by lack of resources to trim its expenditures. It must target its food, health, and other subsidies only to those most in need of support. Utilization of a subsistence market basket and an income level associated with it is needed. In fact, it is demanded by international agencies as a crucial element of the reform process. This paper develops the rationale for such a change and presents a subsistence food basket. The ideal food basket, presented in Table 4, fits both health criteria and Russian food habits and traditions. **In fact, international experts on the subject of diet and health reviewed this report and suggested important changes which lead to the final set of recommendations which are felt to be important for improving the health of the Russian population.**

It is realistic to expect that with the change in the structure of food prices the lower income population will consume a diet lower in higher priced meat and dairy products which were previously subsidized by the government. How quickly Russian production and food imports will respond to the change in price structure is unclear at this time. Changes in production and consumption, if they follow the pattern found in other countries which have faced rapid shifts in prices, are expected to be quite rapid now that market forces govern food marketing and production in the Russian Federation.

This paper provides the Russian Federation with the subsistence income level and food basket presented in Table 4. **This proposed food basket provides for a margin of safety and with this intake normal physiological and social function should be maintained (WHO,1992).** It supports the reform process and is related to the broadly defined changes in prices and eating patterns occurring in Russia. Also, while it represents a healthier diet, it is quite likely that additional changes in diet will occur as the result of changes in the price structure of food. If followed, this approach would lead to the cost of a food basket for pensioners (in June 1992 prices) of Rubles 717.1 and an subsistence income of Rubles 958.3.

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Table 1. Russian Minimum Food Basket for active male⁴

	1989	1992
BREAD PRODUCTS	125,7	117
Beans	3.0	1.8
Wheat flour	106.0	15.0
Rice	3.0	5.0
Other grains	9.7	7.0
Wheat bread	0.0	84.0
Rye bread	0.0	44.0
Pasta	7.0	3.0
POTATOES	110	135
VEGETABLES	135	106
Cabbage	35	37
Cucumber tomatoes	28	11
Edible roots	20.0	37.0
Other vegetables	52.0	22.0
TOTAL FRUITS	52.6	26
fruits & berries	50.0	20.0
dried	0.5	1.1
SUGAR & CONFECTIONARES	26	31
Confectionares	0.0	0.7
Cookie, cake	0.0	0.7
MEAT PRODUCTS	64	41
Beef	19.0	24.0
Veal	4.0	1.5
Pork	16.0	6.6
Sub-products	5.0	1.8
Poultry	7.0	15.0
Lard	3.0	0.0
Sausage	10.0	0.0
FISH&FISH PRODUCTS	22	15
Fresh fish	16.0	15.0
Salted fish&herring	3.0	0.0
MILK & DAIRY PRODUCTS	312,4	296
Whole milk	120.0	141.0
Sour cream&cream	4.0	1.8
Butter	4.5	5.1
Cottage cheese	10.0	16.0
Cheese	4.0	0.0
EGGS (numb.)	250.0	246.0

⁴ Units of measure are kilograms per person per year. For eggs, they refer to pieces per year.

Margarine and other fat	9.0	2.6
Vegetable oil	5.0	6.2
cost per month june 1992 prices (rubles)		
	1868.0	1304.8

Chemical composition (gr. per day)
and kalorie intake (kcal/day)²

Protein	90,9	82,7
Amimal protein (%)	45,9	39,3
Fat	96,4	71,9
Vegetable fat (%)	24,6	25,3
Carbohydrate	367,5	368,7
Energy intake	2714,7	2463,5

¹Source: Institute of Nutrition, Russian Academy of Medical Sciences

²chemical composition calculated for food after cooking

Table 2. Food consumption of the poor in the Russian Federation, 2nd quarter, 1991¹

	At home Consumption kg/cap/yr	Away from Home kg/cap/yr	Calorie intake (per kcal/day)
1. Bread Products	98.76	3.67	874
a. Flour	20.64		
b. Cereal & beans	6.12		
c. Wheat bread	72.48		
d. Rye bread	21.96		
e. Pasta	4.68		
2. Potatoes	107.40	3.89	179
3. Vegetables	39.24	1.44	26
4. Melons	0.36		
5. Fruits, grapes & berries (total)	10.56	0.38	58
a. Fruits, grapes & berries (fresh)	4.68		
b. Fruits, grapes & berries (dried)	0.24		
c. Canned fruits	5.28		
6. Sugar & confectioneries	21.12	0.78	237
a. Sugar	13.80		
b. Confectioneries	13.20		
c. Honey	0.24		
7. Meat & Meat Products	38.16	1.40	229
a. Beef & calf meat	6.24		
b. Veal & goat meat	1.20		
c. Pork	10.44		
d. Sub-products	1.80		
e. Poultry	5.28		
f. Lard	3.84		
g. Sausage & smoked meat	5.40		

Continued

Table 2. Cont'd

	At home Consumption kg/cap/yr	Away from Home kg/cap/yr	Calorie intake (per kcal/day)
h. Meat calf products	0.60		
i. Canned meats & vegetables	0.96		
8. Milk & Milk Products	296.40	10.82	367
a. Milk	165.96		
b. Sour cream & cream	7.80		
c. Butter	3.00		
d. Cottage cheese	2.76		
e. Cheeses	0.96		
9. Eggs	147.96	0.03	48
10. Fish & Fish Products	7.44	0.28	16
11. Vegetable Oil	2.16	0.09	54
12. Margarine	1.68	0.06	33
			total=2121

¹Poor households have a monthly income below 150 rubles per capita.

Source: Consumer Budget Survey, State Statistical Bureau (n=60,000).

Table 3. Russian Recommended Daily Allowances for different age-sex groups and in average for poor household

Age-Sex Group	%	Energy kcal	Prot. gr	Anim.Prot. gr	Ca mgr	VitC mgr	VitA mgr	Equivalency Coeff.
Children and teenagers								for children
children								
<= 1 year	2	VALUES FOR INFANTS ARE MISSING						
1-3	4	1540	53	37	800	45	0.45	0.68
4-6	6	1970	68	44	900	50	0.5	0.87
7-10	8	2350	77	46	1100	60	0.7	1.04
boys 11-13	3	2750	90	54	1200	70	1.0	1.22
girls 11-13	3	2500	82	49	1200	70	0.8	1.11
male 14-17	4	3000	98	59	1200	70	1.0	1.33
female 14-17	4	2600	90	54	1200	70	0.8	1.15
All Children	34	2255	74.9	46.4	1037	59	0.7	1.0
Active male:								
Group 1*								
18-29	2	2450	72	40	800	70	1.0	
30-39	2	2300	68	77	800	70	1.0	
40-59	1	2100	65	70	800	70	1.0	
Gr. 2 30-39	2	2650	77	42	800	70	1.0	
Gr. 3 30-39	2	3150	89	49	800	80	1.0	
Gr. 4 30-39	2	3600	102	56	800	80	1.0	
Gr. 5 30-39	1	3950	111	61	800	100	1.0	
all male	12	2882	83.2	45.7	800	76	1.0	
female Group 1								
18-29	4	2000	61	34	800	70	0.8	
30-39	4	1900	59	33	800	70	0.8	
40-59	3	1800	58	32	800	70	0.8	
Gr. 2 30-39	4	2200	66	36	800	70	0.8	
30-39	4	2150	65	36	800	70	0.8	
30-39	3	2100	63	35	800	70	0.8	
all female	22	2248	69.5	38.8	831	76	0.89	
pregnant lactating								
Not active:								
male								
60-74	10	2300	68	37	1000	80	1.0	
75+	6	1950	61	33	1000	80	1.0	
female								
60-74	10	1975	61	33	1000	80	0.8	
75+	7	1700	55	30	1000	80	0.8	
all	33	2010	61.8	33.6	1000	80	0.89	
all family	100	2242	70.3	40.4	953	72	0.84	

*Groups of physical activity:

- Gr. 1 - very low physical activity;
- Gr. 2 - low physical activity;
- Gr. 3 - average physical activity;
- Gr. 4 - high physical activity;
- Gr. 5 - very high physical activity.

Table 4. Proposed New Minimum Food Basket

Kg/Year	1 Average ¹	2 Children 0-6	3 7-17	4 Active Male	5 Adult Female	Adults >=60 Adults >=55
Bread Products	113.1	64.4	112.3	168.2	123.9	112.6
Beans	3.6	0.0	2.0	7.3	5.5	3.7
Wheat flour	17.4	17.0	18.0	18.0	16.0	18.0
Rice	3.3	3.0	4.0	5.0	2.9	2.9
Other Grains (not rice)	5.0	5.0	4.0	6.0	5.0	4.0
Wheat bread	61.1	30.0	70.0	75.0	65.0	65.0
Rye bread	50.9	20.0	40.0	105.0	62.0	45.0
Pasta	5.1	4.0	4.0	6.0	5.0	6.0
Potatoes	118.0	85.0	135.0	160.0	120.0	110.0
Vegetables (& melons)	99.3	85.0	120.0	100.8	96.8	97.8
Cabbage (fr.?sl.)	24.0	30.0	35.0	29.0	25.0	13.0
Cucumber tomatoes	2.9	5.0	5.0	1.8	1.8	1.8
Edible roots	39.3	30.0	40.0	40.0	40.0	43.0
other vegetables	33.2	20.0	40.0	30.0	30.0	40.0
Fruits & Berries & Orange	21.0	34.4	44.4	14.6	12.6	10.6
Fruits, berries	15.5	25.0	35.0	11.0	9.0	7.0
Fruits, berries dried	1.1	1.8	1.8	0.7	0.7	0.7
Sugar & Pastries	20.6	19.7	26.1	20.8	19.8	18.8
Sugar	19.4	18.0	24.0	20.0	19.0	18.0
Confectioneries	0.8	1.0	1.0	0.7	0.7	0.7
Cakes/Pies	1.3	2.0	3.0	0.7	0.7	0.7

Continued

Table 4. Cont'd

Kg/Year	1 Average ¹	2 Children 0-6	3 7-17	4 Active Male	5 Adult Female	Adults >=60 Adults >=55
Meat & Meat Products	24.5	18.7	33.5	30.4	26.0	19.9
Beef Veal	5.5	8.0	12.0	4.0	3.5	3.0
Lamb, goat	0.0	0.0	0.0	0.0	0.0	0.0
Pork	2.1	0.0	2.0	4.0	3.5	1.5
Sub-products	0.5	0.0	0.0	0.7	0.7	0.7
Poultry	15.3	10.0	18.0	20.0	17.0	14.0
Lard	0.5	0.0	0.0	1.3	0.9	0.3
Sausage & smoked meat	0.9	1.0	2.0	0.6	0.6	0.6
Fish 11.3	8.7	12.5	14.7	11.7	10.7	
Fresh fish	10.5	8.0	11.0	14.0	11.0	10.0
Herring	0.8	0.7	1.5	0.7	0.7	0.7
Milk & Milk Products	215.0	279.0	303.4	201.7	172.4	172.1
Milk whole	75.0	130.0	100.0	64.2	50.0	55.0
Milk nonfat	41.3	0.0	28.0	64.2	50.0	55.0
Sour cream, cream	1.5	1.8	2.6	1.8	1.1	1.1
Butter	2.7	4.0	5.0	1.8	1.8	1.8
Cottage cheese	9.7	10.0	12.0	10.0	10.0	8.0
Cheese	2.2	2.0	3.0	2.5	2.0	2.0
Eggs (number	123.5	150.0	180.0	150.0	120.0	75.0
Vegetable Oils	10.4	6.8	11.7	14.3	12.0	9.2
Margarine	3.8	2.0	3.0	7.0	5.0	3.0
Vegetable oil	7.0	5.0	9.0	8.0	7.5	6.5
Cost (rubl/m. June, 1992)	983.7	843.2	1201.1	984.6	873.2	746.1
Cost (rubl/m. July, 1992)	1098.7	979.8	1428.1	1242.3	1045.5	980.5

¹This average is based on the weighted average of each age-sex cohort among the low-income population.

Daily Nutrient Intake Levels

	1	2	3	4	5	
	Average	Children 0-6	7-17	Active Male	Adult Female	Adults >=60 Adults >=55
Energy (Kcal)	2099.5	1581.1	2385.6	2729.6	2165.0	1955.0
Total protein (g)	66.7	49.4	74.6	86.9	68.7	63.0
Animal protein (g)	26.8	25.1	33.1	31.2	26.0	23.7
Animal Protein	40.3	50.7	44.4	35.9	37.8	37.7
Total protein as % energy	12.7	12.5	12.5	12.7	12.7	12.9
Fat (grams)	58.6	51.6	73.9	71.4	59.8	49.3
Total fat as % energy	25.1	29.4	27.9	23.5	24.9	22.7
Vegetable fat (g)	27.5	18.9	33.0	34.5	29.7	25.3
Saturated fat	25.3	28.5	35.0	28.7	23.6	18.8
Saturated fat as % energy	10.8	16.2	13.2	9.5	9.8	8.6
% lin. acid	6.60	6.02	6.98	6.36	6.92	6.51
Carbohydrates (g)	322.6	228.1	351.7	429.3	333.8	311.0
Vitamin A	0.1	0.2	0.2	0.1	0.1	0.1
Carotene	3.6	2.9	3.8	3.6	3.6	3.9
Vitamin E	22.8	14.5	25.1	31.4	25.1	21.3
Vitamin B1 (mg)	1.3	1.0	1.5	1.8	1.4	1.2
Vitamin B2 (mg)	1.1	1.0	1.3	1.3	1.1	1.0
Vitamin B6 (mg)	2.3	1.6	2.6	3.0	2.3	2.2
Vitamin B12 (µg)	2.1	2.1	2.6	2.3	2.0	1.9
Vitamin C (mg)	47.2	50.4	67.3	53.4	43.6	36.1
Calcium (mg)	683.4	668.9	785.6	795.1	635.8	632.4
Magnesium (mg)	316.8	229.4	348.5	419.6	326.8	302.6
Phosphorus (mg)	1169.8	922.5	1303.6	1522.4	1181.6	1096.2
Iron (mg)	17.1	11.0	18.8	24.5	18.3	16.1
Potassium	3421.0	2669.2	3923.5	4421.4	3440.3	3187.9
Cholesterol	0.2	0.3	0.3	0.3	0.2	0.2

Table 5. Minimum Cost Food Basket¹

	grams	prot.	anm.prot.	fat	veg.fat	charb.	kcal	vit C
Rye bread	451.0	25.3	0.0	5.0	5.0	194.8	939.9	0.00
Potatoes	738.3	10.6	0.0	2.1	2.1	86.4	425.3	0.00
Edible roots.	10.0	0.1	0.0	0.0	0.0	0.6	3.0	0.00
Sugar	7.1	0.0	0.0	0.0	0.0	7.1	28.2	0.00
Milk	300.0	8.5	8.5	7.5	0.0	14.2	156.0	0.06
Cottage cheese	149.8	23.4	23.4	14.5	0.0	6.9	257.3	0.07
Cheese	31.2	7.2	7.2	8.0	0.0	0.0	102.7	0.06
Veg. oil	37.9	0.0	0.0	37.9	37.9	0.0	341.1	0.00

¹Based on linear programming exercise with the following nutrient levels acting as constraints:

protein	anm.prot.	fat	veg.fat	charb.	kcal	
75	39	75	45	310	2254	
vit A	car.	B1	B2	vit C	vit E	vit B12
0.19	0.61	1.45	1.56	110	28	2.71
Ca	Mg	P	Fe	K	vit PP	B6
1000	360	1554	20.4	4560	11.1	2.75
Chol	MDS	Cel	Pectin			
0.36	42	10.2	2.74			

Cost of the whole food basket
per day 23.13
per month 693.82

Table 6. Summary of Subsistence Food Basket and Income Costs, Russian Federation

	Average ₃	Children 0-6	Children 7-17	Adult Male	Adult Female	Adults M>60 F>55
Food Basket						
February 1992	468.8	435.2	619.8	509.2	432.1	387.7
April 1992	693.9	663.8	920.2	733.5	641.2	580.4
June 1992	917.7	843.2	1201.1	994.1	832.2	767.3
August 1992	1275.6	1086.0	1571.1	1448.3	1203.6	1128.2
September 1992	1466.3	1250.7	1821.1	1593.1	1410.0	1294.3
October 1992	1886.8	1587.8	2327.5	2163.8	1803.0	1649.7
November 1992	2356.2	2011.8	2932.8	2688.3	2242.8	2042.4
December 1992	3131	2722	3959	3559	2909	2667
January 1993	4116	3628	5189	4671	3904	3500
February 1993	4838	4216	6120	5490	4595	4112
March 1993	5616	4973	7169	6291	5285	4763
April 1993	6937	6355	8972	7565	6430	5868
Subsistence Income Level ¹						
February 1992	586.0	544.0	775.0	636.5	540.0	484.6
April 1992	867.4	830.0	1150.0	916.9	802.0	725.5
June 1992	1147.1	1054.0	1501.0	1243.0	1048.0	959.0
August 1992	1595.0	1358.0	1964.0	1810.4	1505.0	1410.3
September 1992	1832.9	1563.4	2276.4	1991.4	1762.5	1617.9
October 1992	2359.0	1985.0	2909.0	2705.0	2254.0	2062.1
November 1992	2945.0	2515.0	3666.0	3360.0	2804.0	2553.0
December 1992	3914	3403	4949	4449	3711	3191
January 1993	5145	4535	6486	5839	4880	4375

Table 6 Cont'd

Adults	Average ₃	Children		Adult		
		0-6	7-17	Male	Female	
M _{>60}						
F _{>55}						
February 1993	6048	5271	7650	6862	5743	5141
March 1993	7020	6216	8916	7864	6606	5954
April 1993	8671	7944	11215	9456	8038	7335
Official Government Level ²						
February 1992	686.4	584.2	844.4	826.6	701.5	467.7
April 1992	1016.0	891.0	1253.7	1190.7	1040.9	700.1
June 1992	1343.6	1131.8	1636.4	1613.8	1351.0	925.6
August 1992	1867.6	1457.7	2140.3	2351.1	1953.9	1360.9
September 1992	2146.9	1678.8	2481.1	2586.2	2289.0	
1561.3						
October 1992	2762.5	2131.3	3171.0	3512.7	2926.9	1990.0
November 1992	3449.8	2700.4	3995.6	4364.1	3640.9	2463.7
December 1992	4584	3654	5394	5778	4820	3217
January 1993	6026	4870	7069	7583	6338	4222
February 1993	7083	5659	8338	8912	7459	4960
March 1993	8223	6675	9767	10213	8580	5745
April 1993	10157	8530	12223	12281	10438	7078

¹Assuming 80% income spent on food

²With an average of 68.3% spent on food, 74.5% for 0-6, 73.4 for 7-17, 61.6% for adults and 82.9% for older adults. IN addition, the average figure for the Russian government is based on the age-gender distribution for the entire population.

³The age-gender distribution of the low-income population is utilized in the development of these average figures.