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**RURAL RESPONSES TO REFORM FROM ABOVE:**

**The Contemporary Period**

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## **Executive Summary**

This paper focuses on responses of Russian rural households in four areas: (1) unemployment; (2) land relations; (3) food production and sales; and (4) sources of income. These four areas have provided the greatest opportunities and challenges for households and their ability to respond to them has had a substantial impact on household welfare. Our findings provide evidence that there was much more fundamental structural change in the social organization of Russia's rural economy during the ten years following the collapse of the Soviet Union than is generally recognized.

The last decade has witnessed a major shift in the types of enterprises in which individuals are employed and an equally significant shift in where households derive their incomes. The legacy of the Soviet agricultural model, the large enterprises, still exists, but as we have seen, households no longer are totally dependent upon them for their economic livelihood. During the 1990s, rural households made significant strides to become more economically independent from the large enterprises.

This change is twofold. First, households became more self-sustaining. At the beginning of the decade, households were merely able to use their own resources, mainly household labor and informal helping networks to survive. By the end of the 1990s, households and villages were beginning to show evidence of a more sustainable adaptation to a market economy. Second, this self-sustaining activity was due to an increase in food production from the household plot, and from higher volumes of food sales which increased both monetary income and household welfare. These two changes are no small achievement of agrarian reforms from above. However, the incremental steps by many households to find new sources of income has produced a new look in the village over time.

## **Introduction**

Four times in the 20<sup>th</sup> century Russia attempted significant agrarian reforms. The Stolypin reforms introduced a voluntary program of individualization for land that previously was held communally. Reforms during the New Economic Policy moderated the anti-rural bias of War Communism by reducing controls over food production, wholesale trade, and allowing land leasing. Collectivization was an attempt to grapple with chronic food shortages and famine, and to establish political and economic control over the countryside. As is well-known, it was brutal and implemented with violence and significant loss of life.<sup>1</sup>

The contemporary agrarian transition in Russia was intended to replace collective agriculture with agrarian capitalism. Similar to past agrarian reforms, it was introduced from above, and was a mix of volunteerism and obligation.<sup>2</sup> Former Russian President Boris Yeltsin introduced a course of institutional change that was intended to break sharply with the Soviet past. These changes included reorganization and privatization of state and collective farms, privatization of processing and agricultural enterprises, land privatization and the adoption of supportive legal institutions, the creation of an individual private farming stratum, and the development of a land market.

In short, Yeltsin's agrarian reforms were intended to transform Russia's agricultural economy along market lines. The specific goals were to privatize farm land and property, to create the foundations for a rural class of independent and prosperous private farmers, to make food production more productive and efficient, to decrease the economic burden of food subsidies to the national budget, and to deregulate food trade.

Two views of the relative success of contemporary agrarian reform have emerged in the literature. The first is that reform has been a failure, characterized not only by falling production, as well as lower yields and productivity, but also by significant rural opposition to reform. This opposition is alleged to come from conservative politicians in the national and regional legislatures, from farm managers, and from the rural population at large who are said to oppose privatization and the

establishment of marketization.<sup>3</sup> The second view places primary emphasis on the sources and nature of change that have occurred in a generally hostile macro-economic environment during the 1990s.

Attempts to resolve these competing explanations typically have focused on studying large farm reorganization, the establishment and fate of private farms, or rural political conservatism.<sup>4</sup> Much less attention has been given to the responses of rural households to changes in their new economic and political environment from 1991 to 2001.

In this paper we will show that more change has occurred at the household level than is usually understood. The use of macro-economic data which capture either trends at the national level, or for entire regions, are unable to detect the subtle but important innovations and adaptations displayed by rural households.

Our argument and findings are based on seven sample surveys of rural households, from 1991 to 2001. The 1991 and 1993 surveys were conducted in two villages, one in Rostov Oblast and the other in Belgorod Oblast.<sup>5</sup> From 1995 to 1999, four surveys were conducted in the two aforementioned villages and in an additional village in Tver' Oblast.<sup>6</sup> These surveys form a panel study in which the same households were interviewed from one year to the next. The most comprehensive survey was conducted in 2001, surveying 800 rural households in five regions of the Russian Federation: Belgorod, Novgorod and Volgograd oblasts, Krasnodar Krai and the Chuvash Republic.<sup>7</sup>

In addition to the contrasting literatures on success/failure of contemporary reform, our analysis is framed by two, oftentimes disconnected, theoretical foci of how responses to reform from above are reflected in the behavior of persons at the local level. The first is the conventional literature on human capital, which suggests that differential responses to reform should be primarily an outgrowth of human capital<sup>8</sup> advantages or disadvantages. This would include education and skill levels of workers in individual rural Russian households. From this perspective, the expectation is that households with greater education and specialized training for skilled occupations will have economic advantages over other households as the opportunities for participation in a new market economy increase.

Conversely, this perspective suggests that persons and households with low educational levels and little skilled technical training will be seriously disadvantaged in the transitional period and thus suffer more economically than will their better trained counterparts. Macro-level data shows that the labor force in rural Russia is disadvantaged vis-à-vis the labor force in urban Russia on this traditional human capital dimension.<sup>9</sup> Little attention, however, has been given to the effects of differences in this type of human capital on inequality between rural households.

A second perspective on responses to reform is based upon the traditional social organization of Russian households. This can be understood within the rubric of Scott's<sup>10</sup> and Netting's<sup>11</sup> descriptions of the moral economy of small holder agriculture. Because the social organization of labor in the peasant household is based upon highly dense networks of mutual trust and inter-dependence, rather than individualistic wage-labor contracts, these types of enterprises are able to substantially reduce transaction costs involving relationships between workers and "monitoring" of work performance.<sup>12</sup>

There is considerable evidence that small-scale enterprises based on principles of a moral economy can be an efficient way to adapt to certain types of economic exigencies in advanced industrial as well as in traditional societies. Examples include early twentieth century Japanese American labor intensive agriculture in the Central Valley of California<sup>13</sup> and small grocery stores, liquor stores and restaurants owned by Cuban and Korean immigrants to the United States.<sup>14</sup>

Rural households in Russia, by and large, have opted for a more conservative strategy that preserves the household through the development of human and social capital. This strategy builds upon highly dense ties that were developed during the Soviet period. These relationships have become the basis for penetration into developing niche markets rather than merely household subsistence.<sup>15</sup>

In addition to the two sources of differentiation described above, previous research would suggest that perhaps age, gender and region might affect household responses to agrarian reforms initiated by the Russian central government. Intuitively, we might expect that younger persons who are not as "set in

their ways" and do not have as much invested in traditional ways of doing things, would be less resistant to change than their older counterparts. Moreover, previous research has found that men and women have fared quite differently in the transition to a market economy in Russia, including the labor force in rural areas.<sup>16</sup> Finally, different regions within Russia have responded quite differently to reform initiatives.<sup>17</sup>

Our analysis will focus on responses of rural households in four areas: (1) employment; (2) land relations; (3) food production and sales; and (4) sources of income. These four areas have provided the greatest opportunities and challenges for households and their ability to respond to these challenges has had a substantial impact on household welfare. Individual households, however, have had different levels of resources with which to make their responses. In the sections that follow we will first examine overall trends in rural areas and then look at how different households have responded, depending upon their resources.

### **Changes in the Structure of Employment**

During the Soviet period, from 1929 to 1991, primary employment for working age adults was in either the collective (*kolkhoz*) or state (*sovkhov*) farm. These two basic types of large enterprises employed nearly all working-age adults. Virtually all individuals and organizations in the village were dependent on the large enterprise for economic and social support.

Teachers and doctors, for example, received salaries from the government but the building, upkeep and equipment of the local school and clinic was provided by the budget of the local *kolkhoz* or *sovkhov*. Retired and disabled persons received pensions from the federal government but they also received various types of material support from the large enterprise, particularly for operating their household plots. For farm employees, the farm was not only a place of employment, but it also provided social services such as day care, dental and medical services, educational facilities, and on-site food stores at which food could be purchased at reduced prices.

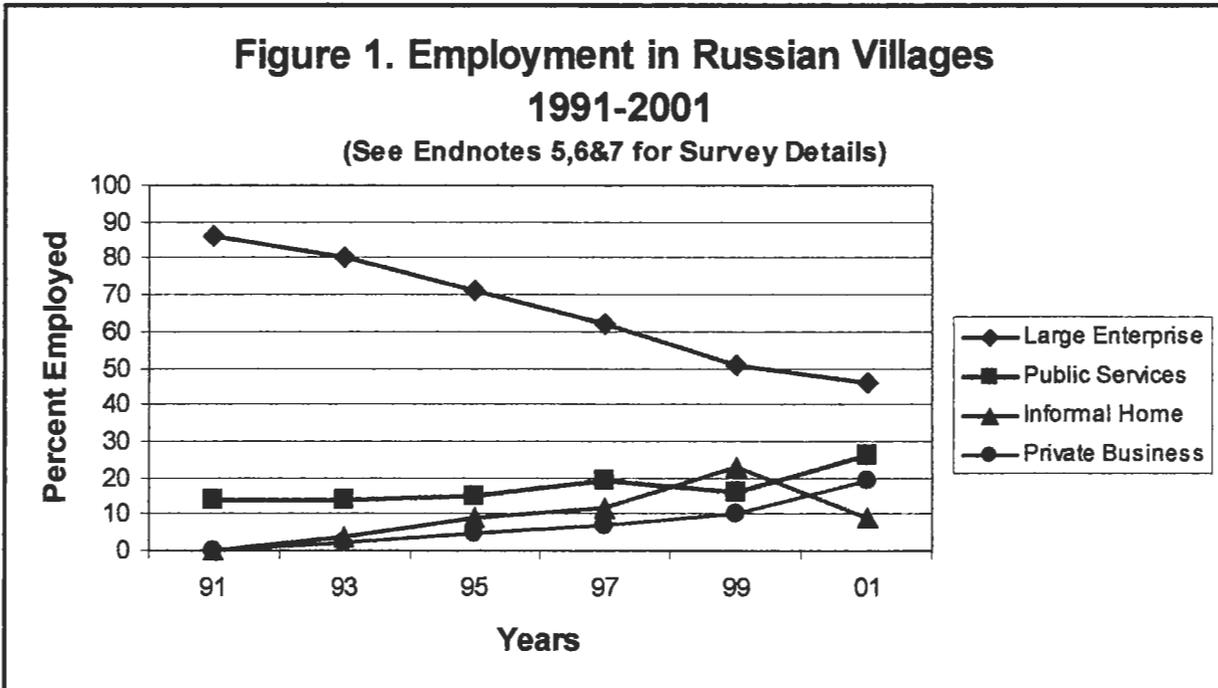


Figure 1 shows where rural residents found new sources of employment from 1991 to 2001. The 1991 survey data reflect the rural employment pattern in the late Soviet period. According to that survey, 86 percent of working age adults were employed by the large enterprise in their local area. The remaining 14 percent were public service workers, medical, educational and cultural service personnel. The first change was the decline of employment on large farms. National level data show that during the 1990s employment on large farms declined significantly. For example, nationally, the number of persons employed on large farms declined from 9.7 million in 1990 to 8.3 million in 2000.<sup>18</sup> This trend is reflected as well in our survey data. For example, employment on a large farm by working adults declined from 86 percent in 1991 to 46 percent in 2001.

A second change was an increase in the number of persons employed in public services, rising from 14 percent of the sample in 1991 to almost 26 percent in 2001. A third change was agricultural employment outside of large enterprises through the creation and development of private farmers (*fermery*). The rise and decline of the private farmer movement has been analyzed elsewhere, so we mention it simply in passing to make the point that private farming households represent an important

change in the structure of rural employment, compromising as much as 10-15 percent of total rural employment.<sup>19</sup>

A final change was the development of other types of non-agricultural businesses, including new retail trade and services in the areas of construction and transportation, and people who report that they are self-employed in household enterprises. The latter, by and large, are persons who completely left the large enterprise and have devoted all of their time to their household plots. Those persons who have left the large enterprise entirely are found in an increasingly diverse number of employment situations. Taken together, officially registered private farmers, those in other agri-businesses, and those employed in other non-agricultural businesses, totaled more than 10 percent in 1999 and 19 percent in 2001, approaching close to one-fifth of the 2001 sample.

The last two lines on the graph in Figure 1 show the trends in employment in two types of self-employment. One of the lines refers to clearly identified private businesses and the other line refers to less clearly defined informal home enterprises, the latter usually involving work on the household plot and sales in local farmers' markets. The trend of persons leaving large enterprises to work in the informal sector of household enterprise employment is fairly steady from 1991 onward, with a sharp increase from 1997 to 1999.

The overall trend of increased informal home employment is due to the weakened economic position of the large enterprise. From 1991 through 1998, for example, the percentage of unprofitable large farms increased substantially, rising to 89 percent of all large farms in 1998. Increasing unprofitability, combined with increased production costs led to significant wage arrears for farm workers. Finally, as some progress was made in paying back wages, the devaluation of the ruble occurred in 1998, thereby lessening the importance of money and increasing the importance of barter. It is not surprising, therefore, that from 1997 to 1999 the percentage of persons who were employed at home doubled.

The survey in 2001 shows a substantial drop in the amount of employment in the more amorphous informal type of home enterprises. It appears, however, that this drop is due to the movement of some households from the more general category of self-employment into more clearly defined niches. This view is reinforced by the fact that the drop in the general self-employment category is almost offset by an increase in the number of respondents reporting specific small business employment, which is shown in the last line in Figure 1. This category includes, for example, a private veterinary operation and a trucking business. This type of work now accounts for almost one-fifth of employment in rural areas and again reinforces the notion that there is an ongoing restructuring of the rural economy in ways that typically are not recorded in macro-economic data.

#### *Household Differences in Employment*

A household's relative advantages (or disadvantages) in different types of human and social capital influence the kinds of employment changes that it makes in response to reform initiatives. For purposes of this article, human capital is defined as attributes of individuals in the household, including their education/skills<sup>20</sup> and labor capacity.<sup>21</sup> Social capital is defined as specific social relationships that create additional capacity for the household in the marketplace.<sup>22</sup>

On the one hand, households with high levels of education and advanced technical training, such as agronomists, agricultural engineers and veterinarians, are often able to find a new employment niche in various types of private small enterprises that require a high level of skill. Thus, for example, the number of persons in the specialist category who work for large enterprises declined from 16.4 percent in the 1991 survey to 10.8 percent in the 2001 survey. These highly educated persons moved into the growing number of new small private enterprises, including private farming, as well as other agribusiness and non-agribusiness business. As shown in Figure 1, specific private businesses account for almost one-fifth of all employment in 2001.

Workers on collective farms with lower levels of education and training, however, did not have the opportunity to develop high skilled niche business enterprises. Instead, these workers comprise an increasing number of persons who left employment in large enterprises to devote all of their energies to the household plot. From 1991 to 1999, our surveys showed an almost 20 percent decline in the number of persons identifying themselves as *kolkhozniki*, from 70 percent to 50.3 percent. The 2001 survey found a higher number of persons identifying themselves with this category, 62.8 percent, but this figure is still lower than in 1991.

The decline from 1991 to 2001 in the number of persons identifying themselves as a *kolkhozniki* is matched by the growth in the number of persons identifying themselves in the more diffuse (as opposed to the more technical businesses occupied by the former specialists) self-employment, which reach a high of 23.4 percent in the 1999 survey but still remained at 10.6 percent of the 2001 sample. This shift in employment reflects the way in which households with less formal education have used household labor as a form of human capital that is embedded in the social organization of the moral economy of the peasant household in order to gain some competitive advantages in an emerging market economy.

The responses just described have had different effects on men and women, a reflection of more limited employment choices for women than for men in rural areas.<sup>23</sup> Men account for 35.3 percent and women account for 64.7 percent of all persons who list their occupation as self-employed, either in specific businesses (the more highly educated) or in more diffuse household self-employment (the less educated). In 1999, a peak year for informal household employment (see Figure 1) the percentage of women who were self-employed was almost twice that of the men (32 percent compared to 16 percent). This trend reflects lower opportunity for women in newly created private businesses.

Gender differences are especially evident among less educated and lower skilled workers. Typically, female employees on large enterprises, such as milkmaids and low-skilled animal husbandry helpers, lost their positions as these enterprises closed their livestock facilities as livestock herds declined. For example, the number of cows and calves on large farms nationally declined from 47.1 million in 1991

to 15.8 million at the beginning of 2002. The number of pigs on large farms likewise declined during the same time period: from 31.2 million to 8.7 million. Women who found themselves laid off did not have the range of choices available to more highly educated female specialists. A large number of less educated women have become self-employed as full time workers in their own household enterprises where they work with livestock to produce and sell meat, dairy products and eggs in farmers' markets.

### **Changes in Land Relations**

During the Soviet period, land ownership was illegal, and land leasing was re-legalized only in the late 1980s, after being prohibited since 1928. In October 1993, former President Boris Yeltsin signed a decree permitting the buying and selling of agricultural land, which in turn allowed a rudimentary land market to appear. This decree regulated rural land transactions until July 2002, when a law on agricultural land turnover entered into force.<sup>24</sup> According to this decree, individuals were allowed to buy, sell, lease, bequeath, or inherit agricultural land and agricultural land shares (with some restrictions). Although some analysts argue that land privatization was resisted, the evidence suggests otherwise.<sup>25</sup>

Starting in 1994 and continuing through 2000 (the last year for which data has been obtained), several million land transactions occurred annually, although the overwhelming majority of land transactions consisted of lease transactions. As the 1990s progressed, lease transactions declined relative to land purchases, and in 2000 lease transactions accounted for about 90 percent of all land transactions. Thus, the first response to new land opportunities has been to lease land, and this pattern is explained by the political uncertainty of buying and selling land throughout the 1990s, as well as by the fact that households had limited incomes and often could not afford the upfront capital investment that a land purchase required.

In addition to a municipal land market, which involves either leasing or purchasing land from raion or municipal administrations, there is also a private land market which refers to the sale of land between private citizens. Nationally, the private market averaged over 202,000 land purchases annually in

urban and rural locations during 1998-2000.<sup>26</sup> Interestingly, among transactions between individuals, the rural land market actually accounts for the highest percentage of sale-purchase transactions, even though mean rural household incomes are much lower than for urban families, and the rural population is only 27 percent of Russia's total population.

Nationwide in 2000, for example, rural land purchases comprised 42 percent of all purchase transactions between individuals, while urban transactions accounted for 40 percent. (The remainder were transactions outside of population points). The overwhelming majority of these transactions involved small plots of land, less than one-half of a hectare, and the plots were used for household plot production or the construction of individual housing with a household plot. Despite the limited transformative potential of these types of plots, they do represent the nature of the land market, and therefore an understanding of who participated in the new freedom to buy and sell land is important.

#### *Household Differences in Land Relations*

Participation in the land market is measured by the inclusion in the 2001 survey of a question about whether the household plot had been increased in size since 1991, and by how much. Overall, 35 percent of the entire sample increased their household land plot. The most common size of the increase is between .01-.99 hectares, and this is true for all age groups, occupations, and regions. This 35 percent is not the only measure of rural residents using land opportunities. In addition to the 97 percent of households that have household plots, rural dwellers may rent additional land or use land allocated from a large farm. These questions were included as well in the survey and the data show that 34 percent of households rented additional land and 18 percent used land allocated by a farm.

We are not able to say definitively whether the same households are involved in all three types of land activities, but it is doubtful since households are constrained by limits on human and productive capital. With a mean of three persons per rural household, labor would be stretched thin if multiple land plots were operated simultaneously. Moreover, the motivation to engage in all three types of land usage

would be low because household plots are used primarily for subsistence. If commercial activities are desired, one could start a private farm, in which case land plot sizes are much larger.

In sum, the point is that not only do almost all households have a household plot, but significant numbers of households use other types of land as well. The overall picture is that rural households have utilized opportunities to obtain and use land, which does not support the argument of rural resistance to land reform. Utilization of land reform opportunities vary, of course, depending on levels of human, social, and physical capital.

An analysis of the 2001 data yields the following patterns. First, in terms of age, persons aged 18-39 are most likely to expand their household plot, and persons over 60 are least likely. Our data show that 42 percent of individuals aged 18-29, and 50 percent of persons aged 30-39, increased their household plot, while only 26 percent of persons aged over 60 did so. Therefore, in general, younger aged persons are somewhat more likely to increase household land plots, and this makes intuitive sense since physical ability is highest at those ages. In addition, these are the ages during which family size is likely to be largest, and an increase in a household plot is positively correlated with the size of the family.

In terms of the size of an increase in the household plot, it is interesting to note that persons aged 18-39 tend to expand plots by smaller sizes, the most frequent size increase being .01-.99 hectares, which is consistent with growing food for family consumption. Plots of this size are used primarily for household subsistence, with some food sales, but this activity is secondary. In the sample, 35 percent of persons aged 18-29 increased their household plot by less than one hectare, as did 39 percent of persons aged 30-39. Persons aged 40-59 are somewhat more likely to increase their household plot by one hectare or more, as nearly nine percent in those age cohorts increased their plot by 1.0-4.99 hectares.

However, for the very largest size increases, 10 hectares or more (which indicates a private family farm), persons aged 30-39 have the highest frequency. In terms of age, therefore, we conclude that: (1) persons aged 18-39 participate in the land market more frequently; (2) persons aged 40-59 participate

less, but when they do the size of the land plot increase is greater; and (3) persons aged 60 or more participate the least and engage in small size increases of land.

The second general pattern concerns the relationship between occupation and land plot increases. In the 2001 survey, 40 percent of farm workers increased their household plot, and the most common size of the increase was between .01-.99 hectares. About 35 percent of farm managers increased their household plot, as did 49 percent of farm specialists. Interestingly, only about 25 percent of unemployed persons increased their household plot, and this is surprising because it would be expected such persons would be motivated to use land as a substitute for income by growing food.

The responses of private farmers are particularly noteworthy. First, all private farmers increased their land plots. Second, private farmers increased their plots by the largest sizes: 20 percent increased their plots between 5.0-9.99 hectares, and 80 percent increased their land plots by 10 hectares or more. In the latter case, this occurrence suggests the transformation of subsidiary household agriculture into a commercial private farm. Thus, although private farmers faced many economic difficulties during the 1990s, their responses to new land relations were by far the most pro-reform.

The third and final general pattern concerns regional differences. It would be reasonable to expect a North-South differential, between black earth and non-black earth regions, reflecting soil quality and climatic differences. However, our data do not bear out a consistent pattern. On the one hand, in Belgorod oblast, 52 percent of households in the survey participated in the land market by increasing their household plot, compared to the non-black earth region Novgorod, where less than 24 percent of households increased their plot. However, the North-South pattern is not consistent because in the black earth regions of Krasnodar krai and Volgograd oblast only 16 and 24 percent of households increased their household plot, respectively.

Thus, soil and climatic differences do not appear to be the most important variables determining participation in the land market. Adding to the sense that other factors are operational, Chuvashia displays the highest participation rate of all the regions: 59 percent of households increased their household plot.

Further research is needed to understand better the factors influencing participation in the land market, but it appears that political, social, and ethnic factors warrant further investigation.

### Change in Food Production and Sales

During the Soviet period, almost every rural household had a land plot, from which food was produced for both consumption and sale, although the vast majority was consumed. Surveys in the 1980s showed that about 90 percent of household production was consumed, although the actual percentage varied by product, region, family size, and level of income.<sup>27</sup>

**Table 1. Structure of Russian Agricultural Output by Type of Producer, 1991 - 2001 (in %)**

	1991	1995	1997	1999	2001
<b>Large Farms</b>	69	50.2	46.5	41.2	44.8
<b>Households</b>	31	47.9	51.1	56.3	51.5
<b>Private Farms</b>	0	1.9	2.4	2.5	3.7

Sources: *Rossiiskii statisticheskii ezhegodnik* (Moscow: Goskomstat, 1996), p. 550; *Rossia v tsifrah* (Moscow: Goskomstat, 2002), p. 204.

During the 1990s, a dramatic change occurred among agricultural producers in their share of overall agricultural output. For example, in 1991 large enterprises produced 69 percent while households produced 31 percent of total agricultural output. In 2001, however, large enterprises produced only 45 percent but households produced 51.5 percent, and private farmers produced four percent of total agricultural output (expressed as the nominal ruble value of output). Changes during the 1990s are illustrated in Table 1. We should note that households do not produce all types of produce, but concentrate mostly on potatoes, vegetables, meat, milk, and eggs. Further, the large percentage changes indicated in Table 1 by households occurred mostly as a result of significant declines in food production among large farms. Particularly after 1995, household production stabilized and did not experience the rapid growth of the early 1990s.

### *Household Differences in Food Production and Sales*

There was considerable variation among households in their food production and sales from 1991 to 2001. Intuitively, we might expect that households which had expanded their household plots the most and had the largest amount of rented land would also have the highest levels of production and sales. The relationship between land relations, on the one hand and household production and sales on the other, however, is more complex.

As noted in the previous section on land relations, households appear to have opted either to expand their household plot size or to rent more land. These different strategies are reflected in the zero-order correlations between the different types of land relations and production and sales. For the total sample in 2001, an increase in plot size is strongly correlated with higher production,  $r=.524$ , but has a much weaker relationship with sales,  $r=.195$ . When the small number of high producing and high selling private farmers are excluded from the analysis, the different effects of the two types of land relations become even clearer.

The correlation between increased plot size and food production is  $.945$  but there is no significant correlation between increased plot size and sales. Alternatively, the size of rental land is positively correlated with food sales,  $r=.125$ , but there is no statistically significant correlation with production. This finding suggests that land plots are used for different purposes, with household plots used for food production to be consumption and rental plots are used for commercial production for sales.

The relationships between different types of household capital and production and sales are also somewhat more complex and represent significant change from the Soviet era.

Table 2 shows the mean levels of production and sales in households with different occupational backgrounds.

**Table 2. Mean Levels of Production and Sales in Households Among Different Occupations in 2001 (N=800)**

	<b>Total Weighted Production*</b>	<b>Total Weighted Sale*</b>
<b>Managers</b>	53,482	8,639
<b>Specialists</b>	13,697	5,849
<b>Clerical</b>	13,665	5,490
<b>Workers</b>	16,642	7,226
<b>Private Farmers</b>	160,256	126,010
<b>Self Employed</b>	25,211	11,598
<b>Unemployed</b>	7,718	2,089
<b>TOTAL SAMPLE</b>	16,407	6,900

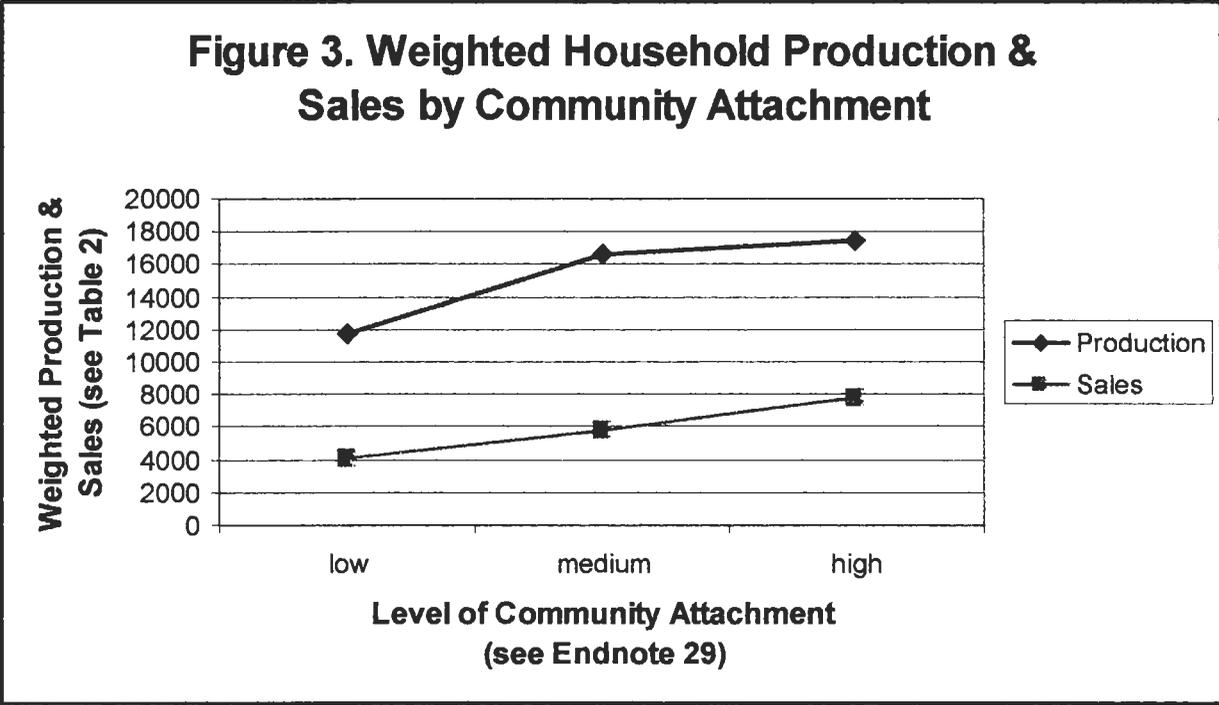
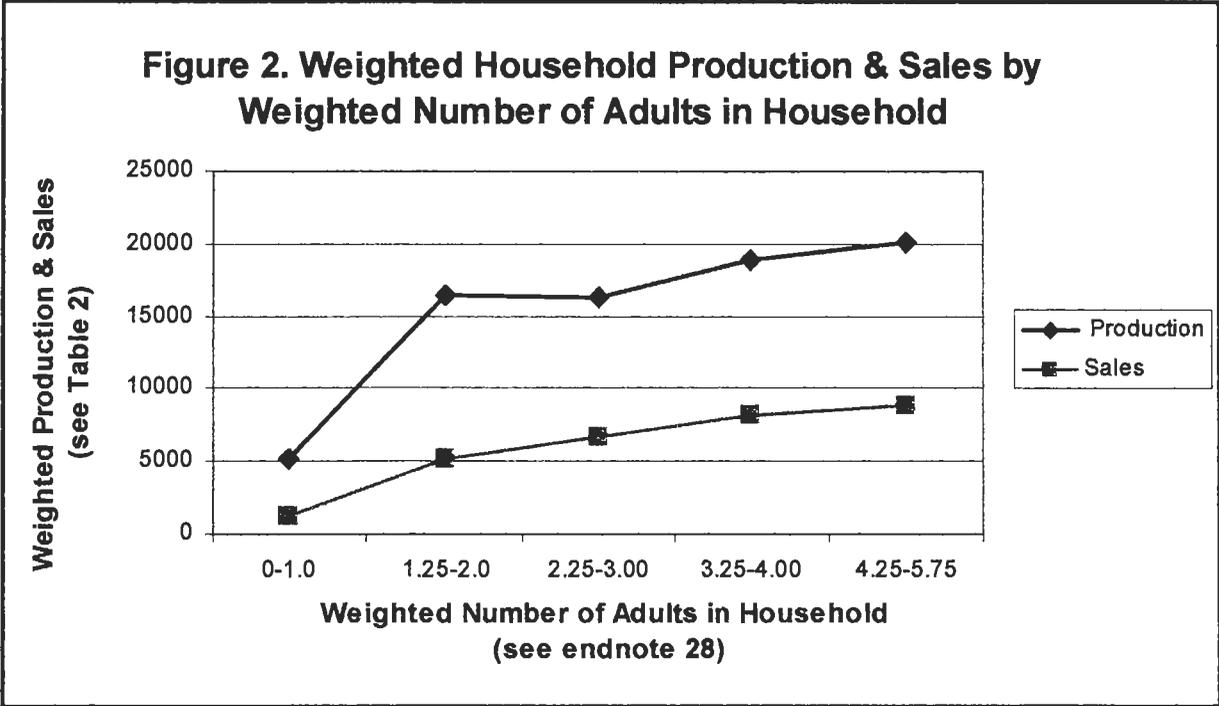
Sources: NCEEER Survey data, 2001, See Endnote 7.

\* Weighting is a method for standardizing the value of different agricultural products. The baseline for calculating household weighted production and sales was the ruble value of potatoes and vegetables in the nearest regional market at the time of the survey, the summer of 2001. The value of other items produced or sold by the household was calculated as a multiple of the value of potatoes and vegetables. For example, milk was weighted @ 2 x liter, while meat was weighted @ 15 x kilograms. The weighted values for each item were then summed to create the total weighted production and sales values reported in Table 2.

Nationally, private farmers contribute a small percentage of the nation's food supply, but on a per capita basis private farmers far outproduce other rural occupations in Russia. Private farmers' level of production is almost ten times greater and their level of sales more than 18 times greater than the corresponding means for the total sample. Managers produce much less than private farmers and specialists produce even less than the managers. This suggests, therefore, that education and training alone does not create the the most important advantages in household production and sales, but that additional commitments of time and energy and physical capital (i. e., purchase or rent land) by fulltime private farmers are required to turn this type of human capital into a substantial advantage in the rural Russian economy.

Among households with fewer advantages in technical education there are some striking differences between those households where adults define themselves as *kolkhozniki* and those who have become full-time self-employed. Self-employed families produce 51.5 percent and sell 60.5 percent more than workers' households and 53.7 percent and 68.1 percent, respectively, more than the averages for the total sample. Significantly, although self-employed households produce less than half as much as

managers' households, they sell a third (34.3%) more than managers. In short, some households that are disadvantaged by lack of education and technical skills have been able to compensate and create self-employed enterprises.



As noted earlier, the traditional sources of capital in the peasant moral economy of Russian villages has been comprised largely of household labor and village-level helping networks. Figures 2 and 3 show the respective influence of these types of capital on household production and sales. Private farmers have been excluded from this analysis. Figure 2 shows both the strength and the limitations of the peasant moral economy. There are clear advantages to having more working-age adults in the household,<sup>28</sup> but these advantages begin to diminish rapidly after four adults.

Figure 3 shows that community attachment,<sup>29</sup> a proxy measure for the extent to which a household is integrated into village community helping networks, also provides a household with certain advantages, but these advantages also tend to diminish rapidly after a moderate level of involvement. These findings suggest that although elements in the traditional peasant moral economy have played a critical role in helping households to adapt to a market economy, there remains a need for new institutions that will permit households to create business linkages that go beyond their highly personalized helping networks.<sup>30</sup>

In summary, our findings suggest that both conventional forms of human capital, as well as peasant household human and social capital, operate to create different kinds of responses by households to the opportunities presented by agrarian reform measures. It is also clear, however, that there are other contingencies that play a critical role in determining whether either of these types of household capital will produce advantages in production and sales. In the case of households with high levels of technical training and education, it appears that occupational status plays an extremely critical role in determining whether that those advantages will be translated into higher levels of production and sales. Those households with the greatest advantages in this regard are those that have made the plunge and have become full-time private farmers. For those households with limited education and training, it would appear that the greatest advantages accrue to those that have left employment with the large enterprise and devote their energies fulltime to self-employed household enterprises.

## Changes in Household Income

The organization of farms in the Soviet Union relied upon a rigid stratification of occupational positions that were differentiated according to formal education and skill levels. At the top of the wage pyramid were the managers of the large enterprises, who had graduate degrees in agricultural economics or some other specialty. Next in order of income and perquisites were the agricultural specialists, such as agronomists and veterinarians. A small group of persons, labeled as clerical, served as nurses, teachers and office staff for the large enterprise. The vast majority of working age adults were *kolkhozniki*.

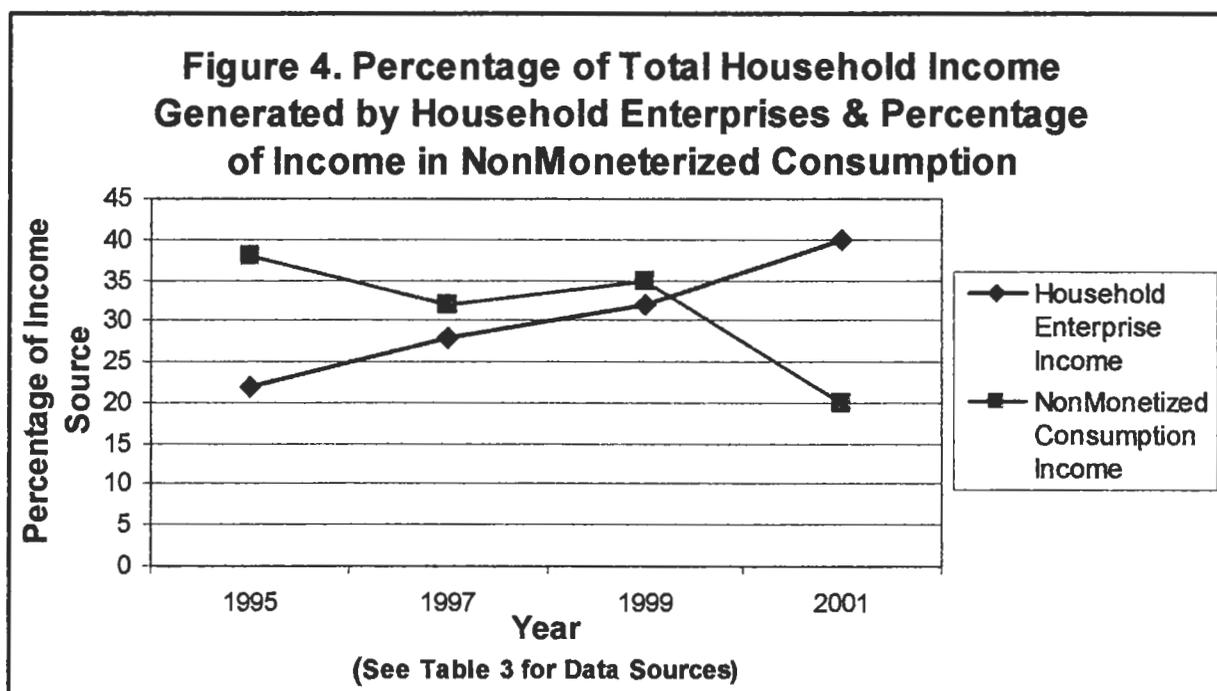
During the Soviet period, rural Russian households relied on three sources of income: salary and other benefits from employment in the large enterprises; transfer payments in the form of pensions for retired persons, as well as payments to disabled persons and single parents; and monetary and non-monetary (consumption) income from household plots. Official figures show that the sources of income for collective farm families in 1989 were distributed as follows: 62 percent came from the *kolkhoz*; nine percent transfer payments, 25 percent as non-monetary income from household private plots, and four percent from other sources.<sup>31</sup>

In the post-Soviet period important changes have occurred in the relative importance of different sources of income. Whereas in 1989 household plots provided slightly less than one-quarter of a household's income, almost exclusively through non-monetary consumption, household production contributed almost 60 percent of total household income by 1995, including a significant (35 percent) portion of its monetary income according to our sample.

In 1995, the share of income from household enterprises was increasing while the share from primary salary and transfer payments was decreasing. By this time, several types of household enterprises were contributing to household income, including agricultural sales, non-agricultural businesses, and rents received from leasing land to the large enterprises or private farmers. In 2001, "other income" combined with household enterprise income accounts for almost half (49 percent) of total monetary income. These trends are shown in Table 3.

**Table 3: The Contribution (in percentage) of Different Sources to Monetary (M) and Total Monetary and Non-Monetary (TI) Income in Three Russian Villages from 1995 to 1999, N=422 (see Endnote 6) and Twenty Russian Villages in 2001, N=800 (see Endnote 7)**

Sources of Income		1995		1997		1999		2001	
		M	TI	M	TI	M	TI	M	TI
Salary & Wages	Primary Salary	30.6	19.0	30.5	21.0	19.1	13.2	22.2	16.9
	Secondary Salary	1.0	1.0	4.2	2.9	10.3	6.6	3.4	2.5
Transfer payments		33.2	20.2	27.6	18.9	19.8	13.7	25.0	18.8
Household Enterprises	Business	6.0	3.7	9.1	6.1	6.8	3.5	14.4	11.0
	Benefits	3.2	1.9	4.1	2.8	5.4	2.9	2.2	1.6
	Agricultural Sales	26.0	16.6	25.5	19.5	38.6	25.1	22.2	16.7
Other income		-	-	-	-	-	-	9.9	7.6
Nonmonetized consumption		-	37.6	-	31.6	-	35.0	-	25.0
<b>TOTAL</b>		<b>100.0</b>							



In addition, changes in the relative proportion of monetary to non-monetary income occurred during the 1990s. Figure 4 shows trends in monetary and non-monetary household income. These trends illustrate the changing contribution of household enterprise activities for a rural Russian family's total income. The line showing the percentage contribution of household enterprise income to total family income rises in the predictable upward direction. Most important is the decline in the relative proportion of non-monetarized household income that consists of food grown and consumed by family members, which declines during the whole period from 1995 to 2001, with the exception of 1999, the year following the collapse of the ruble. This provides evidence that rural households are moving from a subsistence economy to a more sustainable and monetarized market economy.

#### *Household Differences in Sources of Income*

In the previous section, we found that education and training were an important source of competitive advantage for a household in increasing its production and sales, but only if these skills were combined with other conditions. The data on household income show a similar trend.

**Table 4. The Distribution of Monthly Total Household Income by Employee Position –Persons Eighteen Years of Age and Older in Russian Villages from 1991 to 2001 (adjusted to 1991 rubles)\***

Position	1991 (n=300)	1993 (n=252)	1995 (n=563)	1997 (n=547)	1999 (n=525)	2001 (n=915)
<b>Management</b>	1476.0	318.9	477.4	904.4	633.5	827.1
<b>Specialist</b>	965.5	310.6	550.5	961.5	632.6	564.7
<b>Clerical</b>	830.8	278.4	468.9	887.0	608.0	767.5
<b>Kolkhoznik</b>	817.7	325.6	425.5	775.6	552.0	672.1
<b>Private Farmer</b>	-	264.2	1125.2	1237.3	769.9	2918.1
<b>Self Employed</b>	-	234.3	421.5	780.1	593.4	715.8
<b>Pensioners &amp; Unemployed</b>	302.2	121.0	234.3	364.8	220.2	273.2
<b>TOTAL SAMPLE</b>	694.3	271.0	380.0	651.1	439.3	484.1

Data Sources: See Endnotes 5-7.

\* 1 ruble in 1991= 245.3 rubles in 1993=1805.7 rubles in 1995=2383.5 rubles in 1997=6564.3/1000 rubles=6.6 in 1999, 7.2 rubles in 2000, and 8.5 rubles in 2001.

Table 4 shows that in 1991 there were two main determinants of income differences between households. Households without an employed member made less than one-half of the average income of all households in the villages. Among the remaining households, those with high levels of education, managers and specialists, did better than other households. Managers received more than twice the average monthly income in the village. All other categories of workers received approximately the same income at that time.

We can observe a dramatic change at the beginning of the restructuring period in 1993. All categories lost a substantial amount of income, on average 2.5 times less than in 1991. The greatest relative losses, however, were among managers and specialists who received four and three times less income than they did in 1991, respectively. By 1997 average income levels for the total sample were beginning to approach the 1991 level. The distribution of income between households, however, was quite different in 1997 than it had been in 1991 or even in 1993.

The new category of officially registered private farmers, although small in number, by this time had become the most economically successful households in the Russian countryside. Many of these private farmers were former managers and specialists in the large enterprises. Two other categories, specialists and clerical workers, had either returned to or had exceeded 1991 income levels. Managers of large enterprises had regained some of their lost advantages but did not return to 1991 levels. Another new category of self-employed, which was made up largely of former *kolkhozniki* were showing significant income gains and had a very slight advantage over households that only contained workers. By 1997 the income of households of families without any employed persons exceeded their 1991 level.

The financial crisis of 1998 affected all Russian households, including those in rural areas. However, the average decline in household income in the rural villages did not fall below 1995 levels because the majority of these households were able to compensate for lost income sources through additional production from private plots for consumption and sale. The biggest rural losers in the devaluation of the ruble were households made up exclusively of pensioners who could not compensate

for lost income. The latter caused a great deal of concern within the Russian federal government and the level of pensions have been increased to come close to the minimum poverty level consumption basket. It is interesting to note in this regard that households with a self-employed family member were able to increase their gains over households that only contained *kolkhozniki*.

The 2001 survey shows a gain for all households compared to 1999 income levels. There is, however, considerable variation in income among households. The biggest “winners” have been private farmers, who increased their income from 1999 by almost four times. At the other end of the spectrum, households with no employed members made only fractional gains in the two-year period.

Among households with highly skilled workers, managers and specialists never regained the income they received in 1991, although the position of managers appears to have improved somewhat more than that of the specialists, at least from 1999 to 2001. Private farmers did not experience substantial gains right away, which reflects the enormously difficult environment they faced in the early 1990s, but their recent gains are reflected in official statistics showing their growing contribution to overall agricultural output (see Table 1).

## **Conclusion**

Our findings provide evidence that there was much more fundamental structural change in the social organization of Russia’s rural economy during the ten years following the collapse of the Soviet Union than is generally recognized. This paper has documented significant change in four key areas that affect the functioning and welfare of rural households: the structure of employment, land relations, food production and sales, and sources of income.

The last decade has witnessed a major shift in the types of enterprises in which individuals are employed and an equally significant shift in where households derive their incomes. The legacy of the Soviet agricultural model, the large enterprises, still exist, but as we have seen, households no longer are

totally dependent upon them for their economic livelihood. During the 1990s, rural households made significant strides to become more economically independent from the large enterprises.

This change is twofold. First, households became more self-sustaining. At the beginning of the decade, households were merely able to use their own resources, mainly household labor and informal helping networks, to survive. By the end of the 1990s, households and villages were beginning to show evidence of a more sustainable adaptation to a market economy. Second, this self-sustaining activity was due to an increase in food production from the household plot, and from higher volumes of food sales which increased both monetary income and household welfare. These two changes are no small achievement of agrarian reforms from above. It is true that reformers' visions of creating a dominant class of independent farmers along the Western European model has not been fully realized, a goal that may not have been realistic from the outset. However, the incremental steps by many households to find new sources of income has produced a new look in the village over time.

With regard to land, new relations continue to develop, as more and more land transactions occur every year. The private land market continues to expand, a sign of “modern” economic relations. With the passage of the Land Code in 2001 and the Law on Agricultural Land Turnover in 2002, both of which lend stability and predictability to land relations, the number of transactions is likely to increase. Our expectation is that the trends we have observed will only intensify. In addition, households have had to change the way they consume and market their household production. Finally, household income is now derived from a variety of different sources, with less dependence on salaries from large farms as noted above.

The importance of our findings is that they provide evidence of increased differentiation between households. As we indicated, there are two quite different sources of this differentiation. Human capital differences between households with respect to education, skills and how they translate into occupational positions follow the same direction as would be found in almost all societies. The other source of differentiation, variations in the household labor and social capital of households, is something that is

typically not dealt with in Western labor force and economic research on inequality. The new system of stratification that is emerging in the Russian countryside may also have certain parallels to that which occurred in post-communist transitions in other nations. This is seen most notably in the case of the biggest "winners" in agrarian reform, private farmers, who in many instances have had the advantage of access, through their previous party connections, to equipment and other resources.<sup>32</sup>

In conclusion, the transformation in the Russian countryside is quite remarkable given the fact that the transition from socialism to a market economy requires fundamental shifts in basic principles of distribution of wealth, income, goods and services, and the use of resources. This is no less true in the countryside than in the city.<sup>33</sup>

## ENDNOTES

<sup>1</sup> For a survey of those reforms, see Stephen K. Wegren and David J. O'Brien, "Adaptation and Change: Old Problems, New Approaches," in David J. O'Brien and Stephen K. Wegren, eds., *Rural Reform in Post-Soviet Russia*. (Washington, D. C. and Baltimore: Woodrow Wilson Center Press and Johns Hopkins University Press, 2002), pp. 1-22.

<sup>2</sup> Starting a private farm was voluntary. Large farms (former state and collective farms) were legally obliged to reorganize. State pressure was used to try to mold the reorganization process in a desired direction, although the effort did not entail violence or bloodshed. For an analysis, see Stephen K. Wegren, *Agriculture and the State in Soviet and Post-Soviet Russia* (Pittsburgh: University of Pittsburgh Press, 1998).

<sup>3</sup> See Part Two in O'Brien and Wegren, eds., *Rural Reform in Post-Soviet Russia*.

<sup>4</sup> See for instance Don Van Atta, ed., *The Farmer Threat: The Political Economy of Agrarian Reform in Post-Soviet Russia* (Boulder: Westview Press, 1993); and Karen Brooks and Zvi Lerman, *Agricultural Reform in Russia: A View from the Farm Level*, World Bank Discussion Papers, No. 233 (Washington, DC: The World Bank, 1994).

<sup>5</sup> These surveys were funded by the University of Missouri and the Russian Academy of Sciences. For findings and details on research design, see David J. O'Brien, Valeri V. Patsiorkovski, Larry D. Dershem, Alessandro Bonanno, and Charles Timberlake, *Services and Quality of Life in Rural Villages in the Former Soviet Union* (Lanham, Maryland: University Press of America, 1998).

<sup>6</sup> The 1995, 1996 and 1997 surveys were funded by the National Science Foundation, in cooperation with the Russian Academy of the Sciences. The 1999 survey was funded by the *Moskovski Obshestveni Nauchnii Fond* (Moscow Public Science Fund). For findings and details on research design, see David J. O'Brien, Valeri V. Patsiorkovski, and Larry D. Dershem., *Household Capital and the Agrarian Problem in Russia*. (Aldershot, U. K.: Ashgate, 2000).

<sup>7</sup> This survey was funded by the National Council on Eurasian and East European Research. For details on the research design of this survey, see Stephen K. Wegren, David J. O'Brien, and Valeri V. Patsiorkovski, "The Gender Dimension of Russian Agrarian Reform," *Problems of Post-Communism*, vol. 49, no. 6 (November-December 2002), pp. 48-57.

<sup>8</sup> Gary S. Becker, *Human Capital: A Theoretical and Empirical Analysis* (Cambridge: Cambridge University Press, 1964).

<sup>9</sup> Theodore P. Gerber and Michael Hout, "Educational Stratification in Russia During the Soviet Period," *American Journal of Sociology*, vol. 101 (1995), pp. 611-660; and Dennis J. Donahue, "Human Capital and Income Inequality in Russia," in O'Brien and Wegren, eds., *Agrarian Reform in Post-Soviet Russia*, pp. 203-220.

<sup>10</sup> James C. Scott, *The Moral Economy of the Peasant; Rebellion and Subsistence in Southeast Asia* (New Haven: Yale University Press, 1976).

<sup>11</sup> Robert M. Netting, *Smallholders, Householders: Farm Families and the Ecology of Intensive, Sustainable Agriculture* (Stanford, CA: Stanford University Press, 1993).

<sup>12</sup> *Ibid.*, pp. 71-74.

<sup>13</sup> Stephen S. Fugita and David J. O'Brien, *Japanese American Ethnicity: The Persistence of Community* (Seattle: University of Washington Press, 1991), pp. 47-62.

<sup>14</sup> Ivan Light, *Ethnic Enterprise in America* (Berkeley: University of California Press, 1972).

<sup>15</sup> O'Brien, Patsiorkovski, and Dershem *Household Capital and the Agrarian Problem in Russia*.

<sup>16</sup> See Wegren, O'Brien and Patsiorkovski, "The Gender Dimension of Russian Agrarian Reform," pp. 48-57.

<sup>17</sup> See, for example, an empirical study of different responses among Rostov, Belgorod, and Tver' Oblasts in David J. O'Brien, Valeri V. Patsiorkovski and Larry D. Dershem, "Rural Responses to Land Reform in Russia: An Analysis of Household Land Use in Belgorod, Rostov and Tver' Oblasts from 1991 to 1996," in Stephen K. Wegren ed., *Land Reform in the Former Soviet Union and Eastern Europe* (London: Routledge, 1998), pp. 35-61.

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<sup>18</sup> *Selskoe khoziaistvo Rossii* (Moscow: Goskomstat Rossii 2000), p. 18; *Rossia v tsifrakh* (Moscow: Goskomstat Rossii, 2002), p. 80.

<sup>19</sup> See Stephen K. Wegren, "The Politics of Private Farming in Russia," *The Journal of Peasant Studies*, vol. 23, no.4 (July 1996), pp. 106-40; and Stephen K. Wegren, "Risk Environments and the Future of Russian Private Farming," *Current Politics and Economics of Russia, Eastern and Central Europe*, vol. 16, no. 2 (2001), pp. 125-38.

<sup>20</sup> Becker, *Human Capital: A Theoretical and Empirical Analysis*.

<sup>21</sup> Alexansdr. V. Chianov, *The Theory of Peasant Economy* (Homewood, Illinois: R. D. Irwin, 1966); Carmen C. Deere and Alain de Janvry, "Demographic and Social Differentiation Among Northern Peruvian Peasants," *The Journal of Peasant Studies*, vol. 8 (1981), pp. 335-336.

<sup>22</sup> See James S. Coleman, "Social Capital in the Creation of Human Capital," *American Journal of Sociology*, vol. 94 (1988), pp. 95-120.

<sup>23</sup> See Wegren, O'Brien, and Patsiorkovski, "The Gender Dimension of Russian Agrarian Reform."

<sup>24</sup> See Stephen K. Wegren, "Observations on Russia's New Land Legislation," *Eurasian Geography and Economics*, vol. 43, no. 8 (December 2002).

<sup>25</sup> See Carol Scott Leonard, "Rational Resistance to Land Privatization: The Response of Rural Producers to Agrarian Reforms in Pre-and Post-Soviet Russia," *Post-Soviet Geography and Economics*, vol. 41, no. 8 (December 2000), pp. 605-620.

<sup>26</sup> For an analysis of the land market, see Stephen K. Wegren and Vladimir R. Belen'kiy, "Change in Land Relations: The Russian Land Market," in O'Brien and Wegren, *Rural Reform in Post-Soviet Russia*, chap. 4.

<sup>27</sup> *Lichnoe podsobnoe khoziaistvo naseleniia v 1988 godu* (Moscow: Goskomstat SSSR, 1989).

<sup>28</sup> The basic principles for constructing a weighted total of labor in a peasant household is found in Chianov, *The Theory of Peasant Economy*. For a more recent discussion of this, see Deere and de Janvry, "Demographic and Social Differentiation Among Northern Peruvian Peasants." The weighted number of adults in the household that is shown in Figure 2 was constructed by assigning the following weights for each household member: 0 (less than 8 years of age and 80 years and older), 0.25 (8 to 11 years, and 75-79 years), 0.50 (12 to 14 years, and 71 to 74 years), 0.75 (15 to 16 years, and 66 to 70 years), and 1 (17 to 65 years). These weights are then summed and a total "number of weighted of adults" score is obtained for each household. See O'Brien, Patsiorkovski and Dershem, *Household Capital and the Agrarian Problem in Russia*, p. 72.

<sup>29</sup> Community attachment was measured by asking respondents the extent (never, sometimes, often) that they attended family and village events and festivals. These responses were summed for a total community attachment score (alpha reliability = .72).

<sup>30</sup> See David J. O'Brien and Stephen K. Wegren, "Where Do We Go from Here? Building Sustainable Rural Communities," in O'Brien and Wegren, eds., *Rural Reform in Post-Soviet Russia*, pp. 403-16.

<sup>31</sup> *Narodnoe khoziaistvo SSSR v 1989* (Moscow: Goskomstat, 1990), p. 89.

<sup>32</sup> Acos Rona-Tas, "The First Shall Be Last? Entrepreneurship and Communist Cadres in the Transition from Socialism," *American Journal of Sociology*, vol 100 (1994), pp. 40-69.

<sup>33</sup> Ivan Szelenyi and Eric Kostello, "Outline of an Institutional Theory of Inequality: The Case of Socialist and Postcommunist Eastern Europe," in Mary C. Brinton, and Victor Nee, *The New Institutionalism in Sociology* (New York: Russell Sage Foundation, 1998), pp. 305-26.