

WHY RUSSIA'S RURAL POOR ARE POOR

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Executive Summary

The article is organized around two general questions: (1) how have the rural poor fared during reform; and (2) to what extent have the rural poor adapted to new conditions during reform? This article contributes an original analysis to the rural poverty issue in two ways. First, it explores a topic that previously has not been analyzed in the literature; and second, it uses survey data which allows an in-depth examination of rural poverty at the household level. Our data allow us to focus on households living in poverty, and our units of analysis are rural households and rural individuals.

Our data suggest that there are fundamental differences in the stock of human and productive capital between poor and non-poor households. In our sample, households at or below the poverty line have a mean size of 2.7 persons, while households above the poverty line have a mean size of 4.0 persons, representing a substantial difference. An individual at or below the poverty line is older, having a mean age of 53.7 years of age, while an individual above the poverty line has a mean age of 47.9 years of age, which is also a considerable difference. Individuals at or below the poverty line have lower levels of education: husbands have a mean educational level of 9.7 years and wives 9.5. Conversely, individuals above the poverty line are better educated and have a mean of 10.8 years for the husband and 11.0 years for the wife.

Individuals living in poverty are more likely to feel lonely, unhappy and depressed. On a scale of 1-4, with 1 being “never” and 4 being “most of the time,” persons in poverty have a mean score of 1.85 for feeling lonely, 2.06 for feeling happy, and 1.81 for feeling depressed. Persons above the poverty threshold have a mean score of 1.46 for feeling lonely, 2.35 for feeling happy, and 1.50 for feeling depressed. These results are important because they are linked to pro-reform behaviors. In particular, statistically significant correlations show that:

- (1) Feeling happy is positively correlated to increasing land plots.¹
- (2) Feeling happy is positively correlated to feeling in control of one’s life.²
- (3) Feeling in control of one’s life is positively correlated to increasing land plots.³
- (4) Feeling in control of one’s life is positively correlated to satisfaction with village life.⁴
- (5) Satisfaction with village life is positively correlated to increasing land plots.⁵

Therefore, persons in poverty have more negative psychological dispositions and less positive, which in turn affects the likelihood of using opportunities created by reform such as participating in the land market.

Introduction

The Soviet Union was a welfare state, officially classless, and although stratification existed in reality, it was neither significant nor did it affect a large portion of the population. All of that changed as market reforms were introduced, first half-heartedly under Gorbachev in 1989, but then full force under Yeltsin in 1992. During Russia's transition from a command to a market economy, some distinguishing socio-economic trends stand out.

The first is a significant increase in stratification among social classes, giving rise to new social strata--led by the oligarchs who possess enormous wealth and power and who number no more than 1,000 persons throughout Russia (Freeland, 2000, chap. 5).⁶ In terms of class hierarchy, the oligarchs are followed by the so-called New Russians, who number less than one million persons throughout Russia.⁷ Rising inequality is evident not only between New Russians and the rest of the population, but also across occupations, within occupational groups, and across regions.

In short, economic differentiation increased severalfold throughout Russia, indicated by an increasing Gini coefficient to about .38-.40 in 1995, which was above the level in OECD countries but less than in Latin American countries (Aslund, 1997, p. 129). By the mid-1990s, the richest 20% of the population received about 50% of total monetary income in the nation, a trend which continued for the rest of the decade (Aslund, 1997, p. 129). Meanwhile, Russian workers suffered from wage arrears, a decline in real incomes and purchasing power, decreasing standards of living, increasing health problems, lower food consumption and a deterioration in the quality of their diet, and a loss of job security (Gustafson, 1999, chap. 8; Desai and Idson, 2000).

In rural Russia, stratification also increased, with some analysts speaking of "collapsing" and "surviving" agricultural enterprises; others wrote about "winners and losers" (Kitching, 1998; Wegren, O'Brien, Patsiorkovski, 2003). On the whole, however, the agricultural sector did not become as stratified as urban Russia. Rural Russia was not as highly stratified primarily because:

- (1) the new Russian rich were more interested in acquiring lucrative oil and gas rights or sending their riches abroad, and thus rural land was not perceived as attractive as other natural resources;
- (2) most rural citizens had low incomes and limited purchasing power;

- (3) legislation restricted the ability to buy rural land and required that agricultural land be used for agricultural purposes;
- (4) economic opportunity was less in rural Russia, with avenues to upward mobility more restricted; and
- (5) a decaying rural infrastructure reduced the value and convenience of rural land ownership as an investment.⁸

With the increase in social stratification, a second notable aspect during Russia's transition is an increase in poverty. This article focuses on rural poverty. Even though rural Russia had less stratification, it did not mean it was less poor, and in fact, some surveys show that rural areas have the highest percentage of the poorest of the poor (Krasil'nikova, 2000, p. 44). Indeed, one comparative study found that "urban poverty is markedly lower than rural poverty" in transition countries (Grootaert and Braithwaite, 1999, p. 49). This is a common pattern among countries throughout the world. In the former Soviet Union, however, higher incidence of rural poverty is not standard and suggests that the rural sector was a "loser" during the transition.

The purpose of this article is not to quantify or estimate the level of rural poverty. Rather, the goal is to further our understanding of the condition of living in rural poverty and the factors that contribute to poverty. The article is motivated by the fact that while significant attention has been given to socio-economic consequences of Russia's market transition and the increase in poverty in general (see McAuley, 1995; Braithwaite, Grootaert & Milanovic, 1999, chap. 2; Desai and Idson, 2000, chap. 13; Silverman and Yanowitch, 2000, chap. 3; Klugman and Marnie, 2001, chap. 16), absent in the scholarly literature are detailed analyses about rural poverty.

The neglect of rural poverty among analysts is unfortunate because the number of people affected by poverty is significant, numbering in the tens of millions.⁹ Those millions of people have a direct impact on the conduct and economic success of rural reforms, and their plight during reform. It was hardly the intent of market reforms to impoverish millions of new rural Russians, but that is exactly what happened. In that sense, this article speaks to an aspect of reform that was less than successful.

The article is organized around two general questions: (1) how have the rural poor fared during

reform; and (2) to what extent have the rural poor adapted to new conditions during reform? This article contributes an original analysis to the rural poverty issue in two ways. First, it explores a topic that previously has not analyzed in the literature; and second, it uses survey data which allows an in-depth examination of rural poverty at the household level. Our data allow us to focus on households living in poverty, and our units of analysis are rural households and rural individuals. We begin first with a few words about our research data before turning to an analysis of rural poverty.

Research Data

The data for this article are drawn from a survey conducted in five Russian regions during 2001. Those five regions include: Belgorod oblast, Volgograd oblast, Krasnodar kray, Novgorod oblast, and the Chuvash Republic. Within each region, four villages were selected, and within each village, 40 households were surveyed, for a total sample of 800 households (160 households in each region). The pretest of the questions was conducted in June 2001 in Ryazan oblast, followed by the full survey during July-October 2001. Thus, N=800 for our sample and this article.

In selecting villages to be surveyed, a primary objective was to gather data from "real" rural Russians, owing to the well-known effects of modernization and urbanization which influence attitudes and behaviors. Previously, when surveying "rural" Russia, it has often been the case that "rural" villages are selected due to their close proximity to an urban center, for the sake of convenience. The consequence of this selection method is that respondents' views do not capture the real attitudes of rural Russia. Our selection method purposefully focused on remote villages that were located several hours (by bus) from an urban center. Moreover, a cross-section of different types of villages was used: small, middle-sized, economically weak, and economically strong.

For each of the selected villages a stratified sample was composed from the household list of permanent residents which is kept by the village administration for all households within its jurisdiction. This list is updated annually and contains demographic and social characteristics of the households on the list. Households on this list included persons working on large farms, private farmers, persons working in food processing or food trade business, and persons engaged in private household agricultural production

and/or processing. One person from each household was interviewed. Data were collected about the respondent and the household in which he/she resides, which allows either the individual or the household to be used as the unit of analysis. The survey consisted of more than 100 questions per respondent. Interviews were conducted person to person by a research team from the Institute on Socio-Economic Problems of the Population (Moscow).

In order to conduct our analysis, a dummy variable was created: (1) households living "in poverty" and those "not in poverty." For purposes of this article, we use monetary incomes, even though we acknowledge that non-monetary income is an important factor in overall household welfare, and that non-monetary income increased as a share of total household income for rural families during the 1990s (O'Brien, Patsiorkovski, & Dershem, 2000). The use of monetary incomes as a measure of household welfare is a commonly accepted methodology among analysts of poverty (Grootaert and Braithwaite, 1999, p. 19). At the time of our survey the official subsistence level was 1,574 rubles per person per month (about \$54 at 2001 exchange rates). With a mean size of three persons per household, a household living in poverty would have a monetary income of 4,722 rubles per month or less (about \$163).

Thus, we created a dichotomous variable which divides households into two groups: those with monetary incomes at or below this threshold, and those above it. References below will be made to "the rural poor" and "non-poor," referring to households below the poverty threshold and those above it, respectively. In reality, we recognize that material and life style differences are not likely to be significant between households with 4,722 rubles per month and 4,723 rubles per month, but we justify this cutoff as analytically necessary, and one that is based on official government standards.

Post-Soviet Poverty: Background

Officially, poverty was non-existent in the Soviet Union, although in reality it existed but the true extent is unknown. Estimates place the Soviet poverty rate at about 6-14% of the total population, and about 11% of Russians (McAuley, 1979, chap. 4; Klugman and Marnie, 2001, p. 447). Soviet poverty was highly correlated to family size: the more children under 18, the higher the incidence of poverty. Especially affected were single parent households or households with one wage earner. In addition, certain

groups of pensioners were vulnerable, such as those who lived alone or had no alternative sources of income (McAuley, 1979; Matthews, 1986; Klugman and Marnie, 2001). There was also a great deal of regional variation throughout the Soviet Union. The republics with the highest incidence of poverty were in Central Asia (Braithwaite, 1990).

Upon liberalization of the economy from Soviet-era regulation, there was no commonly accepted methodology for calculating the poverty threshold. In 1992, in the midst of economic crisis--soaring inflation and plummeting production--the Russian Ministry of Labor devised a methodology to measure poverty which assumed that citizens spent 68% of their income on food, 19% on nonfood goods, 7% on services, and 5% on taxes and other expenses (Rimashevskaya, 2001, p. 158). Some analysts argued this level was actually too low, that families spent even more on food, and therefore the assumption of the Ministry of Labor was inaccurate as a measure of poverty.

In reality, non-food prices and the cost of services were rising even faster than food prices, and so the entire poverty methodology was distorted and the threshold probably too low. As nonfood goods continued to outstrip food prices, the 68% assumption became untenable and so in 1995 the Russian Ministry of Labor reduced the share of food in the subsistence budget to 57%. By placing more emphasis on nonfood goods, this raised the poverty threshold and increased the number of persons living in poverty from 30 million to 40 million (Desai and Idson, 2000, p. 208).

This method remained in place for a number of years, and served as the foundation of legislation which defined minimum living standards and pensions. In 2000, the methodology was changed again, but not as drastically. The composition of the food basket for pensioners was changed to reflect their consumption patterns more accurately. For the nonfood portion of minimal living standards, the methodology was changed from basing calculations on the expenditure patterns of poor families to a basket of 115 nonfood items based on expenditure norms for goods and services (Rimashevskaya, 2001, p. 159).

While the percentage of Russians living in poverty has been debated and disputed, it is agreed that poverty increased dramatically during Russia's transition in comparison to the Soviet period. We should note that there is no universally accepted number of people living in poverty, as poverty rates are based on

estimates and extrapolations from surveys (McAuley, 1995, pp. 180-83). In general, unofficial estimates are higher, and often distinguish between the "poor" and "extremely poor" (Krasil'nikova, 2000). With those caveats in mind, a general picture of the Russian poverty rate can be presented. In October 1991, Russian President Boris Yeltsin estimated that 55% of Russian families lived at or below the official poverty level. In early 1992, the International Labor Organization estimated that 85% of Russians lived in poverty (Silverman and Yanowitch, 2000, p. 42), while the official government estimate was much lower, about one-third of the population.

Thereafter, estimates about the population living in poverty varied, but it is generally accepted that poverty rates drifted downward, from about one-third to one-quarter of the population until the latter part of the decade (Silverman and Yanowitch, 2000, p. 46; Rimashevskaya, 2001, p. 163). Following the financial collapse of August 1998, the number of people living in poverty increased, according to some estimates, to more than 38% of Russian population at the beginning of 1999 (Silverman and Yanowitch, 2000, p. 156), while others put the rate at about 30% (Rimashevskaya, 2001, p. 163). Western estimates were even higher, estimating that 79 million Russians, out of a population of 147 million (almost 54%), were living below the official poverty line in late 1998 (*The Financial Times*, November 12, 1998, p. 3). In April 1999, the World Bank predicted that up to 30 million people would live in "extreme poverty" in the year 2000 (*The Financial Times*, April 19, 1999, p.18). In the Putin era some argue that the poverty rate has declined to the mid-20 percentiles, affecting about 40 million Russians (*Moscow News*, September 25-October 1, 2002), while other estimates state that poverty has increased to levels comparable to the early 1990s (Rimashevskaya, 2001, p. 163).

Finally, the literature on Russian poverty has examined in detail the causes of poverty and provided a comprehensive view of the primary factors affecting the incidence of poverty. A short summary of those findings provides a comparative background to causes of rural poverty which are considered in sections below.¹⁰ The factors relating to poverty in Russia during the 1990s include:

- (1) Location. There is a strong regional component to poverty, a legacy of the planned economy, replete with one-dimensional local economies and outdated technology in the industrial heartland.
- (2) Family composition. The incidence of poverty increases with family size. In the early 1990s,

85% of families with three or more children were in poverty.

(3) Unemployment. Families headed by an unemployed member have high rates of poverty. As the 1990s progressed, the average duration of unemployment increased.

(4) Wages and Pensions. Real wages declined during the 1990s, compounded by wage arrears which often extended for months. Pension payments also lagged inflation and were chronically in arrears.

(5) Gender. Households headed by women have higher poverty rates than households headed by men.

Rural Poverty in Russia

Analyses of the general causes of poverty, as discussed above, place emphasis on structural factors. Those general causes of poverty yields useful insights into our understanding of poverty in post-Soviet Russia. Ultimately, however, structural factors do not go far enough, and do not capture the full range of relevant variables. The purpose of this section is to introduce additional factors why Russia's rural poor are poor.

Although one of the original goals of agrarian reform was to destroy the vestiges of the old Soviet system, it is highly unlikely that reformers intended or wanted to increase rural poverty for the masses. Nonetheless, it may be argued that reform policy during the 1990s took the form of state urban bias. Urban bias theory explains how the rural sector is discriminated against and how that discrimination contributes to rural poorness.

Flowing from the work of M. Lipton in the 1970s, who wrote a book entitled *Why Poor People Stay Poor*, urban bias became widely accepted as a political economy approach to why rural interests were often discriminated against in developing nations (Lipton, 1976). The model was expanded upon and became a powerful explanation for urban-rural relations in Third World and post-Soviet states (Bates, 1981; Bates, 1983; Sadowski, 1991; Thiesenhusen, 1995; and Wegren, 2002).

Urban bias defines urban-rural relationships and maintains that states act to protect urban interests and discriminate against rural interests. The urban bias theory argues that financial, productive, and human

resources are deliberately "pumped" out of the countryside in order to benefit urban dwellers. Food producers are discriminated against on price and resource flows (although there may be variation according to type of production). Urban bias, therefore, leads to extractive and discriminatory policies against the rural sector.

There is considerable evidence to support the broad outlines of the urban bias thesis, not only in post-communist Russia, but in the agrarian performance of most post-socialist nations in Europe (Spoor and Visser, 2001). As a result of the liberalization of the economy, a significant price scissors occurred, especially early in the reform period, when industrial and consumer prices were liberated but agricultural wholesale prices remained controlled by the state (Sagaidak and Borkhunov, 2001). Large agricultural enterprises (former state and collective farms) were especially affected, with production from large farms in 2000 falling to 39% of its 1990 physical volume of output (*Rossiia v tsifrakh*, 2001, p. 200).

Other problems were also attendant with market reform, notably: (1) agriculture suffered from significant reductions in capital investments; (2) large producers were not protected from foreign imports, which was important because domestic prices were not price competitive. These trends, combined with a significant reduction in consumer demand due to higher prices meant that agriculture's contribution to national GDP was halved during the 1990s (in a contracting economy), food production fell to about 50% of 1990 levels, and large numbers of farms became unprofitable (see Wegren, 2000a). The latter was especially important because it held down farm wages and generally contributed to the demonetization of rural incomes.

While urban bias is certainly a contributing factor, it alone does not provide a full explanation for rural poverty. Alleviating rural poverty will be very difficult because the causes do not derive solely from state urban bias. If that were the case, an "enlightened" administration could simply change the course of policy. A second reason concerns significant differences which exist in human and productive capital between households below the poverty line and those above. A third reason concerns behavioral factors. Economic behaviors of households are also analyzed in a separate section below. The essential idea is that households in poverty did not utilize either old or new economic opportunities that might help lift them out of poverty. Finally, a fourth reason concerns psychological factors of those living in poverty. Thus, we

argue that poverty cannot be alleviated by changes in policy alone because the factors contributing to rural poverty are structural, behavioral, and psychological. Each is discussed in detail below.

Structural Factors of Rural Poverty

Rural poverty is important because of its magnitude: in our survey, 74% of rural households are living at or below the official poverty level, as defined above. Households living at or below the poverty level have a mean household income of only 29% that of households not in poverty.¹¹ We have seen no estimates for the percentage of rural households which live in poverty nationwide. However, we would be surprised if the national percentage were not close to the percentage in our survey. This is so because during the transition to a market economy, the rural sector arguably has been the most negatively affected among economic branches of the Russian economy. Moreover, our position is substantiated by additional economic realities:

(1) A high percentage of rural dwellers are of pension age, and pensions in general are inadequate, particularly if the person lives alone or the pension is the only source of monetary income. In 2001, 22.5% of the rural population was of pension age--8.8 million out of a population of 39.2 million (*Demograficheskiy ezhegodnik Rossii*, 2001, p. 37).

(2) Rural incomes (from salaries) became highly differentiated from urban incomes. At the beginning of the 1990s, agricultural monthly incomes ranked about in the middle when compared to other branches of the economy. By mid-decade, agricultural incomes fell in the rankings more than any other branch, and comprised the lowest average monthly income compared to other branches of the economy. As a result, in 1998 almost one-half of the rural population had an income below the minimum subsistence level as defined by the Russian government (Bondarenko, 2000, p. 69).

(3) Not only did income urban-rural differentials widen, but rural incomes became increasingly demonetarized. As farm debt rose, farm managers were forced to pay salaries with produce in-kind due to a lack of cash.¹²

Based on these trends, we would expect that a high percentage of rural households nationwide live

at or below the poverty line. This does not mean that some "entrepreneurial" households did not improve their welfare by taking advantage of opportunities created by reform--some evidence confirms this is precisely what happened (O'Brien, Patsiorkovski, & Dershem, 2000, chap. 9; Wegren, O'Brien, & Patsiorkovski, 2003). However, even with modest improvements among some households, the level of welfare was very low for the vast majority of rural households. This section, therefore, presents an overview of structural factors which contribute to rural poverty. One of the most noted scholars on poverty in the Soviet Union and former Soviet Union argued that:

There is both old and new poverty in Russia, but...most of it is new....[T]he new households have much the same stock of durables as the non-poor...they have much the same stock of human capital. In principle, therefore, it should be relatively easy to transform them back into non-poor (McAuley, 1995, p. 188).

We find, however, little reason for optimism that the poor can be "easily" converted back into non-poor. In particular, there are several structural factors to be overcome. Our data suggest the following: (1) low wages are a primary cause of poverty;¹³ (2) long-term unemployment is a problem; and (3) insufficient pensions are also a principal cause of poverty.

For example, a common cause of poverty, unemployment, especially long-term, is a significant contributor to rural poverty in our sample. In our survey, only 8.6% of households living in poverty have a member who lost a job during 2000. However, of the total number of households living in poverty, 44% have at least one member who is unemployed, suggesting either long-term unemployment or chronic unemployment. Further, of those living in poverty, 49% of husbands work full time, about 12% are unemployed, and 34% are retired. For wives, 33% worked full time, 43.5% are retired, and 7% are unemployed. The three factors contributing to poverty are not easily remedied because they require significant changes in state social policy and/or significant infusions of monetary resources into the rural economy, a trend which was not evident during the 1990s.

Moreover, our data suggest that there are fundamental differences in the stock of human and productive capital between poor and non-poor household. We do not agree, therefore, that households in poverty share essentially the same base of human and productive capital with households not in poverty. In

our sample, households at or below the poverty line have a mean size of 2.7 persons, while households above the poverty line have a mean size of 4.0 persons, representing a substantial difference. An individual at or below the poverty line is older, having a mean age of 53.7 years of age, while an individual above the poverty line has a mean age of 47.9 years of age, which is also a considerable difference. Individuals at or below the poverty line have lower levels of education: husbands have a mean educational level of 9.7 years and wives 9.5. Conversely, individuals above the poverty line are better educated and have a mean of 10.8 years for the husband and 11.0 years for the wife. Marital status also has an effect, particularly if the person is female. More than 31% of females below the poverty line are living without a mate (single, widowed, or divorced), while 6% of females above the poverty line are living without a mate, testifying to the link between living alone and poverty, and to the fact that female incomes are significantly below that of men.

We know from previous research that an increasing percentage of total household income (monetary and non-monetary) comes from the production of food from the household plot (O'Brien, Patsiorkovski, and Dershem, 2000, chap. 9). Nationally, food production from households accounted for 54% of total food production (in ruble value) in 2000 and 51% in 2001. We find, however, significant differences in productive capital between households below and households above the poverty threshold. For example, households below the poverty line have a mean of .89 cows and calves, while households above the poverty line have a mean of 2.69 cows and calves. The same is true for other livestock: households below the poverty line have a mean of .91 pigs, 2.1 goats and sheep, and 18.2 poultry. Households above the poverty line have a mean of 2.7 pigs, 5.4 goats and sheep, and 48.8 poultry. Finally, regarding the application of fertilizers and the use of herbicides, our data show that households below the poverty line are significantly less likely to use organic fertilizers (19.5% versus 6%) and less likely to use herbicides or pesticides (60% to 34%). Neither type of household uses mineral fertilizer very often, although households below the poverty line do so slightly less often. Overall, our data show that there are substantial differences in human and productive capital between poor and non-poor households which will not be easy to overcome, if it is possible at all.

Behavioral Factors of Rural Households in Poverty

The section above demonstrated significant differences in human and productive capital between poor and non-poor households. This section shows that the differences between the two types of households extend to economic behaviors as well. Specifically, we examine the use of land reform opportunities and household food production. This section shows that households in poverty have not utilized new opportunities with regard to the use of land; and underutilize existing opportunities inherited from the Soviet period with regard to the growing and marketing of household food production.

Land reform brought new legal rights to individuals, firms, and enterprises to buy, sell, trade, or lease land. Land may be privately owned and passed on to heirs. Virtually all rural households have a household plot, both nationwide and in our sample (about 98%). Nationwide, household plots are responsible for producing a significant amount of Russia's food—more than one-half of the nation's total value since the mid-1990s (in ruble value). Previous research has shown that the Russian land market mostly consists of transactions of small plots of land (generally less than one hectare) which are used for the growing of food (Wegren and Belen'kiy, 2002). The interesting question is whether poor and non-poor households utilize the opportunities afforded by reform to the same extent.

We measure utilization of land reform opportunities by asking whether the household increased its household plot since 1991, and if so, by how much. It could be expected that households in poverty would be motivated to maximize land usage in order to grow food, which in turn provides monetary and non-monetary income to the household, provides a sense of economic security, and reduces monetary expenditures on food. We find, however, that households in poverty are somewhat less likely to have increased their household plot since 1991: 32% of households at or below the poverty threshold increased their land plot, while 42% of households above the poverty line did. Moreover, there are significant differences in the size of the increase. Less than 5% of households at or below the poverty line increased their household plot by at least 1.0 hectares, while almost 19% of households above the poverty line increased their land plots by a minimum of 1.0 hectares, and 5% increased by 10 or more hectares. Overall, households in poverty have a mean household plot size of .23 hectares, while households above the poverty line have a mean plot size of .30 hectares, or 30% larger.

Although rural land is generally not expensive, it might be argued that households in poverty are not able to expend scarce monetary resources on increasing the household plot or to lease additional land, and inability explains lower participation rates in the land market. However, large farms sometimes allocate land free of charge to farm members and their families. Particularly in rural areas where out-migration has been a long-term problem, such as Russia's non-black earth zones, the allocation of land is commonly used as an incentive to keep farm members.

Farm land is also used as a benefit to supplement household income. The allocation of free farm land allows households to establish commercial ties back to the farm, which buys the produce, or to conclude contracts directly with processing plants. Thus even without engaging in plot increases, rural households have access to additional land. We find, however, that households in poverty take advantage of this opportunity somewhat less than non-poor households. In our sample, about 85% of households in poverty did not have land from a large enterprise, while 76% of non-poor households have no such plot. In addition, 18% of non-poor households have allocated land between 1-4.9 hectares, while only 10% of poor households do. Overall, the mean size of allocated farm land plots is slightly smaller for poor households: 1.2 hectares to 1.4. Thus, we conclude that households in poverty used new economic opportunities created by reform less than households not in poverty.

Even without rental or allocated farm land, nearly all rural households have a pre-existing plot and thus are able to grow food (only 3% of households in poverty have no household plot). The growing and selling of household production is not a new economic opportunity but rather is a long-term tradition that pre-dates Soviet times. Owing to lower levels of human and productive capital, it would be reasonable to expect lower levels of food output by households in poverty. The extent of the gap between the two households is shown in Table 1.

Table 1: Mean Volume of Annual Household Food Production

	Households in Poverty	Households not in poverty	Production of households in poverty as % of production in households not in poverty
Potatoes produced (kg)	921.31	1622.90	57%
Vegetables produced (kg)	547.06	1046.67	52%
Fruit produced (kg)	212.32	805.18	26%
Meat produced (kg)	248.61	788.43	31%
Milk produced (liters)	3841.32	7021.55	55%
Hay produced (kg)	3225.47	7884.24	41%
Eggs produced (number)	1488.96	2272.53	65%

Percentages have been rounded.

Source: Authors' calculations based on survey data, 2001.

The table shows that households living at or below the poverty line produce significantly less food from their plot than do households above the poverty line. The structural factors surveyed above surely have an effect on the trends demonstrated in the table, but even so, the rural poor lag behind the non-poor by a surprising margin. The rural poor produce just over one-half the volume of staples of the Russian diet, potatoes and vegetables, which for the population as a whole consumption increased, while consumption of animal products decreased (Wegren, 2000b). Of particular note is the fact that the rural poor produce less than one-third the volume of meat as the non-poor, and meat is usually a primary product produced by households throughout Russia. Our data suggest that the rural poor shared in this economic expansion to a lesser degree than the non-poor. The consequences of this fact have direct ramifications for household welfare, as illustrated in Table 2

Table 2: Mean Volume of Annual Food Production Sales

	Volume of Production Sold	Volume Available after Sales (production minus sales)*
Households in Poverty		
Potatoes (kg)	54	867
Vegetables (kg)	33	514
Fruit (kg)	7	205
Meat (kg)	106	142
Milk (liters)	1648	2193
Eggs (number)	156	1332
Households Not in Poverty		
Potatoes (kg)	305	1317
Vegetables (kg)	234	812
Fruit (kg)	519	286
Meat (kg)	575	213
Milk (liters)	4573	2448
Eggs (number)	233	2039

*See Table 1 for production data. Not all available volume is consumed by the household. Some is given away. Some is fed to animals. Some is lost by spoilage.

Source: Authors' calculations based on survey data, 2001.

Lower production levels by households in poverty mean that such households literally are consuming their potential investment capital and perpetuating a cycle of poverty. This is shown by the fact that households above the poverty threshold sell significantly more of their household production, thus supplementing their other sources of income and increasing the household's monetary income. Households below the poverty line sell much less.

In addition, the fact that household production is sold more often in non-poor households suggests that extra discretionary income exists for additional food purchases, consumer goods, home improvements, or investments in productive stock such as more animals, fertilizer, etc. In short, households in poverty, by consuming their production, perpetuate their poverty, while households not in poverty are able to increase their productive capital stock, thereby improving future economic prospects.

To demonstrate the point, we asked respondents if their households intended to increase food

production in the future. Households not in poverty more frequently answer that they intend to increase production (37% to 23%). We then asked how they plan to increase production. Households not in poverty respond more that they intend to obtain additional land (35% to 25%). Land adds to productive capacity. Households in poverty respond that their households intend to add livestock--a consumable commodity (72% to 64%). We have seen how the rural poor consume more and sell less of household production, and thus this pattern would appear to continue into the future. Moreover, both cohorts overwhelmingly intend to depend upon their own labor to increase production, with little if any assistance from relatives, friends, or their farm. With more limited human capital, the prospects for households in poverty to increase production significantly are worse.

Psychological Factors of Rural Individuals in Poverty

This section uses the individual as the unit of analysis to examine psychological factors of rural poverty. Individuals in poverty have certain psychological characteristics. Specifically, individuals living in poverty are more likely to feel lonely, unhappy, and depressed, On a scale of 1-4, with 1 being "never" and 4 being "most of the time," persons in poverty have a mean score of 1.85 for feeling lonely, 2.06 for feeling happy, and 1.81 for feeling depressed. Persons above the poverty threshold have a mean score of 1.46 for feeling lonely, which means they are lonely less often; 2.35 for feeling happy, which means they are happy more often; and 1.50 for feeling depressed, which means they are depressed less often. Different moods in turn are correlated to having a sense of control in one's life, as shown using Pearson correlations with two-tailed significance tests in Table 3.

Table 3: Correlation Coefficients of Mood to Control of Life

	Able to control life
Happy	.347
Lonely	-.325
Depressed	-.402

All coefficients are significant below the .001 level of confidence.

The data show that being happy is positively correlated to feeling in control of one's life, while feeling lonely or depressed is negatively correlated. These results are important because they are linked to pro-reform behaviors. In particular, statistically significant correlations show that:

- (1) Feeling happy is positively correlated to increasing land plots.¹⁴
- (2) Feeling happy is positively correlated to feeling in control of one's life.¹⁵
- (3) Feeling in control of one's life is positively correlated to increasing land plots.¹⁶
- (4) Feeling in control of one's life is positively correlated to satisfaction with village life.¹⁷
- (5) Satisfaction with village life is positively correlated to increasing land plots.¹⁸

Therefore, persons in poverty have more negative psychological dispositions and less positive, which in turn affects the likelihood of using opportunities created by reform such as participating in the land market.

Conclusion: Is There a Way Out?

The extent of rural poverty in Russia is unknown, but it is likely to affect an overwhelming majority of the rural population. This article has been organized around two main questions: how have rural Russians in poverty fared during reform, and how have they adapted? We conclude that they have not fared well due to structural, behavioral, and psychological reasons. Furthermore, the evidence suggests that those in poverty do not utilize existing economic opportunities and have not adapted to new economic conditions as much as non-poor households. If correct, our analysis has significant implications for rural Russia and for reform outcomes.

First, with regard to policy and politics, our data show that persons living below the poverty line are somewhat *more* likely to support the Communist party in national elections, and are somewhat *less* likely to support state policies toward land reform and the reform of state and collective farms.¹⁹ At present, differences in political opinions and over policy are not extremely large--owing to the fact that rural sector as a whole has suffered from urban bias, and in general has seen its standard of living decline. We would expect political and policy differences to increase in the future as stratification deepens, which brings us to our second point.

From the mid-1990s to mid-2000, rural stratification has been less significant than in urban Russia and actually decreased (Rimashevskaya, 2001, p. 89). However, we expect rural stratification to increase in the future unless remedial policy steps are taken. Stratification will increase not only because of the factors analyzed above (structural, behavioral, and psychological), but also because of the survival strategies used by households.

Our analysis suggests that we are witnessing the early stages of the creation of a permanent economic and psychological underclass in rural Russia. Perhaps it would not be an exaggeration to say that those in poverty have maladapted, are trapped in poverty, and are unable to devise appropriate strategies to remove themselves from it. The question is: what to do about it? The problem is that our evidence suggests that households in poverty do not respond to stimuli created by need (their poverty), to opportunities created by reform (increase land plots), or to incentives for improvement (opportunities to grow and sell food to improve household income).

What, then, can be done to alleviate rural poverty in Russia? Part of the poverty problem, though certainly not all, was caused by government policies. The government can address, indirectly, some of the structural production factors, although the overall effect may very well be limited. In May 2002, a program entitled "Social Development of the Countryside to the Year 2010" was approved by the Russian government (see Ushachev, Toropov, & Bondarenko, 2002). Although wide-ranging, the program has several shortcomings.

(1) Similar social development programs have not been fully funded or fulfilled. Indeed, both during the Soviet past and the post-Soviet 1990s, the political landscape is littered with rural

social development programs that existed primarily on paper. It is not clear why this newest program will be different, if the political will is greater now than in the past.

(2) The program only indirectly addresses rural poverty. Some of the main goals are to expand the labor market, reduce rural unemployment, and improve productivity of existing productive and human capital. However, it does not address low rural wages.

(3) Although the program envisions an expenditure of more than 167 billion rubles during 2003-2010 to fulfill its goals (about 5.5 billion dollars at 2002 exchange rates), only 11% is scheduled to come from the federal government. Another 42% is supposed to be allocated by regional governments. The remaining 47% is to come from unspecified off-budget sources.

(4) With a few exceptions, most regional governments do not have the budgetary resources to fund this program. At present, the program envisions the transfer of social services from large farming enterprises to municipal governments. Moreover, new land laws envision that municipal governments will become an intermediary in land transactions, exercising the right of first refusal for agricultural land, and then reselling or leasing it to other users. With these additional financial obligations, it is not clear where monies will come from in order to expand housing, improve cultural, health, and recreation facilities, increase the level of rural education, create rural jobs, and attract young specialists--all while the federal government has quietly begun to require higher percentages of local tax revenues be directed to the center. In short, funding for the program is suspect.

The other part of the problem is how to change behaviors and psychology. This problem is obviously more difficult, for it asks people in poverty to change the way they behave and the way they think. Our analysis suggests that those in poverty are either unable or unwilling to lift themselves out of poverty. Therefore, it would seem again the burden falls on government. We feel that the government has to do more than the program on social development discussed above. Two programmatic ideas that are possible and feasible may lead to short-term behavioral change and long-term psychological improvement.

The first proposal is to set up a special land fund for households in poverty to receive free land allotments to use for the growing of food. Poor households increase their land plots less and are less likely

to have rental plots, thus affecting household food production volumes, consumption, and prospects for additional monetary income. Land from large farms is not universally available and not practical in poor climate and soil regions. A similar land transfer program was adopted by the Russian government during 1992-1994 which created land funds for distribution to persons wishing to begin independent private farms. The program was successful in jump starting the private farming movement in Russia.

A similar program could be implemented, with needs-based criteria developed, to allow the poorest families to obtain free land that is either presently unused or underused by large farms. Or, a defined percentage of land obtained by municipal governments during land transactions could be set aside for poor households. The transfer of land could be free except for a small transaction fee for document preparation, and the recipient household could still be held accountable to existing laws on land use protection of its fertility.

The second proposal is that the local governments create a special program to buy food from poor households, which at present market small volumes of their production. Already, the Russian government has introduced a policy of price supports, and during 2001 and 2002 harvest seasons intervened in the domestic grain market, spending 5-6 billion rubles. Thus, a precedent of government intervention in food markets has been reestablished. Local governments could "recommend" that a defined percentage of food purchased by state-licensed purchasing agents--which buy food for state use in hospitals, orphanages, and for the military--come from poor households. This measure would provide poor households with a guaranteed outlet for food production, and might entice them to produce more and sell more. With these two proposals in place, which would provide tangible and hopefully effective economic assistance, the prospects for longer term improvement in psychological mood are improved among the poor.

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ENDNOTES

¹ Below the .001 level of confidence.

² Below the .001 level of confidence.

³ Below the .05 level of confidence.

⁴ Below the .001 level of confidence.

⁵ Below the .05 level of confidence.

⁶ Contributing to economic differentiation by oligarchs was of the 'grabification' of the country's key economic assets: natural resources, oil, gas, minerals, and precious stones in particular, which occurred during non-agricultural privatization in the early 1990s (Hough, 2000, chap. 2; Freeland, 2000, chap. 1).

⁷ This term refers to entrepreneurs and businessmen who took advantage of market reforms to start new businesses or engage in private trade (see Gustafson, 1999, chap. 5; Silverman and Yanowitch, 2000, chap. 6; Humphrey, 2002, pp. 58-62).

⁸ For example, the latter was seen in Saratov oblast as early as 1997. Saratov was the first of Russia's regions to adopt a land law that permitted the sale of agricultural land, and land sales were by auction. Despite heavy advertisement of the auction, only about one-half of available rural land plots were purchased, and many of the buyers were from Moscow, not Saratov.

⁹ If we assume that about 75% of rural households live at or below the poverty line, as in our sample, it would mean that poverty affects approximately 29 million rural Russians.

¹⁰ This list is comprised from: McAuley, 1995, pp. 178-82; Grootaert and Braithwaite, 1999, pp. 47-56; Klugman and Marnie, 2001, pp. 459-65; and Krasil'nikova, 2002.

¹¹ Households in poverty have a mean monthly income of 2,491 rubles from all sources, while households not in poverty have a mean monthly income of 8,542 rubles.

¹² In mid-1997, for example, a Goskomstat survey data of Russian households showed that rural households received only 70% of their total income in monetary form, compared with 88% for urban households. Just prior to the financial crisis of August 1998, the situation was much the same: rural households received 69% of their income in monetary form, while urban households received 95%. Calculated from *Statisticheskiiy biulleten'*, 1 (March 1999), p. 35; and *ibid.*, 1 (January 2000), p. 19.

¹³ Of persons living below the poverty threshold, 37% are ordinary farm workers, while only 2% are farm managers and 8% are farm specialists.

¹⁴ Below the .001 level of confidence.

¹⁵ Below the .001 level of confidence.

¹⁶ Below the .05 level of confidence.

¹⁷ Below the .001 level of confidence.

¹⁸ Below the .05 level of confidence.

¹⁹ Attitudes toward reform are important because we maintain that opinions about reform influence behaviors: those with negative perceptions are less likely to feel happy and more likely to *not* engage in economic behaviors that support reform or that improve household welfare.