HOUSEHOLD, REGIONAL AND LOCAL DIFFERENCES IN SUPPORT FOR SUSTAINABLE SMALL SCALE FARMING IN RUSSIA: SURVEY RESULTS FROM THREE VILLAGES

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Abstract

Survey research from three Russian villages (1991-1999) shows the strength of small-scale farming and sources of differentiation between households and villages. Attention is given to changing sources of income, the role of household human and social capital and different levels of regional and local institutional support for small-scale household farms.

Introduction

In this paper we examine the overall trend of household agriculture in Russia during the 1990s and household and regional differences in its development. Household agriculture has moved from survival in the early 1990s to the beginning of more sustainable development in the latter part of the decade. There are, however, marked differences between households and villages with respect to how successful this sustainability has been. Our findings are based on a series of six sample surveys of households in three villages from 1991 to 1999 (O'Brien et al. 1996; O'Brien et al. 1997; O'Brien et al. 1998a; O'Brien et al. 1998b; O'Brien et al. 2000; O'Brien and Wegren 2002; Patsiorkovski 2000; Patsiorkovski and O'Brien 1996 . Patsiorkovski et al. 1998; Patsiorkovski et al. 2000a; Patsiorkovski et al. 2000a; Patsiorkovski et al. 2000b; ICPSR 1998). The surveys from 1995 to 1999 constitute a panel study in which the same households were interviewed at four different points in time. Differences in the average levels of household production in different villages illustrates the importance of documenting local-level institutional development, rather than focusing exclusively on macro-level political struggles over institutional reforms.





Figure 1 shows that the locations of the three villages in our study are representative of distinctive types of rural areas within European Russia. Latonovo, in Rostov *Oblast*, in the North Caucasus region has good quality land, a temperate climate and a rural population that has been growing during the past ten years. It is located in a region of Russia that historically has contributed a larger share to total agricultural production than any other region. Vengerovka, in Belgorod *Oblast* in the black earth area also has good quality of land and a stable rural population. The third village, Sviattsovo, in Tver' *Oblast*, has poor quality land and a declining rural population. In addition, each of these villages is located in a region that has responded very differently to reforms. The provincial government in Belgorod *Oblast* has provided the most institutional support for small-scale household production, while the provincial governments in Rostov and Tver' *Oblasts* have been less supportive.

The Growing Strength of Household Producers

One of the historical ironies of the period of agrarian reform in Russia during the 1990s is that the goals of neither of two major contesting forces, the administrative and legislative branches of the Russian central government (Wegren 1998) achieved their objectives, but what appeared to have been the weakest party, peasant households, made some substantial gains during that period. Following the collapse of the Soviet Union, the Yeltsin administration pursued a reform policy that focused on breaking up the large collective and state farms and replacing them with a new class of independent private farmers or *fermery*. Throughout most of this period, the conservative, communist dominated legislative branch opposed the administration's reform efforts and thus reform appeared to remain frozen.

Two basic reasons created strong incentives for ordinary rural households to remain cautious about investing in large-scale Western style farming during this time period. The first was the insecurity surrounding land ownership that made peasant households, like any Western investor, skeptical about long-term investments that required a great deal of risk. In addition, the Yeltin agricultural reforms never addressed rural development issues that were important to ordinary people, such as how social services would be paid for if a household became totally disconnected from the collective farm (in some reorganized form). Thus, even though the government provided financial incentives during the early 1990s, only a relatively small

number of households chose to become officially registered private farmers or *fermery*. By the beginning of 2000 there were more than 260,000 private farms were in existence, but this was a decrease from 284,000 in 1994.

Nonetheless, the Yeltsin administration was successful in eliminating a substantial portion of central government support for the large enterprises and thus even though many of these enterprises survived in reorganized forms, they were never able to regain the overpowering influence on rural life that they had during the Soviet period. In this vacuum, then, peasant household enterprises, operating on very small plots, with some rented land, were able to make remarkable progress in adapting to new market conditions. During the Soviet period, rural households understood basic mechanisms of a market economy and regularly sold products from their household plots in local collective farm markets. They were, however, restrained by their obligations to the large enterprises, the kolkhozy and sovkhozy, in the amount of time and energy that they could devote to their private plots. In addition, during the Soviet period all purchases of inputs, processing and most marketing involving any distance were restrained by government monopolies. All of this, of course, did not disappear immediately and there are still complaints about monopolies in the control of inputs and Nonetheless, the post-Soviet period has provided new opportunities for processing. households to develop new business relationships with respect to purchase of inputs, smallscale equipment and marketing. Moreover, although issues about the ownership of land remain unsettled--recent government efforts to enact property rights legislation specifically exclude agricultural land--the opportunity for households to rent small pieces of land, through either formal or informal arrangements has created very powerful incentives for small-scale household enterprise expansion. These macro-level institutional changes have encouraged peasant households to increase their household human capital, by adding new working members, and by increasing their social capital by developing their helping networks.

The growing importance of household production in Russia during the 1990s is shown in Table 1. In 1991 the large enterprises accounted for 69 percent and households 31 percent of total agricultural output. By 1999, large enterprises produced only 38 percent but households produced 60 percent and registered private farmers (*fermery*) 2 percent of total agricultural output in Russia.

Type of Enterprise	1991	1995	1997	1999
Large Farms	69	57	47	38
Households	31	40	51	60
Private Farms	0	3	2	2
All Types of Enterprises	100	100	100	100

Table 1: Structure of Russian Agricultural Output by Type of Farms, 1991 to 1999 (in%)

Source: Goskomstat 1996:550; Goskomstat 2001:198.

Our surveys show that fundamental institutional changes that are occurring in rural Russian villages that go beyond mere increases in household production and sales. Table 2 provides a longitudinal picture of changes in employment in rural villages from 1991 to 1999.

Type of Enterprise	1991(n=300)	1993(n=252)	1995(n=563)	1997(n=547)	1999(n=525)
Large Enterprise:	86.0	80.4	70.5	62.3	50.8
Kkolkhoz	86.0	-	14.3	13.3	9.7
ТОО	-	80.4	56.2	49.0	17.9
SPK	-	-	-	-	23.2
Public Services	14.0	14.1	14.9	18.5	15.6
Farmer (official)	-	0.4	2.3	2.9	4.4
Other Agribusiness	-	-	1.1	0.5	1.7
Other Business	-	1.6	1.9	4.0	4.0
Household					
Enterprise	-	3.5	9.3	11.8	23.4
(Self-Employed)					
Total	100.0	100.0	100.0	100.0	100.0

 Table 2: The Distribution of Types Enterprises Where Working-Age Adults Are Employed in

 Russian Villages from 1991 to 1999* (in %)

*1991 and 1993 cross-sectional surveys are from Latonovo. The 1995-1999 panel surveys are from the same households and respondents in Latonovo, Vengerovka & Sviattsovo.

In 1991 86 percent of working age adults in our survey were employed by the large enterprise in their village. By 1999, however, the large enterprises employed only 50.8 percent. Moreover, within the category of large enterprises, the SPK (Agricultural Production Cooperative), which is organized more like a true cooperative, has become a more important source of employment than the *TOO* (joint stock company of the closed type), the latter being closer in structure to the traditional *kolkhoz*. By 1999, persons employed in officially registered agricultural and non-agricultural businesses and those employed in informal household enterprises accounted for 10.1 and 23.4, respectively, of the workforce.

The growth of self-employment in the villages represents a change not only in employment, but also in attitudes toward work. In the Soviet period income from household enterprises was a supplement to wages from employment in the large enterprises. Today, the growth of self-employment means that many individuals have been able to engage more intensively in riskier household enterprises. This reflects a restructuring of the system of redistribution from a socialist to a market economy (Nee 1996; Szelenyi and Kostello 1998).

In 1989 household plots contributed 24.9 percent of household income, mainly food consumed by the household. Table 3, based on the 1995-1999 panel data, shows that by 1995 all sources of income from household enterprises, including business income, agricultural sales and benefits (payments from neighbors for land rentals), and food produced and consumed by the household (non-monetary consumption) accounted for 59.8 percent of total household income. By 1999 all types of household enterprises accounted for over two-thirds (66.5 percent) of total household income (both monetary and non-monetary).

Table 3: The % Contribution of Different Sources to Monetary (M) & Total Monetary and Non-Monetary (TI) Income in Three Russian Villages from 1995 to 1999 (N=422)

Sources of Income		1995	1995		1997		1999	
		Μ	TI	Μ	TI	М	TI	
Salary & Wages	Primary salary	30.6	19.0	30.5	21.0	19.1	13.2	
	Secondary salary	1.0	1.0	4.2	2.9	10.3	6.6	
Transfer payments		33.2	20.2	27.6	18.9	19.8	13.7	
Household Enterprises	Business	6.0	3.7	9.1	6.1	6.8	3.5	
	Benefits	3.2	1.9	4.1	2.8	5.4	2.9	
	Agricultural sales	26.0	16.6	25.5	19.5	38.6	25.1	
Nonmonetized consumption			37.6		31.6		35.0	
Total		100.0	100.0	100.0	100.0	100.0	100.0	

The growth of household enterprises, however, has also produced some new sources of inequality that did not exist in the Soviet period.

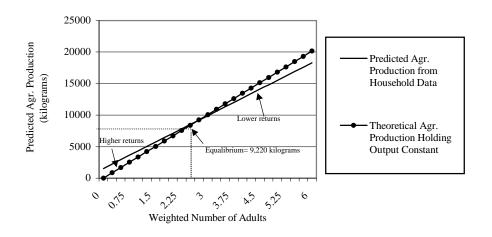
Human and Social Capital Sources of Differentiation Between Households

Table 4 provides a summary of the panel study findings on the effect of the level of human and social capital in a household on its ability to obtain income from 1995 to 1999. The nonsignificant chi square value indicates a good fit between the hypothetical model and the empirical data. The standardized regression coefficients from a structural equation model show the strength of various types of human and social capital on various sources of income. The three main sources of income in the study villages are government transfer payments (largely pensions), salary from work in the large enterprise in the village or in another village, and household enterprises, which includes both agricultural and non-agricultural production and services (A complete description of the statistical assumptions and procedures for the structural equation model, as well as a complete description of the empirical indicators of various types of income, human and social capital, are found in O'Brien et al. 2000).

Table 4: Standardized Regression Coefficients from Structural Equation ModelShowing Effects of Labor, Community Attachment & Networks on Household Incomein Three Russian Villages, 1995-1999

Observed Endogenous	\mathbf{R}^2	Standardized Regression Weights	Observed Exogenous
Total Monthly Monetary	0.77	0.33	Transfer Payments
Income		0.55	Salary
		0.71	Household Enterprise
Transfer Payments	0.09	-0.05	Household Labor
		-0.20	Community Attachment
		-0.24	Year 1999
Salary	0.18	0.39	Household Labor
		0.09	Community Attachment
		-0.04	Year 1999
Household Enterprise	0.13	0.29	Household Labor
		0.09	Community Attachment
		0.20	Network Size
		-0.15	Quadratic Network Size
		0.07	Year 1999
Model fit $X^2 = 7.50$, df=7, r	=0.38		

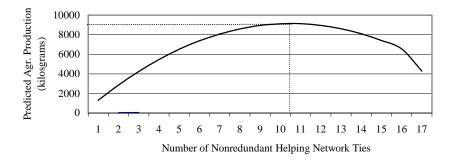
Figure 2: Predicted Amount of Agricultural Production (kilograms) by Weighted Number of Adults (Source: O'Brien et al. 2000: 138)



The main sources of household capital are household labor (the equivalent number of adult workers in the household), social network size (number of persons the household can depend on for help in its production and sales), and community attachment, which refers to the social linkages between the household and village. Not surprisingly, the amount of labor available in the household, which has always been the central element in the differentiation in levels of production in the peasant household moral economy, remains the strongest predictor of overall household income, through its association with salary and household enterprise. Nevertheless, the other two measures of social capital, social networks and community attachment also have important effects on how well off is the household. The limitations of the effects of household labor and helping, however, are shown in Figures 2 and 3.

Figure 2 shows that the advantage of additional household members declines after the equivalent of a third adult in the household. Figure three shows that helping networks beyond a certain size do not bring any appreciable advantages to the household. Empirically, these very large networks are typically those of elderly widows who depend upon a large number of helpers for planting and harvesting.

Figure 3: Number of Non-redundant Ties and Predicted Household Production (in kilograms) Source: O'Brien et al. 2000: 140.



Most important, the limitations of household capital as a source of growth for household enterprises calls attention to the importance of outside institutional supports for the development of small-scale farming enterprises. A comparison of household enterprises in the three villages in the panel study provides some very important insights along these lines.

Regional and Local Level Responses to Land Reform

Changing national policies regarding land use and tenure, transfer of property, use of property for collateral or availability of other sources of credit or taxation influence the decisions that communities and households make about developing more or less expansive relationships (Becker 1981; DeSoto 2000; Swinnen 1997). Nonetheless, there is considerable variation in the responses of regions and localities to the same institutional constraints and opportunities.

Amelina's (2002) work shows that there were marked differences in the way that different regions responded to the collapse of Soviet-era subsidies for large enterprises (formerly the collective and state farms). Managers and agricultural ministers in some regions collaborated to re-institute Soviet-style "elastic budget constraints," whereas in other regions key personnel adopted restructuring to become more competitive in a market environment. Kalugina's (20002) studies of large enterprises in Siberia found very different responses to macro-level institutional changes, ranging from denial that these changes were occurring to pro-active strategies that sought ways to restructure social services and provide alternative economic opportunities for workers who were laid off.

Likewise, substantial differences have developed in the extent to which different regions have provided institutional support for small-scale agricultural production. One of the villages in the panel study, Sviattsovo in Tver' *Oblast*, is located outside of the black earth zone and thus has poorer soil and a shorter growing season than the other two villages that are located in the black earth zone. Both Latonovo, in Rostov *Oblast*, and Vengerovka, in Belgorod *Oblast*, however, have similar advantages of good soil and climate as well as similar access to regional markets. Yet, the institutional responses of these two provinces and villages to reform opportunities offered by the Russian central government during the 1990s were quite different.

Latonovo reflects a general trend in Rostov *Oblast* of supporting small-scale household agricultural enterprises through informal means. This village has extremely strong tight knit kin networks. In this respect, households in Latonovo fit the classic peasant household moral economy model (Netting 1993; Scott 1976) in which social ties are very endogenous and very few "bridges" are made to outsiders. One of the distinguishing features of village life in Latonovo is long-term family and kin networks that preceded and were maintained throughout the Soviet period (Dershem 1995). There are many *informal* partnerships between former members of *kolkhozy*, who, through informal agreements with each other and with other members of their villages who have chosen to remain in the *kolkhozy* or TOOs, have found ways to increase the scale of their production without actually purchasing additional land.

Kin ties among residents in Vengerovka, in Belgorod Oblast, are not nearly as strong as in Latonovo. Vengerovka contains a larger proportion of residents who have moved there from other areas of Russia, including some refugees from Central Asian Republics of the Former Soviet Union. Thus, there is less of a tradition in Vengerovka than in Latonovo of utilizing informal networks and informal practices to deal with land use and other business practices. Moreover, the Belgorod Provincial Government has encouraged finding more formalized institutions to deal with collective cooperative efforts. This government, especially its governor, has been among the most progressive in Russia in finding new institutional way to support household enterprises. One of the most unique developments in this regard is a credit program that permits residents to borrow money to improve existing homes or to build new homes and buildings for storing grain, silage, or for keeping animals. This program allows households to pay back their loans in what they produce, such as meat and dairy products (Selskaia zhizn 1996:2). No such program exists in Latonovo. In addition, Vengerovka was one of the first villages to take advantage of a new central government program that permitted local governments to rent small plots of land to households through formal rental agreements. Latonovo did not adopt this practice until a number of years after Vengerovka. Another Belgorod provincial effort to improve the condition of peasant households has been a program to permit local villages to lease equipment to start up new bakeries. The lease is made for a period of twenty years and payments are made with profits from the bakery.

The differences in institutional support for household production is reflected in dramatic differences in average household production between Latonovo and Vengerovka during the panel study from 1995 to 1999. These differences are shown in Table 5.

Table 5: Mean Total Weighted Household Agricultural Production by Village	
Employing Different Adaptation Strategies 1995-1999 (N=422)	

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Village	1995	1997	1999	
Sviattsovo	7,201	8,653	8,135	
Latonovo	4,849	5,747	7,048	
Vengerovka	8,020	10,340	11,049	
Total	6,679	8,236	8,765	

Total Weighted Production by Year: F(3)=8.46, p<.001. Total Weighted Production by Village 1995:10.98, p<.001. Scheffe, Vengerovka compared to Latonovo & Sviattsovo, p<.001. Total Weighted Sales by Village 1997: F(2)=18.60, p<.001. Scheffe, Latonova & Vengerovka compared to Sviattsovo, p<.001; Total Weighted Production by Village 1999: F(2)=61.95, p<.001. Scheffe, Vengerovka compared to Latonovo & Sviattsovo, p<.001.

The initial difference between Latonovo and Vengerovka is quite substantial; on average households in the latter village produced almost two-thirds (65.4%) more than did their counterparts in Latonovo in 1995. Four years later the gap between the two villages had closed, so that in 1999 households in Vengerovka were producing roughly on-third (32.4%) more than households in Latonovo. Yet, the initial advantages enjoyed by Vengervoka households were able to produce additional advantages in terms of building household production and sales infrastructure.

Conclusion

One of the most interesting findings from our panel study has been that while over time residents have become more satisfied with their economic situation, they have become progressively more disappointed in their village as a place to live? This suggests that it may be easier to improve the ability of households to make a living and adapt to the marketplace than it is to create a social environment that is supporting and nurturing. Our work in the three Russian villages is now turning toward the question, what kinds of institutional changes will facilitate the development of the rural villages in both social as well as economic ways? Specifically, we will be looking at:

1-Involvement in Bridging Ties Inside the village. These indicators will measure households' specific frequencies and types of informal and formal *business relations* with other households, local government, the large enterprise and other businesses in the village. This will involve measuring the network characteristics of business and non-business relationships between households and between households and other organizations in the

village, such as the large enterprises and local government.

2-Involvement in Bridging Ties Outside the Village. These indicators will measure the frequencies and types of informal and formal economic relationships, including, buying, selling and trading with individuals and organizations outside the village.

3-Participation in Community Decision-Making. These indicators will measure the frequencies and types of household participation in village community decision-making (e. g., attendance in local government and large enterprise meetings concerning land leasing or changing organizational structures) and participation and leadership in voluntary associations.

4-Village Level Informal and Formal-Legal Institutions to Support Local Enterprises. These indicators will measure differences between villages in development of informal and formal-legal mechanisms for land transfer and use, credit and cooperative arrangements between different types of agricultural and non-agricultural enterprises.

5-Subjective Measures of Trust of Others. These indicators will measure attitudes toward cooperative activities with others. These questions will identify perceptions of "transaction costs" of doing business with other actors as well as perceptions of the efficacy of involvement in new market and democratic institutional arrangements. These measures will permit the analysis of the effects of participation in bridging tie relationships (1-4 above) on attitudes that lead to the growth of additional social capital in economic relationships and collective action in the village. Means and standard deviations for household- and village-level attitudes will be obtained.

6-Attitudes toward Formal-Legal Institutions that Support Cooperatives and Other Business Relationships. These indicators will measure the extent to which different households approve of extant and potential formal-legal institutions that support the development of local enterprises and participation in a market economy, including legal protections for cooperatives and business relationships between households.

7- Support for Institutions of Civil Society. These indicators will measure attitudes toward strengthening local government and voluntary associations.

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