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Poverty in Russia

Public Policy and Private Responses

Edited by

Jeni Klugman

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Part II: Public Policy and Private Responses

Foreword

Russia's transition to a market economy has been accompanied by a sharp rise in the incidence and severity of poverty. Almost daily, reports in local and Western media cite increasing poverty and hardship and widening income distribution in Russia. The image of the elderly *babushka* begging outside Estée Lauder on Gorky Street has loomed large in popular perceptions about the social impact of the transition. Yet to date, most reports have been based on anecdotal evidence or on official statistics, both of which have serious drawbacks.

This volume provides rigorous quantitative analysis of the impact of transition on the well-being of individuals and households in Russia. Contributions by Bank staff as well as by Russian and Western academics range across subjects such as the measurement of poverty and distribution, the responses of individual Russians, and the impact of existing government programs. The results provide important insights for governments, academics, donors, and international financial institutions that are concerned about the social impact of transition.

Vinod Thomas
Director
Economic Development Institute

Acronyms and Abbreviations

BMI	body mass index
CPI	consumer price index
FBS	Family Budget Survey
FES	Federal Employment Service
GDP	gross domestic product
Goskomstat	State Committee of the Russian Federation for Statistics
ILO	International Labor Organization
IMF	International Monetary Fund
LFS	labor force survey
MCB	minimum consumption basket
OECD	Organization for Economic Cooperation and Development
OLS	ordinary least squares
PSUs	RLMS survey sites
RLMS	Russian Longitudinal Monitoring Survey
Rub	rubles
SCF	Social Consumption Fund
SD	standard deviation
SSSR	Soyuz Sovetskih Sotsialisticheskih Respublik (Union of Soviet Socialist Republics)
TSEK	Center for Economic Analysis and Forecasting
UNICEF	United Nations Children's Fund
VCIOM	All-Russian Center for Public Opinion Research
VCUZ	All-Russian Center for Public Opinion (Ministry of Labor)
WHO	World Health Organization

Preface

This volume evolved from a series of background papers that the World Bank commissioned for a poverty assessment for Russia in 1995. The papers provided a wealth of information on, and insights into, issues of poverty and distribution in Soviet and contemporary Russia that had never before been widely available. The primary motivation for publishing this more comprehensive, analytical volume was to disseminate the knowledge gained and the systematic analysis undertaken in the course of writing a summary report on poverty in Russia. This would not have been possible without the enthusiasm and professionalism of all the contributors, who spent long hours puzzling over and clarifying the findings that emerged. It is especially gratifying to produce a volume that involves the foremost Russian scholars working in the field.

Acknowledgments

Many people deserve acknowledgment for their support in enabling this volume to be published. First of all, in the Europe and Central Asia Department of the World Bank, Director Yukon Huang, Robert Liebenthal, and Costas Michalopoulos have all been supportive in numerous, substantive ways. Colleagues inside the Bank and in academia reviewed drafts of the chapters. In particular, I would like to thank Billy Jack, Alexandre Kolev, Peter Lanjouw, John Micklewright, and Branko Milanovic. Annie Minofu deserves special mention for her tireless and cheerful support. Finally, the opportunity to discuss the findings of the analysis with members of the Russian government and scholars in Russia during 1994 and 1995 enhanced both the focus and the relevance of the papers presented. I hope that, in turn, the studies presented here will help to inform understanding about the social impact of transition in Russia and make a constructive contribution to the ongoing debate.

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Introduction and Overview

Jeni Klugman and Jeanine D. Braithwaite

The social and economic changes that swept across the former Soviet Union in the early 1990s were unprecedented in scale, scope, and speed. The collapse of an empire that spanned eleven time zones and encompassed more than 250 million people and a multitude of ethnic groups has had far-reaching consequences, both domestically and internationally. In this connection, this book is the first systematic analysis of poverty and living standards in Russia based on nationally representative data. Its primary goal is to quantify the nature and extent of changes in the welfare of ordinary Russians during the course of the transition. To accomplish this it draws upon a range of commissioned studies by Western and Russian experts.

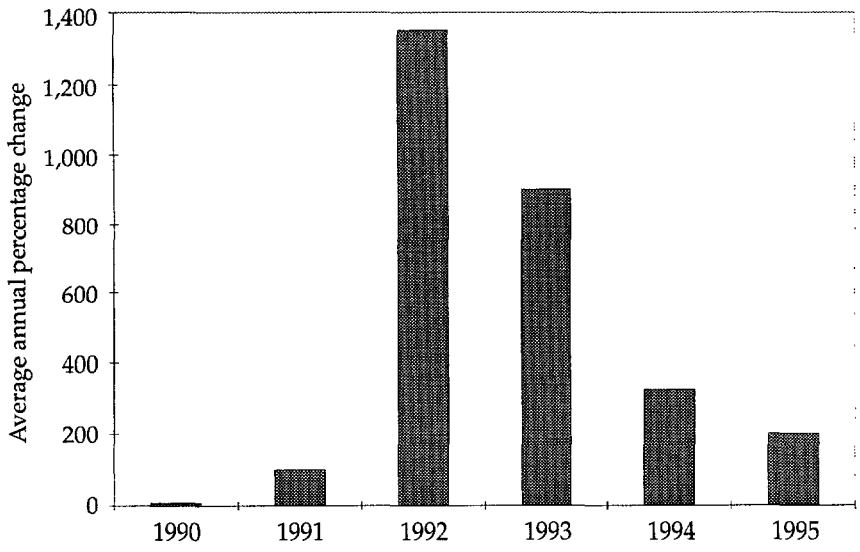
Despite a long tradition of household surveys and some exceptional academic contributions, little was known about poverty in the former U.S.S.R. Data were scarce and discussion was discouraged. Yet poverty and living standards in Russia are of interest for several reasons. To begin with, as the Russian Federation covers such a vast expanse of Europe and Asia and such a wide variety of social and cultural groups, the fortunes of its people are central in the transition from a centrally planned to a market-oriented economic system. The social repercussions associated with fundamental economic and political shifts are far-reaching, although little understood. For many people the transition has been marked by the polarization of a previously egalitarian society and dramatic increases in the scale of poverty and deprivation. Yet the discussion to date has been based on unreliable official data and anecdotal reports. The analysis undertaken here provides impor-

tant new insights into the correlates and causes of poverty based on the results of the first large, nationally representative household survey in Russia.

This book also serves a direct functional purpose: good policy can only derive from detailed knowledge of which people are poor and why. While this book does not provide a detailed package of reform proposals in response to the social aspects of the transition, it does attempt to describe and explain some of the more pertinent issues that will need to be addressed by policymakers in the Russian government, as well as by policy advisers from international institutions and elsewhere. Its focus, and the somewhat peripheral treatment of macroeconomic and restructuring issues that are treated more fully elsewhere (see, for example, World Bank 1996a), make the analysis undertaken here a necessary, but by itself insufficient, input into policy design.

This chapter establishes the economic and methodological framework within which economists and others study poverty in the Russian Federation. The rest of this book is divided into two parts. Part I comprises a series of chapters that analyze the profile and trends of poverty and cover both monetary and nonmonetary indicators. Part II addresses selected critical aspects of the system of social support (chapter 8), the extent of private interhousehold transfers (chapter 9), and public opinion about social problems (chapter 10).

Figure 1-1. *Russia: Consumer Prices, 1990–95*



Source: Goskomstat data.

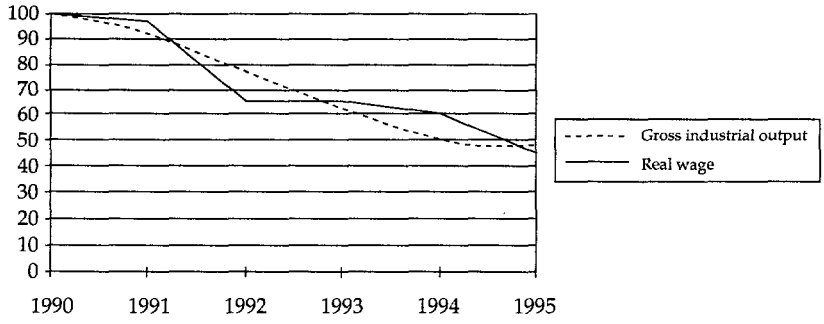
Developments in the Economy

Russia inherited a command economy whose weaknesses had become manifest in the 1980s (Easterly and Fischer 1995). In 1991, as the old political regime crumbled, inflation surged, output fell precipitously, internal and external trade collapsed, and the fiscal deficit rose rapidly. Figures 1-1 and 1-2 show some of the broad trends in the economy. The most critical developments for individuals and households have been high and continuing inflation, severely depressed levels of activity throughout much of the economy, and declining real earnings. These short-term economic developments are an important backdrop to trends in poverty, although expanded incomes can be expected to follow economic recovery and the successful shift to more efficient forms of production and distribution.

Extremely high consumer price inflation emerged following the liberalization of prices in early 1992, rising to 1,354 percent in 1992, then declining to 132 percent in 1995 (figure 1-1). By the end of 1994, consumer prices were some 2,000 percent higher than in December 1990, as reflected in the surging cost of the minimum subsistence basket, which rose from Rub 635 in January 1992 to Rub 345,500 in January 1996. Between 1992 and 1994, the government tended to relax its economic policies in the second half of each year in response to political pressures. In 1995, however, public spending was strictly constrained, thereby permitting reductions in the fiscal deficit despite revenue shortfalls. Real average money incomes as reported by Goskomstat fell by 43 percent between 1991 and 1993, then recovered somewhat in 1994 before declining by 13 percent in 1995.

The breakup of the central planning system contributed to a collapse of output (figure 1-2). Recorded gross domestic product (GDP) fell by more than

Figure 1-2. *Russia: Index of Real Wage and Industrial Output, 1990–95*



Source: Goskomstat data.

40 percent between 1991 and 1995.[1] This official figure is supported by enterprise-level surveys (Commander, Dhar, and Yemtsov 1995), although there are measurement problems. The scale of the drop in GDP makes Russia one of the worst affected among the formerly planned economies, where reported GDP declines ranged from 11 percent in Poland to 57 percent in Lithuania over the same period (1991–95) (de Melo, Denizer, and Gelb 1996). However, the structure of the output decline, as well as the failure to account for most informal sector activity and other measurement problems, which led to understatement of output since 1991, have to be taken into account in assessing the impact on living standards.[2] The overall drop in output partly reflects necessary industrial restructuring undertaken following the withdrawal of state support for inefficient production, for example, in the machine building industry.

The increased significance of private (as opposed to state) consumption in domestic demand has expanded production of consumer goods and services. Services expanded from 31 percent of GDP in 1989 to more than 50 percent in 1994 (although part of the "growth" is attributable to changes in the traditional Goskomstat classification system, as well as to changing relative prices). Recent evidence suggests that unofficial economic activity by both new private firms and privatized enterprises has been expanding at a robust pace, and World Bank estimates indicate that actual GDP in 1994 could have been 30 percent higher than officially reported (see World Bank 1996a, which notes the bias in official figures based on larger firms' higher retail sales and electricity consumption). Moreover, in 1995 there were initial signs of industrial recovery in the energy, metallurgy, and chemical sectors, as well as growth in trade, catering, and financial services.

Progress on structural reforms has been uneven. There has been significant liberalization of prices and quantitative trade restrictions have been largely eliminated. The relative prices of energy and services have shifted upward, and of agriculture and heavy manufacturing downward. A major part of the economy has been privatized: by mid-1994 more than 60 percent of the industrial work force was employed in privatized enterprises. How-

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1. The weaknesses of the inherited system of national statistical reporting mean that official data on income, consumption, and investment are unreliable, as Goskomstat has recently recognized (Goskomstat Rossii and World Bank 1995). Official estimates of the decline in GDP have thus been revised downward, for example, from 12.0 to 8.7 percent for 1993 and from 15.0 to 12.6 percent in 1994.

2. The overestimation of actual prereform output levels, when enterprise managers had strong incentives to falsify production figures, makes the size of the apparent drop over the transition misleading (see Gavrilenko and Koen 1994).

ever, there are regional variations and the extent of private sector activity also varies across sectors, for example, 85 percent of transport is still state dominated, whereas in trade 50 percent is in state hands. In October 1994, on completion of the mass privatization voucher program, more than two-thirds of large and medium enterprises and more than 80 percent of small enterprises had been privatized or a majority interest had been auctioned for vouchers. By the end of 1994, however, the pace of privatization had ground to a halt, with the end of the mass privatization program, and the second stage based on cash sales being inherently more difficult, technically and politically.

Enterprise restructuring has been slow. In most cases, titles have been transferred to existing staff and management, with no discernable impact on enterprise behavior in terms of, for example, labor decisions (see Commander, Dhar, and Yemtsov 1995). This is attributable to the absence of a hard budget constraint on industrial firms. Although fiscal transfers have declined in real terms, this has been partly offset by higher tax arrears and the accumulation of bad debts from the banking system.

The newly emerging private sector has expanded quite rapidly since liberalization began, and contributed an estimated 23 percent to GDP in the first half of 1994. Private employment ranges across activities with low levels of remuneration, for example, piece work, to lucrative practices such as private medical services or foreign language translation in major metropolitan areas.

Assessing the impact of the breakup of the Soviet Union and the transition from a command economy is difficult, not least because of the unreliability of official economic data. Over the past several years, traditional sources of information on production, incomes, and prices have become weaker, partly because many enterprises now fall outside the reporting network. Moreover, the inherited way of measuring various economic concepts, from the construction of national accounts to the determination of labor force participation, is unsuited to a market economy. Data on consumption, which are based on implicit adjustments and indirect estimates, are an instance of the problems arising from the official methodology. In every year between 1991 and 1994, the authorities revised official GDP figures significantly; in 1992 the output drop was larger than originally reported, in other years it was smaller.[3] Even more worrying has been the apparent divergence of time series data that one would expect to be positively correlated, such as average monthly income and GDP. Thus macroeconomic statistics from the Russian Federa-

3. Russian officials have recognized these problems and are making concerted efforts to address them (see Goskomstat Rossii and World Bank 1995).

tion must be cited and used with caution, and the revealed trends regarded as indicative only. Official poverty and income distribution measurements raise a further set of problems that are discussed later.

Fiscal imbalances have imposed enormous pressure on the Russian economy during the transition. These can be traced largely to the substantial pressures on the government to provide support to enterprises and to poor tax collection. The role of the state, measured in fiscal terms, has been drastically reduced, from almost 70 percent of GDP in 1992 to an estimated 41 percent in 1995 (World Bank 1996b). At the same time, the consolidated budget deficit was reduced from 23 percent of GDP in 1992 to around 10 percent in 1993 and 1994. Expenditure cuts in 1992–93 focused largely on import subsidies and transfers to former Soviet republics. Spending on social services appeared to have been somewhat protected as a share of expenditure. Further expenditure cuts in 1995 appeared to derive from reduced transfers to the regions and nonwage operational expenditures.

The Russian tax system is based on value added tax and payroll, enterprise profit, personal income, and excise taxes. In theory, the combined statutory tax burden levied by the federal and local authorities and by extrabudgetary funds is higher than in most industrial economies. However, tax collection has fallen well below expectations, partly because of noncompliance, but also because of widespread exemptions. In 1994 consolidated revenues amounted to about 36 percent of GDP, compared to 46 percent in 1992, which is consistent with the pattern observed in most economies in transition (Hemming, Cheasty, and Lahiri 1995).

Despite overall reductions, federal government transfers to the enterprise sector have been a major source of fiscal imbalance. Total transfers, including budget subsidies, directed credits, and unbudgeted import subsidies, stood at an estimated 6 percent of GDP in 1994, down from about 32 percent in 1992. The system of government support to enterprises remains complex and opaque. Further implicit transfers occur through sectoral extrabudgetary funds, differing tax rates, ad hoc tax exemptions, and tax arrears. At least fifty sectoral extrabudgetary funds, whose revenues amounted to at least 2.5 percent of GDP, were in place at the federal level in 1994. Transfers have been increasingly concentrated on a relatively small number of large enterprises (Alfandari, Fan, and Freinkman 1996).

Growing Disparities

Transition from a planned economy, with its avowed emphasis on equality, is typically associated with growing inequalities. In Russia, these disparities

have widened along three major dimensions: among the regions, among income groups, and between rural and urban residents.

Regional Differences

Increasing regional disparities play a central role in explaining trends in economic and social indicators. Russia is divided into eighty-nine "Subjects of the Federation" (provinces), fifty of which are oblasts. Here we use the term "oblast" to cover different types of subjects/territories. The oblasts are also grouped into eleven economic/geographic zones, plus Moscow.

Available evidence suggests that regional variations in nominal incomes and wages lessened steadily during the two decades prior to the transition in Russia, but that since 1991, income, expenditure, and wage disparities among the regions have increased sharply. This trend becomes more pronounced when measured in real terms that account for significant geographical price variation (Stewart 1996). Prices, incomes, and poverty rates vary substantially across Russia's eighty-nine oblasts. A high level of regional differentiation is apparent for virtually every macroeconomic or demographic indicator, and has increased during the transition period. Indeed, by 1994 the disparities among the oblasts of Russia were far greater than those among the states of the United States. The coefficients of variation among the oblasts and states, respectively, for income were 0.519 and 0.148.

The major cause of the increasing disparities in the Russian Federation appears to have been the effects of changing relative prices, which have benefited regions with abundant natural resources, such as Yakutia, as well as commercial centers such as Moscow and Saint Petersburg. The effects of trade liberalization and the structure of demand have also varied because of the sectoral concentration of economic activity, with the most obvious example of the latter being areas dependent on military production. Note that (based on per capita income) the ranking of oblasts has changed significantly, especially at the beginning of the transition (Stewart 1996).

As expected, significant differences in economic endowments and differential success during the transition period have had corresponding implications for living standards. Regional disparities in life expectancy, mortality rates, and infant mortality rates increased early in the transition. The coefficient of variation for life expectancy increased from 2.71 in 1992 to 3.88 in 1993, while the coefficient of variation for infant mortality increased from 18.37 in 1991 to 20.42 in 1993. While infant mortality rates worsened significantly overall, several regions demonstrated some improvement during 1990–93 (for example, Northwest), whereas deterioration elsewhere was serious (for example, the Urals).

There is significant regional dispersion in open and hidden unemployment (see chapter 6). Analysis of trends in industrial production, unemployment, the real wage, and wage arrears between 1992 and 1994 confirms that adjustment is taking place at the regional level. An inverse relationship is apparent between industrial output and registered unemployment, while oblasts that do not suffer from high unemployment or wage arrears have tended either to have undergone substantial real wage cuts or relatively less industrial decline.

The increasing regional disparities in income and poverty levels explored in later chapters can be attributed partly to the differential impact of restructuring upon oblasts with different economic bases, but also to local responsibility for financing social assistance, which means that poorer oblasts are less able to assist poor people within their jurisdiction. There have been increasing disparities among oblasts in budgetary revenues and expenditures. Analysis of federal fiscal transfers has revealed that the impact is not progressive (World Bank 1996a). The introduction of a new federal transfer mechanism in 1994 did not counteract this trend, and actually exacerbated it. At the regional level, evidence suggests that while health and education expenditures have been relatively protected from budget cuts, social assistance has been hit disproportionately hard. Stewart (1996) has found that the correlation between the oblasts' official poverty headcount in 1994 and the amount spent on social assistance was negative, at -0.17.

Income Distribution

Many Russians associate the transition to a market economy with growing disparities among individuals and households. This is not to say that inequality did not exist in the Soviet Union; however, disparities have become more overt and have increased since 1991. The disruption of the old system, with its controlled wages and prices, has clearly led to greater differentiation in income earning opportunities. Unlike the income shocks associated with the transition, we can expect the shift to a less equal distribution of money income to persist. Current measures suggest that levels of disparity are similar to those in middle-income countries such as Argentina and Turkey (see Milanovic 1994). Longer-term trends in income inequality will depend in part on the government's redistributive expenditure and tax policies.

Several problems are associated with measuring income distribution during the Soviet period in addition to the inadequacy of income data (see Bergson 1984 for a review of data then available, which found that inequality in the U.S.S.R. was higher than previously expected, a finding corroborated by Ofer

and Vinokur 1992). The second economy, perquisites, and pervasive shortages during the Soviet period render the use of money income to characterize social welfare somewhat problematic. The elite at the top end of the money income distribution benefited, among other things, from the network of special stores and supplemental payments of hard currency coupons. They also had access to higher quality education, medical care, and recreational facilities. The size of the elite is difficult to quantify; estimates ranged from 0.3 to 1.5 percent of the Soviet urban population (Atkinson and Micklewright 1992, p. 170).

Information about income distribution during the Russian transition is also difficult to interpret, even if money now has greater meaning as a welfare indicator. Measurements are typically based either directly or indirectly on Goskomstat data, which have some well-known drawbacks. In particular, the exclusion of both the upper- and lower-income groups from the Family Budget Survey (FBS) sample means that the inequality in the underlying population distribution of money income is understated. Even so, the Gini coefficient based on official statistics rose significantly from 0.251 in 1986 to 0.409 in 1994, before declining slightly to 0.381 in 1995. The decile ratio between the highest and lowest income deciles, reported by Goskomstat, widened dramatically, from 4.5 in 1991 to 15.1 in 1994. Unfortunately, some alternative estimates not drawn from Goskomstat data, such as figures reported by trade unions, may exaggerate the extent of inequality based on samples that are too small for accurate inference. More reliable sources include the Russian Longitudinal Monitoring Survey (RLMS) and All–Russian Center for Public Opinion Research (VCIOM) surveys discussed later.

Poverty

Subsequent chapters present detailed analyses of the level, structure, and dynamics of poverty in Russia. At the outset, however, several critical aspects underlying the analyses require definition and clarification. Assessments of household welfare confront a range of methodological and practical problems, ranging from where to draw the line that distinguishes the poor from the nonpoor, to how to measure household welfare (income, expenditure, or some other nonmonetary indicators), to data sources. This section addresses these issues.

What Is Poverty?

To determine who is poor, one must decide how to define poverty. Broadly speaking, two alternative approaches are available, relative and absolute.

A relative approach considers people whose income (or expenditure) falls below a certain share of the average income (or expenditure) as poor. This approach is used in most industrial countries. An absolute approach depends on the identification of a minimum threshold below which people are regarded as poor. Conceptually, few would dispute the contention that poverty is the inability to sustain some minimal level of existence. Yet defining that minimal level, especially when money income may not give a good measure of real consumption, is problematic. The standard approach to defining an absolute level of poverty is to price a basket of essential goods and compare people's income to the cost of these necessities. The so-called basic needs approach to poverty measurement dates back to the work of Rowntree in nineteenth century England (see Atkinson 1983). Leaving aside the considerable difficulties in determining even essential food consumption (let alone nonfood needs), an absolute poverty line can be used to gauge poverty only to the extent that money income reflects real consumption. In this connection, note that poverty lines and measurement can never be entirely objective and value free (Ravallion 1992). Value judgments occur on the part of experts or the politicians deciding on a certain method both in the definition of nutritional needs and in the calculation of corresponding costs (Hagenaars 1986). Judgment, policy, and politics are all involved in drawing the line. When the line is moved up or down, even slightly, significant numbers of Russians are included as poor or excluded from being classified as poor.

As the goal of poverty analysis is to consider people's real consumption, expenditure can be a better measure than income. There are theoretical advantages to using household expenditure for measuring poverty. To begin with, it is a better reflection of permanent income (Deaton 1980). Beyond the saving and dissaving of households attempting to smooth their consumption over time, there may also be practical reporting problems, for example, people may seek to conceal their income because of taxation and other concerns. In addition, most informal sector activities were illegal in the former U.S.S.R., and some residual fears may induce households to underreport such income. The RLMS analysis in this book uses household expenditures, but also takes into account Goskomstat data based on income when RLMS data are not available. The definition of expenditure used in the analysis is more akin to consumption, because it includes the imputed value of in-kind goods and services produced in the home and received from others, for example, from employers.

Monetary indicators of welfare are not without problems, however, especially in measuring the impact of changes over time and across eco-

nomic regimes. In this sense, changes in prices and money income may not fully reflect individual or household welfare. In addition, high inflation makes the precise measurement and comparison of any nominal aggregates much more difficult. Another complicating factor follows the shift from a regime characterized by a combination of several different mechanisms for allocating goods and services other than prices, including queues and rationing with black markets. Searching and queuing created deadweight utility losses, although such losses were not evenly distributed. Price liberalization has largely eliminated the need to search and queue for goods, while trade liberalization has increased the volume and quality of goods available. Consumer surveys reveal that shortages have gradually diminished during the transition, first in the metropolitan areas, and then in provincial and rural parts of the country. Some economists have argued that the net welfare gains following the elimination of queuing and search costs can be significant, even where real incomes and consumption fall (see Roberts 1995). However, this approach excludes distributional effects, which are obviously important in any analysis of poverty. Consumers with low incomes may prefer some sort of rationing, in that their opportunity costs of waiting are low. Nonetheless, while money has become a much more meaningful indicator of welfare, caution is needed in drawing comparisons over time.

Drawing a Poverty Line in Russia

As noted, setting a poverty line is an often controversial exercise that can never be entirely objective. The analysis of poverty in Russia needs to take account of all the difficulties cited and make certain choices, such as whether to use an absolute or relative poverty line and either income or expenditure as a proxy for household welfare. However, before reviewing recent developments and the emergence and widespread adoption of an official minimum subsistence level in Russia, let us examine the use of poverty lines in the Soviet period.

A study on minimum consumption budgets was initiated during the Khrushchev era (Sarkisyan and Kuznetsova 1967; see also Atkinson and Micklewright 1992). The Sarkisyan approach was broadly similar to most consumption-based absolute poverty standards in the sense that food and nonfood components were estimated separately. However, the food allowances were more generous than bare physiological minimums, while the nonfood components were specified in excruciating detail according to norms established by expert evaluation. This involved, for example, determining

how often a pensioner would have to replace a winter coat. The minimum consumption budget was intended to be an absolute measure of what would be minimally acceptable consumption under a socialist system, rather than an absolute measure of poverty as such (since, after all, poverty did not officially exist). For example, a comparison of Soviet and American nutritional specifications revealed that the Soviet standard for protein consumption was twice the level recommended in the United States (Lane, Marston, and Welsh 1987).

Although the methodology behind the Soviet minimum consumption budget was published, government estimates of its value in rubles as an official poverty line were not. The motivation for calculating the minimum consumption budget was to provide a reference for setting the minimum wage (while taking into account other in-kind social benefits). The authorities also used it to distinguish "underprovisioned families" for the purpose of means-tested assistance, which was mandated in a 1974 decree.

The minimum consumption basket approach resurfaced in the late 1980s, when poverty issues were first openly discussed in the U.S.S.R. The first official poverty line for 1988 was set at Rub 78 per capita per month (Kovalev 1989), although with little accompanying detail as to what this number signified. A year later, it was revealed that the methodology used to calculate this poverty line imputed food purchases at state retail prices. This underestimated the cost of living, and adjustments to take higher collective farm prices into account raised the 1988 threshold to Rub 84. Several versions of the minimum consumption budget were apparently calculated, all of which produced much higher estimates of the poverty line, but the politically expedient lowest version was chosen for official acknowledgment (Kormilkin 1991).[4] In subsequent years, the authorities published poverty lines at two levels, with the upper estimate taking into account prices paid at collective farm markets (Pronina 1991; Romanyuk 1991). The official poverty line for 1991 was not publicized.

By January 1992, when the government undertook extensive price liberalization, the Sarkisyan minimum consumption basket was rendered unusable, because virtually the entire population had incomes below this standard (Mozhina 1992). A new approach was clearly needed. As a result, a

4. The All-Union Central Council of Trade Unions estimated the 1988 poverty at Rub 85.5 per person per month, and suggested that inflation raised this nominal measure to Rub 97 to Rub 99 for 1989. However, the council was dissatisfied with these estimates of the poverty line, and suggested it should reflect a "standardized budget for the minimum security of the adult worker," or Rub 130 per person per month (Kormilkin 1991).

March 1992 presidential decree directed Goskomstat Rossii and the Ministry of Labor to develop a new methodology for calculating the poverty line. In addition, the Russian successor to the trade unions' organization continued to calculate its minimum consumption basket based on the original Sarkisyan assortment of goods and services. Table 1-1 sets out all the poverty lines in existence, their main features, and their nominal value at selected dates.

The new methodologies developed by government agencies still resulted in about half the population falling below a minimum standard. Around that time, in early 1992, the World Bank provided technical assistance to refine the food portion of the basket (Popkin, Mozhina, and Baturin 1992). In comparison with World Health Organization (WHO) standards, the Russian methodologies relied on too much fat and protein. Following a downward revision of the old Soviet norms by the Ministry of Health (Dmitrichev 1992, p. 30), the Ministry of Labor subsequently

Table 1-1. *Russia: Unofficial and Official Poverty Lines, 1980–93*
(rubles)

Date	*Minimum consumption basket*	*TsEK physiological minimum*	*TsEK subsistence minimum*	*Official poverty line*
1980	64.6	—	—	—
1985	76.7	—	—	—
1988	84.0	—	—	—
1989	87.0	—	—	—
1990	93.3	—	—	—
1991	190.0	110	200	—
1992				
March	—	800	1,400	1,031
June	—	1,200	2,200	1,639
September	—	1,500	2,900	2,163
December	—	2,900	5,700	4,282
1993				
March	—	5,400	10,700	8,069
June	—	10,000	18,000	16,527
September	—	17,000	32,000	28,183
December	—	28,000	54,000	42,800

— Not available.
TsEK Tsentr Ekonomicheskoy kon yunktury (Center for Economic Analysis and Forecasting).
Source: Staff estimates based on press reports (see Braithwaite 1995); TsEK quarterly bulletins.

adopted a revised food basket corresponding to WHO guidelines. Rather than specifying a list of nonfood items, the poverty level was calculated based on the food basket.[5] The assumed high average share of food in household expenditure is consistent with the structure of low-income household expenditure in the first years of transition, although future adjustment will be necessary to take account of changing relative prices, especially of services, which are still extremely cheap relative to market economy standards (de Masi and Koen 1995).

Data Sources and Problems

The analysis in this book uses the Russian government's official poverty line, as developed by the Ministry of Labor, to measure poverty. Wherever possible, we compared total household income or expenditures to a household-specific poverty line, which reflects the differing official minimum subsistence estimates for children, the elderly, and able-bodied people. The household-specific poverty lines do not vary regionally.[6] This was possible with respect to the RLMS analysis for 1992 through 1994. For other years the analysis relies on the official per capita poverty line rather than on published per capita income and expenditure figures, as well as on a variety of independent studies and surveys. Other data on income and expenditure tend to confirm the portrait of poverty that emerges from the RLMS, although some official data from 1994 are unreliable.

The analysis of individual and household welfare and of the impact of private and public mechanisms to support living standards requires the existence of representative sample surveys that reveal household characteristics. Following an historical introduction, this section reviews alternative data sources and describes the book's analytical approach.

Official censorship of poverty issues did not mean that information about incomes and expenditures did not exist in the U.S.S.R. Even before the 1917 revolution, there was a long tradition of surveys of consumer expenditure

5. This is a straightforward assumption, originating with Engel's law, used to calculate consumption-based poverty lines. The reciprocal of the share of food in expenditures is multiplied by the estimated cost of the food basket to yield total expenditures, which are assumed to be equal to total income.

6. Given the large variations in the minimum subsistence level from oblast to oblast, we investigated the extent of poverty using regionally differentiated poverty lines. We found that, at least until 1995, the national poverty line was a good proxy, because the overall headcount results were quite similar.

and income.[7] The Central Statistical Administration instituted systemic surveys of the budgets of peasant families in 1919, and the surveys were regularized for workers' and employees' families in 1922 (Dmitrichev 1992). This became known as the Family Budget Survey, and is still extensively relied upon to provide information about poverty in the Russian Federation and other former Soviet republics. In the 1950s, the FBS was supplemented by two additional large-scale surveys that were typically conducted every three years: the September surveys of income, living conditions, and family composition and the March surveys of the distribution of workers and employees by wage levels. There was also a special survey of the distribution of workers by wage tariff category and system of wage formation that was conducted at irregular intervals about every seven years. The results of the FBS remained classified, but became more widely known after the 1950s, and especially with the glasnost of the late 1980s (see, for example, Atkinson and Micklewright 1992), who used as their source of distribution data three handbooks published by Goskomstat S.S.S.R. [Goskomstat S.S.S.R. 1989a, b; 1990].

The FBS' main advantages were its size and its regularity. About 60,000 families comprised the U.S.S.R. survey pool in 1970–85, increasing to 90,000 families in 1988–90. The share of Russian families in the survey was slightly higher than in the total population, and amounted to 31,453 in 1985. In 1995, the Russian sample was approximately 50,000 families. The survey was completed every quarter.

Although the FBS represents an extremely rich potential source of data, considerable and extensive criticism has been leveled at the survey's methodology, both internally and externally (Atkinson and Micklewright 1992; Braithwaite and Heleniak 1989; Shenfield 1983). This is not surprising given that the FBS was designed decades ago to represent various sectors of the Soviet economy. The major concern is the sampling frame, which does not encompass the entire population. Instead, the sample was based on the so-called branch principle. Workers were drawn from enterprise rolls, with large enterprises disproportionately represented, and those with seniority were much more likely to be included in the sampling frame as participation involved noncash benefits (and an insignificant payment in rubles). Urban areas also tended to be overrepresented. A separate sample was set up for

7. The first study (of peasant farmers) was undertaken in the Voronezh *guberniya* in 1887–96, and was published in 1900. Several other surveys of peasants were undertaken (Russia was predominately agricultural in the early twentieth century), and a survey of oil workers was conducted in Baku, Azerbaijan, in 1909. During the revolutionary period, fifteen surveys of the budgets of workers and employees were conducted in various cities (Dmitrichev 1992).

pensioners, and again, those retired from large enterprises were more likely to be included. The net result was that the survey did not adequately represent the lower part of the income distribution. Certain occupational groups—the KGB, party officials, high-level bureaucrats, and military officers—were completely excluded from the sample, raising some concerns about the upper end of the distribution (although this is also a perennial problem in market economies). While the FBS sample is large, sampling precision does not depend on the size of the sample, and the design does not allow the calculation of sampling errors or confidence intervals. As a result, the FBS sample does not permit the calculation of unbiased estimates of various aspects of living standards.

In addition to the sampling problems, the survey instrument and the method of collecting information tended to lead to understatement of money and total income. Members of some occupations, such as sales clerks and doctors, often received significant side payments from pervasive, but illegal, second economy transactions. The head of household was responsible for keeping records, which were collected quarterly by an enumerator who completed the survey form. Reported expenditures were often close to reported income, suggesting that respondents were tailoring their replies. In the late 1980s reported FBS figures for expenditures on alcohol were so far below retail sales information that Goskomstat S.S.S.R. began to "correct" (adjust upward) the FBS results.

Serious problems are also associated with the analytical methodology used by Goskomstat. The published monthly income distribution figures are based on the FBS, but are not actually summary totals from the FBS. The FBS is based on a quarterly reporting period, and survey forms are collected and processed quarterly. By contrast, Goskomstat generates the monthly income distribution data synthetically using a previously tabulated FBS distribution as a historic template for the variance, and grossing up the distribution by presumed increases in the mean.[8] Goskomstat assumes that average income grows at the rate of various monthly macroeconomic indicators, such as average wages or the wage funds of large state-owned enterprises. Generally,

8. Since at least 1956, Goskomstat Rossii has assumed that income in Russia is distributed log-normally. In general, this is a reasonable assumption where, as in many other countries, the income distribution is demonstrably log-normal. However, it is not reasonable to assume that the variance of the distribution does not change from one period to another, especially in the midst of massive economic change. This latter assumption is particularly untenable given the increasing wage and average income differentials that Goskomstat Rossii itself reports in its monthly statistical bulletins.

such an estimating methodology is likely to lead to noticeable understatements in measures of dispersion such as the variance, the Gini coefficient, and the decile ratio. Furthermore, as the reference quarter for the variance is subject to change depending on what version of the computer program is run to generate these monthly income distributions, the resulting estimates are not reliable. Indeed, Goskomstat reported that poverty headcounts based on these synthetic estimates fluctuated markedly from month to month in 1993, and especially in 1994.

The underrepresentation of the lower part of the income distribution, together with the significant monthly fluctuations in published poverty measures during the transition, cast serious doubt on the inherited FBS methodology. Nonetheless, the FBS was the major source of information on incomes and expenditures in Russia until 1992, and remains the basis for reports and analysis of poverty and distribution published by the Goskomstat and the Center for Economic Analysis and Forecasting through 1995.

Alternative sources of data cast some light on developments in poverty and distribution during the late Soviet period, namely, first the Taganrog surveys and the surveys of emigrés, and then from 1991, the VCIOM surveys. One of the most prominent internal critics of the FBS, Nataliya Rimashevskaya, together with colleagues at the Central Mathematical-Economics Institute (and subsequently at the Institute for Problems of the National Population), instituted a major longitudinal study in the city of Taganrog and analyzed its findings. This survey involved 3,000 to 4,000 respondents and was carried out in four rounds (1968, 1978, 1988, and 1994). The objective of the survey was to enable independent assessment of living conditions, incomes, and consumption. Given the representative nature of the Taganrog sample, it provides a useful check of the FBS results.

Several Western entities conducted surveys of Soviet emigrés in the 1970s in an effort to obtain information about Soviet society that was censored or unavailable. The largest project was the Soviet Interview Project conducted at the University of Indiana (Millar 1987), and the University of Berkeley and Duke University jointly conducted another major survey. In Israel, Ofer and Vinokur (1992) studied a group of Jewish emigrés and investigated various dimensions of household welfare, economic activity, and social protection. Matthews (1989) conducted a special survey of respondents preselected to be relatively worse off. Much of the research focused on how the distribution of income in the U.S.S.R. compared to that in other Western countries (for example, Bergson 1984).

VCIOM conducts a nationally representative survey of 3,000 individuals every two months. It collects respondents' opinions on a range of social, politi-

cal, and economic issues and assessments about the situation of individuals and households. The results are regularly published in an information bulletin *(Ekonomicheskiye i sotsial'nyye peremeny: monitoring obshchestvennogo mneniya)* that includes an English summary and a copy of the VCIOM questionnaire, as well as details about the nationally representative sample maintained by VCIOM. Two of the chapters (chapters 6 and 7) in this book exploit a special labor market module that was added to two rounds of the survey in 1994. Chapter 10 exploits data on people's views about the social impact of the transition derived from the results of several rounds of the VCIOM survey.

Following the breakup of the Soviet Union and the enormous changes associated with the transition from a command economy, Goskomstat Rossii implemented a new household survey, with technical and financial assistance from the World Bank and the U.S. Agency for International Development. The RLMS is nationally representative and involves 6,500 households clustered in 21 project sampling units.[9] It was designed to address the major concerns associated with the FBS. The first four rounds (to the end of 1993) were available to the authors at the time of writing, and the availability of microdata from the first large-scale, nationally representative household survey conducted in Russia provided significant impetus for several chapters of this book. Certain poverty measures are updated through to the end of 1995, using round 6 of the RLMS, which later became available.

The goal of the RLMS was to develop a sample of households (excluding institutionalized individuals) that would, as far as possible, meet accepted scientific standards for a true probability sample. With technical assistance from experts from the universities of Michigan and North Carolina, a three-stage stratified sample of residential addresses, excluding military, penal, and other institutionalized populations, was developed. In the first stage, the 2,335 raions were implicitly stratified according to ten quality of life indicators and the percentage of the population that was urban. Proportional to size, sampling based on population was then used to select twenty-one RLMS

9. The description of the sample and procedure relates to rounds 1–4. The survey sites for rounds 1–4 are St. Petersburg City, St. Petersburg oblast/Kingiseppskii raion, Novgorod City, Moscow City, Moscow oblast/town of Chekhov, Riazan oblast/Riazhskii raion, Riazan oblast/Saraevskii raion, Tartarstan/Kazan, Saratov oblast/Krasnoarmeisk, Kabardino-Balkarskaia/Nal'chik, Stavropol Krai/Blagodarninskii raion, Rostov oblast/Noborcherkassk, Sverdlobsk oblast/Ekaterinburg, Sverdlovsk oblast/Turinskii raion, Cheliabinsk oblast/Cheliabinsk, Cheliabinsk oblast/Agapovskii raion, Mountain Altai Republic/Gorno Altaisk, Omsk oblast/Omsk, Tomsk oblast/Zyraianskii raion, Primorskii Krai/Nakhodka, Primorskii Krai/Ussuriisk.

survey sites (PSUs). The twenty-one PSUs embrace as much variability as possible, far more than would have been possible using a simple random sample of raions. In the second stage proportional to size sampling was used to select 10 districts within each PSU, yielding 210 secondary sampling units. The third stage involved compiling lists of all household addresses in each secondary sampling unit, from which households were selected randomly.

The demographic attributes of the RLMS sample compare favorably with the Soviet census that had been carried out four years earlier. Gender and education almost match the census. Of the surveyed households, 75.8 percent were urban residents (compared to 73.5 percent in the 1989 census), and the sample also provided for proportionate representation of age, gender, education, and ethnic structure of the population. The initial rounds achieved a high response rate (about 90 percent), although refusal to participate resulted in a higher rate of attrition in rounds three through five. The household questionnaire comprises six sections that collect data on the household's demographic structure, housing conditions, individual land plots, expenditure, income, and childcare. The individual questionnaire includes sections on employment, use of time, migration, and anthropometry.

Table 1-2 summarizes all the household surveys currently in existence and the primary features of each source. In this context, the approach the authors in this book adopted in relation to data sources is generally as follows. The FBS provides the basic information for analyzing the incidence of poverty in Russia for the period up to 1992, alongside supplemental information from the Taganrog surveys.[10] Thereafter, the RLMS is used to characterize the poor as well as to measure the extent of poverty, supplemented by recent results from the VCIOM and Taganrog surveys.

The Structure of the Book

This introductory chapter has set out the most significant macroeconomic trends that have characterized the economic transition to a market economy in Russia. This transition has been accompanied by a sharp increase in the incidence and severity of poverty. In chapter 2 Braithwaite not only traces

10. Distribution data published by Goskomstat Rossii include a handbook and several periodical sources of information: statistical bulletins on socioeconomic developments every month, general statistical bulletins, and press releases. Some of the information from the bulletins is reproduced in *Russian Economic Trends* (quarterly). Another Russian government institute, the Center for Economic Analysis and Forecasting of the Council of Ministers, publishes a quarterly periodical that also appears in English translation.

Table 1-2. *Russia: Summary of Major Surveys*

Data source	*Regularity*	*Description*	*Agency*
Family Budget Survey (FBS)	Quarterly	Purposive (nonrandom) sample of 48,000 households selected from stratified list of employees in nominated state enterprises in 1989	Goskomstat Rossii
Russian Longitudinal Monitoring Survey (RLMS)[a]	Round 1: July–Sept. 1992 Round 2: Dec. 1992–Mar. 1993 Round 3: June–Aug. 1993 Round 4: Oct. 1993–Feb. 1994 Round 5: Nov. 1994–Jan. 1995 Round 6: Oct.–Dec. 1995	Nationally representative stratified random sample of 6,000 households with detailed income, expenditure, and demographic data	Goskomstat Rossii, Institute of Sociology, University of North Carolina
All-Russian Center for Public Opinion Research (VCIOM) survey	Bi-monthly	Nationally representative survey of 3,000 individuals	VCIOM (private)
Labor Force Survey (LFS)	Monthly	Data submitted to regional statistical offices by large and medium-size enterprises (there is undercoverage of small enterprises)	Goskomstat Rossii
Taganrog survey	Four rounds	Representative sample of 3,000 to 4,000 households in a city considered typical of industrial Russia	Russian Academy of Science, Institute for Study of Socioeconomic Problems

a. For rounds 5 and 6, the sample was 3,500 households, and Goskomstat was not involved.

current developments, but provides an important historical perspective to current trends. Poverty in Russia is not a new phenomenon, as the country entered transition with extensive hidden unemployment and one-tenth of the population receiving less than the then minimum consumption basket. Families with more than three children or only one wage earner were especially vulnerable to poverty. Although assessment of regional disparities is hampered by data constraints, Braithwaite shows clear evidence of relative rural disadvantage.

Since embarking upon the transition from a command economy, the number of poor households in Russia has risen, and by 1993 some 32 percent of the population was living below the revised official poverty line. During the same period, the severity of poverty (the distribution of poverty weighted to reflect the lower welfare of the poorest) has increased by 44 percent. Developments during 1994 and 1995 have not altered this picture significantly: recent estimates suggest that 35 percent of households had expenditures below the poverty line in late 1995.

Braithwaite investigates changes in the structure of poverty. In 1993 poverty, always associated with family size, became increasingly concentrated in families with children as well as in households with an unemployed or disabled person. Regional disparities in average per capita income and the incidence of poverty also increased, reflecting the widening of the wage distribution and variations in fiscal capacity. Thus the poor in Russia are primarily families with children; the unemployed; the elderly receiving a single, low pension; and women. The homeless and previously institutionalized people form a small, but critical group of the poor. Braithwaite shows that trends in the real levels of average and minimum wages and pensions are an important underlying explanation.

In chapter 3, Foley undertakes detailed econometric analysis to identify more precisely the risk factors associated with poverty in contemporary Russia. He begins by investigating a range of key methodological issues in detail, including income versus expenditure measures, household economies of scale, and alternative poverty measurements. The empirical findings that emerge from the RLMS elaborate the themes set out by Braithwaite regarding the scale and nature of poverty and inequality in Russia. Foley calculates measures of poverty that provide summary statistics of how the extent, depth, and severity of poverty have increased over time. He also presents profiles that help reveal the risk of poverty among different population groups. Several striking themes emerge as a result. As in other European countries in transition, the working poor predominate; about two-thirds of the poor live in households where the head of household is employed. The largest subgroup is composed

of households with children, especially single-parent and young households. Generally, the younger and more numerous the children, the more likely the family is to be poor. Nearly 85 percent of families with three or more children under six years of age are poor. Foley also investigates the significance of occupation, unemployment, and education as explanatory factors.

The RLMS panel allows the dynamic aspect of poverty in Russia to be investigated in chapter 3. The most striking finding to emerge is the occurrence of significant flows into and out of both poverty and severe poverty, even while the overall incidence of poverty is rising. The chapter reveals that the poor do not consist of a stagnant pool of households.

The primary focus of the analysis in the book is monetary indicators of welfare. Chapter 4, however, provides an important exception. Vella investigates the worsening health situation that has paralleled the deterioration of living conditions during the difficult socioeconomic transition. He explores the adverse trends revealed by official aggregate data and identifies the major risk factors. Investigation of the RLMS generally confirms the picture that emerges from the official data, but Vella reveals some important additional insights. Poverty appears to be associated with adverse health conditions, as the poor tend to be hospitalized relatively more frequently and for longer periods than the nonpoor. Also a matter of concern is that the poor and very poor use preventive services less often and cannot afford to buy any medical services other than drugs. The poor nutritional status of children is the most alarming trend revealed in chapter 4. The prevalence of stunting was high, affecting almost one in five children in their first year. The incidence was even worse in rural areas and among children in poor households. Longitudinal analysis shows that this pattern persisted in 1992 and 1993.

Rimashevskaya presents a Russian perspective of trends in poverty during the transition in chapter 5, drawing upon a variety of data sources, including the VCIOM and Taganrog surveys. She provides a detailed critique of Goskomstat data and official statistics, in particular of the FBS, which she shows has become increasingly unreliable under the changing conditions of the transition. After providing a historical background to poverty measurement and the rationale underlying the poverty line the government adopted in 1992, she draws attention to regional differences in the cost of living and the need to reconsider the food share used to calculate the poverty line. The chapter reveals that the extent of poverty has increased significantly during the course of the transition, alongside widening inequality in the distribution of income reflected in the decile ratio. Again, Rimashevskaya found that vulnerability increased among the unemployed, people on low wages, and those whose wage payments are in arrears.

Chapter 6 explores the dimension of economic activity that probably has the greatest relevance for poverty and living standards, the labor market. Labor market adjustments have been extensive in the wake of price and wage liberalization. Russian firms had entered the transition with large excess employment. Real wages rose rapidly following the liberalization of enterprise wage decisions in the late 1980s, peaking in December 1991, and then falling sharply upon extensive price liberalization in January 1992. Average real earnings during 1992–95 remained at levels somewhat lower than the 1987 level. At the same time, increasing numbers of people have been laid off or had their hours reduced in the face of inherited overstaffing and falling labor demand. Registered unemployment almost doubled in 1994 to 2 percent of the labor force; blue collar workers made up three-quarters of redundancies. About 5.0 million workers were placed on shorter hours in 1994, and a further 7.4 million were put on involuntary leave. During 1993 and 1994, only 40 percent of the work force was being paid fully and on time. Overall, there is nonetheless a clear continuing employment bias that Commander and Yemtsov trace to insider influence at the firm level, as well as to the limited social safety net for displaced workers. Continuing firm access to soft finance is also important.

A topic of special interest the authors explore is emerging regional differences. They present evidence of growing regional imbalances between unemployment and available jobs. Especially hard hit have been the industrial oblasts with high concentrations of military firms, light industry, or both, especially in central Russia and the North Caucasus, whereas the resource-rich regions in the East and major cities are the main areas of low unemployment. Theory and the empirical evidence suggest that regional disparities in unemployment are likely to persist, despite signs of wage flexibility and an emerging conventional association at the regional level between changes to wages and unemployment. Labor mobility is virtually absent, and there is a large spatial mismatch in the distribution of the unemployed and jobs. Commander and Yemtsov use a simple model to capture changes in relative regional employment and wages, indicating a number of channels by which relative employment and unemployment are likely to display a persistent trend.

Chapter 7 undertakes detailed analysis of the unemployed: a group of new poor who are likely to become increasingly significant as economic restructuring proceeds. Commander and Yemtsov investigate their characteristics using the results of two surveys carried out at the beginning and end of 1994. Building on the labor market analysis in the preceding chapter, they draw a profile of unemployment that seeks to distinguish between

people without any effective employment, yet searching for work, from those with marginal or other employment. The classification breaks down the unemployed or marginally employed into six groups, ranging from the true unemployed with zero hours, up to those still working in their primary job for more than twenty hours a week. The true unemployed form only a minority of the group that is often regarded as unemployed. The authors investigate the gender, age, and location attributes of the different categories. As expected, there is a strong positive link with education, quits from previous employment (as opposed to layoffs), and residence in Moscow or St. Petersburg.

The analysis reveals that the Federal Employment Service has only incomplete coverage of the unemployed. Moreover, receipt of unemployment benefits may not necessarily coincide with lack of employment, given evidence of widespread secondary employment among registrants. It is nonetheless striking that the mean per capita incomes of those who are true unemployed or marginally employed are very low: the poverty incidence for all six categories stood at 50 to 60 percent throughout 1994. While secondary work clearly raised family income, it does not necessarily enable escape from poverty. The analysis confirms that unemployment and poverty run closely together. Two findings are more optimistic, however, suggesting that the situation of households affected by unemployment may not be so dire. First, the average duration of unemployment, while growing, remains short. As a corollary, gross flows in the Russian labor market remain large relative to most European economies in transition and are increasingly directed to the nonstate and informal sectors.

Chapter 8 explores the impact of the formal system of social protection provided by government authorities. While a fairly extensive array of benefits is available, Foley's and Klugman's analysis reveals that current approaches are not well designed to cope with rising demands, especially in a context of severe fiscal restraint. Not only are the levels of benefits low, many households do not receive any benefits at all. Almost three out of ten households classified as very poor and one in five of the poor are excluded from transfers. Yet most—four out of five— nonpoor families do receive public transfers. This pattern has persisted throughout the transition. The authors reveal that the outcomes in terms of targeting efficiency are significantly worse than in a number of other industrial countries, suggesting that scope for improvement exists.

Only about one in five Russian households rely solely upon their official jobs and transfers from the formal system of social protection. In chapter 9, Cox, Eser, and Jimenez investigate the significance of private transfers as

support to families during the transition. The RLMS reveals that private transfers in Russia are large and responsive to the socioeconomic characteristics of the household. The extent of private networks is surprisingly large: four out of ten Russian households were participating in such networks as donors, recipients, or both. Longitudinal analysis shows that this behavior has persisted through the transition, in contrast to Poland, for example, where private transfers diminished as economic conditions worsened. For the sample as a whole, private transfers average about 5 percent of household income. For net recipients the contribution was much higher, amounting to about 20 percent of household income.

On average, private transfers appear to flow to such vulnerable groups as younger families, female-headed households, and households affected by unemployment. Households participating in private transfers tend to be better off than those who are not, although whether or not such transfers have an equalizing effect on the distribution of income is unclear. Although transfers tend to go from better-off to worse-off groups, the probability of receiving a transfer declines only slightly as earned income increases. The empirical investigation reveals that the theoretical concerns about possible crowding out of private transfers as a result of public support are currently not warranted in Russia: apparently private and public transfers have been operating in a complementary fashion.

Chapter 10 highlights an issue of special, but often neglected, significance: people's attitudes toward social issues, and specifically, toward social and economic change and the role of the government. Subjective assessments of poverty can cast significant light upon the political sustainability of reform. Zubova's and Kovalyova's analysis is based on a regular nationwide sample of adults who are questioned on a range of social and political issues. Several striking findings emerge. First, the popular conception of a minimum level of subsistence is significantly higher than the official level that underlies the analysis in the foregoing chapters. However, such a high standard would result in more than four out of five Russians being classified as poor. Second, belief in an egalitarian distribution of income remains persistent and widespread. People tend to attribute poverty more to economic and structural causes, such as the distribution of income and economic and educational opportunities, rather than to individual qualities. Third, the survey suggests that the poor do not have any specific characteristics in terms of their behavior or orientation, or with respect to how actively or passively they have responded to their circumstances. Fourth, people generally feel rather pessimistic about their future prospects, and the assessments of the poor were especially negative.

The overall attitudes of people toward the role of government are mixed. On the one hand, the surveys suggest an increasing degree of self-reliance, and that the vast majority would rely upon themselves, and then friends and family, for help in time of need. Yet most people still expect the government to meet the perceived right to employment for every able-bodied person. Moreover, their expressed needs for social support from the government are significant.

Part I

Dimensions of Poverty

2

The Old and New Poor in Russia

Jeanine D. Braithwaite

The first years of transition to a market economy have not created poverty in Russia, but they have significantly exacerbated the existing poverty problem. To assess the welfare impact of the steps toward market reform Russia has taken since the breakup of the U.S.S.R., an important initial step is to analyze poverty under the Soviet system. Data and methodological constraints hamper the quantification of the extent of poverty under the old system, but some strong inferences can be drawn despite these limitations. Poverty was a well-established fact of life for about 11 percent of the Russian population during the Soviet period. The extent of poverty increased dramatically in 1992–93. The most vulnerable segments of the population have suffered as a result of the output decline and the high rates of inflation Russia experienced in 1991–93. Aggregated macroeconomic data suggest that the situation did not improve in 1994, and that poverty headcounts are likely to be in the same range as in 1993.

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To some extent the dramatic increases in poverty reflect adverse short-term economic developments. With economic recovery and successful restructuring, the pressures on living standards and poverty should abate. At the same time, however, the widened income disparities are likely to persist. In the longer term, the extent of the state's redistributive tax and transfer policies will play a critical role.

This chapter is a study of the old and the new poor in Russia. The questions considered are how many people were poor under the old system, who comprised the poor, how the poor differed from the well off, and what caused poverty in Soviet Russia. The chapter focuses on income indicators of social welfare, although other indicators are also briefly explored, and chapter 4 presents a detailed investigation of health and nutritional indicators (for fuller treatment of epidemiological, demographic, educational, and other indicators of social welfare, see UNICEF 1993). The chapter also provides an overview of the new poor as background to the more detailed analysis in the next chapter. Most of those poor under the new system were poor under the old, but systemic reforms have widened the risk factors for poverty and increased its open incidence.

Historical Background

Until 1989, poverty (*bednost*) did not officially exist in the U.S.S.R., but the authorities had recognized "underprovisioning" as a problem since the early 1970s. This euphemism is usually attributed to ideological considerations (Mozhina 1992), as socialism was to have eradicated problems such as poverty and the official stance was that poverty was a capitalist phenomenon. A 1974 decree defined underprovisioned families (*maloobespechinyye semyi*) as those with an income of less than Rub 50 per family member per month and these were provided with a monthly supplement of Rub 12 per child. This decree marked the first instance of official recognition that the generalized system of social support embodied in Soviet socialism had some shortcomings, as well as the first time that a "poverty line" had been quantified.

Broadly speaking, the Soviet system of social support could be characterized as a universal job guarantee combined with low controlled prices and a state-run retirement and social insurance system. The Soviet social welfare system was based on a division of society into two classes: the working class, subdivided into workers and employees, and the peasants or collective farmers. A farmer employed on a state (as opposed to collective) farm was considered to be a state worker, not a peasant. There

was, however, a marked disparity in the wage remuneration and cash transfer benefits available to workers and peasants, with peasants receiving relatively short shrift, especially in terms of cash transfer payments. Through the Khrushchev years, peasants were ineligible for cash transfer payments from the state, but this inequity was partially ameliorated by the adoption of an all-union law in 1965 that guaranteed the payment of some kinds of cash transfer payments to collective farmers, notably, old age pensions. Nevertheless, until the 1990 pension law reform, collective farmers received pensions that averaged less than half those paid to workers and employees.

The cornerstone of the Soviet social welfare philosophy was the right to work. This was embodied in the social contract, whereby the state would provide a universal job guarantee to individuals, and in return, individuals were obligated to work. During the Soviet period, individuals without a job were subject to the charge of "social parasitism," and conviction generally involved a jail sentence in a labor camp. Studying full-time and caring for small children or for invalids were considered to be full-time employment. At the same time, however, post-Soviet Russia apparently inherited a significant stock of unemployed, revealed in the labor force surveys discussed in chapter 6.

Alongside virtually universal job guarantees, the direct welfare role of employers involved the provision of significant noncash benefits at the enterprise level. The most important benefit was housing. Enterprises often constructed housing stock for workers and provided better apartments to more productive or senior workers. The distribution of in-kind benefits was biased toward the employees of high priority, heavy industrial enterprises and larger firms (Commander and Jackman 1993). Given the *propiska* system of residence permits and pervasive housing shortages, enterprises were able to attract workers by offering not only a job, but also housing and authorization to live in desirable areas. A *propiska* is the permit required for access to housing, jobs, and services in an area to restrict migration into desirable areas like Moscow and St. Petersburg. Large enterprises also maintained childcare centers, affiliated polyclinics, cafeterias providing subsidized meals (and often kitchen gardens to stock the cafeterias), and a system of subsidized health and recreational facilities. Depending on the type of enterprise, some workers had preferential access to waiting lists for the purchase of automobiles and other consumer durables. As a response to shortages of food and consumer goods, many enterprises organized the purchase of services for employees or maintained small retail shops in addition to company cafeterias.

A formal system of transfer payments existed partly to compensate individuals at a disadvantage, such as the disabled and orphans, as well as to provide for retirement (see Liu 1993 and World Bank 1993 for changes in the system since the breakup of the U.S.S.R. and chapter 8 in this volume on the current system of social protection). Public transfers ranged across the following benefits: old age and disability (from both occupational and general causes) pensions, loss of breadwinner payments, student stipends, sick pay, maternity leave, birth grants, funeral grants, supplements to single mothers and to large families, and from 1991, an extensive system of family allowances. However, the system of social protection did not guarantee adequate levels of income to all members of society. In particular, families with young children were at a disadvantage, because maternity benefits were low and were not equal to mothers' full salaries. Typically, nuclear families could only maintain an adequate income if both parents worked. Single-parent families were at a corresponding disadvantage. Rural residents attached to collective farms also had lower entitlements, as already noted.

In contrast to the pronatalist birth grant and associated bonuses for three or more children instituted in 1947, the supplement for underprovisioned families was a means of providing means-tested support for poor families with children. In keeping with the official stance that poverty was a capitalist phenomenon, poor families were described as "underprovisioned," not as "poor." Note that the government adopted this income supplement for low-income families well before the sharp slowdown in economic growth in the late 1980s and the subsequent disintegration of the U.S.S.R., pointing to the recognition of structural factors leading to poverty even in the socialist system.

Gaps in the system of pension support and the low level of pension benefits led to a new Soviet pension law in 1990. When then Prime Minister Ryzhkov introduced the legislative revisions, he broke with Soviet precedent by quantifying the number of poor in the U.S.S.R., "approximately 40 million" (*Trud*, June 8, 1989). Subsequent published data suggested that 12.6 percent of the Soviet population, or about 36 million people, were below the official poverty line of Rub 78 per month household per capita income (Kovalev 1989).

The Old Poor

The Family Budget Survey (FBS) provides the basic data on the distribution of income among workers and employees and collective farm families, which are used in this section to estimate a headcount index for pov-

erty. (The headcount index is the percentage of the population with an income or expenditure below the poverty line.) Broadly speaking, the picture that emerges is that the incidence of poverty declined from the early 1950s until 1980, and then remained relatively constant throughout 1980–91 (table 2-1), at which point inflation began to outpace nominal wage and pension increases.

Headcount Index and Poverty Gap Estimates

Estimates of the headcount index before 1988 are problematic, because the authorities did not publish distribution data from the FBS. Instead, McAuley (1979) and Wiles (1974) used partial information from a Soviet source (Rabkina and Rimashevskaya 1972) to estimate the distribution of income. McAuley (1979) also provided estimates of the Sarkisyan minimum consumption budget and of a lower and more realistic poverty line. For example, using the Sarkisyan minimum of Rub 50 per capita per month would lead to a headcount index of 69.5 percent of the Soviet population in 1958 (calculated from McAuley 1979, tables 4-1 and 4-2). McAuley suggested a lower measure (Rub 25 per capita), which would still have resulted in a headcount index of 21.7 percent for nonagricultural workers. By 1967, the incidence of poverty had declined to 11 percent of the population (based on a poverty line of Rub 30 per month). By way of contrast, using the Sarkisyan minimum as the poverty line, McAuley (1979, p. 70) estimated that in 1967–68, 35 to 40 percent of the Soviet population was poor (from McAuley 1979, tables 4-1 and 4-2, the headcount index would be 44 percent). In Taganrog in 1968, 30 percent of those surveyed had monthly incomes of less than Rub 50 (Rimashevskaya 1992b). In 1974, approximately 16 percent of the families of workers and employees were below the Rub 50 threshold (Sipos 1992). In 1978, only 7.1 percent of those surveyed in Taganrog had incomes of less than Rub 50 per month (Rimashevskaya 1992b).

As discussed in chapter 1, aside from the minimum consumption budget of the Khrushchev period, no official poverty lines were published until 1988.[1] Depending on the income cut-off assumed as a proxy for various missing official poverty lines, during the last decade of Soviet socialism the Russian headcount index fluctuated from approximately 11 percent in 1980 to 13

1. Although no official poverty line existed, the authorities used the Sarkisyan minimum to judge a family level of underprovisioning, which fulfilled some of the functions of an official poverty line. For example, the income-tested child (family) allowance of Rub 2,974 was based on this unofficial poverty line.

Table 2-1. *Russia: Trends in Poverty and Distribution, 1980–94*

Year	*MCB poverty line*[a] *(rubles per capita per month)*	*Headcount index (percent)*	*Gini coefficient*[b] *(percent)*	*Poverty gap index*[c] *(percent)*	*Poverty gap estimate as a percentage of GDP*	*FGT2 index*[d] *(percent)*
1980	64.6	11.25	27.60	2.34	—	0.70
1985	76.7	13.39	27.56	2.96	—	0.94
1988	84.0	10.60	26.17	2.04	—	0.71
1989	87.0	11.00	26.49	2.24	0.60	0.65
1990	93.3	10.10	28.45	2.12	0.55	0.63
1991	190.0	11.40	26.54	2.03	0.53	0.56
1992						
January	635	30.18	23.93	7.25	1.20	2.45
March	1,031	23.42	23.50	5.45	1.14	1.82
June	1,639	23.09	28.70	6.59	1.70	2.68
September	2,163	18.94	32.25	5.42	1.51	2.14
December	4,282	15.69	34.98	4.11	1.74	1.49

Year	Ministry of Labor subsistence minimum[e]	Headcount index (percent)	Gini coefficient[b] (percent)	Poverty gap index[c] (percent)	Poverty gap estimate as percentage of GDP	FGT2 index[d] (percent)
1993						
March	8,069	34.73	29.35	10.48	2.53	4.45
June	16,527	24.69	34.67	7.00	2.55	2.75
October	32,400	28.84	39.99	9.36	4.10	4.37
December[f]	42,800	22.77	51.10	6.76	3.17	2.72
1994						
January	51,360	34.91	45.86	12.09	3.54	5.68
September	92,300	35.50	—	11.88	3.59	3.41

— Not available.

a. Minimum consumption basket is an upper boundary for a poverty line during the Soviet period (see text).

b. Values closer to zero represent more equal distributions.

c. The poverty gap index is the basis for estimating the depth of poverty, revealing the aggregate poverty deficit of the poor relative to the poverty line (see Foley, chapter 3 in this volume).

d. Foster-Greer-Thorbecke P2 poverty measure used to rank the severity of poverty, giving greater weight to households far below the poverty line.

e. Ministry of Labor's interpretation of poverty line methodology proposed by the World Bank (Popkin, Mozhina, and Baturin 1992). Updated figures for 1993–94 as published in *Sotsial'no-ekonomicheskoye Polozheniye Rossii* by Goskomstat Rossii in monthly bulletins (Goskomstat Rossii 1992–95).

f. Russian Longitudinal Monitoring Survey (RLMS) results for round 4 (end-year 1993).

Source: Author's estimates based on a variety of data, mostly from monthly distributions published by Goskomstat Rossii.

percent in 1985, and then back to about 10 percent in 1988.[2] As these results follow from the relatively generous Sarkisyan minimum consumption basket (MCB) methodology, these estimates, based on the MCB, are best viewed as the upper bound of poverty.

From 1988 to 1989, the incidence of poverty in Russia increased to about 11.0 percent, and then declined in 1990 to 10.1 percent.[3] The poverty headcount then rebounded to 11.4 percent in 1991, reflecting the impact of price increases for food purchased at collective farm markets in the MCB. Again, these figures represent the upper bound of the headcount, given the nature of the MCB "poverty line." Despite revisions in the methodology (Gursyev and Zaitseva 1990), the MCB lost relevance after 1991 as inflation increased (see chapter 1).

The headcount index provides a measure of the extent of poverty, but it is also useful as a way to gauge the depth of poverty. The poverty gap is defined as the aggregate poverty deficit of the poor relative to the poverty line (Ravallion 1992; Foley, chapter 3 in this volume). The poverty gap as a share of GDP represents the minimum cost of eliminating poverty under the assumption that policymakers could perfectly identify and target the poor by giving each poor person only the amount of income necessary to bring him or her up to the poverty line. Estimates of the poverty gap for 1989–91 and December 1992 for Russia suggest that the poverty gap was low (table 2-1), and amounted to less than 2 percent of GDP. At the same time, the headcount index was about 10 to 11 percent, rising to almost 16 percent by December 1992.

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2. Russian income distribution data for 1980, 1985, and 1988 are presented in the appendix to Braithwaite (1995). The World Bank's POVCAL software was used to estimate the Lorenz curves, Gini coefficients, and poverty headcounts from the original Russian income distribution data. The official data lack information about the mean of the highest income class, so the estimates were constrained to fit to the calculated mean income per capita of the population (based on published information reproduced in the technical appendix of Braithwaite 1995). Poverty lines were based on a straight-line interpolation to proxy the missing official poverty lines for 1980 and 1985 from the 1974 level (Rub 50) to 1988 (Rub 84). The official poverty lines for 1988–90 were published, but the 1991 poverty line was not. The POVCAL software was used to test several different possible poverty lines for 1991, with the result that Rub 190 best characterized the data. The estimates here are all quite sensitive to the poverty level assumed, as a fair proportion of the population was clustered in the income class interval Rub 75 to Rub 100 (see Braithwaite 1995, Technical Notes to the Appendix).

3. Ryzhkov's (*Trud*, June 8, 1989) characterization of nearly 40 million poor in 1989 applied to the entire Soviet Union. The poverty rate in Russia was lower than the Soviet average, which was pulled up by the central Asian republics, where people tended to have large families, and relatively high shares of the population had a per capita income of less than Rub 75 per month (Braithwaite 1990).

An illustrative nonmoney indicator of poverty is the share of expenditures spent on food, with the general assumption being that the greater the share of income spent on food, the poorer the individual or family (although see Ravallion 1992 for some caveats for this indicator). Data for 1980–93 suggest that food accounted for about a third of average family expenditure (detailed data are presented in Braithwaite 1995). The share of food in family expenditure declined for the families of workers, employees, and collective farmers' families during the 1980s, but the differences were not marked.

The story of food quantities is more stark than that of the share of food expenditures. After a pattern of sharp increases in the quantity of food consumed in Russia from 1952 to 1975–80, the consumption of meat and milk products began to decline in the 1980s (table 2-2). The poverty headcount did not change much during this period, and what caused the decline other than the pervasive shortages of food and consumer products is unclear, although some substitution to higher quality items and smaller desired quantities may have occurred.

As expected, poor families consumed smaller quantities of all types of food, but relatively more of the less expensive items, especially bread. In 1990, low-income Russian families consumed an average per capita of 38 kilograms of meat, 305 kilograms of milk, 62 kilograms of vegetables, and 80

Table 2-2. *Russia: Consumption of Food Items, Selected Years 1955–93*
(kilograms per family member per year)

Year	*Meat and meat products*	*Milk and milk products*	*Fish and fish products*	*Sugar*	*Bread*
1952	30.0	168.0	11.2	19.6	170.0
1955	41.2	209.2	13.6	20.0	153.6
1960	57.2	302.0	13.2	24.8	134.4
1965	58.0	322.8	16.4	26.0	133.6
1970	72.0	381.6	19.2	25.6	122.4
1975	82.4	396.8	18.8	24.8	112.4
1980	80.0	411.2	18.8	23.6	101.2
1985	78.4	389.6	18.8	21.2	91.6
1989	76.8	391.6	17.0	21.3	84.7
1990	74.1	378.9	17.2	20.8	85.7
1991	68.3	345.4	16.2	18.5	91.8
1992	58.7	280.4	13.7	18.4	98.0
1993[a]	63.2	285.6	14.1	22.9	105.8

a. Goskomstat forecast.
Source: FBS data: Goskomstat Rossii (1992–95, *Sots. Ekon.* no. 9, 1993).

kilograms of potatoes, compared to overall averages of 72, 389, 90, and 93 kilograms, respectively (IMF and others 1991, pp. 204–206).

Who Was Poor under the Soviet System?

In the 1980s, more than one-tenth of the Russian population had a per capita income below a poverty line based on the MCB. As shown in chapter 1, this poverty line was not a good measure of absolute poverty, because it provided for overly generous consumption of food and nonfood items. At the same time, the MCB is the reference standard for available Soviet information that can be used to characterize qualitatively the disadvantaged groups in Soviet society. Data from the FBS reveal that families with children made up at least half of the poor in the U.S.S.R. (Sipos 1992) and the same proportion in Russia (Samorodov 1992). In 1989 families with children under the age of eighteen made up the majority (58 percent) of families in Russia. At particular risk of poverty were families with more than three children, children of single parents (particularly of single mothers in poorly paid occupations), and children in two-parent families where one parent was temporarily not working (often on maternity leave).

The second largest group of poor consisted of pensioners who lived alone or lacked another source of income, although pension receipt as such did not mean that the individual or family was poor. Mozhina (1992) estimated that pensioners made up about one-fifth of the poor, but this may be an underestimation resulting from their underrepresentation in the FBS. In 1968 pensioners made up 28.3 percent of the poor (Rimashevskaya 1992a, pp. 14). In Taganrog, pensioners were the bulk of the poor in 1978, about 46 percent of poor families, while 15 percent of the poor were families with three or more children (Rimashevskaya and Onikov 1991, pp. 47–48).[4] Ovcharova in Mozhina (1994) presented poverty rates among pensioners in various oblasts in the 1980s, which ranged from 19 percent in Taganrog to 29 percent in Petrozavodsk and 32 percent in Astrakhan. A third type of poor family was wage earners in poorly paid jobs, overwhelmingly women in feminized branches of the economy. (See Newell and Reilly 1996, which shows that the impact of occupational segregation and discrimination created a wage gap of some 70 percent that remained stable over time despite increasing rates of

4. However, there were no families with three or more children among the poorest (per capita income of less than Rub 30 per month). Most of the poorest were elderly women and young families in which the mother was on maternity leave (Rimashevskaya and Onikov 1991, pp. 47–48).

female labor force participation.) Finally, a numerically small group, the homeless and the recently released institutionalized population, probably made up the core of the ultra-poor under the Soviet system. Each of these vulnerable groups is discussed in turn.

CHILDREN. The presence of children in a family might be expected to have a high correlation with poverty, because children are generally nonincome earning dependents. In Russia, as in other countries, raising children is associated with a lower standard of living for families during that phase of the life cycle.

McAuley (1979) analyzed several Soviet one-time surveys to conclude that the presence of children was strongly correlated with poverty in Moscow and European Russia, suggesting that in 1965–68 families with children were almost three times as likely as single individuals and fourteen times as likely as childless married couples to be poor, and that Soviet authorities had failed to do much to alleviate poverty among families with children. By contrast, Rabkina and Rimashevskaya (1972) argued against the simple interpretation that having many children was the sole cause of poverty, and suggested instead that a large number of dependents (young or elderly), a single parent, and low incomes, such as observed in families headed by a pensioner or a student, were more important.

The average family size in the lowest income quintile of the Soviet population was more than twice the average family size of the top quintile. In the 1960s, children made up 60 percent of the members of the poorest families, but only 10 percent of the wealthiest, according to Sarkisyan and Kuznetsova (cited in Sipos 1992, p. 23). In Taganrog in the 1980s, 25 percent of poor households were children, compared to only 6.8 percent for families in the highest income bracket (Rimashevskaya and Karapetyan 1985, p. 78). The situation had not changed appreciably by 1989. Of families with children, those of workers and employees with only one child showed a lower incidence of poverty than the national average, whereas all other kinds of families with children under sixteen experienced much higher rates of poverty (table 2-3), which rose to 90.2 percent for workers and 96.0 percent for families with five or more children under sixteen for collective farmers.[5]

5. These extremes reflect the limitations of a per capita standard. Given average wages during the 1980s, for any family to achieve a monthly per capita income above Rub 75 with seven family members would have been rare.

Table 2-3. *Soviet Union: Income Distribution of Families with Children under the Age of Sixteen, 1989*
(percent)

	Household (family) per capita income per month in rubles						
Family catagory	*Less than 75*	*75–100*	*100–125*	*125–150*	*150–175*	*175–200*	*More than 200*
Workers and employees[a]							
Families with children	18.3	20.4	22.5	17.1	9.8	5.2	6.7
One child	8.2	15.5	23.2	21.5	13.8	7.8	10.0
Two children	17.8	26.3	25.7	15.5	7.2	3.3	4.2
Three children	48.2	27.1	13.9	6.1	2.4	1.2	1.1
Four children	75.2	16.7	5.6	1.5	0.6	0.2	0.2
Five or more children	90.2	7.5	1.6	0.3	0.3	0.1	0.0
Collective farmers[a]							
Families with children	48.5	23.5	14.7	7.4	3.1	1.4	1.4
One child	24.6	26.9	22.5	13.5	6.2	3.2	3.1
Two children	42.9	29.7	16.5	6.7	2.5	0.7	1.0
Three children	69.9	19.4	7.1	2.5	0.8	0.3	0.0
Four children	88.3	8.9	1.7	0.8	0.2	0.1	0.0
Five or more children	96.0	3.0	0.8	0.2	0.0	0.0	0.0

a. Occupational designation of head of family.
Source: Data from the March 1989 survey of 310,000 families.

Until the introduction of universal family allowances in 1991, the only form of monthly cash transfer for children was the small grant (Rub 12 per child under the age of eight) that was made to families with a per capita monthly income of less than Rub 50. In 1985 the income cut-off was increased to Rub 75 per capita and the age limit was extended to twelve years. In 1991 a system of family allowances was adopted under which allowances were universal and were paid for each child. Monthly benefits were divided into eleven major categories, and were provided along with quarterly compensation for the increased cost of children's clothing (table 2-4).

The introduction of a new system of family allowances in 1991 may have helped prevent a widening of poverty during that year. Benefits were indexed, albeit with a lag (table 2-4). The 1991 headcount index was only slightly above the 1990 level, in contrast to the significant deterioration in 1992, during and after which rapid inflation caused a marked erosion of benefits.

PENSIONERS. The simple characterization of pensioners as poor in Soviet Russia is misleading, because there are several different types of pensioners, some of whom form an integral part of a larger working household unit and often have direct access to wage income. Moreover, a Goskomstat survey of pensioners in 1987 revealed that 22.6 percent of Russian pensioners worked (*Vestnik statistiki*, no. 8, 1988, p. 69). The rate was higher (26.0 percent) among old age pensioners (excluding primarily disability pensioners), particularly for men (29.7 percent). Others lived with wage earners or otherwise benefited from private transfers. Although some pensioners were relatively well off, those who depended solely on a pension (particularly the elderly who did not have complete work tenure), and/or who lived alone and had no access to wage or other income from relatives, tended to make up the poorest of the Soviet poor. In particular, elderly women living alone were in difficult circumstances. In 1988, 10 million pensioners were reported to live alone, and scattered references in the press portrayed a harrowing existence for single female pensioners who lacked family or other support (Trehub 1988b).[6] In Taganrog, the largest group of the poor during the Soviet period were pensioners, perhaps reflecting the more representative nature of the Taganrog sample versus the FBS.

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6. Quantifying the number of pensioners living alone is somewhat difficult, because official 1989 census data do not distinguish between those living alone and those defined as family members living separately from the family. Official census data do show slightly more than 10 million single individuals in Russia (approximately 7 percent of the population), including pensioners and others.

Table 2-4. *Russia: Family Allowances, 1991–93*
(rubles per month)

Category	*April 1991*	*January 1992*	*June 1992*	*December 1992*	*January 1993*	*April 1993*	*July 1993*
At birth[a]	250	1,026	2,700	5,400	6,750	—	—
Up to 18 months							
Working mother[b]	110	205	500	1,000	1,250	1,917	3,896
Nonworking mother[c]	80	154	400	800	1,000	—	—
18 months to 6 years	80	154	400	800	1,000	1,108	2,110
Single mother[d]	80	154	400	800	1,000	1,126	2,141
6 to 16 (18) years							
Single mother[d]	80	171	450	900	1,250	1,262	2,404
No benefit or stipend[e]	40	86	200	400	500	—	—
Children with HIV or AIDS[f]	110	205	500	1,000	1,250	1,266	2,400
Quarterly compensation[g]							
Up to age 6	200	—	250	500	625	—	—
Age 6–13	240	—	300	600	750	—	—
Age 14–18	280	—	350	700	875	—	—

— Not available.

Note: For 1993, "up to eighteen months" is average for birth grants for working and nonworking mothers with children up to eighteen months old.

a. One-time grant on the birth of each child.

b. Mothers with at least one year of work tenure, or full-time student, or under eighteen years of age.

c. Nonworking mother or to mother aged eighteen or more with less than one year of work tenure.

d. Single mother, or child where parent(s) evading support, or foster parents.

e. Paid to all children not receiving any other benefit or student stipend.

f. Until the age of sixteen.

g. Compensation paid for the increased cost of children's goods.

Source: IMF (1993); *Pensionnyy fond* (1993); Liu (1993); World Bank (1993).

There were six main categories of nonmilitary pensioners in Russia: old age, disability (some of whom were able and expected to work), loss of breadwinner, early retirement, social (paid to the elderly without a sufficient work history), and personal (paid to a small group of individuals deemed to have rendered exceptional service to the state). Approximately 22 percent of the Russian population received a pension in the 1980s (table 2-5).

Pension replacement rates were not overly generous, with the average pension amounting to approximately one-third of the average wage during the mid-1980s, and steadily declining during 1986–90. The average rates masked significant variation in pensions actually received, and a significant number of the elderly received only the minimum pension (table 2-4). Figure 2-1 shows clearly the relative disadvantage of collective farm pensioners, for the reasons set out earlier. The share of pensioners receiving only the minimum benefit was at its lowest level in 1988 (14 percent of old age pensioners), but increased sharply in 1989–90 to 25 percent. The social pension was set much lower, at half of the minimum old age pension.

There were no regular cost of living adjustments to pensions during the Soviet period. As a result, older recipients saw their relative positions worsen markedly during the late 1980s, when average prices and wages increased and minimum pensions did not change much. Wage earners

Figure 2-1. *Russia: Distribution of Pension Benefits, 1983 and 1987*

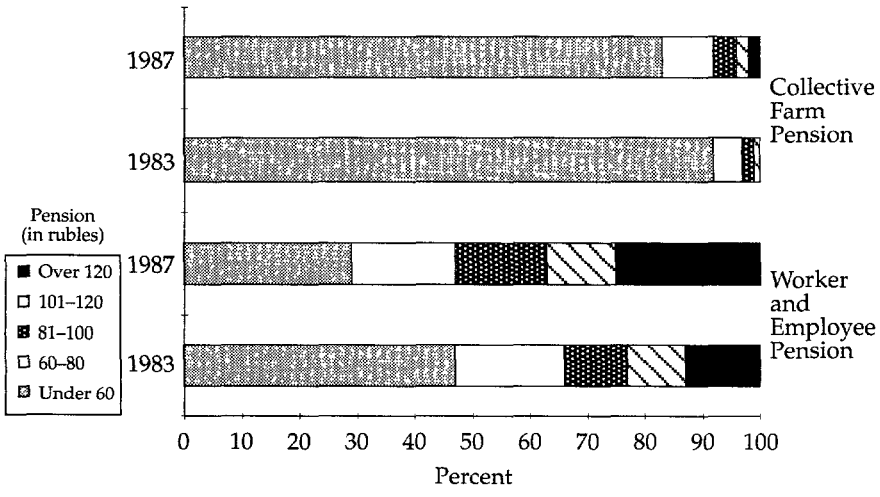

Table 2-5. *Russia: Average Pensions and Population of Pensioners, 1981 and 1986–93*

Year	Pensioners (millions)[a]				Population[a] (millions)	Share of pensioners in population (percent)	Average pensions (rubles per month)[a]			Loss of breadwinner[d]	Old age pensioners receiving minimum pension		Average wage of workers and employees (rubles per month)	Replacement rate (percent)[b]
	Total	Old age	Disability	Loss of breadwinner			Total[b]	Old age	Disability[c]		Millions	Percent		
1981	28.3	19.5	3.5	3.9	139.6	20.3	59.0	64.7	34.6	37.3	4.0	20.5	182.4	32.3
1986	31.2	22.5	3.5	3.7	144.5	21.6	75.6	82.8	39.3	45.7	3.5	15.6	207.8	36.4
1987	31.8	23.2	3.5	3.5	145.4	21.9	79.5	85.2	66.5	46.5	3.2	13.8	216.1	36.8
1988	32.2	23.8	3.5	3.3	146.4	22.0	82.5	88.4	68.9	47.1	—	—	235.2	35.1
1989	32.6	24.6	3.5	3.3	147.4	22.1	85.1	90.3	71.1	48.1	6.8	27.6	258.6	32.9
1990	33.2	25.2	3.5	2.8	148.0	22.4	92.1	97.4	77.4	49.9	6.3	25.0	296.8	31.0
1991	33.8	25.7	3.5	3.4	148.5	22.8	113.2	120.8	100.9	63.5	—	—	552.0	20.5
1992	34.1	27.1	3.4	2.6	148.7	22.9	419.2	438.0	404.5	279.5	—	—	6,014.0	7.0
1993	35.5	28.5	3.3	2.2	148.6	23.9	3,468.0	3,666.0	3,049.0	2,000.0	6.5	22.8	59,577.0	5.8

— Not available.

a. As of January 1 except for population in 1989, which is as of January 12 because of the census.

b. Revised data provided in Narkhoz Rossii v 1992 g. for 1981 and 1986. Data for 1987–90 correspond to previous definition, under which average pension was Rub 60.2 in 1981 and Rub 76.9 in 1986. Inflation in 1991–93 attenuated comparisons of average pensions (as of 1 January) to average annual wages in this period.

c. New definition and revised data provided in Narkhoz Rossii v 1992 g. for 1981 and 1986. Data for 1987–90 correspond to previous definition, under which disability pension was Rub 53.2 in 1981 and Rub 64.6 in 1986.

d. New definition and revised data provided in Narkhoz Rossii v 1992 g. for 1981 and 1986. Data for 1987–90 correspond to previous definition, under which loss of breadwinner pension was Rub 37.3 in 1981 and Rub 45.7 in 1986.

Source: Goskomstat Rossii (1993 and 1994).

and newly enrolled pensioners were able to afford a higher standard of living than older pensioners, because benefits were based on the last five years of wage income. Although overt inflation was low, the queuing that was always a feature of Soviet life increased dramatically as shortages worsened. On the one hand, increased waiting time in queues was more difficult for the aged and those in poor health. On the other hand, pensioners in relatively good health could raise the welfare of their households by standing in line during working hours. Again, the impact depended on the health status and household composition of the individual pensioner.

THE WORKING POOR. While the distribution of earnings during the Soviet period was relatively compressed (Jackman and Rutkowski 1994), a third type of poor family included wage earners in low paying occupations. In particular, in certain branches of the economy most workers were female, and the wage rates were low. Retail trade, education, health, arts and culture, and branches of light industry had the lowest wage rates and the highest concentration of women employees (Fong 1993; Rzhanitsyna 1993). Even within a highly paid branch of industry, certain occupations were poorly paid. Matthews (1987) identified ten low paid occupations and workers employed in manual labor (cleaners, watchmen and watchwomen, warehouse personnel, store clerks, yardworkers, drivers, clerks, secretaries, cashiers, and drafting personnel). Workers tended to stay in low paid positions. A study of the Dnepropetrovsk machine-building factory (cited in Matthews 1987) revealed that three-quarters of low-income workers had been on the job for ten to twelve years, and a significant share of the low-income households surveyed had female heads.

Manual laborers, janitors, and those restricted to the lowest rung of the wage tariff were at a corresponding disadvantage in terms of their earning potential. Those employed in piece work or "petty crafts" (such as tailoring and shoe repair) also had low rates of remuneration.

OTHER POOR. The smallest poverty group in numerical terms was probably the worst off in Soviet Russia, the homeless and recently institutionalized population. In particular, the recently deinstitutionalized population was at a significant disadvantage in terms of finding a job with a housing guarantee, as all stays in prisons or mental hospitals were recorded in an individual's labor book (a document in which all employment had to be recorded). At the same time, the housing shortage not only meant a preponderance of extended families and others sharing communal apartments, but also the existence of

homelessness in the U.S.S.R.[7] Estimating how many homeless existed in the U.S.S.R. is virtually impossible, because adult loitering in urban areas or being without a job was punishable by imprisonment. In 1988 homelessness became a topic in the Soviet popular press, but estimates of the number of homeless were vague, for example, Trehub (1988a) refers to reports of "tens of thousands" of homeless. Estimates also exist for the number of vagrant children detained in the U.S.S.R. in 1989: approximately 150,000 (*Pravda*, February 1, 1991).

Despite the labor book requirement and the *propiska* system of residence permits, adult transients could find informal employment in labor-scarce regions such as the far north, given the shortage of skilled labor there. The social welfare system did not provide benifits to transient *bomzhi*.

Political prisoners faced a particularly difficult dilemma, as denunciation typically led first to job severance, then to a charge of social parasitism (for lacking a job), next to imprisonment, and eventually to reduced employment opportunities. Although the material situation of people classified as social parasites or *bomzhi* was difficult, they were unlikely to have constituted a significant share of the population.

Regional Dispersion

Analysis of the regional pattern of poverty in Soviet Russia is hampered by a lack of data on income distribution and by the system of regional coefficients by which both salaries and prices were set. Russia was divided into eleven economic zones, and salaries and prices were adjusted by separate sets of coefficients to reflect the increasing cost and difficult nature of living in its eastern and Siberian parts. Some oblast-level data on average per capita incomes are available for 1980, 1985, 1990, and 1991, but a ranking of oblasts on this basis alone obscures the regional variation in prices (for detailed tables of regional data see Braithwaite 1995). This "large country" problem is not unique to poverty assessment in Russia, but the country's sheer size and the pronounced differences in climate, urbanization, prices, and so on make the imposition of a national standard particularly problematic. Unfortunately, correction of this gap is not possible for the Soviet period given the data constraints, namely, the lack of oblast-level price indexes before 1992.

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7. The homeless were known by the Russian acronym *bomzhi*, which meant "without a defined residence" (*bez opredelennogo mesta zhitelstva*). Vagrants were informally termed *bichi*, from the ironic acronym for "formerly intelligent (cultured) person" (*byvhshiy intelligentniy chelovek*).

Bearing the foregoing caveats in mind, one can nonetheless undertake some analysis of data on nominal per capita income by oblast. In particular, the area of Dagestan (North Caucasus) had the lowest per capita income in Soviet Russia in both 1980 and 1991, while Magadanskaya (Far East) had the highest per capita income (see Braithwaite 1995). The majority of Dagestan's population is non-Russian, and the oblast's demographic characteristics, family size in particular, are characteristic of the Caucasus, not of European Russia. Given the larger family size and the predominately agricultural nature of the regional economy, one would expect poverty to exceed the national average, as both the wages and pensions of collective farmers would have been lower than average and the number of dependents greater. The majority of low-income oblasts lie in the Northern Caucasus, including Checheno-Ingushetiya.

Assessing poverty in Siberia is more difficult. The population is a heterogenous mixture that ranges from indigenous people often engaged in low wage occupations (for example, reindeer herding) to Russian migrants employed in the oil fields at high salaries. This distributional factor means that the relatively high average per capita incomes in the area are likely to mask significant pockets of extreme poverty. However, the East Siberian Republic of Tuva was third or fourth from the bottom of the rankings of per capita income in both 1980 and 1991 (Braithwaite 1995).

The Far Eastern oblasts were among the wealthiest areas in terms of per capita income because of the salary coefficients mentioned earlier. Moscow City was among the top ten areas in 1980 and 1991 (see Braithwaite 1995, Technical Appendix).

Rural Residence

Historically, rural residents in Russia were at a significant disadvantage in terms of welfare, which reflects a generally negative view of the Soviet leadership toward rural, especially peasant, lifestyles. This has been attributed to the ideological focus on the proletariat as an urban creation, the belief that the peasants were more influenced than city dwellers by traditions incompatible with socialist norms, and the continuing partial engagement of peasants in the private economy (O'Brien and others 1993; Patsiorkovsky and others 1991). This resulted in certain biases against rural residents. Resource allocation decisions that favored the urban industrial sector led to a long-term relative deterioration of many consumer goods items (in terms of both quality and availability) and of social infrastructure in rural areas. A household survey in rural Rostov in 1991 found that only 7.5 percent of dwellings had indoor plumbing and only 10.0 percent of rural villages were connected to a tele-

phone network (O'Brien and others 1993). In contrast to rural residents in the United States and other Western countries who became increasingly absorbed into manufacturing or migrated to urban areas, the Russian village remained more immersed in agriculture, which provided 60 percent of jobs.

Until 1965, economic discrimination against agricultural workers was overt. They lived under the so-called labor day system of payment, which meant that they were paid cash wages only once a year, after the annual harvest. Until 1965, elderly people in rural areas who had retired from collective farms had no pension entitlements at all. Between 1965 and 1990, collective farm pensions were set at only half the level of pensions for workers and employees.

Factors Affecting Poverty

Family composition is arguably the major factor explaining poverty in Soviet Russia, followed closely by occupation and pension remuneration. Family composition is used broadly here to encompass the gender of the head of the household, the dependency ratio of wage earners to dependents, and the ages of the latter.

The ability of a family to grow some food for its own consumption on a private plot clearly helped to ameliorate poverty, particularly in rural areas. Private plot income was probably underreported by respondents in the FBS. Moreover, it was probably also undervalued, because in-kind consumption was imputed at state retail prices, not at the higher free market prices prevalent at collective farm markets. Nonetheless, in 1989 low-income collective farm households recorded that they derived approximately 20 percent of their total income from private plot earnings, compared with 10 percent for workers and employees (Atkinson and Micklewright 1992, p. 244).

Further factors not reflected in the available official data clearly affected household welfare in Soviet Russia, but quantification is impossible. This applies to the extent of the second (black market) economy, the welfare cost of waiting in queues, the distributional impact of perquisites enjoyed by the elite, and the existence of in-kind benefits provided by state enterprises, all of which undeniably affected the experience and extent of poverty.

In particular, the existence of the pervasive second economy, perquisites, and chronic shortages rendered the use of money income to judge poverty and distributional outcomes somewhat problematic. For example, certain low paid occupations had considerable scope for illegal side earnings, such as the store clerk who accepted bribes to set aside choice merchandise or the *feldsher* (a type of medical attendant) who accepted a tip to change bed linen in a hospital. These occupational groups were underrepresented in the FBS, because

those thus employed disproportionately refused to participate in the survey, which in turn led to overestimates of the extent of poverty. Money income would not have been a good measure of their welfare in any case, because second economy payments were frequently in nonruble form (often vodka, imported cigarettes, or increasingly throughout the period, U.S. dollars).

Soviet citizens at the top end of the money income distribution benefited from a system of perquisites that included access to a network of special hard currency coupon stores and supplemental salary payments of hard currency coupons. The elite also had access to higher quality education and medical care and to spas and recreational areas. The size of the elite is difficult to quantify. Estimates ranged from 0.3 to 1.5 percent of the Soviet urban population (Atkinson and Micklewright 1992, p. 170). State enterprises provided such benefits to the elite and to senior workers as better housing, cars and drivers, dachas, superior medical care, and access to closed stores. While the list of in-kind enterprise benefits provided to workers in general was quite extensive (Commander and Jackman 1993, p. 36), workers had differential access to these benefits that depended on their seniority and connections.

The New Poor

Any attempt to assess the welfare impact of the transition period faces the problem of choosing a reasonable basis for comparison. What was the last normal year for a comparative social welfare analysis? Annual average rates of economic growth began to decline in the early 1970s, physical quantities of food consumed declined after 1975 (table 2-2), while shortages and queuing increased dramatically in the late 1980s (see Moskoff 1993). Shatalin and other reform economists (Shatalin and others 1990) often cite 1989 as a comparator year, at least in Russia. The complicated issues associated with the choice of a base year are beyond the scope of this chapter. Note, however, that from the sole, albeit arbitrary, criterion revealed by the MCB poverty line headcount, the years 1988 through 1991 differed little from each other. With the high inflation of 1992, the MCB poverty line lost any relevance it might have had. Thus, a convenient demarcation between the old and the new poor for the purposes of this analysis is 1991.

Headcount Indexes and Poverty Gap Estimates

The publication of income distribution and other socioeconomic data for Russia greatly expanded after 1991, with the result that headcount estimates are available or can be calculated for most months in 1992–94. These estimates are

based on distribution data from the FBS and on the official Ministry of Labor average subsistence minimum (table 2-1). Given the high rates of inflation, annual, or even quarterly averages are likely to be misleading, so data are presented by month and are based on annualized GDP (table 2-6). These estimates, based on FBS data, confirm the general impression that the transition has led to sharp short-term increases in measured poverty, as the headcount index rose to nearly 34 percent of the population in January 1994 (table 2-1).

Chapter 1 described alternative data sources. It explained that the estimating methodology the Goskomstat used was likely to lead to noticeable understatements in measures of dispersion such as the variance, the Gini coefficient, and the decile ratio. For the period 1992–94, RLMS data are available and have been used to generate more reliable measures of headcounts, Gini coefficients, and other poverty statistics.

The headcount index in January 1992 was triple its average level in 1991 (table 2-1), reflecting the impact of the January 1992 price liberalization and lags in nominal wage and pension adjustment. According to Goskomstat, the headcount index declined through the rest of 1992 as real wages recovered somewhat (table 2-6). Nominal pensions were adjusted on an ad hoc basis, and the pension scale was compressed during 1992. The headcount index as measured by the RLMS during June–October 1992 was 25.2 percent. According to Goskomstat data, the headcount index averaged 24 percent for the year as a whole (table 2-6).

The number of poor Russians increased again in 1993, as the Goskomstat headcount index nearly doubled from its December 1992 level to 30 percent in October 1993. Following the seasonal pattern of price increases, the headcount index was highest in the first quarter of the year and lowest in June (25 percent). Reflecting this seasonal trend, the headcount index reached nearly 35 percent in January 1994.

These data reinforce the numerous press reports and other anecdotal evidence about the visible increases in the number of homeless and beggars seen on the streets of major cities in Russia. In short, poverty increased sharply in 1992 and then again in 1993, presenting a major challenge to policymakers. The poverty gap doubled from its average of just over 1 percent of GDP in 1991 to nearly 2 percent of GDP in December 1992.[8] The real explosion in poverty occurred in 1993, and by October the poverty gap amounted to more than 4 percent of GDP (table 2-1).

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8. Because of the extremely high inflation in 1992–93, poverty gap estimates are based on annualized monthly poverty lines and annualized GDP.

Table 2-6. *Russia: Average Money Incomes, the Subsistence Minimum, and Poverty Headcounts 1992–96*

Year and month	*Average per capita money income (rubles/month)*	*Ministry of Labor subsistence minimum (rubles/month)*	*Population with incomes below the subsistence minimum (millions)*	*Poverty headcount (percentage of the total population)*
1992[a]	3,510	1,895	35.8	24.0
1993				
January	7,959	5,547	52.8	35.5
February	11,007	6,755	40.3	27.2
March	13,460	8,069	51.6	34.8
April	18,776	9,875	37.9	25.5
May	21,050	12,897	49.9	33.6
June	30,226	16,527	41.4	27.8
July	34,281	21,206	51.0	34.3
August	42,177	24,765	50.3	33.9
September	49,290	28,183	48.4	32.6
October	57,500	32,400	45.0	30.3
November	67,458	37,908	49.1	33.0
December[b]	116,577	42,800	39.6	26.7
1994				
January[c]	95,200	51,360	52.6	26.7
February	122,400	54,800	24.8	16.7
March	145,700	60,400	—	—
April	161,000	66,500	—	—
May	158,500	77,800	24.3	16.4
June[d]	187,400	85,700	—	—
July	—	91,800	33.8	22.8
August	—	90,000	32.7	22.0
September	—	92,300	30.4	20.5
October	257,412	105,300	31.8	21.4
November	278,000	121,500	33.6	22.6
December	—	145,400	—	—

(Table continues on following page.)

Table 2-6. *(continued)*

Year and month	*Average per capita money income (rubles/month)*	*Ministry of Labor subsistence minimum (rubles/month)*	*Population with incomes below the subsistence minimum (millions)*	*Poverty headcount (percentage of the total population)*
1995				
January[e]	307,278	179,500	49.4	33.3
February	345,013	201,400	50.4	34.0
March	344,340	218,900	43.9	29.6
April	442,722	234,200	43.1	29.0
May	483,154	254,400	42.2	28.0
June	533,693	277,400	41.5	28.0
July	546,496	293,400	39.2	26.0
August	576,819	286,100	34.9	23.0
September	609,164	286,200	32.8	22.0
October	643,531	297,800	31.2	21.0
November	680,593	313,200	30.5	21.0
December	776,280	327,300	28.9	20.0
1996				
January	—	345,500	—	—

— Not available.
a. Annual average.
b. Derived from a reported figure of total money income of Rub 14.4 trillion for January, 1994. December nominal income was reported to be 16.6 percent higher than in January because of the payment of annual bonuses and interest on savings accounts.
c. The January subsistence minimum was subsequently revised to Rub 47,200, but the headcount for the revision was not reported.
d. January–June nominal per capita income from July 1996 monthly bulletin (see source).
e. Based on reported figures for total money income for the month divided by population (see source).
Source: Goskomstat Rossii *Sots. Ekon.* (monthly bulletins) (1992–96).

Wages and Pensions

The primary cause of the sharp increases in poverty in 1992 and 1993 was the erosion in real terms of wages and pensions (table 2-7), alongside a widening distribution of income. The January 1992 price liberalization was a major shock, but average wages in real terms began to recover by the second half of 1992. Real wages eroded again in the first quarter of 1993, increased in the

second quarter, and then declined through the end of 1993.[9] Real wages declined slightly through 1994, and remained at about half the level of those at the end of 1991. The real minimum wage eroded sharply throughout the entire period to only 15 percent of its end of 1991 level.

The average wage has become a less meaningful indicator of welfare trends, given the widening income distribution and increasing prevalence of wage arrears and reduced working hours. Increasingly, enterprises and the Russian government resorted to delaying payments to reduce labor costs. In November 1993, approximately 37 percent of industrial, construction, and agricultural enterprises were overdue on their wage payments, with the bulk (69 percent) being more than twenty days late. Enterprises were able to settle some of these obligations in December 1993, the traditional month for the payment of annual bonuses, and wage arrears declined slightly (*Sots. Ekon.* No. 1, 1994, pp. 46–47). However, the improvement was ephemeral. In real terms, total wage arrears increased by a factor of 3.5 during 1994 (Russian-European Center for Economic Policy 1994, vols. 3, 4).

As discussed in chapter 1, open unemployment remained low throughout 1994, although real wages and hours worked underwent significant adjustment. According to Goskomstat, throughout 1994 around 5 million workers were experiencing enforced idling or reduced work time, and therefore reduced income. Some of the workers on forced vacation received partial pay. The distribution of hidden unemployment varied significantly across sectors. Between 40 and 60 percent of the work force in the following industries was on short time or forced vacations in 1994: textiles, tractor manufacture, farm machine building, diesel machine building, and electrotechnical equipment manufacture.

The liberalization of prices was especially difficult for those living on administered incomes fixed by bureaucratic and political decisions. In particular, the 1991 law on pension indexation specifying automatic quarterly indexation was not implemented, and pensions were increased only on an ad hoc basis. Initially, average pensions declined in real terms more than average wages, minimum pensions, and minimum wages, although real average pensions rebounded somewhat. Table 2-7 shows that throughout 1995 and in early 1996, the average pension hovered around half the late 1991 level.

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9. Nominal wages show a marked seasonal pattern because of the bonus payment system (which covers both blue collar and white collar workers). Monthly, quarterly, and most significantly, annual bonuses paid in December are an important component of labor remuneration. Also, the pattern of construction activity and agricultural work (particularly the sowing and harvest seasons) affect the seasonal pattern of average wages.

Table 2-7. *Russia: Average and Minimum Wages and Pensions, 1987–96*

Year and month	Nominal (rubles per month)				Real (4th quarter 1991 = 100)[a]			
	Average wage	Minimum wage	Average pension	Minimum pension[b]	Average wage	Minimum wage	Average pension	Minimum pension
1987	216	80	80	50	59	111	78	69
1988	235	80	83	50	63	109	79	68
1989	259	80	85	50	70	109	82	68
1990	297	80	92	50	78	106	86	66
1991								
1st quarter[c]	318	80	113	80	67	85	—	85
2nd quarter	426	130	—	120	55	85	—	78
3rd quarter	554	130	—	140	71	84	—	90
4th quarter[c]	910	180	255	180	100	100	100	100
1992								
January	1,438	342	419	342	36	43	38	43
February	2,004	342	—	342	40	34	—	34
March	2,726	342	—	342	46	29	—	29
April	3,052	342	436	900	44	25	23	25
May[d]	3,675	900	—	900	48	59	—	59
June	5,067	900	—	900	58	52	—	52
July	5,452	900	1,303	900	58	49	50	49
August	5,876	900	—	900	58	45	—	45
September	7,379	900	—	900	63	39	—	39
October	8,853	900	1,350	900	58	30	32	30
November	10,576	900	—	2,250	54	23	—	58
December	16,071	900	—	2,250	66	19	—	47
1993								
January	15,341	2,250	3,672	2,250	50	37	43	37
February	19,069	2,250	7,869	4,275	50	30	—	57

Year and month	Nominal (rubles per month)				Real (4th quarter 1991 = 100)[a]			
	Average wage	Minimum wage	Average pension	Minimum pension[b]	Average wage	Minimum wage	Average pension	Minimum pension
March	23,559	2,250	7,869	4,275	51	25	—	47
April	30,562	4,275	7,869	8,122	56	40	51	75
May	37,505	4,275	15,744	8,122	58	33	—	63
June	47,371	4,275	15,744	8,122	61	28	—	53
July	55,995	7,740	15,744	8,122	59	41	59	43
August	65,408	7,740	29,705	14,620	55	33	—	62
September	80,900	7,740	29,705	14,620	55	27	—	50
October	93,000	7,740	29,705	14,620	53	22	60	42
November	105,000	7,740	41,792	26,320	51	19	—	65
December	141,218	14,620	41,792	26,320	61	32	—	58
1994								
January	134,200	14,620	41,792	26,320	49	27	55	49
February	144,700	14,620	53,384	26,320	48	25	—	44
March	164,833	14,620	53,384	26,320	51	23	—	41
April	171,450	14,620	53,384	26,320	49	21	54	38
May	183,500	14,620	71,300	38,700	49	20	—	52
June	207,400	14,620	71,300	38,700	52	19	—	49
July	221,000	20,500	71,300	38,700	53	25	61	47
August	232,800	20,500	90,600	41,550	53	24	—	48
September	253,200	20,500	90,600	44,400	54	22	—	47
October	265,000	20,500	90,600	48,400	49	19	60	45
November	281,600	20,500	117,400	54,140	45	17	67	44
December	354,200	20,500	117,400	54,140	49	14	58	38
1995								
January	302,600	20,500	117,400	54,140	35	12	49	32

(Table continues on following page.)

Table 2-7 (continued)

Year and month	Nominal (rubles per month)				Real (4th quarter 1991 = 100)[a]			
	Average wage	Minimum wage	Average pension	Minimum pension[b]	Average wage	Minimum wage	Average pension	Minimum pension
February	321,000	20,500	144,000	73,800	34	11	54	39
March	361,500	20,500	147,700	73,800	35	10	51	36
April	386,200	34,400	150,744	73,800	34	16	48	33
May	429,900	43,700	171,508	83,099	36	18	51	35
June	480,600	43,700	195,200	91,846	37	17	54	36
July	499,500	43,700	195,600	91,846	37	16	51	34
August	520,600	55,000	215,600	105,000	37	20	54	37
September	564,500	55,000	216,000	105,000	38	19	52	36
October	594,500	55,000	216,400	105,000	38	18	50	34
November	615,700	57,750	224,700	107,750	38	18	49	33
December	735,500	60,500	233,400	110,500	44	18	50	33
1996								
January	655,000	63,250	241,700	113,250	37	18	49	33
February	—	—	—	138,250	—	—	—	39

— Not available.

Note: Figures for months are as of the first of the month.

a. Deflated using the retail price index for 1987–91, the urban consumer price index for 1992, and the expanded consumer price index for 1993. Average annual retail price inflation in 1987–89 was proxied by using data for retail prices in state trade. Cooperative trade includes state trade in rural areas, but excludes collective farm markets. Average annual inflation in 1990 assumed to equal 10 percent.

b. Excludes extra compensation given to all pensioners in some months of 1992.

c. For average pension, figures for year as a whole are reported in the first quarter line. The fourth quarter nominal value is an estimate.

d. Applicable to all sectors only from July 1, 1992.

Source: IMF (1993, p. 91) plus updates from various sources, including Goskomstat statistical bulletins.

The government and the Supreme Soviet frequently disagreed about pension indexation rules and decrees during the early transition period, and practices changed over time. Given the calculation basis of past earnings and the impact of inflation, four in ten old age pensioners received only the minimum pension in early 1992. Subsequent adjustments reduced this proportion to about one in four by August 1992 (Rimashevskaya 1992a, p. 67) and throughout 1993. Current information on pension arrears is difficult to obtain, although in the past problems with prompt payment of benefits did occur (Braithwaite 1995).

Who Comprises the New Poor?

A major difference between pre- and post-transition poverty in Russia is that there are many more new poor. The number of families with children falling into poverty increased as wages and social transfers failed to keep pace with increases in inflation. The new poor comprised the same vulnerable groups as the old poor, albeit with a vast swelling in the ranks of working poor, plus one significant addition: the increasing number of households affected by unemployment.

Multivariate analysis of the RLMS data demonstrates that household size and composition are significant in determining whether a Russian household is poor. Even when household composition variables were added to the regression, household size was still significant and positively correlated with poverty. Another striking result that emerges in the profile of the new poor is that old age seems to be far less of a risk factor for poverty than during the Soviet period. People beyond retirement age were less likely to be poor or very poor than either working age adults or children, suggesting again that being a pensioner does not automatically indicate poverty status. Other sources confirm these findings (McAuley 1994; UNICEF 1993). A recently released poverty profile by Goskomstat also suggests that poverty is predominately a problem of children (table 2-8) and less acute for pensioners. For October 1993, Goskomstat reported that elderly women and men had poverty rates of 29.5 and 23.4 percent, respectively, the latter being well below the official headcount index at that time of 30.6 percent.

The situation of the nearly 36 million pensioners in 1992–93 is nonetheless complicated. Conventional wisdom suggests that pensioners suffered considerably during the high inflation years of 1992–93. Obviously, those living on administered incomes suffer during such periods in the absence of frequent and full indexation. For part of 1992 (June to October) and late 1995 the minimum pension eroded in real terms more than average wages, but for

Table 2-8. *Russia: Goskomstat Poverty Profile, October 1993* (percent)

Category	*Share of families with incomes*		*Share of poor out of corresponding demographic group*
	Below the poverty line	*Above the poverty line*	
Children under 6	9.9	6.9	38.7
Children 7–15	18.5	12.5	39.6
Adults 16–30	17.7	18.9	29.2
Women 31–54	17.4	19.8	27.9
Men 31–59	16.8	19.3	27.7
Women 55 and older	15.2	16.0	29.5
Men 60 and older	4.6	6.7	23.4
Total	100.0	100.0	30.6

Source: Goskomstat Rossii (1992–95, *Sots. Ekon.* no. 11, 1993, pp. 62–63).

much of the period, the minimum pension has followed the rebound in real average wages. Average pensions in real terms lagged behind average wages in 1992, but recovered better from 1993, when nominal pensions were increased more frequently (table 2-7).

The low rate of measured poverty for pensioners during that part of 1992 when pensions were eroding more rapidly in real terms than average wages is somewhat puzzling. Regression analysis also suggests mixed results for RLMS pensioner households. Notably, the age of the head of household is positively correlated with poverty, meaning that households with older heads are more likely to be poor. However, having one or more family members of pensionable age means the household is less likely to be poor.

In general, one must bear in mind that movements of the average pension mask considerable differentiation in the distribution of benefits (because nearly a quarter of old age pensioners are limited to the minimum), and that the position of individual pensioners is strongly affected by their household composition and access to income earning opportunities. Mitigating factors include the direct access to wages achieved by the number of pensioners who work (about one in four), and the likely access of pensioners to the wage income of other family members. Nonetheless, the overall distribution of pension benefits is more compressed than the wage distribution. The ceiling of the maximum pension has been limited to four to six times the minimum benefit.

Being female was traditionally correlated with poverty in Russia, and this remains the case during the transition (Fong 1993; Rzhanitsyna 1993). About two-thirds of pensioners are women. More than two-thirds of the reg-

istered unemployed were women in 1992 and 1993, while single-parent, female-headed households were significantly more likely to be poor than other types of households with children.

Urban/Rural Differences

Approximately one in four Russians lives in a rural area. The foregoing analysis pointed to several dimensions of disadvantage experienced by rural workers and households in Soviet Russia. Given this background, we might expect the impact of the transition on rural areas to have been mixed. The various measures of economic reform of special relevance to rural workers, while incomplete, have ranged across price and trade liberalization, procurement, and marketing. As a result, the institutional biases against agriculture of the Soviet era should diminish, to the relative benefit of rural residents. For example, most would not suffer from the liberalization of housing and utility prices, because they did not benefit from the inherited system of subsidies, although those rural households who had would obviously have been adversely affected.

By contrast, the lack of economic diversification of rural villages, the withdrawal of subsidies, and the demise of the collective farms upon which employment and social services depended would tend to have adverse effects. The collective farm played an integral role in the daily provision of goods and services, assisting members with their private plots, with marketing their own produce, and with transportation. Commentators have observed that the only visible material and institutional structures at the village level were those owned and operated at the collective farm level. In common with the United States and other Western countries, the rural population tends to be aging, reflecting the outmigration of younger people. In this sense, the demographic structure and skills base of the rural population is unlikely to facilitate adjustment to drastic structural changes.

The transition in Russia has been associated with increasing regional disparities in terms of income, poverty, and unemployment, alongside sharpening distinctions between poverty rates among rural and urban residents. The incidence of poverty in rural and urban areas appears to have shifted since 1992, so that rural areas have become relatively worse off. According to the RLMS, the measured incidence of rural poverty approached 40 percent in 1993, compared to an overall average of 32 percent. Other European economies in transition appear to have witnessed a similar trend: in ten countries Milanovic (1992) studied, the relative position of rural residents worsened in eight and remained unchanged in two.

Nonmonetary indicators of rural welfare are further cause for concern, particularly with respect to the emergence of chronic malnutrition among children. The analysis in chapter 4 shows that the incidence of malnutrition is much higher among rural children, of whom 18 percent suffered stunting, compared to an average of 9 percent for urban children. In the sample traced in the RLMS panel, the significance of rural residence as a risk factor was also clear. These disturbing findings are consistent with the higher incidence of poverty in rural areas and the lower access to safe water and sanitation.

While the underlying causes of increasing measured poverty in rural areas require further investigation, certain factors appear to have contributed to this trend. First, the scaling down of subsidies to agriculture has led to the demise of collective farms, which were expected to fulfill both productive and local government roles. This appears to have forced more significant labor market adjustment in the rural sector, as reflected in wage trends. Wages in agriculture and forestry have always been relatively low, but have fallen even further behind as wage dispersion in the economy has increased. Goskomstat reported that agricultural wages fell from about 90 percent of the national average in 1991 to as low as 41 percent in February 1994. At the end of 1994, agricultural wages still averaged only half the national average wage. This is compounded by wage arrears, which are particularly severe in the agricultural sector and affected almost 80 percent of rural enterprises in late 1994. This compares to a national average of 51 percent. Significant underemployment is also reported, which shortened work hours on farms, for example, Holt (1995) found that 10 to 15 percent of employees in rural Orel did not in reality work nor receive wages. In this context, the significantly above average incidence of poverty among households headed by people working in the agriculture and forestry sectors is hardly surprising, with the figures standing at about 52 and 46 percent, respectively, compared to the national average of 27 percent (see chapter 3).

There are, nonetheless, at least a couple of caveats to this pessimistic description of rural living standards. The most important is access to private plots. In 1989, 96 percent of collective farm families reported such access, while only 74 percent of the families of workers and employees did so (Goskomstat SSSR 1990, pp. 389, 511). The poverty results cited do include the reported value of home production, although respondents may have undervalued this. Rural residents have probably been better able to protect themselves against rising food prices than urbanites. In rural Rostov in the late 1980s, 92 percent of residents grew their own potatoes, 56 percent raised all their own meat (except sausages), and 60 percent grew all their own vegetables (O'Brien and others 1993). Another

qualification lies in lower prices for basic foods in rural areas. The poverty lines used do not take rural-urban price differentials into account.

Regional Variation

Before the dissolution of the U.S.S.R., significant differentials in income distribution and poverty were evident across the constituent republics. Although some of these newly independent countries are small and relatively homogenous, Russia is not. Prices, incomes, and poverty rates, vary significantly across Russia's eleven economic zones and eighty-nine oblasts. Poverty rates in nine of the territories surveyed in the RLMS exceeded the national average, and the regression analysis found that several of the regions were significantly poorer than Moscow City. Recently, more information has been published on regional disparities in Russia, including poverty rates by oblast, income distribution data, and regional poverty analysis for 1994 (Goskomstat Rossii *Sots. Ekon.* 1995 no. 6, and see Stewart 1996). These oblast poverty rates are based on the official poverty line and data from the FBS. The Northern Caucasus region was reported to have the highest average poverty rate (33.3 percent of the population), followed by Western Siberia (30.0 percent) and the Urals region (29.2 percent). Several regions had poverty rates below the Goskomstat national average of 24.4 percent in 1994, including Western Siberia (the lowest at 18.7 percent) and the Northern region (19.4 percent). Moscow is located in the central region, which also had a poverty rate lower than the official average (21.7 percent).

Moscow City had one of the lowest reported poverty rates (13.7 percent) out of the oblasts and administrative areas, surpassed only by Tyumen oblast (11.5 percent). The highest single poverty rate reported by Goskomstat was for the Tyva Republic in Western Siberia, with 66.8 percent of the population poor. Dagestan in the Northern Caucasus was not far behind: 55.4 percent of its population was below the official poverty line according to FBS data.

The availability of regional price information permits comparison of real per capita income by oblast in Russia in 1992–93. Braithwaite (1995) deflated nominal per capita income by oblast for eleven areas plus Moscow City and ranked the resulting real per capita incomes. The Tyumen area of West Siberia had the highest real per capita income in March 1992 and the second highest in September 1993, reflecting the rapid increases in wages in the oil sector. The dual impact of liberalized prices and enterprise autonomy in wage setting resulted in a wider dispersion of wage rates and per capita incomes in Siberia and the Far East, where per capita incomes had previously been relatively uniform. The poorest regions in Russia are the Northern Caucasus ar-

eas, with the erosion of real income in Checheno-Ingushetiya reaching alarming proportions prior to 1994.

The extent of regional differences increased dramatically in 1992–93. The ratio of real per capita income in the top area (Tyumen or Magadanskaya) to the bottom (Checheno-Ingushetiya) increased from 8.36 to 42.00, while the coefficient of variation increased slightly overall to 0.328 in the eighteen months to September 1993, masking significant changes in the intervening months (for example, 0.418 and 0.427 in March 1993). By September 1993, the central regions of Russia (with the exception of Moscow City, Yaroslavlskaya, and Tulskaya) and the North Caucasus made up the bottom third of the real per capita income rankings, along with the Omsk region in West Siberia, the Republic of Tuva, the Chuvashskaya Republic, Leningradskaya, Novosibirskaya, and Mordovskaya. These areas were also among the poorer republics in March 1992. One of the more interesting results of comparing rankings in March 1992 and June 1993 is that Moscow City declined from the second highest real per capita income in March 1992 to just under the upper third in June 1993. However, by September 1993 Moscow City had rebounded to tenth place in the real income ranking.

The cost of living as represented by the nominal subsistence minimum varies widely across Russia, and more dramatically than the reported per capita income figures. The coefficient of variation for the subsistence minimum in November 1994 was 2.62. In 1994 Goskomstat began to publish detailed profiles of the eleven economic zones of Russia, and in November published a table of the differing subsistence minimums by oblast (*Sots. Ekon.*).[10]

Conclusions

Poverty in Russia did not originate with the transition to the market economy, but existed well before 1992. Nonetheless, the decline in real wages and pensions that has occurred, alongside widening distribution of income, has meant that more people in Russia are poor. Poverty became widespread in 1992, and especially in 1993, increasing from not more than 10 to 11 percent of the population in the 1980s to nearly 30 percent by October 1993. Poverty, always associated with family size, became increasingly concentrated in fami-

10. In 1994, Goskomstat Rossii published a series of descriptive economic profiles of most of the eleven economic regions of Russia (including Goskomstat Rossii 1994b, c, d, e, f, g, h, i). Goskomstat's consumer price indexes by oblast have been combined with other information provided to the World Bank by Goskomstat to produce the regional consumer price indexes presented in Braithwaite (1995).

lies with children, as well as in families with an unemployed or handicapped person, during 1993.

One of the puzzling aspects of the increase in poverty in 1993 is that average wages and pensions actually recovered slightly in real terms during the year, yet the headcount index nearly doubled. The explanation, however, lies in distributional shifts, because these averages mask a significant change in the distribution of income, as reflected by the sharp increases in the Gini coefficients in 1993. Increased differentiation in incomes arose as loss-making state enterprises chose to put workers on forced vacations or short time or delayed wage payments, even if unemployment remained lower than expected. There was also a high risk of poverty for the unemployed.

Distinguishing between short- and long-term trends is important. As chapter 3 reveals, significant flows in and out of poverty have occurred during the transition. Similarly, the dramatically higher incidence and severity of poverty need not be a permanent feature of a market-based economy in Russia. The emergence of new poor is largely associated with adverse economic trends—including collapsing output and high inflation—that have begun to abate since 1995. Average incomes, employment, and real wages should increase in the course of economic recovery. However, the distribution of income is likely to be less equal than under the old regime. In this sense, the tax and social transfer policies of the government will play a critical role.

Poverty has affected children in Russia more than any other group, both before and during transition. Before 1991 children appeared to slip through available social safety net measures, because the level of benefits provided under the means-tested supplement for underprovisioned families was extremely low. The system of family allowances instituted in 1991 did not reduce the problem of poverty among children, while ad hoc adjustment of these allowances, and public transfers in general, during a period of high inflation made their real impact wax and wane. The more children in a family, the poorer the family, while single-parent households were significantly more likely to be poor. The loss of income associated with maternity leave in some cases where work tenure was insufficient meant that more young nuclear families found themselves in poverty during the transition.

The overall situation of pensioners during the transition was not as dire as that of many children, although some kinds of pensioners, particularly elderly women living alone, continued to make up a hard core of poverty. Before the pension reform of 1990, there was a pronounced inequality in benefits for collective farmers, but by 1993 this had been eliminated. The poverty of pensioners limited to the minimum pension also eased somewhat in 1993 and 1994 with more regular benefit indexation.

The regional differences that existed before the transition have widened dramatically. Certain regions, notably the Far East and the oil districts of Siberia, have emerged as clear winners in real terms. Others, including the Northern Caucasus, have continued to be among the lowest ranks in terms of real per capita incomes. During 1992–93, the central regions of Russia became markedly poorer as well, as did those regions of Siberia without oil income.

The main causes of poverty in Russia are not surprising—they are associated with poverty in the rest of the world—and include low incomes in certain occupations, regional differences in employment opportunities and prices, disability and unemployment, and single-parent (mostly female-headed) households. However, the extent and nature of poverty has shifted significantly as Russia has moved away from a command economic system. These causes and correlates are investigated in detail in the next chapter. Finally, some groups of the population excluded from detailed analysis because of the lack of survey data are probably among the worst off segment of Russian society. They include the homeless, vagrants, those recently institutionalized, and increasingly in 1992–93, refugees and those forced to move to Russia from elsewhere in the former Soviet Union.

3

Static and Dynamic Analyses of Poverty in Russia

Mark C. Foley

Although poverty was officially recognized in Russia in 1989, it has become a much more important issue since the adoption of market reforms. Collapsing output, increasing unemployment, reduced work hours, and rapid inflation have collectively contributed to an increase in poverty in Russia. These macroeconomic influences, coupled with the structural changes involved in the transition to a market-based economy, have widened the distribution of income.

This chapter develops a profile of the state of poverty in Russia during July 1992 through February 1994 based on data from the Russian Longitudinal Monitoring Survey (RLMS). The first round of the RLMS was conducted from July to September 1992, not long after reform began in earnest, and so provides information on the initial impact of the reforms. The later rounds reflect the extent to which continuing reforms and prevailing economic conditions have affected the standard of living of the Russian people over time.

Defining Poverty

Before examining the state of poverty in Russia, this section discusses the general concepts and methodology for defining and measuring poverty. Individuals are poor if their well-being falls below some defined level. To arrive at a working definition of poverty suitable for empirical estimation one must make a number of choices. How is well-being measured? What is the level used to distinguish the poor from the nonpoor? Should we focus on

individuals, households, or some other unit of analysis? Extensive literature deals with these issues, for example, see Ravallion (1992) for a survey, as well as Atkinson (1983), Deaton 1980, and Hagenaars (1986), and they will be only briefly discussed here.

Typical measures of well-being are income and consumption. Admittedly, these measures do not capture such intangible aspects of the quality of life as freedom of speech and political participation, but they serve as useful indicators nonetheless. Other nonmonetary aspects of welfare such as health status, life expectancy, and access to clean water and sanitation are all important factors in assessing the quality of life and are examined in chapter 4.

The main difference between consumption and income is that where families can save or borrow their time profiles may differ, so that if a static snapshot of well-being is taken, the measured status of some households may be different under the two approaches. If the analysts think that the true profile of consumption is smoother than that of income, then consumption is a better static indicator (Deaton and Muellbauer 1980). By contrast, a rich family with inexpensive tastes may appear poor if analysts use consumption to define poverty (although this may be a relatively minor problem). Clearly, in the absence of well-functioning credit markets, the distinction between consumption and income is limited, and both measures would yield similar results. At a more philosophical level, Atkinson (1989) has distinguished between a "standard of living approach," which would ideally use consumption to measure well-being, and a "minimum rights approach," which would seek to measure a household's access to resources or to income.

Defining the level below which a household is deemed to be poor is more subjective. In industrial countries, this threshold typically refers more to a minimum socially acceptable level of well-being than to a physiological minimum needed for survival. Historically, the U.S.S.R. defined a minimum consumption budget that was more like a socially acceptable minimum than a physiological or subsistence minimum as discussed in chapter 1. However, for a number of reasons expenditure is the more appropriate measure for today's Russia. Incomes fluctuate widely over short periods of time as a significant number of workers are placed on leave without pay, put on short hours, and/or experience wage arrears. Moreover, in the RLMS, reported household expenditures significantly exceed reported income. Beyond the saving and dissaving of households attempting to smooth their consumption over time, respondents may also seek to conceal their income because of taxation and other concerns. In the U.S.S.R. most informal activities were illegal, and some residual fears may induce households to underreport such income.

Defining Income or Expenditure

In contemporary Russia, several complications arise in defining household income and expenditure. The most significant concerns are the consumption of home-produced goods and in-kind benefits received from employers.

In a society where most people have few resources beyond their wages or social benefits, defining expenditure in relation to cash actually spent on goods and services may be adequate. However, in Russia many people have access to plots of land and produce that is not traded is consumed by household members. This clearly affects the standard of living the household enjoys and should be taken into account. Thus, expenditure should include both cash and the imputed value of home-produced goods consumed.

The RLMS asked a number of questions about access to and use of private plots. In particular, respondents were asked to recall the amount of produce harvested from the land in the last twelve months and of that amount, how much they sold, how much they gave free to relatives and friends, and how much their households consumed. The survey asked similar questions about livestock, poultry, and bees. From this information, one can impute the value of food stuff and other commodities the household consumed during the year and convert that to a monthly figure to add to monthly expenditures.[1]

Expenditure should also include the imputed value of benefits received in-kind from enterprises or local authorities, for example, free or subsidized childcare, medical services, vacations, transport, and housing. Failure to take such benefits into account may bias static estimates of poverty rates as well as assessments of changes in poverty over time. The treatment of in-kind benefits is also important for making cross-country comparisons in which one country provides free or subsidized medical care or education while citizens of another nation pay for such services at market rates.

A change over time in the value of in-kind benefits and services can affect the standard of living of an individual or household. This is particularly important in Russia, where prior to the transition the authorities provided many services, including housing, utilities, and childcare, free of charge or at heavily subsidized rates. Women may be particularly affected by the transition and the concomitant reduction of in-kind benefits such as childcare and kindergartens. Many households, particularly those in urban areas, will be affected by the reduction in subsidies for housing and utilities.

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1. Given the lack of seasonal information, a working assumption must be that home consumption is evenly distributed over the year, something that is not likely to be the case.

This chapter incorporates, as far as the data allow, nonwage benefits in the definitions of income and expenditure. The RLMS asks if any members of the household had received any subsidies from their employers or local authorities for vacations, travel to resorts, medicine, housing, meals, transport, preschool services, or training in the last thirty days. If these subsidies were not in cash, respondents were requested to estimate the ruble value. However, the respondents' valuations are probably nowhere near the shadow value, because they are likely unaware of the true market value of such subsidies, particularly in the absence of parallel prices, so that the value is included rather than truly "imputed." Consequently, the survey results may underestimate the standard of living of households receiving in-kind benefits. However, the decline in living standards over time may also be underestimated if significant withdrawal in the provision of in-kind benefits are not fully accounted for.

Total household income is defined as income from market sources, transfers (public and private), and imputed income from home production. Income from market sources includes employment (in primary and additional jobs) and self-employment income. Public transfers include pensions, family allowances, unemployment benefits, scholarships, and imputed income from employer or local authority subsidies. Private transfers comprise the value of in-kind and monetary assistance from family members, friends, and nongovernmental organizations. The reference time period for income sources was the month preceding the interview.

Total monthly expenditure includes the total consumption expenditure by the household plus imputed expenditure from the consumption of home-produced goods less expenditure on consumer durables. Expenditure on consumer durables is excluded, because such purchases are infrequent and their inclusion would exaggerate the estimated resources of the purchasing household, thereby causing poverty to be underestimated (Prais and Houthakker 1971). The reference time period for expenditures was the month preceding the interview.

Economies of Scale and Equivalence Scales

Households differ in size and demographic composition, making simple comparisons of aggregate household income or expenditure possibly misleading about relative standards of living. Economies of scale and equivalence scales are used to adjust household incomes for differences in household size and composition, so that income (or expenditure) distributions present a more accurate picture of individuals' or households' relative well-being within an

economy. The common practice of using household per capita income gives equal weight to all members of a household and does not account for either differences in needs arising from differing composition or economies of scale in consumption, for example, housing rent.

The following equation is a widely used method for determining equivalent income (Buhmann and others 1988; Coulter, Cowell, and Jenkins 1992; Singh 1972):

$$Y_e = Y/n^{\theta}$$

where Y_e is the household equivalent income, Y is total household (disposable) income, n is household size, and θ is the elasticity of household needs with respect to household size. The denominator, n^{θ}, can be interpreted as the equivalent number of single people. For example, the Organization for Economic Cooperation and Development (OECD) equivalence scale, which gives a weight of 1.0 to the first adult, 0.7 to other adults, and 0.5 to each child, corresponds to a value of θ roughly equal to 0.7, that is, a doubling of household size leads to a 70 percent increase in household needs.

The equivalence elasticity, θ, lies in the range [0,1]. At one extreme, $\theta = 0$, no attempt is made to adjust household income for household size, implicitly assuming infinite economies of scale (that is, an increase in household size has no effect on the household's needs at all). The other extreme, $\theta = 1$, corresponds to household per capita income and, as mentioned, does not allow for economies of scale in consumption. To illustrate the impact of alternative equivalence scale assumptions on assessments about poverty, suppose a family of two parents and two children has a total disposable income of 1,000 units. With $\theta = 1$, $Y_e = 250$; with $\theta = 0$, $Y_e = 1{,}000$; and the OECD scale would yield $Y_e = 379$. This simple example indicates the importance of equivalence scale choice: the assessed poverty status of the same household depends critically on the size elasticity, θ.

The choice of equivalence scale reflects judgment about technical issues such as economies of scale in consumption, as well as value judgments about the priority assigned to the needs of different groups, such as children and the elderly. For example, some scales take more account of household composition than others by making individuals' needs vary with their age and activity level in addition to the standard adult/child distinction. Policymakers in different countries use a wide variety of scales along the [0,1] interval. There is no concentrated range of conventional equivalence scales.

Economists frequently debate which particular scale and which particular reference food share (which inversely determine the significance of fixed household costs of consumption) they should use, as well as whether these

choices matter at all. Sensitivity analysis conducted in fiscal incidence studies by Kakwani (1986) suggested that it is the actual use of an equivalence scale that profoundly affects the results rather than the exact scale used. However, Buhmann and others (1988) have disputed this. More recently, Coulter, Cowell, and Jenkins (1992) found that poverty results are very sensitive to the chosen reference measure of food share in household expenditure.

Most equivalence scales are based on observed consumption behavior from household survey data, with the food share of low-income households taken as the reference indicator of welfare (Ravallion 1992). The most common method is to construct a demand model in which the share of expenditure devoted to food in each household is regressed on the log of total consumption per person and the number of people in various demographic groups living within the household. Using the food share of low-income families as a reference, one can use the results to calculate the difference in total consumption per person that would be needed to compensate a household for its different size and composition.

Preliminary results for Russia indicated that θ was approximately equal to 0.9 in mid-1992 (Foley 1993). This is based on an analysis of Engel curves (food shares) as described above, which for the sample population were found to be high, around 69 percent. This high average food share has declined somewhat during the transition, but remained relatively high, averaging 62.0 percent and standing at 75.2 percent for the lowest income quintile in early 1994. This is partly attributable to continuing controls on the prices of what would otherwise be significant fixed costs in household expenditure. Notably, expenditure on housing and utilities averaged only 1 to 2 percent of average household expenditure in 1993, relative to industrial country averages of around 20 to 25 percent. Therefore, this chapter assumes that economies of scale in household consumption can, for the time being, be ignored, and that household per capita expenditure is an acceptable approximation. Over time, as housing and utility prices are liberalized, the fixed costs of household consumption will rise, economies of scale will become more significant, and this assumption will have to be reassessed.

Unit of Analysis

The analysis focuses on poverty among Russian households. The implicit assumption here is that individual members of a household benefit equally from the household's expenditure and income. The household is defined as a group of individuals living together and sharing a common budget. It is assumed to pool its resources, with each member's needs being met equally

from the given consumption budget. The RLMS contains no information on the intrahousehold distribution of welfare beyond the nonmonetary indicators, such as health status and nutrition. In constructing an estimated distribution of individual consumption, a common assumption is that resources are distributed uniformly within the household. However, this may lead to an underestimation of poverty among individuals, the magnitude of which may not be negligible (Haddad and Kanbur 1990).

The Poverty Line

Economists typically measure poverty based on a poverty line. Two alternative approaches are possible, one using an absolute poverty line and the other a relative poverty line. An absolute poverty line is fixed over the domain of the poverty comparison and is most often defined by estimating the cost of a bundle of goods and services that would ensure that the household's basic consumption needs are met in the given country. As already noted, in contemporary Russia less well-off households spend a high percentage of their household budget on food. Consequently, an important part of a basic needs poverty line is the food expenditure necessary to attain some recommended level of food intake. A minimum subsistence income level is obtained by augmenting the level of income required to purchase an adequate and appropriate combination of calories by an allowance for nonfood items. By contrast, a relative poverty line, which is used more often in higher-income countries, defines as poor those households with incomes below a certain percentage of the national mean or median.

For reasons explained in chapter 1, the analysis in this book uses the official poverty line of the Russian government to measure poverty. Wherever possible, total household income or expenditure is compared to a household-specific poverty line to reflect the differing official minimum subsistence estimates for children, the elderly, and able-bodied people. The household-specific poverty lines do not vary by region.[2]

Poverty and Inequality Statistics

The data used to develop a profile of poverty in Russia are from the RLMS. The RLMS is an extensive household survey of 17,701 individuals who live

2. Given the large variations in the oblast minimum subsistence level, we investigated the extent of poverty using regionally differentiated poverty lines. We found that the national poverty line was a good proxy for assessing poverty, because the overall headcount results were quite similar.

in 6,498 households in 20 oblasts across the country (see chapter 1 for more details). The RLMS uses several survey instruments to collect information at both the household and individual levels, as well as data about the community. This poverty profile is based on the household and individual data.

We calculate the incidence of poverty by comparing a household's total monthly expenditures to the household-specific subsistence minimum income (or poverty line). We calculate the subsistence minimum income for each household using the Goskomstat's official figures for the subsistence minimum income of a working-age adult, a pensioner, and a child (Goskomstat does not differentiate by gender at any age). Price increases are accounted for by monthly adjustments (Braithwaite 1995, table 3). A household's poverty line is determined by summing the relevant subsistence minimum incomes according to its demographic composition. The equivalence scale implied by the different minimums for working-age adults, pensioners, and children is not constant over time, but it is relatively stable. Table 3-1 depicts the implicit equivalence scales. The low relative value given to pensioners probably stems from an assumption that they require less food because of their lower activity levels and have fewer clothing needs than children.

Table 3-1. *Goskomstat's Implicit Equivalence Scale, July 1992–November 1993*

Date	*Working-age adult*[a]	*Pensioner*	*Child*
1992			
July	1.00	0.64	0.94
August	1.00	0.61	0.83
September	1.00	0.62	0.83
October	1.00	0.60	0.86
1993			
March	1.00	0.61	0.88
April	1.00	0.61	0.88
May	1.00	0.62	0.92
June	1.00	0.62	0.95
July	1.00	0.63	0.92
August	1.00	0.62	0.89
September	1.00	0.62	0.88
October	1.00	0.62	0.88
November	1.00	0.62	0.88

a. Working age individual has been normalized to 1.00 by author.
Source: Author's calculations based on Goskomstat's minimum subsistence data.

Measures of Poverty

This analysis used three main measures of poverty, all of which belong to the class of measures proposed by Foster, Greer, and Thorbecke (1984). They are:

- The headcount index, H, which is a measure of the prevalence of poverty
- The poverty gap index, PG, which is a measure of the depth of poverty
- The Foster-Greer-Thorbecke index, P_2, which is a measure of the severity of poverty.

The simplest measure is the headcount index of poverty, which is the percentage of households (or individuals if that is the unit of analysis) for whom expenditure (or income) is less than the poverty line. If q households have expenditures below their household-specific poverty line and there are n total households, then

$$H = q/n.$$

Although this measure indicates how many households are poor, it does not convey how poor they are. That is, a limitation of the headcount measure is that it gives no indication of either the depth or severity of poverty. Clearly, a household with zero expenditure is much worse off than one with expenditure at 99 percent of the poverty line, but the headcount measure assigns equal weight to both, simply noting that each falls below the poverty line.

To account for the depth of poverty, we use the poverty gap index. It distinguishes among the poor according to how far below the poverty line their income or expenditure falls (their poverty shortfall). With consumptions arranged in ascending order, the poorest household having y_1, the next poorest y_2, and the least poor y_q (which is by definition no greater than the poverty line, z), the poverty gap (PG) index is defined as follows:

$$PG = (1/n) \sum_{i=1}^{q} [(z - y_i)/z].$$

This measure indicates the mean proportionate poverty shortfall across the whole population, with zero shortfall for the nonpoor. The measure is also useful for estimating the minimum fiscal cost of eliminating poverty using perfectly targeted transfers. This minimum cost is the sum of all the poverty shortfalls in the population, although in practice, information constraints and political considerations will increase the actual cost of poverty alleviation.

This measure of the depth of poverty may not adequately capture differences in the distribution of consumption among the poor. The Foster-Greer-Thorbecke P_2 measure of poverty therefore gives relatively greater

weight to the poverty shortfalls of those households far below the poverty line and is defined as:

$$P_\alpha = (1/n) \sum_{i=1}^{q} [(z - y_i)/z]^\alpha$$

for some non-negative parameter a. The main measures mentioned previously are also members of this class: the headcount index has $\alpha = 0$ and the poverty gap index has $\alpha = 1$. In the analysis that follows, we use the P_2 measure, which is more useful than simple headcounts for comparing changes over time and for assessing the impact of policies.

Measures of Inequality

In addition to measures of poverty, we also examine the distribution of income and expenditure to assess the extent of inequality in the population in general. Although poverty and inequality are related, an increase in inequality does not necessarily mean that poverty increased. For example, if the income of the richest household doubled, inequality increases by definition. However, under an absolute poverty line, the headcount, poverty gap, and P_2 measures of poverty will not change.

A useful way to present information about the distribution of income (or expenditure) is by means of a Lorenz curve. The Lorenz curve indicates the share of total income that the bottom x percent of income units (households) receives. If all incomes are equal, the Lorenz curve is a 45 degree line—the line of equality. If the bottom 10 percent receive less than 10 percent of total income, the curve lies below the diagonal. In the extreme case where one household receives all the income, the curve follows the horizontal axis until the last household is reached and then extends vertically, tracing an inverse-L shape. In general, the closeness of the Lorenz curve to the line of equality provides a means of assessing the extent of income (or expenditure) inequality.

The most common summary measure used in distributional analysis is the Gini coefficient, which is a measure of the concentration of the distribution and may be interpreted in two ways. First, it can be defined geometrically as the ratio of the area between the Lorenz curve and the diagonal to the total area under the diagonal. The Gini coefficient ranges from 0, when all incomes are perfectly equal (and the Lorenz curve coincides with the line of equality), to 1, when all incomes accrue to a single household and the Lorenz curve traces out an inverse L shape.

Alternatively, suppose two households are chosen at random from the population. The expected value of the difference between their incomes as a proportion of the average income is twice the Gini coefficient. For example, a Gini of

0.4 means that the expected difference between the incomes of two randomly chosen households is 80 percent of the average income (Atkinson 1983).

The Extent of Inequality

The transition has been associated with significant increases in the extent of inequality in Russian society. Before presenting figures on the incidence of poverty, we will look at the wider distribution of income and expenditure. Tables 3-2 and 3-3 summarize alternative measures of the distribution of household expenditure, with different equivalence scales.

A salient feature of table 3-4 is the highly skewed distribution of expenditure. The bottom 50 percent, that is, half of all households, accounted for only about 20 percent of total expenditure. In contrast, the top 10 percent of households accounted for nearly one-third of total expenditure. These figures vary only slightly whether households are ranked by total, equivalent (Goskomstat or OECD), or per capita expenditure. The degree of inequality appears to have worsened from September 1992 to July 1993 (table 3-3). In July 1993, the bottom half of households accounted for somewhat less than 20 percent of all expenditure and the top 10 percent for approximately 36 percent. Table 3-4, which includes estimated Gini coefficients for November 1993, confirms the trend of increasing inequality.

Other sources also suggest that inequality has been increasing since 1992, though to differing extents. Gini coefficients calculated from representative samples of surveys conducted by the All-Russian Center for Public Opinion Research (VCIOM) corroborated the RLMS result. In the VCIOM sample, the Gini coefficient for per capita income was 0.43 in April 1993 and increased to 0.46 in March 1994. The degree of measured inequality in the RLMS is higher than that derived from Goskomstat data, mainly for reasons related to different samples and methodologies, in particular, the exclusion of the bottom and top ends of the income distribution in the latter Goskomstat data. Gini coefficients calculated from Goskomstat data were 0.35 in December 1992 and 0.40 in October 1993. Because all these measures are based on different data, strict comparability is limited, but they do serve to illustrate the trend of increasing inequality. Countries with Gini coefficients in the same range as contemporary Russia include Argentina (0.46), the Philippines (0.46), and Turkey (about 0.44) (see Milanovic 1994).

Aggregate Measures of Poverty

Table 3-5 presents aggregate measures of poverty at various stages in the transition. The primary indicator of welfare for this analysis is household

Table 3-2. *Distribution of Expenditure Using Alternative Equivalence Scales, September 1992*
(percent)

	Total expenditure ($\theta = 0$)		*Goskomstat equivalence scale*		*OECD equivalence scale ($\theta \approx 0.67$)*		*Per capita ($\theta = 1$)*	
Decile	*Share*	*Cumulative*	*Share*	*Cumulative*	*Share*	*Cumulative*	*Share*	*Cumulative*
1	0.9	0.9	1.4	1.4	1.3	1.3	1.3	1.3
2	2.3	3.2	3.0	4.4	2.9	4.2	2.9	4.2
3	3.5	6.7	4.2	8.6	4.1	8.3	4.1	8.3
4	4.9	11.6	5.5	14.1	5.4	13.7	5.3	13.6
5	6.3	17.9	6.8	20.9	6.8	20.5	6.7	20.3
6	8.0	25.9	8.3	29.2	8.1	28.6	8.2	28.5
7	10.2	36.1	10.2	39.4	10.1	38.7	10.0	38.5
8	13.0	49.1	12.6	52.0	12.7	51.4	12.4	50.9
9	17.6	66.7	16.5	68.5	16.7	68.1	16.5	67.4
10	33.3	100.0	31.5	100.0	31.9	100.0	32.6	100.0
Statistics								
Gini coefficient	0.4742		0.4453		0.4407		0.4341	
Median (rubles)	8,833		4,274		4,479		3,586	
Mean (rubles)	12,467		5,679		5,987		4,871	
Coefficient of variation[a]	1.07		1.17		1.17		1.29	

Note: Total number of households = 6,301. Excludes households with zero expenditure. Based on real expenditure as of September 1992.

a. Coefficient of variation = $\frac{\text{standard deviation}}{\text{mean}}$.

Source: RLMS, round 1.

Table 3-3. *Distribution of Expenditure Using Alternative Equivalence Scales, July 1993*
(percent)

	Total expenditure ($\theta = 0$)		*Goskomstat equivalence scale*		*OECD equivalence scale* ($\theta \approx 0.67$)		*Per capita* ($\theta = 1$)	
Decile	*Share*	*Cumulative*	*Share*	*Cumulative*	*Share*	*Cumulative*	*Share*	*Cumulative*
1	1.0	1.0	1.2	1.2	1.2	1.2	1.2	1.2
2	2.3	3.3	2.7	3.9	2.7	3.9	2.7	3.9
3	3.4	6.7	3.7	7.6	3.9	7.8	3.8	7.7
4	4.7	11.4	4.9	12.5	5.1	12.9	4.9	12.6
5	6.0	17.4	6.1	18.6	6.2	19.1	6.2	18.8
6	7.6	25.0	7.6	26.2	7.6	26.7	7.5	26.3
7	9.8	34.8	9.3	35.5	9.5	34.2	9.3	35.6
8	12.5	47.3	11.6	47.1	11.9	46.1	11.7	47.3
9	16.9	64.2	15.7	62.8	15.8	61.9	15.6	62.9
10	35.8	100.0	37.2	100.0	36.1	100.0	37.1	100.0
Statistics								
Gini coefficient	0.4917		0.4761		0.4397		0.4846	
Median (rubles)	67,687		35,677		35,706		29,270	
Mean (rubles)	100,483		52,401		52,003		43,100	
Coefficient of variation[a]	1.55		2.63		2.09		2.39	

Note: Total number of households = 5,332. Excludes households with zero expenditure. Based on real expenditure as of July 1993.

a. Coefficient of variation = $\frac{\text{standard deviation}}{\text{mean}}$.

Source: RLMS, round 3.

Table 3-4. *Trends in Inequality, Various Months*
(Gini coefficients)

Expenditure	*September 1992*	*July 1993*	*November 1993*
Total expenditure	0.4742	0.4917	0.5107
Equivalent expenditure (Goskomstat equivalence scale)	0.4453	0.4761	0.4804
Equivalent expenditure (OECD equivalence scale)	0.4407	0.4397	0.4445
Per capita expenditure	0.4341	0.4846	0.4881

Source: RLMS, rounds 1, 3, and 4.

Table 3-5. *Poverty Measures, 1992–95*
(percent)

Measure	*1992*	*1993*	*1994*	*1995*
RLMS: expenditure-based				
Headcount for households	25.2	31.9	26.8	35.0
Very poor[a]	8.4	12.0	10.4	10.9
Depth (P_1)	9.8	13.6	11.7	13.2
Severity (P_2)	5.4	8.0	7.2	6.9
Headcount for individuals	26.8	36.9	30.9	41.1
RLMS: income-based				
Headcount for households	36.3	41.0	38.7	46.5
Headcount for individuals	39.0	46.9	45.5	52.4
Goskomstat: income-based headcount[b]	24.0	27.8	26.7	24.7

a. Very poor households are those with expenditures of less than 50 percent of their household-specific poverty line.
b. Goskomstat figures for 1992 and 1995 are annual averages; for 1993 and 1994, June and December, respectively.
Source: RLMS, rounds 1,3,4, and 6; Kolev (1996); Goskomstat statistical bulletins.

expenditure, with income-based statistics reported for comparison. As suggested earlier, reported incomes are significantly below reported expenditures, as revealed by the much higher headcount index based on income. A focus on expenditures still reveals a significant increase in poverty from summer 1992 to summer 1993, with a subsequent decline in early 1994, followed by a further dramatic worsening in 1995. The same pattern of an initial sharp increase in poverty and subsequent improvement emerges for very poor households (those whose expenditures are less than 50 percent of their household-specific poverty line). An important result that emerges from table 3-5 is the significant increase in the severity of poverty, which persisted through late 1995.

Estimation of the incidence of poverty depends on the methodology used to construct the poverty line as well as on the particular poverty line adopted, and the robustness of any results that emerge from a poverty measure depends, among other things, on the sensitivity to a change in the poverty line. Therefore, while we do not pursue alternative methodologies for constructing a poverty line here, we do test the sensitivity of poverty measures based upon the official subsistence minimum by adjusting the household-specific poverty lines up and down.

While income dispersion has increased during the transition, households seem to be fairly evenly distributed around the poverty line (see table 3-6). In other words, although the distribution has become much more unequal, households in the lower income brackets were not particularly concentrated around the poverty line between mid-1992 and the end of 1993. In summer 1993, decreasing the poverty line by 20 percent would reduce the expenditure-based headcount by almost a quarter, from nearly 32 percent to approximately 24 percent of the population. Decreasing the poverty line by 10 percent would cause the headcount to decrease to 28 percent, a 12 percent decline. Increasing the poverty line by 10 percent and 20 percent would cause the headcount to increase by 13 percent and 24 percent, respectively. Such roughly proportional changes suggest that the distribution was not especially bunched around the poverty line in 1993. There does appear to be a slight increase in the concentration of households just above the poverty line over time, however as evidenced by an increasing proportionate change in the headcount for the 10 percent and 20 percent higher poverty lines.

A subjective evaluation of the minimum income needed to keep an individual or family out of poverty leads to quite different results about the extent of poverty. As described in chapter 1, the VCIOM includes a block of questions on this topic as part of its monthly public opinion surveys. Typically, the VCIOM survey includes the following two queries: What minimum income does a person need to live normally? What income is necessary to provide for a minimum existence? The level of income respondents cite as necessary for a minimum existence significantly exceeds the official poverty

Table 3-6. *Sensitivity Analysis of Poverty Measures, 1992 and 1993*

Poverty measure	*Official poverty line*	*10% higher*	*20% higher*	*10% lower*	*20% lower*
Headcount, mid-1992	25.2	28.3	31.6	21.4	17.9
Headcount, mid-1993	31.9	36.1	39.6	28.2	24.4
Headcount, end-1993	26.8	30.6	34.5	23.5	20.0

Source: Author's calculations based on the RLMS.

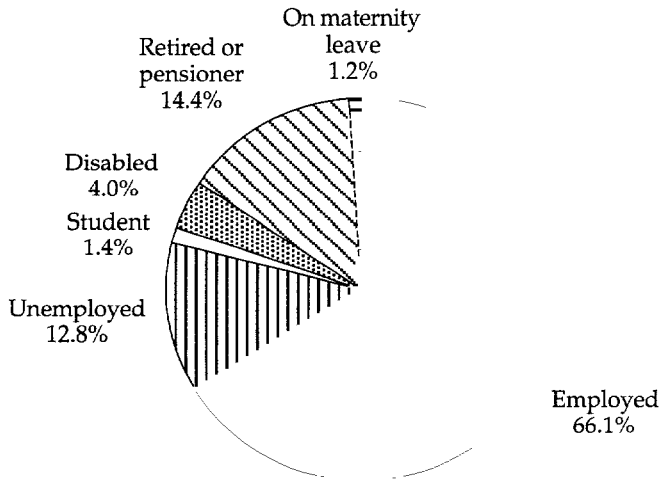
line. In June 1994 the official per capita poverty line was Rub 92,000, while the VCIOM subjective poverty line was more than double—Rub 194,000. The share of the population under this subjective line leaps to 88 percent.

The subjective poverty measure is not the only alternative benchmark presented in the Russian press. Several other purported poverty lines exist, but their derivations are questionable. For example, some include allowances for the consumption of cigarettes, alcoholic beverages, and a "normed" or "normal" rate of savings. Such measures may not be consistent with a common sense minimum existence as captured in the methodology of the official poverty line.

Who Are the Poor?

What are the characteristics of the people who underlie the aggregate measures presented in table 3-5? In other words, who are the poor? In Russia the poor are primarily families with children, including single-headed households and other working poor; the unemployed; families with a disabled family member; and those elderly who depend on a single income. The largest group comprises families with children, particularly single-parent households and young households. Of poor households, in summer 1992 nearly 60 percent had one or more children, and in summer 1993, 57 percent had one or more children. Figure 3-1 shows the contribution to poverty by the labor force status of the head of the

Figure 3-1. *Poverty by Labor Force Status of Household Head, 1995*
(percentage of total poor)



Source: RLMS, round 6.

household in late 1995. It indicates that most poor households have a head who is working, so that social benefits directed to the traditionally vulnerable groups, such as the disabled, would miss these working poor households.

Children

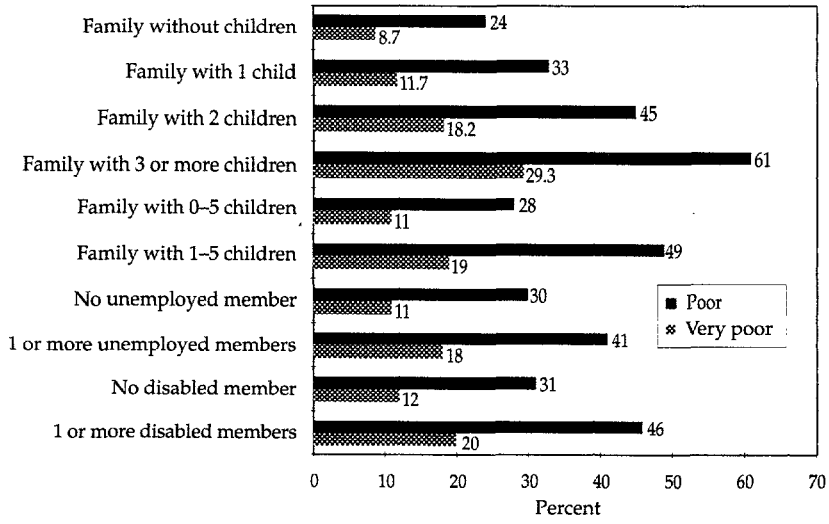
The younger and more numerous the children, the more likely the household is to be poor or very poor. Households with children under the age of six were much more likely to be poor than households with older children or households without children (figure 3-2). Table 3-7 shows how the incidence of poverty monotonically increases as the number of children in a household

Table 3-7. *Children and Poverty, 1992*

Number of children	*Percentage of households*	*Percentage of poor*	*Percentage of very poor*	*Percentage not poor*
0	54.7	19.0	2.2	81.0
1	23.7	26.8	5.2	73.2
2	17.6	35.1	7.8	64.9
≥ 3	4.0	56.1	15.4	43.9
≥ 0	100.0	25.2	4.5	74.8

Source: RLMS, round 1.

Figure 3-2. *Poverty Incidence among Selected Groups, 1993*



increases. The pattern holds when we look at only children under six years of age and also at the percentage of very poor households. This pattern appears to have persisted through the early transition. During summer 1992, approximately 35 percent of households with a child under the age of six were poor, while nearly 46 percent of households with two children under six were poor. Most surveyed households with three or more children under six were poor: nearly 85 percent. These patterns were essentially the same in summer 1993: approximately 47, 59, and 82 percent of households with one, two, and three children under six, respectively, were poor. Table 3-8 confirms that at the end of 1993, the risk of poverty remained relatively greater for families with children.

In Russia, as in many other countries, family size is a strong predictor of a household's poverty status. Smaller households are less likely to be poor than larger households, which have more nonwage earning dependents to support. Census data reveal that average family size in Russia is not large (3.2 in 1989), although a significant minority of families (2.3 million) has three or more children. In summer 1993, approximately 58 percent of poor families had one or more children, compared to 46 percent for the sample as a whole. Only 40 percent of nonpoor families had one or more children.

Table 3-8. *Risk of Poverty in Households with Selected Characteristics, 1994* (percent)

Type of household	*Poor*	*Very poor*[a]
≥ 1 child under 6	40.5	15.8
≥ 3 children	52.3	23.4
2 children	36.6	13.6
Pensioner households	15.9	6.1
Has unemployed member	40.4	16.4
Has disabled member	35.5	14.0
Head works in[b]		
Forestry	51.8	26.8
Agriculture	46.5	18.5
Manufacturing	32.6	10.2
Construction	32.0	9.9
Trade	21.6	6.5
National average	26.8	10.4

a. Households with expenditures of less than 50 percent of the poverty line.
b. These figures pertain to round 3.
Source: RLMS, round 4.

Probit analysis reveals that household size and composition are significant in determining whether a household is poor.[3] When household composition variables were added to the regression, household size is still significant, and positively correlated with poverty. To emphasize this purely statistical result, even controlling for household composition, increasing a household's size by one person increased its probability of being poor by more than 7 percent in summer 1992, with the marginal probability increasing to nearly 9 percent in summer 1993.

Children living in single-parent households are at greater risk of poverty than children living in nuclear households, with an estimated 5 percent increase in the likelihood of poverty. Almost 63 percent of households headed by a woman on maternity leave or involved in full-time childcare were poor in summer 1992. It is noted that 44 percent of female respondents in the VCIOM survey described themselves as the principal breadwinners in their family.

Young families are at greater risk of poverty than older families. This pattern has also characterized other European economies in transition (Milanovic 1993). Almost two out of five families headed by a student were poor in summer 1992, and nearly 31 percent were poor in summer 1993. Households with heads aged sixty or older made up nearly 30 percent of nonpoor households, but only 23 percent of poor households. Nonpoor families tended to have more elderly family members (0.61 on average) than poor households (0.47) or very poor households (0.30).

The Unemployed

Unemployment is commonly associated with poverty. As chapter 6 shows, although open unemployment has risen slowly in Russia, relative to the scale of output decline, significant regional variations are apparent that are likely to persist. In the RLMS, households headed by an unemployed person are more than twice as likely to be poor: 63 percent of households headed by an unemployed person were poor in summer 1993, and as figure 3-2 indicates, more than 40 percent of households with an unemployed member were poor and almost half of these were very poor. Probit analysis reveals that the number of unemployed people in a family is significantly and positively corre-

3. Multivariate analysis complements the univariate results presented in the text by identifying whether given characteristics of a household are significantly correlated with that household being poor, controlling for all other characteristics. In this way, it avoids potentially spurious univariate correlations. For an explanation of the econometric model, see the appendix.

lated with poverty status. An additional unemployed family member increased the household's probability of being poor by 18.4 percent during summer 1992 and by about 7 percent in summer 1993. For those unemployed who were receiving benefits, 50 to 60 percent had incomes below the poverty line as measured in the 1994 VCIOM surveys, and for the "truly unemployed," 75 percent in the March 1994 survey and 65 percent in the October 1994 survey had incomes below the poverty line.

The Disabled

Households with a disabled head are more likely to be poor. The presence of a handicapped family member also significantly increased the chance that the family would be poor or very poor. In 1993, the incidence of poverty was 46 percent in households with one or more disabled members (see figure 3-2). Nearly 20 percent of households with a disabled member are very poor. This is despite the fact that the poverty line for such families was not adjusted upward to account for their greater needs. The presence of an additional disabled family member increased the probability that the household was poor by 10.4 percent in summer 1992, with this marginal probability increasing to 12.2 percent a year later.

Pensioners

As the preceding chapter argued, generalizing about the situation of pensioners during the transition is difficult. Obviously, those living on administered incomes suffer during periods of high inflation, especially when indexation is ad hoc and infrequent. In particular, Russians on disability and social pensions typically depend on low benefits (below the minimum old age pension). At times, for example, June to October 1992 and the second half of 1994, the minimum pension has been eroded in real terms more rapidly than have average wages. Average pensions have generally been better protected and have tended to improve relative to wages (see table 2-7). Further factors that have mitigated the relative impact of the transition on some pensioners include the earnings of those pensioners who continue to work and the wage income of other family members. In early 1994, about 22 percent of all pensioners were earning a wage income and up to 40 percent of pensioners who retired early continued to work.

A low rate of measured poverty for pensioners emerged from the RLMS in summer 1992. Regression analysis also suggests mixed results for RLMS pensioner households. The age of the head of household is inversely corre-

lated with poverty, meaning that households with older heads are significantly less likely to be poor. For example, 16 percent of elderly men lived in poor households, compared to 26 percent of prime-aged (eighteen- to fifty-nine-year-old) men. This is despite the fact that summer 1992 was a period during which pensions were eroding more rapidly in real terms than average wages.

However, a clear gender distinction emerges among the elderly. In 1992, the poverty rates for prime-aged women and men (eighteen to fifty-four-years old) were similar, but for elderly women (aged fifty-five and over) the poverty rate was 44 percent higher than the corresponding rate for elderly men. At that time, households comprised of two pensioners were less likely to be poor than households comprised of two income-earning individuals and one child.

Why Are People Poor?

Although data were scarce and discussion discouraged, until the late 1980s certain groups of people clearly did not fare well under the old system (chapter 2 investigated the extent and nature of poverty during the Soviet period). Nonetheless, the command economy did administer a system of wages and benefits, full employment, and prices for goods and services that ensured a minimum standard of living for most Russian citizens.

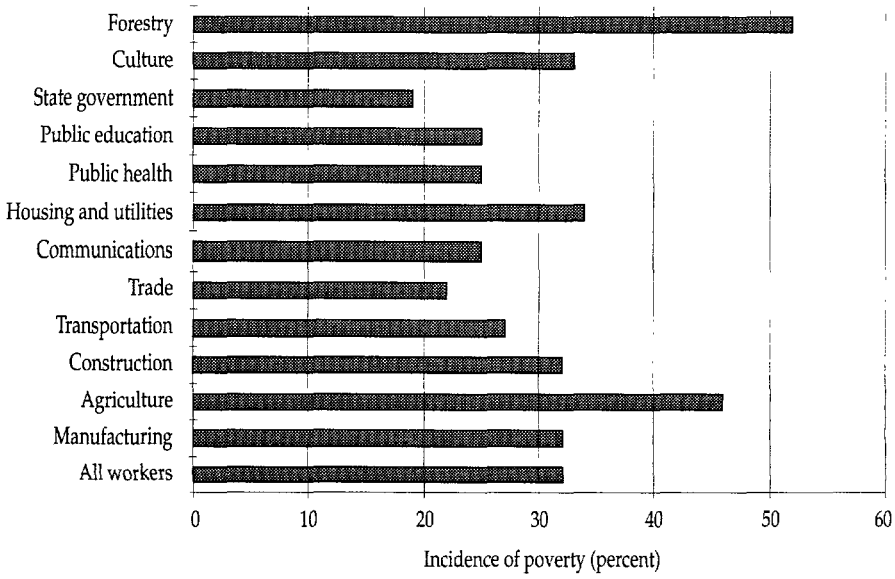
The foregoing analysis of trends in poverty and distribution has revealed that the transition has been associated with a dramatic decline in living standards for some Russians, while others have been able to take advantage of the changes and improve their situation. The increasing incidence and severity of poverty is associated with the significant fall in real money income and output since the transition began, coupled with a significant widening in the distribution of income. We find both old and new poor in contemporary Russia. Adjustment in the labor market has shown up in declines in total employment and increasing numbers of people on short-time work and involuntary leaves, and the real wages of the poor have been eroded as wage arrears have grown significantly and the wage distribution has widened.

Wage adjustment has not been uniform across sectors or regions. Some sectors have been particularly hard hit by real wage declines, in particular, the science-oriented and budget-financed spheres of employment, while other sectors have been relatively less affected. Regional data reflect a positive correlation between profit and wage changes in 1992–93 (Commander, McHale, and Yemtsov 1994). The wage distribution is evidently less equal in firms whose size and sectoral characteristics—primarily small trade firms—more

closely correspond to the semiprivate and private sectors. This is consistent with Eastern European experience, and suggests that the wage distribution is likely to widen further as privatization and restructuring proceed. Nonetheless, major departures from the pretransition structure of wage relativities have been limited to date. Institutional features in wage setting have tended to dominate the redistributive effects of high inflation and decentralization of wage decisions. Relative wages desegregated by skill have also been fairly stable. The RLMS clearly demonstrates the legacy of Soviet wage differentials, with certain occupational classes strongly correlated with a higher or lower likelihood of poverty (see figure 3-3). Household heads working in forestry or agriculture, for example, had poverty headcounts markedly above average. Budget sphere workers, whose wages are based upon multiples of the minimum wage, have tended to experience declines in relative wages. In early 1995, an estimated 15 million budget sphere workers were receiving less than the subsistence minimum.

Having a job in Russia during the transition has not guaranteed the receipt of wages. Wage arrears increased significantly, particularly in 1994. According to VCIOM surveys, only about 40 percent of workers were being paid fully and

Figure 3-3. *Working Poor Households by Sector of Employment of Household Head, 1994*



Source: RLMS, round 4.

on time in 1993 and 1994. Delays in wage payments are particularly onerous for near poor households, and can mean that working households fall into poverty.

Educational attainment is a complex factor to take into account in Russia, because literacy is virtually universal and people can follow many different educational paths, with the sequence of schools attended varying widely from one person to the next. The percentages of poor and nonpoor household heads that passed eighth grade or graduated from technical school are close. The nonpoor have a slightly higher percentage that graduated from university or took special courses to obtain higher professional qualifications. This difference is particularly evident in urban areas, with the total figures masking a large difference in postsecondary education between urban and rural household heads. The completion of higher education appears typically to result in higher paying jobs. In summer 1992, graduation from college or university reduced the likelihood of being poor by 9.2 percent, relative to those with less than primary education. In summer 1993, relative to those with university education, households whose head had a secondary or vocational education were 12 to 15 percent more likely to be poor, while those with unfinished secondary or primary education were 20 to 22 percent more likely to be poor. During the Soviet period, however, wage policy was directed toward raising the incomes of blue collar workers in priority industrial sectors and reducing earnings differentials. Certain branches of the economy typically required higher education, but salaries were low, especially in primary education and health care.

Finally, old age does not appear to be a significant causal factor for poverty in contemporary Russia. Poor households are much less likely than nonpoor households to have a head aged sixty or older, with very poor households even less likely than poor households to have a household head older than sixty. However, looking over the other age cohorts, the distribution of the age of household heads in poor families is close to the distribution by age in nonpoor households. This suggests that, except for the oldest heads, no significant link exists between age of household head and a household's poverty status.

Flows into and out of Poverty

The RLMS panel of households permits investigation of the dynamic nature of poverty. Table 3-9 summarizes the flows into and out of poverty. The poor do not appear to consist of a stagnant pool of households. Rather, significant percentages of households exit from and enter into poverty over time, for example, nearly half of the very poor households in summer 1992 are not considered poor one year later, while one-quarter of nonpoor households

become poor during the period.[4] As table 3-9 shows, between the middle and end of 1993, more than one-third of very poor and one-half of poor households exited poverty, while 15 percent of nonpoor households became poor. Moreover, only 7.3 percent of households in the RLMS panel remained poor between summer 1992 and the end of 1993, with only 1.0 percent considered very poor throughout the period. About 49 percent of households did not have a spell of poverty at any time during the survey. In other words, more than half of all households were in poverty at one time during the period July 1992 through February 1994, with a small pocket of chronically poor.

Given that the sensitivity analysis does not show a disproportionate concentration of households around the poverty line, the large flows into and out of poverty imply that most households that change poverty status have experienced a significant shock, positive or negative, that had a major impact on their welfare. For example, layoffs, involuntary leave, and wage arrears all contribute to households becoming poor. By contrast, successful marketing of home production, profitable entrepreneurial ventures, and finding a well-paid job contribute to households exiting from poverty.

Conclusions

This chapter has presented a profile of the extent and nature of poverty in Russia, based on the first extensive, nationally representative data set. Several striking themes emerged. The extent and severity of poverty in Russia

Table 3-9. *Transition Probabilities for Changes in Poverty Status, 1993 and 1994*

		1994[a]		
1993	*Poverty status*	*Nonpoor*	*Poor, but not very poor*	*Very poor*
N_1	Nonpoor	0.848	0.110	0.042
N_2	Poor, but not very poor	0.581	0.283	0.136
N_3	Very poor	0.368	0.286	0.345

Original stocks: N_1= 3,848; N_2= 1,110; N_3= 660.

a. The transition probabilities refer to the period between round 3 and round 4 interviews.
Source: RLMS, rounds 3 and 4.

4. These figures are not shown in table 3-9. They were calculated for the poverty transitions over the year-long period between summer 1992 and summer 1993 interviews.

has increased sharply for different classes of poverty measures. The results were reasonably robust to sensitivity analysis conducted by shifting the poverty line up and down.

The risk factors associated with hardship have shifted. In particular, old age is no longer a significant correlate of poverty. Open unemployment and underemployment have become increasingly important. The analysis also confirmed the persistence of certain causal factors since the Soviet period. The younger and more numerous the children, the more likely a household is to be poor or very poor. While wage differentiation has increased, the legacy of the Soviet structure of wage relativities is evident nonetheless. The high gross outflows from poverty were a surprising, but encouraging, finding that suggests that poverty does not become a chronic problem for most people affected. Overall, the analysis clearly suggests the need to adjust conventional assumptions about poverty and social support in Russia.

Appendix. Econometric Analysis of Poverty

We obtained the regression results reported in the text from the following econometric analysis. Simple univariate tabulations such as the relationship between age and poverty could be misleading. Hypothetically, individuals in different age groups, for example, might differ in characteristics other than age, with these other characteristics accounting for the univariate association between age and poverty rates. Therefore, multivariate models of the probability of being poor are estimated. Such analysis allows for conclusions to be drawn regarding given characteristics of the poor while holding remaining characteristics constant. Estimation proceeded in a stepwise fashion by adding variables as a group to the model, so that the effects of the explanatory variables can be clearly ascertained and variables such as the region dummies will not mute the effects of other variables, thereby masking important relationships.

Because a household is considered to be either poor or not poor, a binary limited dependent variable model is employed to analyze the characteristics of poor households in Russia.[5] This type of analysis is useful because in this context it provides policymakers with valuable statistics about the effects of

5. It has been suggested that, since total household monthly income is the variable of interest in determining whether a household is poor, regressions with income as the dependent variable would yield the same information as a binary limited dependent variable model. They would certainly provide much the same conclusions, but the limited dependent variable analysis of poverty is used because it lends itself more easily to policy interpretation and targeting options.

various household characteristics upon that household's probability of being poor, thus informing assistance programs and targeting options.

In estimating such a binary model, one must decide on the parametric assumption for the cumulative distribution function, which is a probability transformation of the regressors ($\mathbf{x}'_i\beta$), which ensure that the probability, P_i, remains between 0 and 1, and yields a monotonic relationship between $\mathbf{x}'_i\beta$ and P_i. The popular choices are the cumulative normal and logistic distribution functions, which correspond to the probit and logit models, respectively. For binary dependent variables, the logistic and cumulative normal distribution functions are very close in the middle range, but the logistic function has slightly heavier tails than the normal. Thus it does not matter much which function is used in cases where the data are not heavily concentrated in the tails.

To analyze the characteristics of the poor in Russia systematically, the following probit specification was employed:

$$P_i = \Phi(\mathbf{x}'_i\beta) \quad [\Phi \text{ is the cumulative distribution function of the standard normal } N(0,1) \text{ random variable}],$$

with covariates gender, age, educational level, and occupational status of the household head; urban/rural status; access to a private plot; number of unemployed household members; number of disabled members; number of members engaging in private economic activity; household composition (combinations of number of wage or pension incomes and number of children); household size; and region of residence. P_i is the probability of household i being poor. Thus, the dependent variable in the probit regression is simply a binary indicator of the household's poverty status that is equal to 1 if it is poor.

Marginal probabilities were calculated at the sample means as follows:

$$dP_i/dx_{ik} = \phi(\mathbf{x}'_i\beta)\beta_k.$$

4

Health and Nutritional Aspects of Well-Being

Venanzio Vella

A worsening health situation has paralleled the deterioration of living conditions in Russia during the difficult socioeconomic transition. Indeed, recent demographic developments in Russia are unprecedented. The high rates of violent death, which are unparalleled compared with those in other industrial countries, are symptomatic of the decline of the country's social fabric. The general increase in mortality is related partly to the deterioration of social and health services, but more fundamentally to the increased risk factors associated with lifestyle, such as alcohol consumption, smoking, and diets high in fat.

There are special concerns surrounding the health status of the poor and disadvantaged groups in Russian society that were identified in the preceding chapters. One would expect such groups to have been especially adversely affected by the deterioration of health services and the rise in such risk factors as stress and poor living conditions. For example, if access to health care requires increased private contributions, then the poor may be unable to use these services. Another risk for the poor is worsening nutritional status: are adverse economic conditions associated with an increasing incidence of undernutrition? In particular, is there evidence that children have been badly affected?

This chapter explores the health and nutrition situation as revealed by the rounds of the Russian Longitudinal Monitoring Survey (RLMS) that were carried out in 1992 and 1993 and published Goskomstat data.

Background

The scale of recent demographic developments in Russia have no parallels elsewhere.[1] The result has been a shrinking population, a trend characteristic of a group of European transition economies. The population has been shrinking because of falling fertility rates and increasing mortality rates. The fertility decline has been extraordinarily rapid and has resulted in extremely low fertility rates. The total fertility rate declined from 1.95 in 1990 to 1.4 in 1994, and the crude birth rate declined by about 35 percent during the same period. The decline in the birth rate was higher among older age groups (table 4-1), which suggests that the decline was not due to simple postponement of births.

Fewer marriages and rising economic insecurity appear to be at the roots of the rapid decline in fertility. Marriage rates started declining gradually during the 1980s because of the smaller size of the age cohorts reaching the typical age of marriage. However, the decline accelerated sharply after 1989, when the crude marriage rate per 1,000 population declined from 9.4 to 6.8 in 1993, a trend that is traced to various aspects of economic insecurity explored elsewhere in this book, including rising poverty and unemployment and falling real wages. In addition, increased mortality among men aged twenty to thirty-nine has reduced the number of potential husbands to form families, and divorce rates have increased.

Recent changes in mortality rates have been striking, especially for men of working age. From 1930 to 1960 gains in life expectancy paralleled those in

Table 4-1. *Crude Birth Rates by Age Group, 1990 and 1993*

Age	*Birth rates per 1,000 women*		*Percentage change*
	1990	*1993*	
< 20	55.6	47.9	-13.8
20–24	156.8	120.4	-23.2
25–29	93.2	65.0	-30.3
30–34	48.2	29.6	-38.6
35–39	19.4	11.4	-41.2
40–44	4.2	2.6	-38.1
45–49	0.2	0.2	0.0

Source: Goskomstat data.

1. All figures cited in this chapter are from the *Demographic Yearbook of the Russian Federation 1994*, published by Goskomstat in 1995, unless otherwise stated.

Table 4-2. *Crude Death Rate per 1,000 Population, 1990 and 1993*

Region	*1990*	*1993*	*Percentage increase*
Russian Federation	11.2	14.5	29.4
Northern	9.1	13.3	46.1
Northwestern	12.7	17.9	40.9
Central	13.0	16.6	27.7
Volgo-Vyatsky	11.9	14.6	22.7
Central-Chernozemny	13.7	16.3	18.9
Povolzhski	11.0	13.4	21.8
Northern Caucasus	11.1	13.6	22.5
Uralsky	10.4	13.8	32.7
Western Siberia	9.6	13.0	35.4
Eastern Siberia	9.5	13.0	36.8
Far Eastern	8.2	11.8	43.9
Kalinigradskaya oblast	9.8	13.5	37.7

Source: Goskomstat data.

Western Europe, but by 1965 health indicators began a steady decline that has accelerated in recent years. The rise in the crude death rate significantly exceeds trends in Central and Eastern Europe (Heleniak 1995). Between 1990 and 1993 the crude death rate increased by 29 percent, from 11.2 per 1,000 population in 1990 to 14.5 per 1,000 in 1993 (table 4-2). The increase in mortality varied across the country, with the Northern region experiencing the highest increase (46.1 percent), and the Central-Chernozemny region experiencing the lowest increase (18.9 percent). In 1993 the highest mortality rate was in the Northwestern region (17.9 per 1,000), and the lowest mortality was in the Far Eastern region (11.8 per 1,000).

Overall, life expectancy declined from 69.4 to 64.0 years between 1990 and 1994, then increased slightly to 65.0 years in 1995 because of improvements in the crude death and infant mortality rates. The decline was more pronounced among men, whose life expectancy fell from 63.8 years in 1990 to 58.0 years in 1995, while life expectancy for women declined from 74.3 to 72.0 years. The trend appeared to stabilize in 1995: life expectancy did not fall as had happened almost every year during the previous decade. The gap between male and female life expectancy is still the widest in the world. Boys born in 1993 were expected to live thirteen years less than girls born in the same year (table 4-3).

Table 4-3. *Life Expectancy at Birth by Gender, Selected Years* (years)

Gender	*1965*	*1980*	*1990*	*1991*	*1992*	*1993*	*1994*	*1995*
Men	64.3	61.5	63.8	63.5	62.0	58.9	57.6	58.0
Women	73.4	73.1	74.3	74.3	73.8	71.9	71.2	72.0

Source: Goskomstat data.

A breakdown of causes of death reveals several marked trends. Between 1989 and 1993 all causes of death increased, while cardiovascular diseases remained the most common cause of death. The sharp rise in cardiovascular diseases is a deterioration of a long-term trend (Nell and Stewart 1994). During the past thirty years, deaths from cardiovascular disease have nearly doubled. In 1993 deaths were caused largely by the following: cardiovascular diseases (53 percent), trauma and poisoning (15 percent), neoplasm (14 percent), and respiratory diseases (6 percent). The highest increase in mortality (284 percent) was from external causes (trauma and poisoning), which increased from 59.4 per 100,000 population in 1989 to 227.9 in 1993. As a consequence, trauma and poisoning, which were the third leading cause of death in 1989, bypassed cancer in 1993 and became the second most significant cause of death. The most frequent cause of death in this category was suicide, followed by murder and then alcoholic poisoning. A comparison of mortality rates across countries reveals that the mortality rates for cardiovascular diseases and external causes in Russia in 1993 were much higher than those of the United States in 1989, Germany in 1990, and Japan in 1991.

The most striking trend revealed by the age-specific data presented in table 4-4 is that adults of prime working age have been the worst affected by the increases in mortality. This is true for both sexes, but especially for men. The elderly and children have been relatively less affected.

Rates of infant and maternal mortality are higher in Russia than in other industrial countries. The infant mortality rate had improved significantly to about 25 per 1,000 live births in the mid-1960s, then fell gradually until 1990 before it started to get much worse.[2] Between 1990 and 1993 infant mortality

2. Measurement and comparison of infant mortality rates is problematic. The Soviet definition of a live birth led to the true rate, based on international definitions, being understated by about one-fourth. It was officially redefined as of January 1, 1993, to be consistent with international World Health Organization (WHO) standards. Although gauging the extent to which individual health facilities adopted this change is impossible, the redefinition would partly explain the reported increase in infant mortality between 1992 and 1993. See Anderson and Silver (1995) for a useful review of problems in assessing trends and levels of mortality in the former Soviet Union.

Table 4-4. *Age-Specific Mortality Rates, 1992 and 1993*
(deaths per 1,000 population)

Age group	*1992*	*1993*	*Percentage change*
Total	12.2	14.5	18.9
Under 5	3.7	4.0	8.1
5–9	0.6	0.6	0.0
10–14	0.5	0.5	0.0
15–19	1.3	1.5	15.4
20–24	2.1	2.4	14.3
25–29	2.6	3.2	23.1
30–34	3.4	4.3	26.5
35–39	4.5	5.8	28.9
40–44	6.3	8.4	33.3
45–49	8.7	11.4	31.0
50–54	12.3	15.9	29.3
55–59	16.4	20.1	22.6
60–64	23.8	28.7	20.6
65–69	31.5	37.5	19.0
70–74	46.7	52.0	11.3
75–79	72.5	80.5	11.0
80–84	112.5	123.9	10.1
85 and over	199.3	220.8	10.8

Source: Goskomstat data.

increased by 14 percent, from 17.4 per 1,000 live births to 19.9 per 1,000 live births (table 4-5), which is two to three times the rate in other industrial countries, and improved slightly to 17.5 per 1,000 in 1994–95. The major causes of infant mortality are perinatal conditions (44.0 percent), congenital anomalies (20.5 percent), and diseases of the respiratory system (15.5 percent). Maternal mortality, at 51 deaths per 100,000 live births in 1992, is about five to ten times higher than in other industrial countries. The major causes of mater-

Table 4-5. *Infant Mortality Rates and Causes 1990 and 1993*
(per 1,000 live births)

Number and causes of deaths	*1990*	*1993*	*Percentage increase*
Deaths	17.40	19.90	14.4
Perinatal conditions	8.01	8.80	10.0
Congenital anomalies	3.70	4.07	10.0
Respiratory diseases	2.47	3.09	25.1

Source: Goskomstat data.

nal mortality are complications due to abortion, postpartum bleeding, and pregnancy toxemia. Estimates indicate that there are two abortions for every birth and that most women have six to eight abortions during their lifetime. This is linked to the low level of contraceptive coverage (only just over one in five women), inadequate reproductive health services, and the inadequacy of prenatal and postnatal care.

Overall patterns of morbidity in Russia are characterized by diseases of the respiratory system, injuries and poisoning, diseases affecting the nervous system, and skin and infectious diseases. Morbidity from infectious diseases increased considerably in 1993, although it remained a negligible proportion of the total. Nationally, diphtheria morbidity rates increased from 8.2 per million population in 1990 to 102.6 per million population in 1993, with regional variations. The highest increase during the period was in the Northwestern region, where diphtheria morbidity rose from 6.6 per million population to 431.9 per million, and the lowest was in the Uralsky region, where the rate increased from 3.8 to 26.4 per million. This was a reversal of a long-term trend that had practically wiped out such infectious diseases as diphtheria and tuberculosis by the late 1980s.

Major risk factors underlying the high mortality rates include alcohol abuse, smoking, high-fat diets, abortion, unsafe water supplies, inadequate sanitation, and environmental pollution. Several of these factors are long-term problems that are unlikely to have worsened significantly during the transition and do not appear to be directly linked to the dramatic worsening of health indicators. Other factors do appear to be linked to the social and economic upheaval and the consequent loss of economic security associated with the transition. Some commentators view the rising death rates as a reflection of a social crisis of transformation (Shapiro 1994). As other chapters note, unemployment is much higher than official figures suggest, and households affected by unemployment are likely to fall into serious poverty. Several British studies have found evidence of an adverse link between job loss and mental and physical health (see, for example, Beale and Nethercott 1985; Smith 1992).

Alcohol abuse, which was already high in the Soviet period, has recently increased. Between 1989 and 1992 alcohol-related deaths doubled and the number of hospital admissions for alcohol-related psychosis quadrupled. The RLMS suggests that while the share of the population who are drinkers declined somewhat between 1992 and the end of 1995, the amount of alcohol consumed has increased significantly, by 44 percent for men and 20 percent for women (Zahoori 1996). In addition, alcohol abuse is an important risk factor for violent deaths, mental health problems, low birth weights and birth

defects, liver and heart diseases, and some forms of cancer. Smoking, which has been increasing since the 1950s, is at the root of the high mortality from lung cancer and cardiovascular diseases. Smoking prevalence is estimated at 50 to 65 percent among men and 15 percent among women, with peaks of 20 to 30 percent among younger and better-off women.

From 1960 through the 1980s food availability per capita increased, but micronutrient deficiencies continued to be a problem. Between 1965 and 1981, the daily per capita supply increased by 6 percent for calories (from 3,060 to 3,250), by 8 percent for proteins (from 91.0 to 98.2 grams), and by 26 percent for fat (from 82.1 to 103.3 grams). In the same period, per capita availability of meat, vegetable oil, and dairy products increased, while that of flour, other cereal products, and potatoes decreased. Although these changes suggest the availability of a more affluent diet, deficiencies of such micronutrients as vitamin D, iodine, and iron continued to be a problem. The intake of certain other vitamins and minerals remained low, especially among some population groups such as preschool and school-age children and pregnant and nursing women, and in certain regions. Investigators have suggested a number of causes for these micronutrient inadequacies, including low real income, poor dietary habits, climatic conditions, regional and seasonal variation in availability of fruits and vegetables, and marketing and distribution problems (Lane, Martson, and Welsh 1987).

The Russian diet is characterized by overconsumption of animal fat, which leads to the high mortality from cardiovascular diseases. This was linked to rising incomes in the 1960s and to Soviet planning policies that promoted an increase in the production and consumption of meat and dairy products. An analysis of the dietary pattern of the population sampled in the RLMS in 1992 and 1993 found declines in overall energy intake and in the proportion of energy derived from fat (Popkin, Zahoori, and Baturin 1995). Nonetheless, the proportion of total energy intake derived from fat is still unhealthily high. The persistence of a fatty diet is related to the difficulty of changing people's established dietary habits even when difficult economic conditions have reduced total energy intake. There is a clear need to inform the population about the risks associated with high consumption of meat and dairy products. The decline in fat consumption is likely to continue during adverse economic conditions, which might favor a healthier diet. However, the same conditions might lead to reduced consumption of healthy foods such as fruits and vegetables, which tend to be expensive.

Unsafe abortions are one of the major causes of maternal mortality and are attributed to the low use of and access to contraception, alongside the inadequacy of the reproductive health services. In 1992 there were 2.2 abor-

tions for every live birth, and in 1990 there were 108 abortions per 1,000 women of childbearing age. Contraceptive prevalence in 1995 was about the same as at the start of the economic transition. The extent of unmet desire for contraception is significant: more than one-third of married women in their twenties who want no more children are not using contraception (Entwisle 1996). Improved reproductive services and more widespread use of contraception could prevent much maternal mortality.

Polluted water supplies and inadequate sanitation cause the spread of infectious diseases, especially those affecting the gastrointestinal tract. Although 77 percent of urban residents and 65 percent of rural dwellers reportedly have access to safe water supplies, mechanical failures and intermittent shortages of water treatment chemicals may consistently reduce the overall level to as low as 50 percent. In addition, water reservoirs are frequently contaminated by inadequate sewerage systems and pesticides and other chemical pollutants, and the level of chlorination is inadequate. As a result, drinking water often does not meet the quality standards set by the health authorities.

Environmental pollution is a risk factor for diseases of the respiratory tract and for various forms of cancer (see Feshbach and Friendly 1992). It is related to inadequate regulation of toxic wastes and poor maintenance of industrial equipment. The RLMS revealed widespread perceived connections between environmental conditions and disease, especially in urban areas (Zahoori 1996). Further data are needed to estimate the extent of occupational health problems, but unsafe working conditions undoubtedly contribute to the high levels of morbidity and mortality among the population of working age.

Methodology

The analysis in the following section is based on the health modules of rounds of the RLMS conducted in 1992 and 1993. Chapter 1 has already explained the general methodology of the RLMS. Except for the measurements of blood pressure and anthropometric parameters, the answers to questions about health conditions were not validated by a medical examination.

The focus here is on the population's health and nutritional status in 1993 and on the trends in health and nutritional status between 1992 and 1993. The prevalence of hypertension was analyzed for adults, and hypertension was considered present if the systolic blood pressure was above 140 millimeters of mercury or the diastolic blood pressure was above 90 millimeters of mercury (Massie and Sokolow 1992). The body mass index (BMI)—the weight in kilograms divided by the height in meters squared—was used to assess nutritional status of respondents aged 18 to 59. The following levels

of BMI were used: below 18.5 for undernutrition, between 18.5 and below 30.0 for no obesity, and equal to or above 30.0 for obesity (James, Ferro-Luzz, and Waterlow 1988; WHO 1990). The weight and height of children under five were transformed into weight for age, height for age, and weight for height standard deviation scores. The cut-off point of less than -2 standard deviations (SD) from the median National Center for Health Statistics reference was used to define underweight (<-2 SD weight for age), stunting (<-2 SD height for age), and wasting (<-2 SD weight for height). Underweight does not distinguish between acute and chronic malnutrition, whereas stunting is a sign of long-term malnutrition and wasting is a sign of recent malnutrition.

A major advantage of a longitudinal or cohort study like the RLMS lies in the opportunity to study a population not affected by the health problems under study (for example, hypertension and stunting among children) and to observe which risk factors are most important in causing health problems during a certain period. This is more powerful than a cross-sectional study in identifying risk factors for the health conditions under study, because the risk factors are measured in people not yet affected by the disease, thereby avoiding possible bias.

Besides simple cross-tabulations, logistic regressions were run to identify risk factors for mortality, obesity, and hypertension. In the logistic model, the role of each risk factor was analyzed keeping other variables constant. This allowed the estimation of risk factors for mortality—which is associated with both age and risk factors—keeping age constant. The odds ratios in the logistic model measure the association between the risk factor and the disease under study. For example, the odds of mortality between 1992 and 1993 were 8.9 times higher among those suffering from hypertension in 1992 than among those not suffering from hypertension. This association was statistically significant and was independent of age and other variables in the model.

Health Status in 1993

Self-reporting is one way to assess health status, although it is clearly a subjective measure and is probably shaped in part by national and cultural characteristics. In Russia in 1993, a high share of respondents reported dissatisfaction with their health. The questionnaire included several questions about people's opinions about their own health and whether they had experienced any health problems in the previous thirty days. About one-fifth considered their health to be bad or very bad and noted that their health was affecting their daily activities considerably. About 3 percent were unable to work or to carry out daily activities (table 4-6). About 14 percent of respondents described

Table 4-6. *Health Status According to the Self-Evaluation by Interviewees, 1993*

Category	Percentage evaluating their mood as bad or very bad	Percentage evaluating their health as bad or very bad	Percentage saying that their health affects daily activities		Number in sample
			A lot	Cannot work	
Gender					
Men	9.5	13.2	14.8	2.1	5,039
Women	15.9	21.7	25.4	3.3	7,275
Residence					
Urban	13.1	17.2	20.5	2.6	9,496
Rural	11.9	21.4	23.2	3.6	2,891
Hypertension					
Yes	10.9	12.3	17.2	1.5	9,579
No	21.2	38.6	35.7	6.4	2,546
Total	14.1	19.3	22.3	3.0	11,554

Note: All cross-tabulations were statistically significant ($p<0.0001$).
Source: RLMS, round 3.

their mood as bad, suggesting that psychological problems and depressive disorders are frequent and are probably contributing to the high rates of alcoholism, suicide, and violent death mentioned earlier.

The prevalence of reported health problems and recent visits to health institutions increased with age and were more frequent in urban areas, among the obese, among people suffering from hypertension, and among females. About 44 percent of the people interviewed reported that they had suffered from health problems in the previous thirty days, 14 percent had visited a medical institution, and 2 percent had been hospitalized (table 4-7). The prevalence of hospitalization in the previous thirty days was higher in urban areas, among people who were undernourished, among those suffering from hypertension, among men, and among the elderly. The use of medical institutions for preventive checkups was more frequent in urban areas and among the obese, younger people, and women. The same categories of people who reported a higher frequency of health problems were also more frequent users of preventive services. This suggests that the higher frequency of health problems reported by some groups may be partly related to their better education and to the attention they pay to their health.

As expected, the prevalence of hypertension increased with age and was more frequent among the obese. About 8 percent of the adult sample had systolic hypertension, 5 percent had diastolic hypertension, and 9 percent had both. All forms of hypertension increased from about 4 percent below age thirty to 47 percent above age fifty-nine. Overall, hypertension was higher among women, but it was highest among men between thirty and forty-nine years old and among women older than forty-nine. This may be related to a higher frequency of risk factors for hypertension among men below fifty, followed by a higher mortality from cardiovascular diseases. Men surviving after age forty-nine may be healthier, and this "selection process" could be the reason for their lower prevalence of high blood pressure compared to women. Hypertension was significantly higher among obese people. The association of hypertension with obesity might have been due to age, which is associated with both obesity and hypertension. However, after controlling for age, being obese remained significantly associated with hypertension.

Table 4-7. *Health Problems in the Previous Thirty Days, 1993*

Category	*Percentage reporting health problems in the previous thirty days*	*Percentage who visited a medical institution in the previous thirty days to solve their health problems*	*Percentage who were hospitalized in the previous thirty days*	*Number in sample*
Gender				
Men	30.4	10.8	2.3	5,057
Women	50.1	15.6	1.8	7,312
Residence				
Urban	43.3	14.4	2.1	9,519
Rural	37.6	11.2	1.8	2,923
Hypertension				
Yes	62.9	20.3	2.7	2,562
No	36.2	11.6	1.7	9,610
Total	43.7	14.2	2.1	11,610

Note: All cross-tabulations were statistically significant ($p<0.0001$).
Source: RLMS, round 3.

Undernutrition, except for younger people, was not a problem for the Russian adults surveyed. Obesity, however, was high. The overall prevalence of undernutrition among working age people was around 2 percent, whereas obesity was around 16 percent. Nutritional status across age groups varied widely. Undernutrition was around 6 percent for those aged eighteen to twenty-nine, decreased to 2 percent for those aged thirty to thirty-nine, and remained around 1 percent for the other age groups. The prevalence of obesity followed the reverse pattern (table 4-8). Twenty-two percent of women were obese compared with 8 percent of men. Rural residents were slightly more likely to be obese than urban residents. The association between obesity and residence disappeared after controlling for other variables (table 4-9), while being female remained associated with obesity even after age was taken into account. Poor people were less likely to be obese than their nonpoor counterparts.

Health Status and Poverty

Poverty appears to be associated with adverse health conditions. Compared with the nonpoor, the very poor tended to report somewhat more frequently that their health was unsatisfactory, that their health impaired their daily activities, and that they had been hospitalized in the previous thirty days. The elderly poor clearly regarded their health status as worse than that of the nonpoor. When asked to evaluate their mood and health, elderly poor people reported more frequently than other respondents that their mood and health were bad or very bad and that this affected their daily activities (table 4-10). About 16 percent of very poor elderly people reported that their health did not allow them to work, versus 8 percent among the nonpoor.

In some respects, however, the poor (as opposed to the very poor) evaluated their health more positively. The frequency with which the poor reported having suffered from health problems in the previous thirty days was lower than among the nonpoor (table 4-11). The nonpoor may be reporting minor ailments because of their higher education and greater attention paid to health. The poor may have instead reported only major complaints because of their harsher living conditions and more pressing daily concerns. This is supported by the fact that the frequency of hospitalization among the poor was relatively higher, indicating that they are likely to be in worse health than the nonpoor. The poor were slightly more malnourished and less obese than the nonpoor (table 4-12).

The poor underwent fewer medical procedures and used preventive services less frequently than their nonpoor counterparts. This may be a sign

Table 4-8. *Variables Correlated with Nutritional Status, 1993*

	Nutritional status (%)				
Age	*Undernutrition (<18.5 BMI)*	*Normal (18.5–29.9 BMI)*	*Obesity (BMI ≥ 30)*	*Number in sample*	*Statistical significance*
18–29	5.9	89.6	4.5	1,975	
30–39	1.8	84.8	13.4	2,489	
40–49	1.2	77.6	21.2	2,122	
50–59	1.0	71.4	27.6	1,794	
Total	2.4	81.3	6.3	8,380	$p<0.0001$

Source: RLMS, round 3.

Table 4-9. *Logistic Model of the Risk Factors Influencing Obesity* (dependent variable: obesity)

Variable	*Coefficient*	*Standard error*	*Odds ratio (confidence interval)*		*Statistical significance*
Age (years)					
30–39	-0.328	0.077	0.7	(0.6–0.8)	$p<0.0001$
40–49	0.246	0.075	1.3	(1.1–1.5)	$p<0.001$
50–59	0.637	0.072	1.9	(1.6–2.2)	$p<0.0001$
Rural areas	0.108	0.063	1.1	(0.9–1.3)	Not significant
Women	1.266	0.064	3.5	(3.1–4.0)	$p<0.0001$
Poverty					
Poor	-0.256	0.073	0.8	(0.7–0.9)	$p<0.0001$
Very poor	-0.210	0.091	0.8	(0.7–0.9)	$p<0.02$
Constant	-3.680	0.149			$p<0.0001$

Note: Sample = 9,073, pseudo R square = 0.07, $p<0.0001$.
Source: Author's calculations based on the RLMS.

that they receive less attention from medical staff or that they cannot afford to pay for comprehensive medical examinations. Among those hospitalized in the previous thirty days, 71 percent of the very poor were hospitalized for more than two weeks compared with 52 percent of the nonpoor, and 12 percent of the very poor took more than three hours to reach a health unit, com-

Table 4-10. *Health Status and Poverty, 1993*

Poverty by age	*Percentage evaluating their mood as bad or very bad*	*Percentage evaluating their health as bad or very bad*	*Health affects their daily activities (%)*		*Number in sample*
			A lot	*Cannot work*	
18–29 years					
Not poor	6.3	4.1	9.4	0.0	898
Poor	6.5	3.2	10.1	0.0	308
Very poor	6.4	2.3	4.6	0.0	172
			$p<0.0001$		
30–39 years					
Not poor	7.7	6.5	14.3	0.4	1,361
Poor	10.5	4.8	12.0	0.0	543
Very poor	7.1	6.8	8.5	0.9	340
			$p = 0.004$		
40–49 years					
Not poor	10.6	10.4	16.3	0.6	1,238
Poor	14.2	8.9	14.4	1.1	360
Very poor	12.8	12.3	13.8	1.5	195
50–59 years					
Not poor	15.5	21.5	26.4	2.3	1,062
Poor	11.4	19.1	23.7	2.4	245
Very poor	17.2	23.6	24.2	5.7	157
60 and older					
Not poor	25.2	44.6	42.7	8.1	1,999
Poor	28.0	50.0	47.1	8.1	393
Very poor	39.7	58.3	41.3	16.1	206
	$p<0.0001$	$p = 0.002$	$p = 0.01$		

Source: RLMS, round 3.

Table 4-11. *Poverty and Use of Medical Services, 1993*

Poverty by age	*Had some health problems in the previous 30 days (%)*	*Have visited a medical institution to solve the health problems that occurred in the previous 30 days (%)*	*Have been hospitalized in the previous 30 days (%)*	*Number in sample*
18–29 years				
Not poor	29.0	11.8	2.2	899
Poor	28.6	10.9	2.6	311
Very poor	19.2	5.8	1.1	172
	$p = 0.02$			
30–39 years				
Not poor	36.6	13.7	2.4	1,367
Poor	29.1	8.4	1.8	547
Very poor	21.5	6.4	1.5	340
	$p<0.0001$	$p<0.0001$		
40–49 years				
Not poor	41.2	13.4	1.4	1,241
Poor	36.5	12.8	1.9	359
Very poor	30.8	10.2	2.0	195
	$p = 0.01$			
50–59 years				
Not poor	53.7	16.1	1.7	1,065
Poor	45.2	11.7	0.4	248
Very poor	44.9	16.4	3.8	158
	$p = 0.01$	$p = 0.03$	$p = 0.05$	
60 and older				
Not poor	66.8	21.9	2.3	2,006
Poor	65.4	17.8	3.6	393
Very poor	67.7	22.6	6.0	217
			$p = 0.002$	

Source: RLMS, round 3.

Table 4-12. *Nutritional Status by Level of Poverty, 1993*

Poverty	*Undernutrition (%)*	*Normal (%)*	*Obesity (%)*	*Number in sample*
Not poor	2.0	77.2	20.8	6,472
Poor	2.5	81.1	16.4	1,830
Very poor	3.0	80.1	16.9	1,062

Source: RLMS, round 3.

pared with 7 percent of the nonpoor, but these differences were not statistically significant. Thirty-six percent of the poor received extra tests and medical procedures other than the doctor's medical examination compared with 40 percent of the nonpoor. Of the very poor, 4 percent were using medical services for preventive checkups compared with 7 percent of the nonpoor.

Health Trends between 1992 and 1993

Of the 17,085 people interviewed in 1992, 2,499 (14.6 percent) were lost to follow-up in 1993. Compared with those lost to follow-up, those who were traced were more frequently living in rural areas, suffering from angina, and regularly drinking alcoholic beverages. It appears that those who were traced in 1993 had worse health conditions in 1992 than those lost to follow-up. As a consequence, the health deterioration traced between 1992 and 1993 might have been overestimated. However, the group traced did not differ significantly from the group lost to follow-up in the mean values of blood pressure and BMI. Therefore, the exclusion of those lost to follow-up should not introduce a serious bias in the analysis of the risk factors for the development of hypertension and obesity between 1992 and 1993.

The most frequently reported causes of death were cardiovascular diseases, cancer, and violent deaths. A reliable estimate of the mortality rates between 1992 and 1993 is not possible, because the study did not follow up mortality among the 1992 sample. However, the RLMS did include a question about what happened to people who had left the household, and if a death was reported interviewers asked about the cause of death. As respondents reported more than half of the causes of deaths as old age and other causes, a precise estimate of the proportion of mortality by cause is not possible. Nonetheless, these estimates confirm what official statistics have already revealed and permit an examination of the pattern of mortality by age and gender.

The survey results suggested that violent deaths are characteristic of younger ages, and mortality from cardiovascular diseases is more prevalent among the elderly.[3] Mortality among men was twice that among women. In the sample, deaths from violent causes, lung cancer, and stomach cancer were only present among men, while mortality from colon or rectal cancer was reported only among women.

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3. Another result, that cancers are a more common cause of death in the forty-five to sixty-four age group, differs from the official mortality figures, but may be explained by the share of deaths classified under "other causes," but actually related to cardiovascular disease.

The people most likely to have died in 1993 were those who in 1992 were in poor health, had hypertension, smoked unfiltered cigarettes, were men, were living in rural areas, and had less education. Mortality was higher among regular drinkers, but was lower among occasional drinkers. The logistic model in table 4-13 confirmed that hypertension, poor health, and alcohol consumption were associated with higher mortality after controlling for age.

The most important risk factors for the development of hypertension between 1992 and 1993 were age, obesity, and education. In the cohort traced

Table 4-13. *Logistic Model for the Prediction of Mortality One Year after the Measurement of the Predictors*

Independent variable	*Coefficient*	*Standard error*	*Odds ratio*	*Statistical significance*
Hypertension in 1992	2.187	0.859	8.9 (1.6–48)	$p = 0.01$
Women	-0.833	0.733	0.4 (0.1–1.8)	
Age in years	0.008	0.025	1.0 (0.9–1.1)	
Rural areas	1.130	0.680	3.1 (0.8–11)	
Health effect on work or daily activities				
Often it affects activities	2.706	0.956	14.0 (2.3–97)	$p = 0.005$
Not able to work or carry out daily activities	4.424	1.022	83.0 (11–619)	$p<0.0001$
Alcohol consumption				
Regular drinkers	2.553	1.016	12.8 (1.7–94)	
Once or twice a month	1.111	1.040	3.1 (0.4–23)	
Less than once a month	0.181	0.989	1.2 (0.2–8)	$p = 0.01$
Education				
Less than specialized secondary	-0.118	0.915	0.9 (0.2–5)	
Specialized secondary	0.258	0.886	1.3 (0.2–7)	
Graduate and postgraduate	-0.216	1.101	0.8 (0.1–6.9)	
Poor	0.002	0.865	1.0 (0–1)	
Constant	-9.539	2.466		$p<0.0001$

Note: Number = 1,855, pseudo R square = 0.39, $p<0.0001$.
Source: RLMS, round 3.

in 1993, 1,374 people had normal blood pressure in 1992, of whom about 12 percent had developed hypertension by 1993. The development of hypertension between 1992 and 1993 varied with age, with few (4 percent) being in the eighteen to twenty-nine age group, compared to some 33 percent of the elderly. Being widowed, suffering from heart problems, having a lower education, and being obese were risk factors associated with hypertension. A logistic model revealed that obesity was significantly associated with hypertension even after controlling for age. Higher levels of education were associated with a lower risk for hypertension, while heart problems and widowhood were not significantly associated with hypertension once age was controlled for.

The most important risk factors for the development of obesity were age, gender, and presence of heart problems. Of the 4,244 adults who had a normal BMI (18.5–29.9) in 1992, by 1993 1.4 percent had become undernourished and 5.3 percent had become obese. A higher proportion of people aged eighteen to twenty-nine become undernourished, while the proportion of people becoming obese increased with age. The probability of becoming obese was higher among women, among people with heart problems, and among nonsmokers. The risk factors positively associated with obesity in the logistic model were age and gender, while being a smoker or having a higher education remained negatively associated with obesity.

Private Expenditures on Health

The Soviet regime established a system of virtually free and universal access to health services. Thus one might expect that the collapse of central planning and the rise of fiscal pressures would have had adverse repercussions for health service delivery. This, in turn, would undermine equity in access and provision if some people either are denied access altogether or cannot afford to pay increased charges. The household survey enabled an analysis of private expenditures on health during 1992–93 and of the links to households' poverty status.

In 1992 and 1993 average per capita health expenditures in the previous thirty days were equivalent to about 0.5 percent of total per capita expenditures (table 4-14). Health expenditures as a percentage of total spending were higher among poorer groups. Moreover, the composition of health expenditures suggested that the very poor could only afford to buy medicines.

Table 4-15 shows the health expenditures for those who fell sick and visited a medical institution in the previous thirty days. The average person spent almost Rub 400, largely on hospitalization. The amount spent per capita

Table 4-14. *Average per Capita Health Expenditures in the Previous Thirty Days by Poverty Status, 1993*

Category	*Number in sample*	*Not poor*	*Poor*	*Very poor*
Number of people	13,703	8,936	1,812	713
Average per capita total expenditures (Rub)	37,597	51,490	14,910	1,812
Average per capita health expenditures for medicines (Rub)	142 (82%)	192 (80%)	60 (94%)	33 (100%)
Average per capita expenditures for health excluding medicines (Rub)	31 (18%)	47 (20%)	4 (6%)	0
Average per capita total health expenditure (Rub)	174 (100%)	239 (100%)	64 (100%)	33 (100%)
Percentage of total expenditures spent on health	0.50	0.46	0.43	0.54

Note: The figures in parentheses show the percentage of total costs.
Source: RLMS, round 3.

Table 4-15. *Amount Spent by Those Who Were Sick and Used a Medical Institution in the Previous Thirty Days, 1993*
(rubles)

Costs	*Number in sample (N = 1,688)*	*Not poor (N = 1,091)*	*Poor (N = 229)*	*Very poor (N = 135)*
Average cost per person for				
Transport	17 (4%)	19 (4%)	13 (11%)	19 (35%)
Doctor	81 (20%)	103 (21%)	59 (49%)	28 (54%)
Tests and procedures	106 (27%)	149 (30%)	9 (8%)	5 (10%)
Hospitalization	193 (49%)	228 (45%)	38 (32%)	0
Total cost per person	397 (100%)	499(100%)	119 (100%)	52 (100%)

Note: The figures in parentheses show the percentage of total costs.
Source: RLMS, round 3.

by this subsample varied from Rub 499 among the nonpoor to Rub 52 among the very poor. The bulk of the nonpoor's health expenditures went for hospitalization, while the largest expenditures among the very poor were for doctors' fees. The average per capita health subsidies people received from enterprises in the previous thirty days were Rub 42, and varied from Rub 61 for the nonpoor, to Rub 2 for the poor, and nothing for the very poor. Average per capita health subsidies received from local authorities were negligible. Note, however, that the estimated share of health care in private expenditures could be underreported if under-the-table payments given to health personnel are excluded.

Preliminary analysis of RLMS household data from late 1995 suggest a significant rise in the share of income going to health care, especially medicines: from 0.43 percent for the poor in 1993, to more than 2 percent (see Klugman and Schieber 1996).

Nutritional Status among Children under Five

The major finding of the analysis of the anthropometric data collected on children in 1993 was a high prevalence of stunting. Prevalence for stunting was 19.1 percent in the first year, then declined with age to 7.6 percent by the fifth year. The relatively poor quality of the anthropometric measurements could have introduced a bias that led to an overestimate of the real stunting prevalence. However, after adjustment was carried out to take this possibility into account, stunting prevalence did not change. Therefore, chronic malnutrition does emerge as a major nutritional problem affecting the children under five sampled in 1993.[4]

Of the sample of children, 3.3 percent were underweight, 11.5 percent were stunted, and 3.1 percent were wasted. In a well-nourished population, the ex-

4. Certain points about the sampling and quality of the data should be noted. Of the 933 children enrolled in 1993, 87 percent had a valid height and 84 percent had a valid weight. The age distribution did not have relevant spikes, but children under eighteen months were underrepresented and children older than forty-seven months were overrepresented. The decimal end-digits of the weight and height measurements were not equally distributed. When weight and height are correctly measured to the nearest 0.1 kilogram and 0.1 centimeter, each decimal end-digit from 0.0 to 0.9 should have a frequency of about 10 percent. The concentration of the measurements around some decimal end-digits is due to the frequent rounding of the weight and height measurements by survey enumerators. This can lead to an underestimation of the prevalence of malnutrition if the rounding up is more frequent, and to an overestimation of malnutrition if the rounding down is more frequent. Therefore, some corrections of weight and height were carried out to take into account this possible bias (see Kostermans 1994).

pected prevalence below -2 SD should be around 2.3 percent for all anthropometric parameters. Therefore, the prevalence of stunting among Russian children is relatively high, while the prevalence of underweight and wasting appears to be only slightly higher than in a normally nourished population.[5]

Nearly one in five children were stunted in the first year, and the prevalence of stunting decreased gradually with age (table 4-16). However, the children did not completely catch up by the fourth year, and 8 percent remained stunted between forty-eight and fifty-nine months of age. The prevalence of stunting in rural areas was twice that in urban areas, and poor children were more stunted than their nonpoor counterparts.

The high prevalence of stunting in the first year of life and the gradual recovery in the following years revealed among Russian children in 1993 could be explained in terms of the high prevalence of stressful factors (for example, smoking, alcohol consumption, poor nutrition) during pregnancy that result in stunting at birth. Although the socioeconomic and environmental conditions are more favorable than in developing countries, they are still poor, and do not allow a full recovery from stunting by the fourth year. Therefore, by the fifth year 8 percent of the children are still short for their age.

Breastfeeding rates are much lower in Russia than in other industrial countries (and far lower than in developing countries), which could partially explain the high prevalence of stunting in the first year, but not those children older than twelve months. Infant formula may be diluted, so that children do not obtain sufficient calories and proteins to cover their daily requirements. The fact that in the first year of life stunting is high and wasting is low suggests that the children's protein and calorie intake is lower than the recommended dietary intake, which causes long-term malnutrition, but it is not sufficiently low to cause wasting. However, if the absence of breastfeeding were the main cause of the high levels of stunting, the children should have recovered after the first year. The significantly higher levels of stunting in rural areas; among the poor; and in households without indoor sewerage removal facilities, a garbage removal facility, or indoor tap water suggest that the major causes of stunting in Russia include socioeconomic deprivation, poor sanitation, and poor feeding practices.

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5. Correction factors and sensitivity analysis was used to test the possible effect of rounding off height and weight measurements. However, the results proved to be robust, because the change in the prevalence of malnutrition after the addition and subtraction of 0.5 centimeter and 0.1 kilogram was very small with the exception for wasting, which was slightly overestimated. Therefore, we can conclude that the relatively high prevalence of stunting is not a result of an overestimation.

Table 4-16. *Risk Factors for Malnutrition, 1993*

Risk factors	*Percentage underweight (<-2 SD W/A)*	*Percentage stunted (<-2 SD H/A)*	*Percentage wasted (<-2 SD W/H)*	*Number in sample*
Age (months)				
0–11	2.2	19.1	4.5	89
12–23	1.6	13.1	0.8	122
24–35	3.6	12.1	2.1	141
36–47	5.3	10.6	4.1	170
48–59	3.0	7.6	3.5	198
Total	3.3	11.5	3.1	720
		$p = 0.07$		
Gender				
Men	3.4	11.6	3.2	345
Women	3.2	11.5	2.9	375
Age of head of the household (years)				
<30	3.8	16.1	3.3	211
30–60	2.4	9.2	2.2	415
>60	11.8	11.8	11.8	34
	$p = 0.01$	$p = 0.04$	$p = 0.007$	
Poverty level				
Not poor	3.5	9.5	2.9	440
Poor	3.2	14.6	3.2	280
		$p = 0.03$		
Residence				
Urban	3.1	9.5	2.9	547
Rural	4.1	18.0	4.5	172
		$p = 0.002$		
Indoor sewerage removal facilities				
Yes	3.1	9.0	3.3	456
No	4.1	18.0	2.6	194
		$p = 0.0001$		
Garbage duct in the house				
Yes	3.7	4.6	3.7	109
No	3.3	13.1	2.9	543
		$p = 0.01$		
Indoor tap water				
Yes	2.8	10.0	3.0	561
No	6.7	22.2	3.3	90
	$p = 0.06$	$p < 0.0001$		

W/A Weight for age. H/A Height for age. W/H Weight for height.
Source: RLMS, round 3.

The pattern of stunting in the 1993 sample may also reflect a historic trend. The deterioration of Russia's economic situation in the late 1980s accelerated in the early 1990s, and stunting may reflect those difficult years. The children who were less stunted were those who had been born around 1989, and the stunting increases gradually among children born in the early 1990s when socioeconomic conditions had worsened.

However, the trends between 1992 and 1993 suggest that the highest prevalence among the youngest age groups does not reflect a historic trend. Between 1992 and 1993, 19 percent of the children who had been normal and were less than one year old in 1992 became stunted the following year, while only 5 percent of those who had been normal and were four years old in 1992 developed stunting in 1993. Therefore, although the 1993 data might represent a historic trend, the higher prevalence of stunting in the first year of life compared to the following years may be due to the fact that during the first year of life linear growth is more sensitive to the damaging effects of poor feeding practices, or that dietary practices are poorer in the first year of life compared with the following years. In this context, stunting is an alarming sign of poor child welfare that requires close monitoring.

The prevalence of malnutrition in the sample measured in 1992 and traced in 1993 did not change significantly. Unfortunately, the subsample of children traced cannot be considered representative of the whole sample enrolled at the beginning of the study, and the results should be interpreted with caution.[6] Measured changes in anthropometric parameters over the period show that 70 percent of children who had been underweight in 1992 and 88 percent of those who had been wasted in 1992 were normally nourished in 1993. However, only 55 percent of the children who had been stunted in 1992 had caught up by 1993. Furthermore, the prevalence of underweight declined from 5.8 percent to 3.4 percent between 1992 and 1993, the prevalence of wasting declined from 5.3 to 2.8 percent, while the prevalence of stunting increased from 13.2 to 14.7 percent. Although these changes are not statistically significant, they indicate that stunting had not improved between 1992 and 1993.

The most important risk factors measured in 1992 that were significantly related to underweight in 1993 were gender of the child and age of the head of the household (table 4-17). The development of stunting was

6. Of the 1,097 children under five enrolled in 1992, 649 (59 percent) were measured. Of these, 432 were traced and measured in 1993.

Table 4-17. *Risk Factors for the Development of Underweight between 1992 and 1993 among Children with Normal Nutrition in 1992*

Risk factor	*Percentage of children whose nutritional status remained normal in 1993*	*Percentage of children who became underweight (<-2 SD W/A) in 1993*	*Number in sample*	*Statistical significance*
Gender				
Men	96.2	3.8	159	
Women	99.4	0.6	166	$p = 0.04$
Age of the head of household (years)				
<30	98.3	1.7	117	
30–60	98.9	1.0	190	
>60	83.3	16.0	18	$p<0.0001$
Poverty level				
Not poor	98.9	1.1	177	
Poor	96.6	3.4	148	

W/A Weight for age.
Source: Author's calculations based on the RLMS.

related to the age of the head of the household, rural residence, and household access to sanitation facilities and water. To assess the importance of different risk factors in the development of malnutrition between 1992 and 1993, an analysis was done on the subsample of children who were normally nourished in 1992. Of the children who had been normal in 1992, 2 percent became underweight in 1993. Boys and children living in households where the head was more than sixty years old were at significantly higher risk for underweight.

One in every five children younger than one who were normally nourished in 1992 became stunted in 1993 (table 4-18). The proportion of children becoming stunted in 1993 was less in the other age groups, and if the child was four years old, the chance of becoming stunted in 1993 was only 5 percent. The risk for normal children of developing stunting between 1992 and 1993 was higher if they lived in rural areas, if the head of the household was older than sixty, and if the household did not have indoor sewerage facilities and tap water. Of the children who had been normally nourished in 1992, about 2 percent developed wasting in 1993. Similar to the pattern for stunting, the risk for wasting was higher during the first year and then decreased.

Table 4-18. *Risk Factors for the Development of Stunting between 1992 and 1993 among Children with Normal Nutrition in 1992*

Risk factor	*Percentage whose nutritional status remained normal*	*Percentage who became stunted (<-2 SD H/A) in 1993*	*Number in sample*	*Statistical significance*
Age (months)				
0–11	80.8	19.2	26	
12–23	86.7	13.3	60	
24–35	91.9	8.1	62	
36–47	88.3	11.7	77	
48–59	95.2	4.8	83	
Total	89.9	10.1	308	
Age of the head of household (years)				
<30	85.2	14.8	108	
30–60	94.0	6.0	185	
>60	73.3	26.7	15	$p = 0.005$
Poverty level				
Not poor	90.6	9.4	171	
Poor	89.1	10.9	137	
Residence				
Urban	93.0	7.0	229	
Rural	80.8	19.2	78	$p = 0.002$
Indoor sewerage facilities				
Yes	92.5	7.5	187	
No	85.0	15.0	113	$p = 0.03$
Indoor tap water				
Yes	91.4	8.6	255	
No	80.4	19.6	46	$p = 0.02$

H/A Height for age.
Source: RLMS, rounds 2 and 3.

Summary and Conclusions

This chapter has investigated the worsening trends in health that have characterized Russia in recent years. Consistent with the picture that emerges from official statistics, analysis of individual survey data revealed that the most important causes of deaths were cardiovascular diseases, neoplasms, and violent deaths. Mortality among men was double that among women. Mortality from violent deaths was concentrated in men and was characteristic of the younger age groups. Lung and stomach cancers were also concentrated among men and deaths from cardiovascular diseases were much higher among men than women.

Deaths from external causes affected mostly young and middle-aged people, contributing to the highest number of years lost and to declining life expectancy, especially among men. These high rates of mortality from external causes are related to traffic accidents, occupational hazards, household accidents, suicides, and homicides. This, in turn, has been associated with increasing alcoholism, mental health problems, disruption of social life, criminal activities, unemployment, and economic insecurity. This had led some analysts to conclude that the threat of unemployment and the loss of secure wage income are key causal factors that help explain why prime-age men are most at risk, and why they are dying of external causes and heart disease (see, for example, Nell and Stewart 1994).

The analysis of links between poverty status and health did reveal some disturbing findings. The very poor were more dissatisfied with their health and the poor were more frequently hospitalized compared with the nonpoor. This suggests that poverty is associated with relatively worse health. Poor people did not have a higher risk for hypertension, which may be because the prevalence of risk factors for hypertension (for example, salt consumption) was not significantly different among income groups. The poor and the nonpoor did not differ significantly in mortality rates, although this may be because the panel study was limited in duration or because the sample was too small to detect significant differences in mortality between the poor and the nonpoor. A final set of concerns is related to the fact that poor people tended to use preventive services less often, perhaps because they live further away from the nearest health facility, but also probably because of more pressing daily concerns. Although the average share of health in household expenditures was small, the proportion spent by poorer groups was higher, and they could not afford to buy anything beyond drugs, suggesting that the quality of service is lower for such groups.

Few people, especially among the very poor, use preventive services. This is especially unfortunate in that the epidemiological picture that emerged confirmed that the major causes of death (cardiovascular disease, some types of cancer, and violence) could be reduced with preventive interventions. The major risk factors identified include smoking, alcohol consumption, obesity, hypertension, and psychological and social stress. Improvements will in part depend on public education and long-term behavioral changes. The risk for mortality after one year was 13.0 times higher among regular drinkers of alcoholic beverages than among nondrinkers, 9.0 times higher among those suffering from high blood pressure than those with normal blood pressure, and 2.5 times higher among smokers of unfiltered cigarettes than among nonsmokers.

Alcohol consumption was one of the highest risk factors for mortality. Alcohol abuse can result in various cancers, liver cirrhosis, violent death, and neurological disorders. Similarly, smoking prevalence is high in Russia and can lead to cardiovascular diseases, lung cancer, and respiratory diseases. The fact that smoking in Russia is much more frequent among men than women is at the root of men's higher mortality rates from lung cancer and cardiovascular diseases. However, international experience suggests that smoking will likely increase among women. Alcohol abuse and smoking can be tackled through common preventive interventions, including health education, limits on advertising and sales, and taxation. However, as in other countries, alcohol consumption and smoking in Russia are cultural habits and anti-alcohol and antismoking campaigns would succeed only if the social pressure against alcohol abuse increased. The consumption of alcohol is unlikely to decrease while stressful living conditions and social disruption continue.

Hypertension increased with age and was higher among the obese. Other risk factors for hypertension are likely to be stress and high dietary salt intake. Possible actions to tackle hypertension could include screening blood pressure among members of the most affected groups (the old and the obese) and providing early pharmacological treatment and nutrition education to reduce obesity and salt consumption among the general public and those suffering from hypertension.

Malnutrition among adults was not a problem, while obesity was quite prevalent, especially among women and older people. Although fat consumption declined between 1992 and 1993, it still accounts for about one-third of total caloric intake. Nutrition education should aim at reducing fat consumption to decrease the prevalence of obesity and cardiovascular diseases.

Acute malnutrition among children was not a problem, but stunting was relatively high for an industrial country. Poor children were significantly more stunted than their nonpoor counterparts, indicating that long-term nutrition and living conditions have deteriorated among the most deprived families. Stunting is a sign of chronic deprivation, as suggested by the fact that it was significantly more prevalent in rural areas, where the incidence of poverty is significantly higher and where households are less likely to have access to safe water and to sanitation facilities. Stunting has many causes that are related to poor food intake in terms of quantity and quality, infections, poor hygiene and sanitation facilities, and generally poor living conditions. No specific intervention to alleviate stunting is available, but measures to alleviate poverty should also reduce the incidence of stunting. The prevalence of stunting should be monitored to check that chronic malnutrition is not increasing and that policy interventions to reduce deprivation are having an impact.

Although a detailed discussion of health sector performance and of reform and financing options are beyond the scope of this chapter, it is possible to highlight some of the policy implications that have emerged. The first is the reorientation of care toward health promotion, preventive medicine, primary care, and maternal and child health, including family planning. These types of interventions are cost-effective and have the greatest impact on mortality and morbidity.

Given the significant disparities in health indicators, and as the bulk of health expenditures are locally financed and the proceeds of health insurance payments are locally retained, variations in local health expenditure and service provision should be closely monitored. Greater federal support may be needed to combat emerging disparities. Special attention should be given to developing system management and quality assurance regulations and to ensuring access, especially in remote rural areas.

Finally, health financing reforms should take into account possible adverse repercussions for equity stemming from the introduction of health insurance and shifts toward increasing cost recovery. Recent legislation does state the government's obligation to finance services for the nonemployed, but not necessarily for all disadvantaged groups. However, under the new health insurance system, those not making payroll contributions (including the unemployed and the elderly) are apparently dependent on general revenues and private household resources to finance their medical needs. This may render them even more vulnerable to economic fluctuations and associated fiscal constraints in the absence of a clearly defined basic package of care.

5

Poverty Trends in Russia: A Russian Perspective

Nataliya Rimashevskaya

The objective of this chapter is to evaluate the scale and profile of poverty in Russia during the transition to a market economy. It draws upon studies carried out by the author using data from the Institute for Socioeconomic Studies of the Population of the Russian Academy of Sciences, in particular, from the Taganrog surveys; the All-Russian Center for Public Opinion (Ministry of Labor) (VCUZ); the All-Russian Center for Public Opinion Research (VCIOM); and Goskomstat.

Historical Survey

Russia and the former Soviet Union have always had to face the problem of poverty, but the government only recognized the problem once it had abandoned average indices as the sole means of evaluating living standards, and began to look at wages and incomes through the prism of differentiation. For ideological reasons, the notion of poverty was not used either in practice or in social and economic theory during the Soviet era. Even the terms "subsistence level" and "low-income level" had only a tenuous existence in the early 1960s.

These latter two concepts, defined in terms of the minimum level of income necessary for human survival, gained practical significance in the state's determination of the minimum wage. In 1957 the government set the minimum wage at Rub 27 to Rub 30 per month, and increased it to Rub 40 in 1961, Rub 60 in 1968, and Rub 70 by the end of the 1970s, with some variation

depending on the economic sector. The subsistence level on which these minimums were based were not fixed by law, but were developed by specialists and adopted by such state bodies as the State Committee for Labor. According to Goskomstat estimates, the low-income line rose gradually from 1965 to 1990. In 1965 the level was assumed to be Rub 40 per month, in 1975 it was Rub 50, in 1989 it was Rub 54, in 1990 it was Rub 61, and in 1991 it was Rub 154. However, the authorities only used this line as a reference for benefits for families whose income fell below the subsistence level. During most of the Soviet period, upward revisions in the official subsistence level were mainly caused by an improvement in the expected quality of life that corresponded to improved living standards, as prices were relatively stable.

The Taganrog studies that were carried out in three stages during the Soviet era—in 1968, 1978, and 1988—revealed trends in poverty during the period (see chapter 1 for details about the survey). The survey results suggest that in the late 1960s, the share of low-income (poor) people was 29.6 percent, rising to 32.1 percent by the end of the 1970s, and falling slightly in the late 1980s to 30.7 percent.

According to the Center for Economic Analysis and Forecasting, the nominal price liberalization of 1992 resulted in all incomes—wages, pensions, and benefits—dropping to between one-third and one-quarter of previous levels. In 1994 earnings remained at approximately the same level.

We must keep a number of factors in mind when evaluating income dynamics for 1992–94. First, 1992 was characterized by such a drastic decline in incomes that during the subsequent two years, the situation of the general population did not improve significantly, given the continuing crisis in the economy and declining output. Second, during 1992–94 official reported real incomes increased during several months (though reductions were also reported in other months). According to Goskomstat estimates, incomes grew 10 percent in 1993 and 14 percent in 1994 in comparison with the preceding period, but these figures are unreliable. Third, detailed analysis demonstrates that some growth in average incomes resulted entirely from increased incomes among the top 5 to 10 percent of the population, that is, the rich. Finally, price inflation has continued to outpace nominal wage and benefit increases during most of the period. For example, in 1994 prices increased by 3.2 times, while the average wage doubled and the minimum wage grew by a factor of 1.4.

In 1995 real average per capita money incomes fell 13.8 percent, so the share of the population below the poverty line must have increased significantly. Yet according to Goskomstat, the average poverty headcount was 22.5 percent in 1994, but only 24.7 percent in 1995.

The number of poor has tripled since the transition to a market economy began. Measured by the old minimum consumption basket standard, about 70 to 80 percent of families would be considered poor. However, we should examine the current situation from two perspectives. On the one hand, the reality is that as a result of economic shock therapy, the bulk of the population has found themselves in poverty. This is substantiated by the data, if measured against the poverty level of 1991 and the precrisis level of minimum consumption that was based on a basket acknowledged by Soviet experts to be the minimum acceptable given the living standards of the time (see chapter 1). In this sense, the issue of poverty as a separate problem has vanished, and has become enmeshed with the wider problems of economic collapse and the resulting deterioration in living standards among the population as a whole.

Yet it would be strange in these circumstances to limit a review of the issue of poverty to this side of the question: the social and political character of severe poverty must also be examined. Society cannot abandon protection of the poor by referring to the economic collapse, particularly when the situation is the result of measures taken by the government. This is why the very poor, who are defined in relative terms with reference to a poverty level corresponding to a median income of the population, should be distinguished from the rest of the population that has become worse off during the transition. Such an approach is consistent with international practice. Many industrial countries use relativist approaches to poverty measurement, whereby they calculate a poverty line based on the country's median income.

The Poverty Line

The Institute for Socioeconomic Studies of the Population of the Russian Academy of Sciences has developed a methodology for determining the poverty line oriented toward contemporary conditions in Russia. The initial premises on which the institute's poverty line is based are as follows:

- It is relative, in that it corresponds to the median consumption level of society or to established standards of living.
- The composition of the subsistence budget is based on a determination of the food basket in accordance with both nutritional needs as determined by the World Health Organization and the Food and Agriculture Organization of the United Nations and traditional consumption patterns. The cost of the food basket is calculated using average purchase prices and is adjusted for inflation.

- Survey research undertaken by the institute in Taganrog in 1993–94 demonstrated that the average share of expenditures on food for all families was 70.8 percent, but for poor families (those with a per capita income below the subsistence minimum), the share was 79.5 percent, while in families with an income above the subsistence minimum, this share was 71.0 percent. In families with incomes two or three times the subsistence minimum, the share of expenditures on food was 60.6 percent, while in the richest families the share was only 48.3 percent.

The institute, in cooperation with the Russian Academy for Management in Orel oblast, conducted a survey in October 1993 that suggests that for nearly half the families (48.1 percent) food accounted for virtually all their budget. In 23.2 percent of the families food accounted for 75 percent of their income, in 21.8 percent it accounted for some 50 percent, and in only 5.6 percent of the families was the share of food below 50 percent. As expected, the food share depends on the families' income level: among the poor it amounted to 77.0 percent, in medium-income families it was 70.0 percent, and in high-income families it came to 53.5 percent. The average among all families was some 70 percent. Another survey, carried out by VCIOM in March 1994, revealed that among poor families, 69 percent used more than two-thirds of their budgets to buy food.

The Ministry of Labor used this approach to develop its "Methodological Recommendations for Determination of the Subsistence Level in Russia by Regions," which was approved in November 1992. The ministry's methodology, however, currently assumes that the share of food is 68.3 percent. Expenditures on food, on nonfood commodities and services, and on taxes and obligatory payments are included in the living minimum according to the pattern of expenditures of the poorest decile of households as follows: food, 68.3 percent; nonfood commodities, 19.1 percent; services, 7.4 percent; taxes and other charges, 5.2 percent. In constructing the subsistence minimum requirements, it is assumed that for the able-bodied the food share is 61.6 percent, for retired people it is 82.9 percent, and for children it is about 75 percent, depending on age.

The transition to a new method of determining the poverty line essentially signified the transformation of the old minimum consumption basket (MCB). The MCB differed significantly from the subsistence minimum in three ways: first, in terms of quantity of food, the subsistence minimum was only 60 percent of the MCB; second, the expenditure structure was different (table 5-1); and third, the nutrient content of the subsistence minimum was much lower than the "minimal material provisioning" standards associated with the MCB (table 5-2).

Table 5-1. *Comparison of Structure of Poverty Lines*
(percent)

Category	*Minimum consumption budget (1989–91)*	*Subsistence minimum (1992–94)*
Food	52.0	68.3
Nonfood goods	23.0	19.1
Services	14.5	7.4
Taxes and other payments	10.5	5.2

Note: Totals do not add up to 100 percent because of rounding.
Source: Institute for Socioeconomic Studies of the Population estimates.

Table 5-2. *Daily Consumption of Nutrients Underlying the Poverty Lines*

Nutrient	*Minimum material provisioning as associated with the MCB (grams per capita)*	*Subsistence minimum (grams per capita)*	*Subsistence minimum as a percentage of minimum material provisioning*
Protein	102.0	73.6	77.2
Fat	98.0	56.8	58.0
Carbohydrates	415.0	353.3	85.1
Total kilocalories	3,000.0	2,236.7	74.6

Source: Institute for Socioeconomic Studies of the Population estimates.

By 1995, the official Ministry of Labor methodology used to calculate the subsistence level required revision. The rapid growth of tariffs for housing and for public services and transportation, without which even the very poor cannot subsist, necessitates a downward adjustment of the share of food.

Incomes and prices can vary substantially across different regions of Russia. Table 5-3 presents the subsistence levels for thirteen regions. Orel oblast in the central region serves as an example of the need to allow for regional differences. The purchasing power of the ruble in that area is 1.5 times higher than the average for Russia as a whole, thus the oblast's poverty line should take the local lower cost of living into account. Based on nominal income in the Orel oblast, the share of the poor is twice as high as the national average, but if one takes into account the purchasing power of the ruble in Orel, the share of the poor falls to about the national average.

According to Goskomstat, in June 1995 the subsistence minimum was the highest in the Sakha-Yakutia republic, Rub 569,300, while in Ul'yanovskaya oblast it was the lowest, only Rub 154,300.The average for Russia as a whole was Rub 227,400.

Table 5-3. *Subsistence Levels for Thirteen Regions, 1994*
(thousands of rubles)

Economic region	*1st quarter 1994*	*2nd quarter 1994*
North	67.1	92.4
Northwest	54.5	78.6
Central	51.6	79.3
Volga-Viatka	48.1	68.7
Central-Chernozem	41.1	59.2
Povolzhye	38.5	68.0
North Caucasus	44.9	67.5
Urals	54.0	81.9
Western Siberia	54.3	81.5
Eastern Siberia	66.1	96.1
Far East	91.1	133.5
Moscow	56.4	96.0
St. Petersburg	56.5	82.2
Average for Russia	53.9	84.1

Source: All-Russian Center for Public Opinion data.

The Extent of Poverty

Two factors determine the extent of poverty and the number of poor: the poverty line used and the distribution of income. There is general consensus in Russia as to the determination of the poverty line, as the only difference between the institute's approach and the Ministry of Labor methodology for the official poverty line is the multiplier for nonfood expenditure. Measurement of the distribution of income, however, is more controversial.

Table 5-4 presents official data on the distribution of income. However, these statistics are derived from the Family Budget Survey (FBS) in Russia and in the former U.S.S.R., which are not representative and are sometimes misleading. The problems, which were discussed in detail in chapter 1, are caused primarily by the sampling procedure used. This procedure is such that families with a large number of workers are more likely to be included in the sample than families with smaller numbers of workers. Also workers from larger firms were more likely to be included. Finally, not all economic sectors are covered. In addition, during the economic transition, the question of household sampling has been further complicated so that using conventional adjustment coefficients is impossible. As many enterprises leave the state sector, their employees either lose the possibility of being covered by the sample or they choose not to be covered. The number of unemployed and of the various marginal groups has increased, and these families are not

Table 5-4. *Distribution of the Russian Population by per Capita Money Income, 1993–95*

Average money income	*Share of population (percent)*	*Average money income*	*Share of population (percent)*
1993		1994 (continued)	
10,000 and less	2.2	180,001–240,000	13.5
10,001–15,000	5.9	240,001–300,000	8.6
15,001–20,000	8.5	300,001–360,000	5.6
20,001–25,000	9.5	360,001–420,000	3.7
25,001–30,000	9.4	420,001–480,000	2.5
30,001–35,000	8.8	480,001–540,000	1.8
35,001–40,000	7.8	540,001–600,000	1.3
40,001–45,000	6.8	600,001–700,000	1.4
45,001–50,000	5.9	700,001–800,000	0.8
50,001–60,000	9.1	800,001–900,000	0.5
60,001–70,000	6.8	900,001–1,000,000	0.3
70,001–80,000	4.9	More than 1,000,000	0.2
80,001–90,000	3.5	Total	100.0
90,001–100,000	2.6	1995	
100,001–110,000	1.9	100,000 and less	2.0
More than 110,000	6.1	100,001–200,000	12.5
Total	100.0	200,001–300,000	17.2
1994		300,001–400,000	15.7
20,000 and less	0.5	400,001–500,000	12.7
20,001–40,000	4.1	500,001–700,000	16.9
40,001–60,000	7.6	700,001–1,000,000	12.5
60,001–120,000	27.0	More than 1,000,000	10.5
120,001–180,000	20.6	Total	100.0

Source: Goskomstat data.

included. Finally, the current FBS approach is not flexible with respect to changing social and economic patterns, particularly if considered in the context of the rapid changes currently taking place in Russian society.

The information derived from the FBS led to erroneous conclusions, and a dominating belief emerged that the principal cause of poverty in Russia was having too many children. A thorough analysis has shown that this assertion is only partially valid and is characteristic only of regions with high birth rates. In the former U.S.S.R. poverty was also related to low levels of state care for the elderly, average numbers of children in families, and the

existence of a large number of workers with low wages. This was particularly applicable to Russia, where birth rates have tended to be relatively low.

The conventional wisdom about the structure of poverty in the U.S.S.R. based on official statistics caused a sharp shift in social policy in the early 1970s. The focus shifted away from the needs of the elderly toward the needs of families with many children. In 1975 the government adopted a resolution on the introduction of subsidies for children in underprovisioned families (see chapter 2). This measure was financed out of the central budget, and was mainly to the advantage of the Central Asian republics, the Caucasus, and several autonomous regions of Russia, which were characterized by large families as a consequence of high fertility.Thus distorted sampling in the FBS led to misleading conclusions, which in turn created false dogmas and resulted in a decade of policies to combat poverty that failed to address the real issues and, moreover, swept problems under the rug.

Problems with official income data continue. For example, Goskomstat undertook a reevaluation of individual incomes in 1994, and adjusted money incomes of the population. The adjusted figure was 26 percent higher than reported to Goskomstat by its regional offices. However, Goskomstat did not publish details of how it arrived at this figure. Researchers at the Institute for Socioeconomic Studies of the Population produced their own upwardly-revised estimate based on the well-known unreliability of data on wage payments in the private sector and in joint ventures. However, all this concerns average indicators. If we look at the distribution of income based on the FBS, it becomes clear that the data not only omit very rich families, but also underrepresent the relatively better off. The sample does not include households with the highest incomes and Western-style living standards, which made up some 3 to 5 percent of the total population in early 1995.

The FBS sample also excludes the poorest members of society. Among the excluded marginal groups are refugees, the homeless, the prison population, and those called up into the armed forces, a total of some 2.0 million to 4.5 million people. Institute estimates suggest that these segments of society amount to at least 3 percent of the population (4.5 million people), based on survey results from different regions of Russia.

Thus poverty is more widespread than figures reported by Goskomstat would indicate, and income inequality is more significant. In Russia, income inequality is typically measured by the decile ratio, which reflects the ratio of the top to the bottom income deciles of the population. According to Goskomstat, in the second quarter of 1994 the decile ratio for income amounted to 4.31, whereas the institute estimates the figure to be 14.30. The share of families in poverty for the corresponding periods was 34.5 percent,

40.2 percent, and 35.8 percent, respectively. According to Goskomstat data, the headcount in the first quarter of 1995 was 30.4 percent (45 million people), in the second quarter it was 28.5 percent (42.2 million people), in the third quarter it was 24.0 percent (35.6 million people), and in the fourth quarter it was 24.8 percent (36.8 million people).

According to Goskomstat, the share of the population living below the poverty line fluctuated significantly in most months during 1993 and 1994. These fluctuations of the headcount are evidence of erratic measures to regulate the distribution of income in Russia. Of particular importance is the approach to indexation of minimum pensions and minimum wages and of salaries in state enterprises. According to Goskomstat, the real average wage in December 1995 declined 14 percent in comparison to December 1994, while the average real pension declined 16 percent. The increasing number of employees whose wage payments are delayed has also affected the poverty headcounts.

The Goskomstat results contradict information obtained from other sources, in particular, surveys that relied on more adequate techniques. A VCUZ study of living standards of various social groups and regions indicated that the share of the poor was 29.4 percent in the fourth quarter of 1993, 30.7 percent in the first quarter of 1994, 39.9 percent in the second quarter of 1994, and 37.1 percent in the third quarter of 1994. These results imply a rise in the extent of poverty, both nationally and in all major economic regions of the country.

The VCIOM survey of poverty, conducted in March 1994, showed that if the poverty line were Rub 70,000 (the official minimum subsistence level was Rub 60,400 at that time), the share of the poor would be 58 percent of the population. If we lower that to Rub 43,000, the poverty headcount would fall to 30 percent of the population. At the cut-off for severe poverty, Rub 30,000 (half of the subsistence budget), 13 percent of the population would fall below the line.

The survey conducted by the institute in Taganrog in March 1994 revealed that 39.6 percent of households had incomes below the subsistence level using the poverty line for the North Caucasus (see table 5-3). The proportion of individuals living in poverty is slightly higher, 44.7 percent. The higher incidence of poverty in Taganrog is related to the particular situation of its working population and the nature of the city's industrial development. Significant output declines have led to high unemployment, particularly hidden unemployment, and increasing wage arrears.

The overall picture of poverty trends during the transition may be summed up as follows. In 1992 some 25 percent of families were living below the poverty line. This figure rose to 30 percent in 1993 and had increased

somewhat by mid-1994. Some 10 percent of the population are very poor, those whose incomes are only half the subsistence level. Such income levels are insufficient for survival, that is, their incomes are less than the cost of the minimal food basket.

That poverty and living standards are worsening, as suggested by income and expenditure data, is supported by the increasing prevalence of undernutrition. This is consistent with other studies (see, for example, chapter 4 in this volume).

The Profile of Poverty

The profile of poverty is revealed by its social and demographic pattern. A reliable profile of poverty based on the institute surveys of Taganrog, which is consistent with the VCIOM results, is presented in tables 5-5 and 5-6. A detailed analysis of poor families in Taganrog in March 1994 reveals that 27.3 percent of all poor family members were children under the age of sixteen, and nearly 20.0 percent were older than prime working age (sixty for men, fifty-five for women), while the remainder were adults younger than retirement age. Of the poor, 43.3 percent were adult women,while only 29.4 percent were adult men. According to the March 1994 Taganrog survey, 59 percent of poor families (of whom 15 percent are single-parent families) have children, 22 percent consist solely of old-age pensioners, and the remaining 19 percent include students and childless families with one or both partners unemployed.

The demographic profile of poverty in Orlov oblast shows a similar predominance of children and working age adults. Pensioners, especially men, make up a smaller share. The incidence of poverty is especially high among children under sixteen, with a poverty rate almost twice that for the total population.

This profile leads to some conclusions. Traditionally, the composition of the poor included the families of pensioners and incomplete families, which in 1991 made up about 40 percent of the poor. Almost half of the poor were families with children, among which appeared the new poor, families that had fewer workers than dependents. Previously, such families had never been included in the composition of the underprovisioned (the poor). The economic crisis, the transition to a market economy, and the deep socioeconomic transformations resulted not only in a new method of determining the poverty line, but also in new categories of poor.

The dynamics of the process of impoverishment of the population during 1978–94 shown in table 5-7 clearly indicates (a) that a relative improvement took place in the position of pensioners, (b) that the share of incomplete (broken) families rose, and (c) that poverty became steadily more evident in

Table 5-5. *Demographic Profile of Poverty in Taganrog, March 1994*
(percent)

Category	*Composition of poverty*	*Incidence of poverty*
Entire population	100.0	20.6
Children under 6 years	9.9	38.7
Children aged 7 to 15 years	18.5	39.6
Youth aged 16 to 30 years	17.7	29.2
Women aged 31 to 55 years	17.4	27.9
Men aged 31 to 60 years	16.8	27.7
Women aged over 55 years	15.2	29.5
Men aged over 60 years	4.6	23.4

Source: Data from surveys of Orlov oblast conducted by the Institute for Problems of the National Population and the Institute of Management of the Russian Academy of Science.

Table 5-6. *Profile of the Poor in Taganrog by Household Structure, Selected Years*
(percent)

Families	*1978*	*1989*	*1994*
Pensioner families	40.9	29.1	18.9
Incomplete families	10.2	13.1	19.4
Families with unemployed member	11.4	17.1	27.3
Families with nonworking wife	3.6	4.9	—
Student families	0.3	0.6	0.4
Families with two workers and two or more dependents	18.6	25.4	25.2
Others	15.0	9.8	8.8
Total	100.0	100.0	100.0

— Not available.
Source: Taganrog surveys.

Table 5-7. *Social Structure of Income Groups*
(percent)

Category	*Very poor*	*Poor*	*Middle income*	*High income*	*Total*
Prime-age workers	36.5	38.5	44.4	46.8	43.1
Working retired	0.8	0.7	4.4	12.6	4.3
Retired	6.6	13.4	20.7	18.2	18.6
Unemployed adults	15.9	12.4	4.4	4.7	6.6
University students	1.2	1.8	3.5	1.7	2.9
School children	19.9	17.9	15.0	9.1	15.2
Preschool children	18.3	14.9	7.6	6.9	9.2
Others	0.8	0.4	0.0	0.0	0.1

Source: Data from sociological surveys conducted by the All-Russian Center for Public Opinion (1993).

families affected by unemployment, and where the number of dependents exceeded or equaled the number of workers.

Data from the Taganrog survey indicate the incidence of poverty among various groups of the population. In 1994 approximately 39.6 percent of families, or 44.7 percent of the sample population, were among the poorest. About 60.7 percent of children lived in poor families. Poor families included about one-third of those over pension age (31.7 percent), and of these, approximately 42.7 percent were women.

The incidence of poverty is high among certain family types. About two-thirds of incomplete families are poor (61.9 percent), 60 percent of student families are poor, and more than half of married couples with children are poor.

One detail is particularly important: about 13 percent of the poor have completed higher or some higher education, while 36.9 percent have completed general or specialized secondary education. This illustrates not only the degradation of the labor force, but the decline of the effectiveness of educational programs.

The transition has seen two trends emerge regarding the composition of poor families: the expansion of poverty to include dependent population groups (primarily the unemployed), and increasing numbers of low paid workers and workers whose wage and salary payments are delayed. Low wages suggest an irrational structure of distributive relations, insofar as the minimum wage is set at a level lower than the minimum pension and lower than the subsistence level. This is sheer nonsense, and should be regarded as a form of latent unemployment.

The growing differentiation of wages has had a significant effect on the living standards of families that include workers. Thus, couples with one or two children where both adults work were traditionally regarded as middle-income or high-income. Nowadays, one in five such families has per capita earnings below the subsistence level.

The most important conclusion that emerges concerning the composition of poor families is that alongside the traditional poor (families with many children, single-parent families, young families, the families of unskilled workers, the retired) a class of new poor who were formerly middle-income earners has emerged.

Recommendations

Forecasts and assessments of the scale of poverty must be based on a modification of existing standards. The current minimum subsistence approach is based on a high share of food in family expenditures. In 1992 this share corre-

sponded accurately to families' consumption budgets. However, this structure of consumption cannot stay unchanged, because even the very poorest families have nonfood needs that are inelastic in the longer term, such as clothing and transportation needs. The increased relative prices for rent and utilities must also be considered. Therefore, the proportion of food in overall spending in 1995 should not exceed 57 to 60 percent of the subsistence minimum.

Official Goskomstat statistics are not a reliable basis for evaluating current poverty trends in Russia, particularly with respect to 1994, when social and economic transformation blurred the picture. Economic changes, including the rise of unemployment, enterprises' failure to pay wages, and the real erosion of the minimum wage, have meant that income inequality has greatly increased, as has the proportion of poor families.

At the same time, the estimates of poverty levels derive from families' reported monetary incomes. Yet quite a few people, both poor and not so poor, have additional incomes that they do not declare. The problem of poverty cannot be resolved by paying income-related benefits through a social safety net. This approach is too formal. The main factors of poverty need to be determined and prioritized, and the causes addressed rather than the effects.

6

Russian Unemployment: Its Magnitude, Characteristics, and Regional Dimensions

Simon Commander and Ruslan Yemtsov

Unemployment, as measured by those registering at employment offices, has risen gradually in Russia despite large output losses and trade dislocations. By the end of 1995 registered unemployment was approaching 3 percent of the labor force. The situation appears to be different from that in most transitional economies in Eastern Europe, where adverse shocks translated fairly rapidly into major employment adjustments in the state sector. Initially, these adjustments resulted from voluntary employee decisions, but after a lag, involuntary separations began to dominate. The obvious question that arises is whether these different employment to output elasticities reflect a combination of differences in the economic environment (in particular, the flow of subsidies to firms), in institutional arrangements, and in problems inherent in measuring unemployment and output. Registrations data in Russia give a rather different—and lower—level of unemployment than survey-based results, while post-transition output numbers are probably underestimated as they do not adequately capture the effects of the output stock adjustment, the growth in private activity in trade and services, and the associated structural changes taking place in the economy (Gavrilenko and Koen 1994).

Note: This chapter is part of a continuing research program being done in conjunction with Andrei Tolstopiatenko and Oleg Zamkov, both of whom contributed to the chapter. We would also like to thank Irina Perova for providing data and Tito Boeri, Jeni Klugman, John McHale, and Cecilia Ugaz for comments and help.

This different evolution of unemployment in Russia may be explained by the underlying preferences and constraints that firms face, which are partly contingent on outside factors, but are also significantly related to inside control factors. Contrary to Eastern European experience, Russian firms have not operated as if governed by a hard budget constraint. Indeed, employment rather than, say, output, seems to have been the main factor determining the size and distribution of government subsidies. One result—which mixes elements of both benevolence and self-interest— has been the seemingly widespread use of involuntary leave and short-time work as firms continue to maintain some form of attachment with their initial stock of workers. In addition, firms have borrowed from workers through wage arrears. Average lags involved in wage arrears have grown over time, hence imposing a large inflation tax on wage settlements.

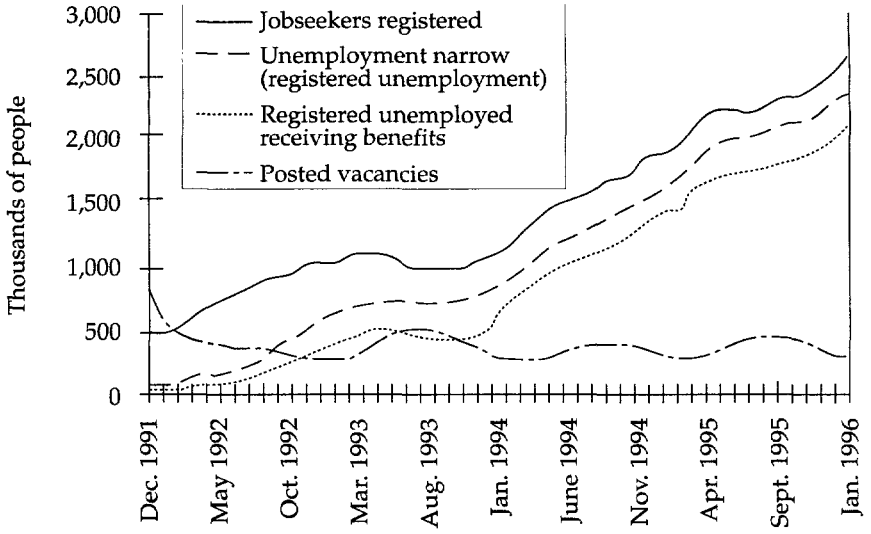
The overall picture thus appears to be one in which workers have traded real wages for relative employment stability. Hours adjustments and lags in wage settlements have run alongside nontrivial gross flows in the labor market, but with little change to net employment. The latter result can be traced to a combination of adjustment costs and firms' expectations of future output growth. Thus firms' behavior likely constitutes some form of labor smoothing as well as benevolence. Even so, none of these motivations can satisfactorily explain why so many firms continue to report hiring at high rates.

This chapter tries to sort out some of these trends, first by deriving a more appropriate measure of changes to employment and unemployment. It goes on to discuss the regional dimensions of unemployment, and suggests that the significant regional differences in unemployment will be long lasting, partly because of limited labor mobility. The analysis of real wages reveals continuing moderation, alongside an emerging inverse link between wage changes and unemployment levels. This understanding of labor market behavior provides a critical foundation for the analysis of trends in poverty and distribution in other chapters of this volume.

Measuring Unemployment: Data Sources and Definitions

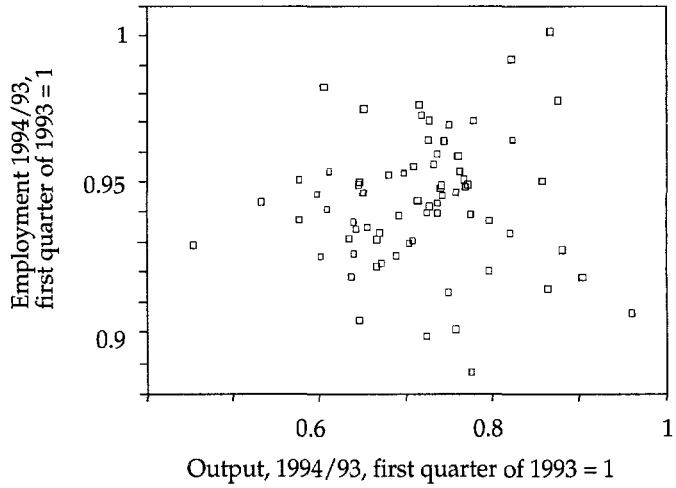
Registrations data indicate not only that unemployment has risen gradually and episodically in Russia, but that it remains small, particularly for benefits recipients (figure 6-1). Figure 6-2 plots changes in industrial output versus employment by region, and shows a huge asymmetry, although significant regional diversity is apparent. Some regions had large employment drops with little output contraction, while others experienced the reverse.

Figure 6-1. *Unemployment and Vacancies, Selected Months, December 1991–January 1996*



Source: Federal Employment Service data.

Figure 6-2. *Industrial Output and Employment, a Comparison of 1994 with 1993, by Region*



Source: Goskomstat data.

The number of registered unemployed climbed sharply in 1992, but actually declined through most of 1993. Thereafter, there was a further surge in unemployment, resulting in more than 2.5 million workers being out of work by early 1996 out of a total work force of about 73 million. Vacancies have remained broadly stable, and the ratio of vacancies to unemployment has fallen sharply since mid-1993. The evolution of unemployment and vacancies can be associated with the lagged effects of the fiscal corrections and tighter monetary policy the government has pursued since the latter part of 1993. Firms have increasingly been forced to reduce employment as soft credits and other subsidies have been squeezed.

Table 6-1 provides information on the evolution of unemployment as measured by periodic labor force surveys (LFSs), other surveys, and registrations. The LFS figures are derived from regionally representative samples of around 600,000 individuals, although large numbers of students and retired people seem to have been included in unemployment figures. The Russian Longitudinal Monitoring Survey (RLMS) numbers have been derived from a sample of 17,000 individuals, while the All–Russian Center for Public Opinion Research (VCIOM) observations are taken from smaller periodic samples of the working age and general population (see chapter 1 for details). All the survey estimates are biased upward as the unemployment question includes no reference to search activity. Finally, the Federal Employment Service (FES) numbers include all individuals registered as unemployed on a monthly basis.

Registrations data give an unemployment rate of 2.7 percent in mid-1995, whereas survey results point to an unemployment rate nearing 8.0 percent. The gap between registrations and survey data has remained stable over time, with a near unity increase in registered and survey unemployment since the start of transition. Furthermore, the survey numbers suggest that Russia en-

Table 6-1. *Unemployment: Various Measures, 1992–95*
(percentage of the labor force)

Source	*1992*	*1993*	*April 1994*	*Oct. 1994*	*July 1995*
Goskomstat labor force survey	4.8	5.6	6.7	7.0	7.8
Registered unemployed	1.1	1.4	2.1	2.3	2.7
RLMS	6.3	6.9	—	—	—
VCIOM survey	—	6.2	6.7	8.0	—

— Not available.
Note: Labor Force Survey 1992 and 1993 figures are mid-year, VCIOM surveys relate to June 1993 and April 1994.

Table 6-2. *Employment and Unemployment by Gender According to the Labor Force Surveys, 1992–94*
(thousands of people)

Category	*1992*	*1993*	*1994*	*Change*
All population	148,325.6	148,294.7	147,997.1	-329
Working age population	83,747.3	83,676.4	84,059.4	+312
Men	43,466.0	43,663.5	43,979.2	+513
Women	40,281.3	40,103.9	40,080.2	-201
Employment	69,419.8	66,353.0	63,400.3	-6,020
Men	35,705.7	34,266.2	33,452.0	-2,254
Women	33,714.1	32,086.8	29,948.3	-3,766
Formal employment	63,835.2	56,960.5	54,336.6	-9,499
Men	32,035.8	28,397.5	27,608.9	-4,427
Women	31,799.4	28,563.0	26,727.7	-5,072
Self-employment	5,584.6	9,392.5	9,063.7	+3,479
Men	3,669.9	5,868.7	5,843.1	+2,173
Women	1,914.7	3,523.8	3,220.6	+1,306
Unemployed	3,587.8	3,954.8	5,433.5	+1,846
Men	1,813.2	2,046.9	2,921.0	+1,108
Women	1,774.6	1,907.9	2,512.5	+738
Labor force	73,007.6	70,307.8	68,833.8	-4,174
Men	35,527.3	36,313.1	36,373.0	+846
Women	37,480.3	33,994.7	32,460.8	-5,020

Note: By legal definition the working age is sixteen to fifty–nine for men and sixteen to fifty–four for women.
Source: Goskomstat data.

tered the transition with roughly 4 percent of its labor force unemployed, and that subsequent increases have largely been captured by registrations data.

The gap between registrations and survey evidence reflects both measurement and incentive issues. In 1992 and 1993, only 28 to 31 percent of the LFS unemployed were also registered as unemployed, and the shares were lower in rural areas. However, part of the gap is related to the way in which changes to employment have been distributed over changes to unemployment and nonparticipation. Table 6-2 presents changes in participation based on LFSs, and shows that between 1992 and 1994 employment fell by more than 6 million. The gap between the number of available jobs and potential job seekers was further widened by some growth in the working age population. The gap was not absorbed primarily by an increase in unemployment, but by a change in nonparticipation; a feature common to most transition economies in the early stages of reform (see Blanchard, Commander, and Coricelli 1994). How-

ever, the 1994 LFS figures suggest that the flow to unemployment clearly picked up in that year and accounted for around half the change to employment.

Measurement is further complicated by the widespread and growing prevalence of hours adjustment, by which firms respond to adverse shocks. This is, in some sense, a counter approach to outright labor shedding. Table 6-3 shows how short time and involuntary leave have evolved since 1992. Several features stand out. The number of workers facing hours adjustment is relatively large and is rising. By 1994, more than 14 percent of those employed in firms with more than 200 workers had either experienced an involuntary leave spell in the first quarter of the year or were subject to short time. Involuntary leave has been the dominant mechanism by which firms have adjusted hours, averaging about one month in early 1994.

Table 6-3. *Hours Adjustment and Regional Range, 1993 to First Quarter of 1994*

	1993				*1994*
Category	*1st quarter*	*2nd quarter*	*3rd quarter*	*4th quarter*	*1st quarter*
Short time (share of employed)					
Russia	1.7	1.6	1.9	2.8	5.9
Maximum	10.1	8.0	8.2	9.0	13.5
Minimum	0.1	0.1	0.1	0.1	0.2
Involuntary leave (share of employed)					
Russia	3.4	4.9	6.5	8.6	8.3
Maximum	13.0	15.4	16.8	20.4	16.0
Minimum	0.3	0.6	—	1.2	1.0
Average duration on involuntary leave (days)					
Russia	18	18	24	29	19
Maximum	49	47	63	64	45
Minimum	5	9	10	15	4

— Not available.
Note: Data are cumulative for involuntary leave; data for short time are end-of-period (stock) observation. Data cover firms with more than 200 employees.
Source: Goskomstat data.

What does the prevalence of short-time work and involuntary leave spells signify? Movement to shorter work time could be explained either in terms of the demand side or by labor supply responses of workers with preferences for fewer work hours, possibly women and younger workers. On the labor demand side, is this merely one manifestation of firms' unwillingness to separate workers involuntarily, or is it part of a dynamic adjustment where labor contracts are flexible and allow firms to adapt to changes in output demand over time? As Russian firms entered the transition with large labor hoarding, the latter explanation seems unlikely. Rather, hours adjustment indicates a clear bias toward retaining workers that is likely to have been reinforced by nontrivial adjustment costs associated with involuntary separation.

Clarifying the nature of the observed hours adjustment has obvious implications for how we measure unemployment. For example, workers that remain attached to firms and are likely to be put back to work or shifted closer to full-time work should not be viewed as true unemployed. The survey evidence that follows allows us to distinguish between a range of labor market states, including workers subject to some form of hours adjustment.

Aggregate data indicate a net employment loss of 6 million jobs between 1992 and 1994. This contraction was concentrated in industry, which has accounted for around 40 percent of total job losses. The exact extent of offsetting gains—largely in self-employment and private activities—is difficult to quantify. Even so, it is striking that the increase in private and self-employment was roughly equal to the loss in employment in industry. Unemployment and nonparticipation account for the gap between the number laid off and the number entering private employment or self-employment.

Movements out of the labor force—in excess of 4 million workers between 1992 and 1994—appear to be large (see table 6-2). Part of this is consistent with a lowering of Soviet participation rates from their artificially high levels. It might also be related to the initial incidence of job losses, which were concentrated among early retirees and other workers more likely to leave the labor force, particularly women. Registrations data show that the initially high share of women—about 70 percent by mid-1992—has declined sharply over time. Part of this decline can probably be attributed to movement out of the labor force. Experience in Eastern Europe clearly indicates the importance of withdrawal in the early period of transition, whereas later flows out of employment are mostly reflected in higher unemployment.

Changes to employment are not necessarily matched by changes to unemployment. Most oblasts have experienced negative changes to employment significantly in excess of the change to unemployment. A 2.5 percent change in employment has been associated with a 1.0 percent change in un-

employment. The discrepancy can partly be traced to shifts of people into nonparticipation and nonregistration, but also to coverage of the surveys. Official Goskomstat data on employment represent only firms with more than 200 employees. As most employment growth is occurring in small firms and by people becoming self-employed, this likely accounts for a significant share of the discrepancy.

In short, despite problems of measurement, particularly with respect to participation, the clear impression is that unemployment in Russia has risen slowly since the transition began. Although unemployment is much higher than registered, a significant proportion of the additional unemployment is a legacy of the Soviet period.

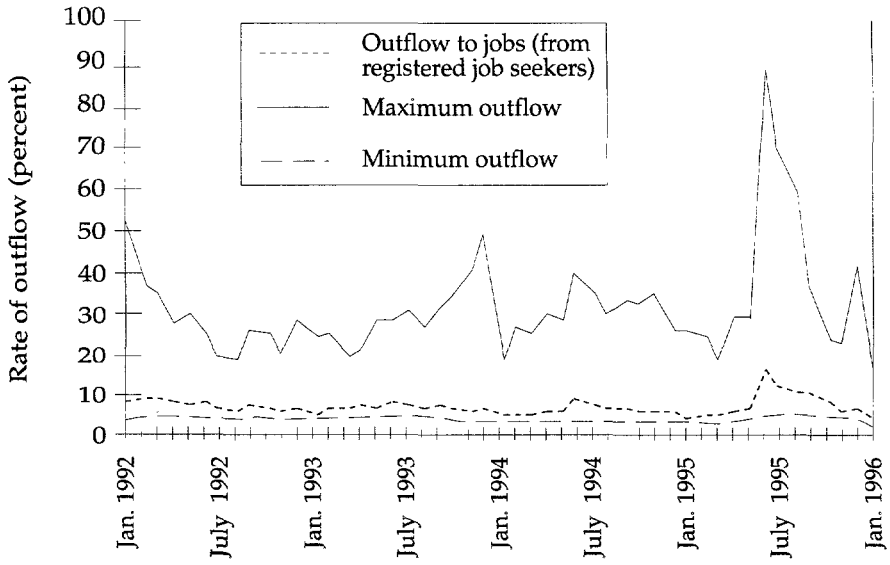
Flows into and out of Unemployment

A distinct feature in Russia appears to have been the size of the flows out of unemployment, including outflows to jobs. Compared with the typical Eastern European experience—low inflow rates to unemployment and even smaller outflow rates—Russian labor market flows are somewhat different. In Russia in the first quarter of 1994, the inflow rate showed a clear upward shift with the monthly rate approaching 0.5 percent over a broad regional range. Yet outflow rates are not only large, averaging more than 15 percent per month since 1992, but have remained relatively stable, in the range of 6 to 7 percent per month. Figure 6-3 shows outflows to jobs. As the figure shows, flows to jobs have also remained reasonably stable over time, averaging around 8 percent per month. A clear shift upward occurred in mid-1995, but was followed by a decline to earlier rates.

As figure 6-4 demonstrates, both inflows and outflows have varied significantly across regions over time. How much of the regional variation in unemployment can be attributed to inflows rather than to differences in outflow rates? We decompose the variance of the regional unemployment growth rates into variances of inflows, outflows, and a covariance term.[1] This decomposition shows that for the period from 1992 to mid-1994, the variance of inflows to registered unemployment across regions to the total variance of unemployment growth was as high as 540 percent, compared to 444 percent in Bulgaria or 375 percent in Poland (Boeri and Scarpetta 1994). At the same

1. By definition, we have $Var(u_{rt+1}-u_{rt}) = Var(i_{rt,t+1})+Var(o_{rt,t+1})-2Cov(i_{rt,t+1},o_{rt,t+1})$, where u denotes the unemployment rate in region r at the beginning of the period t and at the end $t+1$, i and o denote, respectively, inflows and outflows between t and $t+1$. All magnitudes are expressed as proportion of the average-period labor force.

Figure 6-3. *Regional Outflows to Jobs from Unemployment, January 1992–January 1996*

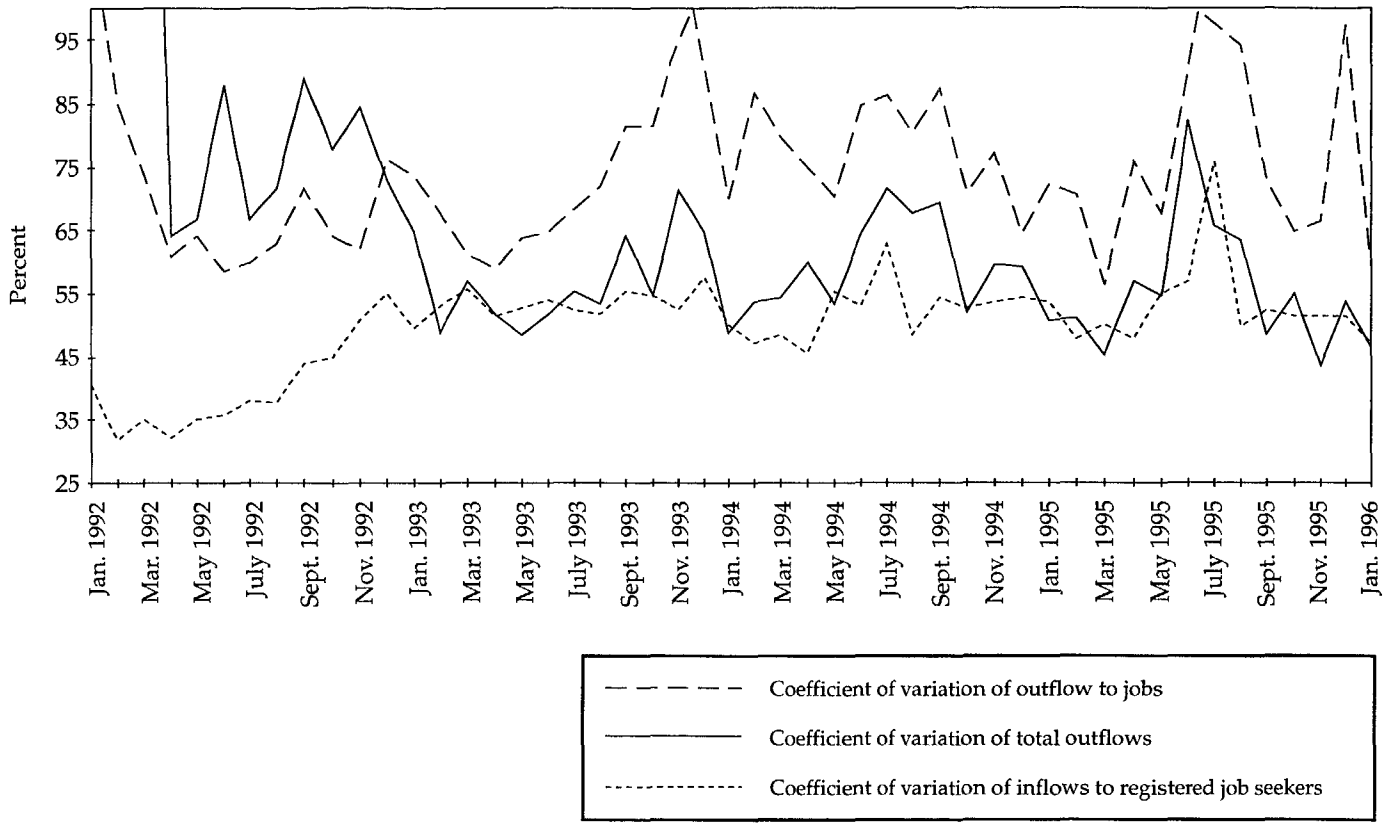


Source: Federal Employment Service data.

time the variance of outflows from unemployment was lower, and represented only 283 percent of the total variance of unemployment growth. This suggests that the differences in regional unemployment growth have been driven largely by inflows to unemployment. There is high covariance in movements into and out of the regional pools of unemployed.

While inflows largely explain regional differences in unemployment, they are still low in Russia relative to Eastern Europe. This phenomenon can be traced to firms' decisions: they can force redundancies as well as rely on attrition. Available data suggest that separation decisions by Russian firms have been small relative to the size of shocks to demand. Federal Employment Service (FES) data show that layoffs accounted for 30 percent of registrations. However, Goskomstat figures covering total separations indicate that even fewer—only 7 to 9 percent of separations through 1992 and early 1993—were from layoffs. The clear impression, which is supported by firm-level surveys (Commander, McHale, and Yemtsov 1994), is that involuntary separations have remained small, averaging only about 25 percent of total separations in the firm sector. Hence a significant part of the flow to unemployment has to be traced to apparently voluntary decisions by workers, subject to an important caveat. That is, the boundary between quits and involuntary

Figure 6-4. *Flows into and out of Employment: Regional Coefficients of Variation, January 1992–January 1996*



Source: Authors' calculation based on FES data.

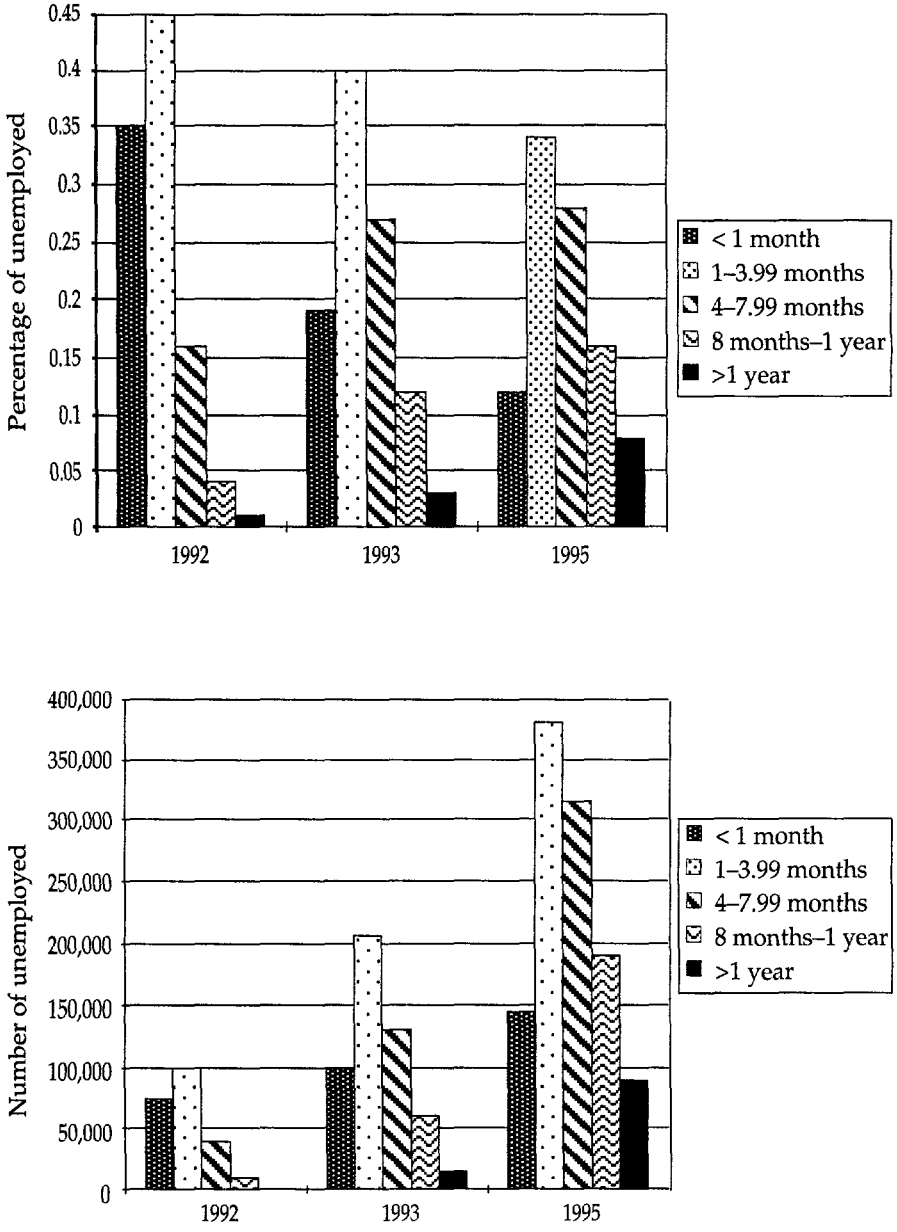
separations may be blurred if some of those quitting may have had little option, for example, if they were on short time or not being paid. Even so, voluntary separations indicate that individuals likely attach a high probability to exiting from unemployment, a belief that is supported by some survey results reported later. Finally, the evolution of the inflow rate should also be understood in the context of the significant shift of workers into nonparticipation and the use of hours reduction by firms, hence avoiding any formal separation of workers.

Official data suggest that through 1992–94 flows out of unemployment to jobs remained not only large, accounting for more than 40 percent of total outflows, but were dominated by hiring by state firms, albeit with increasing flows over time to service sector and other jobs outside industry and agriculture. Figure 6-5 presents average unemployment spells for those moving from unemployment to jobs. The first panel shows the percentage of unemployed finding jobs within specific periods and the second shows the absolute numbers. While unemployment spells have clearly lengthened over time as the number of unemployed has risen, by 1995 roughly 50 percent of those leaving registered unemployment left within four months. Thus, for those transiting through unemployment to jobs, the average unemployment spell was still quite short. More than a third of job finds in 1992, a fifth in 1993, and roughly 13 percent in 1995 were achieved in under a month.

The aggregate outflow rate from unemployment and the rate of outflow to jobs had declined by the end of 1995. This change can be explained in terms of labor supply decisions in favor of participation and by reduced labor demand on the part of firms. Given the contractionary macroeconomic policy stance, aggregate demand effects probably led to declines in vacancies and in flows out of unemployment. The continuing low level of unemployment benefits and the high incidence of poverty among households affected by unemployment suggests that declining search intensity is an implausible explanation.

Nonetheless, persistence in hiring is a particular feature of the Russian transition. In any quarter of 1992 and 1993 roughly 5 percent of the labor force made a job transition. Obviously, many of these transitions took the form of job to job transitions. However, unlike in Eastern Europe, where unemployment turnover is small relative to measured flows of workers and jobs (see Boeri 1994), in Russia unemployment cannot be characterized as a stagnant pool. Most of the change in registered unemployment can be explained by changes to flows out of unemployment. This is not surprising if we think of transition as a major shock to demand that cannot be accommodated by natural wastage and small adjustments. The question is why the inflow rate has remained relatively low, given the size of those adverse shocks.

Figure 6-5. *Average Duration of Unemployment for Those Moving from Unemployment to Jobs, 1992, 1993, and 1995*



Source: Federal Employment Service data.

In summary, the overall picture is of relatively small flows to unemployment, alongside large job to job flows, with high outflow rates and low durations of unemployment, but regional diversity does exist as discussed in the following section.

Regional Dimensions of Unemployment

Differences have emerged in regional unemployment rates and have tended to be magnified by the transition. By early 1994, registered unemployment across the regions varied from 0.5 to 8.0 percent. For an adjusted measure (including involuntary leave) the range extends from 2 to 28 percent. If the involuntary leave component is corrected by an average spell per region per quarter, the range falls to 1 to 11 percent. Several common features stand out. To begin with across-the-board increases in unemployment over time are significant. The dispersion in unemployment rates across regions is clearly increased if involuntary leave is included. In mid-1992 the coefficient of variation in the unemployment rate was 0.4, rising to 0.7 by 1994. Furthermore, a Herfindahl-Hirschmann index of concentration for the period January 1992 through April 1994 reveals a significant decrease in concentration. This is mirrored by the LFS data for October 1993 and 1994, when the index declined from 226 to 180. Similar figures are generated by the registrations data. At the start of the transition around 20 percent of registered unemployment was concentrated in Moscow and St. Petersburg. Since then, the distribution of unemployment has become less concentrated, alongside increasing dispersion across regions.

While regional variation in both registered and LFS unemployment has increased, using LFS numbers, unemployment in the bulk of oblasts at the end of 1994 stood at 4.5 to 9.0 percent. The outliers at both ends of the distribution were small in number: only seven oblasts at the low end and four at the top end. The high unemployment areas were primarily industrial oblasts with concentrations of military firms, light industry, or both. These areas were both subject to the largest negative shocks. The same regions also report extensive use of involuntary leave and other forms of hours adjustment. Regions with already high relative unemployment have continued to experience high growth rates in unemployment, amplifying these disparities. Inversely, low unemployment areas are primarily resource-rich regions in the east or the major cities, including Moscow and St. Petersburg, and in most cases, unemployment actually decreased over the reference period. However, there is also substantial dispersion in the changes to unemployment between 1993 and 1994 for the bulk of oblasts. This again suggests that the adjustment

process is far from complete, as different regions experiencing different shocks have only just begun to feed that through into unemployment.

How much of this can be attributed to different responses of individuals across regions, particularly to flows out of the labor force? Using the LFS regional numbers, we can look at the early response across regions. Direct translation of changes in employment through to unemployment is not common. More frequently, shocks to regional employment have been largely taken through a drop in the participation rate with some increase in unemployment. Figure 6-6 demonstrates the significance of exits from the labor force and relates the change in employment to the change in unemployment in absolute numbers. All regions have experienced significant drops in employment, although the increase in unemployment has no tight link to the drop in employment. The regional LFS data point to the importance of flows out of the labor force, but as these appear to be quite commonly distributed across regions, flows out of the labor force have not been a major factor driving the growth in regional dispersion.

Large and increasing dispersion in regional unemployment rates is hardly surprising, given the different magnitudes of shocks experienced. What is more interesting and more difficult to understand is whether divergent regional unemployment rates will remain and for how long. Convergence in the foreseeable future is unlikely. The absence of equalization mechanisms— particularly of a fiscal nature (see World Bank 1995)—would accentuate divergence, as would the absence of labor mobility. Survey results suggest that the unemployed, for example, are extremely reluctant to move in response to wage differentials and other economic incentives. This is doubtless reinforced by institutional and other restraints on mobility of labor between oblasts, such as housing shortages.

Different regional specializations in production lead to potentially quite different shocks to labor demand. Shocks to a region's labor demand ought to lead to changes in relative wages and employment on the assumption that regions face a broadly similar macroeconomic environment. In practice, Russian regional authorities appear to exercise large discretion, extended through price controls and subsidies (de Masi and Koen 1995). For instance, by providing subsidies to local firms they may seek to slow the rate of employment reductions by adjusting hours rather than forcing separations in response to an adverse labor demand shock. Thus, in the short run at least, shocks will generate different regional effects. Another key feature that differentiates Russia, say, from North America, is the far lower degree of factor mobility. In particular, little or no movement of workers across regions can be expected in response to an adverse shock. Empirical work in the United States indicates that while shocks to relative regional employment tend mostly to be permanent, this is not the

Figure 6-6. *Unemployment and Employment Change by Region, 1993/92*

Note: The line indicates all points where values on vertical and horizontal axes are equal. If the region is below the line, the number of individuals who left employment was greater than the number that went to unemployment, assuming no inflows into the labor market from out of the labor force.
Source: LFSs.

case for relative unemployment. The latter is untrended with little persistence. Blanchard and Katz (1992) explain this largely as a function of worker mobility. Adverse labor demand shocks force workers to move, so that while employment may not increase, unemployment will fall as workers migrate. A further finding is that relative nominal wages in the United States have not declined sufficiently to prevent increases in unemployment, and there has been quite strong convergence in regional relative wages over time.

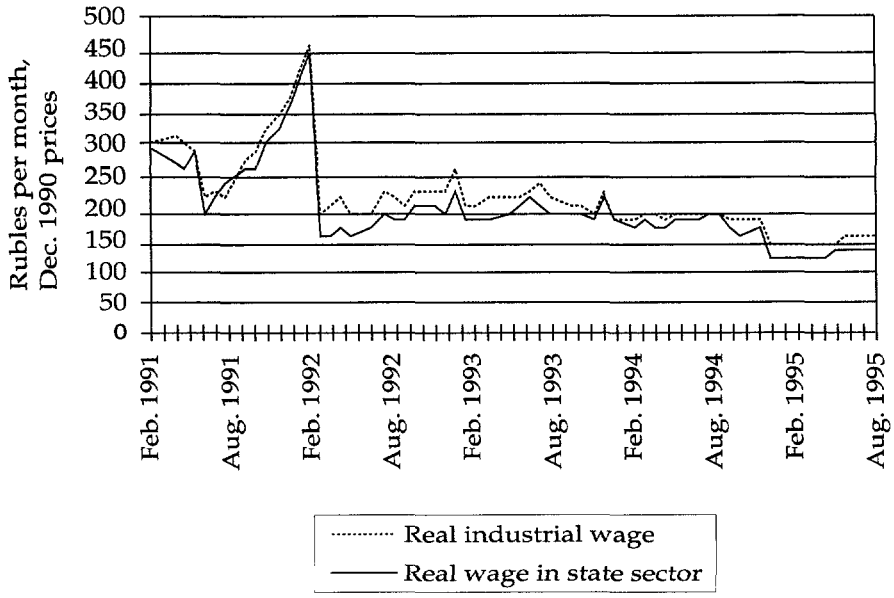
These findings from a context of high factor mobility are suggestive once we start thinking about Russia. When factor mobility is constrained, adverse labor demand shocks to regions might be expected to lead to large persistent differences in employment and unemployment changes. Workers' inability and unwillingness to move, coupled with relative wage rigidities arising from the institutional setting, could result in regional unemployment being strongly trended and persistent.

Furthermore, while workers generally cannot move, this constraint may be less binding for new firms that can choose a location from among the various regions. In the next section we make the probably optimistic assumption that capital is mobile in Russia. This implies that while relative regional wages will have little impact on labor movements, they may well affect decisions on firm location, and therefore job creation. The sensitivity of relative nominal wages to local conditions is obviously critical. The greater the degree to which local wage setting is dissociated from regional economic activity levels, because of, for example, a national wage rule, the weaker the likely feedback from relative regional wages to job creation. Appendix 1 presents a more formal model. Although at this stage we have limited options for directly confronting regional data in a manner consistent with our model, we can explore the respective relative movements in wages, employment, and unemployment. We turn first to wages.

Wages and Their Relative Paths

At an aggregate level, real consumption wages hardly moved from the floor set after the January 1992 price shock until mid-1994 (figure 6-7). Thereafter, there has been a clear downward drift, so that by the end of 1995, real wages in the state sector were roughly 20 percent below the levels following price liberalization in early 1992. Industrial wages were yet further reduced except for dollar wages, which expanded more than tenfold between January 1992 and early 1994, largely through the real ruble appreciation that occurred in 1993. Such wage restraint cannot be mechanically linked to the presence of a binding wage norm or system of constraints. As figure 6-8 shows, the aggre-

Figure 6-7. Real State Sector and Industrial Wages, February 1991–August 1995



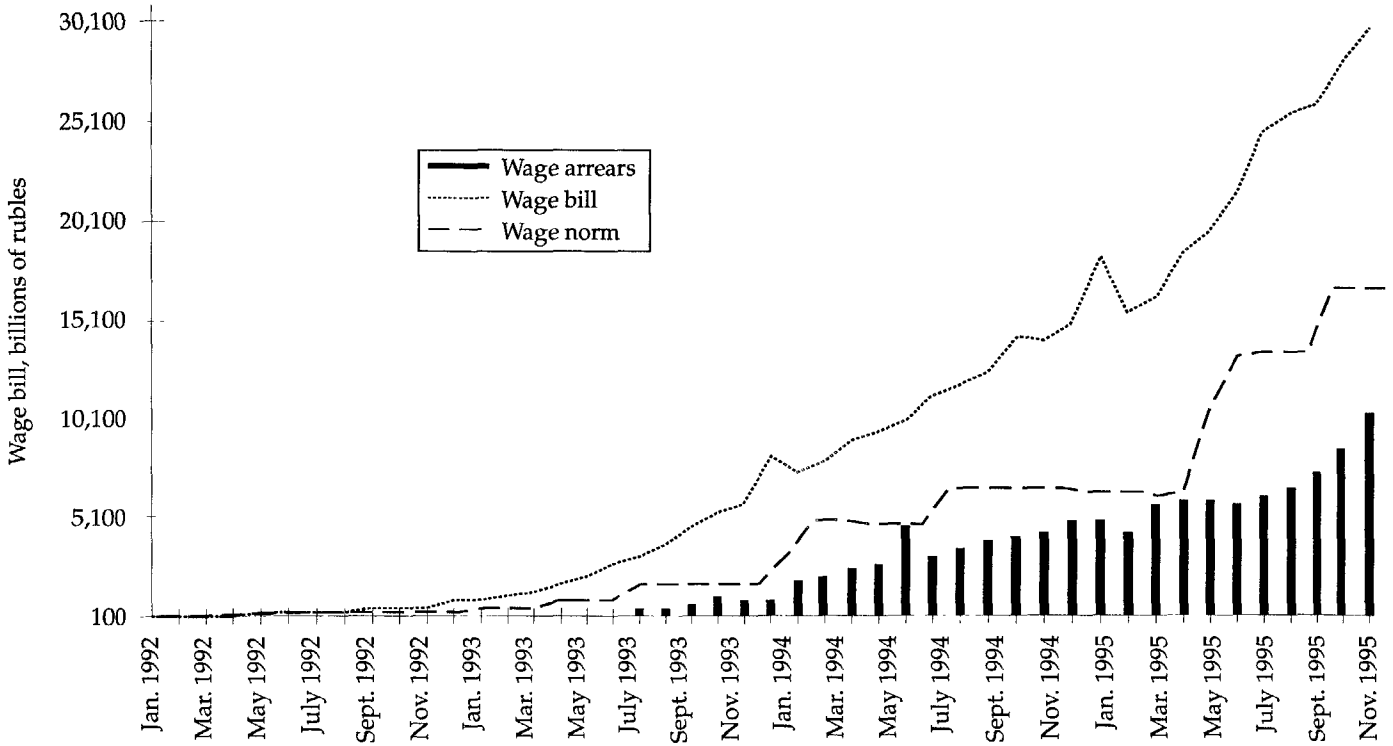
Source: Authors' calculations based on Goskomstat data on average wages and consumer price index.

gate wage bill consistently exceeded the wage norm set by the excess wage tax by large cumulative magnitudes. In any case, the absence of a punitive marginal tax rate on above norm wage payments diluted the regulatory effect of the norm. A wage norm would nonetheless tend to preserve the structure of regional relativities.

The apparent wage moderation is magnified by the presence of wage arrears. These amounted to about 10 percent of the aggregate wage bill in 1992 and 1993, and became far more significant in 1994 (figure 6-8). Thus actual real wages—as against notional wages—have been eroded further given the inflation tax on arrears.

What has been the response at the regional level to relative shocks, assuming that a fall in the relative value of labor's product could be expected to reduce labor demand? The depth of this contraction will in part depend on whether or not wages can fully absorb the shock. A large relative shock should be associated with a comparable relative wage adjustment. As discussed elsewhere in this volume, unemployment benefit levels have been so low that they have not placed a significant floor on the potential adjustment.

Figure 6-8. *Wage Norm, Wage Bill, and Wage Arrears Monthly, All Sectors, January 1992–January 1994*



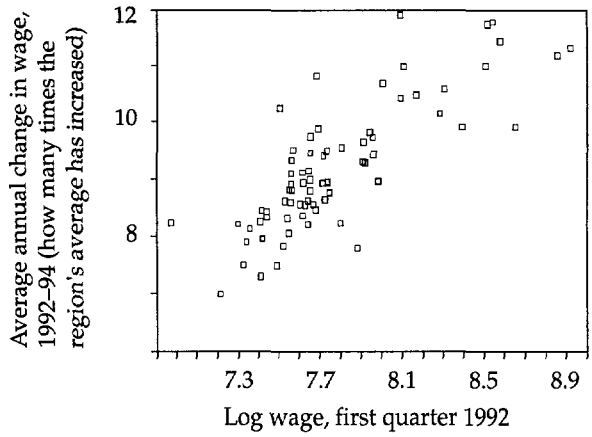
Note: For large and medium-size enterprises, wage norm estimated based on employment, current minimum wage and coefficient used during the corresponding period to estimate the "excess wage tax."
Source: Goskomstat data.

The path of relative wages, employment, and unemployment can be examined, given the initial conditions. Figure 6-9 relates the annual average change in nominal wages to the log wage in the first quarter of 1992 for each region. The upward sloping line that could be fitted to this graph suggests that wage changes have tended to act on, and possibly amplify, the initial structure of relativities.

The evidence suggests that the changes in wages might be systematically related to changes in employment or unemployment, using regional observations. Clearly, in the presence of regionally differentiated shocks, we would expect not only different magnitudes of shock to employment, but some play back to wages. Given gaps in the employment series, henceforth we work with the unemployment numbers. As such we are assuming that relative regional unemployment and wages are not simply expansions along the same distribution.

Figures 6-10 and 6-11 present simple scatters for the first quarter of each year from 1992 through 1994, relating changes in nominal wages to the adjusted unemployment measure. These graphs reveal the emergence of an apparently conventional link between regional unemployment and regional wages. The third panel of figure 6-10 shows a clear inverse association between the change in wages and unemployment by the beginning of 1994, a relationship that was not evident at the start of transition. The figures suggest that the sensitivity of regional wages to regional unemployment has grown gradually over time.

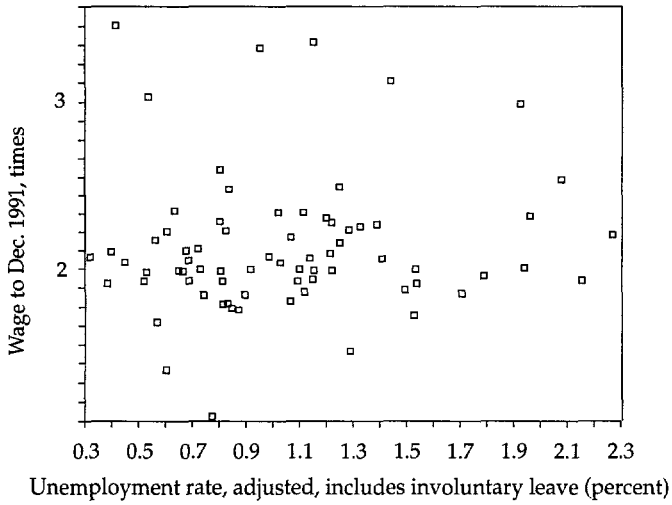
Figure 6-9. *Initial Differences and Changes in the Regional Wage between First Quarter of 1992 and First Quarter of 1994*



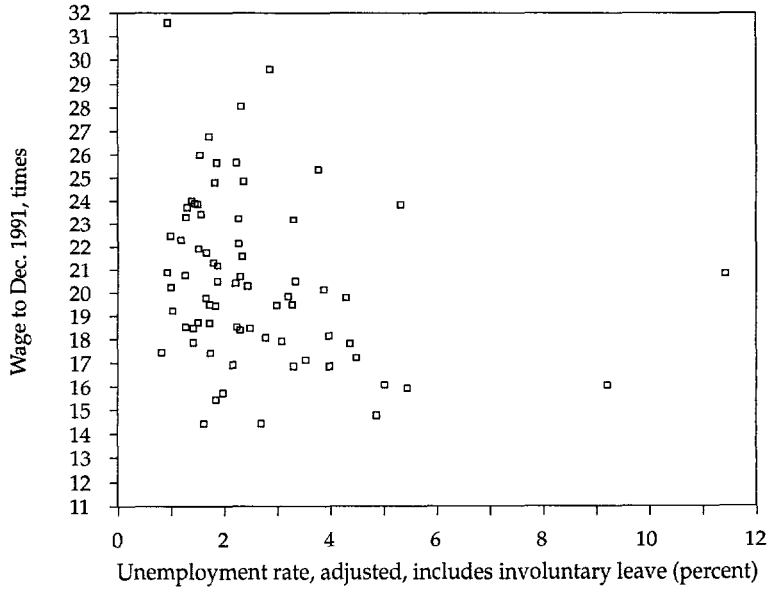
Source: Goskomstat data.

Figure 6-10. *Unemployment Rates and Wage Inflation by Region, First Quarter of 1992, 1993, and 1994*

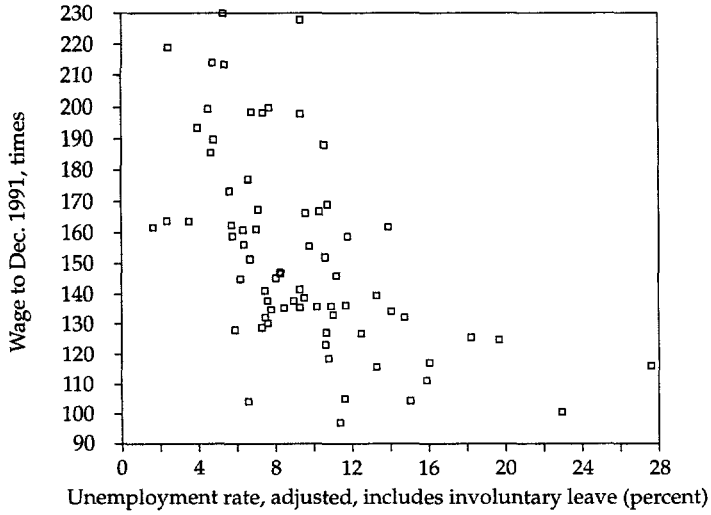
First quarter 1992



First quarter 1993

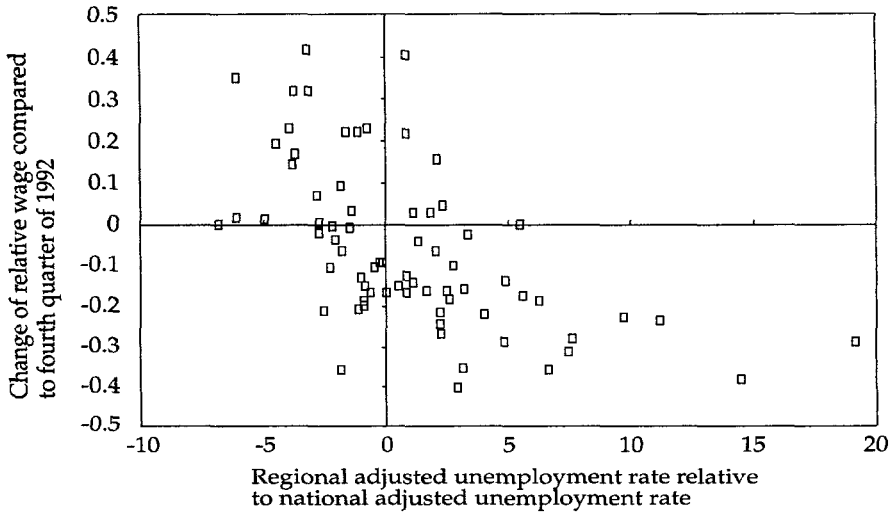


First quarter 1994



Source: Goskomstat data.

Figure 6-11. *Relative Wage Change and Unemployment Rates, First Quarter of 1994*



Source: Goskomstat data.

Furthermore, figure 6-11 indicates that during the same period the change in a region's relative wage was inversely associated with that region's relative unemployment rate. In other words, regions with high relative unemployment rates in early 1994 experienced deterioration in their relative wages.

To explore the apparent emergence of this equilibrating mechanism, a panel of monthly and quarterly observations was used to relate the change in regional wages to regional unemployment and current and lagged regional consumer prices. This is a standard derivation of the Phillips curve.[2] However, while the coefficients were predictably signed and significant, both the quarterly and monthly estimations had low overall explanatory power. In addition, the F statistic in the fixed effects estimate was very low, indicating too much variance within the sample to warrant pooling. Indeed, inspection of individual regional wage observations indicated large variations across periods for both monthly and quarterly estimations. Also, the likely sensitivity of the relationship to the time specification—given the scatters presented earlier—points to the use of cross-sectional estimates. Accordingly, we reestimated on two cross-sections, the first quarter of 1994 over the first quarter of 1993 and the first quarter of 1993 over the first quarter of 1992. The specification is in first differences and logs, with the wage and price variables set up in index form and based to December 1991. Given the size of monthly inflation over this period, we suppress the use of a lagged price term. The results of the wage equations are shown below. The variables are predictably signed and significant at more than the 5 percent level, even if the size of the coefficients is small. However, the overall fit of the estimation improves over time.

$$\begin{array}{lll} \text{DlnWage93} = & 201\text{C} - 0.01\text{U93} + 0.14\text{D1nRPI93} \\ & (19.23)\ (-1.78) \quad (2.81) \end{array}$$

$R^2 = 0.14$; s.e. = 0.10; mean of dependent variable = 2.26; Durbin Watson = 1.52; F statistic = 5.68

$$\begin{array}{lll} \text{DlnWage94} = & 2.32\text{C} - 0.02\text{U94} + 0.29\text{DlnRPI94} \\ & (11.82)\ (-4.45) \quad (3.11) \end{array}$$

$R^2 = 0.34$; s.e. = 0.14; mean of dependent variable = 2.73; Durbin Watson = 1.52; F statistic = 18.27,

where DlnWage is the log wage (first differences), U is unemployment, RPI is the retail price index, s.e.is standard error, and C is a constant.

---

2. Of the form, $w_{rt} = a_1 - a_2 U^{rt} + a_3 p_{rt} + a_4(1-a)p_{rt-1}$ where α is the parameters, t is the time period, r is the region, w is the wage index, U is the unemployment rate, and p is the price index based on the consumer price index (CPI).

The conclusion that emerges is that regional wage setting has begun to be more responsive to regional unemployment. A clear inverse relationship is apparent between the unemployment level and changes to nominal wages, although the size of the price coefficient is rather low. Changes to relative wages have clearly dominated changes to relative unemployment or employment, reinforcing the general impression that wage flexibility in aggregate and across regions has been a powerful feature of the transition so far.

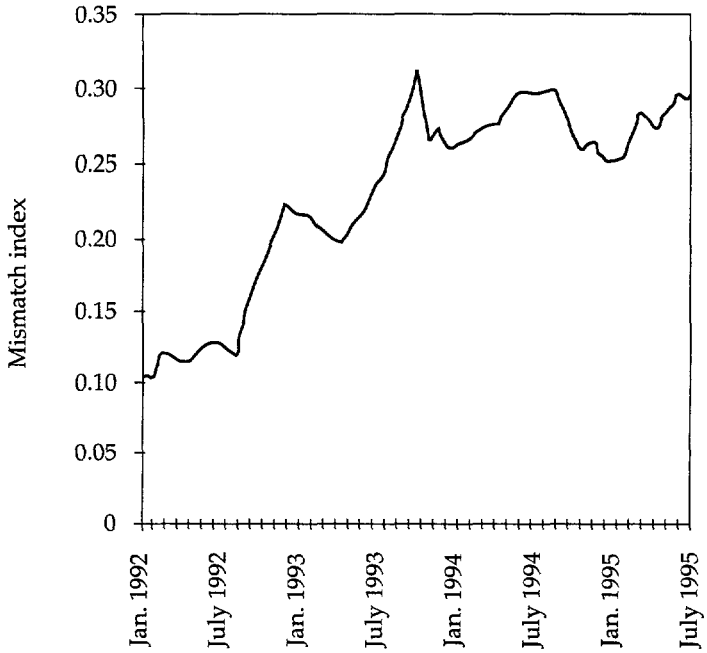
Regional Employment and Mismatch

The evolution of regional unemployment is less easy to deal with because of data limitations. We are forced to use unemployment numbers. For these, we have already described the growing dispersion in both regional vacancy and unemployment rates. Given limited labor mobility, we could expect to find that changes to relative regional employment are likely to be large and persistent, alongside rising mismatch in the labor market. Such mismatch could take several forms, including age, gender, skill, and regional dimensions. In this context, the regional mismatch is particularly interesting, but note that the bulk of vacancies registered with the Federal Employment Service has been for manual workers. Until at least early 1994, these accounted for around 85 percent of total vacancies. Yet the bulk of involuntary separations has been concentrated among clerical and professional workers, a high proportion of whom have been women. This may suggest the presence of skill imbalances. In any event, it suggests that the matching of workers transiting in unemployment to jobs is probably concentrated on certain categories of workers.

Turning to the regional dimension of mismatch, lack of labor mobility could be expected to accentuate divergences in the distribution of unemployment and vacancies across regions. In Eastern Europe, the evidence suggests that regional mismatch between unemployment and vacancies has increased over time. Using regional data, we calculate a mismatch index that takes into account unemployment and vacancies.[3] The index grows throughout the period, rising from 0.1 to 0.3 by mid-1995 (figure 6-12). Although cross-country comparisons are problematic, the measure points to high mismatch at an early stage in the Russian transition. The same measure calculated for Poland in 1992, when regional dispersion in unemployment and vacancy rates was greater than in Russia through 1994, gave monthly mis-

3. Calculated as Mismatch = $0.5 \Sigma N_i/N(|(v_i-u_i) - (v-u)|)$ where u is the unemployment rate, v is the vacancy rate, u_i is the unemployment rate in region i, v_i is the vacancy rate in region i, n is the total labor force, and n_i is the region labor force in region i.

Figure 6-12. Regional Mismatch, January 1992–July 1995



match of around 0.2 (see Coricelli, Hagemejer, and Rybinski 1994). Spatial mismatch would be one factor influencing the impact of vacancies on outflows to jobs from unemployment. We now explore in further detail the way in which such outflows to jobs—as the best proxy for hiring—respond to changes in the stock of unemployed and vacancies.[4]

In Russia, flows out of unemployment to jobs have been large relative to Eastern Europe. Surveys indicate that informal sector jobs and self-employment are important, but even the flows into state and privatized firms remain surprisingly large (Yemtsov 1994). Indeed, the bulk of flows out of unemployment to jobs are to the latter. How much does this tell us about the efficiency of the matching process? Several points are pertinent at this stage. First, the numbers on the stock of unemployed based on registrations are biased downward. Second, information on vacancies largely relates to formal sector jobs, and hence refers mainly to the state and privatized firm sec-

4. As to the reliability of vacancies data, this may be less of a problem in Russia than in most Western settings, partly because of the inertia of previous practices, including the requirement on firms to post vacancies, and the relatively limited development as yet of an autonomous private sector.

tor. Third, the interaction between outflows from unemployment and the lagged stock of unemployed and vacancies provides a somewhat dubious measure of efficiency, because the bulk of Russian firms entered transition with large labor hoarding.

Earlier we attributed the rate of decline in employment to the association between firm size, as measured by employment, and subsidies received from the government or the financial system. This has dampened the rate of involuntary separations, while enabling the relatively high hiring rates reported by state firms. In other words, much of the hiring from unemployment is likely to be accounted for by state or privatized firms, and hence may, in effect, be for the "wrong" reasons. This has obvious implications for interpreting the matching function results. Constant returns, with the implication of a constant rate of growth of unemployment consistent with balanced growth, would hardly be an appropriate characterization for a setting where labor hoarding was large. Rather, decreasing returns in matching could be interpreted as a desirable inefficiency signaling, perhaps, an end to the dynamic labor hoarding characteristic of the Russian state (now privatized) firm sector. Given the relatively early stage of the transition, a less than proportional association between unemployment stocks and outflows might be expected.

We now present the results from estimating an aggregate matching function, first proceeding with the general form with a Cobb-Douglas specification, namely,

$$O_{it} = A_{it} U_{it}^{\alpha} V_{it}^{\beta}$$

where O stands for outflows from unemployment in the region, U is the stock of unemployed, V is the stock of vacancies, A is a scale factor, α is the elasticity of output with respect to U, β is the elasticity of output with respect to V, i is oblast, and t is time. No technological progress would give a constant multiplier over time. Taking logs, the standard estimating equation becomes

$$\ln(O_{it}) = \ln(A_{it}) + \alpha \ln(U_{i,t-1}) + \beta \ln(V_{i,t-1}) + \varepsilon_{it}.$$

Our data cover the period January 1992 to April 1994 for seventy-nine oblasts. Introducing a one-period lag for the right-hand-side variables gives us a reference of 27 periods and 2,133 observations. For efficient estimation, exploiting both cross-sectional and time series components, we pool the data and allow for heterogeneity across regions and time. Assuming that the stock of registered unemployed represents a constant sample of the true unemployed and that vacancies accurately represent job openings in the formal sector, this would measure the efficiency of matching in one—albeit large—segment of the labor market. Although, as indicated earlier, this is a conditional efficiency, given the limited size of the autonomous private sector, this is informative.

The results are presented in table 6-4 for a pooled ordinary least squares estimate. Time dummies are introduced in both estimations. The coefficients are positively signed, stable with or without time dummies, and are highly significant. Introducing a period dummy to capture a distinct phase from March through September 1993, when unemployment was falling, did not affect the size of the estimated coefficients nor their significance. The size of the vacancies term is quite large, and suggests, that compared with the results reported in Boeri (1994) for a range of Eastern European countries, vacancies have a relatively strong effect on outflows to jobs. The size of the coefficient on the lagged unemployment term is also reasonably large. Even so, the matching function exhibits decreasing returns to scale (applying a F test, we reject the hypothesis that the lagged explanatory variables sum to unity, and hence that constant returns obtain), indicating that a doubling of unemployment and vacancies would be associated with a less than proportional change to outflows. Decreasing returns could be attributed in part to the lack of development of the labor market, institutional inefficiencies, as well as congestion effects. The inclusion of time dummies in principle allows us to capture the efficiency of matching over time. That coefficients decrease over time probably indicates the deterioration in the efficiency of matching.

We also estimated the same basic equation with monthly dummies. The coefficients remain similar in size and significance. Further examining the coefficients on the time dummies, we observe relatively small variation across months, indicating little seasonal movement in the outflows to jobs. The size of these coefficients shows no clear change over time. We also explored these relationships for European Russia, some thirty-nine oblasts where a significant proportion of Russian industrial activity is concentrated. Here the coefficient on the vacancies term is notably smaller—0.2—than for the full sample, but the general fit of the estimation is superior. Again, no clear trend is apparent in the size of the time dummies.

Table 6-4. *Matching Function for Seventy-Nine Oblasts: OLS Pooled Estimates with Time Dummies*
(dependent variable: log outflows)

Variable	*Coefficient*	*T-statistic*
Log unemployment	0.516	32.04
Log vacancies	0.337	24.96
Constant	-1.016	-7.48

$R^2 = 0.63$; standard error = 0.548; F statistic = 28.71.
Source: Authors' calculations.

How can these results be interpreted? The specific characteristics of the Russian transition are important. With the withdrawal of subsidies and other forms of support, firms are faced with the need to reduce labor hoarding. They have shied away from these decisions, but over time, as their financing options have narrowed and the reforms appear irreversible, decreasing returns are expected in the formal job market, given initial conditions and the path of adjustment in aggregate and regional employment. The interaction between vacancies in the economy as a whole and the flows out of unemployment are captured inexactly, but on the assumption that registered unemployment is a stable share of true unemployment, the evidence of decreasing returns suggests that the stock of unemployed as yet exerts an attenuated influence on hiring decisions, and hence on outflows to jobs. This is partly because flows to jobs outside the formal sector often bypass unemployment, while the formal sector's labor demand has tended to decline over time as subsidies to enterprises have diminished. The effect of vacancies on flows to jobs can probably be traced to regional mismatch in the distribution of unemployed and vacancies.

The individual regional estimations point to a reasonably common response of outflows to unemployment, but far less so for vacancies. If relatively thick regional markets are more likely to experience constant or increasing returns, this might be expected for major urban centers like Moscow and St. Petersburg, which have experienced relatively large flows. Indeed, while the size of the lagged unemployment term is large in the case of Moscow and St. Petersburg, the vacancies term is negatively signed. This contrasts with the estimations for the neighboring Moscow and Leningrad oblasts. The fact that an increase in posted vacancies appears to be associated with a fall in the outflow to jobs points to an underlying problem of skill mismatch. In Moscow, for example, most posted vacancies are for manual and primarily male jobs, whereas a significant share of the unemployed are educated women. Similar patterns can be detected for a number of the major industrial regions, including Nizhegorodskaia, Krasnoiarskii krai, and Samaraskaia oblast, with a negative association between vacancies and outflows. In the case of the larger urban centers, this component of mismatch can be traced to the manner in which Russian industrial firms have initially tended to shed clerical and professional staff, with most of the flows into firms accounted for by manual or production workers. (This is well documented. See, for example, Commander and Yemtsov 1994.) However, in those industrial regions where the vacancies sign is perverse, this can partly be explained by the extremely low unemployment rate in the oblast associated with continued strong labor hoarding on the part of industrial firms, as well as the structure of regional output.

Conclusions

An examination of Russian unemployment has proven somewhat elusive, including in statistical terms. It is nonetheless clear that the number of unemployed is significantly in excess of those registered by the Federal Employment Service. Both registered unemployment and survey-based measures show an upward trend since early 1992. The gap between survey and registration measures of unemployment has remained surprisingly stable since the start of transition. Furthermore, for those who experience an unemployment spell, durations have remained low, with relatively high probabilities for exit to jobs. In short, even if the official statistics overstate output and employment losses by not capturing the growth in the private sector, the contraction in net employment has been small. Russia does not correspond to the general Eastern European experience, in which large-scale employment losses in the state sector emerged relatively quickly.

Nonetheless, clear signs indicate that unemployment is rising and set to rise further. The initial composition of the unemployed—with its huge bias toward women—has shifted, and the incidence seems more widely spread. In addition, regional dispersion is significant, with some of the more adversely affected regions having unemployment rates significantly above 10 percent by 1994. Labor mobility is virtually absent, and despite signs of wage flexibility and an emerging, conventional association at the regional level between changes to wages and unemployment, regional variation is likely to be long lasting, partly because of large spatial mismatch in the distribution of the unemployed and of jobs.

Finally, our matching functions indicate a decreasing efficiency in matching over time. The coefficient on the vacancies term in the pooled estimation is larger than that estimated for several Eastern European economies, but variance across individual regions seems to be quite large. The trend reflects both the problem of skill mismatch in some regional labor markets, as well as the changing behavior by firms with respect to employment. This is related to changes in enterprise access to subsidies and other financing options. The upward shift in unemployment that results is likely to have rather different regional consequences. The implications of rising direct unemployment for poverty and the characteristics of the unemployed are explored in chapter 7.

Appendix 1. A Model of Regional Wage and Employment Setting

We can now write down a simple model that tries to capture the relative regional effects of shocks. Throughout, relative wages and employment are respectively given as:

$$w_{rt} = \ln (W_{rt}/W_t)$$

where W_{rt} is the wage in region r at time t, and W_t is the mean wage in the economy at time t;

$$n_{rt} = \ln \left[\frac{N_{rt}/LF_{rt}}{N_t/LF_t} \right]$$

where N_{rt}/LF_{rt} is employment in region r at time t, and N_t/LF_t is mean employment in the economy at time t as shares of the respective labor forces.

The relationship between relative employment and relative unemployment is given by

$$n_{rt} = \ln \left[\frac{1 - U_{rt}/LF_{rt}}{1 - U_t/LF_t} \right] \approx - \left[\frac{U_{rt}}{LF_{rt}} - \frac{U_t}{LF_t} \right] = -u_{rt}.$$

At the level of each region, labor demand has a constant inverse elasticity d_r and can be written as

$$D_{rt} = C_{rt} (N_{rt}/LF_{rt})^{-d_r}$$

where C_{rt} is a constant. The same relationship can be generalized to the economy as a whole. This means that the relative wage, w_{rt}, for region r is

$$w_{rt} = \ln \left[\frac{W_{rt}}{W_t} \right] = \ln \left[\frac{C_{rt}}{C_t} (N_t/LF_t)^{d-d_r} \left(\frac{N_{rt}/LF_{rt}}{N_t/LF_t} \right)^{-d_r} \right].$$

It can be restated more simply as

$$w_{rt} = q_{rt} - d_r n_{rt}$$

where q_{rt} gives the position of the relative labor demand curve, so that

$$q_{rt} = \ln \left[\frac{C_{rt}}{C_t} (N_t/LF_t)^{d-d_r} \right] = \ln \left[\frac{C_{rt}}{C_t} \right] + (d - d_r) \ln (N_t/LF_t).$$

q_{rt} is positive when the region has a higher relative labor productivity and higher relative elasticity of labor demand. As such, the relative labor demand curve does not express the relationship between wage and employment; it is

expressed in terms of deviations of wages and employment from average levels. Movements in this curve do not give changes in labor demand in the region, but the relative size of such changes as compared to the average level.

Similarly, the relative labor supply function can be written as

$$w_{rt} = v_{rt} + s_r n_{rt}$$

where v_{rt} gives the position of the relative labor supply curve, so that

$$v_{rt} = \ln\left[\frac{D_{rt}}{D_t}(N_t/LF_t)^{s_r - s}\right] = \ln\left[\frac{D_{rt}}{D_r}\right] - (s - s_r)\ln(N_t/LF_t)$$

where D_{rt} is the marginal disutility of labor in a region.

Solving this system of relative labor demand and labor supply equations, we get

$$n_{rt}^{eq} = \frac{q_{rt} - v_{rt}}{d_r + s_r} \text{ and } w_{rt}^{eq} = \frac{s_r q_{rt} + d_r v_{rt}}{d_r + s_r}.$$

We can introduce a disequilibrium term, a parameter μ_r, that summarizes a range of possible factors, such as wage setting policies that are not region-specific, which might, by introducing rigidities, result in departures from equilibrium wages and employment, so that

$$w_{rt} = w_{rt}^{eq}(1 - \mu_r) \text{ and } n_{rt} = n_{rt}^{eq}(1 + \mu_r/d_r).$$

We now consider the likely effect of shocks to relative employment and wages arising from two possible sources: a shock to relative labor demand and a shock to relative labor supply. In this context, a shock to labor supply will likely not come about through migration, but may be important given the initial conditions. We know that Soviet participation rates were high and that, combined with demographics, may imply nontrivial labor supply effects in the transition. Thus, shocks to labor demand (which we assume will dominate) and labor supply will result in shifting the parameters, q_{rt} and v_{rt}, so that

$$q_{r,t+1} - q_{rt} \equiv x_r \text{ and } v_{r,t+1} - v_{rt} \equiv -\epsilon_r$$

where x_r summarizes changes in demand for a region's goods and $-\epsilon_r$ summarizes changes in labor supply.

These shocks lead to changes in relative employment and wages:

$$n_{r,t+1} - n_{rt} = \frac{x_r + \epsilon_r}{d_r + s_r}(1 + \mu_r/d_r) \text{ and } w_{r,t+1} - w_{rt} = \frac{s_r x_r - d_r \epsilon_r}{d_r + s_r}(1 - \mu_r).$$

Using these equations, we can relate changes in relative employment and relative wages:

$$n_{r,t+1} - n_{rt} = (w_{r,t+1} - w_{rt})/\gamma_r$$

where

$$\gamma_r = \left(s_r \frac{x_r}{x_r + \epsilon_r} - d_r \frac{\epsilon_r}{x_r + \epsilon_r} \right) \frac{1-\mu_r}{1+\mu_r/d_r}.$$

We now need to consider the evolution of relative wages and employment given shocks. As indicated earlier, this will be sensitive to the way in which regions interact with each other. We can think of this in terms of at least three channels. They can be represented in terms of the ability to trade goods and services across regions, the ability to move capital across regions, and, finally, the ability of labor to move across regions. For our purposes, the main assumption is that mobility of workers, and hence migration, is absent. By contrast, we assume that capital can move across regions and will do so. It seems reasonable to believe that low relative wages in a region, $w_{rt} < 0$, will eventually sponsor job creation in that region and, in due course, will lead to an increase in relative employment.[5] This implies that the growth rate of employment is proportional to the relative wage:

$$n_{r,t+1} - n_{rt} = -\alpha w_{rt}$$

or

$$\dot{n}_{rt} = -\alpha w_{rt}$$

in continuous time. The parameter α summarizes the degree to which capital is mobile.

Substituting changes in the wage for changes in employment, we can also get an expression for determining the adjustment over time of the relative wage:

$$\dot{w}_{rt} = -\tau_w^{-1} w_{rt}$$

---

5. Note that we could easily rewrite the previous equation in terms of relative unemployment given shocks. Furthermore, we could assume that wages were negatively related to unemployment at a regional level, so that combining the relationship between relative wages, employment, and unemployment, we get

$$w_{rt} = -\gamma_r C \dot{u}_{rt}$$

where C is a constant.

which in continuous time gives $w_{rt} = w_{ro} e^{\frac{-1}{\tau_w}}$, or in discrete time $w_{rt} = w_{ro}(1-\tau_w^{-1})^t$. Clearly, relative employment will have the same time path as relative wages, and also will tend to zero when t tends to infinity.[6]

We can now see that the parameter τ_w in the time path of relative wages and employment characterizes the approximate time for the adjustment process and can be expressed through the main parameters of our model:

$$\tau^{-1} = \alpha\gamma_r = \alpha \left(s_r \frac{x_r}{x_r + \epsilon_r} - d_r \frac{\epsilon_r}{x_r + \epsilon_r} \right) \frac{1-\mu_r}{1+\mu_r/d_r}.$$

It is inversely proportional to the incentive to create new jobs (α) and is proportional to the elasticity of labor supply in the case of labor demand shock ($\epsilon_r = 0$) or to the elasticity of labor demand in the case of labor supply shock ($x_r = 0$). In the general case it is proportional to the weighted elasticity.

From the above, we can see that the impact of shocks will depend on the relative weight of labor demand as against labor supply shocks and their relative elasticities. How long-lasting these shocks are will also depend on the job creation parameter, and hence implicitly on the mobility of capital. Insofar as job creation is driven by the movement in the relative wage, the presence of wage rigidities will be important.

In our model, we can easily see that such rigidities might enter through three immediate channels. The simplest type of relative wage rigidity arises through the distribution of relative wages over all regions. As it follows from the time path of w_{rt}, there is inertia in relative wages. Regions with a high (low) relative wage will tend to keep their wage above (below) the average level over the adjustment. A second possible source could be through the actions of local governments, which we crudely characterize by the parameter μ_r. This might take the form of intervention in region-specific wage setting as, say, through maintenance of earlier wage relativities. A third type of relative wage rigidity concerns the nonzero equilibrium distribution of relative wages $w_{r\infty}$ and may be introduced with the help of the following equation:

$$\dot{w}_{rt} = -\tau_w^{-1}(w_{rt} - w_{r\infty}).$$

---

6. This is the case only if the parameter τ_w is strictly positive, but in some cases it can become negative, and instead of convergence of regional wages to the average level we can have departures from that level.

7

Characteristics of the Unemployed

Simon Commander and Ruslan Yemtsov

As chapter 6 revealed, Russian unemployment has proven hard to measure accurately. However, registrations and survey data coincide in indicating a clear upward drift. At the same time, the analysis in chapter 3 suggested a significant correlation between unemployment and the likelihood that the affected household will fall into poverty. In addition to not being paid, unemployed workers also, at least in principle, lose access to other firm-specific components of compensation that have traditionally included large nonmonetary parts, including access to health care and other social facilities. The safety net that unemployment benefits provide has remained low and is less than minimum subsistence levels. For this reason, a separate study of the characteristics of the unemployed is an integral aspect of our understanding of the causes and nature of poverty in Russia during the transition.

The coincidence of poor opportunities for workers outside their present jobs and firms having objectives broader than profit maximization has led to several outcomes. In the first place, hours adjustment has been common and significant. At the end of 1994, roughly 6 percent of workers were on short time or on involuntary leave. While this has reduced the fall in hours-adjusted productivity, it has also resulted in a situation where people remain formally attached to firms but have little work to do at those sites, and hence actively seek other employment. This has led some to argue that real unemployment has been much higher than reported, often by significant magnitudes (see, for example, Standing 1993). Second, partly as a result of hours contraction, holding secondary or multiple jobs has become extremely widespread. At the end of 1994 possibly as much as 20 percent of the working age population had a

secondary job. This has important measurement implications, which are explored later. Third, flows into and out of registered unemployment have been relatively limited, in that job to job transitions have dominated.

A Profile of Unemployment

A detailed profile of the unemployed in Russia in 1994 reveals a series of complexities, and also the need to revise commonly held views that may no longer reflect reality. One commonly held view has been that Russian unemployment was characterized by a disproportionate share of female unemployment in total unemployment (see, for example, Fong 1993). While this was true at the early stages of the transition, the labor force survey (LFS) numbers reported in table 7-1 suggest that this bias was rapidly eliminated as female and male unemployment rates converged. The evidence suggests that the elimination of the gap has not been due to differing rates of labor force withdrawal, because the decline in participation rates is roughly equivalent for men and women.

Ambiguities in measurement, which arise in part from the growing importance of holding multiple jobs, complicate the picture of unemployment revealed by official statistics. We use the results of two discrete rounds of a questionnaire on employment status implemented in March and October 1994 to illuminate the story. (The questionnaires were attached to the regular monthly questionnaire implemented by the All-Russian Center for Public Opinion Research (VCIOM), which was described in chapter 1. A control question was inserted to select those without primary work as well as those on short time or involuntary leave.) Instead of just focusing on those without primary work, we are also able to pick up those on involuntary leave and short-time work. The first round covered about 3,000 individuals and the second round included just under 2,000 individuals. The samples are broadly representative, at least in terms of age, education, and gender. In

Table 7-1. *Unemployment and Participation Rates by Gender, 1992–94*
(percent)

	Unemployment rate			*Labor force participation rate*		
Gender	*1992*	*1993*	*1994*	*1992*	*1993*	*1994*
Men	4.7	5.6	7.2	79.2	74.4	—
Women	5.0	5.6	6.9	61.6	58.7	—
Total	4.9	5.6	7.0	68.7	65.9	64.5

— Not available.
Source: Goskomstat; annualized data based on LFSs.

the first round 316 respondents answered the control question and in the second round 210 respondents did so.

Based on the questions about job search and hours worked, those without any effective employment, yet searching, can be separated from those with marginal or other employment. As a result, we can distinguish between six types of unemployed or marginally employed as laid out in table 7-2. The first category, the true unemployed, report zero hours of work per week, no secondary job, yet are actively searching. The second category, nonparticipants, relates to those without work, waiting for re-employment, but not searching. The third consists of those who were not working, but were not actively searching as they expected to be re-employed by their former employers. The fourth and fifth categories include those subject to hours adjustment, the former relating to people working less than twenty hours per week in either primary or secondary jobs (with fewer secondary job hours than primary job hours); the latter relating to those with a primary job subject to hours adjustment, but one that still left them working for more than twenty hours per week. The sixth category consists of those with only secondary employment.

The following results emerge. First, the true unemployed made up 2.8 to 3.5 percent of the total sample. That share rises toward 5 percent once those subject to large downward hours adjustments are included. This contrasts with the maximum bound of 10 to 11 percent if all those marginally employed or out of the labor force were included with the true unemployed. In other words, estimates of the number of true unemployed are significantly below the LFS figures reported in chapter 6. Second, those subject to some degree of hours adjustment, but still working, ranged between 4.5 to 6.0 percent of the total sample. Finally, those in secondary employment amounted to around 1.7 percent. There appears to be a fairly stable distribution of people among these categories for the two points in time. The slight fall in the share of the true unemployed between March and October 1994 is accompanied by some increase in those involved in secondary employment.

This exercise is helpful in getting a better sense of what unemployment means to the people affected. Next, we can begin to ask how people became unemployed. This is important, because we know that voluntary rather than involuntary separations have dominated in Russia. Foley (1995), for example, using Russian Longitudinal Monitoring Survey (RLMS) data shows not only that job to job flows dominate in the labor market, but that quits outnumber involuntary separations in all transitions. Table 7-3 indicates that while layoffs have increased over time and have been particularly concentrated on women, the share of quits has remained high. Up through 1994, a significant share of the unemployed can be traced to new entrants and, to a lesser extent, re-entrants to the labor force.

Table 7-2. Unemployment and Marginal Employment, 1994

Description	Round 1, March 1994					
	True unemployed (category 1)	*Nonparticipant (category 2)*	*Waiting for re-employment (category 3)*	*Employed part-time (category 4)*	*Reduced work time, but near full (category 5)*	*Secondary employment (category 6)*
Percentage of sample	3.5	0.6	0.6	1.4	2.9	1.6
On reduced work hours (%)	2	0	0	67	86	0
On involuntary leave (%)	8	0	100	33	14	19
Without primary work (%)	90	100	0	0	0	81
Registered by FES (%)	50	0	0	5	7	32
Receiving unemployment benefits (%)	29	5	0	0	0	23
Spell of unemployment or part-time work < 1 year (%)	17	42	0	10	5	17
Monthly exit rate to full-time job in March (%)	4	0	47	21	32	9

Description	Round 1, March 1994					
	True unemployed (category 1)	*Nonparticipant (category 2)*	*Waiting for re-employment (category 3)*	*Employed part-time (category 4)*	*Reduced work time, but near full (category 5)*	*Secondary employment (category 6)*
Women (%)	59	68	71	55	61	47
Mean age (years)	34	33	41	40	40	38
With higher education (%)	13	5	6	7	28	26
Living in rural areas (%)	24	42	18	5	13	23
Never worked full-time (%)	13	16	0	7	2	17
Laidoff in individual or mass layoff (%)	46	32	n.a.	7	2	19
Quit (%)	35	42	n.a.	0	0	45
Mean income per family member (rubles)	58,840	68,111	41,333	62,128	83,000	88,645
Percentage living in poverty[a]	75	74	65	71	49	62
Mean job hours/week	0	0	0	15	31	25

(Table continues on following pages.)

Table 7-2. (continued)

Description	Round 2, October 1994					
	True unemployed (category 1)	*Nonparticipant (category 2)*	*Waiting for re-employment (category 3)*	*Employed part-time (category 4)*	*Reduced work time, but near full (category 5)*	*Secondary employment (category 6)*
Percentage of sample	2.8	0.4	0.9	1.9	2.9	1.8
On reduced work hours (%)	7	0	17	68	58	6
On involuntary leave (%)	25	0	78	24	42	26
Without primary work (%)	67	100	6	8	0	69
Registered by FES (%)	35	0	0	8[b]	9	20
Receiving unemployment benefits (%)	18	0	0	3	2	20
Spell of unemployment or part-time work < 1 year (%)	18	38	11	14	11	20
Monthly exit rate to full-time job in October (%)	4	0	33	32	60	6
Women (%)	54	37	67	70	68	60
Mean age (years)	38	41	44	38	43	33
With higher education (%)	16	12	16	29	16	48
Living in rural areas (%)	24	42	18	32	5	25

Description	Round 2, October 1994					
	True unemployed (category 1)	*Nonparticipant (category 2)*	*Waiting for re-employment (category 3)*	*Employed part-time (category 4)*	*Reduced work time, but near full (category 5)*	*Secondary employment (category 6)*
Never worked full-time (%)	16	0	6	5	2	6
Laidoff in individual or mass layoff (%)	59	38	18	24	25	52
Quit (%)	25	63	18	24	8	42
Mean income per family member (rubles)	95,318	32,271	102,773	126,801	175,099	126,988
Percentage living in poverty [a]	65	100	50	30	19	49
Mean job hours/week	0	0	0	15	40	24

n.a. Not applicable.
FES Federal Employment Service.
a. A family is living in poverty if the mean income per family member is less than the region-specific poverty line (minimum subsistence level).
b. For four individuals who lost their jobs during October 1994.
Source: VCIOM surveys.

Table 7-3. *Unemployment by Type of Entry and Gender, 1992–94*
(percent)

	1992		1993		1994	
Category	*Men*	*Women*	*Men*	*Women*	*Men*	*Women*
Total	100.0	100.0	100.0	100.0	100.0	100.0
Laid off	17.9	30.9	20.2	30.7	27.0	36.0
From state enterprises	—	—	18.5	29.8	—	—
From private (cooperative) firms	—	—	1.7	0.9	—	—
Quits	37.6	27.4	43.4	32.3	42.0	31.0
Re-entrants	9.5	7.1	13.0	7.7	—	—
Retired	—	—	6.3	7.5	—	—
New entrants	35.0	34.6	23.4	29.4	14.0	18.0
Graduates	7.8	11.9	8.2	13.3	8.0	14.0

— Not available.
Source: LFSs, October 1992, 1993, 1994.

Who Are the Unemployed?

Table 7-2 indicates that the bulk of the true unemployed are those without any primary work, although a significant share of the true unemployed in late 1994 were people on involuntary leave with some residual attachment to their former employer. In other key respects—gender, age, location, and educational attributes—no particularly strong attributes are common among the true unemployed relative to the marginally employed. However, the exit rate of the true unemployed, while stable, is markedly lower than for all other categories except nonparticipants.

An analysis based on the full sample of those employed, marginally employed, and unemployed reveals significant distinguishing characteristics. Table 7-4 provides probit estimations for both rounds conditioned on being truly unemployed. Here we find a negative, but generally insignificant, relationship with age, being female, and the extent of education. The location variables do not matter, but being involuntarily separated, either individually or in a mass layoff, is positively and significantly associated with being truly unemployed.

Table 7-5 presents the characteristics of those with secondary employment or being in category 6. As expected, there is a strong positive link to education and to the means by which people left their previous full-time employment. Those who quit had a far higher likelihood of finding secondary employment. Again, the location coefficients are insignificant or ambigu-

ous, but in early 1994 at least, being in Moscow or St. Petersburg generated a positive and significant coefficient. Given the size and depth of the labor market in these two locations, this might be expected.

In 1991, in recognition that the transition to a market economy was likely to lead to higher frictional, as well as significant, short-term structural unemployment, the Russian government established the Federal Employment Service (FES). The FES has several functions related to income support for the unemployed and active labor market programs, such as training and public works. The rules related to eligibility and level of unemployment benefits are set out in chapter 8. The FES operates on a decentralized basis in every oblast and most raions across the country. This section uses survey data to evaluate the extent to which people affected by unemployment register as such.

The FES clearly has only incomplete coverage among the unemployed. This can be attributed to a number of factors, including lack of access to the limited number of employment offices, the low material incentives associated with registration, and the widespread perception that finding jobs

Table 7-4. *Determinants of True Unemployment for March 1994 and October 1994*
(probit—dependent variable is true employment—category 1—status)

	March 1994 (N = 316)		*October 1994 (N = 210)*	
Variable	*Coefficient*	*T-statistic*	*Coefficient*	*T-statistic*
Age	-0.022	-2.742	-0.008	-0.975
Higher education	-0.218	-0.882	-0.279	-1.077
Primary education	0.097	0.479	0.435	1.461
Mass layoff	1.634	7.422	1.265	4.792
Firm liquidated	1.197	2.513	0.941	2.342
Quit	1.458	5.403	0.483	1.323
Female	-0.156	-0.916	-0.252	-1.192
Family size	-0.038	-0.569	0.005	0.068
Moscow and St. Petersburg	0.083	0.224	-0.105	-0.266
Medium and small cities	0.276	1.332	0.282	1.102
Rural area	0.085	0.384	-0.219	-0.753
Constant	-0.012	-0.029	-0.559	-1.009
Log likelihood	-152.4999		-102.14896	
Cases with category 1 = 1	104		55	

Note: N refers to the number of unemployed.
Source: Authors' calculations based on VCIOM survey.

Table 7-5. *Determinants of Secondary Employment Status*
(probit—dependent variable is secondary employment status)

	March 1994 (N = 316)		*October 1994 (N = 210)*	
Variable	*Coefficient*	*T-statistic*	*Coefficient*	*T-statistic*
Age	-0.011	-1.396	-0.036	-3.038
Higher education	0.510	2.215	0.914	3.637
Mass layoff	0.193	0.841	0.342	1.090
Firm liquidated	-0.204	-0.381	0.123	0.229
Quit	0.410	1.526	0.971	2.501
Female	-0.372	-2.147	-0.187	-0.719
Family size	0.048	0.779	0.124	1.355
Moscow and St. Petersburg	0.782	2.334	-0.277	-0.714
Medium and small cities	-0.168	-0.760	-0.642	-2.067
Rural area	0.266	-0.195	-0.387	-1.189
Constant	-0.660	-1.605	-0.068	-0.110
Log likelihood	-152.4999		-102.14896	
Cases with category 6 = 1	104		55	

Note: N refers to the number of unemployed.
Source: Authors' calculations based on VCIOM survey.

through the FES is not easy. Indeed, more than 20 percent of those that registered attached little or no probability to finding a job through the FES. Furthermore, we have already indicated that receipt of benefits may not necessarily coincide with an absence of employment.

The two rounds of survey results allow us to relate the status of individuals registering and receiving benefits in 1994 in terms of the six categories above. Figure 7-1 shows that between a fifth and a third of total registrants were actually significantly involved in secondary employment, with a further 5 to 8 percent accounted for by people working almost in a full-time capacity (category 5). The presence of widespread secondary work among registrants can probably be explained by the fact that such people are still looking for what they consider to be primary employment. In the Russian context, this might be equivalent to a job with an established firm, hence close to the distinction between formal and informal sectors found in the literature on developing countries.

Not all people registered with the FES receive unemployment benefits. For example, people without a sufficient work history are not entitled to benefits. Benefits are also limited in duration to twelve months. Nonetheless, as

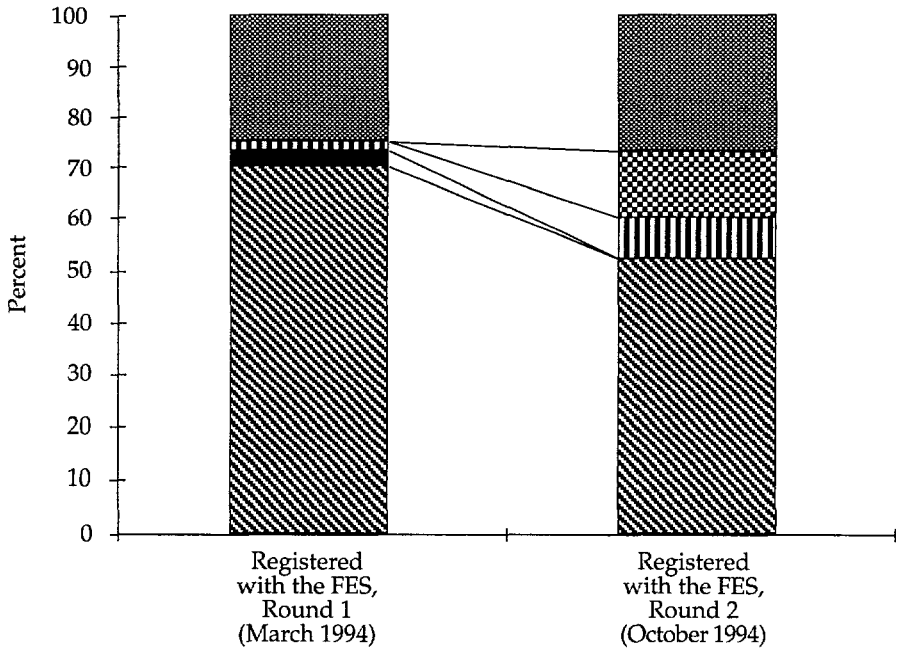
figure 7-2 indicates, around 25 percent of benefits recipients held secondary jobs, and in October 1994 a further 10 percent of recipients actually held primary jobs and were working on a nearly full-time basis. At that time, the true unemployed made up only about half of total benefits recipients. In short, receipt of benefits was not strictly correlated with unemployment and was occurring even at mean family member incomes between 33 to 50 percent higher than for the true unemployed (table 7-2). A clear impression is that FES staff are often unable to evaluate the actual labor market status of individuals coming to their offices to register as unemployed and claim benefits.

Simple probit equations for March and October 1994 relate the binary variables of registration and receipt of benefits to a set of individual charac-

Figure 7-1. *Who Is Registered with the FES?*

Source: VCIOM.

Figure 7-2. *Receipt of Unemployment Benefits*



Source: Authors' calculations based on VCIOM rounds of March and October 1994.

teristics (tables 7-6 and 7-7). No marked changes occur during 1994. Being laid off, either individually or because of firm closure, is positively and significantly related to registration and, at least in late 1994, to benefits receipt. Similarly, new entrants do register, but do not receive benefits, which conforms to the entitlement rules. An education variable with a positive and significant coefficient likely picks up a combination of information advantages and compositional factors. In the early stages of the transition, flows to unemployment were clearly dominated by white collar workers with higher duration of unemployment. While regional factors are not very important, in rural areas the coefficient is negatively and significantly signed for registration. Gender does not appear to be important for either registration or benefits.

Benefits receipt and being laid off are positively associated, but the coefficient on the secondary job variable is not only positive, but very significant. This again suggests that the FES often assigns benefits to people who are not true unemployed, although given the level of benefits provided, finding extensive participation in secondary employment is hardly surprising. Benefits alone—as table 7-2 makes starkly evident—provide little effective fallback for household incomes. Almost all the true unemployed receiving benefits had per capita incomes below the oblast poverty line. While those with secondary employment, including those getting benefits, reported higher mean incomes, most were still below the poverty line.

In summary, the time use, registrations, and benefits data reveal a world rather more complex than that derived from a standard definition of unemployment: 30 to 50 percent of those who register as unemployed do not fit the Organization for Economic Cooperation and Development (OECD) and International Labor Organization (ILO) definition. However, the gains from manipulating the benefits system are hardly lucrative. The mean incomes of both

Table 7-6. *Determinants of Registration at the FES*
(probit—dependent variable is registration with employment service)

	March 1994 (N = 316) (94)		*October 1994 (N = 210) (48)*	
Variable	*Coefficient*	*T-statistic*	*Coefficient*	*T-statistic*
Spell<6 months	0.0074626	0.0394191	0.1928974	0.6740250
Spell>1 year	-0.2478543	-0.7289420	0.5524104	1.0613549
Laid off	1.6408611	7.5702803	1.4103808	5.1822290
After firm liquidation	1.7458176	3.3069059	0.9016683	2.2444539
New entrants	0.6661533	2.4848243	0.1551970	0.3883228
Females	0.0545127	0.3137823	0.0643215	0.2905401
With higher education	0.4555191	2.0286260	0.2888435	1.1840573
Oblast centers	-0.2580671	-1.3309896	-0.0557861	-0.2138973
Moscow and St. Petersburg	-0.0328905	-0.0890243	-0.0822037	-0.2210123
Living in rural area	-0.0264703	-0.1134683	-0.7021792	-2.2660786
Constant	-0.9673088	-4.7864833	-1.1053866	-4.8023605
Log likelihood	-152.60438		-95.038730	

Note: N refers to the number of unemployed, and the figure underneath refers to the number of registered unemployed.
Source: Authors' calculations based on VCIOM survey.

Table 7-7. *Determinants of Benefits Receipt*
(probit—dependent variable is receipt of benefits)

	March 1994 (*N = 316*) (*55*)		*October 1994* (*N = 210*) (*19*)	
Variable	*Coefficient*	*T-statistic*	*Coefficient*	*T-statistic*
Without primary job	1.6232724	4.2971049	0.7794546	2.3270171
With second job	1.4076426	3.5575637	0.5102007	1.6497395
Laid off	0.8910088	3.6934303	1.4080143	4.1189041
After firm liquidation	0.0027156	0.0043867	0.9065558	1.7183069
Females	0.7606732	3.0053401	-0.1091218	-0.3396186
Number of family members	-0.1185220	-1.2454814	0.0527888	0.4612311
Moscow and St. Petersburg	0.4162987	0.9920192	0.3675334	0.6218614
Oblast centers	0.1144155	0.4048521	0.2369211	0.6084559
Living in rural area	0.5708933	1.8338028	-0.2753483	-0.6376493
Constant	-2.8980094	-5.5090515	-2.6357453	-4.7849117
Log likelihood	-83.026921		-44.259487	

Note: N refers to the number of unemployed and the figure underneath refers to the number of benefit recipients.
Source: Authors' calculations based on VCIOM survey.

the true unemployed and the other categories, whether or not they are receiving benefits, are extremely low. The next section explores this issue further.

Unemployment and Income

Table 7-2 revealed that the mean per capita incomes of those who are unemployed or marginally employed are extremely low, although with significant variation among the categories. What is perhaps most striking is the low level of wages and mean income per family member across the full set of working age people in 1994. Mean per capita income for the full sample in both rounds was only 20 to 25 percent higher than for the unemployed or marginally employed. This is consistent with the findings from firm surveys, which indicate that average wages fell below a regionally adjusted poverty line in more than 20 percent of cases (Commander, Dhar, and Yemtsov 1995), as well as the high incidence of poverty reported in earlier chapters of this volume. Low wage regimes appear to be the norm in most parts of Russia.

Let us now explore some of the basic characteristics determining the level of wages. We undertook ordinary least squares (OLS) estimations for both rounds for primary wage earners, including an inverse Mills term extracted

from a probit specification and controlling for selectivity bias. Wages are, as might be expected, positively correlated with educational attainment and with residence in one of the major cities and negatively associated with the age, female, and residence in rural areas variables. As expected, the coefficient of the variable for unemployment (encompassing categories 1–6 inclusive) is large, negatively signed, and very significant.

The incidence of poverty among the unemployed and those with marginal employment is between 50 to 60 percent for all six categories through 1994. At the same time, those who are true unemployed or have shifted into nonparticipation have the highest exposure rates to poverty, in terms of per capita family income. This is consistent with the RLMS results reported in chapter 3. As already noted, while secondary work clearly raises average family income, it does not necessarily enable escape from poverty. Indeed, given the relative frequency of benefit receipt among those engaged in secondary work, the impression is that secondary work consists largely of low-income jobs, mostly in services.

We investigate the link between unemployment and income more systematically by estimating a simple income function by OLS. Putting aggregate family income on the left-hand-side, we regress this on gender, age, educational status, location, and the category of unemployment. We again calculate an inverse Mills ratio and insert it in the equation so as to correct for selectivity bias. We also control for region-specific differences in price levels—a significant feature in Russia—by introducing region dummies for oblasts with particularly high price levels, such as the northern regions. Income is clearly negatively associated with being female; the reverse holds for educational attainment. As expected, there is a very significant negative association between income and being unemployed, while secondary work yields a strongly significant positive coefficient.

Table 7-8 presents further investigation of the characteristics of the poor in the survey sample. Again, being in poverty is positively associated with the age, female, and some location variables. Having secondary or higher education is negatively linked, as is residence in a major city or in the northern regions. And—hardly surprising—being true unemployed enters with a strong positive and significant coefficient.

The foregoing analysis confirms that unemployment and poverty run closely together. Low unemployment benefits are partly offset by increasing involvement in secondary work, but the overall impact pushes relatively few people over the poverty line. And as earlier chapters showed, many of the employed remain mired in poverty. Even so, the plight of the unemployed is serious, despite signs of active job search and the growth of informal or secondary employment.

Table 7-8. *Determinants of Poverty*

Variable	*Coefficient*	*Standard error*	*T-statistic*	*2-tail*
C (constant)	-0.3584795	0.0935486	-3.8320122	0.000
Age	0.0077061	0.0016964	4.5427277	0.000
Female	0.2326987	0.0507530	4.5849211	0.000
Higher education	-0.4625067	0.0632166	-7.3162238	0.000
Secondary education	-0.0492557	0.0722499	-0.6817411	0.495
Primary education	0.3711786	0.0752857	4.9302656	0.000
Moscow and St. Petersburg	-0.4019167	0.0705541	-5.6965746	0.000
Medium and small cities	0.1119613	0.0596205	1.8778988	0.060
Rural area	0.3535333	0.0628605	5.6240939	0.000
North	-0.1583392	0.0638276	-2.4807327	0.013
South	-0.0118552	0.0721491	-0.1643149	0.869
True unemployed	0.5739363	0.1444083	3.9744002	0.000
Log likelihood	-1759.5638			
Cases with POVDUM = 1	1468			
Cases with POVDUM = 0	1303			

Source: Authors' calculations based on VCIOM survey.

Dimensions of Unemployment

Several dimensions of unemployment have a critical impact on household welfare. Here we examine three of the key aspects: duration of unemployment, job search activity, and transitions in and out of unemployment and employment.

Duration

Durations of unemployment seem to be quite short, although they are clearly rising over time (see chapter 6). Table 7-9 summarizes LFS data on durations during 1992–94. There is a clear increase in average duration in the LFS numbers, including a doubling in the share of long-term unemployed between 1992 and 1994. By October 1994 the long-term unemployed (out of work for more than twelve months) accounted for more than 23 percent of the unemployed. However, the VCIOM numbers place the long-term unemployed at less than 10 percent of the unemployed by the end of 1994, although they did show that the mean unemployment spell had increased. The October 1994 observations for completed unemployment spells show that average duration was just over six months. In sum, both FES and survey data indicate that most of those who enter unemployment manage to leave without being

trapped in long-term unemployment. Thus the overall picture is one where inflows to unemployment have remained significantly higher than in Eastern Europe, but so have outflow rates. The stagnant pool characterization does not fit the Russian context (for Eastern Europe see Boeri 1994). This suggests that the welfare impact of unemployment might be cushioned somewhat, insofar as households may be better able to cope with short-term spells of joblessness.

Job Search

The surveys provide an indication of how actively the unemployed and marginally employed search for work. Table 7-10 summarizes the various job search channels using LFS and VCIOM survey information. There are several channels for search beyond the FES, including visiting firms, following up on advertised vacancies, and relying on friends and relatives. Some trend toward greater diversity in search behavior appears to be occurring.

The VCIOM survey also indicates that registration and job search were not tightly linked. Indeed, around 20 percent of the registered unemployed attached little or no importance to finding a job through the FES. Furthermore, almost all job offers through the FES were in the state sector, whereas more than half of actual job finds were in private firms. The link between registration and job search also fell over time. More generally, a probit estimation linking an active search response to a set of attributes found a strong positive and significant coefficient for the true unemployed and those with secondary employment. As might be expected, there was a clear positive association between search and the type of separation: those who had been involuntarily separated were far more likely to be actively searching than those who had quit.

Table 7-9. *Duration of Unemployment, 1992–94*
(percentage of survey respondents)

Unemployment spell	*1992*	*1993*	*1994*
Up to 1 month	26.8	17.3	11.5
2–6 months	48.7	47.6	46.8
7–12 months	13.1	16.6	18.6
More than one year	11.4	18.9	23.1
Average spell (months)	4.4	5.8	—

— Not available.
Source: LFSs, October 1992, 1993, 1994.

Table 7-10. *Job Search Methods Used by the Unemployed, 1992–94*
(percentage of total number of unemployed)

Method	*1992*	*1993*	*1994*
Applied to employment offices	27.8	32.0	49.4
FES	27.8	30.6	—
Commercial agencies	—	1.4	—
Using advertisements in newspapers	8.4	13.7	7.3
Applied directly to the employers	26.7	31.3	27.2
Tried to start own business	1.7	1.8	—
Using personal contacts	29.0	36.5	18.1
Job offer received	6.3	0.8	—
Other methods	13.3	15.8	1.0

— Not available.
Note: Unemployed by LFS definition, prevailing method for job search (multiple answers were allowed).
Source: LFSs, October 1992, 1993; World Bank-VCIOM survey April and October 1994.

Job search for the unemployed and marginally employed appears strongly constrained by regional boundaries. Only 30 to 40 percent were prepared to move regions to find alternative work in both rounds. A probit estimation relating the willingness to move to a set of attributes found that younger, male workers and those who had been involuntarily separated were far more likely to consider moving regions. This was also true for respondents in the northern regions, where migration is historically high.

The determinants of job search behavior reveal little apparent negative association between job search and the duration of unemployment or marginal employment. Although the sample has small shares of long-term unemployed, the fact that longer duration has no discernible disincentive effect on search activity is an important finding.

Transitions

As already indicated, the Russian labor market has continued to have large gross flows. Inflow and outflow rates for unemployment have been large relative to other countries undergoing transition. Moreover, firm evidence suggests that, at least in thicker markets, flows in and out of employment have remained high. In both respects, the Russian labor market stands in contrast to Eastern Europe.

The surveys allow further investigation of the size of these gross flows and their transition route, although the small overall numbers involved might

qualify the significance of the results. Because of the slightly different organization of the questionnaire in the two rounds, tables 7-11 and 7-12 present two sets of transition probabilities (for the October round, an explicit question asked whether a person had made a job transition in 1994 and the starting point and destination of that transition). Table 7-11 gives reasons leading to a job transition and likely transition, table 7-12 relates this to the type of firm from which a transition was made.

Several features emerge. First, involuntary separations accounted for 40 to 45 percent of transitions. For October 1994, where we can pick up the starting point, the level of involuntary separations among private sector employees is striking. However, quits continue to be of almost comparable importance. Second, while unemployment and nonparticipation dominate as the destination for those involuntarily separated, of those quitting their previous employment, between 17 and 29 percent went to unemployment. This likely points to the relatively high turnover in unemployment found earlier. Even so, the probability of finding a job is quite high for all types of separations, as well as for new entrants. Furthermore, nearly 60 percent of those transitions to jobs were made to secondary or informal activity, and the probability of either a quitter or a new entrant moving to an informal job was

Table 7-11. *Factors Inducing a Job Transition and Likely Destination, March 1994*

Transition route	*Share*	*Non-participation*	*Primary work*	*Secondary work*	*Unemployment*
Firm closure/laid off	0.39	0.10	0.25	0.15	0.50
Other involuntary separation	0.13	0.25	0.20	0.20	0.35
Quits	0.29	0.11	0.11	0.37	0.40
New entrants	0.19	0.10	0.10	0.27	0.52

Source: World Bank-VCIOM survey.

Table 7-12. *Transition Probabilities, October 1994*

Transition route	*State*	*Private*	*Unemployment*	*Nonparticipation*
State sector quits	0.25	0.29	0.29	0.17
State sector layoffs	0.26	0.24	0.46	0.04
Private sector quits	0.17	0.66	0.17	0.00
Private sector layoffs	0.15	0.23	0.54	0.07
Other	0.41	0.18	0.36	0.04

Source: World Bank-VCIOM survey.

significantly higher. The crude hazard rates also reveal increasing flows from the state to the private sector. By October 1994 roughly comparable probabilities can be observed for both voluntary and involuntary separations for transitions to private as against state jobs. However, this likely overstates the true flow from the state to the private sector, in that no distinction was made between newly established private and privatized (former state) firms. Moreover, flows are not only away from state firms toward the private sector and unemployment. More than a quarter of those leaving state firms actually moved to another state firm, and this is also true for more than 15 percent of private sector workers making a transition. These shares would be even higher if we could properly control for privatized as against new private firms.

In sum, state and privatized firms continued to hire through 1994. Transitions to private sector jobs are increasingly important. Nonetheless, unemployment, particularly for people who were laid off, has become an important part of the flow distribution. As chapter 6 indicated, the overall impression is that as yet, unemployment in Russia remains transitory with reasonably large outflow rates, including to jobs.

Conclusions

This chapter covered several tasks in building upon the aggregate dimensions of unemployment that were presented in chapter 6. The measurement issues and characteristics of the unemployed that are critical in assessing the extent and profile of poverty in Russia were investigated by drawing on two rounds of a survey in March and October 1994. The analysis revealed and illuminated several previously ill-understood dimensions of unemployment. Those who are likely to be classed as unemployed are somewhat heterogeneous. Some remain attached to firms through hours adjustment or through probabilities of re-employment; others, though without primary employment, have succeeded in finding secondary work. Adjusting for these factors, we arrive at a number for true unemployment, taken in the OECD/ILO sense, which is significantly lower than the figures reported from the Goskomstat LFS, in the range of 5 percent in 1994.

The distinctions among people who otherwise might all be broadly classified as unemployed reveal significant insights into labor market behavior and how people are adjusting to the transition. Nonetheless, being unemployed or marginally employed generally implies very low incomes, particularly for the former. There is a close link between unemployment and poverty. Even people with less hours adjustment or significant secondary employment have mean incomes that are low and typically be-

neath their regionally-adjusted poverty lines. Further investigation of the link between unemployment and low incomes revealed that women are especially badly affected. By contrast, higher educational attainment and secondary work are associated with higher incomes among households affected by unemployment.

Part II

Public Policy and Private Responses

8

The Impact of Social Support: Errors of Leakage and Exclusion

Mark C. Foley and Jeni Klugman

Income from work is the primary form of support for the vast majority of people in Russia. This includes labor income from formal and informal sector activities, including work on private plots where people engage in home production. However, the system of social support, again both formal and informal, does play a critical role. The formal system comprises several social insurance and assistance programs that are directed toward certain population groups. Informal support includes the help that people receive from friends and relatives outside the household, which is explored in chapter 9. This chapter explores the impact of the various types of social support the government and enterprises provide.

The Impact of Soviet Social Spending

As described in chapter 2, an extensive system of social benefits and services developed during the Soviet period. The official definition of the Social Consumption Fund (SCF) included cash transfers other than wages, such as pensions, student stipends, sick leave and maternity benefits, children's and income supplementary allowances, free education and health services, and a range of free or subsidized services such as housing and vacation homes (Ofer and Vinokur 1992, p. 171). Pensions for industrial workers, and later for the whole population, and the family allowances were the main pillars of cash support in addition to wages. Remember that the state was effectively

almost the sole employer, and that pension payments were strongly work related. The state provision and financing of social services, in particular health and education, was also widespread and contributed to steadily rising social indicators throughout most of the Soviet period.

However, as explained in chapter 1, there is a paucity of representative data from the Soviet period, and hence we know little about the distributive impact of social spending during that time. Important insights are nonetheless revealed by three major studies published in the West. Using cross-sectional econometric analysis of household data, Ofer and Vinokur (1992) found that monetary government transfers were a major source of income equalization for the entire population. Such transfers reduced the decile ratio based on earnings from 4.66 to 3.26 and raised the share of the lowest decile from 0.6 percent of income to 3.3 percent. The main element in the SCF that financed cash transfers was pensions to the elderly. In addition, the authors investigated the impact of in-kind benefits, in particular, the provision of health and education services. They found that such benefits were distributed fairly evenly on a per capita basis, resulting in an additional equalizing effect on distributive measures, estimated to be of the order of a 0.6 point decline in the decile ratio. Ofer and Vinokur (1992, p. 168) concluded that the SCF stood out as a major contributor to equality and income maintenance.

Milanovic (1992) investigated the role, structure, and distributional impact of the social transfer systems that existed in Eastern Europe and Russia prior to the transition. He found that on average, social transfers amounted to about one-fifth of gross income and tended to be paid with respect to demographic characteristics rather than income. The results are consistent with Ofer and Vinokur (1992) in that Milanovic also found that cash transfers were distributed almost equally per capita, that is, more equally than wage earnings. Pensions in the Soviet Union, which were relatively low (only 36 percent of the average wage in 1989, compared to, say, 47 percent in Bulgaria and 45 percent in Poland) and generally went to households that had few alternative income sources, were more concentrated on the poor than elsewhere in Eastern Europe. Milanovic points out that the distribution of social transfers was nonetheless less equalizing than in established market economies, where benefit incidence tends to be progressive.

Atkinson and Micklewright (1992) note that despite superficial similarities important differences existed between social security in the West and in the countries of Eastern Europe and the U.S.S.R. The latter focused on social insurance, that is, employment-related benefits, and tended to neglect the more fundamental concerns of social security. The importance of the latter, broader function will increase as vulnerability and poverty increase. The

analysis in this chapter reveals the extent to which the distribution of social transfers has shifted away from historical patterns and been able to play a more significant, equalizing role.

Overview of Programs and Expenditures

Since Russia embarked on the transition from a command economy, social programs and expenditures have undergone significant change, including increased decentralization of responsibility for services and programs and the introduction of unemployment benefits (for details on financial, policy, and administrative responsibilities see World Bank 1994, chapter 3). Perhaps the most striking feature of the current system of social protection is the fragmentation of funding sources and responsibilities. Four federal extrabudgetary funds, several ministries, and lower levels of government each play some role. In 1994 social protection expenditures (not including social services such as education and health) represented roughly 9 percent of gross domestic product (GDP). This figure excludes significant subnational budgetary expenditure on housing and utilities (which came to some 3.5 percent of GDP in 1993), as well as spending on social services and enterprise social spending. Table 8-1 highlights the main programs, source of financing, and basis for benefit calculation.

Some cash benefits have hovered around extremely low levels. Unemployment benefits, for example, averaged about 15 percent of the average wage throughout 1994. For many individuals and households in poverty and on minimum benefits, support has been insufficient to raise their household incomes above the minimum subsistence level.

Social assistance expenditures, while relatively low overall, vary widely across the country. This is mainly because most of the financing responsibility lies with local authorities.[1] Prior to the breakup of the U.S.S.R., social spending in some oblasts was as much as four times more per person than in other oblasts. Such differentials have widened, because the adjustment process has a much greater impact on incomes and taxable capacity in some regions than in others, and also because existing mechanisms to redistribute revenues from better-off to relatively poor regions in Russia are limited. A few regions have become fiscally far wealthier, while most have experienced a real revenue decline (see chapter 1).

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1. In 1993, the coefficient of variation of per capita fiscal expenditure was 0.71 overall, though somewhat less for education (0.66) and health (0.55). For more detailed background and analysis see World Bank (1992, 1996b).

Table 8-1. *Main Social Protection Programs, 1994*

Type of benefit	*Source of financing*	*Basis for calculation*
Labor pension	Pension Fund	Formula based on work history and past earnings. Minimum pension is the floor.
Unemployment benefit	Employment Fund	Formula based on past earnings and duration of unemployment. Minimum wage is the floor.
Family allowances		
Birth grant	Social Insurance Fund	500% of minimum wage
Unified monthly benefit bonus	Regional budget	60 to 70% of minimum wage
Childcare for children under 18 months (working mothers)	Social Insurance Fund	50% of the amount of benefits
Childcare for children older than 18 months but less than 3 years old	Enterprises	Not related to minimum wage
Sick pay	Social Insurance Fund	Current earnings. No waiting period.
Local social assistance	Local budget	Assessment of need and available resources.
Housing allowance	Local budget	Formula based on gap between actual expenditure on rent and utilities, and 10% of income.

Note: Table 2-7 shows average and minimum pensions, relative to wages and minimum subsistence.
Source: World Bank (1995).

Social Insurance Programs

In theory, social insurance programs can protect individuals against fluctuations in income while accounting for distributional concerns. In Russia, such programs include pensions, unemployment benefits, and sick pay, and are financed out of extrabudgetary funds.[2] The bulk of social insurance payments is directed toward pensions, and during 1992–94 accounted for about 7 percent of GDP.

The Pension Fund is a significant source of support for Russia's 36 million pensioners. Average pensions have been maintained at reasonable levels, although as revealed in chapters 2 and 3, the minimum pension has frequently fallen significantly below the minimum subsistence level for elderly people. Indexation practices have been ad hoc. In 1995 the real value of the minimum pension declined by about one-quarter and the real average pension declined by about one-fifth. About 3 percent of pensioners receive a social pension as low as two-thirds of the minimum pension. At the same time, some pensions related to specific professions (for example, the military) remain relatively generous because of certain privileges and special benefits. Moreover, about 22 percent of all pensioners (and 40 percent of early retirees) continue to earn wage income while drawing benefits. The variance in pension benefits is nonetheless limited by ceilings on the maximum benefit that are set at four to six times the minimum. Thus overall, the dispersion of wages was wide enough that in 1992–93 the incidence of poverty among pensioners was lower than that among working age families even though the average wage was much higher (see chapters 2 and 3).

Unemployment benefits are paid out of the Employment Fund. The level of benefit is set as a share of the individual's previous average wage and declines over time.[3] The average unemployment benefit is low (an individual's unemployment benefit is calculated based on payments actually received, so those on short hours or experiencing wage arrears who subsequently be-

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2. The financial position of the extrabudgetary funds has been reasonably buoyant, because nominal wages (the revenue base) have tended to increase more rapidly than benefit levels. However, revenue compliance has also tended to decrease, for example, for the Pension Fund during 1993 compliance decreased from 95 to 80 percent.

3. For the first three months after a worker loses his of her job, the employer pays the last monthly wage, which is unindexed. The duration of unemployment benefits then extends for one year as follows: for the next three months, 75 percent of the individual's average wage over the previous two months unindexed; for the next four months, 60 percent of this same average; for the next five months, 45 percent of this same average. Thereafter, a person may receive "material assistance" up to the minimum wage. Benefit payments are increased by 10 percent per dependent.

come unemployed receive significantly less than if they had been receiving full pay), and the minimum unemployment benefit is equal to the minimum wage. In 1995 the minimum unemployment benefit averaged only about 15 percent of the adult minimum subsistence level. Many unemployed individuals do not actually receive or take up benefits, which has led to the high incidence of poverty among the unemployed (see chapters 3 and 7).

Finally, sickness and maternity benefits are paid out of the Social Insurance Fund. About half of this fund's expenditure goes to sick pay, with the balance going to sanatoria and other somewhat tenuously related expenditures (for example, children's vacations). We do not investigate these benefits separately.

Social Assistance

Social assistance schemes serve a more direct redistributive role than social insurance programs. Russia's social assistance schemes fall into two broad classes: redistribution of (a) income to families with children (family allowances), and (b) to the poor (other social assistance). There is some overlap, however. As described in chapter 2, family allowances evolved during the late Soviet period partly as a way to alleviate the problems underprovisioned families faced.

The inherited Soviet system of family allowances was extensive and complex. As a replacement for foregone wages, maternity allowances were positively related to household income. Myriad child allowances were generally unrelated to income, being designed to compensate for the costs of raising children, except the means-tested benefit for underprovisioned families.

In early 1994, the authorities simplified the system into a single child benefit, plus three further allowances for mothers with young children. Financing responsibility was assigned to the oblasts. The average level of benefit was increased and minimum and maximum benefits were introduced. While the level is related to the minimum wage (see table 8-1), the allowances remain available to all families regardless of income. Program costs rose to 0.7 percent of GDP in 1994, compared to 0.6 percent in 1993. Enterprises administer, but do not actually finance, most family allowances financed by the budget and the Social Insurance Fund.

In the absence of new federal legislation governing social assistance to alleviate poverty, the Russian government has relied primarily on Soviet practices and regulations. The elderly and disabled living alone who have no other means of support were traditionally the main vulnerable groups for whom the government provided basic social services. Since late 1991 local

social assistance has greatly expanded to meet rapidly rising demands. In the first half of 1994 alone, for example, one raion in Vladimir reported that the number of applicants had tripled. While no aggregate data are available to assess the impact of such efforts nationwide, local programs appear to be extensive, and have the potential to play an important role in alleviating poverty. Based on local experience, the federal Ministry of Social Protection developed, and in 1994 adopted, the Standard Regional Program for Social Protection, whose foremost objective is to mitigate the impact of the transition on the most vulnerable groups in Russian society. The top priority is to assist those people living below the regional subsistence minimum.

Local assistance programs comprise extensive in-kind benefits and services, which have traditionally been tailored to the individual client based on assessed needs and the availability of fiscal resources. Typically, subnational social assistance programs share three common features. First, to meet rapidly growing demands for assistance, many subnational governments are using a combination of criteria—based on both category (for example, marital status) and income—to target the needy, and thus use limited resources effectively. Second, programs have tended to expand in-kind transfers rather than cash benefits. Third, assistance is financed largely by local resources, with some central government support.

Present social assistance arrangements are administratively demanding. The emphasis is on individual interviews and home visits to verify details relating to household needs as well as income and expenditure. This highly personalized approach adds significantly to the administrative burden. Once eligibility is established, the process of determining the level and kind of assistance to be provided may be protracted. For example, a family seeking assistance may first be urged (or required) to apply for a private plot rather than receive cash assistance. Even if cash assistance is granted, it is not awarded on an ongoing basis, so social workers have to deal with the same case on numerous occasions. This approach also runs the risk of subjectiveness and arbitrariness.

Survey evidence suggests that the public views current social assistance efforts as inadequate in both scope and amount. In many oblasts the number of recipients is significantly less than the estimated number in need. In Serpukhov raion in Moscow oblast, for example, a household survey found that only 1 percent of the population received local social assistance in 1993, while the estimated poverty rate was 28 percent. The most urgent need cited by 300 poor people surveyed by the All-Russian Center for Public Opinion Research (VCIOM) in June 1994 was for additional cash. Contrary to current practice, low-income households and single parents in particular prefer cash

to other forms of assistance. Moreover, most respondents described the efforts of government authorities and public organizations in their neighborhoods as insufficiently active (41 percent) or virtually inactive (37 percent). The opinion of government assistance was especially low among low-income households and the elderly (see chapter 10). This is consistent with the findings of the incidence analysis that follows.

Overall budget financing of cash social assistance amounted to about 1.1 percent of GDP in 1992 and 1993, increasing to about 1.3 percent of GDP in 1994, although real benefit expenditure per recipient fell because of the significant drops in output and increases in poverty during the transition period. In addition, several extrabudgetary funds, including the Ministry of Social Protection's Fund for Social Support, and various oblast and raion funds provide social protection and services, but on a limited scale.

Federal resolutions on social assistance that are not directly supported by any financial allocation lead to significant divergence between central decisions and actual implementation at the local level. Social assistance represented only 2.2 percent of regional budgetary expenditure in 1993 (World Bank 1995). The concept of a federally guaranteed social minimum that comprises pensions, unemployment benefits, and family allowances has been introduced at the national level, but the federal mechanisms for supporting local social assistance are not yet clear. Reported budget expenditure on social assistance has varied enormously: in 1994 spending ranged from 400 percent of its 1992 level in Ulyanovsk to just 5 percent in Taymyr. Evidence suggests that between 1992 and 1994, poorer oblasts were less able to finance local social assistance. The correlation between the official poverty headcount in 1994 and the amount spent on social assistance is negative (-0.17) (Stewart 1996). This is substantiated by household survey data from the Russian Longitudinal Monitoring Survey (RLMS), which indicated a correlation of -0.36 between regional official poverty rates and average local assistance.

Enterprise Benefits

In-kind support for households from enterprises and local authorities is pervasive and important in Russia. This section deals with the role of enterprise benefits, which range from housing, to cheap food and meals, to sanatoria.

During the Soviet period, nonwage employee benefits were an important part of households' real consumption. A significant proportion of the labor force continues to have access to some nonwage social entitlements through the workplace. Available evidence suggests that since the transition began, the adjustment in nonwage benefits to date has been less sharp than

the fall in real money wages (Commander and Jackman 1993; Commander, Lee, and Tolstopiatenko forthcoming). At the same time, loss of nonwage benefits exacerbates the income loss to individuals who are laid off.

Quantifying the value of the enterprise nonwage benefits to individual households is difficult in the absence of realistic parallel prices. Nonetheless, these enterprise expenditures have clearly been significant. Using enterprise accounting prices, which are probably much less than shadow prices, such expenditures amounted to about 21 percent of regional budget expenditure in 1992, and most were directed toward housing.

Table 8-2 shows the share of people reporting access to various social services through their employers in 1993. Our incidence analysis suggests that enterprise benefits tend to flow to the better off: almost 19 percent of nonpoor households receive them, compared to only 9 percent of the poor and 4 percent of the very poor. This is consistent with analysis of the distribution of enterprise benefits based on September 1994 VCIOM data, which found that low paid workers were in general less likely to be provided with such benefits, and that access to several benefits was related to the individual's position in the firm's hierarchy (Kolev 1995). Note that only 37 percent of workers reported receiving any social benefits from their employers.

Enterprise social expenditures vary widely across regions and compound budget disparities (World Bank 1996b). With a coefficient of variation of 1.3, regional per capita enterprise social expenditures have varied more widely than the major categories of budget expenditure. The regions with the highest per capita enterprise social expenditure are also among those with the highest per capita budget revenues. The coefficient of variation of regional social—budget plus enterprise—expenditures amounted to 0.82 in 1992.

Enterprise surveys suggest that a positive association exists between enterprise size, as measured by employment, and the range of benefits. Industrial workers also tend to be relatively privileged.

Table 8-2. *Social Services Provided by Enterprises, 1993*
(share of surveyed individuals who received these services)

Service (free or subsidized)	*April*	*August*	*December*
Meals	14	9	9
Food and other goods	21	13	20
Retraining and education	6	4	4
Income support for hardship cases	14	12	11

Source: VCIOM survey of the working population (1993).

In the course of enterprise restructuring and rationalization, enterprises will probably limit the provision of some social benefits and may withdraw some entirely. In the absence of compensatory increases in cash wages, this will have a significant impact on workers and their families, who will be forced to purchase at least some of the services at market prices, as well as on local government authorities, who finance and provide services of a public good nature. Reduced enterprise provision of social services will bring fiscal gains to local budgets, in that enterprises' tax credits and exemptions associated with service provision should cease. However, local budget expenditure on housing will likely increase, at least in the short term. The possible equity impact of social asset divestiture is explored later using incidence analysis.

Principle and Practice in Targeting

The debate about the merits of targeting has a long history, dating back at least as far as the criticism of the means-tested Poor Laws in England in the early 1900s, and continues in many countries today. No consensus exists on the appropriate policy objective or on the best way to approach implementation (see van de Walle 1995 for a review). This section briefly reviews the benefits and costs of targeting and empirical evidence about the incidence of public transfers elsewhere in the world.

We assume here that the basic goal of targeting is to concentrate public resources on those who need them the most. If transfers can be delivered only to the poor in the amounts necessary to make them nonpoor, then the costs of poverty alleviation are greatly reduced. In Russia in September 1994, the poverty gap—defined as the aggregate income gap of the poor below the poverty line—amounted to 3.6 percent of GDP. Ignoring administrative expenses, that would be the cost of eliminating poverty if the government had perfect information and could identify the poor and how much assistance they needed and no adverse incentive effects occurred. If, however, identifying the poor was impossible and the government instead gave everybody an amount equivalent to the poverty line (subsistence minimum), then the cost would escalate to 24.4 percent of current GDP (this figure is sometimes referred to as the maximum poverty gap).[4] In the latter case, however, many people who were not poor would receive benefits that they did not need, and in any case, such a program would not be fiscally affordable. Thus from the perspectives of both fiscal effectiveness and equity, strengthening the targeting of transfers to the poor is an appropriate goal.

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4. Although if this route were adopted, then adverse work and other effects would probably result in large falls in GDP.

However, certain efficiency, administrative, and political costs are associated with targeting. First, some types of targeting mechanisms can produce adverse incentive effects. Such effects are most often associated with means-tested programs: there is a risk that people will work less or report less income than they actually make to qualify for benefits. The problems are exacerbated for individuals and families at the margin, who might thereby face high effective marginal tax rates. Even some targeted categorical programs, such as Aid for Families with Dependent Children in the United States, are sometimes perceived to have adverse behavioral effects, for example, encouraging unwed mothers to have additional children. There is also a risk, explored in chapter 9, that the provision of public transfers will crowd out private family networks. Public social programs may affect the behavior of both beneficiaries and nonbeneficiaries, including labor, supply, and consumption. However, constructing a counterfactual and tracing responses is difficult. Second, screening the poor from the general population obviously involves administrative costs. Third, from a political economy perspective, a more narrowly targeted program enjoys a commensurately smaller base of support (see Sen 1995). These costs mean that perfect targeting is usually neither feasible, nor even desirable, and that some errors of leakage (inclusion of some nonpoor recipients) and of exclusion (of some of the poor) will occur in practice. Nonetheless, attempting to minimize the extent of errors is appropriate. How well Russian authorities target social transfers is analyzed later.

Various approaches to targeting benefits to the poor are available. For example, authorities may rely on means tests to identify those who are eligible to benefit from a program. Many programs, however, include categorical features instead that are expected to be characteristic of the poor. For instance, where a strong correlation exists between family size and household poverty status, child allowances may be effectively targeted mechanisms for alleviating poverty. The categorical approach is advantageous relative to means testing insofar as the likelihood of adverse work disincentives is less and the administrative burden is smaller (Atkinson 1995). Programs may also rely on self-selection (in effect the stigma and inconvenience associated with program participation) to ensure that only worse-off individuals seek benefits. One example of this might be a workfare type of program that requires participants to engage in public works in return for below market wages (see Ravallion 1991).

A large and growing literature on targeting and targeting outcomes is available (see, for example, Grosh 1994; Mitchell, Harding, and Gruen 1994; van de Walle and Nead 1995). According to van de Walle and Nead (1995), some fairly clear patterns emerge from studies of the distribution of benefits

from public spending in developing countries. The studies typically explore the impact of spending in one or two sectors, such as health or education, rather than the totality of social spending, and tend to focus on social services rather than social protection (cash transfers), which are typically not extensive in developing countries. Generally, in the aggregate, subsidies are higher as a share of initial income (expenditure) for the poor than for the nonpoor. However, absolute benefit levels tend to rise with income (expenditure), so that while overall inequality is reduced, the poor get less in absolute amounts than the rich. Urban bias is common, in that public spending is higher in more urbanized areas. Distinguishing among programs in the various sectors is important. Primary, and often secondary, education tends to be progressive in both absolute and percentage terms, because in most developing countries poorer families tend to have more and younger children. Lower levels of service—in particular primary health centers—tend to be pro-poor (van de Walle 1995).

There is a wide range of country practice and experience, even within the Organization for Economic Cooperation and Development (OECD), with respect to targeting of social protection. As concerns pensions, for example, some governments have sought to increase the reliance on targeted flat rate schemes, whereas many depend more on social insurance-based approaches. Australia, where benefit entitlements are generally determined by income and assets (Mitchell, Harding, and Gruen 1994), is a good example of the former. The result is that more than half of Australia's social security transfers accrue to people below the poverty line, compared to only 23 percent in, say, Sweden.

Table 8-3 presents a range of targeting outcomes for industrial countries. It includes all social protection programs, including pensions, so cross-country comparisons should be made with care because of the different objectives of social transfer schemes. The concept of targeting efficiency, based on Beckerman (1979), represents the proportion of transfer payments made that have effectively reduced poverty. The definition of poverty used is that adopted in the particular country. The targeting efficiency of the Russian system of transfers is quite weak; indeed, the level is significantly lower than in all the other industrial countries assessed. It is even much lower than that of other systems based on social insurance, such as in France. The outcome column is a measure of the post-transfer poverty gap (for Russia, this is presented as a share of GDP). As expected, the results here suggest that Russia's poverty gap in 1992 was large relative to the OECD comparators. In fact, as Russia's poverty gap is measured as a share of GDP at final prices while the others are presented in relation to GDP at factor cost, the disparity is somewhat under-

stated. With respect to the generosity of social transfer expenditure, Russia came closer to the other, relatively wealthier, societies in the sample.

The general impression that emerges from these aggregate measures is that the Russian system of social protection is not strongly targeted, compared to systems in other industrial countries. The following sections of this chapter analyze targeting outcomes in Russia in greater detail. Outcomes are judged against the criterion of reaching the poor and the very poor, as defined in earlier chapters (families falling below a household specific minimum subsistence level). Many of the programs evaluated, however, do not have the explicit objective of confining benefits to the poor, especially pensions and family allowances. The two major universal programs currently operating in Russia—pensions and unemployment benefits—depend on individuals' earnings history. Nonetheless, measuring the progressiveness of program outcomes in Russia is appropriate, even where no explicit attempt is made to target benefits toward the poor. The government generally, as well as extrabudgetary, pay-as-you-go social insurance systems for old age and unemployment, faces a difficult fiscal situation, and public expenditure and revenue policies are under constant review. Faced with tight fiscal con-

Table 8-3. *Efficiency and Targeting: International Comparisons*

Country	*Year*	*Need*[a]	*Generosity*[b]	*Efficiency*[c]	*Outcome*[d]
Australia	1985	6.5	1.6	51	1.3
Canada	1987	5.7	2.2	34	1.4
France	1984	11.2	2.8	31	1.3
Germany, former Federal Republic of	1984	9.3	2.4	38	0.7
Netherlands	1987	7.8	3.4	26	0.8
Norway	1986	6.6	2.8	33	0.5
Sweden	1987	10.3	4.0	23	0.9
Switzerland	1982	4.3	2.0	38	1.0
United Kingdom	1986	11.0	2.3	38	1.2
United States	1986	6.1	1.5	39	2.5
Average		7.5	2.4	35	1.4
Russia	1992		1.4	19	3.6

a. The pretransfer poverty gap as a percentage of total factor income.
b. Ratio of total social transfers to the pretransfer poverty gap.
c. Beckerman's poverty reduction efficiency measure.
d. The post-transfer poverty gap as a percentage of total factor income, except for Russia (GDP at final prices).
Source: Mitchell, Harding, and Gruen (1994); authors' calculations.

straints, the government may have no choice but to adopt more narrowly targeted programs during the reform process. In such circumstances it may well need to know whether citizens who need support are being assisted, and then seek to adjust benefit eligibility and levels correspondingly.

The Significance of Public Transfers in Household Income

According to the RLMS, public transfers, on average, made up almost one-third of household income in late 1993. This share remained constant from mid-1992 to the end of 1994. Here we focus only on the 73 percent of all households that received some transfers. For such families, transfers represented an even greater share of household income, averaging 44 percent in the RLMS sample. The analysis is based on RLMS data from late 1993 to early 1994, although the patterns that emerged are consistent with those found in 1992 and 1993.

Among the different types of transfers, pensions are most widely received and make up the largest part of income. For recipient households, the percentage of income derived from pensions is 75 percent for very poor households, 67 percent for poor households, and 58 percent for nonpoor households (table 8.4). The declining pattern indicates that pensions are most critical for households below the poverty line (at the same time, however, as very poor households tend to be young, this means they are less likely to receive a pension). However, pensions are more frequently received by nonpoor households (49 percent), and less often by poor and very poor households (about 40 percent). This is related to the role of pensions during the Soviet period, where they were part of labor compensation and were strongly work related.

The percentage of poor households receiving family allowances is slightly above the percentage of nonpoor households. Because family allowances constitute only 6 percent of income in nonpoor households, but 15 percent in poor households, and 24.0 percent in very poor households (table 8-4), poorer households are clearly more dependent on family allowances. This is consistent with the finding that poor households tend to have more children. However, it is striking that the vast majority of the very poor (71 percent) do not receive any family allowances.

Local social assistance is limited overall, and does not appear to be well targeted. Indeed the share of nonpoor receiving such assistance is almost 50 percent greater than the share of the very poor. Local social assistance makes up nearly 10 percent of the income of both the poor and the very poor on average, with the share for nonpoor recipients being only slightly smaller (table 8-4). By way of comparison, for nonpoor and poor households, nonwage

Table 8-4. *Significance of Public Transfers in Household Income*

Transfer	Very poor[a]		
	Percentage receiving the benefit	*Average percentage of recipients' household income*	*Average percentage of household income*
Family allowances	28.8	23.6	6.8
Pensions	40.3	75.0	30.2
Unemployment benefit	0.8	21.7	0.2
Subsidies from local authorities	10.4	9.6	1.0
Subsidies from enterprises	5.0	9.4	0.5
Scholarships	5.2	17.8	0.9
All public transfers[b]	66.8	58.5	39.1

Transfer	Poor		
	Percentage receiving the benefit	*Average percentage of recipients' household income*	*Average percentage of household income*
Family allowances	32.4	14.5	4.70
Pensions	41.0	66.9	27.40
Unemployment benefit	0.4	17.8	0.07
Subsidies from local authorities	10.4	9.6	1.00
Subsidies from enterprises	8.7	10.8	0.90
Scholarships	6.2	18.2	1.10
All public transfers[b]	70.9	48.4	34.30

Transfer	Nonpoor		
	Percentage receiving the benefit	*Average percentage of recipients' household income*	*Average percentage of household income*
Family allowances	25.7	5.9	1.50
Pensions	48.7	58.4	28.40
Unemployment benefit	0.3	9.8	0.03
Subsidies from local authorities	14.5	8.1	1.20
Subsidies from enterprises	17.7	11.7	2.10
Scholarships	6.7	8.7	6.60
All public transfers[b]	74.4	42.6	31.70

a. Very poor households lie below 50 percent of the poverty line.
b. Includes those listed except subsidies from enterprises.
Source: RLMS, round 4.

subsidies from enterprises represent a greater percentage of income than local social assistance; however, the prevalence of enterprise subsidies for very poor households falls below local social assistance, indicating that enterprise transfers do not accrue to the poorest groups.

How Progressive Are Public Transfers?

The statistic employed here to estimate the progressivity of public transfers is the concentration coefficient. It is a synthetic indicator that shows the concentration of a particular income source x when recipients are ranked by an index y (for example, gross income). Graphically, when the cumulative percentage of recipients (ranked according to y) is shown on the abscissa and the cumulative percentages of x are plotted on the ordinate, the line mapped by this set of points is called the concentration curve. The concentration coefficient is then equal to twice the area that lies between the concentration curve and the line of equality (the 45 degree line). A concentration curve can lie above or below the line of equality. In the special case when $x = y$, the concentration coefficient is known as the Gini coefficient and the concentration curve as the Lorenz curve.

The concentration coefficient ranges from -1 when all transfers are received by the poorest households, through 0 when all households receive the same amount of transfer income, to +1 when all transfers are received by the richest households. When the concentration coefficient equals 0, the concentration curve coincides with the 45 degree line. When the curve lies above the line of equality, the coefficient is negative, and when it lies below the line of equality, the coefficient is positive. The equality of the overall income distribution in Russia is discussed in chapter 3.

How well targeted public transfers are depends on whether or not transfers accrue to the poor. Here we look at ex post targeting, that is, households that are classified as poor or nonpoor after the receipt of transfers. Households were ranked by household per capita gross income. Ranking households by original, that is, pretransfer, income would cause the benefits to appear better targeted (Milanovic 1992). Table 8-5 presents the pattern of distribution for various transfers; it reveals that none of the individual programs, nor the total impact, could be characterized as progressive in mid- and late 1993.

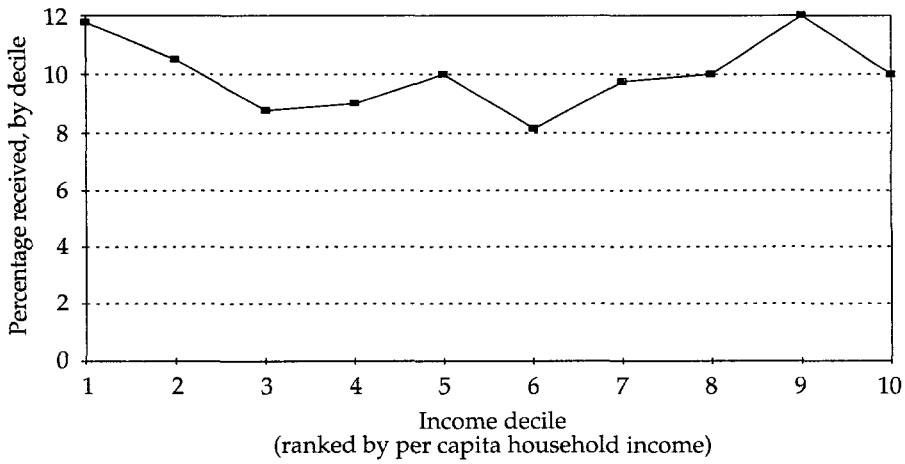
Family allowances are relatively evenly distributed, neither concentrated on the lower income deciles nor on the upper income deciles (figure 8-1). Although poor households in the RLMS sample have nearly twice as many children on average than nonpoor households (1.02 per poor household versus 0.58 for nonpoor households), this difference is not enough to make fam-

Table 8-5. *Concentration Coefficients for Public Transfers, 1993*

Transfer	*Mid-1993*	*End 1993*
Family allowances	-0.001	-0.029
Pensions	+0.085	+0.136
Subsidies from local authorities	+0.288	+0.203
Scholarships	+0.153	+0.247
All transfers	+0.082	+0.132

Note: The concentration coefficients for unemployment benefits were not calculated because of the small number of individuals who reported an amount received. They were included in the all transfers coefficient. Calculations were done for households ranked by per capita income.
Source: RLMS (mid-1993) and round 4 (end 1993).

Figure 8-1. *Distribution of Family Allowances, 1993*



Source: RLMS, round 3.

ily allowances strongly targeted toward poorer households. Thus, if the objective is to reach primarily poorer households, then a benefit could be restricted to households with more than two children, for example. This would limit the inclusion of richer households, but would come at the expense of excluding poor households with less than three children.

In contrast to family allowances, the share of total pension expenditures accruing to each income decile shows a distinct increasing pattern as we move from poorer to richer deciles, leveling off at the higher income deciles. The concentration coefficient for pensions at the end of 1993 was 0.136, indicating that the incidence of pension expenditure is progressive, as pensions are

distributed less unequally than income. However, pension spending is not directed at the poor in absolute terms, because the share of household income received through pensions is approximately the same for both nonpoor and poor households.

Local social assistance has a concentration coefficient consistently well above zero, indicating that it is not evenly distributed across the population. The lower income deciles realize much less assistance, while the highest income decile receives more than one-quarter of total assistance. Thus contrary to expectations and program objectives, the impact of local social assistance is not focused on the poor.

Scholarships are focused on the nonpoor, accruing primarily to households with greater per capita income. This could be due in part to children of richer households being more likely to receive a better quality education than those in less well-off and less well-connected households, and thus receiving more scholarships.

Overall, public transfers are weakly focused on nonpoor households, as the concentration coefficient equalled +0.132 at the end of 1993. This is due both to the levels and coverage of benefits. Eligible recipients may not receive even categorical programs, such as family allowances. The overall redistributive impact is not progressive. The Gini coefficient of income is 40 percent, while the concentration coefficient of all transfers is 13 percent. However, the poor do not enjoy significant relative benefits from public cash transfers as the rich receive more in absolute terms.

The foregoing analysis explored the impact of cash transfers on household welfare. An additional important dimension is the impact of social services. Here we assume that the benefit of such services is equal to the cost of provision, even though the value of such provision may well differ across households, and also over time if the efficiency of public spending changes, for example, the number of hospital beds may be cut because of restructuring, with the quality of service protected or even improved (see chapter 4). This is a typical assumption in benefit incidence studies (van de Walle and Nead 1995). Moreover, as access to health care does not appear to differ greatly by poverty status (except for preventive services, which consume a relatively minor part of public health expenditure), these benefits are assumed to accrue uniformly over the population. Taken alone, health spending appears to be pro-poor, with a concentration coefficient equal to -0.037 based on RLMS data. For education, based on the structure of the family (number of school-age children), one can calculate the benefits accruing to each household. In contrast to health expenditures, spending on education appears to be benefiting the nonpoor more, with a concentration coefficient equal to +0.042.

Further investigation of enrollments and the structure of education expenditures is needed to explain these patterns.

Errors of Leakage and Exclusion

One approach to measuring targeting outcomes is to identify errors of leakage and exclusion. These correspond to what are also called, respectively, type 1 errors (where ineligible individuals receive transfers), and type 2 errors (where eligible individuals do not receive transfers). The weight given to the different types of error is a value judgment: do we care more about minimizing leakage to the nonpoor, and therefore about program costs, or are we more concerned that all the poor are covered by assistance? The judgment here is also related to assessments of the costs of targeting (administrative and political efficiency). Some have argued that the pursuit of lower leakage is likely to raise exclusion errors for such reasons as lack of information about the targeted group among intended beneficiaries, greater costs of acquiring entitlements (travel, documentation, and so on), entitlement criteria, and social stigma (Cornia and Stewart 1995).

Figure 8-2 illustrates the calculation of targeting outcomes in terms of errors. Those who are poor and receive benefits are deemed a targeting success (first quadrant), as are those who are not poor and do not benefit from the program (fourth quadrant). However, those who fall into the second quadrant are not poor, but received a benefit (leakage or type 1 error), while in the third quadrant poor people who did not benefit were erroneously excluded (type 2 error).

Figure 8-2. *A Typology of Errors in Targeting*

	Poor	Not poor
Served	Success	Error of exclusion (type 1)
Not served	Error of exclusion (type 2)	Success

Source: Grosh (1994).

Most households in Russia do receive some type of transfer from the government; however, a significant proportion of the very poor (almost three out of ten) and of the poor (one out of five) do not receive any such benefits, and almost four out of five households that are not poor do receive public transfers. Policymakers need to ascertain the characteristics of the poor households who do not receive any assistance. Do they have more children, for example, but not take up family allowances? The reason for their not receiving assistance is a key factor in the design of new social assistance programs. Nonreceipt because of ineligibility, for example, should be treated differently than nonreceipt because of lack of information or high opportunity costs of obtaining the benefit.

The RLMS suggests that households not receiving transfers are more likely to be very poor, but less likely to be poor (table 8-6). Households that do not receive transfers tend to be smaller than those that receive transfers and have significantly fewer elderly members, significantly fewer children, but more working age adults. As expected, the distribution of household types for those not receiving transfers is concentrated in childless dual- and single-income households. However, a surprising finding that emerges from table 8-6 is that many nonrecipients are entitled to some categorical assistance, for example, six out of ten very poor families not receiving any transfers have children. Those who do receive transfers are most likely to have zero wage income with no children or two wage incomes and one or two children.

Households not receiving transfers are much less likely to have access to a private plot. This is of particular concern, because access to a private plot has proven to be a strong factor in alleviating poverty. As expected, most households whose head is retired or disabled receive public transfers (pensions). The distribution of occupations for households not receiving transfers is concentrated in crafts and related trades, as well as plant and machine operators and assemblers.

Household heads who do not receive transfers are, on average, better educated. They have more years of high school education, and a greater percentage have completed eighth grade. Also, a greater percentage of household heads who do not receive transfers, versus those who do, have graduated from institutions of higher learning, such as technical schools or universities. These results are consistent with the finding that more education is associated with a lower likelihood of being poor (see chapter 3).

Finally, with respect to regional concentration, the distribution of households not receiving transfers is fairly even across oblasts in the RLMS sample. Nonetheless, some regional differences do emerge. A larger share of poor households is not receiving assistance in Moscow city, Saratov oblast (Krasnoarmeisk), and Kabardino-Balkarskaya (Nal'tchik), whereas in Riazan

Table 8-6. *Characteristics of Households Not Receiving any State Support by Poverty Status, 1993*
(percentage of households)

Characteristic	*Very poor (N = 236)*	*Poor (N = 492)*	*Nonpoor (N = 873)*
Affected by unemployment	23.3	19.9	13.1
Has disabled member	2.5	1.8	0.6
Number of children			
Any children	61.0	57.3	39.6
0 children	39.0	42.7	60.4
1 child	23.7	23.3	23.5
2 children	31.7	29.8	14.3
3 or more children	5.5	4.1	1.8
Age of head of household (years)			
Less than 30 (male)	15.2 (14.8)	15.0 (14.2)	18.6 (13.8)
30–39	37.7 (32.6)	34.5 (30.5)	26.1 (20.5)
40–49	24.2 (20.7)	27.0 (22.1)	30.7 (24.8)
50+	22.9 (15.2)	23.3 (17.6)	24.6 (18.1)
Female head of household	16.5	15.5	22.7
Single prime age female, 2 or more children	1.3	2.4	1.3
Average number of prime age members	1.93	1.96	1.88

Source: RLMS, round 3.

oblast (Riazhskiy and Saraevskiy raions) and Tatarstan (Kazan) rates of nonreceipt among the poor were lower than average.

Conclusions and Policy Implications

The foregoing analysis has revealed certain striking aspects of the current system of social protection in Russia. An extensive array of programs is available at the federal and local levels, some inherited from the Soviet period, and others that have emerged to meet changing conditions. Several have undergone major

adjustment in an attempt to meet both changing needs and growing fiscal constraints. However, measured against the criterion of whether the poor and the very poor are benefiting from such programs, the outcomes are not positive.

About three out of ten very poor households and one out of five poor households are not receiving any assistance. This general result holds for several rounds of the RLMS from 1992 to 1994. However, the fact that many people in need are not receiving any assistance is not the only disturbing finding that emerged from the analysis. A parallel problem is that even those receiving some support from the government through categorical programs are not getting enough to lift them out of poverty. However, simply giving people more money based on observable characteristics rather than on reported income would increase the incidence of type 2 errors. For example, although the presence of many children is strongly correlated with poverty, only 9 percent of very poor households have more than three children. The criterion of single parent households would encompass less than 8 percent of very poor households. Confining assistance to these groups would thus exclude a significant number of very poor households. Other, broader alternative programs exhibit significant leakage to the nonpoor. Take family allowances, for example, where the shares of the poor and nonpoor are about the same (30 percent). For this allowance to have a significant impact on poverty incidence and depth, the benefit amount would have to be significantly increased, but to avoid excessive leakage, some further eligibility criterion based on income would have to be introduced.

Another problem revealed by the analysis of existing schemes is that significant numbers of poor households who have characteristics that would entitle them to state support are not receiving anything. For example, 60 percent of very poor households are not currently reporting receipt of family allowances. This is an even larger share than among the nonpoor, even though the latter have fewer children on average. Low take-up suggests that social stigma and lack of public information about program eligibility may be problems. Low levels of benefits and relatively high transaction costs may also help explain the observed pattern.

As noted in previous chapters, the Russian government faces serious fiscal constraints during the transition, alongside an increase in the severity of poverty. In this light, the foregoing analysis has specific policy implications. First, existing schemes are inadequate to combat the increased incidence and severity of poverty. Second, simply raising the levels of current benefits would be insufficient to tackle this problem, given the gaps in the system's coverage. Hence there is both the scope for and the need to increase the role of means-tested assistance to the poor (see World Bank 1995 for details of a possible scheme). International experience suggests that targeting can be used to concentrate benefits on people below the poverty line while containing fiscal and administrative costs.

9

Family Safety Nets during Economic Transition

Donald Cox, Zekeriya Eser, and Emmanuel Jimenez

Let us consider a Russian family whose primary wage earner has been laid off from a bankrupt state enterprise. Do such families have relatives or friends who can provide cash or in-kind assistance? Which households cannot rely on such private support? Would an expansion of the public safety net displace private family safety nets? Issues like these are crucial for evaluating the political sustainability of economic transition in Russia. Economic dislocation resulting from the closure and restructuring of unprofitable firms threatens popular support for the transition to capitalism. The increase in poverty and the widening of the income distribution as described in previous chapters are serious concerns. Some observers, notably Kornai (1990) and Lipton and Sachs (1990), have advocated publicly provided social protection aimed at reducing both transitory and permanent poverty created by the transition to capitalism. Yet the Russian government is hard pressed to increase its social spending, and many recognize the difficulty of protecting all vulnerable groups (see, for example, Calvo and Frenkel 1991).

Public transfers are not, however, the only way to redistribute resources from one group to another. In many instances, private family networks vol-

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untarily achieve substantial income redistribution. Knowing the size and nature of the informal, private safety net is critical, because private transfers determine the necessary scope of public assistance to the poor. A system of informal, interfamily networks is an important dimension of poverty alleviation in many countries. Russia may be no exception.

Despite the potential importance of family networks during Russia's transition, we currently know little about how these networks function and about the incidence and magnitude of private transfers. However, the recent availability of data from household surveys allows us to explore such family networks.

We find that private transfers in Russia are large, widespread, and related to households' socioeconomic characteristics. The pattern of private transfers tends to mimic what means-tested public income redistribution would achieve, that is, private transfers tend to be targeted to vulnerable groups, such as female-headed households with many children, younger households, and those affected by unemployment. Private transfers also appear to help alleviate poverty: poverty rates among households participating in private transfer networks are more than 10 percentage points lower than those of households not participating in private transfers. These findings are consistent with those cited in chapter 10 of this volume, where an opinion poll of several thousand individuals revealed that people rely heavily on friends and family in times of need.

Before discussing our empirical results, however, let us first consider the theoretical issues associated with private transfers.

Theoretical Considerations

Why would one household give money or goods to another? Of the many possible answers, for example, the household may feel obligated, or guilty, or even be coerced into giving transfers, economists have narrowed their focus to a few motives. In particular, some have posited that households give out of feelings of altruism (Becker 1974). An alternative motivation is that households give in exchange for something (such as future assistance in time of need) (Bernheim, Shleifer, and Summers 1985; Cox 1987). A third possibility is that households form mutually beneficial insurance contracts (Kotlikoff and Spivak 1981; Lucas and Stark 1985).

This list by no means exhausts the set of possible motives, but it does provide some predictions about the interaction between government policy and private transfer behavior. Consider, for example, altruistically motivated transfers. By transferring resources to the recipient, the altruistic donor im-

plicitly determines the recipient's consumption. If the government were to tax the donor and give the proceeds to the recipient, it would help achieve what the donor was intending to do privately. With the donor's burden eased by government redistribution, the donor may decide to give less. This cutting back of private transfers in response to public redistribution is called crowding out. Thus Becker's (1974) altruism model predicts that public transfers tend to displace private ones.

Private transfers do not have to be altruistically motivated for crowding out to occur. For example, consider a self-interested insurance motive for such transfers. An expansion of government provided social insurance could render private insurance schemes redundant, and even cause them to disappear. However, concluding that crowding out implies that public transfers are necessarily ineffective and should be cut back would be a mistake. By increasing the size of the risk-sharing pool, the government may be better at providing insurance than families.

The mere existence of private transfers does not imply that crowding out necessarily occurs. For example, if transfers are motivated by exchange, so that they compensate the recipient for providing the donor with some kind of service, government transfers will have little effect on private ones (see, for example, Cox 1987).

If crowding out does occur, it could pose difficult targeting problems for policymakers. For example, what happens when poor households who are already receiving private transfers are targeted for a public subsidy? The subsidy eases the burden of private donors, who will then contribute less to their relatives and friends. Thus, in essence, the government subsidy indirectly benefits donors. As donors are often from upper-income brackets, some of the government subsidy intended only for the poor is diverted to better-off households.

Existing evidence on the extent and magnitude of crowding out is mixed. Some studies find that public transfers have little effect on private ones (for example, Cox and Jakubson 1995; Rosenzweig and Wolpin 1994). Others, including Cox and Jimenez (1995), have indicated that the potential for crowding out can be quite large.

Russian private safety nets might be negligible, rendered obsolete by socialism's extensive web of public transfers, but the legacy of socialism might well have created countervailing forces that enhance the viability of private transfer networks. For example, the former U.S.S.R.'s controls on wages and prices created a shortage economy that could have easily encouraged private trading networks motivated by the need to exchange where state distribution had failed. A history of such trading could create the bonds of altruism and trust needed for a system of private safety nets. While such inferences are nec-

essarily speculative, note that a 1990 attitudinal survey conducted by Shiller, Boycko, and Korobov (1991, p. 393) indicated that Muscovites were more sanguine about sharing expenses with their friends than New Yorkers.

Descriptive Evidence

This study of private transfer behavior uses rounds 1 and 3 of the Russian Longitudinal Monitoring Survey (RLMS). The RLMS is well-suited for analyzing private transfer behavior, because it contains information about money and goods transferred between households and the determinants of these transfers, and it measures private transfers at the household level. The income section of the household questionnaire asks respondents to report separately on cash and on assistance in kind. It also asks how much households spent on assistance to relatives and friends and on lending to others.

The questions for receipts of private transfers do not exactly match those for gifts. For transfers received respondents are explicitly asked about cash and in-kind receipts. For transfers given respondents are prompted to recall gifts versus loans. However, households could be reporting in-kind gifts, because they are asked about what they spent on behalf of other households. Given some lack of specificity in the language used, a respondent might construe a zero interest loan from his or her parents as assistance. Yet, despite possible discrepancies and biases, transfer inflows and outflows roughly balance in the aggregate.

Scope and Magnitude of Transfers

One way to gauge the extent of private transfers in Russia is to look at total gross transfers received and given (table 9-1). A little under a quarter of the sample received private transfers and about the same proportion gave them. Eight percent did both and about 60 percent did neither.

As some households both gave and received transfers, we characterize them as net donors or net recipients (table 9-2). About 20 percent of the households were net recipients and the same percentage were net givers.[1]

The participation in transfer activity varies considerably across regions. Figure 9-1 plots the percentage of households involved in private transfers, either as recipients, givers, or both, by region. Participation ranges from a maximum of nearly 70.0 percent for Novgorod City, down to about 16.5 percent for Sverdlovsk/Turinskii.

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1. Twenty households gave and received the exact same amount, and we place these in the others category.

Private transfers account for a significant fraction of total household income. (Income and transfer figures are adjusted for inflation by deflating according to monthly wage changes.) For the sample overall, gross transfer receipts made up 6.9 percent of total household income (table 9-3, column a, and derived by dividing gross receipts of private transfers [555] by total income [8,044]).[2] The corresponding figure for the sample of net recipients (table 9-3, column b) was 30.7 percent. Net transfer receipts for this sample came to 28.8 percent of total household income. Net donors gave away 12.9 percent of their income (table 9-3, column c).

Another indicator of the importance of private transfers is the boost in the poverty rate that would occur in their absence. The headcount poverty rate for the sample of net recipients (table 9-3, column b) is 28.1 percent. Subtracting private transfers implies a much higher poverty rate of 44.9 percent.

Table 9-1. *Gross Transfers Given and Received, 1992*

Category	*Number*	*Percentage of sample (N = 5,973)*
Households giving transfers	1,452	24.31
Households receiving transfers	1,197	23.52
Households both giving and receiving transfers	483	8.09
Households neither giving nor receiving transfers (others)	3,599	60.25

Source: RLMS.

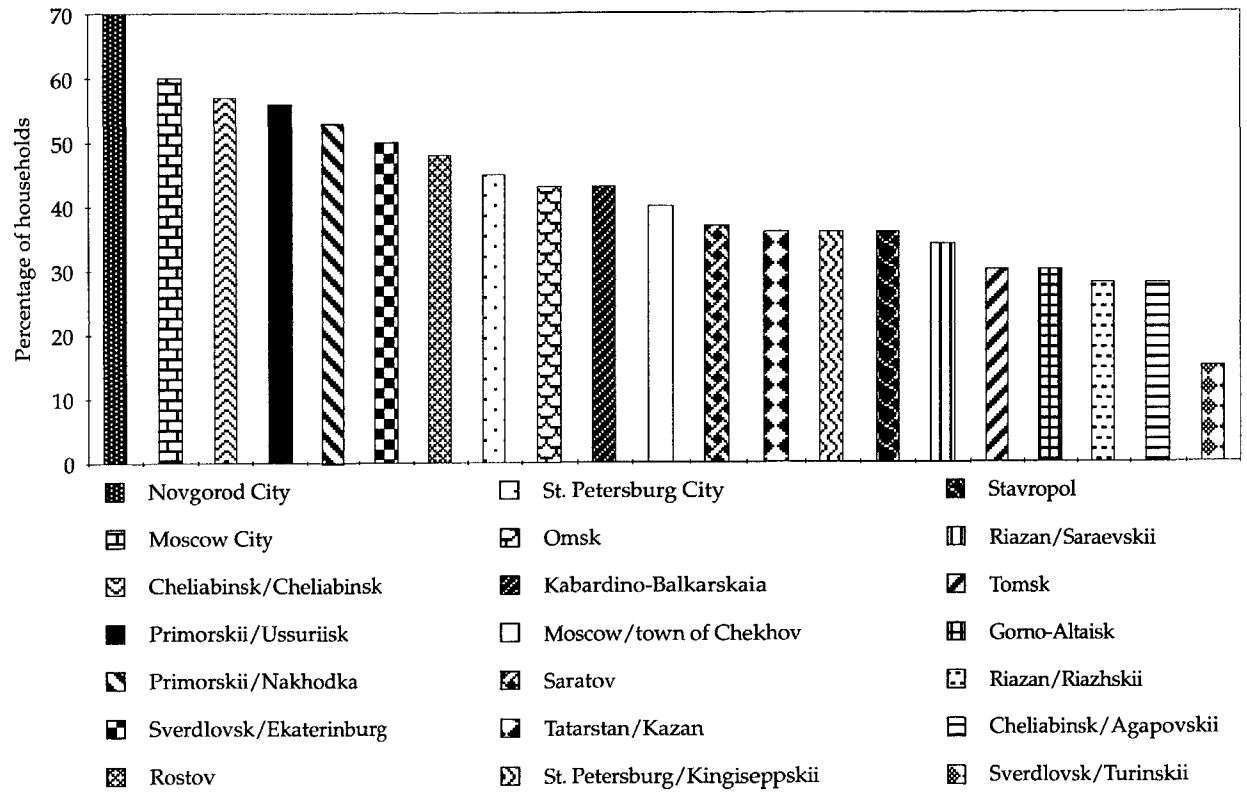
Table 9-2. *Net Transfers Given and Received, 1992*

Category	*Number*	*Percentage of sample (N = 5,973)*
Net donors	1,157	19.37
Net recipients	1,197	20.04
Net transfer equals zero (others)	3,599	60.59

Source: RLMS.

2. Private transfer figures from other countries would not be strictly comparable because of discrepancies in survey methods. With this caveat in mind, note that the corresponding aggregates for private transfers in other countries are as follows: urban Peru, 4 percent (Cox and Jimenez 1992); urban Philippines, 12 percent (Cox and Jimenez 1995); Poland, 10 percent (Cox, Okrasa, and Jimenez 1994); United States, 3.9 percent (Cox, Okrasa, and Jimenez 1994).

Figure 9-1. *Percentage of Russian Households Involved in Private Transfers by Region, 1992*



Source: RLMS.

Table 9-3. *Selected Characteristics of Russian Households by Transfer Status, September 1992*

Characteristic	*(a) All households (N = 5,973)*	*(b) Net recipients (N = 1,197)*	*(c) Net givers (N = 1,157)*	*(d) Others (N = 3,619)*
Monthly household resources				
Total income (rubles)	8,044	8,587	12,173	6,544
Income less private transfers (rubles)	7,853	6,113	13,745	6,544
Income less all transfers (rubles)	6,312	4,935	10,783	5,338
Net private transfers (rubles)	191	2,474	-1,572	0
Total public transfers (rubles)	1,177	1,018	1,269	1,200
Proportion of households with pension income	0.486	0.295	0.489	0.548
Pension income (rubles)	784	448	856	873
Unemployment insurance (rubles)	5	8	0	5
Other public transfers (rubles)	388	561	413	322
Health care subsidies (rubles)	9	15	5	9
Health care expenditures (rubles)	23	38	31	16
Proportion of households with access to a plot of land	0.597	0.416	0.630	0.646
Proportion of urban households with plot	0.373	0.327	0.449	0.363
Proportion of rural households with plot	0.224	0.089	0.181	0.283
Urban households	0.753	0.893	0.802	0.691

(Table continues on following page.)

Table 9-3. (continued)

Characteristic	(a) All households (N = 5,973)	(b) Net recipients (N = 1,197)	(c) Net givers (N = 1,157)	(d) Others (N = 3,619)
Poverty variables				
Poverty line for household (rubles)	4,446	4,849	4,350	4,344
Proportion of households poor after public and private transfers	0.366	0.281	0.297	0.416
Proportion of households poor after public transfers	0.382	0.449	0.205	0.416
Proportion of households poor before all transfers	0.587	0.606	0.487	0.613
Employment variables				
Proportion of households whose head of household is employed	0.682	0.744	0.763	0.635
Proportion of households whose head is unemployed	0.058	0.083	0.048	0.053
Proportion of households whose head lost job since January 1992 (as a proportion of all those employed)	0.037	0.064	0.039	0.027
Number of employed household members	1.253	1.321	1.350	1.200
Number of unemployed household members	0.156	0.175	0.150	0.151
Head engages in individual economic activity (as a proportion of all those employed)	0.024	0.034	0.034	0.017
Head engages in entrepreneurial activity (as a proportion of all those employed)	0.048	0.059	0.056	0.042

Characteristic	(a) All households (N = 5,973)	(b) Net recipients (N = 1,197)	(c) Net givers (N = 1,157)	(d) Others (N = 3,619)
Education variables				
High school years completed by head of household	8.165	8.917	8.469	7.819
Proportion of household heads whose head completed 0–5 years of school	0.153	0.070	0.118	0.191
Proportion of household heads whose head completed 6–8 years of school	0.336	0.287	0.330	0.353
Proportion of household heads whose head completed 9–13 years of school	0.511	0.642	0.551	0.455
Proportion of household heads whose head has university education	0.211	0.302	0.269	0.163
Proportion of household heads whose head has technical school education	0.585	0.646	0.616	0.555
Proportion of household heads whose head is a student	0.020	0.053	0.011	0.012
Other characteristics				
Age of head (years)	48.657	41.773	49.365	50.707
Proportion of household heads with head younger than 30	0.108	0.205	0.080	0.085

(Table continues on following page.)

Table 9-3. (continued)

Characteristic	(a) All households (N = 5,973)	(b) Net recipients (N = 1,197)	(c) Net givers (N = 1,157)	(d) Others (N = 3,619)
Proportion of household heads with head older than 60	0.274	0.157	0.257	0.317
Proportion of households where head is female	0.281	0.295	0.229	0.294
Proportion of households where head is married	0.653	0.648	0.715	0.635
Proportion of household by household size (number of people)	2.647	2.807	2.566	2.620
Proportion of households where number of children age newborn–1	0.045	0.086	0.032	0.036
Proportion of households where number of children ages 2–7	0.247	0.384	0.204	0.216
Proportion of households where number of children ages 8–15	0.334	0.441	0.291	0.311
Proportion of households where head is disabled	0.029	0.021	0.026	0.033
Proportion of households by number of disabled household members	0.049	0.032	0.048	0.056
Transfers				
Proportion of households that are net recipients of private transfers	0.200	1.000	0.000	0.000
Net receipts of private transfers (rubles)	496	2,474	0	0
Gross receipts of private receipts (rubles)	555	2,633	121	7
Cash receipts (rubles)	186	904	24	1

Characteristic	*(a) All households (N = 5,973)*	*(b) Net recipients (N = 1,197)*	*(c) Net givers (N = 1,157)*	*(d) Others (N = 3,619)*
Cash receipts (proportion of households with)	0.085	0.397	0.027	0.001
In-kind receipts (rubles)	369	1,730	97	6
In-kind receipts (proportion of households with)	0.197	0.834	0.141	0.005
Proportion of households that are net donors of private transfers	0.194	0.000	1.000	0.000
Net private transfers given (rubles)	305	0	1,572	0
Gross private transfers given (rubles)	364	160	1,693	7
Loans given (rubles)	159	67	741	4
Loans given (proportion of households with)	0.105	0.102	0.428	0.003
Gifts given (rubles)	204,585	92,234	952,396	2,668
Gifts given (proportion of households with)	0.168	0.150	0.706	0.003

Source: RLMS, round 1.

We explored the impact of household transfers on the distribution of household income. We subtracted both private and public transfers from household income, then ranked households by quintile according to pretransfer income (where transfers include both private and public ones). Public transfers include family allowances and unemployment benefits, as well as in-kind subsidies provided by firms and local authorities for such things as medical and housing expenses and retirement income. Before transfers, the lowest quintile has negative income: -0.9 percent of total income (table 9-4).[3] After private transfers, the lowest quintile's income share rises to 0.8 percent. While the effect of private transfers is significant, that of public transfers is considerably larger: public transfers raise the lowest quintile's share of income to 3.5 percent. The distribution of transfers received with respect to income is U-shaped, contrary to other countries (see Cox and Raines 1985 for evidence in the United States where the distribution is highly skewed).[4]

Table 9-4. *Effects of Public and Private Transfers on the Distribution of Income, 1992* (income shares in percent)

Income quintile (rubles)	*Before transfers*	*After private transfers*	*After public transfers*	*Private and public transers*
Lowest (561 and below)	-0.93	0.81	3.51	4.89
Second (562–2,540)	4.55	4.95	7.04	7.32
Third (2,541–4,960)	11.09	11.35	12.01	12.22
Fourth (4,961–8,792)	19.95	20.42	19.40	19.81
Highest (8,793 and above)	65.34	62.47	58.04	55.76

Source: RLMS, round 1.

3. Negative income can arise from losses from agricultural or other self-employment activities.

4. Percentage of total transfers recieved and given by quintiles are given below:

Quintile	*Percentage of total transfers recieved*	*Percentage of total transfers given*
First	24.9	11.9
Second	10.1	16.2
Third	17.1	15.9
Fourth	26.4	22.7
Fifth	22.3	33.3

Transfer Patterns

Now that we have established that private transfers in Russia are widespread and large, the next question to investigate is transfer patterns. Do they help to reduce poverty by equalizing the distribution of income and helping households that are especially vulnerable?

We define pre-private-transfer income as income before any private transfers occur. For net recipients monthly pre-private-transfer income is Rub 6,113 (table 9-3, column b). The corresponding figure for net givers is Rub 13,745, roughly double that of recipients (table 9-3, column c). The average monthly income of others is Rub 6,544. Thus private transfers tend to flow from better-off to worse-off households.

Except for their income levels, in other ways recipients are more similar to donors than they are to others: 30 percent of recipients have university degrees, nearly double the graduation rate of others, and 27 percent of net donors are university graduates. Donors and recipients are also similar with respect to poverty rates. The post-transfer poverty rate is 29.7 percent for donors and 28.1 percent for recipients. In contrast, the poverty rate for others is 41.6 percent (table 9-3). The relative poverty rates also indicate that some of the donors appear to make large sacrifices on behalf of their relatives or friends. The pre-private-transfer poverty rate among donors is only 20.5 percent, in contrast to the post-transfer rate of 29.7 percent. Thus some donors impoverish themselves by giving.

Nevertheless, many characteristics of recipient households suggest that they are much more vulnerable than donors: they are more likely to be headed by younger people, women, or unemployed people; to be larger; and to have a plot of land on which to grow food (table 9-3). Chapter 3 discussed these correlates of poverty.

Private transfers tend to flow from the old to the young. Table 9-5 sets out the incidence and amount of transfers by age. The incidence of receipts is highest for the youngest age group (fifteen to thirty) and lowest for households headed by people in their fifties or sixties. The incidence then increases for the elderly (aged seventy-one and over). The average amount per recipient declines monotonically with age. This suggests that the old age security motive for private transfers is limited in Russia, unlike in some other countries such as Peru (Cox and Jimenez 1992). It is also consistent with the finding that pensioners, on average, are better off than working households. Age patterns for giving roughly mirror those for receiving transfers (table 9-6). The incidence of giving is highest for household heads in their fifties, although average amounts given peak much earlier. As a result, the average amount given (incidence times average amount) is flat through mid-life.

Table 9-5. *Incidence and Amount of Transfers Received, by Age, September 1992*

Age of household head (years)	*Number receiving transfers*	*Percentage receiving transfers*	*Average amount (rubles)*	*Average amount among recipients (rubles)*
15–30	745	37.85	1,295.49	3,422.34
31–40	1,396	28.58	788.74	2,759.61
41–50	1,070	19.91	448.20	2,251.54
51–60	1,233	10.30	214.41	2,081.61
61–70	1,000	9.60	89.29	930.09
71 and over	529	15.12	116.54	770.64

Source: RLMS.

Table 9-6. *Incidence and Amount of Transfers Given, by Age, September 1992*

Age of household head (years)	*Number giving transfers*	*Percentage giving transfers*	*Average amount (rubles)*	*Average amount among givers (rubles)*
15–30	745	13.96	267.73	1,916.46
31–40	1,396	17.55	371.25	2,115.95
41–50	1,070	20.93	353.00	1,686.21
51–60	1,233	25.22	308.42	1,381.34
61–70	1,000	20.70	247.42	1,195.29
71 and over	529	12.48	88.69	710.84

Source: RLMS.

Respondents were asked to report the sources of in-kind transfers received (table 9-7). Nearly half of all in-kind transfers flow from parents to children. The number of transfers in the opposite direction is only half as large. (Note that the figures cited measure incidence and not amounts, so we cannot gauge the intergenerational flows in ruble terms.)

For the whole sample, nearly 35 percent of all the transfers received were in cash. Among net recipients, nearly 40 percent report receiving cash transfers, while 83 percent report receiving in-kind transfers. No information is available on the cash/in-kind breakdown of transfers given, but information is available on the gifts/loan breakdown. For the whole sample, 44 percent of all transfers given are loans, and among those reporting giving transfers, 42 percent report giving loans while 71 percent report giving gifts.

Although little aggregate evidence indicates that private transfers provide much old age support, when the sample is stratified to differentiate be-

Table 9-7. Sources of Transfers, September 1992

In-kind transfers received from	*Number of transfers*	*Percentage of transfers*
Parents	730	48.34
Children	245	16.23
Grandparents	48	3.18
Grandchildren	15	0.99
Other relatives	283	18.74
Friends	113	7.48
Others	76	5.03
Total	1,510	100.00

Source: RLMS.

tween urban and rural households, a slightly different picture emerges. Parents are the main source of transfers for urban households, but children play a relatively greater role as a transfer source for rural households. Urban households are also more likely to receive private transfers than rural ones, although those rural households that are recipients get slightly more on average. The rural/urban disparity in giving is less pronounced (table 9-8).

Multivariate Analysis

While the figures reported so far reveal important aspects of the scale and nature of private transfers in Russia, they are inadequate for analyzing the effect of a particular determinant of private transfers. Thus we turn to a multivariate analysis of transfer behavior.

Table 9-8. Rural-Urban Breakdown of Transfers, 1992

Location	*Number*	*Percentage receiving*	*Average amount among recipients (rubles)*	*Percentage giving*	*Average amount among givers (rubles)*
Urban	4,497	23.77	2,457.03	20.69	1,621.57
Rural	1,470	8.67	2,613.30	15.51	1,373.60

Source: RLMS.

Specification of Transfer Functions

We estimate transfer functions in two stages. First, we consider the incidence of transfers, and second, conditional on a transfer occurring, we consider the transfer amount. The first stage is conducted using probit analysis, and the second using ordinary least squares (OLS) analysis on the nonlimit observations. In each equation, the following household characteristics are included in the specification:

- *Household resources.* Household resources are measured by current income, which includes income from employment, informal sector activity, independent entrepreneurial activity, property, and farming. Income before all transfers is entered as a cubic to allow for nonlinearities in transfer response. Also entered separately are pensions and public transfer income, as well as dummies indicating whether households have income from these sources. We also include several other variables correlated with household resources, such as education of the head of household to proxy household permanent income. We also include dummies indicating the employment/unemployment status of the head of household and of other household members and a dummy indicating ownership of a plot of land. The last variable is included because even urban households often have access to private plots, and having such access is correlated with the poverty status of the household.

- *Age.* The simple descriptive evidence presented earlier suggests that age is related to transfer behavior. We enter a quadratic in the age of the household head and interact age with income. One reason why the timing of transfers over the lifecycle is likely to be important concerns liquidity constraints (Cox 1990). This is relevant in Russia given the country's undeveloped capital markets. If households are subject to binding borrowing constraints, for example, the transfer receipts would be concentrated early in life, when current resources are low.

- *Demographic characteristics.* We enter a vector of other household demographic characteristics: gender of the household head, marital status, family size, and the number of children by age. Many studies elsewhere in the world indicate that transfers are targeted to female-headed households (for a review of the evidence, see Cox and Jimenez 1990). Cox (1987) has also found that marital status is an important determinant of transfers. In addition, holding total household resources constant, we might expect private transfers to be targeted to larger families, because they would have more mouths to feed. The number of children is probably an

important determinant of transfers in light of the evidence presented in chapters 2 and 3, which attest to the effect of young children on households' poverty status.

- *Health variables.* To see if private transfers respond to economic distress caused by health problems, we include three health indicators in the transfer function. The first is a dummy variable that takes on a value of one if either out-of-pocket health care expenses in the past three months exceeded 10 percent of income or if the household received a subsidy for medical treatment. The second is a dummy that takes on a value of one if the head of the household is disabled. A final dummy indicates whether other household members are disabled.

- *Regional variables.* Given the descriptive evidence indicating the large regional differences in transfer participation and the scale of regional differentiation set out in chapters 2 and 6, we enter a set of regional dummies in the transfer functions. Furthermore, we calculate three region-specific economic indicators: average regional income, average unemployment rate, and the variance of log income. The average regional income is a proxy for the region's economic status. The higher the average regional income, all else being equal, the more likely a household will receive a transfer. The average regional income also serves as a proxy for donor's income. The average unemployment rate is a proxy for the region's economic health of the region, and its effect on the transfers is ambiguous. On the one hand, economic distress created by high unemployment could galvanize households and increase transfer activity. On the other hand, such distress could weaken networks if, for example, current hardship or concerns about future earning potential cause private transfer donors to cut back. The log variance variable is included because if transfers are mostly intraregional, other things being equal, a more unequal distribution of pre-transfer income would lead to greater participation in transfer activity.

This interpretation of the regional variables makes the implicit assumption that transfers do not cross regional boundaries, which need not be true. However, even in the United States most transfers occur between household pairs that are geographically close (Cox 1987), and as discussed in chapter 6, labor mobility in Russia is limited.

Probit Results

The appendix (table 9-A1, first three columns) contains the results from the probit analysis. The dependent variable is the occurrence of a transfer re-

ceipt, a dummy variable that takes on a value of one if the household is a net recipient and of zero otherwise. The results are organized based on the variable categories described earlier.

With respect to household resources the probit results generally reinforce the previous descriptive evidence in that transfers tend to go to lower-income households. However, the probability of receiving a transfer declines only slightly with earned income. The results indicate that, for example, a rise in income from the twenty-fifth to the seventy-fifth percentile (Rub 848 to Rub 7,080) decreases the probability of receiving a transfer by only 2.4 percentage points, but the effect of pension income is negative and large in absolute value. Having an average pension reduces the probability of transfer receipt by 12.7 percentage points.

By contrast, the effect of other public transfer income on private transfers is positive. Compared to having no such income, having the average amount of public transfer income raises the probability of receiving a transfer by 3.4 percentage points. Thus our results indicate that private transfers complement public transfers other than pensions.

Private transfers appear to respond to the economic distress caused by unemployment. If the head of the household loses his or her job, the probit results indicate that the probability of transfer receipt rises by 4.5 percentage points (the difference in predicted probability of receipt between having a head that is employed versus one that is unemployed). Furthermore, if the household head is currently employed but was unemployed since January 1992, the probability of transfer receipt increases slightly, to 5.5 percentage points.

Consistent with the results presented in chapter 3, having a plot of land is a significant determinant of the incidence of private transfer receipts. If the household has access to a plot of land, the probability of receiving a transfer decreases by 4.3 percentage points for urban households and 3.9 percentage points for rural households. The only puzzling result in the set of household resource variables is the sign of the coefficient for the "other unemployed" dummy, which is negative, though not significant at conventional levels.

The probability of transfer receipt declines with age until sixty-one. The effect of age on transfers is quite large. At sample means, the predicted probability of transfer receipt for a household headed by a twenty-one-year-old is 27.7 percent and for a fifty-year-old is 10.5 percent. Part of the age pattern may reflect a connection between private transfers and investment in human capital. If transfers are used in part to enable human capital investment in education and skills, they would be targeted to young households. The positive coefficient on the interaction between age and earned income also lends credence to the human capital hypothesis, because the age pattern is less pronounced for high-income households.

Further evidence of the relationship between private transfers and human capital investment emerges from the coefficients for the education variables. For example, having a university degree raises the probability of transfer receipt by 3.9 percentage points. The positive education effects may be related, in part, to the omitted donor income variables. University completion is probably correlated across generations, so that having a university degree indicates the presence of well-educated, high-income parents, but part of the education effect could also concern liquidity constraints. More education means higher permanent income, which raises desired consumption. If the household is constrained by current resources, friends and relatives fill the gap between desired consumption and current income by making private transfers (Cox 1990).

Consistent with nearly all other studies of private transfer behavior in a range of countries, transfers in Russia tend to be targeted to female-headed households: female headship raises the probability of transfer receipt by 3.1 percentage points. This may be related to the economic distress associated with female headship (investigated in chapters 2 and 3). Another, perhaps complementary, reason for this pattern could have to do with the disproportionate involvement of female-headed households in the exchange of interhousehold, in-kind services (Cox 1987). If private transfers are in part payments for such services, we would expect them to be targeted to women. For women, being married also raises the probability of transfer receipt, and the impact is 3.3 percentage points.

The foregoing chapters indicated that households with many children are often prone to economic distress. Here we find that the probability of transfer receipt increases with the number of children. For example, the probability that a household with two infants and a child aged seven receives a transfer is 11.6 percentage points higher than that for a childless household.

Adverse health status did not seem to increase significantly the likelihood of receiving a private transfer. The point estimate for the proxy for illness indicates that the probability of transfer receipt rises 0.6 percentage points if the dummy takes on a value of one, but the result is not statistically significant, and neither are the other indicators of the household's health status. The probability of transfer receipt increases by only 1.2 percentage points if the head of the household is disabled.

Regional economic shocks seem to reduce the scale of private transfer networks. An increase in the regional rate of unemployment decreases the probability of receiving a transfer. The predicted probability of receipt is 16.7 percent when the regional unemployment rate is 5 percent, but only 1.1 percent when the regional unemployment rate is 10 percent. By contrast, the point estimate for the other indicator of regional economic conditions, mean

income, is positive, but not statistically significant. (The point estimate implies only a 7.3 percentage point rise in the probability of transfer receipt corresponding to a boost in regional income from the twenty-fifth to the seventy-fifth percentile.)

An increase in the variance of the region's log income raises the probability of transfer receipt. When the variance of regional log income increases by 10 percent, the probability of transfer receipt rises by 4 percentage points.

As the descriptive evidence suggests, the incidence of transfers varies enormously among regions, and this is true even when other determinants of transfers are controlled for. Consider, for example, the range in predicted probabilities by region. Households in Moscow City have a probability of transfer receipt of 23.3 percent, while those in Sverdlovsk/Turinskii have a probability of only 2.8 percent.

OLS Results

The appendix (table 9-A1, last three columns) also presents the estimation results for transfer amounts. The dependent variable is transfers received measured in level form. The sample is the set of net transfer recipients. The set of explanatory variables is identical to the set used in the probit analysis.

As is often the case with estimates of transfer functions, the fit of the equation for transfer amounts is not as good as that for transfer incidence (see Cox and Jimenez 1992 for Peru; Cox, Okrasa, and Jimenez 1994 for Poland.) However, the cubic function of household pre-transfer income (also interacted with age) is highly significant. At sample means, the coefficients indicate a strong private transfer response to household income: a Rub 100 increase in income is associated with about a Rub 18 reduction in private transfer amounts.

Except for the regional dummies, few of the other coefficients are significant at conventional levels. In addition, some of the effects of the transfer determinants differ in sign from their counterparts in the probit equation. For example, the presence of small children is inversely related to transfer amounts received (although the effect is insignificant).

One result that is consistent with the probit results is the estimated negative impact of age on transfer amounts. Transfers decline until age fifty-eight and fall by Rub 50 per year at sample means. These results, like those for transfer incidence, show clearly that private transfers are targeted toward younger households.

The point estimates for pension income variables indicate that such income has a strong effect on transfer amounts. The coefficients for the amount

of retirement income and the dummy for having such income are jointly significant at the 6 percent level.

Transfers Given

The appendix (table 9-A2) presents the results from the probit analysis of transfers given. The dependent variable is a dummy variable that takes on a value of one if the household is a net donor of private transfers and of zero otherwise.

The probit results with respect to household resources are in the reverse direction to those for transfers received, in that transfers tend to flow from higher-income households. The results indicate that a rise in income from the twenty-fifth percentile to the seventy-fifth percentile increases the probability of giving a transfer by 12.5 percentage points. The effect of pension income is also positive, as the average value for pension income increases the probability of giving a transfer by 6.7 percentage points. The effect of other public transfer income is also positive, but insignificant.

Trends over Time

The intervening months between the collection of round 1 and round 3 RLMS data, roughly from the summer and early autumn of 1992 to the summer of 1993, were marked by high inflation, declining real wages, and rising poverty and inequality. Despite worsening conditions, basic patterns of private transfers remained the same: transfers flowed from high- to low-income households, for example, and from the old to the young. However, the strength of the private safety net does seem to have deteriorated somewhat, as private transfers as a percentage of income fell from 6.9 to 4.4 percent. A similar trend was apparent during Poland's economic transition (Cox, Okrasa, and Jimenez 1994). Precise comparisons are difficult, however, because of changes in the definition of private transfers.

In contrast to the separate questions for cash and in-kind transfers asked in round 1, respondents were asked a single question on private transfers in round 3, that covered both money and in-kind transfers: "Has your family received money, provisions, clothes, or other goods in the last thirty days and, if so, how would you assess this aid in rubles?" Respondents reported receipts separately by source (for example, parents, children, other relatives, friends). Information about transfers given was reported in a similarly worded question: "In the course of the last thirty days has your family or one of its members given or lent money or goods (provisions, clothes, other items)

without obligation to people who are not members of your household (children, parents, other relatives, friends)?" This question contrasts with its counterpart in round 1, which just asks about spending for assistance and lending, but does not explicitly prompt respondents to value any in-kind gifts.

Despite the difference in wording, the transfer-related questions in each round are aimed at the same general issue of interhousehold receipts and gifts, and we use them to make inferences about the stability of transfer behavior through Russia's transition. The following paragraphs summarize the transfer patterns that emerged in 1993.

Participation in transfer networks declined only slightly during the year. Thirty-six percent of the households participated as givers and/or recipients in 1993, compared to 40 percent a year earlier. Gross transfer receipts as a fraction of total income decreased somewhat, from 6.9 percent in 1992 to 4.4 percent in 1993.

Poverty rates rose overall during the period, as discussed in previous chapters. At the same time, however, the pattern of poverty by transfer status remained the same, and those involved in private transfer networks had lower poverty rates than those not involved (table 9-9). As before, private transfers increased the lowest income quartile's share of income, in this case from 0.11 percent to 0.47 percent (table 9-10). In 1993, however, the impact of public transfers was larger, raising the share of the lowest quintile to 6.22 percent.

As in 1992, average transfers in 1993 tended to flow from better-off to worse-off households. The average pre-private-transfer income of givers is Rub 9,833, compared to Rub 6,762 for recipients. In 1993, however, those not participating in private transfer networks (the others) had the lowest income (Rub 6,365). As in 1992, recipients were more likely to be younger and to be from larger households, and recipient households were more likely to be headed by women and the unemployed.

We replicated the probit and OLS results with the 1993 data. (In the interests of saving space, we do not present the results here, but they are available from the authors upon request.) Similar transfer patterns emerged. The probit results indicate that transfer incidence is inversely related to income, especially from pensions, but positively related to other public transfer income. Transfers are also targeted toward younger households, those headed by women, and those whose head is unemployed.

The major difference between the results for 1992 and those for 1993 is that transfer amounts are positively affected by pre-transfer income: at sample means, a Rub 1 increase in pre-transfer income prompts an estimated Rub 0.18 increase in private transfer amounts. The corresponding number for 1992 is minus Rub 0.18. Furthermore, the regional disparity in private transfers is smaller in 1993.

Table 9-9. *Selected Characteristics of Russian Households by Transfer Status, 1993*

Variable	*All households (N = 4,773)*	*Net recipients (N = 732)*	*Net givers (N = 980)*	*Others (N = 3,061)*
Monthly household resources				
Total income (rubles)	7,100	8,572	8,299	6,365
Income less private transfers (rubles)	7,138	6,762	9,833	6,365
Income less all transfers (rubles)	5,325	5,586	6,457	4,901
Net private transfers (rubles)	-37	1,810	-1,534	0
Total public transfers (rubles)	1,466	1,071	1,778	1,460
Proportion of households with pension income	0.514	0.367	0.563	0.533
Pension income (rubles)	1,178	695	1,503	1,190
Unemployment insurance (rubles)	3	3	0	4
Other public transfers (rubles)	284	372	275	266
Health care subsidies (rubles)	12	26	12	9
Health care expenditures (rubles)	9	7	11	8
Households with access to a plot of land	0.614	0.507	0.679	0.619
Proportion of urban households with plot	0.379	0.362	0.417	0.371
Proportion of rural households with plot	0.235	0.145	0.261	0.248
Urban household	0.744	0.842	0.713	0.730
Poverty variables				
Poverty line for household (rubles)	5,398	5,889	4,929	5,430
Proportion of households poor after public and private transfers	0.438	0.414	0.294	0.490
Proportion of households poor after public transfers	0.445	0.555	0.221	0.490
Proportion of households poor before all transfers	0.702	0.727	0.566	0.740

(Table continues on following page.)

Table 9-9 (continued)

Variable	*All households (N = 4,773)*	*Net recipients (N = 732)*	*Net givers (N = 980)*	*Others (N = 3,001)*
Employment variables				
Proportion of households whose head is employed	0.641	0.674	0.657	0.628
Proportion of households whose head is unemployed	0.050	0.067	0.038	0.049
Number of employed household members	1.208	1.198	1.212	1.210
Number of unemployed household members	0.160	0.172	0.126	0.168
Proportion of households whose head engages in individual economic activity (among employed)	0.022	0.037	0.031	0.016
Proportion of households whose head engages in entrepreneurial activity (among employed)	0.127	0.120	0.151	0.121
Education variables				
Proportion of households whose head has no primary schooling	0.035	0.015	0.031	0.041
Proportion of households whose head has primary schooling	0.112	0.064	0.123	0.120
Proportion of households whose head has secondary schooling	0.638	0.649	0.597	0.649
Proportion of households whose head has university education	0.175	0.208	0.212	0.155
Proportion of households whose head is a student	0.005	0.018	0.002	0.003

Variable	*All households (N = 4,773)*	*Net recipients (N = 732)*	*Net givers (N = 980)*	*Others (N = 3,001)*
Other characteristics				
Age of head of household (years)	49.654	43.184	52.516	50.284
Proportion of households whose head is younger than 30	0.098	0.198	0.056	0.087
Proportion of households whose head is older than 60	0.295	0.199	0.346	0.302
Proportion of households whose head is female	0.284	0.329	0.247	0.285
Proportion of households whose head is married	0.658	0.638	0.723	0.642
Household size	2.717	2.872	2.545	2.734
Number of children ages newborn–1	0.046	0.083	0.028	0.043
Number of children ages 2–7	0.240	0.389	0.154	0.231
Number of children ages 8–15	0.338	0.454	0.253	0.338
Proportion of households whose head is disabled	0.031	0.026	0.024	0.034
Number of disabled household members	0.049	0.033	0.037	0.057

(Table continues on following page.)

Table 9-9. (continued)

Variable	*All households (N = 4,773)*	*Net recipients (N = 732)*	*Net givers (N = 980)*	*Others (N = 3,001)*
Transfers				
Proportion of households that are net recipients of private transfers	0.153	1.000	0.000	0.000
Net receipts of private transfers (rubles)	278	1,810	0	0
Gross receipts of private transfers (rubles)	309	1,915	63	4
Proportion of households that are net donors of private transfers	0.205	0.000	1.000	0.000
Net private transfers given (rubles)	315	0	1,534	0
Gross private transfers given (rubles)	346	105	1,597	4

Source: RLMS, round 3.

Table 9-10. *Effects of Public and Private Transfers on the Distribution of Income, 1993*

Income quintile	*Before transfers*	*After private transfers*	*After public transfers*	*Private and public transfers*
Lowest (328 and below)	0.11	0.47	6.22	6.53
Second (329–2,197)	4.17	4.55	8.10	8.42
Third (2,198–4,603)	11.81	12.33	13.08	13.50
Fourth (4,604–8,292)	22.09	22.26	20.59	20.71
Highest (8,293 and above)	61.82	60.39	52.02	50.83

Source: RLMS, round 3.

We exploited the panel feature of the RLMS to discern the extent to which transfer behavior persists over time. One possibility is perfect persistence, that is, once a household is, say, a recipient, it remains one. The polar opposite is that transfers are not related over time, that is, the chances of receiving transfers in 1993 are independent of receiving transfers a year earlier. We find, not surprisingly, that actual patterns are between these two extremes. For example, a little over a third of round 1 recipients received private transfers in round 3, which is higher than the unconditional probability of receiving, which is a little less than 20 percent (table 9-11). The corresponding figures are similar for giving. In contrast, less than 6 percent of the sample changed from giver to recipient or vice versa.

Conclusions and Policy Implications

This chapter has revealed that private transfers are widespread and large in Russia, and have persisted over time. About two in five households participate in private transfer networks as recipients, donors, or both. The poverty rate of participants is more than 10 percent lower than that of nonparticipants. To the extent that private transfers seem to respond to the correlates of poverty investigated in earlier chapters, such as employment status and age and number of children in the household, such transfers have a redistributive effect.

The theoretical considerations discussed at the beginning of the chapter raised the possibility that public transfers such as old age pensions can crowd out private transfers. Conversely, if such pensions are cut back or eliminated,

Table 9-11. *Persistence of Private Transfers between 1992 and 1993*

Category	*Net recipient in round 3*	*Net giver in round 3*	*Zero net transfers in round 3*	*Total*
Net recipient in round 1				
Number of households	325	468	154	947
As a percentage of all households	6.88	9.91	3.26	20.06
As a share of all round 1 households	35.32	49.42	16.26	100.00
Net giver in round 1				
Number of households	276	2,060	512	2,848
As a percentage of all households	5.84	43.63	10.84	60.31
As a share of all round 1 households	9.69	72.33	17.98	100.00
Zero net transfers in round 1				
Number of households	123	496	308	927
As a percentage of all households	2.60	10.50	6.52	19.63
As a share of all round 1 households	13.27	53.51	33.23	100.00
Total				
Number of households	724	3,024	974	4,722
As a percentage of all households	15.33	15.33	20.63	100.00

Source: RLMS, rounds 1, 2, 3.

private networks could step in to fill some of the gap left by such reductions. The policy implications that emerge suggest, nonetheless, that a significant role remains for targeted public transfers. We simulated private transfer responses to unemployment and the elimination of pensions. Private transfers could conceivably fill a significant portion of the gap left by unemployment, but the private safety net is far from complete, so that not everyone who experiences distress is likely to receive such aid. The following example illustrates these ideas.

Suppose that a head of household earning Rub 3,600 per month (the average wage among employed household heads in 1992) loses his or her job. Assume that the total, pre-private-transfer income of the household before

retrenchment was Rub 8,000 per month (the average total income in the sample). Suppose, furthermore, that this household is average in every respect, except that it is not currently receiving any private transfers. If in response to the economic distress caused by the layoff the household begins to receive some private transfers, how much will it receive?

The OLS regression results presented in table 9-A1 indicate that the predicted transfer amount for this hypothetical household would be Rub 1,339. If the household did receive private transfers of that order, such transfers would replace more than one-third of the earnings lost. Thus the potential for private transfers to cushion the effects of unemployment is quite large.

But what are the chances of this happening? To answer this question we turn to the probit results, which imply that becoming unemployed and losing Rub 3,600 of earnings increases the probability of receiving a private transfer by about 8 percentage points. Given that the household was originally in the 80 percent of the sample not receiving a transfer, the chances that the household will now receive a transfer is 10 percent. Thus even though private transfers are potentially important for alleviating the effects of job loss, most households will not receive them, and their impact in expected value terms is not large.

Regional effects further reduce the likelihood that private transfers would replace the income loss associated with unemployment. For example, if the head of household loses his or her job during a period when the region's unemployment rate rises by a percentage point, the household's predicted probability of transfer receipt would increase little. Although becoming unemployed raises the probability of transfer receipt, the private transfer effect of increased regional unemployment offsets this rise.

Given the large regional differences in private transfer networks, our results imply that public policy should focus on ensuring the payment of unemployment benefits in regions that are especially adversely affected. People who lose their jobs in regions with low unemployment are much more likely to be helped by family networks than those from regions with high unemployment.

Table 9-12. *The Impact of Eliminating Pensions*
(rubles per month)

Category	*Before eliminating pensions*	*After eliminating pensions*
Pension income	1,237	0
Predicted private transfers	194	475
Total income	1,431	475

Source: Authors' calculations.

Let us consider another policy variable: pension payments. The theoretical section raises the possibility that public transfers such as old age pensions can crowd out private transfers. Conversely, if such pensions are cut back or eliminated, private networks could step in to fill part of the gap left by such reductions. We simulated the private transfer response to the elimination of old age pensions using the estimated transfer functions in table 9-12. Our results imply that increased private transfers would fill 22.7 percent of the gap created by the elimination of pensions.

Removing old age pensions reduces the household income of pensioners by Rub 1,237, the average value of their pensions (table 9-12). These pensioners receive, on average, Rub 194 per month in predicted private transfers. After the elimination of pensions, private transfers more than double to Rub 475. So 22.7 percent (475 - 194/1,237) is the private replacement rate for the removal of a public pension. This figure could be a lower bound for what might actually happen. First, taxes used to finance pensions would be reduced as well, thereby raising the disposable incomes of potential transfer donors, which would likely further increase private transfers. Second, the pension income coefficients could be biased downward in absolute value, because we cannot control for donors' incomes in the transfer functions.

These simulation experiments must be viewed with caution, however, because, as is typically the case with transfer functions estimated on household microdata, the coefficient of determination is quite low (16 percent). Furthermore, the regression results in table 9-A1 indicate that nonpension public transfers and private transfers appear to be complements rather than substitutes. Thus overall evidence for the crowding out of private transfers by public ones is mixed.

Appendix: Results of Regression Analysis

Table 9-A1. *Probit and OLS Estimates, Transfers Received, RLMS Round 1, September 1992*

	Probit			*OLS*		
Variable	*Coefficient*	*T-ratio*	*Mean of variable*	*Coefficient*	*T-ratio*	*Mean of variable*
Income variables						
Income before all transfers	-0.048	-4.793	6.312	-0.485	-6.677	4.935
Income squared	0.000	4.325	2,152	0.000	8.897	90
Income cubed	0.000	-3.313	5,052,593	0.000	-7.690	4,869
Household has pension income	-0.317	-4.056	0.486	-0.774	-1.228	0.295
Pension income	-0.070	-1.804	0.784	-0.218	-0.668	1.991
Household has other public transfer income	0.177	3.498	0.555	0.407	1.062	0.698
Other public transfer income	0.015	0.576	0.392	-0.129	-0.757	4.200
Income times head of household's age	0.000	1.084	286	0.0000	2.692	195
Urban household	0.416	2.467	0.753	1.163	0.892	0.893
Urban household has access to a plot of land	0.143	0.910	0.373	-0.781	-0.622	0.327
Household has access to a plot of land	-0.332	-2.202	0.597	0.707	0.583	0.419
Unemployment variables						
Head of household is unemployed	-0.001	-0.009	0.058	-0.172	-0.233	0.084
Other member of household unemployed	-0.127	-1.659	0.092	0.654	1.171	0.090
Head of household is employed	-0.231	-2.848	0.682	0.380	0.590	0.744
Other member of household is employed	-0.076	-1.225	0.477	0.009	0.020	0.515
Employed head lost job since January 1992	0.280	2.921	0.037	-0.666	-1.108	0.064

(Table continues on following page.)

Table 9-A1. (continued)

Variable	Probit			OLS		
	Coefficient	*T-ratio*	*Mean of variable*	*Coefficient*	*T-ratio*	*Mean of variable*
Education variables						
Head of household completed 6–8 years of school	-0.087	-1.026	0.336	0.907	1.213	0.287
Head of household completed 9–13 years of school	-0.026	-0.289	0.511	0.495	0.643	0.642
Head has university education	0.167	2.994	0.211	0.182	0.466	0.301
Head has technical education	0.123	2.584	0.585	-0.479	-1.335	0.647
Head is a student	0.242	1.720	0.020	0.856	1.090	0.053
Other characteristics						
Head of household's age	-0.057	-6.536	48.657	-0.122	-1.832	41.742
Head's age squared	0.000	5.153	2,616	0.000	1.224	1,985
Female head	0.159	2.257	0.281	-0.109	-0.205	0.296
Married head	0.187	2.625	0.653	1.101	1.994	0.647
Number of children ages newborn–1	0.231	2.445	0.045	-0.541	-0.916	0.086
Number of children ages 2–7	0.152	3.204	0.247	-0.003	-0.010	0.384
Number of children ages 8–15	0.083	1.942	0.334	0.201	0.671	0.443
Household size	-0.038	-1.173	2.647	-0.151	-0.637	2.805
Nonzero medical expenditures or subsidies	0.033	0.374	0.051	-0.744	-1.239	0.064
Head is disabled	0.063	0.467	0.029	0.283	0.264	0.022
Other member of household disabled	-0.097	-0.549	0.020	-0.544	-0.381	0.011
Mean income of region	0.080	1.232	6.312	0.470	1.004	6.921
Unemployment rate of region	-26.784	-3.893	0.060	-60.057	-1.158	0.064

Variable	Probit			OLS		
	Coefficient	*T-ratio*	*Mean of variable*	*Coefficient*	*T-ratio*	*Mean of variable*
Variance of log income in region	0.116	1.558	16.768	0.885	1.700	15.821
St. Petersburg City	0.544	1.709	0.053	-0.080	-0.030	0.049
St. Petersburg oblast/Kingiseppskii raion	-0.316	-0.984	0.050	-3.859	-1.714	0.038
Novgorod City	1.219	3.530	0.047	3.189	1.301	0.096
Riazan oblast/Riazhskii raion	-1.355	-2.786	0.059	-3.931	-1.146	0.042
Riazan oblast/Saraevskii raion	-1.172	-3.581	0.060	-4.124	-1.657	0.024
Tatarstan/Kazan	-1.267	-2.081	0.048	-9.278	-2.198	0.054
Saratov oblast/Krasnoarmeisk	0.307	0.631	0.046	2.866	0.831	0.037
Kabardino-Balkarskaia/Nal'chik	-1.281	-1.042	0.055	-16.169	-1.870	0.061
Stavropol Krai/Blagodarnenskii raion	-0.410	-1.253	0.044	2.839	1.144	0.040
Rostov oblast/Novocherkassk	0.145	0.514	0.046	1.106	0.551	0.042
Sverdlovsk oblast/Ekaterinburg	0.481	2.112	0.051	1.643	1.013	0.064
Sverdlovsk oblast/Turinskii raion	-2.201	-3.295	0.054	-7.064	-1.494	0.014
Cheliabinsk oblast/Cheliabinsk	-1.255	-0.847	0.046	-18.839	-1.811	0.077
Cheliabinsk oblast/Agapovskii raion	-1.968	-2.576	0.048	-9.377	-1.736	0.022
Mountain Altai Republic/Gorno-Altaisk	-2.029	-1.469	0.051	-17.664	-1.830	0.037
Omsk oblast/Omsk	1.623	3.718	0.025	2.662	0.791	0.028
Tomsk oblast/Zyraianskii raion	-1.508	-1.570	0.051	-13.455	-2.011	0.031
Constant	0.388	0.356		-4.647	-0.587	
Mean of dependent variable	0.200	2.474				
R-squared	n.a.	0.159				

(Table continues on following page.)

Table 9-A1. *(continued)*

Variable	*Probit*			*OLS*		
	Coefficient	*T-ratio*	*Mean of variable*	*Coefficient*	*T-ratio*	*Mean of variable*
Regression F-test	n.a.	4.155				
Log likelihood	-2,511.334	n.a.				
Chi-square test for zero slopes	806.925	n.a.				
Sample size	5,973	1,197				

n.a. Not applicable.

Table 9-A2. *Probit and OLS Estimates, Transfers Given, RLMS Round 1, September 1992*

	Probit			*OLS*		
Variable	*Coefficient*	*T-ratio*	*Mean of variable*	*Coefficient*	*T-ratio*	*Mean of variable*
Income variables						
Income before all transfers	0.031	3.037	6.312	0.102	3.995	10.783
Income squared	-0.000	-2.792	2,152	-0.000	-3.425	10,282
Income cubed	-0.000	2.620	5,052,593	-0.000	3.294	25,875,685
Household has pension income	-0.015	-0.221	0.486	0.009	0.033	0.489
Pension income	0.134	4.166	0.784	0.104	0.819	0.856
Household has other public transfer income	0.097	2.047	0.555	-0.180	-0.926	0.583
Other public transfer income	-0.005	-0.196	0.392	0.049	0.472	0.413
Income times head of household's age	-0.000	-1.104	286	-0.000	-3.680	493
Urban household	-0.071	-0.437	0.753	-0.717	-0.967	0.802
Urban household has access to a plot of land	0.130	0.851	0.373	0.352	0.510	0.449
Household has access to a plot of land	0.042	0.289	0.597	0.108	0.162	0.630
Unemployment variables						
Head is of household unemployed	0.164	1.604	0.058	0.157	0.355	0.048
Other member of household unemployed	0.030	0.403	0.092	-0.208	-0.670	0.095
Head of household is employed	0.426	5.812	0.682	0.402	1.324	0.763
Other member of household is employed	0.068	1.138	0.477	-0.343	-1.389	0.511
Employed head lost job since January 1992	-0.031	-0.299	0.037	-0.511	-1.206	0.039

(Table continues on following page.)

Table 9-A2 (continued)

Variable	Probit			OLS		
	Coefficient	*T-ratio*	*Mean of variable*	*Coefficient*	*T-ratio*	*Mean of variable*
Education variables						
Head of household completed 6–8 years of school	0.005	0.069	0.336	-0.013	-0.042	0.330
Head of household completed 9–13 years of school	0.063	0.824	0.511	0.323	0.998	0.551
Head has university education	0.126	2.319	0.211	0.112	0.502	0.269
Head has technical education	0.072	1.630	0.585	-0.089	-0.482	0.616
Head is a student	-0.146	-0.850	0.020	-0.379	-0.452	0.011
Other characteristics						
Head of household's age	0.033	3.658	48.657	-0.009	-0.234	49.365
Head's age squared	-0.000	-3.060	2,616	-0.000	-0.147	2,638
Female head	-0.124	-1.830	0.281	-0.026	-0.091	0.229
Married head	0.132	1.936	0.653	0.603	2.087	0.715
Number of children ages newborn–1	0.081	0.745	0.045	1.041	2.094	0.032
Number of children ages 2–7	0.117	2.302	0.247	-0.256	-1.159	0.204
Number of children ages 8–15	0.064	1.438	0.334	0.265	1.342	0.291
Household size	-0.221	-6.707	2.647	-0.113	-0.805	2.566
Nonzero medical expenditures or subsidies	0.240	2.923	0.051	0.183	0.590	0.076
Head is disabled	0.047	0.369	0.029	0.087	0.158	0.026
Other member of household disabled	0.038	0.276	0.020	-0.169	-0.294	0.022

Variable	Probit			OLS		
	Coefficient	T-ratio	Mean of variable	Coefficient	T-ratio	Mean of variable
Regional variables						
Mean income of region	0.204	3.007	6.312	0.006	0.019	6.536
Unemployment rate of region	3.145	0.483	0.060	-7.407	-0.294	0.064
Variance of log income in region	0.198	2.555	16.768	0.122	0.384	15.86
St. Petersburg City	-0.848	-3.334	0.053	0.525	0.588	0.066
St. Petersburg oblast/Kingiseppskii raion	-0.882	-2.712	0.050	-1.388	-1.057	0.048
Novgorod City	0.637	1.796	0.047	0.899	0.616	0.067
Riazan oblast/Riazhskii raion	-0.745	-1.533	0.059	-1.039	-0.543	0.051
Riazan oblast/Saraevskii raion	0.108	0.361	0.060	-0.370	-0.330	0.050
Tatarstan/Kazan	-1.644	-2.625	0.048	-1.634	-0.647	0.031
Saratov oblast/Krasnoarmeisk	1.325	2.598	0.046	0.349	0.162	0.047
Kabardino-Balkarskaia/Nal'chik	-3.908	-3.084	0.055	-1.686	-0.325	0.056
Stavropol Krai/Blagodarnenskii raion	1.258	3.876	0.044	-0.314	-0.230	0.036
Rostov oblast/Novocherkassk	1.008	3.425	0.046	0.281	0.225	0.069
Sverdlovsk oblast/Ekaterinburg	0.434	1.847	0.051	0.012	0.012	0.067
Sverdlovsk oblast/Turinskii raion	-1.659	-2.440	0.054	-1.539	-0.560	0.031
Cheliabinsk oblast/Cheliabinsk	-4.729	-3.092	0.046	-2.190	-0.349	0.053
Cheliabinsk oblast/Agapovskii raion	-1.310	-1.700	0.048	-2.192	-0.711	0.037
Mountain Altai Republic/Gorno-Altaisk	-4.380	-3.066	0.051	-2.406	-0.411	0.034
Omsk oblast/Omsk	-0.385	-0.941	0.025	-0.035	-0.021	0.023

(Table continues on following page.)

Table 9-A2. (continued)

Variable	Probit			OLS		
	Coefficient	*T-ratio*	*Mean of variable*	*Coefficient*	*T-ratio*	*Mean of variable*
Tomsk oblast/Zyraianskii raion	-2.594	-2.628	0.051	-2.786	-0.695	0.041
Constant	-5.899	-5.273		0.913	0.195	
Mean of dependent variable				0.194	1.572	
R-squared		n.a.			0.095	
Regresion F-test (471,155)		n.a.			2.232	
Loglikelihood		-2,741.523			n.a.	
Chi-square (47) test for zero slopes		357.306			n.a.	
Sample size		5,973			1,157	

n.a. Not applicable.

10

Public Opinion about Social Issues

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Subjective assessments have an established role in the study of poverty. For example, the so-called Leiden school (see Hagenaars 1986; Kapetyn, Kooreman, and Willemse 1988) has emphasized individuals' assessment of their position. Not only can subjective assessments add an important dimension of understanding in their own right, they can help assess the extent and nature of political support for the reforms involved in the transition to a market economy. This in turn helps to explain the sustainability (or lack thereof) of reform efforts. Attitudes toward poverty and income distribution are also important, alongside views about the government's role. The threat of poverty and fears of growing political and economic instability have put social protection at the forefront of public attention.

Chapter 1 provided an overview of alternative approaches to poverty measurement. The analysis in the subsequent chapters adopted the official poverty line, which is based on an absolute notion of poverty. An alternative, subjective definition of poverty is nonetheless revealing, and insofar as poverty concerns individuals' well-being, people's perception of their own situation is critically important (Hagenaars 1986). The basic assumption of this approach to defining and measuring poverty is that people tend to interpret such concepts as "sufficient income to get along" or "enough food to get by" in a relatively standard way. The method the authors of this chapter used to elicit people's views was direct questioning of a random sample of Russians. The source of data is the regular All-Russian Center for Public Opinion Research (VCIOM) sample of 2,000 to 3,000 individuals who are surveyed on a range of social and political issues every two months (see chapter 1).

Poverty in the New Economic Circumstances

Poverty as a social phenomenon was characteristic of Russia at all stages of the country's development. The general public did not believe the myth about the socialist society being a more just social system. A survey of the population in 1990, before the economic reforms started, showed that people believed that the main reason for poverty was the system of wage determination and income distribution, that is, the factors related to the social structure and the state's activities. Meanwhile, individuals' characteristics and abilities were of secondary importance.

Despite the socioeconomic changes that have occurred during the last five years, people's opinions about the reasons for poverty have not changed. People believe that poverty has economic causes and attribute it mainly to the low effectiveness of state structure and management (60 percent of respondents in March 1995). Most people regard the state as responsible for guaranteeing minimum levels of income. In January 1996, according to most respondents (88 percent), the state must provide income support for every citizen that is not less than the subsistence level.

Worsening poverty has been associated with an increasingly negative attitude toward market-oriented economic reforms. Although the rate of inflation fell in 1995, the public's inflationary expectations remain high. In January 1996, more than 80 percent of respondents believed that prices would rise and about 85 percent thought that their families' money income would lag behind the price increase. This causes a lack of confidence in the future: more than half of those surveyed believe that the "time of trouble is still ahead," 21 percent "experience such troubles now," and only 6 percent feel that "they [troubles] are in the past."

Negative attitudes toward reform are particularly true among the poor. In March 1994 and March 1995, the VCIOM undertook a special national survey of poor households based on a representative sample of the adult population. The 1994 sample consisted of 3,776 individuals, of whom 2,175 were poor (as defined later). The sample numbers the following year were 1,980 and 1,374, respectively. The basic hypothesis to be investigated was the extent of growth of the new poor, previously middle-income households whose financial position had worsened significantly during the transition.

The poverty threshold the VCIOM adopted in March 1994 of Rub 70,000 per month was somewhat higher than the official minimum income at that time of Rub 60,400. About 58 percent of respondents fell below this threshold, compared to official estimates of poverty at that time of about 30 percent. The VCIOM standard is consistent with a relative approach to drawing a poverty

line, in that those people with incomes below 50 percent of the national average are deemed to be poor. The cut-off used for the official approach amounted to only about 35 percent of the national average per capita income.

A subjective assessment of the poverty line differs significantly from the official approach. Respondents were asked to estimate the minimum income necessary for a family to live. The survey revealed that in March 1994, respondents' assessment of the necessary minimum, Rub 154,000, was significantly higher than the official subsistence minimum. The same was true in 1995, when respondents estimated the necessary minimum to be much higher than average reported incomes. Indeed, the estimated minimum was above the level of average reported incomes for low- and middle-income groups. Only the top income quintile was receiving an income above the subjectively estimated minimum level. The assessed necessary minimum was fairly similar across income groups; however, the assessed "normal" level of income rose with the household's level of per capita income.

Attitudes toward Poverty

The public perceives that the poverty level is high because incomes vary widely: 86 percent of those surveyed believe that people are underpaid, and a similar proportion believe that the distribution of income is unfair. The negative assessment of the distribution of income is similar across different gender, age, occupation, and income groups. Underlying the perceived wide distribution of income are structural causes: 59 percent feel that the poor had fewer opportunities to obtain a good education and well-paying job. About three in four people believe that government assistance to the poor is inadequate.

Beyond structural causes, the next most commonly believed cause of poverty is personal and individual qualities. When asked to identify one or more causes of poverty, about half the respondents agreed with such statements as "some people are naturally lazy" and "some people lack character and a sense of purpose." Overall, 64 percent of respondents regarded that the most important determinant of individual well-being in society was social equity, while 27 percent thought that the individual was most important. The stress on personal capabilities was greater among more social groups that are more active in the market economy, such as those in the private sector (51 percent) and residents of Moscow and St. Petersburg (32 percent). Not surprisingly, poor people tended to emphasize the economic and structural causes of poverty, whereas higher-income groups more often cited individual and personal causes.

Most respondents pointed to income polarization as a feature of the transition: in 1994 four out of five believed that poverty had increased in the preceding year, while 64 percent believed that the number of rich had also increased. In 1995, more than nine out of ten respondents believed that the rich were getting richer and the poor poorer. This opinion was shared across socioeconomic groups.

In March 1995 respondents were asked to identify the primary cause of poverty (they could only cite one reason, so the presentation of results differs from those in 1994). More than 20 percent cited low wages and wage arrears, 14 percent noted unfair distribution of income, and 11 percent mentioned loss of work. A further 11 percent blamed the government for insufficient assistance to the poor. By contrast, 29 percent cited personal or individual reasons, in particular, laziness and drunkenness (12 percent), lack of ability to organize one's life (9 percent), and lack of skills (8 percent).

Structure of Poverty

Traditionally, the size of the household, and in particular, the number of dependents, determined poverty status in the former U.S.S.R. (see chapter 2). This observation continued to hold in 1994 and 1995. Households with nonworking adults such as housewives made up 22 to 29 percent of the poor in 1994. This figure rose to 32 percent in 1995, reflecting the growth of hidden unemployment. An additional 5 to 6 percent of poor households have a disabled member, and 7 to 9 percent are affected by unemployment.

More significant than the size of the household, however, is the level of remuneration accruing to the household. A worker headed about 72 percent of poor households in the VCIOM sample, a similar share to that found in the Russian Longitudinal Monitoring Survey (RLMS). There was no clear difference in the occupational structure of the poor, relative to the whole sample. Traditionally, various types of unskilled workers, such as those engaged in agriculture, and employees in such sectors as culture, education, and health received low wages. This pattern has largely remained unchanged; however, the share of skilled workers in poverty has increased. This includes industrial workers, engineering and technical staff, and those employed in the public sector. Unemployment has also become an increasingly important factor. Households headed by pensioners made up 27 percent of the poor, suggesting that they are less likely to be poor than the general population.

The overall structure of poor households' income was similar to that of the whole sample, although allowances and transfers (other than pensions) tended to be more significant (table 10-1).

Table 10-1. *Structure of Households' Cash Incomes, 1995*
(percentage of total cash income)

Source of income	*Total population*	*Poor households*	
		Total	*The poorest (bottom 25% of population)*
Wages from main place of work	60	53	52
Additional earnings	3	3	3
Income from private enterprise, business	2	1	1
Pensions	25	31	21
Stipends	2	2	3
Allowances, compensations	4	6	12
Alimony	1	1	3
Other cash income	3	3	5
Total household income	100	100	100

Source: VCIOM survey.

Table 10-2. *Household Income Spent on Food, 1994*
(percent)

Share of income	*Poor households*	
	Total	*The poorest (bottom 25% of population)*
Less than two-thirds	28	8
Less than half	2	2
More than two-thirds	69	90
Could not answer the question	3	2

Source: VCIOM survey.

Attitudinal questions did not reveal any specific characteristics of the poor in terms of their behavior or orientation. Passive and active behavior was equally common among the poor and the nonpoor. Passive behavior was defined in terms of savings to meet primary needs (foods and clothing), whereas active behavior involved shifting to productive activities in the home, such as growing and processing vegetables, making clothes, and so on.

A significant share of poor households' total expenditure went to buy food (table 10-2). In 1994, almost two-thirds of the poor viewed recent changes in their nutritional status as adverse. Nutritional conditions were

surveyed by asking poor households what types of food were available at home and whether they regarded their consumption as sufficient. Whereas respondents noted that virtually all products except fruit were readily available in the stores, many poor households felt that their consumption of certain items, especially fruit, meat, and fish, was insufficient (table 10-3). Most poor respondents thought that their consumption of relatively cheaper products—bread, cereals, potatoes, and vegetable oil—was sufficient, yet even here, some households faced problems. For example, in mid-1994, 9 percent of poor households felt that they could not buy enough bread, 13 percent felt they could not buy enough cereals, and 14 percent thought they had insufficient potatoes. Respondents attributed this to their low incomes, not to goods shortages. A year later, respondents thought the situation was worse (table 10-3).

The availability of goods has improved significantly during the course of the transition compared to the Soviet period. However, access reportedly still varies by residence. In 1995, availability was much better in Moscow and St. Petersburg, where 87 percent of respondents stated that all necessary foodstuffs were available, with 78 percent saying the same about clothing and footwear, and 81 percent about durable goods. However, the assessments of rural residents were much less positive: 53, 46, and 42 percent, respectively. Outside the capital, through 1993 various goods and foodstuffs were scarce. At that time, about one-third of villagers mentioned the need to use ration cards. By 1995, this share had dropped to 14 percent.

Another indicator of household welfare and its ability to withstand shocks lies in asset ownership. The volume and composition of household property is an outcome of the household's past, rather than present, financial capacity. Households had acquired most items such as refrigerators, washing machines, televisions, and so on more than a decade previously. In 1994, a significant share of the poor did not have a freezer (96 percent), a car (87 percent), a television (45 percent), or a washing machine (15 percent). A year later, the poor were the same or worse off. Few of the poor had made any major purchases recently. Those who had been able to buy something during the previous year had mainly acquired clothing and footwear. About 28 percent of poor households had not made a major purchase in 1993–94. Identifying such households is an alternative way of assessing the number of poor.

While housing conditions appeared to remain constant overall during 1992–94, a significant share of poor households (40 percent) had access to private plots. However, only a minority of these families (45 percent) worked the land and sold the produce.

Table 10-3. *Poor Households' Assessments of Food Availability, 1994 and 1995*
(percent)

Type of food	*Available in stores 1994*	*Available at home 1994*	*Sufficient consumption 1994*		*Sufficient consumption 1995*	
			Total for the poor	*The poorest (25%)*	*Total for the poor*	*The poorest*
Meat	81	70	41	36	34	30
Fish	73	21	23	19	16	12
Milk and dairy products	82	63	59	55	49	44
Butter	89	70	56	43	39	26
Eggs	86	72	61	52	57	41
Vegetable oil	88	86	78	75	70	63
Sugar	91	94	83	80	71	65
Cereals, including pasta and flour	92	89	87	83	80	73
Bread	96	97	93	91	91	88
Potatoes	74	91	86	82	81	79
Vegetables	70	59	53	54	53	55
Fruit	69	17	16	12	11	10

Source: VCIOM survey.

Attitudes of the Poor

A significant perception revealed by the survey was the lack of future prospects. This view was expressed by more than one in four poor respondents. Low cash incomes were a significant factor in explaining individuals' dissatisfaction with their lives. Pessimism is apparently becoming a dominant factor in people's attitudes, as only 6 percent of poor households felt that they had prospects for improvement within three years. One in four believed that any improvement would happen in the more distant future, and another one in four felt that their situation would never improve. These attitudes stand in contrast to the large outflows from poverty and severe poverty between 1992 and 1994 found in the RLMS (chapter 3).

By March 1995, people generally seemed to think their material position had worsened during the previous six months: about 59 percent of the total sample and 66 percent of poor households were of this view. Only 5.0 percent of the total sample and 2.5 percent of the poor said that their situation had improved.

Public Opinion about Social Support

Poverty has increased during the transition, and become a fact of life not only for the old and disabled, but also for able-bodied people. Although people anticipated a difficult transition to the free market, their patience is not unlimited. For these reasons social protection has become increasingly critical. At the same time, the authorities must maintain work incentives.

Opinion polls suggest that in recent years the Russian people have learnt to become self-reliant, a sign of both their active attitudes and the government's inactivity. The VCIOM survey revealed that most people would rely primarily upon themselves when in need, and then on friends and family. By 1996, the reliance on one's own resources had fallen significantly, while the importance of friends and family had increased (table 10-4). Very few (4 percent) would rely primarily upon the government, a tendency characteristic of all social demographic groups. Slightly more of the elderly (12 percent) would seek to rely primarily on state social security agencies.

At the same time, however, the vast majority of Russians (90 percent) believe that every member of society has the inherent right to employment. This stands alongside a similar degree of popular support for the notion that everyone should be guaranteed a "living minimum wage." These figures could be interpreted as suggesting that people's expectations of, as well as perhaps their confidence in, the government to provide jobs and support has remained high

Table 10-4. *Answers to "On Whom Would You Primarily Rely for Help in Need?," June 1994 and January 1996*
(percent)

Answer cited	*1994*	*1996*
Myself	74	36
Friends and family	42	54
Former or current employer	4	5
Government (social security agencies)	5	4
Public organizations	1	0
Charitable organizations	0	0
Church	2	1
Other	0	0
Do not know	3	3

Note: The totals exceed 100 percent because respondents could give several answers.
Source: VCIOM survey.

as the transition proceeds. This is ironic in the light of people's reliance on themselves and their families and friends in times of need (table 10-4).

Although most people are self-reliant, their stated needs for various forms of social protection are enormous. The most urgent type of support, cited by two-thirds of households in 1994, was cash (table 10-5). This was especially true for people with low educational attainment and for poor rural residents. By March 1995, a slightly higher percentage of poor households (58 percent compared to 55 percent) gave highest priority to cash assistance. One in five poor households sought assistance in finding a new job or a source of additional earnings. As expected, this need was particularly important among the unemployed and the young in urban areas. The need for assistance with health care, especially among the elderly, ranked third.

Very few of the poor (1 percent) thought that in-kind assistance—meals, clothing, and so on—was the most important. Of the various ways in which the poor can be helped, most respondents cited cash, exemptions from various payments, and subsidies for goods and services as the preferable approaches. This was also true for certain disadvantaged groups. Most low-income households and single parents preferred cash to other forms of assistance.

People generally believe that social protection provided by the government fails to achieve its intended results because of inadequate entitlement criteria and insufficient payments. Most respondents (66 percent) (from both two-parent and single-parent families) believe that assistance to the poor is insignificant, and only 17 percent viewed it as significant. Few of the poor (7 percent) reported receiving regular assistance in cash or kind from the gov-

Table 10-5. *Answers to "What Kind of Aid is Your Family Most in Need of Now?," June 1994*
(percent)

Answer cited	*All households*	*Two-parent families*	*Single-parent families*
No need for any aid	14	11	9
General advice	6	7	6
Moral and psychological support	9	10	10
Help to find a full-time job	14	17	18
Help to find a second job	14	17	18
Services	3	1	1
Medical care (purchase of drugs, access to medical treatment)	15	9	7
Cash	47	50	54
Other	4	5	3
Do not know	8	9	8

Note: The totals exceed 100 percent because respondents could give several answers.
Source: VCIOM survey.

ernment. About one in four poor households reported occasional assistance, and two-thirds of the poor said that they received no support at all. These results confirm the widespread errors of exclusion reported in chapter 8.

Where households did receive assistance, it was far more likely to have come from relatives than from the government (see chapter 9). At the same time, however, private transfers were reported to have declined slightly between 1994 and 1995, whereas government assistance increased somewhat. In 1994, 81 percent of all support to poor households was from relatives, and in 1995 this figure stood at 71 percent. This compares to government support (all forms of social assistance), which was reported to amount to 16 percent in 1994 and 20 percent in 1995. Other potential sources of assistance (such as from charitable organizations and the church) were practically nonexistent.

Thus people's opinions about the social protection efforts by government authorities and public organizations in the respondents' neighborhood are low (table 10-6). Indeed, only 1 percent described such efforts as active irrespective of their location. About 40 percent regarded such efforts as insufficiently active, and about the same share described them as "virtually inactive." The authorities received a particularly poor rating from respondents who need social protection the most: the elderly, farmers, and the poor. Note also that the majority (78 percent) of respondents opined that low-income families ought to get assistance from the government, even if this involved

Table 10-6. *Peoples' Opinions about Social Protection Efforts by Government Authorities and Public Organizations in Their Neighborhoods, June 1994* (percent)

Opinion	*All respondents*	*Moscow and St. Petersburg*	*Other major cities*	*Mid-size cities*	*Rural areas*
Active	1	1	1	1	1
Insufficiently active	41	43	42	42	38
Virtually inactive	37	38	36	33	43
Do not know	21	19	20	24	18

Source: VCIOM survey.

higher taxes for those working. Only 9 percent were not in favor of increased state support for the poor.

Problems Facing Families

Table 10-7 presents people's opinions about the most acute problems facing families during the transition period. Whereas traditionally shortages of housing, services, and goods were the top priorities during the Soviet period, poor health and inadequate health care have become much more problematic (see chapter 4). People, especially women, tend to cite low income as the foremost problem, and as expected, poor respondents raise concerns about low incomes more frequently. Even among better-off households, however, concerns about low incomes persist: more than half of middle-income households worry most about their financial situation.

In general, women and men gave a similar assessment of the urgency of the problems facing their families. Their urgency varied with the household's financial situation. Poor households were more likely to admit to a sense of hopelessness about the future. The most significant gender distinction arose with respect to tiredness and exhaustion. Women's problems appear to be worsening in this sense, with the lack of affordability of such services as dry cleaning offsetting the gains of not having to search and queue for goods. Nevertheless, they are less likely than men to complain about the lack of leisure time.

Interesting distinctions between men and women arise in their attitudes toward work, pay, and risks. Women seem to place a higher value upon stability and security, generally preferring a steady job that need not pay well, with relatively few aspiring to run a business "at their own risk." Fears about loss of employment are nonetheless pervasive. In May 1995, about one-fifth

Table 10-7. *People's Opinions about the Most Serious Problems Facing Their Families, 1993–95*
(percent)

	August 1993			*June 1994*			*May 1995*		
Problems	*Total*	*Men*	*Women*	*Total*	*Men*	*Women*	*Total*	*Men*	*Women*
Low income	64	60	67	68	66	69	69	67	71
Poor health and inadequate medical care	27	24	30	27	23	30	29	28	30
Poor and/or cramped housing	20	21	19	15	16	15	16	15	16
Inadequate services	20	22	19	21	24	19	21	17	23
Hopelessness about the future	19	20	18	22	22	22	25	24	27
Tiredness, exhaustion	18	13	21	17	14	19	18	16	19
Job insecurity	16	15	16	24	23	24	20	19	21
Shortage of leisure time	13	15	12	11	12	10	9	11	7
Unavailability of high-quality education for children	8	8	8	9	7	11	10	10	10
Interpersonal relations within the family	8	7	9	4	3	4	5	5	5
Drinking problem	6	5	7	6	4	8	6	5	7

Note: The totals exceed 100 percent because respondents could give several answers.
Source: VCIOM survey.

of both men and women believed that they might lose their job shortly through redundancy or firm liquidation.

Finally, with respect to attitudes about the future and scope for improving living standards, there is a growing mood of pessimism. In 1993 more than 60 percent of respondents felt that they could not change their lives for the better, with women being relatively more pessimistic (67 percent, versus 57 percent for men). By June 1994, the share of pessimists had grown to 70 percent.

Conclusions

Public attitudes in Russia toward the changes associated with economic reform and the policies and programs the government has adopted reveal significant concerns. This chapter has explored people's perceptions about their welfare during the reform period, providing some indication of the political sustainability of reform.

In certain respects, opinions have remained surprisingly stable over time. (Other longitudinal studies have also pointed to significant conservatism of orientations.) A noticeable example is unemployment. Between 1990 and 1993, around 40 percent of respondents continued to regard unemployment as "unacceptable." The share who believed that unemployment is "necessary for a market economy" fell from 8 to 4 percent during the same period. In January 1996, 45 percent of respondents described unemployment as "unacceptable," while 16 percent regarded it as "an acceptable phenomenon," 19 percent thought it was "useful when its scale is small," and 3 percent said unemployment was "necessary for effective economic management." The overwhelming majority of Russians (91 percent) across virtually all social strata and population groups still believe that the state is obliged to provide able-bodied people with jobs. This belief prevails despite, or perhaps because of, the fact that an increasing share of respondents' relatives and friends are unemployed. This figure rose from 40 percent in March 1993 to 60 percent in May 1994 and 72 percent in January 1996. In early 1996 more than 70 percent of respondents expressed concern about the possibility of losing their own jobs.

As expected, significant changes have occurred in the main troubles that face people in their daily lives. The shortages that were one of the primary characteristics of the Soviet way of life have ceased to trouble most people. Rather, fears of inflation (74 percent), increasing crime (63 percent), and increasing unemployment (51 percent) had risen to the forefront by January 1996.

Strikingly, only one-third of respondents believe that the new economic system provides individuals with greater opportunities than the old regime. Public opinion polls suggest that an increasing share of the population re-

gard the era before 1985 as better than the present: the percentage holding this view rose from 42 to 46 percent in 1992–93, to 52 percent in 1994 (1994 marked the first reported reversal in support for market-oriented reforms since 1990). This attitude is attributed to various reasons, including the break up of the U.S.S.R., but largely to the adverse impact of economic trends.

The share of people who prefer a market economy to a centralized regime has fallen significantly since the transition began, from 52 percent in February 1992 to 27 percent in January 1996. However, these average figures conceal important variations among different population groups. The negativism is greatest among the elderly, the less educated, and the less urban. The attitudes of different age groups toward the reforms differ significantly. Young people tend to evaluate current developments and future prospects much more positively. In September 1994, young people reported recent improvements in their material circumstances twice as often as their parents and five times more often than their grandparents. A survey of Muscovites revealed that they are more optimistic than the population in general: in the capital, 30 percent of respondents reported having recently improved their situation, compared to only 17 percent in provincial towns. This reflects, in part, differing opportunities for improvement.

Despite the increasing incidence of negative attitudes, however, the prevalence of endurance and patience among the population is noticeable. Most people thought that social protest is unlikely. The share of respondents who felt that protest meetings are "quite probable" has remained stable, at around 25 to 30 percent, as did the share who indicated readiness to participate in such meetings, around 20 to 25 percent. Few urban residents polled in June 1994 (around 14 percent) felt that the country could return to the political and economic system that existed before 1985. Similarly, public opinion appears to appreciate the complexity of the transition process, and respondents do not identify a single external measure that could radically improve their families' situation.

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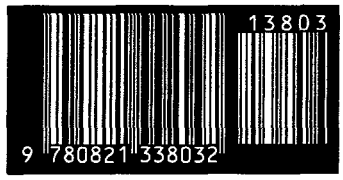

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