A WORLD BANK COUNTRY STUDY

Bulgaria:
A Changing Poverty Profile

Poverty Assessment

THE WORLD BANK

Report No. 24516

Bulgaria
Poverty Assessment

October 29, 2002

Human Development Sector Unit
Europe and Central Asia Region

Document of the World Bank

CURRENCY AND EQUIVALENT UNITS

Currency Unit =Bulgarian Leva (BGN)
US$1 = BGN 2.20
(on July 26, 2002)

FISCAL YEAR

January 1 - December 31

ACRONYMS AND ABBREVIATIONS

ALMPs	Active Labor Market Programs
ASME	Agency for Small and Medium -- sized Enterprises
BIHS	Bulgarian Integrated Household Survey
BPA	Birth Promotion Act
CBA	Currency Board Arrangement
CEE	Central and Eastern Europe
ÇMEA	Council for Mutual Economic Assistance
CPI	Consumer Price Index
ECA	Europe and Central Asia
ESGRAON	Standard Public Registry Number
EU	European Union
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GP	General Practitioner
GMI	Guaranteed Minimum Income
HBS	Household Budget Survey
HH	Household
ILO	International Labor Organization
IDF	Institutional Development Grant
IMF	International Monetary Fund
IMR	Infant Mortality Rate
ISSP	International Social Survey Program
LFS	Labor Force Survey
LSMS	Living Standards Measurement Survey
MAF	Ministry of Agriculture and Forests
MOF	Ministry of Finance
MOLSP	Ministry of Labor and Social Policy
NGO	Non-Governmental Organization
NSI	National Statistical Institute
NSII	National Social Insurance Institute
OECD	Organization for Economic Cooperation and Development
OSCE	Organization for Security and Cooperation in Europe
OSI	Open Society Institute
PIT	Personal Income Tax
PPP	Purchasing Power Parity
SIEP	Social Investment & Employment Project
SME	Small and Medium Sized Enterprise
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
VAT	Value Added Tax

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Acknowledgements

This report was prepared by a team led by Dena Ringold and comprising Gero Carletto and Tomoki Fujii (poverty profile); Alexandre Kolev (labor markets and poverty); Jan Rutkowski (labor market dynamics and employment creation); Cornelia Tesliuc (social protection); David Sahn, Stephen Younger and Chad Meyerhofer (rural poverty); Moukim Temourov (education and health); Petia Kabachieva and Ilia Iliev (qualitative study of education); Stefan Ivanov (regional development) and Lilia Dimova (perceptions of poverty and gender).

Boryana Gotcheva coordinated the work in Bulgaria and provided valuable inputs on social protection and gender. Stella Ilieva provided research assistance to the team. Boryana Savova and Vessela Radeva Stamboliyska assisted during missions and with the organization of the consultation workshops in Sofia.

The team benefited from the guidance and inputs of peer reviewers, Ana Revenga, Mamta Murthi and Tamar Manuelyan Atinc, and Sàndor Sipos, the Program Team Leader for Bulgaria. Useful comments and substantive contributions at various stages were received from John Innes, Henry Gordon, Dominic Haazen, Istvan Dobozi, Philippe Egoume-Bossogo, Anna Georgieva, Ellen Hamilton, Kyle Peters, Peter Pojarski, Rosalinda Quintanilla, Laura Tuck and Michael Mertaugh. Maureen Lewis provided feedback and overall guidance throughout the preparation of the report. Annette Dixon supported the team as Sector Director. Moukim Temourov provided editing and research support and Ian Conachy prepared the document for publication.

The work was carried out under the direction of Andrew Vorkink, Country Director for Bulgaria. The Country Unit and the Country Office, headed by Oscar de Bruyn Kops provided valuable support during the preparation of the report.

The team would like to thank the Government of Bulgaria for its cooperation, and in particular Deputy Prime Minister Lydia Shouleva and her staff for their participation and leadership during the consultation workshops. Useful comments on the draft report were received from the Ministries of Finance, Economy, and Labor and Social Policy. The team is grateful for the feedback provided by the many government officials, NGO members, trade union representatives, academics and others who met with the team during the preparation of the report and actively participated in the consultation workshops held in April 2002 in Sofia.

Executive Summary

A. What Happened to Poverty in Bulgaria Between 1995 and 2001?

Bulgaria's economic progress in recent years has been notable. Since 1997, the country has implemented a range of structural reforms alongside substantive fiscal and sectoral reforms. Measures have included the introduction of a currency board to stabilize the lev and more aggressive privatization of large state owned enterprises. These developments have led to a significant turnaround from the period of economic crisis in 1996-1997, which was marked by a decline in real GDP of 18 percent and annual inflation of 579 percent in 1997. Growth resumed in 1998 and has been sustained. Bulgaria's current government, which took office in July 2001, has affirmed its commitment to the objectives of macrostability, including a continuation of the currency board and market reforms.

These reforms have been paying off. Living standards in Bulgaria rebounded dramatically since the 1997 crisis when poverty escalated to 36 percent of the population. Poverty rates have declined since then with the recovery of consumption levels. Using poverty lines updated from 1997, poverty fell by nearly two-thirds to 12.8 percent, and the depth and severity of poverty have also improved (Table 1).[1] Despite these improvements since 1997, poverty remains at twice the levels of 1995. The Gini coefficient, a standard measure of inequality, declined from 31 percent in 1997 to 29.5 percent in 2001, an increase from 1995.

Table 1: Poverty and Inequality Trends

	1995	1997	2001
Poverty measure			
Rate	5.5	36.0	12.8
Gap	1.7	11.4	4.2
Severity	0.8	5.3	1.9
Avg. per capita consumption (June 1997 leva)	117,208	62,604	99,035
Gini coefficient	27.1	31.4	29.6

Sources: BIHS 1995, 1997, 2001.

Notes: The "poverty rate" refers to the % of the population that is below the poverty line; "poverty gap" is the average shortfall from the poverty line; and "poverty severity" is the average squared consumption shortfall as a percentage of the poverty line, and is more sensitive to inequality among the poor.

Why has poverty declined so remarkably since 1997? The improvement can be attributed to growth and the economic recovery, which has lifted the consumption levels of

[1] The poverty rate used in this report is two-thirds mean 1997 per capita consumption.

many households following the crisis. GDP recovery has been accompanied by improvements in productivity and wages, which has subsequently buoyed consumption for many households (Table 2). Another important factor has been the social protection system, and particularly pension benefits, which keep a significant share of the population above the poverty line. Despite the declining poverty rates, many Bulgarians feel that their living standards have not improved dramatically. Qualitative surveys suggest that nearly three-quarters of the population believe that they live in poverty.

Table 2: Selected Economic Indicators 1995=100

	1996	1997	1998	1999	2000	2001*	Average annual rate of growth (1996-2001) %
GDP	90.6	85.5	88.9	91.0	95.9	99.7	0.1
Employment	100.1	96.2	96.1	94.1	90.8	89.6	-1.8
Productivity	90.5	88.9	92.6	96.8	105.7	111.4	2.0
Wages	81.2	67.7	81.7	87.3	88.3	90.9	-0.6

Source: National Statistical Institute and World Bank staff estimates.
Note: (*) Preliminary estimates for 2001. Productivity is defined as GDP per employee.

A number of considerations are important in assessing the striking trends in poverty rates since 1997. First, the magnitude of poverty was likely overestimated in the 1997 household survey data. Inflation reached a peak of 245 percent in February 1997 and remained high through the survey period, complicating measurement of prices. The consumer price index used for price adjustments may also have been overstated, and household reporting of expenditures was also more subject to error, due to high price volatility. Despite this potential for measurement error, consumption was undoubtedly lower in 1997 than 2001. In other words, while the overall magnitude of the decline in poverty rates since 1997 may have been less than two-thirds, there has been a notable improvement in living standards since the crisis.

Poverty in International Comparison

Absolute poverty in Bulgaria in 2001 is comparable to that in neighboring countries, although it exceeds levels in the high-performing countries of Central and Eastern Europe which have been at the front of the line for EU accession. Using the absolute poverty line of $2.15 per day, poverty in Bulgaria was 7.9 percent, slightly higher than that of Romania and Latvia. This is significantly higher than poverty Hungary and Poland. At a poverty line of $4.30 per day, poverty in Bulgaria was 31.9 percent, which is comparable to conditions in Ukraine in 1999 and Latvia in 1998.

B. Pockets of Poverty

Despite the decline in overall poverty rates in Bulgaria since 1997, pockets of extreme destitution persist in the country. Large rural households with young children under 5 and low education levels are at greatest risk. Ethnicity is another clear correlate of poverty, over 60 percent of the poor are ethnic minorities. As was the case in the 1997 profile, education and labor market status are key determinants of welfare.

Poverty in 2001 has become more concentrated among distinct and identifiable groups within the population than in previous years. In this regard, the profile of poverty in Bulgaria has come to resemble poverty patterns in other countries in Central and Eastern European countries more closely. The strong link between unemployment and poverty, and the emergence of children and households in rural areas as high poverty risk groups, as well as ethnic minorities are features of poverty common to EU accession countries. While the concentration of poverty among specific groups indicates that targeting interventions to address poverty in Bulgaria will be easier, on the other hand, these pockets of chronic poverty are more resilient and harder to reach than shallower poverty linked to transient declines in incomes. These developments highlight the need for a long term commitment to poverty reduction in Bulgaria which will require continuity in policy, as well as on-going monitoring and evaluation.

Rural Residents. One of the most striking aspects of the 2001 poverty profile is its strong rural dimension. Poverty is not only worse in rural than urban areas, but it appears that rural households have fallen further behind their urban counterparts over the past decade. Rural poverty affects a large share of the population. In 2001, nearly 33 percent of Bulgarians lived in rural areas. However, households in rural areas comprised 66 percent of the poor. Poverty rates four times higher in rural areas, at 23.7 percent in comparison with 5.9 percent.

Children in Large Households. Poverty in Bulgaria is concentrated among distinct demographic groups. Children, and particularly those in rural households with many children, are over represented among the poor. Large households of five or more members make up almost 30 percent of the population, but represent nearly 60 percent of the poor. Consistent with the results from previous years, and those from most other countries in the region, most pensioners are not poor, with the exception of elderly pensioners over 75 years old living alone, and in rural areas.

The results on poverty and household size are very sensitive to economies of scale, as per capita measures of poverty do not reflect differences in the demographic composition of households, and the fact that children may consume less than adults. When these differences are taken into account, poverty levels among the elderly increase, and decline among larger households with children. However, the main finding remains unchanged.

Households with three or more children are at highest risk of poverty, even after taking economies of scale into consideration.

The Poorly Educated. Individuals with less than secondary education represent only 36 percent of the population 18 and above, but make up nearly 80 percent of the poor. Poverty levels for individuals with no formal education are almost four times the average poverty rate and ten times the poverty rate of individuals with a secondary school diploma. Education also affects welfare through the labor market – as a key correlate of unemployment. The vulnerability of children in Bulgaria indicates that education contributes to a vicious circle of poverty, as poor households with low education levels face the greatest obstacles in sending their children to school.

Ethnic Minorities. The differences in the level and depth of poverty across ethnic minorities are remarkable, particularly for Roma. Roma are ten times more likely to be poor than ethnic Bulgarians, while Turks are four times more likely to be poor than Bulgarians. Ethnic minorities comprise over 60 percent of the poor population. Although Roma only represent 8.8 percent of the individuals in the sample, they constitute half of the poor (Table 3). As well as being more likely to be poor, Roma are also much poorer on average than their non-Roma counterparts, as they alone are responsible for almost three quarters of the poverty depth index. As is the case in other countries in the region, poverty among poor Roma communities is multidimensional, encompassing substandard housing conditions, low education levels, and poor health status, all compounded by social exclusion and discrimination within society.

Table 3: Poverty by Ethnicity

		Rate		Gap		Severity	
	% population	Percent	Share	Percent	Share	Percent	Share
Ethnic Bulgarian	82.3	5.6	39.6	1.1	25.5	0.4	18.8
Turks	7.1	20.9	12.8	5.3	10.4	2.2	9.3
Roma	8.8	61.8	46.5	25.9	63.4	13.6	71.7
Other	1.8	7.6	1.2	1.2	0.6	0.2	0.2
Total	100	11.7	100	3.6	100	1.7	100

Source: BIHS 2001.

The Unemployed and the Working Poor. Individuals in households in which the head is unemployed make up 15 percent of the population, but nearly 40 percent of the poor. Poverty is highest among rural unemployed. In 2001, over one-half of unemployed adults in rural areas were poor. Poverty is also exceptionally high among the long-term unemployed and some groups of the working poor, such as those in agriculture and informal sector employment.

C. Rural and Regional Poverty

Poverty in Bulgaria has a significant spatial dimension. While there has been considerable economic recovery in urban areas since 1997, the rural poor have not benefited from improving living standards. This reflects the falling level of overall rural incomes, as well as increasing inequality in rural areas since the beginning of the crisis. Related to the rural element of poverty is the diversity of regional development in Bulgaria. Living standards across Bulgaria vary substantially, as Bulgaria's regions reflect contrasting levels of development. In particular, there is a notable difference between the capital city, Sofia, and the rest of the country.

Rural welfare has been constrained by low levels of income, driven by low wages in rural areas, high unemployment, and low levels of agricultural productivity. The factors behind low productivity include lack of access to functioning markets, inadequate investment and constraints to land use stemming from the restitution process, a recent drought, as well as lower levels of human capital. Agricultural incomes are responsible for most of the relative decline of incomes in rural areas. Between 1995 and 2001 per capita wage income fell by 21 percent (15 percent for households receiving wages) for rural households, pensions fell only slightly, but agricultural income declined considerably. Average net agricultural income from sales and home consumption declined by more than half, from 79 leva per capita to 37 leva per capita for all rural households in the samples.

A critical force behind the stagnation of growth in rural areas is the high level of unemployment. While the unemployment rate nearly doubled in both urban and rural areas between 1995 and 2001, rural unemployment has consistently remained twice as high as in urban areas. In rural areas, only 24 percent of people older than 15 were working in 2001. Rural unemployment is also closely linked to poverty. In 2001, 52 percent of unemployed adults in rural areas were poor. For those who are employed, low wages in agriculture contribute to poverty in rural areas, as agriculture is the lowest paid sector of the economy.

Multiple job-holding plays a significant role in poverty reduction in rural areas. In urban areas, poverty is much lower for workers with one job than it is for the unemployed, but workers who hold a second job (which can include self-employment or agricultural activity) have a poverty rate similar to those with one job. In rural areas, however, while poverty is lower for those with one job, the difference is not as great as in urban areas. More importantly, the poverty rate continues to decline considerably for workers with two jobs. Because the vast majority of second jobs are in farming for own-consumption, this highlights the importance of subsistence agriculture for rural welfare.

Differentials between rural and urban areas in labor markets, availability of assets, and levels of human capital contribute to substantial variation across regions. Analysis of different indicators of development was undertaken at the regional level to obtain a more

detailed picture of regional diversity. An index of regional development illustrates that the city of Sofia is far ahead of all other regions on every dimension.[2] The differences between the remainder of the 28 regions are much less pronounced, because of variation across indicators. Varna, Bourgas, Gabrovo and Sofia region are all above the national average, while seven regions fall at the bottom: Smolyan, Kardjali, Vidin, Targoviste, Silistra, Montana and Razgrad. These results highlight the need for a more detailed understanding of spatial differences in development, through the development of a poverty map. This will be especially important, given the anticipated in flux of EU resources for regional development in upcoming years.

D. Why is Unemployment so High in Bulgaria?

Unemployment remains one of Bulgaria's greatest challenges. At 19.5 percent in the first quarter of 2002, unemployment in Bulgaria has been growing steadily since 1996, and is among the highest in the region. Long-term unemployment is especially high. In 2001, 64 percent of the unemployed in Bulgaria had been out of work for more than one year. The labor market is also characterized by low flows out of unemployment into jobs, and a high share of discouraged workers -- those workers who have given up looking for a job and drop out of the labor force all together.

Poverty is closely linked with income poverty, however this relationship is much more nuanced than it might suggest. Poverty rates for some groups of the employed are quite high, particular for workers with temporary contracts and those working in agriculture. Working conditions also have an important influence on welfare, particularly for workers in the informal sector. The groups which are at greatest risk of adverse labor market outcomes, including unemployment, inactivity, low paid work and poor working conditions are also those that emerge as most vulnerable in the poverty profile. In particular, persons with little, or no education and Roma are at greatest risk

The trends in poverty and unemployment appear paradoxical – why has poverty declined since 1997, while unemployment has increased? There are a number of factors behind these contrary developments, including: (i) use of coping strategies, including remittances, informal employment and own production of food, which mitigate the income effects of unemployment; (ii) a decline in the share of the working poor, due to real wage recovery since the crisis; as well as (iii) the expanded coverage and adequacy of social protection benefits, which keep a significant share of the population out of poverty.

Restructuring has led to larger flows into unemployment. The fall in employment has reflected substantial productivity gains achieved through large scale shifts away from old less productive jobs toward new more productive jobs. At the same time, outflows from unemployment have been limited, due to skill and spatial mismatches, as well as labor mar-

[2] The index is an unweighted composite of selected indicators. See Chapter 2 for further information.

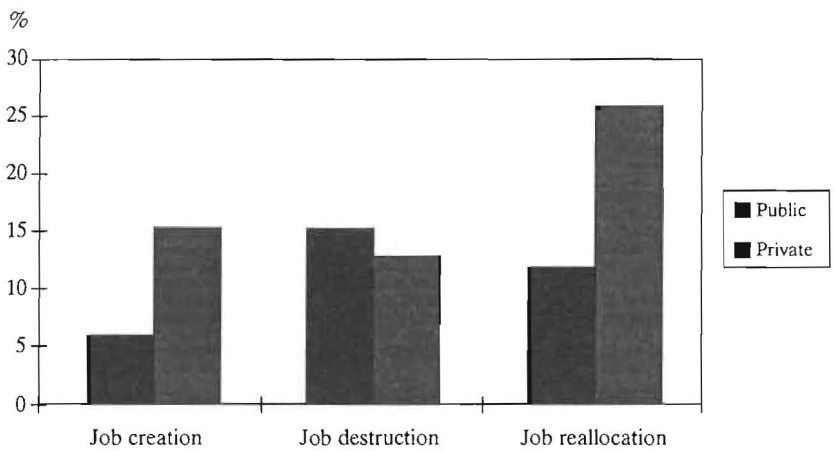
ket rigidities stemming from the employment protection legislation. These factors combined – restructuring and productivity improvements along with labor market mismatches and rigidities – have led to the marked increase in unemployment. Accordingly, unemployment in Bulgaria seems mainly structural, and to a lesser extent demand deficient.

Job Reallocation

Job reallocation in Bulgaria in 2000 was quite substantial as a result of the increased pace of enterprise restructuring. Job gains in Bulgaria have been achieved mainly through employment expansions in continuing firms, rather than through firm entry (business start-ups). Job losses have occurred largely in contracting firms, rather than as a result of firm exit (closures). These two dynamics indicate that there are still significant obstacles to the entry and exit of firms in Bulgaria. Job creation in Bulgaria is moderate, while job destruction is high by international standards.

The private sector is the main source of labor market dynamism in Bulgaria. Job destruction in the public sector exceeds job creation, while the opposite is true for the private sector, which is a net creator of jobs (Figure 1). Small firms are a key to job creation. Job creation is much higher in small firms than in large firms. The small firm sector is expanding and offering job opportunities, while the large firm sector is shrinking and shedding labor. Business start-ups play a particularly important role in job creation. Newly established firms created as much as 36 percent of all new jobs in 2000.

Figure 1: Job Reallocation in the Public and Private Sectors, 2000



Source: NSI data (2000), Bank staff calculations.

The Business Environment

Despite the marked increase in the number of businesses in Bulgaria, there are still

considerable obstacles to new entry and business growth. The legal framework is inconsistent, which creates scope for arbitrary decision making and abuse. Registration and licensing procedures are more difficult and lengthy than in other countries. Another constraint to small business growth is the level of business taxation in Bulgaria, which is among the highest in the region. The tax wedge between labor costs to employers and take home pay amounts to 41 percent in Bulgaria.

Relative to some of the other transition countries, regulatory barriers to labor market flexibility in Bulgaria are modest, and are broadly in line with those in other transition economies with relatively flexible labor markets. The Bulgarian Labor Code was amended in March 2001 with the objective of adjusting it to the needs of a market economy and improving labor market flexibility. Despite these changes, rigidities remain which impede the environment for employment growth. There is room for enhanced flexibility in procedures for dismissals, use of fixed-term contracts, overtime pay and wage adjustments.

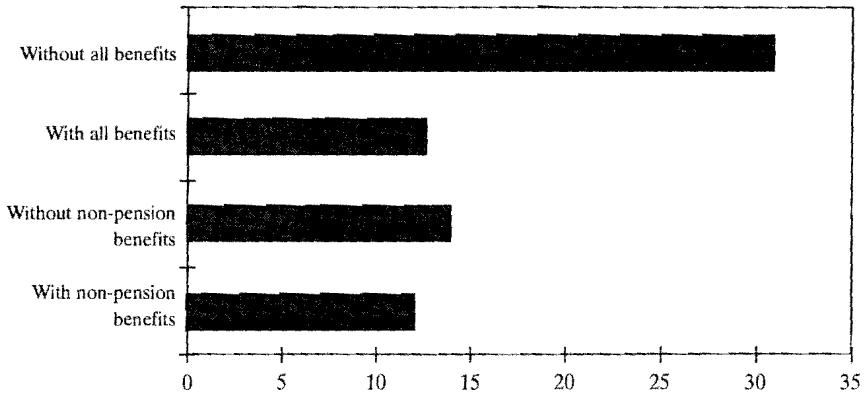
The Skills Gap

An important factor contributing to high unemployment in Bulgaria is the skills gap and the poor ability of the unemployed to compete for new jobs. The unemployed, and especially the long-term unemployed, have lower educational attainment and skills than the employed. Nearly 20 percent of the unemployed cannot find a job because their skills fall short of employer needs. Poor skills prevent a substantial share of the unemployed from effectively competing for jobs. The unemployed in Bulgaria often lose in the competition for new jobs to those who are already employed. The unemployed account for only 40 percent of new hires, while the remainder is accounted for by persons who change jobs (40 percent), and new entrants to the labor market (20 percent). The skills gap points to a substantial gap in the quality of the education system, which is failing to produce workers able to function in a market environment.

E. The Role of the Safety Net

Bulgaria's social protection system plays a substantial role in keeping many households out of poverty (Figure 2). In comparison with other countries in the region Bulgaria's system is effective and well targeted. Indeed, the system has become more pro-poor over time and is partly responsible for the reduction in poverty rates which has occurred since 1997. Although it is not explicitly designed to address poverty, the pension system keeps many pensioners above the poverty line. In the absence of pension benefits, the poverty rate would be over twice as high. Social assistance and unemployment benefits also provide important relief for those households which receive them, but have a much lower aggregate impact on the poverty rate. In addition to these formal, public programs, informal coping strategies, including remittances, migration, working multiple jobs and own production of food provide important sources of income for those households which use them.

Figure 2: Poverty Rates With and Without Social Protection Benefits, 2001



Source: BIHS 2001.

Social Assistance Benefits

Social assistance programs are designed to be a safety net for the poorest households. The effectiveness of Bulgaria's social assistance programs in reaching and addressing the needs of the poor has improved over the decade. In particular, the two main cash benefit programs, the Guaranteed Minimum Income (GMI) and energy benefit programs, have high incidence among the poor. In 2001 the 'extended GMI' program-encompassing cash and in-kind benefits-channeled 68 percent of resources to the poorest 20 percent of the population, while 53 percent of the energy benefit went to the bottom quintile.

However, despite these achievements, there is scope for further improvements to the effectiveness of social assistance in Bulgaria. Coverage of the benefits among the poor is low because of weaknesses in intergovernmental financing arrangements. Less than 30 percent of poor households receive the GMI benefit, and for those who do receive it, benefits are frequently paid irregularly or in-kind. In 2001, only 16 percent of GMI beneficiaries received regular cash benefits, 11 percent received one-time cash benefits, and the remainder received benefits in-kind, as food, or clothing.

Intergovernmental financing arrangements limit the capacity of municipalities to provide benefits, and particularly for the poorest municipalities which generally have the greatest need. Responsibility for financing social assistance benefits is currently shared equally between the state and municipal budgets. Beginning in 1999, the Ministry of Finance incorporated earmarked funding for social assistance programs into the system of intergovernmental transfers to municipalities. This financing arrangement covers the main social assistance programs, including the GMI, energy benefit and child allowances. While this has improved coverage, many municipalities continue to have difficulty in mobilizing their share.

The payment of benefits in-kind is linked to local budget constraints. When municipal social assistance offices lack resources to pay benefits, they revert to paying benefits infrequently, or in the form of goods. In-kind benefits are in general less effective than cash, because they distort consumption and reduce welfare. They are also frequently – as reported by beneficiaries – provided in the form of inferior goods (e.g. low quality canned goods), and can generate secondary markets if beneficiaries sell or trade the goods. These benefits also represent an inefficient subsidy to the canned food industry. In-kind benefits should be eliminated in favor of the cash GMI benefit.

There is also scope for refining the targeting of benefits to reach the remainder of poor households and to reduce leakage. Over 70 percent of individuals in poor households live in a household that does not receive benefits through the GMI program. Reasons for weak targeting may be related to the eligibility criteria in the Social Assistance Law, challenges social workers face in enforcing these criteria, as well as administrative capacity.

Child Allowances

Given the high level of poverty among households with many children, social assistance benefits targeted to children can play a potentially important role. Under the current system, child allowances have high coverage in the population. However, the current scheme is poorly designed to have a real impact on child welfare as benefit levels are too low to reduce poverty. The level of the child allowance has been frozen in real terms, at 8.6 leva per child per month, since May 1997. Even for poor households, the child benefit amounted to less than 10 percent of pre-consumption household income.

In 2002, the Parliament adopted a new Law on Family Benefits which aims to improve the adequacy of child benefits and target them to poor households. Under the new Law, the benefit level is doubled to 15 leva per child, and benefits are to be income tested, such that only households with income under 150 leva per capita per month would receive benefits. The proposed change to the benefit level is too low to have a significant impact on the poverty rate, and the income threshold is too high to effectively concentrate the program on poor families. Under the new law, 1.15 million children are expected to receive child allowances, a decrease of 50,000. However, the new law would cover children who are currently not receiving the benefit, so the reduction in the number of beneficiaries would be greater. The increased child allowance will contribute to a modest reduction in poverty among households with two or more children, but will have no impact on the consumption distribution of families with one child.

F. Non-Income Dimensions of Welfare: Education and Health

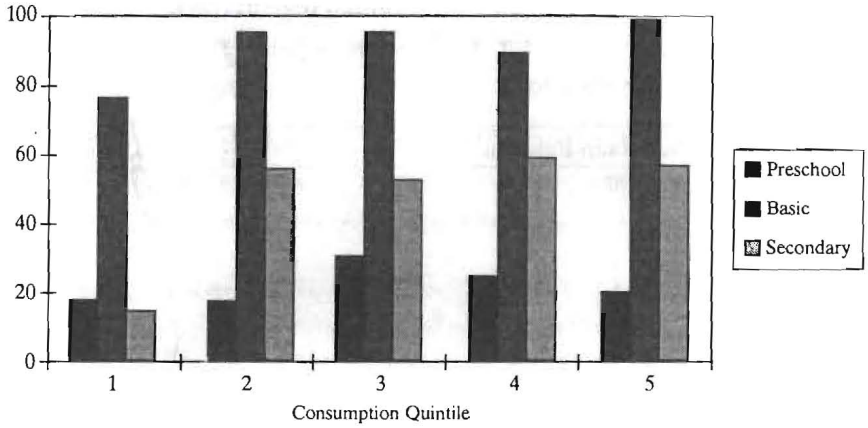
According to official data, Bulgaria is on track to meet the Millennium Development Goal target for education in 2015. Enrollments in education are close to 100

percent and infant mortality is declining toward OECD levels. However, a closer look reveals that under the surface, the picture is not as positive. Gaps in access to both education and health services are real, particularly for vulnerable groups, including the poor, and especially those in rural areas and among ethnic minorities.

Education

Despite the rosy picture provided by the administrative data, attendance rates from the survey raise concern, particularly for preschool and secondary education, which have both declined below 1995 levels. Between 1995 and 1997, attendance in preschool education fell sharply from 44 to 14 percent. Attendance rates for Turks and Roma are consistently lower than for ethnic Bulgarians across education levels, however the magnitude of the difference is much higher for Roma. These developments are notable, particularly given the overall demographic decline in Bulgaria and the higher fertility among Roma and Turks. The relative share of these minority groups among the school age population will increase in coming years. Secondary enrollments for Roma remain in the single digits, at six percent, in comparison with a national level of 46 percent. Attendance rates are increasingly correlated with income (Figure 3). Most disturbing, the large income differentials have been growing over time – particularly for basic and secondary education.

Figure 3: Attendance Rates by Quintile



Source: BIHS 2001.

Gaps in access exist along a number of dimensions. A qualitative study commissioned for this report found that in some cases children do not attend school at all, while in other cases children drop out of school, or are enrolled but do not attend. Despite perceptions that non-attendance is an ethnic phenomenon, specific to Roma, the study found that many ethnic Bulgarian children do not go to school, as well as Turks and Pomaks (Bulgarian Muslims). However, some of the constraints do vary across ethnic groups. The main factors keeping children out of school relate to economic circumstances, demand and

motivation of parents and students, and specific issues facing ethnic minorities such as language, and social exclusion in the case of Roma.

The costs of education to households in Bulgaria are significant. These costs can be both direct, in the form of payments for school materials, or indirect, as opportunity costs to households, if children are needed to participate in housework or other activities. For poor families, the costs of education can be a critical deterrent to participation in education. The case studies highlighted the multidimensional relationships between education and poverty. Low income on its own is not always sufficient to keep children out of school. Rather poverty is interlinked with exclusion and marginalization, which combine to affect attendance. The study found high levels of non-attendance and dropouts among some of the most geographically remote communities. In many cases, poor children who were unable to attend school were those with the most difficult family circumstances, including those who are victims of domestic violence, alcoholism and abuse, and those with parents in jail.

Health

Health indicators in Bulgaria have stagnated, and in some cases have worsened, during the transition period (Table 2). Life expectancy at birth has declined over the past decade, while it has increased in most other countries in Central and Eastern Europe. Although infant mortality has fallen slightly over the transition in 1998, the decline in infant mortality has been less than for other countries in the region. Increasing incidence of certain infectious diseases, particularly tuberculosis and hepatitis is of particular concern as it suggests failures in public health efforts.

Table 4: Basic Health Indicators in Bulgaria

	1990	1995	1996	1997	1998	1999	2000
Infant Mortality (per 1,000 live births)	14.8	14.8	15.6	17.5	14.4	14.6	13.3
Maternal Mortality Rate (per 100,000 live births)	20.9	19.5	19.4	18.7	15.3	23.5	—
Tuberculosis Incidence (new cases per 100,000)	25.9	40.5	37.2	41.3	49.9	45.5	—
Polio Immunization Rate	99.7	96.8	95.4	95.9	96.5	97.2	94.4
Hospital Beds (per 1,000)	10.3	10.6	10.7	10.4	8.6	7.8	7.4

Source: UNICEF-IRC, TransMONEE database; Ministry of Health of Bulgaria.

While little is known about the extent to which trends in health status have had an impact on the poor, analysis has indicated that ethnic minorities, especially Roma, are more susceptible to health problems stemming from overcrowding, lack of sanitation and substandard housing conditions in settlements. Reports of outbreaks of communicable dis-

eases, including hepatitis, polio, diphtheria and tuberculosis in Roma neighborhoods are not uncommon.

There is also evidence that poor households face barriers to accessing health care, because of the prevalence of formal and informal out-of-pocket payments. Gaps in health insurance coverage for uninsured groups are also a problem, particularly in poor municipalities which lack resources to pay contributions on their behalf. As is the case with education, Roma are more likely to fall through the cracks of the health system than other groups, because of lack of necessary identification and registration papers, and poor communication with health providers which is compounded by social exclusion.

G. Conclusions and Policy Recommendations

The sharp reduction in poverty since the 1997 crisis highlights the role of effective economic stabilization policies and the social safety net in improving the living conditions of the population. The nature of poverty in Bulgaria has changed since 1997, when poverty for many households was a transient phenomenon resulting from the immediate shock of hyperinflation and sharply increasing unemployment. Poverty in 2001 is more entrenched, concentrated among clearly defined groups. Most strikingly, poverty is highest among ethnic minorities, which comprise 60 percent of the poor. Roma are over represented among this group. This trend highlights the need for Bulgaria's poverty reduction strategy to focus on measures to address inclusion of ethnic minorities within society.

Despite the improvements since 1997, there are indications of underlying fault lines which threaten the trend of rising living standards. In particular, if the high level of unemployment is maintained, or continues to increase, poverty will go up. While unemployed households have managed to stay out of poverty by relying on the safety net and private coping strategies, the close link between poverty and unemployment indicates that these trends are not sustainable. Similarly, the importance of the skills gap suggests that declining access to education will contribute to poverty over the long-term.

The priority for the Government is to maintain its reform path and sustain the growth levels of the past five years. A combination of policies which address the underlying causes of unemployment, expand opportunities through building human capital, and protect the poor through well targeted programs are the pillars of an effective anti-poverty strategy. Improvements in poverty monitoring and communication with the public are also key. Despite the improvements in living conditions since 1997, opinion surveys indicate that nearly three-quarters of the population think that they live in poverty. Addressing these perceptions and expectations is critical to maintain public trust in government institutions and the reform process.

Reducing Unemployment

Addressing severe unemployment remains one of Bulgaria's most pressing challenges. In the first place, policies to reduce unemployment and strengthen the environment for employment growth, are critical. Another central policy issue is mitigating the impact of adverse labor market outcomes on vulnerable groups, including unemployment and poor working conditions. Many of the measures needed to improve labor market performance lie outside of the labor market, including structural reforms within the economy as a whole. Bulgaria has made considerable progress in regaining macroeconomic stability, as well as restructuring and closing non-functioning state owned enterprises (SOEs) and banks, and privatizing non-infrastructure SOEs.

Bulgaria's on-going reform agenda includes measures which will – in addition to maintaining macrostability contribute to employment growth, including: (i) *sustaining structural reforms* in the enterprise sector with emphasis on the restructuring of the energy, railway, telecommunications, and water sectors; (ii) *strengthening market institutions*, focusing on entry and exit policies, regulatory costs, delivery of public services, competition, and judicial reform; (iii) *deepening the financial sector*, addressing the constraints to increased lending by the banking system and the development of financial markets; (iv) *improving governance*, including implementing the anti-corruption strategy, strengthening local governments, and reforming core public administration; and (v) *investing in human capital and strengthening social programs*, focusing on education, health, and pension reforms and social assistance effectiveness.

Improving the business environment. Small private firms are the engine of growth in Bulgaria's economy. Existing barriers to entry and constraints to growth of existing firms should be removed to encourage the development of the new, more productive sector of the economy. Improving conditions for business entry should involve (i) easing requirements and reducing licensing and permit procedures to a minimum; (ii) reducing the tax burden, including labor taxes, to foster both labor supply and demand. These measures together will lower costs of moving from the informal to the formal sector and reduce informal sector employment.

Increasing labor market flexibility. Reforms should be based on three principles: (i) *deregulation* of labor relations through changes to the Labor Code; (ii) *devolution* of the responsibility for determining the labor relations to social partners, which entails adequate and genuine representation of employers and employees in social dialogue, and (iii) *decentralization* of collective bargaining by strengthening firm level bargaining.

Enhancing employment opportunities for Roma. Because of the extreme nature of unemployment among some Roma communities, specific measures can be tailored to enhance their employment opportunities. In particular, specific attention is needed to

address the additional barriers of lower education status, geographic isolation and discrimination. Improving access to credit is an important aspect of increasing opportunities for Roma and other low income groups to engage in entrepreneurial activity. Providing anti-discrimination legislation and provisions for appeals is another important element. Mechanisms should be put into place at the local and regional level to monitor compliance with anti-discrimination legislation and provide job seekers with an opportunity to appeal violations.

Expanding Opportunities through Education

Addressing the skills gap. The importance of the skills mismatch in Bulgaria points to the role of the educational and training systems in addressing the problem of low, narrow and inadequate skills. While the training system can sometimes address the problem of inadequate skills at the margin, the overall educational system needs to play a much more fundamental role in producing trainable, rather than trained, workers. That is, workers who are first of all capable of permanent learning, and are able to acquire new skills in response to ever changing job requirements. Thus, building human capital should be perceived as a central component of an effective employment policy.

Improving the database. A major impediment to addressing gaps in access to education in Bulgaria is the lack of reliable information on school attendance which complements the broader enrollment rate. Education officials simply lack accurate information on how many children are there are. In most cases it is the poorest and most marginalized children who are missed in the data. Improving the information base will require close coordination at the local level between local government officials, municipal social assistance offices and the police.

Overcoming economic barriers to school attendance. Measures to help poor households overcome the costs of education are critical for facilitating attendance. An important step in this regard is to make preschool attendance affordable for all children by waiving fees for low income households. For compulsory education, a number of the approaches introduced at the local level could be scaled up nation-wide, including making receipt of social benefits contingent on school attendance, and providing cash and in-kind support for school materials to low income families.

Identifying at risk children. The relationship between poverty and attendance is a complex one. In many cases extreme poverty is linked with adverse household circumstances, including family dissolution, if one or more parents travel abroad for work, alcoholism and even abuse. Children in these circumstances are at risk of falling through the cracks and losing contact with schools and other institutions which can provide support, such as municipal social assistance offices. School counselors and social workers have a potentially critical role to play in providing support to these children. The recently passed

Child Protection Act establishes the institutional framework for reaching children at risk.

Improving education for Roma. The wide gaps in educational attainment and enrollments for the Roma population highlight the need for focused interventions to address the needs of this particular group. At the policy level a number of measures can be undertaken including: (i) addressing the language constraint for Roma who do not speak Bulgarian at home; (ii) teacher training to prepare teachers for work in a multicultural environment; (iii) supporting Roma teachers assistants; (iv) facilitating secondary school attendance by providing support to prevent students from dropping out; and (v) reducing the prevalence of segregation into "Roma schools" and classrooms.

Protecting the Poor

Addressing rural poverty: Policy priorities to address rural poverty cannot be limited to specific interventions in rural areas, rather they are linked to cross-cutting issues discussed throughout this report, including improving the environment for employment growth, building human capital and strengthening the safety net. In each of these areas attention needs to be paid to ensure that rural areas are not left behind. For example, that investment reaches rural areas, that children in rural areas are able to attend school and that rural households receive child allowances.

Specific priorities for addressing rural poverty include, exploring opportunities for increasing off-farm employment. The high level of rural unemployment and low agricultural wages highlight the need for greater access to off-farm employment opportunities in rural areas. The specific conditions in rural areas need to be considered in the design of active labor market measures, and opportunities for developing and targeting small and medium sized enterprises in rural areas need to be identified. A further priority is improving the information base on rural poverty to assess the linkages between agricultural policy and poverty. In particular, access to land needs further analysis to assess the extent to which transaction costs in land markets limit access. Future household surveys need to be designed in order to capture these issues.

Strengthening the safety net. The Guaranteed Minimum Income (GMI) program is Bulgaria's main cash transfer mechanism for low income households. While the program is an effective mechanism for reaching the poor, it can be further improved through: (i) centralizing financing or strengthening local government finances to ensure that all municipalities, including the poorest, are able to pay benefits to all eligible households; (ii) reducing payment of benefits in-kind; and (iii) further strengthening the administration for benefit delivery. This can be done by better training of social workers to identify poor households; improving information systems to facilitate means-testing and reduce payment of duplicative benefits; and expanding communication activities to inform beneficiaries about eligibility criteria and application procedures.

Reaching poor children. Because of the high level of child poverty in Bulgaria, child allowances are a potentially critical instrument. However, the current program is ill-suited to address poverty. Under the new Law on Family Benefits, passed in 2002, benefits remain too low to have a real impact on poverty. The Government faces a number of options to maximize the impact of these resources on poor households with children including: (i) expanding coverage to poor households currently not covered by child allowances; (ii) lowering the eligibility threshold to provide higher benefits to fewer children; and (ii) eliminating child allowances while increasing coverage and raising benefits for households with children under the GMI program.

Addressing the gender pay gap. While the labor force participation of women in Bulgaria is high, there is a significant gender pay gap. Given the higher poverty rates of some single female headed households, this is an important issue. In order to develop an appropriate policy approach, further analysis of this phenomenon is needed to determine the extent to which this gap is due to differences in the characteristics of the workers themselves, and that which is due to differences in job characteristics. Effective monitoring and implementation of existing regulations on gender pay equity is an important first step.

Improving working conditions. Attacking the non-income dimensions of poverty in the workplace remains an important challenge in Bulgaria. Despite the transposition of most EU requirements in the labor area into Bulgarian legislation, implementation remains the challenge. A large gap exists in practice, and the real level of workers' protection is far below what is stipulated in the Labor Code. Measures to further the improvement of working conditions can include encouraging the formalization of employment through a reduction in social security contributions and taxation; simplifying registration of firms; facilitating dismissal procedures, and easing use of temporary contracts; and raising awareness among informal employers on the links between working conditions and productivity.

Ensuring health insurance coverage for the non-working population. The current system of financing contributions for the unemployed and poor through municipal budgets is not financially viable for the poorest municipalities. Alongside measures to strengthen the system of intergovernmental finance in Bulgaria, measures should be introduced to ensure coverage for vulnerable groups. Possibilities include shifting responsibility for payments to general revenue, or providing earmarked transfers to municipalities to cover contributions.

Preparing for upcoming price shocks. Prices for electricity and district heating will increase over the near term. This will have a disproportionate impact on poor households. The current energy benefit program is a useful mechanism for reaching the poor, however careful analysis of the proposed tariff adjustment for energy is needed to ensure that benefit levels are adequate to cover the price increase, and that coverage is extended to all households in need of the benefit. For electricity, the introduction of life-line pricing,

which subsidizes a basic level of consumption, is another possibility.

Monitoring Poverty

Building capacity for poverty monitoring. Bulgaria's existing statistical instruments are ill-suited for comprehensive analysis of poverty. Regular, quality information is not available for shaping or evaluating policies. In this regard, the current initiative of the government to revamp its household budget survey and introduce regular living standard surveys is well-timed. In particular, this survey should include improved coverage of rural poverty and the connections between agricultural policy and poverty. The next Bulgaria Poverty Assessment should be based upon a survey implemented by the government, using a nationally recognized and accepted poverty line. The high level of intra-regional differentials in development also underscores the importance of developing a poverty map for Bulgaria which will allow for the estimation of reliable local level estimates of poverty.

Communicating with the public. The disconnect between the population's subjective assessments of welfare and the objective measures analyzed in this report suggest that better and more regular communication by the government on the nature, objectives and progress of reforms would mitigate high expectations among the population and provide people with a more realistic understanding of Bulgaria's reform path and achievements.

Chapter 1: Poverty in Bulgaria[3]

A. Background

Bulgaria's economic progress in recent years has been notable. Since 1997, the country has implemented a range of structural reforms alongside substantive fiscal and sectoral reforms. Measures have included the introduction of a currency board to stabilize the lev, and more aggressive privatization of large state owned enterprises. These developments have led to a significant turnaround from the period of economic crisis in 1996-1997, which was marked by a decline in real GDP of 18 percent and annual inflation of 579 percent in 1997. Growth resumed in 1998 and has been sustained. Bulgaria's current government, which took office in July 2001 has affirmed its commitment to the objectives of macrostability, including a continuation of the currency board and market reforms.

These developments have put Bulgaria on a stable reform path headed toward EU accession. However, despite these dramatic changes in the macroeconomic context, there has been limited analysis of its impact on the welfare status of the population since 1997. The last World Bank poverty study for Bulgaria, based upon a 1997 household survey, identified approximately 36 percent of the population (about 3 million people) as poor and living under a poverty line of two-thirds mean per capita income.[4] The objectives of this poverty assessment are to provide the government and the World Bank with an updated picture of the extent and characteristics of poverty in the country and to identify policy strategies for poverty reduction.[5]

B. Measuring Poverty

Poverty is a multidimensional phenomenon that goes well beyond a narrow lack of material consumption or resources. As defined in the World Bank's 2000/2001 World Development Report, *Attacking Poverty*, poverty encompasses many other aspects of deprivation, including the psychological pain of being poor, a sense of vulnerability to external events, and powerlessness towards the institutions of the state and society (World Bank, 2001). This report draws on multiple information sources to assess these different aspects of poverty and welfare. This first chapter presents a profile of poverty in Bulgaria using quantitative measures of consumption. Further chapters flesh out the picture through further analysis of some of the non-income dimensions of welfare, including links between

[3] This chapter draws from the background paper, "An Update on Poverty in Bulgaria," by Gero Carletto and Tomoki Fujii.

[4] "Bulgaria: Poverty During the Transition," Report No. 18411.

[5] This report complements the recent public expenditure review: "Bulgaria: Public Expenditure Issues and Directions for Reform: A Public Expenditure and Institutional Review." Report No. 23979-BUL.

labor market status and welfare and access to public services including education and health.

Data

Living standards are assessed using a measure of per capita consumption, based upon reported household expenditures on food and non-food items, including own consumption. Consumption measures of welfare are preferable to income for a number of reasons. Particularly in economies with high levels of informal sector activity, such as Bulgaria, underreporting can be notable. Secondly, consumption tends to fluctuate less than income as a result of seasonal shifts and shocks, and thus provides a better picture of living standards over a longer time period. Finally, individuals may be reluctant to report income from informal activities in surveys for fear of having to pay taxes and other obligations.[6]

The main data source for this report is the 2001 Bulgaria Integrated Household Survey (BIHS) conducted by the Gallup survey organization. The 2001 BIHS is the third such survey since 1995. The first BIHS was conducted in 1995 on a sample of approximately 2,500 households. The second round was conducted in 1997 using the 1995 sample, including a panel of 2,048 households. In 2001 the panel was abandoned and a new cross section was drawn. This was because of the high level of expected attrition, due to the large time lag from the last survey and the high level of internal and external migration since 1997. The 2001 sample was constructed using the same stratified two-stage cluster design adopted in 1995. The sample was drawn by the National Statistical Institute (NSI) from the pre-census listing of the 2001 Population Census.

Poverty Lines

Poverty measurement is based upon a poverty line – under which the population is defined as being "poor." There are many types of poverty lines, and the line selected ultimately depends on the objectives of the analysis. Absolute poverty lines are anchored to a minimum standard of living which is typically based on a basket of food items, plus an allowance for basic non-food necessities. The advantage of an absolute poverty line is that welfare changes can be monitored against a fixed threshold. Relative poverty lines are generally set as a share of median or mean consumption and define poverty in relation to a national average welfare standard. Subjective measures of poverty are being increasingly used to take into account respondents' perception of their living standards. In addition to these measures, the World Bank uses two absolute poverty lines for comparisons across countries: US$2.15 purchasing power parity (PPP) per capita per day; and US$4.30 PPP per capita per day.

[6] See Carletto and Fujii, 2002 for details on the construction of the consumption aggregate.

Different poverty measures are used throughout this report. However, the main line used is *two-thirds of 1997 average per capita consumption, deflated to 2001 prices*. This line amounted to 61.5 leva, or about US$ 2.76 per person per day. This line was selected to allow for direct comparison with the poverty rates in the last World Bank Poverty Assessment for Bulgaria, which was published in 1999 and was based upon the 1997 BIHS survey.[7] Although the poverty line is based upon a 1997 relative poverty line (two-thirds of average per capita consumption in 1997), in practice it functions as an absolute poverty line in 2001, as it is fixed in real terms. The 1997 line was also adjusted backwards to 1995 prices to allow for comparison with the 1995 BIHS data. A lower poverty line, based on one-half of 1997 average per capita consumption is used for analysis of severe poverty. As discussed below, the poverty trend over time is maintained, regardless of the poverty line.

C. What Happened to Poverty and Inequality in Bulgaria Between 1995 and 2001?

Living standards in Bulgaria have rebounded dramatically since the 1997 crisis when poverty escalated to 36 percent of the population. Poverty rates have declined since then, as consumption levels have recovered from the crisis. Using the poverty lines updated from 1997, poverty fell by nearly two-thirds to 12.8 percent, and the depth and severity of poverty have also improved (Table 1.1). Despite these improvements since 1997, poverty remains at twice the levels of 1995.

Inequality has fallen relative to 1997. The Gini coefficient in 2001 is 29.6, lower than

Table 1.1: Poverty and Inequality Trends[8]

	1995		1997		2001	
Poverty measure	High	Low	High	Low	High	Low
Rate	5.5	2.9	36.0	20.2	12.8	7.5
Gap	1.7	0.9	11.4	5.9	4.2	2.2
Severity	0.8	0.4	5.3	2.7	1.9	0.9
Avg. per capita consumption (June 1997 leva)	117,208		62,604		99,035	
Gini coefficient	27.1		31.4		29.6	

Sources: BIHS 1995, 1997, 2001.

Notes: The "poverty rate" refers to the % of the population that is below the poverty line; "poverty gap" is the average shortfall from the poverty line; and "poverty severity" is the average squared consumption shortfall as a percentage of the poverty line, and is more sensitive to inequality among the poor (see Ravallion, 1993 for details).

[7] "Bulgaria: Poverty During the Transition," Report No. 18411.

[8] Data in Table 1.1 are based upon price adjusted data using seasonal adjustment factors from the 2000 Household Budget Survey. The remainder of the analysis in this study is based upon the 1994 adjustment factors. The differences are minimal and are discussed in the Annex to this chapter. Tables 1.2, 1.3, and 1.4 use data adjusted with the 2000 HBS.

it was in 1997, at 31.4, but higher than in 1995, at 27.1. Other measures of inequality illustrate similar dynamics. The 90/10 ratio, which measures the ratio between the consumption level of the poorest individuals in the bottom decile, and the level of the richest people in the tpo decile was 4.1 in 2001, up from 3.9 in 1995. Consumption-based inequality is higher in rural areas than in urban areas. In 2001 the Gini coefficient in rural areas was 33, in comparison with 27 in urban areas. These inequality measures are comparable, or lower than in other Central and Eastern European countries. In 1997 the consumption-based Gini measure was 28 in Hungary and Slovenia. While in Poland it was 34 and 47 in Russia.

A number of considerations are important in assessing these striking trends in poverty rates since 1997. First, the magnitude of poverty was likely overestimated in the 1997 household survey data. Inflation reached a peak of 245 percent in February 1997 and remained high through the survey period, complicating measurement of prices. The consumer price index used for price adjustments may also have been overstated, and household reporting of expenditures was also more subject to error, due to high price volatility. Despite this potential for measurement error, consumption was undoubtedly lower in 1997 than it was in 2001. In other words, while the overall magnitude of the decline in poverty rates since 1997 may have been less than two-thirds, there has been a notable improvement in living standards since the crisis.

Second, improvements in welfare since 1997, have not been distributed evenly across the population. Poverty rates have declined less for some groups than others. For example, while urban areas experienced a more significant drop in poverty levels, from 33.5 to 5.9 percent, poverty rates were less than halved in rural areas, declining from 41.2 to 23.7 percent. Similarly, poverty rates for other high risk groups, including individuals with low education levels and ethnic minorities have fallen less than for the population as a whole. This indicates the persistence of "pockets of poverty" which have not benefited from the economic recovery. The nature of these pockets are discussed in Section D of this chapter.

Poverty in International Comparison

The World Bank uses two absolute poverty lines for comparisons across countries: US$2.15 purchasing power parity (PPP) per capita per day and US$4.30 PPP per capita per day. These lines allow comparisons of real values across countries. The $2.15 line is generally used in poorer countries, while the $4.30 line provides a more meaningful comparison for middle income countries, such as Bulgaria.

Absolute poverty in Bulgaria in 2001 is comparable to that in neighboring countries, although it exceeds levels in the high-performing countries of Central and Eastern Europe which have been at the front of the line for EU accession (Table 1.2). Using the absolute poverty line of $2.15 per day, poverty in Bulgaria was 7.9 percent, slightly higher than that of Romania and Latvia. This is significantly higher than poverty in the high performing

countries in Central and Eastern Europe such as Hungary and Poland. At a poverty line of $4.30 per day, poverty in Bulgaria was 31.9 percent, which is comparable to conditions in Ukraine in 1999 and Latvia in 1998.

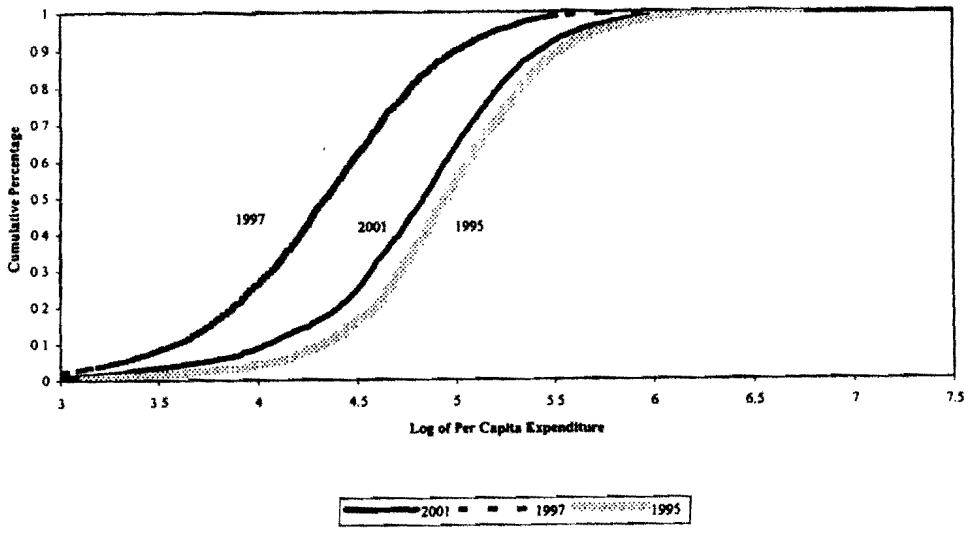
Table 1.2: Poverty Rates in Selected Countries of Central and Eastern Europe

Country	Survey Year	at $2.15 ppp/day	at $4.30 ppp/day
Bulgaria	1995	3.1	18.2
Bulgaria	***2001***	***7.9***	***31.9***
Romania	1998	6.8	44.5
Latvia	1998	6.6	34.8
Ukraine	1999	3	29.4
Hungary	1997	1.3	15.4
Poland	1998	1.2	18.4

Source: Making Transition Work for Everyone, World Bank, 2000. BIHS 1995, 2001.

Comparing Poverty Lines. The drop in poverty between the 1997 and 2001 surveys is striking. The trend holds, regardless of which poverty line is chosen for the analysis. This is illustrated by the downward shift of the cumulative density function, which shows the change in consumption across the survey years (Figure 1.1).[9] Consumption in 2001 is

Figure 1.1: Cumulative Density Function of Per Capita Monthly Expenditures (1995, 1997, 2001)



Source: BIHS 1995, 1997, 2001.

Note: The cumulative density (CDF) function shows, on the y-axis, the share of the population below a given level of per capita expenditures (on the x-axis). Curves that are higher show greater poverty, because a larger share of the population falls below any expenditure level.

[9] The cumulative density function shows, on the y-axis, the share of the population below a given level of per capita expenditures (on the x-axis). Curves that are higher show greater poverty, because a larger share of the population falls below any given expenditure level.

higher for all segments of the population, relative to 1997, but remains consistently above the 1995 line. The figure illustrates that for every poverty line selected on the x-axis, the curve for 2001 remains below 1997, but above 1995.

Although Bulgaria does not currently have an official poverty line, a number of lines are currently used in the country for different purposes. The Guaranteed Minimum Income (GMI) threshold and Minimum Social Pension in 2001 were set at leva 37.4 and leva 40, respectively. These levels are somewhat comparable to the *lower* poverty line, set at leva 46.1. It should be noted that these are benefit eligibility lines, driven by budgetary considerations and do not reflect suitable consumption needs. Table 1.3 shows several poverty lines and corresponding poverty rates for comparison.

Table 1.3: Poverty Rates Using Different Poverty Lines

	Level (2001 leva)	Poverty rate
Guaranteed Minimum Income(*)	37.4	4.9
Minimum Social Pension (**)	43	6.6
Lower poverty line (based on 1/2 median consumption in 1997)	46.1	7.5
$2.15 PPP line	47.9	7.9
Higher poverty line (based on 2/3 mean consumption in 1997)	61.5	12.8
2001 relative line (1/2 median consumption)	62.9	12.6
2001 relative line (2/3 median consumption)	83.8	22.2
$4.30 PPP line	95.8	31.9

Source: BIHS 2001.

Notes: (*) latest available figure is 2000. Based on past trends, assumed that no adjustment to the level has been made in 2001.

(**) latest available figure is leva 40 at 2000. Assuming a CPI deflator of 1.066, the 2001 level is assumed to be leva 43.

Sensitivity to the Poverty Line

Poverty in 2001 is shallower than it was in 1997. This is reflected in the poverty depth figures in Table 1.4 which illustrate the average distance of households from the poverty line. In other words, in 2001 consumption of poor households was, on average, 4.2 percent below the poverty line. This is down from a peak of 11.4 percent in 1997, but higher than 1.7 in 1995. There are also a large number of households clustered close to the poverty line in 2001. Raising the poverty line by 10 percent would increase the share of poor individuals in poverty by over 20 percent.

Table 1.4 shows the results of a simple simulation in which different poverty lines are shifted both upwards and downwards by small percentages. This illustrates how many individuals move in and out of poverty as a result. In the middle column (in bold) are the original poverty rates based on each of the poverty lines. The left column shows a decline

in the poverty line by 5 and 10 percent, while the right column assumes an increase in the lines of the same magnitude.

Table 1.4: Sensitivity of the Poverty Rate to Changes in the Poverty Line

	Poverty Rate				
	PL-10%	**PL-5%**	**PL**	**PL+5%**	**PL+10%**
2001 Poverty Line (2/3 mean 1997 per capita consumption)	10.7	11.8	**12.8**	14.5	16.1
2001 relative line (1/2 median consumption)	10.4	11.2	**12.6**	13.9	15.2
2001 relative line (2/3 median consumption)	18.1	20.3	**22.2**	24.3	26.9
US$2.15 PPP per person per day	6.5	7.3	**7.9**	9.3	9.8
US$4.30 PPP per person per day	25.4	28.5	**31.9**	35.8	39.4

Source: BIHS 2001.

This analysis illustrates that, although poverty rates based upon both absolute and relative poverty measures are considerably lower in 2001 than they were in 1997, a significant share of the population lives close to the poverty line and is vulnerable to shocks. Both a negative welfare shock, equivalent to an increase in the poverty line, and a positive shock, equivalent to a downward shift of the poverty line, would produce greater than proportional changes in poverty. Negative shocks would have the largest impact, as more individuals are concentrated right above the poverty lines than below. This underscores the importance of on-going monitoring of poverty and living standards to assess the impact of economic developments and specific policy changes on the population.

Box 1.1: Why Do So Many Bulgarians Feel Poor?

One of the most striking things about the results from the 2001 household survey is their stark contrast with the sentiments among the Bulgarian population. Many Bulgarians feel that their living standards have not improved notably since 1997. Existing surveys of Bulgarian's perceptions of their well-being show that not only does a large share of the population feel poor, but that the proportion of Bulgarians in this group has increased since 1989.

For example, based on a nationally represented survey conducted in 2001 by the Agency for Social Analysis, 73 percent of the population said they were poor, in contrast with 26 percent in 1989.[10] In addition, 63 percent of men and women surveyed noted that their living standards were 'worse' or 'much worse' than in November 1989. Perceptions have also declined since 1997. The share of the population which categorized itself as "poor" or "rather poor" increased from 63 percent in 1997, to 73 percent in 2001.

Why is there such a large disconnect between these subjective assessments and the objective measures analyzed in this report? There are a number of possible explanations. Subjective assessments reflect a broader conception of welfare than the income poverty measured by the BIHS. Perceptions are also shaped by higher expectations and a greater availability of goods which households may not be able to afford.

In many cases perceptions about welfare status over the transition period may reflect an increased sense of vulnerability and insecurity following the collapse of central planning. While prices and wages were artificially supported during the socialist period, and employment was guaranteed regardless of productivity concerns, the restructuring process has eroded this false sense of security. Since then, unemployment has emerged as a widespread phenomenon and consumption levels have remained below pre-transition levels.

The sense of selective nostalgia for the past is reflected in many recent qualitative studies. These sentiments are most readily expressed by those on fixed incomes, such as pensioners and the unemployed.

Life was much easier before.We all used to have regular incomes. It was not like now when we stay at home and do not meet other people. Maybe it is because of the lack of money.I have changed a lot since 1989. – 38 year old single mother, employee, small town.

It has never been worse than now. And I think that it could not be worse. Even my grandmother cannot remember worse times. – 48 year old unemployed woman, small town.

My parents had a house, car, regular income when I was born. I do not have any of this. They probably lived better, more secure. But on the other hand they were worse off because they were not free to take risks, to improve themselves. – Young married woman, town.

The comparison of poverty levels between 1997 and 2001 has little resonance within the population. While most Bulgarians accept that their living conditions have improved since the aberrant crisis year of 1997, for most the relevant benchmark for comparison is the outset of the transition period in 1989. While comparable data from earlier years are not available, the BIHS surveys show that average consumption in 2001 remained 16 percent lower than it was in 1995.

Perceptions of well-being are important and may be reflected in levels of political participation and trust in institutions, voting patterns and other areas of social and political life. The gulf between perceptions and reality in Bulgaria suggests that people lack information with which to gauge and understand their circumstances. Improved information, including regular monitoring of poverty and living standards would be an important mechanism for improving the availability and quality of information on the welfare of the country. Similarly, better and more regular communication by the government on the nature, objectives and progress of reforms would mitigate high expectations among the population and provide people with a more realistic understanding of Bulgaria's reform path.

Source: Agency for Social Analyses.

[10] "Poor" refers to those ranking themselves at 4 and 5 on a 5-point scale.

Consumption Patterns

Household consumption patterns in 2001 differ markedly from the previous survey years. In particular, the share of resources spent on food has declined notably, particularly for non-poor households. The decline in the food share reflects the growth in overall consumption levels since 1997, as well as increasing prices of non-food items, particularly utility costs associated with housing. In 2001, individuals spent, on average, slightly less than 50 percent of their resources on food items. This is in comparison with 70 percent in 1997 and

Table 1.5: Expenditure Budget Shares by Poor/Nonpoor Individuals

Item	Non-Poor	Poor	Total
Food	**46.9**	**62.1**	**48.7**
Cereals	7.7	21.3	9.3
Fruits & Vegetables	14.3	20.5	15.0
Meat & Diary	18.6	13.3	18.0
Fats & Sugars	2.6	4.9	2.9
Other Food	3.7	2.0	3.5
NonFood Items	**23.3**	**16.2**	**22.5**
Alcohol	2.1	1.5	2.0
Tobacco	2.8	4.0	2.9
Personal Items	3.6	2.1	3.4
Cleaning	1.6	2.6	1.7
Gasoline	2.0	0.7	1.8
Other transport	3.0	1.3	2.8
Clothing	2.9	1.6	2.8
Health	2.8	2.1	2.7
Entertainment	2.0	0.4	1.8
Insurance	0.2	0.0	0.2
Other nonfood	0.4	0.1	0.3
Housing	**27.0**	**19.0**	**26.1**
Central Heating	1.6	0.3	1.4
Electricity	7.7	6.4	7.6
Gas	0.6	0.1	0.6
Other Energy	6.9	4.6	6.7
Water	2.7	3.8	2.8
Fees	1.9	1.5	1.9
Telephone	4.8	2.2	4.5
Other Housing expenditures	0.7	0.1	0.7
Education	**2.8**	**2.8**	**2.8**
Total	100	100	100
Number of Cases	6472	854	7326

Source: BIHS 2001.

61.5 in 1995.[11] Expenditures on housing nearly doubled between 1995 and 2001 – from 12.7 percent to 26.1 percent. The share of household budgets spent on education also rose, from 1.6 in 1995 to 2.8 in 2001, as a result of increasing formal and informal out-of-pocket payments for education.[12]

Consumption patterns differ significantly between the poor and non-poor (Table 1.5). In comparison with better-off individuals, the poor allocated 62 percent to food, in contrast with 47 percent for the non-poor. The poor also consume more staples and a smaller share of expensive products such as meat and dairy products. Conversely, the share of non-food expenditures is also higher for the non-poor, who spend more on items such as entertainment, personal items, gasoline and transportation. On average, Bulgarians spend more than one quarter of their budget on housing and utilities, with significant differences between the poor and non-poor (27 versus 19 percent, respectively).

A closer look at budget shares by deciles in Table 1.6 illustrates the decline in food budget shares as one moves up in the income ladder. The higher than average food shares are mostly concentrated among the lowest decile, while the food share of the eight middle deciles is otherwise close to the average. Individuals in the richest decile spend close to 60 percent of their income on non-food items and housing, in comparison with only 30 percent among those in the lowest decile.

Table 1.6: Budget Shares by Expenditure Decile

	Deciles										Total
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	
Food	67.5	51.7	52.2	47.9	49.3	48.6	46.8	45.4	44.7	38.8	48.7
Non-Food	14.9	18.8	17.3	20.5	20.4	22.4	24.1	26.0	27.0	30.4	22.5
Housing	15.4	26.4	27.8	29.1	27.5	26.3	26.3	25.2	25.5	28.5	26.1
Education	2.2	3.2	2.7	2.5	2.9	2.7	2.8	3.4	2.8	2.3	2.8
Total	100	100	100	100	100	100	100	100	100	100	100

Source: BIHS 2001.

Housing

Access to basic services like clean drinking water and sanitation have a direct impact on household welfare and health status, and can be suitable indicators of well being in their own right. Table 1.7 compares poor and non-poor individuals by location in relation to their access to basic services and some other non-monetary measures of living standards. Access to basic services and housing characteristics are strongly correlated with location, as well as to living standards. Differences in access to improved sanitary facilities are large across regions, as well as between poor and non-poor. Only one individual in 10

[11] Similar patterns have been found in other transition economies: based on the longitudinal study of income and expenditures, food shares in the Russian Federation in 2000 were only 69% of its 1995 levels.

[12] This will be discussed further in Chapter 6.

Table 1.7: Housing Conditions by Location (% with access)

	Sofia		Other Urban		Rural		Total	
	Poor	NonPoor	Poor	NonPoor	Poor	NonPoor	Poor	NonPoor
Type of Toilet								
Flush Toilet	88.0	97.6	45.2	85.4	13.3	23.7	26.6	69.9
Pit Latrines	12.0	2.4	54.8	14.6	86.7	76.3	73.4	30.1
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Electricity								
0-23 hrs/day	10.0	0.8	1.7	2.1	3.9	3.0	3.6	2.2
23+ hrs/day	90.0	99.2	98.3	97.9	96.1	97.0	96.4	97.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water								
0-23 hrs/day	0.0	1.8	15.5	11.0	10.6	5.8	11.4	8.1
23+ hrs/day	100.0	98.2	84.5	89.0	89.4	94.2	88.6	91.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cooking								
Electricity	90.0	93.1	69.5	68.4	13.5	33.6	33.6	62.4
Gas Cylinder/Natural	0.0	6.3	0.8	19.0	0.0	6.1	0.2	13.4
Coal/Kerosene/Wood	10.0	0.6	29.7	12.6	86.6	60.3	66.2	24.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Heating								
District Heating	32.0	72.0	2.9	7.1	0.0	0.0	2.7	15.1
Electric Heating	4.0	14.4	34.7	39.0	1.2	3.6	10.8	25.2
Wood/Coal Fire	64.0	13.3	61.5	51.9	98.8	96.1	86.3	58.4
Oil	0.0	0.0	0.8	1.0	0.0	0.3	0.2	0.6
Gas	0.0	0.4	0.0	1.1	0.0	0.1	0.0	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sewage								
Public Sewage	86.0	95.0	55.7	87.3	7.1	26.7	25.3	71.4
Septic tank	14.0	5.0	44.4	12.7	92.9	73.3	74.7	28.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Phone								
Available	58.0	84.4	38.1	86.7	23.4	70.4	29.5	81.7
Not Available	42.0	15.6	61.9	13.3	76.6	29.6	70.5	18.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Crowding								
0-1 persons/room	0.0	11.0	5.0	19.7	6.0	33.8	5.4	22.3
1-2 persons/room	82.0	62.5	36.4	55.4	37.4	51.4	39.7	55.4
2+ persons/room	18.0	26.6	58.6	25.0	56.6	14.8	54.9	22.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Cases	50	1002	239	3646	565	1824	854	6472

Source: BIHS 2001.

among the rural poor has access to a flush toilet, compared with nearly 100 percent among the nonpoor living in Sofia. Access to public sewage follows a similar pattern.

As expected, the poor rely more on energy sources like coal and wood for both cooking and heating. The percentages are even higher among the rural poor, with virtually everyone in this group relying on these sources for heating and 9 out of 10 for cooking. Access to district heating is concentrated among nonpoor living in Sofia (72%). Even in urban areas, the use of other sources like coal and kerosene is very common among the poor. The use of electric heating is highest among individuals living in urban areas other than Sofia (35% and 39%, respectively, for poor and nonpoor). Use of natural gas for heating is very limited, with only one tenth of nonpoor individuals relying on this source, and virtually no poor households doing so.

D. Pockets of Poverty

Despite the decline in overall poverty rates in Bulgaria since 1997, pockets of extreme destitution persist in the country. Large rural households with young children under 5 and low education levels are at greatest risk. Ethnicity is another clear correlate of poverty, over 60 percent of the poor are ethnic minorities. Roma households are especially at risk of poverty. Even when controlling for all other socio-demographic factors, Roma households are still likely to consume only two-thirds of that of non-Roma households. As was the case in the 1997 profile, education and labor market status are key determinants of welfare. Regardless of the indicator selected, poverty is markedly higher in rural areas. The specific issue of poverty in rural areas is addressed in the next chapter.

Poverty in 2001 has become more concentrated among distinct and identifiable groups within the population than in previous years. In this regard, the profile of poverty in Bulgaria has come to resemble poverty patterns in other countries in Central and Eastern European countries more closely. The strong link between unemployment and poverty, and the emergence of children and households in rural areas as high poverty risk groups, as well as ethnic minorities, in some cases, are features of poverty common to all EU accession countries. This section discusses these correlates of poverty and identifies those groups in the population that are at greatest risk of falling into poverty. Throughout the discussion, poverty is defined using the poverty line of two thirds of average 1997 per capita consumption deflated at 2001 prices.

Demographics

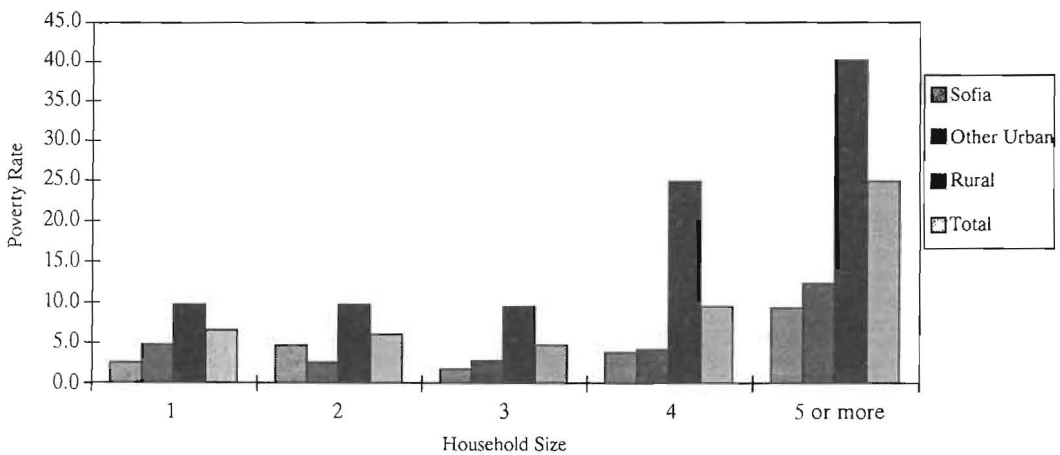
Poverty in Bulgaria is concentrated among distinct demographic groups. Age and household size are important factors. Children, and particularly those in rural households which have many children, are over represented among the poor. This contrasts with the conventional wisdom in the country, which holds that pensioners are at greatest risk of

poverty. Consistent with the results from previous years, and those from most other countries in the region, most pensioners are not poor, with the exception of elderly pensioners over 75 years old living alone and in rural areas.

Household Size. Average household size in Bulgaria is 2.9 persons. Large households of five or more members make up almost 30 percent of the population, but represent nearly 60 percent of the poor. The poverty rate among large households is 24 percent, almost double the national level and four times the rates exhibited by smaller households of three or fewer members (Figure 1.2). These households are also the most destitute among the poor, as reflected in very high poverty shares in both depth and severity indexes (68.3 percent and 74.5 percent, respectively). These higher than average rates are almost entirely concentrated among larger rural households. The poverty rates for large households in Sofia is 9.6 percent, while it was 39 percent in rural areas. The population living in these households makes up nearly 30 percent of the total population, and over 63 percent of the rural population.

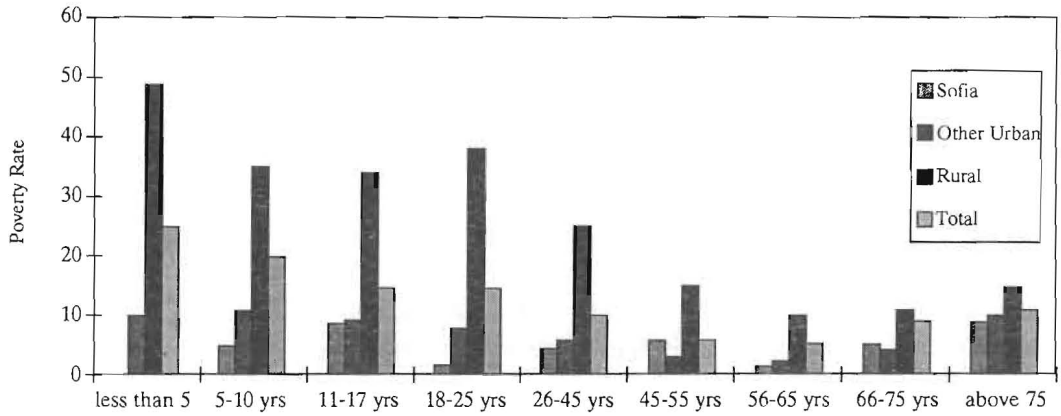
Age. Poverty in Bulgaria is concentrated among young people (Figure 1.3). Although children aged 10 and under represent only 10 percent of the population, they comprise almost 20 percent of the poor. Severe poverty is widespread among both children and teenagers (age 18 and under) who bear almost 40 percent of the poverty share based on the severity index. The poverty rate among individuals over 55 was 7.3 percent, below the national average. In urban areas, poverty rates for this group was 4 percent. Among the poor, on average, older people fare better than their younger counterparts, highlighting the role of pensions in protecting the incomes of pensioners. The poverty rates among rural children is staggering. Half of all children under five in rural areas lives below the poverty line. Poverty rates are lowest among 18-45 year-old adults living in Sofia.

Figure 1.2: Poverty Rates by Household Size, 2001



Source: BIHS 2001.

Figure 1.3: Poverty Rates by Age, 2001



Source: BIHS 2001.

Some pensioners are poor. In particular, elderly pensioners, over 75 years old living in rural areas have poverty rates over the national level – at 16 percent. There are no strong gender differences by age and poverty. Poverty rates for elderly female headed households are less than one percent higher than for male headed households.

Economies of Scale. The findings that children are the main poverty risk group are sensitive to the method of analysis. So far, this report has used per capita measures of welfare, assuming that each household member consumes the same amount of resources. This assumption is misleading, as it does not reflect differences in the demographic composition of households, and the fact that children may consume less than adults. In order to test the robustness of the findings, equivalence scales were used to adjust for differences in the needs of households of different size and composition.[13]

As expected, the demographic profile of poverty is quite sensitive to the assumption of economies of scale. Table 1.8 shows the changes in poverty rates across a range. Theta (θ) is a parameter which adjusts consumption for economies of scale. A higher value for theta implies reduced economies of scale, and 1 is equal to the per capita measure. Elderly households appear less poor under the per capita assumption than younger households with children. Increasing economies of scale raise poverty levels among the elderly, and reduce them among larger households with children. Female-headed households become poorer at increasing economies of scale as a result of a negative correlation between the type of household and household size, since female-headed households are generally smaller. However, irrespective of the sizeable drop in rates among larger households with children,

[13] For a discussion of the methodology refer to Carletto and Fujii, 2002 and World Bank 2000, *Making Transition Work for Everyone*, Appendix A.

Table 1.8: Poverty Rates Adjusted for Economies of Scale

				θ				OECD-measures*	
Economies of Scale	**0.5**	**0.6**	**0.7**	**0.75**	**0.8**	**0.9**	**1(per capita)**	**OLD**	**NEW**
Elderly Households (all age 65+)	41.8	36.3	31.3	28.8	25.6	20.7	16.9	27.1	34.8
Female-headed Households	29	27.6	26.5	25.4	23.7	21.6	20.2	23.5	27
Households with no children	20.8	19.4	18.3	17.3	16.3	15.1	13.4	17.5	19.9
1 Child	13.7	14.9	15.4	15.6	16.7	17.3	19.4	15.5	14.3
2 Children	17.1	19.4	20.6	21.1	22.1	23.2	24.2	20.6	18.4
3+ Children	50.4	50.4	53.5	60.4	61.6	66.7	68.3	61.6	52.3
Children	21.4	22.7	23.7	25.1	26	27.2	28.3	24.4	21.7
Elderly (age 65+)	31.7	28.6	25.5	23.9	22.1	19.3	16.6	23	27.7

Source: BIHS 2001.

Notes: The poverty line for this simulation is the bottom quintile of the population, to allow for comparisons of the different equivalence scales. (*)The older OECD equivalence scale is N=0.3+0.7*adults+0.5*children. Currently, OECD uses a scale with stronger economies of scale: N=0.5+0.5*adults+0.3*children.

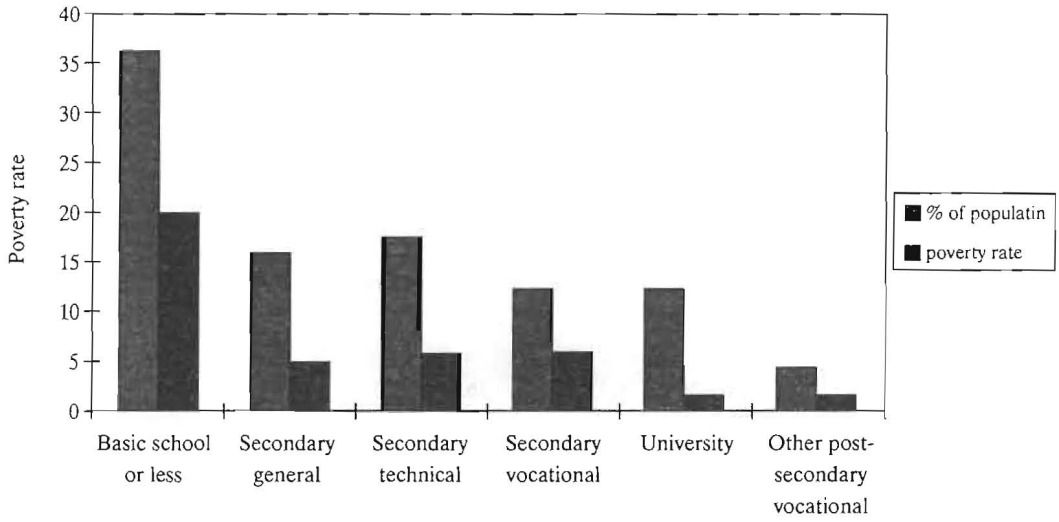
the main finding is unchanged. Households with three or more children are at highest risk of poverty, even after taking economies of scale into consideration.

Education

The results highlight a strong link between poverty and educational attainment. The overall education level of the population is moderately high. Household heads have an average of 11.8 years of education. However, this figure masks substantial differences among population groups. Heads of poor households have on average only 7.6 years of schooling, in comparison with more than 12 years among their better-off counterparts.

Individuals with less than secondary education represent only 36 percent of the population 18 and older, but make up nearly 80 percent of the poor (Figure 1.4). They are also marginally poorer. Poverty levels for individuals with no formal education are almost four times the average poverty rate and ten times the poverty rate of individuals with a secondary school diploma. University education provides the best deterrent against poverty – poverty rates for individuals with any type of post-secondary education are less than two percent. Poverty rates are highest among younger, less educated individuals. Almost two thirds of those in the age group 18-21 with primary education or less are poor.

Figure 1.4: Poverty and Educational Attainment, 2001



Source: BIHS 2001.

As with the other aspects of the profile, the discrepancies in educational attainment between poor and non-poor individuals are more pronounced in rural areas: 80 percent of individuals in Sofia and 70 percent of individuals in other urban areas have a secondary diploma, while only 15 percent of the rural poor have a secondary diploma. This underscores the importance of expanding educational opportunities in rural areas.

Ethnicity

Poverty in Bulgaria has a significant ethnic dimension. The differences in the level and depth of poverty across ethnic minorities are remarkable, particularly for Roma. A Roma individual is ten times more likely to be poor than an ethnic Bulgarian, while poverty rates for Bulgarian Turks are four times higher than for ethnic Bulgarians. Although Roma only represent 8.8 percent of the individuals in the sample, they constitute half of the poor. As well as being more likely to be poor, Roma are also much poorer on average than their non-Roma counterparts, as they alone are responsible for almost three quarters of the

Table 1.9: Poverty by Ethnicity

		Rate		Gap		Severity	
N=7326	% population	Percent	Share	Percent	Share	Percent	Share
Ethnic Bulgarian	82.3	5.6	39.6	1.1	25.5	0.4	18.8
Turks	7.1	20.9	12.8	5.3	10.4	2.2	9.3
Roma	8.8	61.8	46.5	25.9	63.4	13.6	71.7
Other	1.8	7.6	1.2	1.2	0.6	0.2	0.2
Total	100	11.7	100	3.6	100	1.7	100

Source: BIHS 2001.

Box 1.2: Who are the Roma?

Roma, or 'gypsies,' are a unique minority in Europe. Unlike other groups, Roma have no historical homeland and are found in nearly all countries in Europe and Central Asia. Current estimates suggest that between 7 and 9 million Roma live throughout Europe, making them the largest minority in Europe. Historical records indicate that Roma migrated from northern India into Europe in waves between the ninth and fourteenth centuries. While some Roma groups are nomadic, the vast majority of Roma in Bulgaria are settled, some during the Austro-Hungarian and Ottoman empires, and others more recently under socialism.

According to preliminary data from the 2001 census, 4.6 percent of the Bulgarian population is Roma a total of 365,797. However, these figures are thought to be considerably underestimated. Census data are limited in their ability to estimate the size of the Roma population, because they rely on self-reporting. A large share of Roma in Bulgaria are thought to respond as Bulgarians or Turks. Unofficial estimates by local governments and Roma leaders suggest that the size of the Roma population is closer to 8 to 10 percent of the population.

Throughout Central and Eastern Europe, Roma have emerged as the most prominent poverty risk group. As indicated in the BIHS, poverty rates for Roma are strikingly high. Why are Roma so much poorer than other groups? In many respects Roma are caught in a vicious circle of impoverishment. Their unfavorable starting point at the outset of the transition period – with low education levels and overrepresentation among low-skilled jobs – led to disadvantages on the labour market. Compounded by discrimination and low expectations of employers, Roma have had more difficulty re-entering the job market than other groups. Poverty in many Roma settlements is related to substandard housing conditions, including a lack of basic infrastructure and sanitation facilities, and poor health status (Revenga, et al., 2002).

Additional barriers, including a lack of access to credit and property ownership, combined with an over-dependence on social benefits create a poverty trap and precludes many Roma from improving their living conditions, or starting their own businesses. Persistent disadvantages in education, including low school attendance and overrepresentation in special schools intended for the mentally and physically disabled, which limit future opportunities, create a high probability that without policy interventions the next generation of Roma will continue to remain in poverty. These issues are common to Roma living in other countries in the region (Ringold, 2000).

poverty depth index.

Roma households were oversampled in the 2001 survey to allow for a more rigorous examination of their characteristics. The results show significant gaps in the welfare of the Roma and non-Roma populations across multiple dimensions. Regardless of the variable, the differences between Roma and the rest of the population, including the other minorities, is striking, and highlights the multidimensionality of Roma poverty and the need for innovative and multifaceted policy approaches.

Roma households are younger and larger than non-Roma households. In Roma households the head is 12.5 years younger than non-Roma, and household size is 5 persons, in comparison with 3 among non-Roma. Roma household heads are also less educated, with over 80 percent not reaching secondary school, in comparison with 35 percent in non-Roma households. Differences in access to basic services are also evident, with four Roma households in five lacking access to modern toilets, and only one household in four with access to public sewage. Only one Roma household in ten has access to a telephone. Less than one-third of Roma households use upgraded cooking facilities, such as electric or gas stoves, in comparison with three quarters among non-Roma households. Three out of four

Table 1.10: Selected Characteristics of Roma and Non-Roma Households

	Non-Roma	Roma	Total
Number of Observations	2367	266	2633
Household Size	2.8	4.5	2.9
Educational attainment HH head (%)			
No education	1.0	10.2	1.9
Primary	6.7	20.3	8.1
Middle	27.2	52.6	29.8
Secondary	45.5	16.2	42.6
University and higher	19.6	0.8	17.7
Age of Household Head (years)	55.1	42.6	53.8
Rural (%)	30.5	58.7	33.3
Electricity >23 hours/day (%)	98.1	94.4	97.7
Water >23 hours/day (%)	91.7	89.1	91.4
Type of Toilet (%)			
Flush Toilet	69.0	16.5	63.7
Pit Latrine	31.0	83.5	36.3
Main Source of Energy for Cooking (%)			
Electricity	62.3	27.1	58.7
Gas cylinders/Natural Gas	12.0	0.0	10.8
Coal/Kerosene/Wood	25.7	72.9	30.5
Main Source of Energy for Heating (%)			
District Heating	15.8	0.8	14.2
Electric Heating	26.5	4.1	24.2
Wood/Coal Fire	56.3	95.1	60.2
Oil	0.8	0.0	0.7
Gas cylinders/Natural Gas	0.6	0.0	0.6
Sewerage (%)			
Public Sewerage	70.1	25.6	65.6
Septic Tank	30.0	74.4	34.5
Telephone connection (%)	78.8	12.4	72.1
Average Household Consumption (leva)	416.8	306.3	405.6
Average Per capita Consumption (leva)	147.6	67.9	135.5

Source: BIHS 2001.

Roma households are still using coal or wood for cooking, and virtually all households use coal and wood for heating.

Poverty and Income

In addition to the consumption aggregate, the 2001 BIHS also allows for the estimation of welfare based on income and the analysis of income by source. Despite con-

[14] The two aggregates are moderately correlated, with a Spearman correlation coefficient equal to 0.45.

cerns that income would be underreported, the average per capita income and consumption figures are comparable. Average per capita income was estimated at 127.8 leva, about 9 percent lower than estimated per capita consumption.[14] Income was computed as the sum of income from wages, self-employment, agriculture, pensions, remittances, social benefits and real estate. Social benefits include survivor and disability pensions, unemployment benefits, maternity benefits, child allowances and all other cash and in-kind social insurance transfers.

As with consumption, the income measure yields considerable differences between rural and urban areas. Average per capita income in rural areas is less than 60 percent of average income of urban individuals.[15] The composition of income also differs substantially between urban and rural area, with a heavier reliance on wage income in urban areas and on agriculture and social assistance in rural areas. The income-based Gini coefficient is also significantly higher than the consumption-based index, measuring 48 in 2001, up from 41 in 1995.

Table 1.11: Poverty by Main Source of Income and Location

Main Income Source*	Region			Total	% of population	poverty share
	Sofia	Other Urban	Rural			
Poverty rates						
Earned Income	4.8	3.8	16.6	6.6	51.7	29.3
Agriculture	.	0.0	12.8	7.8	5.3	3.5
Pension	5.1	5.8	16.6	10.3	19.5	17.2
Social Benefits	2.4	29.2	64.4	45.6	10.6	41.3
Mixed	4.4	3.7	13.9	7.8	13.0	8.7
Total	4.8	6.2	23.7	11.7	100.0	100.0
Poverty gap						
Earned Income	0.5	1.0	4.7	1.6	51.7	23.7
Agriculture	.	0.0	2.9	1.7	5.3	2.6
Pension	0.4	1.0	3.8	2.1	19.5	11.6
Social Benefits	0.8	10.6	27.4	18.6	10.6	54.9
Mixed	0.4	0.6	4.2	2.0	13.0	7.2
Total	0.5	1.7	8.0	3.6	100.0	100.0
Poverty depth						
Earned Income	0.1	0.3	2.3	0.7	51.7	20.9
Agriculture	.	0.0	1.1	0.7	5.3	2.2
Pension	0.0	0.3	1.2	0.7	19.5	7.7
Social Benefits	0.3	5.3	14.6	9.8	10.6	62.3
Mixed	0.1	0.2	2.0	0.9	13.0	6.8
Total	0.1	0.7	3.9	1.7	100.0	100.0
Number of Cases	1052	3885	2389	7326		

Source: BIHS 2001.

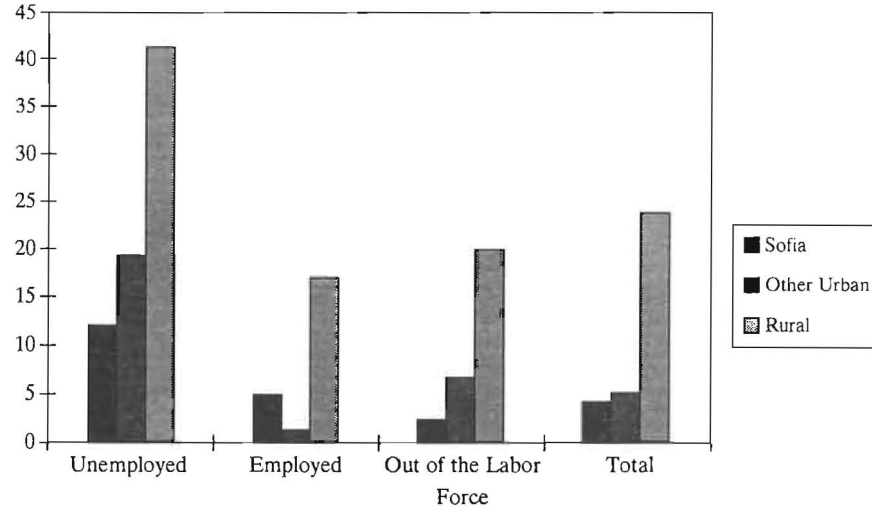
Notes: (*) Main income source is defined as the income source from which the household derives 50% or more of its income.

Poverty is lowest among wage earners, while people relying on social benefits as their main source of income are four times more likely to be poor than the national average (Table 1.11). Although they only make up one tenth of the population, those relying on social assistance represent more than 40 percent of the poor and are responsible for almost two-thirds of the poverty share, using the severity index. Rural pensioners are more likely to be poor than their urban counterparts, with rates as much as five times higher (16.3 percent vs. 3.1 percent in Sofia). Poverty is highest among people in larger households relying on social assistance as primary source of income, with two thirds of people in this group falling below the poverty line.

Social protection benefits in general have become an important source of income for many households. In 2001, over 80 percent of Bulgarians received at least one type of benefit. These benefits keep many from falling into poverty and have played a role in the overall reduction of poverty since 1997. In the absence of social protection benefits, the poverty rate would be 18 percentage points higher. This will be discussed further in Chapter 5.

Labor Market Status. These findings underscore the close connection between labor market status and poverty (Figure 1.5). Individuals in households in which the head is unemployed make up 15 percent of the population but nearly 40 percent of the poor. Poverty is highest among rural unemployed. In rural areas, even households with an employed head still exhibit poverty rates above average. These issues will be analyzed further in Chapter 3.

Figure 1.5: Poverty by Labor Market Status of the Household Head, 2001



Source: BIHS 2001.

[15] leva 83.7 in rural areas vs. 136.6 leva in Sofia and 152.6 in other urban areas.

E. Multivariate Analysis of Poverty

The discussion in the previous section focused on single variable analysis. However, many household characteristics are often correlated. For example, the discussion above found that households where the head has a low level of education are more likely to be poor. However, household heads with low education may also face a higher probability of being unemployed. And being unemployed is also correlated with a higher probability of being poor. Does low education increase the risk of poverty directly, or through its impact on employment status? Or through both? To answer these questions multivariate analysis was undertaken to control for the differential influences of diverse factors.

The regression model looks at the effect of a range of independent variables on log per capita consumption (Table 1.12). The coefficients in the table can be interpreted as the amount of change in consumption that would result if the independent variable for that coefficient were changed by a unit amount. As expected, the education level of the household head is an extremely important factor in explaining monetary welfare. The relation is monotonic, additional schooling by the household head above primary level has a strong and significant impact on household consumption. Individuals in households where the head of the household has completed secondary education have consumption levels 28 percent higher than their counterparts in households with an uneducated head. The difference between this group without education and households in which the head holds a university degree is almost 50 percent.

The gender of the household head does not have a significant influence on consumption, indicating that, all else being equal, households headed by women are not poorer than households headed by men. However, single female households are likely to have lower consumption. This may reflect the relatively unfavorable position of single, elderly (over 75) female pensioners, who have higher life expectancy than their male counterparts and tend to live alone.

Minorities, and Roma households in particular, have a significantly higher probability of living in poverty than other groups, even after controlling for many of the characteristics associated with ethnicity, such as large family size. Holding all other variables constant, Bulgarian Turks consume about 83 percent and Roma about 69 percent of ethnic Bulgarians. This latter gap is huge and confirms the need for targeted initiatives to reach Roma to address specific constraints which they face in accessing public services and participating in economic activities. These issues are discussed in subsequent chapters.

The employment status of the household head does not seem to be as important as the total number of employed people in the household in determining average per capita consumption in the household. The regression results suggest that, other variables held constant, around 13 percent of the increase in average per capita consumption can be

Table 1.12: Determinants of Consumption (OLS estimates)

Independent Variables	Coefficient	t-Value	Significance
Household demographics			
Household Size	-0.092	-10.01	**
No. of Children (0-5)	-0.044	-1.71	*
No. Elderly (65+)	-0.041	-2.43	**
Age HH head	-0.005	-5.03	**
Gender of HH head	0.062	1.21	
Single HH headship	0.126	3.89	**
Single Female HH headship	-0.195	-3.16	**
Education of household head			
Primary	0.109	1.40	
Middle school	0.152	2.03	**
Secondary	0.246	3.18	**
University and higher	0.377	4.74	**
Ethnicity			
Turks	-0.190	-4.51	**
Roma	-0.370	-7.51	**
Other Ethnicity	-0.016	-0.23	
Employment			
HH head employed	0.037	1.21	
No. Employed in HH	0.131	7.03	**
Assets and HH conditions			
Own Dwelling	0.005	0.15	
Own Other Real Assets	0.153	7.38	**
Cultivate Crops	0.057	2.23	**
Own Livestock	0.110	3.94	**
Crowding Index	-0.119	-7.47	**
Rural household	-0.174	-6.74	**
Regions			
Bourgas	0.015	0.41	
Varna	-0.057	-1.56	
Montana	-0.055	-1.52	
Lovetch	0.048	1.16	
Plovdiv	-0.050	-1.47	
Rousse	-0.032	-0.81	
Sofia Region	-0.084	-2.34	**
Haskovo	-0.088	-2.30	**
Constant	5.182	48.14	**
Adjusted R^2 = 0.37			

**/* Coefficient significant at 95/90 percent confidence levels, respectively.

Source: BIHS 2001.

expected from a unit increase in the number of employed people in the household.

As one may expect, household assets are also an important factor in explaining welfare. Possession of livestock and real estate other than the place of residence are positive factors in consumption. It is worth noting that owning the dwelling in which the household lives does not explain differences in welfare, since in Bulgaria the majority of dwellings are owner-occupied. However, (imputed) rents are not included in the consumption aggregate. Information indicating the size and quality of the dwelling would more adequately capture these differences. In fact, crowded housing tends to be correlated with poverty[16].

Finally, significant geographic differences were found. As discussed, people in rural areas tend to be poorer than those in urban areas. Controlling for other factors, average per capita consumption is 16 percent lower in rural areas. Gaps in consumption across geographical regions were also observed. People in Sofia Region and Haskovo consume significantly less than those in Sofia city.

F. Findings and Policy Priorities

Transitions from planned to market economies have often been associated with growing poverty and inequality. Macroeconomic stabilization and growth has not always translated into real benefits for the most vulnerable groups of the population. In Bulgaria, average living standards have greatly improved since the introduction of reforms in 1997, and absolute poverty has declined; however concerns remain for some pockets of extreme destitution that persist in the country. Although poverty levels in 2001 are less than one third the ones observed during the economic crisis of 1997, they remain stubbornly above the pre-crisis levels. Despite the increasing concern about spiraling inequality in transition economies, the consumption distribution of Bulgarians is moderately equitable. Large disparities remain concentrated in the bottom and top deciles, with individuals in the former group consuming on average only one tenth of that of individuals in the latter category.

Poverty in 2001 appears very much concentrated among easily identifiable groups. Large, poorly educated, rural households with two or more small children are by far the most at risk of being poor. Ethnicity is another clearly delineating factor. Even after controlling for all other socio-demographic factors, Roma households are still likely to consume only two-thirds of an ethnic Bulgarian household. Also, individuals in female single-headed households are more likely to live in poverty. While the concentration of poverty among specific groups indicates that targeting interventions to address poverty in Bulgaria will be easier, these pockets of chronic poverty are more resilient and harder to reach than shallower poverty linked to transient declines in incomes. This highlights the need for a long term commitment to poverty reduction in Bulgaria which will require continuity in pol-

[16] The crowding index is computed as the ratio between number of residing household members and the number of rooms the household use in the dwelling, excluding kitchen, bathrooms, corridors, etc.

icy, as well as on-going monitoring and evaluation.

The findings of the profile point to lessons for policy which will be explored further in subsequent chapters:

Economic reform works. Improvements in living standards since 1997 indicate that the recovery of growth combined with a better targeted and expanded safety net are having a positive impact. However, the persistence of high unemployment indicates that additional steps to improve the environment for employment growth are needed.

The safety net is effective. Social insurance and social assistance protect a large share of the population from poverty. However, additional efforts are needed to target the poorest. The persistence of pockets of poverty suggest that targeting of social assistance programs can be refined to reach the remainder of poor households. In other cases, more innovative approaches may be needed to address the needs of marginalized communities, such as ethnic minorities.

Education is essential. Education emerges as the key correlate of monetary poverty, as well as a an indicator of living standards in its own right. In spite of the quite high average educational attainment of the population as a whole, major discrepancies exist, particularly in secondary school achievement and above.

Better information about living standards is needed. Bulgaria's existing statistical instruments are ill-suited for a comprehensive analysis of poverty. Regular, quality information is not available for shaping or evaluating policies In this regard, the current initiative of the government to revamp its household budget survey and introduce regular living standard surveys is well-timed (Box 1.3).

Similarly, better and more regular communication by the government on the nature, objectives and progress of reforms would mitigate high expectations among the population and provide people with a more realistic understanding of Bulgaria's reform path and achievements.

Box 1.3: Building Poverty Monitoring Capacity in Bulgaria

Monitoring poverty using regular household surveys is an important input to policy making. Analysis of living standards is essential for designing and evaluating programs and policies to address poverty, as well as for assessing the effect of overall government policy on living standards. Bulgaria's existing statistical instruments are ill-suited for comprehensive analysis of poverty. The government is currently undertaking steps to institutionalize regular multi-topic household surveys within the National Statistical Institute.

The National Statistical Institute (NSI) conducts monthly Household Budget Surveys (HBS). While the HBS is currently the only source of updated information on household income and expenditures in the country, and is widely used for poverty estimates, it suffers from a number of methodological shortcomings including: (i) high non-response rate; (ii) high burden on respondents who are required to fill in an extensive diary of consumption and expenditure for each day within a 12-month period and an enumerator-assisted questionnaire; and (iii) incomplete consumption information. The main objective of the HBS is not to measure poverty and inequality, and policy analysis, and as a result, the information it collects is insufficient for constructing a full consumption aggregate, among other deficiencies.

In order to ensure long-term capacity to monitor poverty within Bulgaria, the World Bank and government are collaborating to institutionalize poverty monitoring capacity through the implementation of regular Living Standards Measurement Surveys (LSMS) and improvements to the HBS methodology. The Bank approved an Institutional Development Grant (IDF) to support these activities, implementation of which began in 2002. The grant will provide technical assistance and training for NSI staff to generate high quality data and build capacity for data and policy analysis. A central focus of the grant will be to create capacity within the NSI, MOLSP and other relevant government bodies for policy assessment of the incidence of government programs and their effects on income distribution, assets and living standards.

This work will be coordinated by an interagency Data Users' Group of representatives from the MOLSP, the LSMS Unit of the NSI, line ministries, NGOs, donors and academics. The Group will contribute to the process of data production and analysis and will develop a coherent monitoring and evaluation strategy. It will serve as a wider forum for the government to receive feedback and public endorsement for generating poverty data and outputs.

Technical Annex

Seasonal adjustment of the Consumption Data

Survey data, including the BIHS, are typically carried out at a given point in time. To the extent that seasonal consumption shifts are significant, the mean consumption expenditures, as captured during the survey period, will not yield a representative picture of the average consumption expenditures of households throughout the whole year. For this reason, seasonal adjustment factors were computed to account for these fluctuations in consumption. For the initial preparation of the poverty profile, such factors were based on the 1994 Household Budget Survey (HBS) figures of the National Statistical Institute, as at that time only these data were available.

The 1994 figures were also used for both the 1995 and 1997 analyses. The underlying assumption behind using 1994 HBS monthly consumption figures to adjust later survey data is that over time, there has been no significant structural change in the seasonal allocation of expenditures by the households. While this assumption was certainly valid in 1995, it may be in doubt for 1997. Despite these issues, for lack of more recent data and in order to maintain consistency with the 1995 and 1997 data, the same adjustment factors were used in the main report for 2001.

The 2000 HBS figures became available later on during the process of preparing this report. The data were analyzed in order to compare with the previous figures based upon the 1994 HBS data. As seen in the table below, the poverty figures are not significantly different. The poverty headcount based on the high poverty line (set at two thirds of 1997 average per capita consumption, deflated at 2001 prices) is 12.8 percent, about 1 percentage point higher that the poverty rate from the original analysis using 1994 data (11.7 percent)[17].

Table 1.13: Poverty and Inequality Based on 1994 and 2000 Seasonal Adjustment

	1994 HBS seasonal adjustment factors		2000 HBS seasonal adjustment factors	
	High	**Low**	**High**	**Low**
Headcount	11.7	6.0	12.8	7.5
Gap	3.6	1.9	4.2	2.2
Depth	1.7	0.8	1.9	0.9
Gini	29.5		29.6	
Per capita consumption (leva)	103,767		99,035	

Note: To allow comparability with the earlier World Bank study, we used identical poverty lines, deflated at 2001. The high poverty line is set at two thirds of 1997 average per capita consumption, deflated at 2001 prices using CPI figures, while the Low line is set at one half of the same 1997 consumption level.

[17] Also note that the figures are marginally different due to the use of April and May, 2001 CPI figures. At the time of the analysis contained in the original analysis, March 2001 was the latest available monthly figure.

As it was not possible to update the entire body of analysis conducted for this report using the 2000 adjustment factors, the majority of the report uses calculations based upon the 1994 HBS. There are a few exceptions to this, as noted in the text, including the tables presenting the main poverty results (Tables 1.1-1.3) and the sensitivity analysis of the poverty lines (Table 1.4). To ensure that the main findings of the poverty profile in the main text hold even after the new seasonal adjustment, the analysis of the poverty profile was checked.[18]

No large differences are observed in the updated profile. The only notable difference was an increase in poverty in other urban areas, relative to Sofia and rural areas. This is apparently a result of considerable shifts in spending allocations since 1994. Although still lower than average, poverty in other urban areas is adjusted to 10.3 percent, in comparison with 6.2 percent before the 2000 HBS adjustment.

Table 1.14: Poverty by Location, 2001

	Based on 1994 HBS seasonal adjustment factors	Based on 2000 HBS seasonal adjustment factors
Sofia	4.8	2.0
Other Urban	6.2	10.3
Rural	23.7	21.7
Total	11.7	12.8

The Roma Identification Experiment

Sampling of minorities in household surveys is particularly challenging because of problems with surveying minority households which may not be included in standard population registers, and the reluctance of many minorities to identify themselves. To address these issues, the questionnaire for the BIHS 2001 survey was revised to allow for greater coverage of minority groups, particularly Roma, which are consistently under sampled. This was done in two ways. First, by expanding coverage through the inclusion of an oversample of 133 Roma households, and, second, through the addition of multiple questions for identifying ethnicity. Information on ethnicity was collected from various sources to allow triangulation of responses and to improve the assessment of the ethnicity of households.

Information on ethnicity was first elicited directly from the respondent. After that, the interviewer was asked to make her own assessment of the respondent's ethnicity, as well as to report on the criteria used for the identification and the level of confidence of the assessment. In those cases in which the interviewer did not concur with the respondent, the interviewer was asked to select three key informants that knew the respondent well and

[18] Results are reported in Carletto and Fujii (2002), Annex 4.

asked them about his ethnicity. In these cases, ethnicity of the respondent was determined based on the concurring assessment of the key informants with either the interviewer or the respondent.

A total of 31 discrepancies between respondent's and interviewer's responses were found, but with very few exceptions, discrepancies were limited to a presumption (on the part of the respondent) that the household was Roma. On the basis of the criteria adopted in the experiment, 23 households out of 133 Roma households (17%) would have been misclassified if we had based the classification merely based on the respondent's self-assessment. The self-reported ethnicity variable was adjusted based upon this analysis and a total of 23 households were re-classified as Roma. After the adjustment the sample includes 133 Roma households (5.3%), instead of the 110 self-reported (4.4%)[19].

[19] To allow for more significant comparisons, in addition to the nationally representative sample, the BIHS 2001 oversampled 133 additional Roma households, for a total of 266 observations.

Chapter 2: Rural and Regional Poverty

A. Introduction

One of the most striking aspects of the 2001 poverty profile is its strong rural dimension. Poverty is not only worse in rural than urban areas, but it appears that rural households have fallen further behind their urban counterparts over the past decade. Rural poverty affects a large share of the population. In 2001, nearly 33 percent of Bulgarians lived in rural areas, however this group comprised 66 percent of the total poor. While there has been considerable economic recovery in urban areas since 1997, the rural poor have not benefited from improving living standards. This reflects the falling level of overall rural incomes, as well as increasing inequality in rural areas since the beginning of the crisis.

Related to the rural element of poverty is its regional diversity across the country. Living standards across Bulgaria vary substantially, as Bulgaria's regions reflect contrasting levels of development. In particular, there is a notable difference between the capital city, Sofia, and the rest of the country. As the BIHS data provide a limited snapshot of the regional dimensions of poverty, this chapter draws on other datasets to highlight the diversity of regional development. The first section of this chapter looks at the dynamics of poverty in rural areas, and its determinants, while the second half assesses the regional dimension.

B. Rural Poverty[20]

Poverty rates are four times higher in rural than in urban areas, at 23.7 percent in comparison with 5.9 percent (Table 2.1). The rural poor are also considerably poorer in comparison with the poor living in urban areas. This is reflected in much higher poverty gap and severity figures. In comparison with 1997, urban areas experienced a much more significant drop in poverty levels, from 33.5 to 5.9 percent, while poverty rates in rural areas were only less than halved, from 41.2 to 23.7 percent. The ratio between rural and urban

Table 2.1: Poverty in Rural and Urban Areas

	Urban	Rural	Rural poverty share
Poverty rate	5.9	23.7	66.2
Poverty gap	1.5	8.0	72.5
Poverty severity	0.6	3.9	76.5

Source: BIHS 2001.

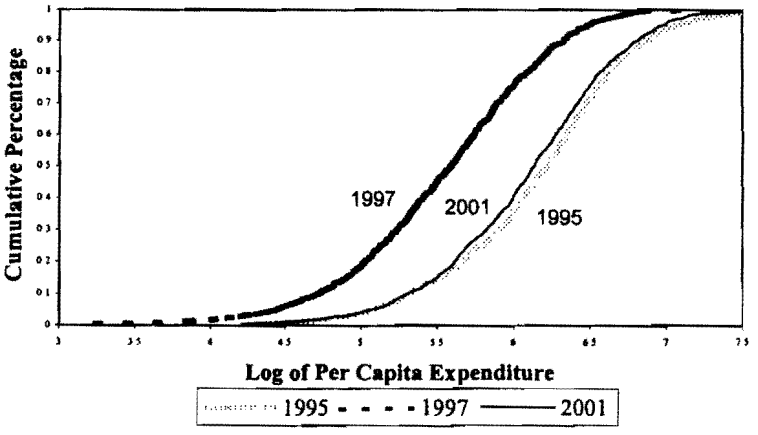
[20] This section draws from the background paper by Sahn, et al., 2002. "Rural Poverty in Bulgaria: Characteristics and Trends."

poverty has also grown dramatically since 1997 when it was 1.2, in comparison with 4 in 2001. In other words, the relative risk of being poor in rural areas in comparison with urban areas was only 20 percent higher in 1997, while it was three times as high in 2001.

The profile of the poor in rural areas is consistent with that of the total population discussed in the previous chapter (Annex Table A2.1). Poverty rates are highest for those living in households with 4 or more children, the poorly educated, ethnic minorities, and those in households where the head is unemployed or out of the labor force. The disproportionate share of large households is striking, household with 4 to 5 members comprise nearly 82 percent of the rural poor. Similarly, those with basic education or less comprise 81 percent of the rural poor and ethnic minorities make up 74 percent of the rural poor.

The gap between rural and urban areas indicates that consumption levels have not recovered in rural areas in the same way that they have in urban areas. Figure 1.1 in the previous chapter showed the national cumulative density function for per capita expenditures in Bulgaria in 1995, 1997, and 2001.[21] As discussed, no matter where the poverty line is set, there were many more Bulgarians living below that line in 1997 than in 1995, and many fewer in 2001 than in 1997. But the recovery is incomplete, as living standards did not recover to their 1995 levels by 2001. A closer look at the dynamics in rural and urban areas reveals that the lack of recovery in rural areas is responsible for the lag in 2001. Figure 2.1 shows comparable cumulative density functions for urban areas only in Bulgaria. While living standards fell sharply between 1995 and 1997, they increased by almost as much between 1997 and 2001 in urban areas. Especially at the lower end of the expenditure distribution, the recovery is almost complete.

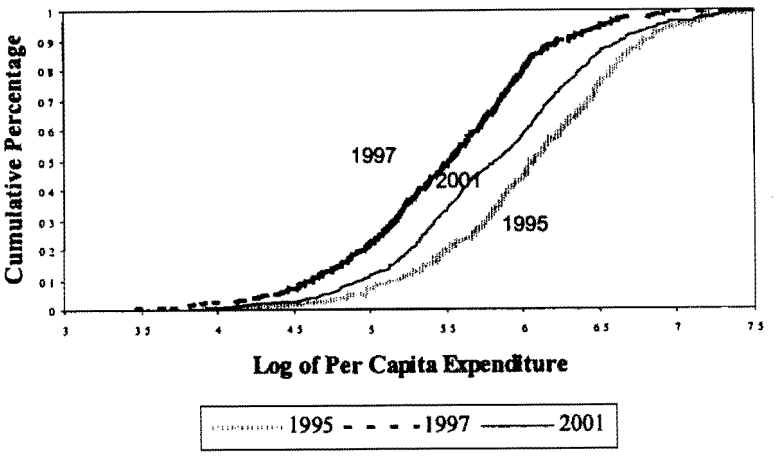
Figure 2.1a: Urban



[21] The cumulative density function shows, on the y-axis, the share of the population below a given level of per capita expenditures (on the x-axis). Curves that are higher show greater poverty, because a larger share of the population falls below any given expenditure level.

For rural households, however, the recovery has been far less satisfactory. Figure 2.2 shows the same dramatic shift in the cumulative density function for 1995 to 1997, but the 2001 curve shifts much less to the right for the rural sample, especially at the lower end of the expenditure distribution. As a result, rural residents are falling further behind. Although the population as a whole suffered greatly from the 1996-97 crisis, urban residents have recovered, while rural residents have not.

Figure 2.1b: Rural



Source: BIHS 2001.

Growth and Distribution

Poverty can fall for two reasons: the entire distribution of expenditures can shift up, leaving fewer people below the poverty line, or inequality can fall – the distribution shrinks towards its mean – again leaving fewer people below the poverty line.[22] Between 1995 and 1997, average expenditures per capita fell from 164 to 88 leva per person per month in urban areas, and 146 to 86 leva per person per month in rural areas.[23] Not surprisingly, this negative growth had a substantial effect on poverty in this period. At the same time, the Gini coefficient for per capita expenditures increased from 0.28 to 0.30 in urban areas and from 0.28 to 0.32 in rural areas. This increased inequality also contributed to higher poverty, by spreading out the expenditure distribution to the left. But overall, the enormous growth (or contraction) effect was more important, accounting for 87 and 85 percent of the overall increase in poverty between 1995 and 1997 in urban and rural areas, respectively.

Between 1997 and 2001, average per capita expenditures rose from 88 to 152 leva per person per month in urban areas, and 86 to 114 leva per person per month in rural

[22] See Sahn, Younger and Meyerhoefer (2002) for further information.

[23] All figures in 2001 leva.

Table 2.2: Decomposition of Changes in Poverty into Growth and Redistribution Component

Years		Change in Poverty Headcount Index	Share Attributable to: Growth	Redistribution	Residual
				(% Contribution)	
1995-1997	Rural	0.31	84.6	16.9	-1.6
	Urban	0.26	86.9	9.1	4.0
1997-2001	Rural	-0.15	100.2	-24.8	24.6
	Urban	-0.25	88.5	9.0	2.5
1995-2001	Rural	0.16	45.4	39.9	14.7
	Urban	0.01	58.0	13.9	28.1

Source: BIHS 1995, 1997, and 2001.

Note: Sahn, et al. 2002. Methodology based on Datt and Ravallion, 1992.

areas, contributing to an overall decline in poverty. In urban areas, the inequality of expenditures for households below the poverty line also declined, so that the improved equality of income also contributed to a reduction in urban poverty.[24] So on both growth and inequality fronts, the deterioration between 1995 and 1997 was reversed. In rural areas, however, inequality below the poverty line continued to worsen, even as per capita expenditures recovered. Indeed, the growth component in rural areas accounted for 100 percent of the decline in poverty over the latter period, while worsening inequality between 1997 and 2001 detracted from that improvement by 25 percent.

C. Aspects of Rural Welfare

Why have rural areas lagged behind? The following sections look at some of the issues underlying the trends in living standards. In general, rural welfare has been constrained by low levels of income, driven by low wages in rural areas, high unemployment, and low levels of agricultural productivity. Bulgaria's agricultural sector has been unable to recapture export markets in the transition period, following the loss of CMEA markets. A drought over the past three years has also contributed to the fall in agricultural productivity. Other factors driving poor economic conditions in rural areas are discussed in depth in subsequent chapters, including low education levels and attendance (Chapter 6) and poor labor market conditions (Chapter 3). Availability of coping strategies is another critical issue. As discussed in Chapter 5, rural households are less likely to receive remittances than urban households.

Income Sources

For both urban and rural households the most important sources of income are

[24] The Gini coefficients actually remained constant in both areas. This apparent contradiction is resolved by noting that the Datt-Ravallion decomposition measures the dispersion of expenditures for households below the poverty line, while the Gini measures the dispersion of all households' expenditures.

pensions, wages, and agricultural income. Table 2.2 presents various components of income for 1995 and 2001 for households on a per capita basis. Broadly speaking, incomes could decline for two reasons. Either the unit return to an activity (wage, pension per person, etc.) fell, or the number of people living in households that earn or receive such income fell.[25] For that reason, the table also includes a column for the share of the sample living in households that received each type of income, and the means and medians for those households only. Asset income is also important for urban households.

For urban households, asset income rose sharply, and pension receipts per capita increased slightly from 1995 to 2001, while wages decreased slightly, although for the subset of urban households receiving wages, there is no change. Average net agricultural income from sales and home consumption declined from 16 leva per capita to 11 leva per capita for all urban households in the samples.

For rural households, the changes are more dramatic. Per capita wage income fell by 21 percent (15 percent for households receiving wages) for rural households, pensions fell only slightly, but agricultural income declined considerably. Average net agricultural income from sales and home consumption declined by more than half, from 79 leva per capita to 37 leva per capita for all rural households in the samples. Thus, even though rural households were losing ground on several fronts, agricultural incomes are responsible for most of the relative decline of incomes in rural areas during this period.

While there are declines in the number of rural residents benefiting from wage and agricultural income, the change is not as dramatic as the decline in the wage rate and in the agricultural earnings among households engaged in these activities. An important concern that arises from Table 2.4 is the varying degree of under-reporting of income across time and place. In 1995, reported urban incomes are significantly below expenditures, while income and expenditure are reasonably close in rural areas. This produces the anomalous result that average income per capita was higher in rural than urban areas in 1995. In 2001, however, it is rural areas that have a high degree of income under-reporting when compared to expenditures, while the two values are similar for urban areas. Since much of the decline in rural incomes is coming from agricultural income, which is difficult to measure, we are left with the doubt that these changes may simply reflect errors in the data.

The decline in agricultural income was driven by a drop in agricultural production. Although the survey data indicate no clear pattern in real crop prices across the survey years, physical production fell for almost all major crops that households produced in Bulgaria. It is difficult to explain this decline from the survey data, as input data between 1995 and 2001 are not comparable. It does appear that use of pesticides and purchased seeds increased over the period. For fertilizer, there was a 15 percent decline in use, how-

[25] There is a further possibility: that households receiving (say) wage income had fewer hours worked, possibly because of unemployment of secondary wage earners, but still not zero hours.

ever the decline is not sufficient to explain the drop in output.

Although declines in wage income per capita for rural households were less dramatic than the fall in agricultural incomes between 1995 and 2001, they are nevertheless impor-

Table 2.3: Wage Income by Quintile and Area
(mean household, leva)

		Quintile				
		1	2	3	4	5
1995						
	Urban	37.95	54.54	69.03	79.83	106.10
	Rural	26.82	30.36	39.18	38.77	55.95
2001						
	Urban	27.96	51.23	64.38	76.51	100.67
	Rural	15.46	26.89	34.29	42.20	60.79

Source: BIHS 1995 and 2001.

Table 2.4: Value and Distribution of Income and Transfers in Bulgaria, 2001, leva

	Urban					Rural				
	All		Earners/Beneficiaries Only*			All		Earners/Beneficiaries Only		
2001	Mean	Median	Mean	Median	(share)	Mean	Median	Mean	Median	(share)
Net Agricultural income, marketed	2.38	0.00	15.14	0.00	0.16	11.81	0.00	18.39	0.71	0.64
Net Agricultural income, home cons	8.79	4.19	13.40	8.73	0.66	25.09	18.42	28.57	22.36	0.88
Gross Agricultural income	17.37	0.00	86.32	5.55	0.20	20.48	4.34	28.51	9.65	0.72
Agricultural home cons 1 (inc)	14.15	0.00	82.23	6.00	0.17	6.03	2.29	9.59	6.13	0.63
Agricultural home cons 2 (inc)	0.03	0.00	6.78	4.55	0.01	0.32	0.00	8.76	2.44	0.04
Agricultural home cons 3 (inc)	0.72	0.00	26.27	4.03	0.03	1.51	0.00	6.94	3.45	0.22
Agricultural costs	0.98	0.00	5.73	1.84	0.17	4.63	0.92	7.26	2.99	0.64
Pensions	22.45	0.00	52.58	41.52	0.43	27.14	15.00	46.62	32.83	0.58
Social assistance	6.54	2.13	11.58	4.69	0.56	6.41	2.31	11.16	6.37	0.57
Unemployment	2.07	0.00	17.90	14.85	0.12	2.17	0.00	12.69	9.21	0.17
Wages	68.54	56.44	98.69	82.60	0.69	30.50	0.00	66.09	51.34	0.46
Self-employment	12.29	0.00	137.84	100.77	0.09	5.06	0.00	137.43	75.08	0.04
Net remittances	3.85	0.00	16.56	13.24	0.23	-1.14	0.00	-6.16	-3.30	0.19
Other income	0.70	0.00	69.24	22.13	0.01	0.12	0.00	58.42	86.24	0.00
Asset income	23.62	0.00	89.51	20.44	0.26	6.36	0.00	20.48	4.32	0.31
Total income	156.44	111.79	157.65	112.77	0.99	92.47	75.12	93.33	76.45	0.99
Total expenditure	152.67	134.91	152.67	134.91	1.00	114.08	102.31	114.08	102.31	1.00

Note: (*) Includes only those individuals who receive the income source or transfer.

Table 2.4 (continued) – Value and Distribution of Income and Transfers in Bulgaria, 2001, leva

	Urban					Rural				
	All	Earners/Beneficiaries Only*				All	Earners/Beneficiaries Only			
1995	Mean	Median	Mean	Median	(share)	Mean	Median	Mean	Median	(share)
Net Agricultural income, marketed	5.40	0.00	27.03	0.35	0.20	37.84	0.21	55.22	3.90	0.69
Net Agricultural income, home cons	10.89	1.73	19.48	11.78	0.56	41.53	35.05	45.87	40.34	0.91
Gross Agricultural income	11.15	0.00	42.38	16.82	0.26	79.50	33.68	96.59	47.18	0.82
Agricultural home cons 1 (inc)	3.50	0.00	16.13	9.55	0.22	24.19	11.45	36.53	21.82	0.66
Agricultural home cons 2 (inc)	1.53	0.00	12.81	10.61	0.12	9.67	4.29	15.81	11.02	0.61
Agricultural home cons 3 (inc)	0.94	0.00	7.26	4.42	0.13	6.66	3.41	9.35	6.34	0.71
Agricultural costs	1.68	0.00	9.40	3.08	0.18	10.71	1.74	16.99	6.16	0.63
Pensions	17.84	0.00	44.84	36.09	0.40	29.04	16.64	47.28	39.21	0.61
Social assistance	6.29	1.38	12.43	7.02	0.51	5.86	0.00	14.17	7.67	0.41
Unemployment	0.47	0.00	8.67	7.11	0.05	0.73	0.00	10.04	7.14	0.07
Wages	71.00	63.69	98.22	83.20	0.72	37.00	0.00	75.91	65.43	0.49
Self-employment	6.44	0.00	107.28	74.54	0.06	5.10	0.00	95.84	62.09	0.05
Net remittances	3.04	0.00	10.47	10.56	0.29	-3.64	0.00	-15.48	-15.04	0.23
Other income	2.36	0.00	29.42	10.10	0.08	1.07	0.00	20.60	10.51	0.05
Asset income	5.64	0.00	28.55	15.58	0.20	5.95	0.00	22.15	7.52	0.27
Total income	122.54	101.91	124.97	103.95	0.98	149.89	110.05	153.85	111.26	0.97
Total expenditure	163.65	143.46	163.65	143.46	1.00	146.35	133.06	146.35	133.06	1.00

Source: BIHS 1995, 2001.

Note: (*) Includes only those individuals who receive the income source or transfer.

tant. Furthermore, the declines were concentrated in the lower end of the expenditure distribution, and therefore had a larger impact on poverty (Table 2.3).

The Labor Market

A critical force behind stagnation of growth in rural areas is the high level of unemployment. While the unemployment rate nearly doubled in both urban and rural areas between 1995 and 2001, rural unemployment has consistently remained twice as high as in urban areas. In rural areas, only 24 percent of people older than 15 were working in 2001. Rural unemployment is also closely linked to poverty. In 2001, 52 percent of unemployed adults in rural areas were poor.

For those who are employed, low wages in agriculture contribute to poverty in rural areas. Agriculture is the lowest paid sector of the economy. Manufacturing, construction,

communications, other production activities, and arts/culture/etc. all have wages that are more than 20 percent higher than agriculture, on average and holding all else constant. Only the trade sector has (slightly) lower wages than agriculture, but the difference is not statistically significant.

Multiple job-holding plays a significant role in poverty reduction in rural areas. In urban areas, poverty is much lower for workers with one job than it is for the unemployed, but workers who hold a second job (which can include self-employment or agricultural activity) have a poverty rate similar to those with one job. In rural areas, however, while poverty is lower for those with one job, the difference is not as great as in urban areas and, more importantly, the poverty rate continues to decline considerably for workers with two jobs. Because the vast majority of second jobs are in farming for own consumption, or "own-account farming", this highlights the importance of subsistence agriculture as a safety net for rural welfare. These issues will be discussed further in the discussion of coping strategies in Chapter 5.

Table 2.5: Poverty Headcount for Adults over 15 years old, by Labor Force Status, 2001

	Unemployed	Inactive	One Job	Two Jobs	National
Urban	24.5	0.14.3	6.8	5.3	12.5
Rural	52.1	0.30.2	28.0	17.9	33.3
National	35.6	0.20.4	10.0	11.6	19.2

Source: BIHS 2001.

Note: Poverty line set at 83.8 leva per capita per month.

Land and Assets

The Bulgarian farming sector consists of a majority of small subsistence-oriented farms, with a very small share of farms involved in large-scale agricultural production. In 1999/2000, 99 percent of farms were using 20 percent of the cultivated land, while the remaining 1 percent cultivated 80 percent of the land. Small farms are generally family farms engaged in subsistence agriculture. The average size of these farms was quite small at 0.9 hectare. This is consistent with the picture above that suggests that most rural households engage in agriculture as a secondary activity.

The BIHS survey is poorly designed to capture land usage, so the impact of landholdings on welfare is difficult to assess.[26] However, multivariate analysis of the determinants of rural welfare was undertaken to examine the impact of landholdings and agricul-

[26] The filter question at the beginning of the BIHS questionnaire asks households to report only land that is used, this excludes land which is caught up in the restitution process. There are also penalties for not cultivating restituted land, so households have disincentives to report. There are many other reasons why households are not cultivating (e.g. high input costs, droughts, low import prices). In addition, the filter asks households to report land where they "participate in management decision making..." this is unclear and compounds underreporting.

Table 2.6: Farms in Bulgaria, 1999/2000 estimates

Type of farm		Number of farms	% of total farms	Used area in hectares	% of used area	Average used area in hectares
Interviewed farms	Physical persons (not registered anywhere)	755 300	99%	708 000	20%	0.9
	Legal persons and sole traders	5400	1%	2 893 000	80%	535.7
	Total:	760 700	100%	3 601 000	100%	4.7

Source: "Agrostatistics" department, MAF, June 2001.

tural assets on household welfare (Annex Table A2.2). The analysis found that the following grouping of landholdings all have significant positive correlations with household welfare: restituted land; inherited land; cropland, coop land, and land rented to others. In contrast, land rented out, orchard and pasture land, as well as the other land type category included in the survey did not have a significant correlation.

Among the asset variables, while non-agricultural assets have positive effects on household welfare, non-land agricultural assets do not.[27] Assuming that animals are a form of assets, ownership of livestock raises household welfare, with an effect twice as strong for cattle as for sheep. Poultry has an even smaller effect on household per capita expenditures.

These results indicate that participation in agriculture has an important effect on welfare. However, the limited land data in the BIHS, as well as other data sources highlight the fact that only a small share of the arable land in Bulgaria is cultivated by family farmers. In addition to the high level of fragmentation of land into small family farms, production is limited by rigidities in land tenure, limited access to rural finance markets and low levels of private investment. These issues and their implication for household welfare require further analysis.

D. Regional Poverty

Differentials between rural and urban areas in labor markets, availability of assets, and levels of human capital contribute to substantial variation across regions. The BIHS survey was designed as a national household survey, and a result provides limited insights into the extent of variation in living conditions across the country. In order to get a more

[27] There is a valid argument that unlike in Africa or Asia, livestock are not correctly considered assets, but instead, are more of a consumption good that is effected by household expenditure levels. To the extent that this is the case, caution is warranted in interpreting these coefficients.

detailed understanding of regional development across regions, analysis of different indicators was undertaken at the regional level. The picture that emerges is highly differentiated. The analysis was undertaken at the level of the current 28 regions, the nine "old" regions of Bulgaria, as well as the municipal level, to highlight the intraregional diversity. In 1999 the administration of the country was redrawn into 29 smaller regions (Box 2.1).

Box 2.1: Bulgaria's Regions

Under the current administrative organization of the country, Bulgaria is divided into 262 municipalities and 28 districts. Prior to the 1999 administrative reorganization, there were nine districts with an average territory of 12,300 sq. km and an average population of 932,000. Each district covered about 29 municipalities. With the new territorial division into 28 districts the average size was reduced to 2,964 sq. km and the average population to 296,000. Districts are governed by a regional governor appointed by the executive.

Source: UNDP, 1999.

Table 2.8 shows selected indicators for each of the nine old regions. Sofia City stands out as having the highest level of development across multiple dimensions. Enrollment rates are the highest of all the nine regions, unemployment and infant mortality lowest. FDI and GDP per capita are also notably higher than the other regions. The picture among the rest of the regions is less clear. Bourgas has the second highest level of GDP per capita in the country, while IMR and enrollment rates are among the lowest. Similarly, Varna has a high level of GDP and FDI, however the unemployment rate and IMR are among the highest. These data further suggest that there is significant variation in development within regions. In the case of Bourgas and Varna, economic activity is likely concentrated in certain industries in the Black Sea port cities, with the rest of the region lagging behind.

Table 2.7: Selected Indicators of Regional Development, 9 Old Regions

	Primary and Secondary Net Enrollment Rate	Unemployment Rate	Infant Mortality Rate (per 1,000 live births)	% Urban	FDI per capita (thousand US$)	GDP per capita (leva)
Bourgas	84.6	19.9	16.5	68.2	0.05	2,946
Varna	89.4	20.6	15.7	71.0	0.23	2,670
Lovech	91.3	19.6	12.1	65.1	0.22	2,377
Montana	90.3	26.8	16.1	58.4	0.01	2,436
Plovdiv	88.3	19.1	15.6	65.6	0.04	2,232
Rousse	85.8	26.3	13.6	55.8	0.06	2,250
Sofia-city	94.9	4.5	7.9	95.6	0.79	4,917
Sofia-region	90.4	15.1	9.8	62.0	0.26	2,445
Haskovo	82.0	16.4	14.7	60.3	0.05	2,586
Bulgaria	88.6	17.8	13.3	68.4	0.24	2,841

Sources: NSI, MOF.

Notes: Enrollment rates include children 6-18 years-old.

A look at data at the level of the new 28 regions underscores the level of diversity within regions. The regions which include the cities of Bourgas and Varna are among the best off in terms of GDP per capita, low unemployment and limited social assistance expenditures per capita. However, the same indicators for Shumen, a more rural new region which was part of the old Varna region, are among the poorest. The same is the case for Yambol, a new region which was formerly part of Bourgas. On the other side of the spectrum, Gabrovo, an urbanized new region which was part of Lovech, is a relatively highly developed region, within one of the poorest of the old regions.

The picture is even more differentiated at the municipal level. Among the 262 municipalities, the unemployment rate varies by more than 48 percentage points. This suggests that for policy purposes a more detailed map of living standards across localities would be useful. The World Bank has developed a methodology called poverty mapping, which allows for the estimation of local level poverty estimates (Box 2.2).

Box 2.2: Developing a Poverty Map for Bulgaria

The high differentiation in regional poverty rates, unemployment and other indicators in Bulgaria indicate that a more detailed picture of welfare at the local level is needed in order to direct policies and programs more effectively to localities in need. The poverty mapping technique involves combining a household survey with census data to formulate a more disaggregated picture of poverty than can be obtained from the survey alone. The methodology has been applied in a number of countries in Central America, Asia and Africa.

The exercise involves detailed analysis of two main sources of data: a household survey (such as the BIHS); and the population census. In the first phase of the analysis the two data sources are subjected to very close scrutiny with an eye towards identifying a set of common variables. In the second phase the survey is used to develop a series of statistical models which relate income to the set of common variables identified in the preceding step. In the final phase of the analysis, the parameter estimates from the previous stage are applied to the population census and used to predict income for each household in the population census.

Once such a predicted income measure is available for each household in the census, summary measures of poverty (and/or inequality) can be estimated for a set of households in the census. Statistical tests can be performed to assess the reliability of the poverty estimates that have been produced. If the estimates are judged not to be sufficiently reliable, it may be necessary to undertake further model specification. Alternatively, it may be necessary to increase the number of households over which the poverty measure is estimated (issues of statistical reliability will guide whether the poverty map can be reliably produced at the village, sub-district, or district level).

Bulgaria is well positioned to develop a poverty map, because both a household survey – the 2001 BIHS – and a census are available, and both were sampled at the same time. Analysis of these datasets will indicate how detailed and accurate a poverty map can be – whether it will provide information at the municipal level, or below. Such a map has the potential to be an extremely useful tool for formulating policies at the local level and for targeting projects under EU structural funds, or the Social Investment and Employment (SIEP) project which is being developed by the World Bank and the government.

Source: Hentschel et al. (2000).

A regional development index was created in order to rank the relative development levels of the 28 regions.[28] The index was based on unweighted averages of a set of

[28] Based on S. Ivanov (2002).

Table 2.8: Selected Indicators of Regional Development, 28 New Regions

Varna	GDP per capita	% urban population	Unemployment rate (%)	Social assistance expenditures per capita (leva)
Varna	2,796	79.5	17.0	27.9
Shumen	2,310	61.4	26.1	32.9
Dobrich	2,764	63.8	22.6	24.2
Bourgas				
Bourgas	3,293	69.9	17.4	23.3
Yambol	2,638	66.0	23.5	41.3
Sliven	2,524	66.7	22.0	30.3
Lovech				
Lovech	2,420	60.5	19.5	17.3
Gabrovo	2,796	77.7	11.9	12.5
Pleven	2,189	62.7	21.1	26.2
Veliko Turnovo	2,338	63.8	22.2	19.8
Rousse				
Razgrad	1,997	43.8	30.1	27.7
Russe	2,527	69.8	21.1	26.1
Silistra	2,078	43.6	23.2	24.9
Targovishte	2,194	50.3	34.9	37.3
Montana				
Vidin	2,032	58.1	27.0	42.4
Vratsa	3,031	57.9	26.4	42.0
Montana	1,934	59.4	27.2	44.5
Haskovo				
Stara Zagora	3,396	68.4	16.8	28.5
Kardjali	1,717	33.1	15.8	15.4
Haskovo	2,117	68.6	16.2	19.1
Plovdiv				
Pazardjik	2,118	57.2	24.9	23.2
Smolyan	2,069	51.6	25.9	21.0
Plovdiv	2,313	72.0	15.0	18.3
Sofia Region				
Sofia Region	2,583	59.4	15.3	23.2
Blagoevgrad	2,311	56.4	15.5	16.0
Pernik	2,128	75.6	14.2	21.6
Kustendil	2,787	65.3	15.1	25.7
Sofia City 4,917	95.6	16.8	5.4	

Sources: NSI, MOF.

indicators selected for their relevance, as well as the quality and availability of data at the regional level. The index provides a rough estimate of where regions stand based on key indicators, but does not provide a rigorous ranking. The index includes four sub-sets of

indicators including:

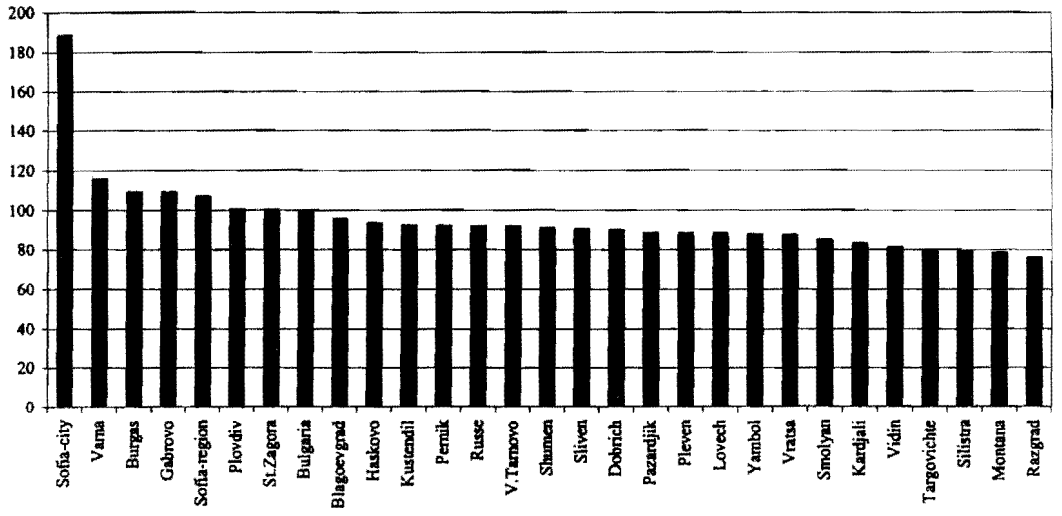
– ***Human capital***: demographic structure, primary and secondary enrollment rate, fertility rate, rate of natural population increase, life expectancy, infant mortality and educational attainment;

– ***Labor market***: unemployment rate, long-term unemployment rate, average wage, employment rate, employment by education level;

– ***Infrastructure***: share of urban population, road density, share of agricultural employment, number of settlements per health facility, share of population connected to water and sewage, geographic area per general school;

– ***Economic development***: FDI per capita, GDP per capita, capital expenditures per capita, patent tax per capita, social assistance expenditures per capita, share of arrears in social assistance, local tax revenues per capita.

Figure 2.3: Regional Development Index (28 New Regions)



Source: Ivanov (2002).

The index illustrates that the city of Sofia is in a different league when it comes to virtually all aspects of development (Figure 2.3). The differences between the remainder of the 28 regions are much less pronounced, as the index blurs distinctions at the aggregate level. Varna, Bourgas, Gabrovo and Sofia region are all above the national average, while seven regions fall at the bottom: Smolyan, Kardjali, Vidin, Targoviste, Silistra, Montana and Razgrad. These results again highlight the importance of a more differentiated approach toward the analysis of regional development. A more detailed understanding of spatial differences in development is useful in tailoring projects and policies. This is espe-

cially critical given the expected in flux of EU resources for regional development in upcoming years.

E. Findings and Policy Implications

Poverty in Bulgaria has an important spatial dimension, including lagging growth in rural areas within particular regions of the country. High poverty rates in rural areas are driven by limited labor market opportunities, lack of access to functioning markets, inadequate investment and constraints to land use. The low level of human capital in rural areas is another critical factor which is discussed further in Chapter 6. These issues suggest the need for a comprehensive strategy toward poverty reduction that takes into account the particular constraints of rural Bulgaria, as well as regional conditions. Further information is needed to facilitate this, including an understanding of the impact of agricultural policy on household welfare and a more disaggregated picture of poverty at the local level.

It is clear that own-account agriculture plays a crucial role in preventing poverty. The decline in small-scale agricultural enterprises is, along with declining wage earnings, largely responsible for the increase in poverty in rural areas since the mid-1990s. There is strong evidence that the non-poor realize that status in large measure through their access to, and use of small-scale holdings. Work on household plots is rarely the primary source of earnings for the household. However, the second and third job that people and households engage in as small scale "farmers" is clearly important for preventing deeper poverty and enabling households to cope with the economic stress of the incomplete recovery of the rural economy in the wake of Bulgaria's economic transition.

There is little question that poverty reduction in rural Bulgaria is going to be driven primarily by a reversal of the declining wage employment opportunities and falling productivity that presumably underlies the falling real wage payments to those working. Agriculture will play a crucial role in this process. First, it will continue to be a source of complementary livelihood and opportunity that enables households to cope with poor economic prospects in the formal sector. But second, presumably there are large forward and backward linkages from agricultural, and that revitalizing this sector, like others, will help generate new opportunities for those that have been especially hard hit by Bulgaria's economic crisis.

Policy priorities to address rural poverty cannot be limited to specific interventions in rural areas, rather they are linked to cross-cutting issues discussed throughout this report, including improving the environment for employment growth, building human capital and strengthening the safety net. In each of these areas attention needs to be paid to ensure that rural areas are not left behind. For example, that investment reaches rural areas, that children in rural areas are able to attend school and that rural households receive child allowances. Other policy considerations include:

Improving the information base: The BIHS survey provides limited information on the causes of low agricultural incomes and the roots of inequality in rural areas. The agricultural module of the survey is poorly designed to capture use of land and other agricultural inputs, and as such is a weak instrument for understanding the linkages between agricultural policy and poverty. In particular, access to land needs further analysis to assess the extent to which transaction costs in land markets limit access. A priority in this regard is to revise this module for future household surveys. Further analysis should also be undertaken using other datasets, including the recent census.

Increasing opportunities for off-farm employment. The high level of rural unemployment and low agricultural wages highlight the need for greater access to off-farm employment opportunities in rural areas. The specific conditions in rural areas need to be considered in the design of active labor market measures. Opportunities for developing and targeting small and medium sized enterprises in rural areas need to be identified.

Annex Table A2.1: Rural Poverty Profile

	Poverty Rate	% of Rural Population	Rural Poverty Share
Household size			
1 member	9.7	6.5	2.7
2 members	9.6	22.6	9.2
3 members	9.9	15.2	6.4
4 members	25.0	17.4	18.4
5 +	39.1	38.3	63.4
Total	***23.7***	***100.0***	***100.0***
Age			
<5	48.3	4.9	10.1
5-10 years	35.8	7.4	11.2
11-17 years	34.8	7.5	11.0
18-25 years	37.6	9.8	15.6
26-45 years	26.1	23.4	25.8
46-55 years	15.9	11.3	7.6
56-65 years	10.3	14.7	6.4
66-75 years	12.8	13.4	7.3
above 75	16.0	7.6	5.1
Total	***23.7***	***100.0***	***100.0***
Education			
Basic school or less	26.4	61.3	80.8
Secondary general	10.7	12.2	6.6
Secondary technical	10.9	12.1	6.6
Secondary vocational	11.2	9.9	5.5
University	4.6	2.3	0.5
Other post-secondary vocational	0.0	2.2	0.0
Total*	***20.0***	***100.0***	***100.0***
Ethnicity			
Bulgarians	9.4	65.8	26.0
Turks	28.3	14.1	16.8
Roma	79.4	16.5	55.4
Other	11.6	3.6	1.8
Total	***23.7***	***100.0***	***100.0***
Labor Market Status of HH head			
Unemployed	42.1	20.6	36.6
Employed	17.4	26.5	19.5
Out of Labor Force	19.6	52.9	43.9
Total	***23.7***	***100.0***	***100.0***

Source: BIHS 2001; Note (*) excludes those still in school and <18.

Annex Table A2.2: Reduced Form Welfare Regression

Variable	Parameter Estimate	t Value
Intercept	4.62093	18.32
Bourgas	-0.12587	-1
Varna	-0.12642	-0.99
Lovetch	-0.05765	-0.46
Montana	0.000855	0.01
Plovdiv	-0.05939	-0.49
Rousse	-0.06176	-0.49
Sofia Region	-0.08904	-0.73
Haskovo	-0.00816	-0.06
Household size	-0.01944	-1.4
No. of children (0-5)	-0.15106	-3.23
No. of Elderly (65+)	-0.08293	-2.57
Age of HH head	0.000608	0.08
Age of HH head squared	-1.2E-05	-0.18
Female HH headship	0.06349	0.56
Single HH headship	0.0735	1.22
Single Female HH headship	-0.16319	-1.22
Education of HH head – Primary	0.14744	1.51
Education of HH head – Middle School	0.19432	2.01
Education of HH head – Secondary	0.35614	3.39
Education of HH head – University	0.4458	3.55
Ethnicity – Turkish	-0.27825	-4.5
Ethnicity – Roma	-0.70085	-9.76
Other Ethnicity	-0.11428	-1.15
Fired or Laid-Off from 1995 Job	-0.06412	-1.2
Retired from 1995 Job	0.04926	0.81
Variables With Per Capita Scaling:		
Public and Private Pensions	0.000442	0.66
Disability and Survivor Pensions	-0.00061	-0.32
Social Benefits	0.00375	0.97
Non-Agricultural Assets	3.51E-05	6.21
Agricultural Assets	6.21E-08	0.51
No. of Cattle Owned	0.06556	1.21
No. of Sheep Owned	0.03429	2.61
No. of Goats and Pigs Owned	0.01142	0.76
No. of Poultry Owned	0.01059	2.79
Restituted Orchard and Pasture Land	-0.02821	-1.47
Restituted Crop Land	0.01477	1.49
Inherited Orchard and Pasture Land	0.0056	1.44
Inherited Crop Land	0.02548	2.49

Other Orchard and Pasture Land	-0.00567	-0.06
Other Crop Land	0.00289	0.04
Coop Orchard and Pasture Land	-0.68635	-0.7
Coop Crop Land	0.10306	1.27
Rented Orchards and Pasture Land	0.59271	3.2
Rented Crop Land	-0.05142	-0.96
Restituted Non-Use Ag Land – Rented	0.03157	1.5
Restituted Non-Use Ag Land – Not Rented	0.00214	0.22
Inherited Non-Use Ag Land – Rented	-0.24864	-1.26
Inherited Non-Use Ag Land – Not Rented	0.00423	0.74
Other Non-Use Ag Land – Not Rented	0.70628	0.52
Restituted Non-Use Coop Land	0.00913	2.9
Inherited Non-Use Coop Land	0.000993	0.35
Other Non-Use Coop Land	0.02505	1.61

Source: BIHS 2001.

Note: Omitted variables include the city of Sofia, an indicator that the household head has no education, and the Bulgarian ethnicity. In addition,the primary method of land acquisition for the "Other" land category is purchases, although additional methods include "Given by Government", "Free",and "Other".

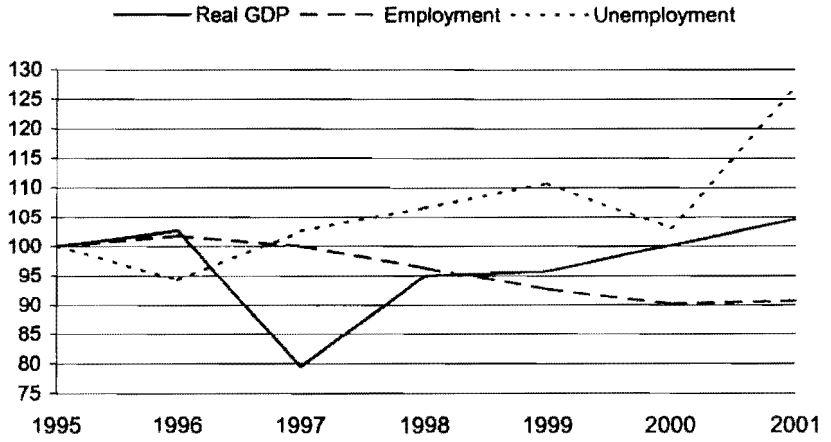
Chapter 3: Poverty and the Labor Market[29]

A. Recent Labor Market Developments

Background

While Bulgaria's economic performance over the past five years has been notable, marked by macroeconomic stability under the currency board and a resumption of real GDP growth, unemployment remains one of the country's greatest challenges. At 19.5 percent in the first quarter of 2002, unemployment in Bulgaria has been growing steadily since 1996, and is among the highest in the region.[30] Employment in Bulgaria has declined substantially since the 1996-97 crisis. In mid-2001, employment remained at 90 percent of 1995 levels (Figure 3.1). The decline in employment has been accompanied by a rapid increase in open unemployment.[31] Between 1995 and mid-2001, an estimated an 124,000 people became unemployed. The spike in unemployment in 2001 reflects the increase in restructuring of large state-owned enterprises.

Figure 3.1: Real GDP, Employment and Unemployment, 1995-2001
(Indices 1995=100)



Source: IMF estimates for GDP, Labor Force Surveys for employment and unemployment data.
Note: First quarter of each year for GDP; employment and unemployment data refer to yearly average, except for 2001 where the data are for June only.

[29] This chapter draws from the background papers on labor markets by J. Rutkowski and A. Kolev.

[30] March 2002 Labor Force Survey (LFS) Data. This study relies on survey data rather than administrative data to describe labor market patterns and trends. Survey data are generally considered as more reliable, as they are not influenced by (changing) incentives to register.

[31] Some of this can be explained by the change in the sample of the Labor Force Survey in 2001. See Kolev, 2002, p. 4 for details.

These trends appear paradoxical – why has unemployment been rising since 1997, while poverty has been coming down? There are a number of factors behind these contrary developments, including: (i) the expanded coverage and adequacy of social protection benefits, which keep a significant share of the population out of poverty; (ii) increasing use of coping strategies, including remittances, informal employment and own production of food, which may mitigate the income effects of unemployment; and (iii) a decline in the share of the working poor, due to real wage recovery since the crisis.

This chapter explores this question in the broader context of the linkages between labor market status and welfare. The picture is much more complex than a first glance might suggest. Vulnerability in the labor market has multiple dimensions, including income and non-income aspects. The risks of unemployment and inactivity, as well as low pay and poor working conditions for the employed all contribute substantially to welfare. The groups at greatest risk of falling into these labor market states are, in most cases, those identified in the previous chapter as the main poverty risk groups. In particular, workers with low education levels and Roma are at greatest disadvantage in the labor market.

Following a discussion of the main labor market developments and characteristics, this chapter looks at poverty and labor market status, the non-income dimensions of welfare and analysis of the characteristics associated with different types of labor market vulnerability. The discussion of the labor market continues in the next chapter, which examines the factors driving high unemployment in Bulgaria and the barriers to employment generation. Key issues related to mitigating the impact of unemployment on income poverty, including the role of social protection and coping strategies will be discussed in Chapter 5.

Unemployment

In 2001 unemployment approached 20 percent, increasing from a relatively low level of 12 percent in 1998 (Table 3.1). This rate is higher than in some of the other high unemployment countries in Central and Eastern Europe, where unemployment has been between 18 and 19 percent in recent years. Long-term unemployment in Bulgaria has been consistently higher than in most countries in the region, including Poland, Lithuania and Slovakia. As early as 1995, over 67 percent of the unemployed in Bulgaria had been out of work for more than one year. In 2001, this share was 64 percent of the unemployed. On average, an unemployed worker in Bulgaria looks for a job for about 2 years[32]. This is a particularly worrisome feature of unemployment in Bulgaria, as long-term unemployment is closely connected to poverty and social exclusion, and tends to undermine chances of finding a new job. The longer a worker remains unemployed, the more difficult it is to escape unemployment.

[32] Estimates by the MOLSP of average unemployment duration are 8.6 to 11.8 months (based on registration data). There is no inconsistency here, as this report refers to the average duration of **completed** spells of unemployment, which is on average twice the duration of **uncompleted** spells.

Table 3.1: Labor Force Participation, Employment and Unemployment, 1995-2001

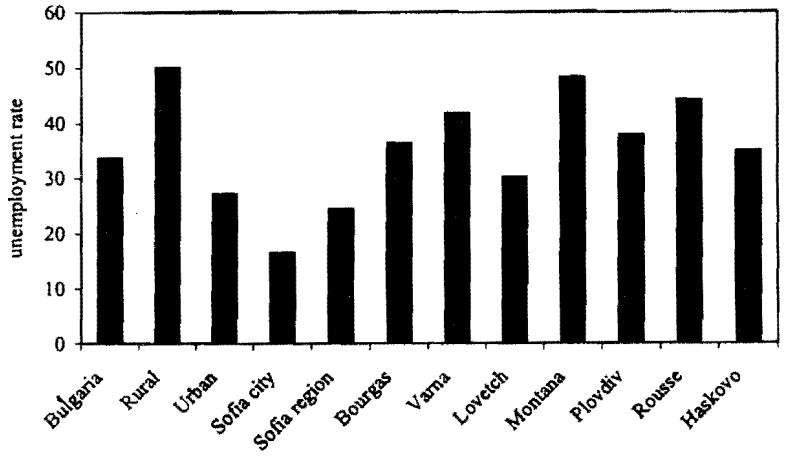
	1995	1996	1997	1998	1999	2000	2001
Labor force participation rate	52.2	52.5	51.9	51.6	50.2	49.8	50.4
Employment rate	44.0	45.4	44.8	45.3	43.1	41.7	40.6
Unemployment rate	15.7	13.5	13.7	12.2	14.1	16.3	19.4
Share of long term unemployment	67.5	65.7	62.2	63.9	58.7	na	63.7

Sources: Labor force surveys; NSI.

Notes: June data; Labor force participation rate = (Employed + Unemployed)/Population aged 15; Employment rate = Employed/Population aged 15+; Unemployment rate = Unemployed/Labor force

Unemployment in Bulgaria also has an increasing regional dimension, a phenomenon observed in all transition countries engaged in industrial restructuring. The variation in the unemployment rate across regions in Bulgaria increased from 13 percentage points in 1995 to 32 in 2001. This level of variation is higher than in the Slovak Republic, another high unemployment transition country with significant regional variation (World Bank, 2002b). In mid 2001, the region with the highest unemployment was Montana (Table 3.2). Other regions with unemployment rates above the national average were Rousse and Varna. The concentration of unemployment in particular areas reflects, to a large extent, the presence of large formerly-state owned enterprises that are being restructured.

Figure 3.2: Unemployment Rate by Region, 2001



Source: BIHS 2001.

The main reason for unemployment was redundancy, while fewer workers became unemployed because of the end of seasonal work, or because their temporary employment contracts were not renewed. Another important reason for unemployment is the entry into the labor force of school leavers and young people completing their military service and without prior work experience.

Table 3.2: Reasons for Unemployment, 2001 (percent)

	Total	Male	Female
Leaving school/completing military service and looking for first job	15.5	18.0	12.6
Others looking for first job	7.7	5.9	10.0
Made redundant	44.5	44.4	44.6
Seasonal/temporary job has ended	6.9	7.0	6.8
Unsatisfied with working conditions	3.6	3.9	3.2
Other reasons	21.7	20.8	22.8
Total	100	100	100

Source: Labor Force Survey, June 2001.

Note: Refers to population of working age (16 and above).

Who are the Unemployed?

The composition of the unemployed varies significantly across individuals with different characteristics. There are large differences across age and ethnic groups. Individuals between 26 and 45 composed the biggest group among the unemployed (45 percent), followed by young people from 16-25 (29 percent) and prime-age adults aged 46-55 (21 percent) (Table 3.3). The majority of the unemployed were ethnic Bulgarians (56 per-

Table 3.3: Unemployment and Individual Characteristics (percent)

	Share among all the unemployed	Unemployment rate*
All	100.0	33.7
Female	51.4	34.0
Male	48.6	33.4
Age 16-25	29.4	55.9
Age 26-45	45.4	29.8
Age 46-55	20.8	27.8
Age 56+	4.4	25.9
Bulgarian	55.7	24.2
Turkish	10.6	50.6
Roma	31.1	77.0
Other	2.6	45.1
Primary education or less	8.0	71.7
Incomplete secondary	36.1	59.8
Secondary	47.3	29.3
University	8.6	13.5

Source: BIHS, 2001.

Note: (*) Definition is the # of unemployed divided by the labor force (unemployed and employed).

cent), but a large share were Roma (31 percent) and Turks (11 percent). The share of Roma and Turkish unemployed was higher than their overall share in the population. The unemployed were nearly evenly divided between men and women.

The incidence of unemployment also indicates marked differences among groups. The same table shows that the unemployment rate was almost identical for men and women. There are, however, large disparities by age. Unemployment among young people 16-25 (56 percent) is double that of prime age adults aged 46 and above. The incidence of unemployment is also disproportionately high among ethnic minorities. Compared with ethnic Bulgarians, the unemployment rate is three times higher among Roma (77 percent) and two times bigger among Turks (51 percent). The incidence of unemployment is also much higher than the national average for individuals with little education. The high level of Roma unemployment highlights the need for specific interventions in this area (Box 3.1)

Box 3.1: Promoting Employment among the Roma

Programs in both Eastern and Western Europe have been adopted to promote employment and income generating opportunities among Roma communities. One of the most established is the Autonomia Foundation in Hungary which provides grants and interest-free loans to develop employment programs for Roma. Small-income generating initiatives include livestock breeding, agricultural programs, and small enterprise development.

The success of Autonomia's projects, as measured by the repayment rate of its loans, has increased greatly since it was established in 1990. In 1998 repayment rates reached nearly 80 percent, in comparison with 10 percent during the first year. Autonomia attributes this improvement to the involvement of trained monitors, some of whom are Roma, who work closely with project teams throughout the implementation of the project. Autonomia is now in the process of expanding its programs to other countries in the region. In 2000, the first group of Roma began training in preparation to start small grant and loan programs for Roma in four CEE countries, including Slovakia. Further evaluation on the project should examine the impact of the project on the welfare of participants.

A different type of employment program is the Acceder Programme run by the Asociaciyn General Gitano in Madrid, Spain. The program provides individualized support to participants in identifying and preparing for employment. While the program is open to all interested applicants, 79 percent were Roma in 1999. Roma mediators work closely with job-seekers and employers to identify their skills, training needs and employment opportunities. The mediators provide support to applicants throughout the training and job search process.

In 1999 there were 304 active job seekers enrolled in Acceder and 63 percent found employment. However, the job retention rate is not known, and rigorous cost-benefit analysis of the program is not available. Staff of the Asociaciyn and participants noted that the strengths of the program are its individualized approach in assessing and matching skills and jobs and the use of mediators who can bridge the gap between gitanos (Roma) and non-Roma. Challenges include the difficulty of providing adequate and appropriate training for individuals with low education levels, persistent discrimination on the labor market and incentives. Participants may be reluctant to accept low paying jobs and risk losing access to social assistance benefits.

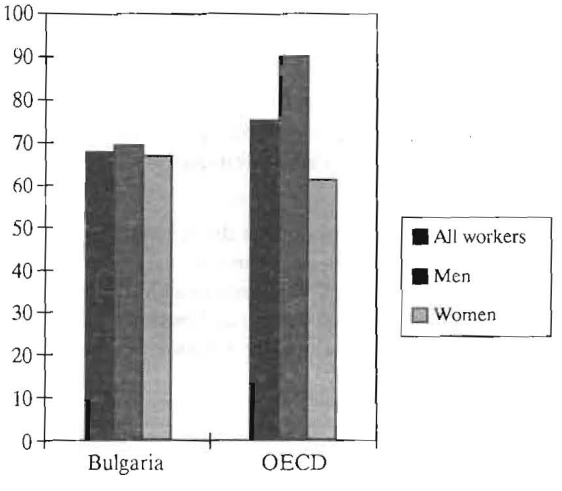
Sources: Ringold, 2000.

Employment and Labor Force Participation

High unemployment is only one symptom of labor market stagnation in Bulgaria. The employment-to-population ratio reached its lowest level since the beginning of transition in 2001. Consistent with other high unemployment transition economies, the Bulgarian labor market can be characterized by low employment of prime age men, relatively high employment of prime age women, and low labor force participation of both younger and older workers. These features imply that Bulgaria is significantly underutilizing its labor resources and faces a major policy challenge to expand labor market opportunities for working age adults.

In Bulgaria only 70 percent of the men aged 25-54 are employed, in comparison with close to 90 percent in the OECD (Figure 3.3). This 20 percentage point differential underscores the high degree of underutilization of labor resources in Bulgaria, which directly translates into lower output and higher poverty. High unemployment and low labor force participation among prime age men are main reasons for the low employment rate. This is likely a function of the large number of "discouraged workers," who have given up looking for a job and have dropped out of the labor force. Thus, not only do fewer prime age men have jobs in Bulgaria than in the OECD, but fewer of them are searching for a job.

Figure 3.3: Employment Rates for Prime-Age Workers (25-54)



Source: Labor Force Survey Data, June 2001.

In contrast, the employment rate among prime age women is relatively high in Bulgaria, despite the high unemployment rate. Two-thirds of women of prime working age are employed in Bulgaria, which is somewhat higher than in the OECD. This reflects the high female labor force participation rate of 81 percent in Bulgaria versus 68 percent in the OECD. The female employment rate in Bulgaria is nearly as high as it is for males, in con-

trast to the situation in OECD countries.

Another facet of the underutilization of labor resources in Bulgaria is low labor force participation and employment of young and older workers. Only one-fifth of young people (up to 24 years of age) are employed in Bulgaria, in comparison with close to one-half in the OECD. This may indicate greater participation in education among youth. Similarly, less than one quarter of older workers (55 to 64) are employed in Bulgaria, in comparison with slightly below one-half in the OECD. This reflects labor market slack in Bulgaria, but probably also cultural norms and, especially in the case of older persons, relatively lax rules for the receipt of social benefits, such as disability pensions. Low employment of older workers also reflects the high fixed cost of adapting to layoffs and a shorter working life to recover the costs. Regardless of the reasons, low employment among young and older workers implies unutilized potential and negatively affects living standards.

To some extent, the recent resumption of economic reforms in Bulgaria has already contributed to some visible changes in the nature of employment, through increasing labor market flexibility. In mid-2001, wage employment constituted the vast majority of total employment in Bulgaria, at about 90 percent, but there have been signs of a small increase in self-employment and temporary work since 1995. The incidence of part-time employment has remained limited, comprising only 11 percent of total wage employment in 2001 (Table 3.4). For comparison, the share of part-time employment in total employment represented about 16 percent in the European Union, and 15 percent in OECD countries (OECD, 2001).

Underemployment, as measured by the share of wage employed willing to work more, was also relatively low (7 percent). The low incidence of underemployment may explain why the share of individuals with two jobs was also very limited (less than 2 percent), at least compared with other transition countries. However, a large share of the wage employed were also engaged in some agricultural activities (17 percent). As discussed in Chapter 5, home production has indeed been an important coping mechanism in many transition countries. Temporary work, increased to 34 percent in 2001, in comparison with 23 percent in 1997 and 29 percent in 1995. What is remarkable is that in mid 2001, nearly one out of three temporary jobs were in the informal sector, that is, not governed by a labor contract.

Labor Force Mobility

A worrisome feature of the Bulgarian labor market is the low flows out of unemployment. There is a growing pool of unemployed workers in Bulgaria which is stagnant – such that it is very difficult for these workers to exit into jobs. This is a trend that has been worsening over time. Negative labor flows – such as from employment into unemployment and from unemployment into inactivity – have increased, while positive flows – such as

Table 3.4: Characteristics of Employment, 1995-2001 (percent)

	1995	1997	2001
All employed	100.0	100.0	100.0
Wage employed	93.0	92.9	91.1
Self-employed	7.0	7.1	8.9
All wage employed	100.0	100.0	100.0
Part-time	10.2	7.1	11.0
Looking for more work	1.0	0.7	1.7
Not looking for more work	9.2	6.4	9.3
Full-time	89.8	92.9	89.0
Looking for more work	5.8	4.3	5.2
Not looking for more work	84.0	88.6	83.8
Underemployed	6.8	5.0	6.9
Has a second job	1.2	0.8	1.5
Spent time in agricultural activities	30.8	16.5	16.7
Contract – indefinite term	70.8	76.8	65.7
Contract – temporary	20.7	17.3	24.1
No contract – temporary	8.5	5.8	10.2

Source: BIHS, 1995, 1997 and 2001.

Notes: Among working age adults (16 years and above) in employment in the past 7 days at the date of the interview .

from unemployment to employment – have decreased. For example, inflows from employment into unemployment are currently twice as high as they were in the mid-1990s. At the same time, outflows from unemployment into work are presently only at two-thirds of what they were in the mid-1990s. In the same vein, movements from unemployment into inactivity are now about one-third larger than a few years ago.[33]

Large flows from unemployment to inactivity indicate a substantial "discouraged worker" effect. Many unemployed in Bulgaria have ceased looking for a job, discouraged by the lack of job opportunities. The scale of this effect is striking, as much as 40 percent of the unemployed withdraw from the labor force within one year.[34] This is much higher

[33] Data on labor force transitions for 1995-1996 are taken from Garibaldi et al. (2001).

[34] The magnitude of transitions from unemployment to inactivity may be overestimated, however, as previous labor force status was determined based on respondents self-assessment. Some respondents who categorized themselves as unemployed one year earlier might in fact had been out of the labor force (if they were not actively looking for or not available for a job.

than in other high unemployment transition economies. For example, in Poland and Lithuania, only about 15 percent of the unemployed withdraw from the labor force within a year, and this proportion is still smaller in Slovakia (5 percent), (Rutkowski, 2002b, World Bank 2001a and 2001b).

Table 3.5 provides an indication of the extent of mobility across different types of employment and different labor market states by showing the employment status of individuals, as reported by them for different points in time. The following picture emerges: first, immobility rates are relatively higher among the inactive and those employed under an indefinite contract, and relatively lower among formal temporary workers (with contracts) and the unemployed. In absolute terms, the repetition of unemployment over time appears worrisome. Among the unemployed in 2001, about 65 percent were also unemployed three years earlier in 1998, and 70 percent were unemployed six years earlier in 1995.

Second, temporary work – both formal and informal – tends to be the main entry point into employment for the inactive and the unemployed. This reflects increasing labor force flexibility. For instance, among temporary workers in 2001, about 34 percent were inactive and 8 percent were unemployed three years earlier. Among permanent workers in 2001, however, only 6 percent were inactive and 2 percent were unemployed in 1998. Temporary work is also the second most important destination, after unemployment, for those workers who lost their permanent job status after 1998.

Third, the extent of immobility within informal employment (with no contract) is high relative to that in formal temporary jobs (with contract). For instance, the share of individuals who remained in the same status between 1998 and 2001 was 75 percent among informal workers compared with 64 percent among formal temporary workers. Most of the new informal workers in 2001 were either inactive (11 percent) or permanently employed (6 percent) in 1998, and very few were unemployed or formally temporary employed (3 percent). A low exit rate from informal work is also observed even after a longer period. In 2001, 72 percent of informal workers were in the same status 6 years before. The immobility rate for informal employment is also higher than that of unemployment, suggesting that it may be even more difficult for an individual to exit informal employment than unemployment.

Finally, in 2001, the newly unemployed were mainly individuals previously employed under an indefinite contract, likely in former state-owned enterprises, and persons who were not in the labor force, presumably students. This is consistent with the reasons for unemployment discussed earlier.

Wages

An important factor behind declining poverty since 1997 has been the recovery of real wages, which has improved the welfare status of workers. The share of the employed

Table 3.5: Mobility Rates by Types of Employment and Labor Market Status

Employment status in 2001	Employment status in 1998						Employment status in 1995					
	Contract– permanent	Contract– temporary	No contract	Self-employed	Unemployed	Inactive	Contract– permanent	Contract– temporary	No contract	Self-employed	Unemployed	Inactive
Contract– permanent	90.8	1.2	0.1	0.4	1.8	5.7	86.1	1.3	0.3	0.4	3.1	8.8
Contract– temporary	6.0	64.0	0.3	0.6	5.1	24.0	8.4	56.5	0.3	0.0	6.3	28.5
No contract – temporary	6.3	3.1	74.6	2.3	3.1	10.6	4.8	2.1	71.9	0.8	4.3	16.1
Self-employed	5.3	1.5	0.0	86.9	1.4	4.9	13.9	3.4	1.0	70.2	4.8	6.7
Unemployed	17.2	5.6	1.2	1.0	65.4	9.6	9.7	3.3	1.4	0.6	69.9	15.1
Inactive	5.5	0.6	0.1	0.2	1.5	92.1	6.9	1.2	0.2	0.5	1.1	90.1

Source: BIHS 2001.

Note: These mobility rates are based on the records provided by the respondents in the 2001 survey.

in the bottom quintile of the consumption distribution fell from 32 percent in 1997 to 19.7 in 2001. While real wages were 56 percent of 1994 levels in 1997, by 2000 they had nearly recovered.

Wage inequality peaked in 1997, although the 1997 data may be underestimated because they were collected during a period of very high inflation (Rutkowski, 1998). A better comparison is to look at the inequality measures in 2001, relative to 1995. According to the Gini coefficient, there was only a slight increase in overall wage inequalities between 1995 and 2001.

Table 3.6: Dynamics of Absolute and Relative Minimum Wages, 1995-1999

	1994	1995	1996	1997	1998	1999	2000	2001
Real minimum wage (1995=100)	100	84.5	66.5	40.4	54.7	68.4	—	—
Real wage (1995=100)	100	85.9	65.6	56.3	63.0	71.9	99.5	103
Minimum wage								
(as a % of gross national wage)	37.1	33.5	33.4	26.8	28.4	31.2		36.6*

Source: Bulgarian authorities and Bank staff estimates. *Note*: (*) Q2-2001

Although the aggregate increase in wage inequality has been small, what is of concern, is that the increase has been driven by a relative decline in the position of low paid workers, while the relative position of top paid workers has remained almost unchanged (Table 3.7). In other words, there are signs that the wage gap between top paid and low

paid workers (P90/P10) has increased slightly, not because better-off workers have seen their relative earnings position improved (P90/P50), but because low paid workers have seen their relative wage status slightly decline (P10/P50). The same Table 3.7 shows that private wages remained below public wages in 2001.

Table 3.7: Wage Inequalities, 1995-2001

	1995		1997		2001	
	Monthly	**Hourly**	**Monthly**	**Hourly**	**Monthly**	**Hourly**
Gini coefficient (x100)	28.13	32.33	43.97	45.82	28.57	34.36
P10/P50	0.55	0.55	0.36	0.37	0.50	0.52
P90/P50	1.89	2.00	2.77	2.87	1.87	2.00
P90/P10	3.20	3.63	7.55	7.73	3.75	3.84
Private to public wage ratio	1.16	1.01	0.96	0.95	0.98	0.96

Source: BIHS 1995, 1997 and 2001.

Analysis of the determinants of wage levels found that the factors influencing wages and the extent of their influence are not necessarily identical in low and high paid jobs, reflecting a form of segmentation in the labor market.[35] In low-paid jobs, being Roma, having health problems, and being employed in the private sector have a negative effect on pay, while these characteristics do not seem particularly significant in better-paid jobs. Another difference is that the return to education and the gender pay gap were more pronounced in high-paid jobs. However, in both low-paid and high-paid jobs, lower wages are observed for women, older workers, workers with limited education, workers in agriculture, trade, social services, commercial services and transport, and people working in regions with high unemployment levels.

As the survey data show, the gender wage gap persists in Bulgaria indicating that women face a form of wage discrimination, even after controlling for other factors like job tenure, education and industries. What is remarkable is that the gender wage gap is less pronounced in low-paid jobs. The size of the gap is 18 percent in low-paid jobs (bottom quartile), compared with respectively 21 percent in middle-paid jobs (middle quartile) and 25 percent in high-paid jobs (top quartile).[36] Interestingly, a higher level of gender wage discrimination in better-paid jobs has been observed in other countries of Eastern Europe and Central Asia (Newell and Reilly, 2000).

[35] Simultaneous-quantile regression analysis was run on the log hourly wage of workers in the 25th, 50th, and 75th percentiles to capture the variation in determinants across wage levels. For full results see Kolev, 2002.

[36] The gender pay gap declined since 1995, where the wage gap accounted for 23 percent in low paid jobs, 29 percent in middle paid jobs, and 34 percent in high paid jobs.

B. Income Poverty and Labor Market Status[37]

The relative welfare status of the unemployed has deteriorated relative to the employed. Between 1995 and 2001 the incidence of poverty has been highest among the unemployed and lowest among the employed. In mid-2001, 41 percent of the unemployed fell below the relative poverty line, in comparison with 23 percent for the inactive and 12 percent for the employed.

These aggregate poverty measures by labor market status only provide a limited snapshot of the most vulnerable groups in the labor market. For example, in mid-2001 the incidence of poverty was the highest among the long term unemployed, at 46 percent. Poverty was also very high among certain groups of workers, such as those in agriculture, where the poverty rate was 39 percent. Those in informal employment (33 percent) were at a higher risk of income poverty than the short term unemployed, and where poverty rates ranged from 24 percent to 28 percent respectively. While poverty has declined on average among the wage employed, it has actually increased among workers in informal jobs.

These results indicate the growing risk of social exclusion among certain groups of workers and point to the importance of adopting a comprehensive approach to vulnerability that monitors not only trends in unemployment and unemployment duration, but also changes in the nature and quality of employment. The issue of the working poor has become a growing concern in OECD countries (Box 3.2).

Box 3.2: The "Working Poor" in OECD Countries

A key message that emerged from the *2001 OECD Employment Outlook* is that poverty among working households in OECD countries affects large numbers of individuals. Evidence in the OECD countries shows that the overlap between work and poverty is quite high, and increases when work over a multi-year period is considered. There are important differences across OECD countries regarding the incidence of work and poverty. Compared to the EU member states, a greater share of total time spent in poverty in the United States is experienced by households with substantial labor market participation. Among working-age households which are poor in a given year, only 2 out of 5 households contained no adult worker in the EU and 1 out of those 5 in the USA. Moreover, among those who were "permanent-income" poor over three years, the shares without employment fell to 1 in 4 and 1 in 10 respectively. This suggests that low-paying and precarious jobs better characterize the experience of some poor households than do continuous exclusion from the labor market. Accordingly, an effective employment-oriented social policy should also pursue the objects of insuring income adequacy among working households, improving employment retention among those who exit from poverty, and helping low-paid workers to move-up job ladders.

Source: OECD (2001).

Between 1995 and 2001, the relative share of inactive workers among the poor remained virtually constant, at around 47 percent, while the share of the unemployed rose

[37] For the analysis of poverty and the labor market in this section, poverty is defined as the bottom quintile of per capita household expenditure.

from 13 percent to 34 percent. During the same period, the share of the employed – the "working poor" – dropped from 40 percent to 20 percent. The changing composition of the poor mirrors, to some extent, the sharp decline in employment and the large increase in unemployment observed in the labor market. However, in mid-2001 the unemployed tended to be disproportionately concentrated among the poor. Among the poor unemployed, there is evidence of a rising share of both the long-term unemployed and the very short-term unemployed (less than 3 months). In mid-2001, about two-thirds of the poor unemployed had been unemployed for over one year.

Private and part-time employees were over-represented among the working poor. In 2001 the working poor were predominantly in the private sector, while the reverse was true in 1995 and 1997. This changing composition of the working poor can be explained by the growth in private sector employment where the poverty rate is higher. The largest share of the working poor, one out of five, was employed in agriculture. This is also higher than the overall share of agriculture in total employment. Other large groups among the working poor were workers in social services and in manufacturing/industry, but these groups were less numerous among the poor than among the non-poor.

For the unemployed, multivariate analysis revealed that an important risk factor associated with poverty is the presence of young children in the household. The risk of being poor for the unemployed with children is three times higher than it is for the employed. Other factors which increase the poverty risk for the unemployed are the presence of other unemployed workers in the household, and inactive adults and low paid workers. These factors lower the probability of being poor for the employed and inactive as well, however the extent of the impact varies. The non-employed tend to be more vulnerable to a deterioration of the household labor market environment (e.g. a greater number of unemployed in the household), or the presence of children than the employed. Interestingly, the presence of pensioners increases the poverty risk for the employed, while it does not seem to have an impact on the poverty status of the unemployed, and to some extent, of the inactive adults.[38]

These results point to the importance of a comprehensive approach to poverty reduction that tackles the different sources of income poverty at the household level. Given the disastrous welfare repercussion of unemployment, as well as inactivity and low-paid work, sound policies which facilitate the development of a modern formal private sector are essential, as do measures which assist workers in moving out of low-paid jobs.

[38] See Kolev (2002) for the full regression results.

Table 3.8: Poverty Rates by Labor Market Characteristics

	1995	1997	2001
Labor market status			
Out of the labor force	26.7	23.6	23.1
Unemployed	32.6	35.2	41.1
Employed	16.6	16.8	12.1
Unemployment duration			
0-3 months	9.3	11.3	24.4
3-6 months	13.3	27.4	28.5
6-12 months	31.0	37.3	35.6
More than 12 months	41.8	39.9	45.7
Nature of employment			
Wage employed	16.9	17.0	12.4
Self-employed	9.0	12.0	8.2
Type of wage employment			
Contract – permanent	12.7	15.2	8.9
Contract – temporary	20.5	19.9	13.2
No contract – temporary	26.6	24.3	32.6
Public	14.4	15.9	9.8
Private	20.4	18.6	15.0
Part-time looking for more work	26.3	33.3	21.2
Part-time not looking for more work	16.9	10.7	13.5
Underemployed	24.5	16.1	19.2
Sector of employment			
Manufacturing and industry	15.7	13.6	10.5
Construction	18.7	18.7	13.6
Agriculture and forestry	25.1	30.7	39.2
Transport and communication	8.0	13.9	12.1
Trade	12.3	13.7	7.9
Commercial services	21.7	25.4	17.6
Finance	22.1	14.6	13.9
Social services	12.0	15.5	8.3

Source: BIHS 1995, 1997 and 2001.

Note: Among working age adults (16 years and above). Poverty refers as the bottom quintile of per capita household expenditure.

Table 3.9: Composition of the Poor by Labor Market Characteristics (%)

	1995	1997	2001
All working age adults	100.0	100.0	100.0
Out of the labor force	46.7	48.6	46.4
Unemployed	13.0	19.1	33.9
Employed	40.3	32.2	19.7
All unemployed	100.0	100.0	100.0
0-3 months	5.2	6.8	7.2
3-6 months	5.9	19.4	7.8
6-12 months	28.8	28.3	20.0
More than 12 months	60.1	45.5	65.0
All wage employed	100.0	100.0	100.0
Contract – indefinite term	58.1	69.7	47.5
Contract – fixed term	27.3	21.8	25.7
No contract	14.6	8.5	26.8
Part-time	11.8	8.7	13.3
Full time	88.2	91.3	86.7
Private	24.0	27.3	61.6
Public	76.0	72.7	28.4
Manufacturing and industry	28.6	21.5	18.1
Construction	9.1	7.1	5.7
Agriculture and forestry	12.0	10.4	19.2
Transport and communication	5.0	8.1	10.9
Trade	7.9	7.1	7.5
Commercial services	8.8	10.8	10.6
Finance	10.2	7.4	9.1
Social services	18.4	27.6	18.9

Source: BIHS 1995, 1997, 2001.

Note: Among working age adults (16 years and above) in bottom quintile of per capita household expenditures.

C. Non-Income Dimensions of Poverty at Work

The previous section has focused on the income dimension of poverty, identifying and quantifying the contribution of household labor market performance and other household characteristics on each individual's poverty status. It has shown that the traditional

dichotomy for a poverty profile, between the employed and the unemployed has limitations, given the heterogeneous nature of jobs and the high incidence of income poverty among particular groups of workers. The aim of this section is to complement the understanding of income poverty and labor market outcomes by investigating some non-income aspects of workers' well-being in Bulgaria.

Improvement of working conditions in Bulgaria is an important policy goal. As with inadequate earnings, poor working conditions can have strong negative effects on workers' well-being and their families. They can also result in low labor productivity, which in turn fuels the vicious cycle of poverty and burdens the productivity of the Bulgarian economy. Last, but not least, the recognition of certain workers rights and the standardization of working conditions to the EU is a condition for EU accession (see Box 3.3).

The protection of the health and rights of workers has long been a part of Bulgarian labor legislation. The Labor and Social Security Codes provide the legal basis for regulation of working conditions, along with a number of acts and regulations issued by the Ministry of Labor and Social Policy, and the Ministry of Health (Garibaldi et al., 2001). Since the beginning of transition and the move towards EU accession, several changes and amendments have been introduced to suit the needs of a market economy and EU requirements in the field of labor. To date, most EU requirements have been transposed into

Box 3.3: EU Accession Requirements for Labor

***Equal opportunities for Men and Women*:** Stage I of Accession measures require the country to comply with directives 75/117/EEC and 76/202/EEC, which contain provisions regarding (1) equal pay; (2) equal treatment for men and women in access to jobs, promotion, training and working conditions. Stage II measures require the country to comply with directives 79/7/EEC and 86/378/EEC, which apply the principle of equal treatment for men and women to statutory and occupational social security schemes.

Coordination of Social Security Schemes. The EU's provisions regarding social security legislation are based on four principles: (1) the legislation of only one country can be applicable; (2) workers from other member states receive equal treatment; (3) workers retain the rights they have acquired; and (4) periods of insurance or residence are aggregated.

Health and Safety at Work: Measures at Stage I require compliance with Directive 89/39/EEC which stipulates that employers must assess the risks to safety and health at work, ensure that workers receive appropriate safety and health information, and provide workers with adequate safety and health training. Legislation must also include provisions regarding protective and preventive services, health surveillance, and the participation of workers in health and safety issues at work. At Stage II, countries are required to comply with a set of 13 directives that include regulations on maintaining the health and safety of workers in the most critical areas (workplace equipment, safety signs, chemical exposure).

Labour Law and Working Conditions: At Stage I countries are required to comply with the contents of four directives that protect workers' rights in the areas of (1) collective redundancies; (2) undertakings, business or part of business; (3) insolvency of employers; and (4) young people at work. At Stage II, they are required to comply with three additional directives that regulate working conditions, working time and information and consultation with workers.

Source: Garibaldi et al. (2001).

Bulgarian legislation. The adoption of the labor component of the *Aquis Communautaire,* which implies the recognition of certain rights to workers and the standardization of working conditions to those in the EU, should therefore not be a problem for Bulgaria.

There are some concerns, however, that the lack of an effective enforcement and monitoring system of working conditions has led to a substantial gap between principles and reality. Table 3.10 presents several measures of working conditions and job quality across sectors in Bulgaria. The first indicator is the incidence of "work without labor contract" which is a useful, although likely understated, estimate of informal employment. The data show that a national average of 10 percent of the employed were working in the informal sector, and thus are not covered by the Labor Code, or any other regulations. Informal jobholding was also not evenly distributed across sectors. A high concentration of informal workers was observed in agriculture and construction, where their share reached 41 percent and 31 percent respectively. In trade, the incidence of informal jobs was also high, at nearly 17 percent.

Another important indicator of the quality of employment is job stability. This can be captured, although imperfectly, by the average length of time a worker has spent with their current employer. A longer job tenure, which refers to longer continuous spells of employment, is often considered a desirable aspect of a job given the positive links between

Table 3.10: Selected Non-income Measures of Job Quality among the Employed by Sector around 2000

	No contract (percent)	Job tenure (years)	Work-related injuries and diseases (number per thousand workers)	No social insurance contributions paid by employers (percent)
All	10.2	10.8	2.5	25.6
Manufacturing and industry	4.3	11.5	7.1	17.2
Construction	30.9	11.8	3.7	41.9
Agriculture and forestry	41.5	9.6	0.6	61.1
Transport and communications	5.0	12.0	4.1	17.3
Trade	16.9	5.4	0.5	45.6
Commercial services	10.1	10.7	0.3	25.4
Finance	7.5	10.8	0.6	28.7
Social services	3.6	12.3	0.2	14.4

Source: BIHS 2001; 1999 data from Bulgarian authorities for work-related injuries.

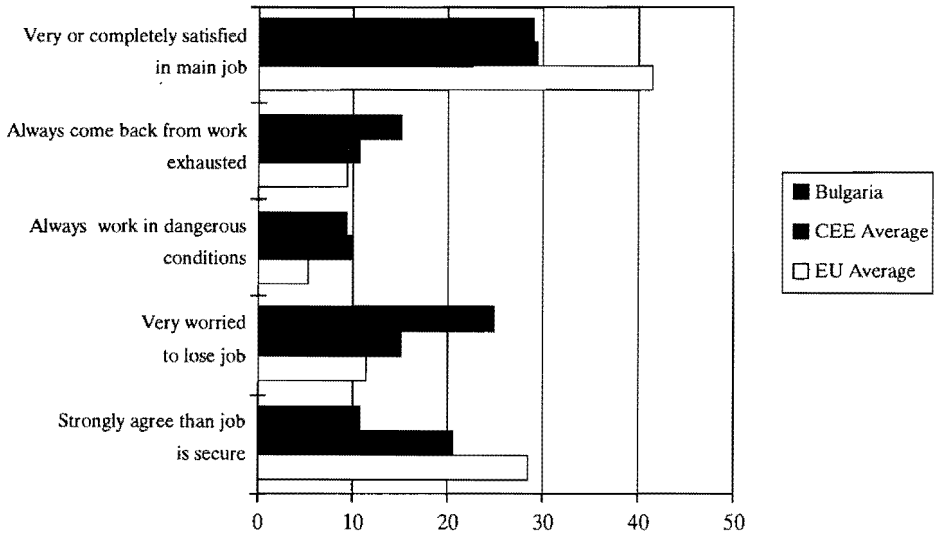
tenure and earnings, and between tenure and job satisfaction. The same table shows large disparities in job tenure by sectors. Job tenure tends to be particularly low in trade and agriculture, and much higher in social services and transport. This indicator needs to be treated with caution. A long job tenure may reflect a worker's low level of job opportunities, rather than a strong level of satisfaction with the current job. A long job tenure can also mean a worker is stuck in a sector that is declining during transition. Earnings are indeed concave in job tenure in Bulgaria, they increase up to an estimated average of 17 to 20 years of tenure and then start to decline.

Box 3.4: Perceptions of Well-Being at Work

Besides direct measures of working conditions, it is useful to look at workers' perception of well-being at work. For this purpose, the International Social Survey Programme[39] (ISSP) provides a unique opportunity. The 1997 module on work contains a number of questions on working conditions as perceived by respondents in 25 countries, including Bulgaria. However, considerable caution is required when drawing international comparisons based on these subjective measures. There can be subtle differences between countries in the way the questions about working conditions are asked and interpreted, and in the timing of the survey. This may be a particular issue for Bulgaria, as 1997 was a particularly difficult year, and many workers may have felt more insecure about their labor market status.

Given these limitations, broad differences in opinions regarding job security emerged in 1997 between Bulgaria and other transition countries, and between Bulgaria and the EU. For instance, the proportion of workers who were very worried to lose their jobs amounted to 24 percent in Bulgaria, compared with an average of 12 percent among represented EU countries and of 15 percent among CEE countries.

Figure 3.4: Well-Being at Work (% of employed)



Source: International Social Survey Program, 1997.
Note: EU and CEE average are non-weighted averages of included countries (see Kolev, 2002 for list).

[39] More information on the programme can be found at www.issp.org.

The incidence of registered work-related injuries and diseases reported in the same table provides a rough estimate of the extent of safe and healthy conditions of work. The data show large disparities across sectors, with the most dangerous work concentrated in industry, transports, and construction. Inadequate safety and health standards are of concern, given both their disastrous impact on the quality of life and income of workers and their families, and also on firms' productivity, and on the overall performance of the economy.

There is evidence of low enforcement of regulations regarding social insurance taxes, 25 percent of all employees in Bulgaria had an employer who did not pay any mandatory social security contributions. Non-payment of social security contributions was dramatic in agriculture, where it reached 61 percent of employment, and in trade and construction, where it was respectively 46 percent and 42 percent. This reflects the disincentive effect of high social security taxes. This issue is discussed in the next chapter.

Health and safety at work also appeared to be distinctly worse in Bulgaria, and in Central and Eastern Europe in general, than in the EU. The percentage of workers that reported always working in dangerous conditions was double in Bulgaria than in the EU. Bulgaria also has the second largest share, after Portugal, of jobholders that reported always coming back from work exhausted. Addressing the issue of health and safety at work therefore seems to be particularly important for Bulgaria, which would need to find cost-effective ways to support investments in working conditions in the most dangerous sectors. These could include, for instance, the provisions of loans conditional on a better enforcement of working conditions.

Not surprisingly, poor working conditions – including low-paid work, lower paid annual leave and lower job tenure are particularly evident in the informal sector, and to a lesser extent, in temporary jobs in the formal sector. The data illustrate a strong correlation between informal jobs, on the one hand, and poor working conditions on the other (Table 3.11). This is particularly worrisome given the low probability of escaping informal employment in Bulgaria discussed earlier. Permanent employment, on the other hand, was associated with a lower incidence of low-paid work, lower evasion of social-security contributions, higher provision of paid annual leave and higher job stability.

Table 3.11: Correlation Coefficients Between Various Measures of Job Quality

	Nature of employment		
	No contract	**Contract-fixed term**	**Contract-permanent**
Low paid job	0.10**	0.04*	-0.11**
No social insurance contributions	0.57**	0.01	-0.41**
Average days of paid leave	-0.53**	-0.07**	0.42**
Average job tenure	-0.19**	-0.15**	0.25**

Source: BIHS 2001.

Note: (**) and (*) means statistically significant at 1% and 5 % levels respectively.

Lessons from ILO pilot studies on extending social protection to informal workers point to the importance of raising the awareness of informal employers on the linkages between working conditions and productivity, and to the importance of a pragmatic and gradual approach that fully recognizes the constraints faced by small enterprises (Box 3.5). There is a need to make social protection more affordable to small enterprises through a reduction in social security contributions. However, to be effective, the reduction in social security contributions often needs to be accompanied by other measures that increase incentives for small enterprises to register formally.

Box 3.5: Extending Social Protection to the Informal Sector

The ILO launched an Interdepartmental Project (INTERDEP) on the informal sector in 1994. The aim of INTERDEP was to develop a comprehensive strategy to extend social protection and improve working conditions of informal sector workers. As a first step, three case studies on occupational safety and health and working conditions in the informal sector of cities in developing countries in Latin America and East Asia were carried out.

These projects concentrated on (1) the development of basic forms of access to health care through mutual funds; (2) the improvement of safety and health standards through the introduction of measures for the improvement of informal sector workers' working conditions and living conditions and the reduction of accidents and diseases; (3) management skills development and (4) capacity building. Due to their success, some of these projects were extended through technical cooperation after the end of the INTERDEP in 1996.

The safety and health aspects of these projects were quite innovative, and were based on the local capacity of the informal sector operators to undertake low-cost improvements at the micro-enterprise level, prevent injuries and diseases and enhance access to health care. Training modules were produced to show the link between productivity and improvement of working conditions, and to raise the awareness of occupational safety and health hazards in micro-enterprises. The learning modules were implemented for small groups by occupation. In parallel, preventive services were provided to informal sector workers through existing primary health care structures at the municipal or district level with the collaboration of local communities, NGOs and community-based organizations.

Source: Forastieri (1999).

D. Multiple Aspects of Vulnerability in the Labor Market

The discussion has highlighted that the linkages between poverty and the labor market are much more nuanced than a simple relationship between poverty and unemployment suggests. Poverty rates for some groups of the employed are quite high, particular for workers with temporary contracts and those working in agriculture. Working conditions also have an important influence on welfare, particularly for workers in the informal sector. The groups which are at greatest risk of adverse labor market outcomes, including unemployment, inactivity, low paid work and poor working conditions are also those that emerge as most vulnerable in the poverty profile. In particular, persons with little, or no education and Roma are at greatest risk (Table 3.12).

Youth face a somewhat different situation, as their main problem is to find a first job

Table 3.12: Summary of Labor Market Outcomes and Vulnerable Groups

	Unemployed	Long-term unemployed	Inactive	Low-paid	Poor working conditions
Low educated	X	X	X	X	X
Roma	X	X		X	X
Turks	X	X			X
Youth	X			X	X
Disabled		X	X	X	
Living in a depressed area					
Individuals close to retirement age			X	X	
Adults with children			X		
Living in a rural area	X				

Source: Based on regression analysis in Kolev (2002).

Note: "Inactive" excludes pensioners and those in education. X means correlations are statistically significant at the 5 or 10 percent level.

in the formal sector. Turks also face a high risk of unemployment and poor working conditions, but they do not seem to experience any disadvantage in terms of wages. Conversely, the problem for women is not so much in terms of unemployment, as their risk of being unemployed is only slightly higher, but more in terms of a gender wage gap. Thus, while young people and Turks are likely to benefit from policies promoting job placement in formal sector jobs, for women, a greater emphasis should be paid on the enforcement of equity in pay, as stipulated in the Constitution of Bulgaria. Location also plays an important role on the employment prospects of people in Bulgaria, as well as on their pay, and people living in depressed areas would most likely benefit from more decentralized and locally driven programs.

Another group composed of individuals close to the retirement age and individuals with disabilities and illnesses faces a high risk of being excluded from the labor market, or of being low-paid if employed. Given the low level of labor demand in Bulgaria, the scope for reintegrating this group into employment may be limited, and social protection measures may be more suited to lift them out of poverty. However, in a period of economic growth and increasing employment opportunities, the opening of active labor market programs for discouraged workers and the development of disabled-friendly work arrangements and facilities, as well as a better enforcement of the Labor Code regarding the provision of specific jobs for the disabled, can be expected to increase somewhat the participation of older and disabled individuals, and thus to reduce the extent of labor market exclusion.

Exclusion from the labor market is also visible among adults with children, who tend to have difficulties in combining family responsibilities with work. Policies which help households balance work and family responsibilities could, in this respect, be vital for increasing the employment rates of parents, and reduce poverty in the labor market. These

can include encouraging child care services (whatever form they take) and developing more flexible work arrangements.

E. Findings and Policy Implications

Addressing severe unemployment remains one of Bulgaria's most pressing challenges. The next chapter examines the roots of unemployment and the barriers to employment growth in detail. In the first place, policies to reduce unemployment and strengthen the environment for employment, are critical, this will be the subject of the following chapter. Another central policy issue is mitigating the impact of adverse labor market outcomes on vulnerable groups, including unemployment and poor working conditions. Although poverty has declined since 1997 while unemployment has risen, high poverty rates among the unemployed suggest that these trends are not likely to be sustainable, and that poverty is likely to increase if labor market conditions do not improve.

Protecting the Unemployed. Unemployment benefits and social assistance provide important sources of protection for many unemployed. The effectiveness of these measures is discussed in Chapter 5. Specific groups face multiple labor market risks and may benefit from additional targeted programs. Poorly educated people and Roma experience a higher risk of being unemployed, remaining longer in unemployment, and if employed, of being low-paid, and working under poor working conditions. Other groups facing multiple risks in the labor market were the youth, the Turks, people with disabilities and individuals living in depressed areas.

In this regard, Active Labor Market Policies (ALMPs) may be useful instruments for reaching vulnerable groups in the labor market. Bulgaria currently provides a number of programs, covering about 11 percent of the registered unemployed. Expenditures amounted to 0.2 percent of GDP in 2000. A recent evaluation of ALMPs in Bulgaria found that all of the programs studied have a positive net impact, and therefore do improve the employment prospects of some groups of participants, although for some programs the impact is minimal (Box 3.6). This implies scope for improved targeting of programs. However, the result needs to be treated with caution, as the analysis does not give an indication of the sustainability of the new businesses created. Outcomes should be tracked over a longer period of time, at least two years.

The positive results of the study for Bulgaria, compare favorably with analysis of ALMPs in Central and Eastern Europe and Western Europe. In many countries results are negative. For example, in Poland and Hungary public employment programs were found to lower the prospects of becoming employed. The outcomes suggest the need to focus on programs which are well targeted, either on equity grounds (e.g. to the most vulnerable groups, such as ethnic minorities); or on efficiency grounds (e.g. to groups which benefit the most from program participation). The Government's National Action Plan for

Employment incorporates lessons from the net impact survey.

Enhancing Employment Opportunities for Roma. Because of the extreme nature of unemployment among some Roma communities, specific measures can be tailored to enhance their employment opportunities. In particular, attention is needed to address the additional barriers of lower education status, geographic isolation and discrimination. Improving access to credit is an important aspect of increasing opportunities for Roma and other low income groups to engage in entrepreneurial activity. NGOs can play an important role in training and capacity building among communities to initiate projects (Box 3.1). Partnerships between these organizations and banks are needed to establish credit mecha-

Box 3.6: ALMPs in Bulgaria

The Bulgarian National Employment Service undertook a net impact evaluation of the main active measures in 1998 in order to assess the contribution of ALMPs to improving the re-employment probabilities of participants. The study was based on a representative survey of 6,101 individuals who had participated in the programs, as well as a control group.[40] The following results emerged from this study:

Temporary employment program had a significant positive net impact on the probability of being employed in particular among individuals facing specific difficulties, such as individuals aged 45 and above, the least educated, the long-term unemployed and those unemployed living in particularly depressed area. Temporary employment programs had nonetheless the highest costs per placement. This called for targeting temporary employment programs to the most vulnerable groups in the labor force, like unemployed people from the Roma minority, who cannot rely on any other program to improve their chances of finding a job.

Training with non-guaranteed jobs had also a significant overall positive net impact on the probability of being employed, but tended to benefit more those with lower or secondary education and the youth. This program was also among the least expensive, in terms of costs per placement.

Training with guaranteed jobs tended to be more effective to increase the chance of finding a job among the older unemployed. For other groups, however, training with guaranteed jobs was as effective as training without guaranteed jobs, and only slightly more expensive.

Subsidized employment led significant results for all-sub groups, but the biggest effect were found for new entrants, females, those living in incomplete families and the unemployed with general secondary level of education. Subsidized employment was the program with the lowest costs per placement.

Employment associations provided mixed results. Their effects varied a lot by gender and level of education, and they were an expansive program.

Self-employment programs tended to be extremely effective for those with more education and those with shorter spell of unemployment. Their costs per placement were nonetheless higher than that of subsidized and training programs.

Source: Walsh and al. (2001).

[40] It is important to note that although such studies are useful, they only provide a partial picture. Among other issues, net impact studies refer to the impact of program participation on the individuals who participated in the programs, not on the impact on unemployment at large. Accordingly, these studies tell us little on "macro" impact of ALMPs. This is because they account only for deadweight loss, but not for substitution/displacement effects. Also, extrapolation of results can be misleading due to diminishing returns to scale. Programs that perform well on a small scale do not necessarily perform well if expanded and run on a larger scale. This is because small scale program tend to attract both best (most motivated, etc.) unemployed and best program operators.

nisms. Providing anti-discrimination legislation and provisions for appeals is another important element. Mechanisms should be put into place at the local and regional level to monitor compliance with anti-discrimination legislation and provide job seekers with an opportunity to appeal violations.

Addressing the Gender Pay Gap. While the labor force participation of women in Bulgaria is high, there is a significant gender pay gap. In order to develop an appropriate policy approach, further analysis of this phenomenon is needed to determine the extent to which this gap is due to differences in the characteristics of the workers themselves, and that which is due to differences in job characteristics (Paci, 2002). Regardless, effective monitoring and implementation of existing regulations on gender pay equity is an important first step, particularly in the context of EU emphasis in this area.

Improving working conditions. Attacking the non-income dimensions of poverty in the workplace remains an important challenge in Bulgaria. Despite the transposition of most EU requirements in the labor area into Bulgarian legislation, a large gap remains in practice and the real level of workers' protection is far below what is stipulated in the Labor Code. Measures to further the improvement of working conditions can include encouraging the formalization of employment by through a reduction in social security contributions and taxation, simplifying registration of firms, facilitating dismissal procedures, easing use of temporary contracts; and raising awareness among informal employers on the links between working conditions and productivity.

Chapter 4: Why is Unemployment so High in Bulgaria?[41]

A. Background

The previous chapter has shown that the Bulgarian labor market is performing poorly. High levels of unemployment and inactivity indicate low utilization of labor resources, and are compounded by low flows out of unemployment into jobs. This section examines the forces underlying these poor labor market outcomes, looking in turn at key macroeconomic developments and changes in the investment climate that influence labor market performance, enterprise restructuring, and specifically job creation and job destruction, the extent of the skills gap, and the role of labor market regulations as a possible source of rigidities and distortions. In summary, there are three main forces driving high and increasing unemployment in Bulgaria: (i) intensive enterprise restructuring; (ii) the poor business environment; and (iii) a persistent skills gap.

Macroeconomic conditions and the investment climate have improved substantially in Bulgaria since 1997, improving the environment for job growth. Despite this overall positive trend, there is still much scope for improvement of the business environment. Restructuring has led to larger flows into unemployment. The fall in employment has largely reflected substantial productivity gains achieved through large scale shifts away from old less productive jobs toward new more productive jobs. At the same time outflows from unemployment have been limited, due to skill and spatial mismatches, as well as labor market rigidities stemming from the employment protection legislation. These factors combined – restructuring and productivity improvements along with labor market mismatches and rigidities – have caused the marked increase in unemployment. Accordingly, unemployment in Bulgaria seems mainly structural, and to a lesser extent demand deficient.

B. Macroeconomic Developments and the Investment Climate

After a period of stagnation until the crisis of the mid-90's, Bulgaria has undergone far-reaching industrial restructuring. These developments have led to a better allocation of resources, including labor, creating the preconditions for economic and employment growth. The major policy developments and their impact on employment developments are summarized in Table 4.1. In particular, the environment for long term employment growth has been facilitated by price stability under the currency board, strengthening of the banking sector and expansion of the private sector.

During the crisis, output contracted by more than 16 percent in real terms. While the level of employment remained almost unchanged, the output decline was reflected in

[41] This chapter is based on the background paper by Jan Rutkowski.

Table 4.1: Key Policy Developments and Job Creation

Policy area	*Change*	*Impact on job creation and unemployment*
Monetary policy (Currency board arrangement)	Improvement	Positive
Fiscal policy	Improvement	Overall: Positive
Reduction of subsidies and the imposition of hard budget constraint on public firms	Improvement	Short term: negative Long term: positive
Budget deficit within 2% of GDP	Improvement	Positive in the long term
Financial Intermediation	Improvement	Positive
Privatization of state-owned banks	Improvement	Positive
Increased supply of bank credits	Improvement	Positive
Privatization and enterprise restructuring	Acceleration	Overall: Positive
Reallocation of labor	Acceleration	Short term: negative Long term: positive
Productivity	Improvement	Short term: negative Long term: positive
Business Environment	Stable	Overall: Mixed
Scope of arbitrary decision making and attitude towards private businesses	Stable	Negative
Entry and licensing procedures	Stable/Deterioration	Negative
Business regulation, including labor	Modest improvement	Positive
Taxation	Stable	Negative
Reduction of price controls	Improvement	Positive

Source: Stoev (2002).

productivity dynamics, which fell 15 percent during the crisis. Real wages were even more sensitive, losing nearly one-third of their value. In other words, during the crisis, adjustment was borne by wages rather than employment (Table 4.2).

Average productivity has been growing and recovered its pre-crisis levels in 2001. Productivity grew by almost 19 percent between 1998 and 2000, although the pace of growth has slowed more recently. These productivity gains have been largely achieved through public sector downsizing, which brought productivity in the public sector up to the level prevailing in the private sector (the ratio of productivity in the private sector to the public sector narrowed from 1.5 in 1995 to 1.0 in 2000). This narrowing of inter-sectoral differences in productivity is a positive phenomenon, as it indicates successful restructuring of public firms, and progress in transition (World Bank 2002). Real wages have followed rising productivity and their recovery has proceeded at a similarly high pace, although their level in 2001 was still some 10 percent below their pre-crisis level.

The introduction of the currency board in 1997 strengthened the environment for

Table 4.2 Dynamics of Basic Macroeconomic Indicators 1995=100

	1996	1997	1998	1999	2000	2001*	Average annual rate of growth (1996-2001) %
GDP	90.6	85.5	88.9	91.0	95.9	99.7	0.1
Employment	100.1	96.2	96.1	94.1	90.8	89.6	-1.8
Productivity	90.5	88.9	92.6	96.8	105.7	111.4	2.0
Wages	81.2	67.7	81.7	87.3	88.3	90.9	-0.6

Source: National Statistical Institute and World Bank staff estimates.

Note: (*) Preliminary estimates for 2001. Productivity is defined as GDP per employee.

employment growth by introducing a strict monetary policy regime. The immediate impacts of the new monetary regime were price and exchange rate stabilization and the restoration of confidence in commercial banks. The currency board eventually led to a more stable and predictable business environment conductive for a higher economic activity and thus higher job creation; and stabilized interest rates and gradually narrowing margins between deposit and lending rates, which encourage new business entry and the expansion of existing companies.

Fiscal prudence following 1997 has been beneficial for businesses, as it made it possible to lower interest rates. The high budget deficit prevailing in Bulgaria until the crisis period led to high levels of nominal interest rates which discouraged economic activity. The budget deficit has been kept close to zero since 1997, permitting the lowering of interest rates and thus, along with relatively low inflation, creating incentives for private investment. The volume of investments and their share in GDP have also been increasing since 1997. Foreign direct investments (FDI) accelerated markedly following the stabilization policies. Greenfield investment, new non-privatization foreign investment, more than doubled in 1998 in comparison with the previous year (Table 4.3). This substantial increase in investments, including FDI inflows, is indicative of an overall improvement in the investment climate in the aftermath of the stabilization program.

Since 1997 privatization has gained momentum and three-fourths of the privatizable assets have been transferred from the public to the private sector over the past 5 years. Consequently, the proportion of private sector employment has increased dramatically from 42 percent in 1996 to 71 percent in 2001. Privatization has contributed to faster structural change. There is evidence that productivity improvements in privatized enterprises since 1997 have outpaced those in new private enterprises. This is associated with the fact that productivity growth has been faster in large companies than in small and medium sized enterprises (SMEs). However, restructuring and rapid productivity growth have led to

downsizing and employment loses concentrated in large privatized firms. These have been only partially offset by the employment opportunities created by private SMEs.

Table 4.3: FDI Flows in Bulgaria

Year	Volume (USD million)			
	Privatization	Capital Market	Greenfield	Total
1995	26	-	137	163
1996	76	-	180	256
1997	421	30	185	636
1998	156	64	400	620
1999	306	53	447	806
2000	480	20	500	1 000
2001*	n.a.	n.a.	n.a.	522
Total	n.a.	n.a.	n.a.	4 003

Source: Bulgarian Foreign Investment Agency and Bulgarian National Bank; reported in Stoev (2002).
Note: (*) Includes the period January – October 2001.

The next phase of privatization involves the restructuring of the energy, railway, telecommunications, and water sectors with the objective of improving efficiency of service delivery through greater private sector investment.

Table 4.4: Share of State Assets Privatized

	1995	1996	1997	1998	1999	2000	2001	Total
% of all state assets	1.07	4.09	18.36	4.48	16.96	4.43	1.10	52.49
% of privatizable assets	1.62	6.19	27.80	6.78	25.69	6.70	1.67	79.48

Source: Privatization Agency; reported in Stoev (2002).
Notes: Privatizable assets are 66% of all state assets. According to law the following are not subject to privatization: nuclear power stations, the distribution of electricity and natural gas, some hospitals, schools and universities. The methodology employed by the Privatization Agency in reporting an asset as privatized requires that either the asset is directly sold, or the company that owns it is fully privatized (more than 2/3 of the company's shares are private).

As in other transition countries, privatization contracts in Bulgaria have included a commitment of the new owner to maintain employment levels for a certain agreed period (usually a few years). Given that the privatization process was heavily concentrated in 1997, some portion of the substantial decline in employment that occurred in 2000 can be attributed to the expiration of the labor preservation clauses in the privatization contracts.

Why has employment declined in Bulgaria? One way to answer this question is to look at the dynamics of productivity as well as aggregate demand and its components: domestic consumption, exports, and imports. Given the rate of growth of output, the faster the growth of productivity, the slower the growth of employment. Growth of domestic consumption and exports is conducive to employment growth, while the growth of imports

means that foreign labor is substituted for domestic labor. Thus, given the output level, growth of imports leads to a fall in domestic employment.[42]

Despite increasing imports in Bulgaria, the growth in domestic demand has had a stronger job-creating effect than export growth. However, the job-creating impact of exports is markedly smaller than the job-displacing impact of imports. But the strongest negative effect on employment has been brought about by the substantial growth in productivity, which has offset the growth of aggregate demand (Table 4.5). This provides further support to the argument that an important cause of growing unemployment has been intensive enterprise restructuring leading to fast productivity improvements, which in turn have led to shedding of redundant labor. These developments are part of the transition process which will have a negative impact on employment over the short-term, while leading to longer-term growth.

Table 4.5: Decomposition of Employment Change (% changes)

	1997/98	1998/99	1999/2000	Average 1997/2000	Total 1997/2000
Employment	- 0.2	- 2.1	- 4.9	- 2.4	- 6.8
Aggregate demand	3.4	2.3	5.5	3.7	12.1
Domestic demand	11.7	7.3	3.7	7.6	24.0
Exports	- 11.2	- 2.8	16.8	0.9	4.3
Imports (-)	- 2.9	2.2	15.1	4.8	16.2
Productivity (-)	3.5	4.4	9.9	5.9	20.3
Total contribution	- 0.2	- 2.0	- 4.4	- 2.2	- 8.2

Source: Stoev (2002) and author's calculations.

Labor Flows

Based on summary measures of mobility the Bulgarian labor market appears to be dynamic at first glance, as there are considerable movements across labor force states taking place over a one year period (Table 4.6).[43] Relatively few workers remain in their original labor force state after a year. For example, only 37 percent of persons unemployed in March 2000 were still unemployed one year later. In comparison with other transition economies in Central and Eastern Europe, the Bulgarian labor market is relatively dynamic. Table 4.6 shows a comparison using the Shorrock's index, which is a summary measure

[42] These relationships are captured by the following decomposition of the rate of employment growth:

$$r_E = r_D\left(\frac{D}{Q}\right) + r_X\left(\frac{X}{Q}\right) - r_M\left(\frac{M}{Q}\right) - r_P$$

where r denotes the growth rate of employment (E), domestic demand (D), exports (X), imports (M), and productivity (P), while Q represents total output.

[43] The analysis of labor flows draws on Kotzeva (2002).

Table 4.6: Labor Force Mobility in Comparison

Country	Period	Shorrock's index (* 100)
Bulgaria[44]	***2000-01***	***43.6***
	1995-96	***36.7***
Lithuania	2000-01	31.0
Poland	1997-98	31.3
Russia	1995-96	38.5
Slovakia	1999Q1-Q4	17.6
USA	1992-93	61.6

Note: The Shorrocks index is defined as S=(n-tr(P))/(n-1) and is proportional to the fraction of persons who changed their status within a given period. Where: n denotes the number of states and tr(P) is the trace of the transition matrix P. S takes the value of 0 when nobody changed their status, and the value of n/n-1 when everybody changed their status.

Sources: Bulgaria: Garibaldi et al. (2001) for 1995-96, Kotzeva (2002) for 2000-01. Lithuania: Rutkowski (2002b). Bank staff calculations.

of mobility across labor force states.

However, upon closer inspection, it turns out that underlying the considerable labor flows is a depressed labor market. There are negative dynamics, characterized by: (i) large flows from employment into unemployment; (ii) limited outflows from unemployment to jobs; and (iii) substantial flows from unemployment to inactivity. These labor flows help explain the trend of rising unemployment and the declining labor force participation rate. Large inflows into unemployment are not matched by proportionate outflows. About 9 percent of workers lost their jobs in 2000 and became unemployed. This proportion is high, even by standards of other transition economies in Central and Eastern Europe, where the annual inflow rate into unemployment usually does not exceed 5 to 6 percent.

Outflows from unemployment into jobs are very low by the standards of dynamic market economies, and are in the lower end of the range characteristic of transition economies. In Bulgaria only 22 percent of the unemployed found a job within a year, compared with about 35 percent in Poland. Thus, prima facie reasons behind high and rising unemployment in Bulgaria are high inflows into unemployment, coinciding with low outflows from unemployment into work. This contrasts with the model of a genuinely dynamic labor market, where high inflows into unemployment are matched by high outflows from unemployment into jobs.

[44] The magnitude of the flows is likely to be overestimated due to different categorization of labor force states in the surveys. This particularly refers to flows from unemployment to inactivity.

C. Restructuring and Job Reallocation

Restructuring in Bulgaria has had many facets: the changing industrial structure of output and employment, changes in the ownership structure, the growing share of foreign capital, and the development of the SME sector. All of these changes entail profound job and labor flows. They have created opportunities for some categories of workers, mainly the younger and better skilled and, worsened the employment prospects of others, mainly the older and less skilled. Restructuring has created winners and losers, and as such has had an impact on the level and composition of poverty.

The most visible manifestation of economic transition has been the changing structure of output, namely a shift away from manufacturing, that was overdeveloped during the communist period, towards services which were previously underdeveloped. This change in the structure of output entails a change in the structure of labor demand. The fall in demand for blue collar workers and physical labor has occurred alongside a rise in demand for white collar workers with skills required in the service sector. The transition from manufacturing to services is not an easy one, as the newly created jobs differ substantially from the old ones in terms of necessary skills. Thus, for many workers who lost their jobs in the old sector, finding work in the new sectors is a difficult process, often leading to unemployment or withdrawal from the labor force.

In order to examine the impact of restructuring on employment at the firm level, analysis of job reallocation within the economy was undertaken to examine where employment growth is taking place within the economy, and where job destruction persists. The high level of unemployment in Bulgaria implies that more jobs are being destroyed in the economy than are being created.[45] The database used for this analysis is the NSI's annual survey of employment and wages. The survey covers all registered enterprises which are subject to VAT and apply double-entry accounting standards[46] The survey also covers the public administration and services (e.g. education and health). In 2000 the dataset included 52,721 firms.[47]

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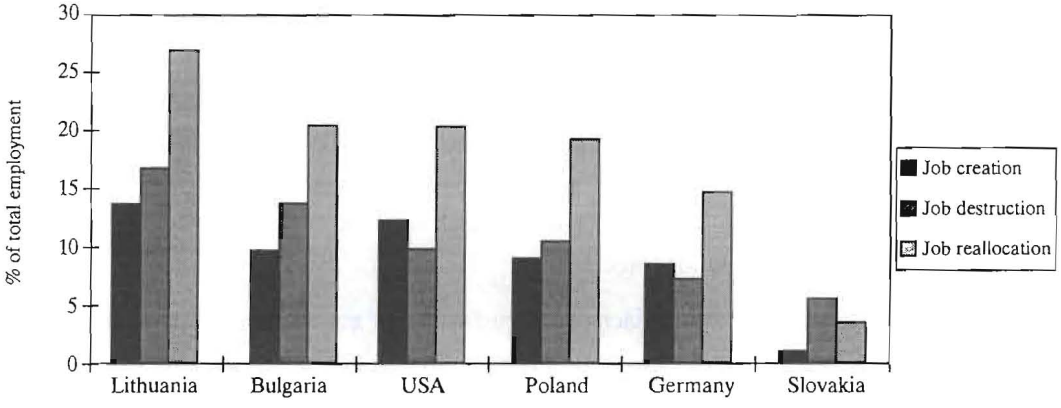
[45] The primary concepts underlying the measurement of labor market flexibility are those of job creation and job destruction. The *gross job creation* rate is measured as the sum of all employment gains in expanding firms in a given year, divided by total employment at the beginning of the year. The *gross job destruction* rate is defined as the sum of all employment losses in contracting firms in a given year divided by total employment. The sum of gross job creation and gross job destruction gives a measure of *gross job turnover (reallocation)*, and the difference yields the rate of *employment growth*. The *excess job reallocation* rate is defined as the job reallocation rate minus the absolute value of net employment growth. The excess job reallocation rate is determined by the lesser of the job creation and job destruction rates.

[46] Double-entry is an accounting concept which applies to larger firms. Small firms apparently use simplified accounting rules.

[47] For more information on the dataset refer to Rutkowski, 2002, Annex 1B.

Job reallocation in Bulgaria in 2000 was quite substantial. This contrasts with earlier research which found that turnover was relatively low in the mid 1990s, indicating limited restructuring and the existence of labor market rigidities (Faggio and Konings, 1999, Garibaldi, 2001). The excess job reallocation rate illustrates that the extent of enterprise restructuring in Bulgaria is similar or higher than mature market economies (including the dynamic U.S. market) and relatively successful transition economies, such as Poland (Figure 4.1).[48] It is much higher than in Slovakia, where the labor market is rigid and stagnant, although is markedly lower than in Lithuania, which has one of the most dynamic labor markets in Central and Eastern Europe. Thus, by international standards Bulgaria is undergoing far-reaching industrial restructuring, associated with intense job reallocation.

Figure 4.1: Job Reallocation in Comparison



Sources: NSI data (2000), Bank staff calculations.

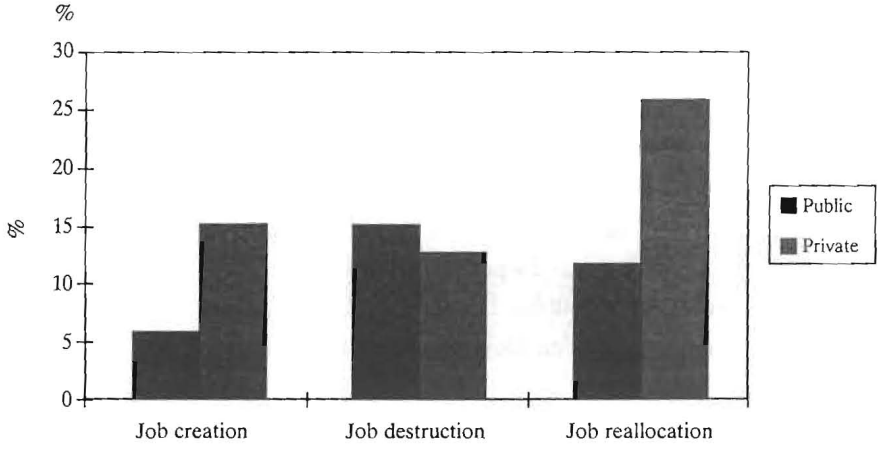
The comparison with other countries, leads to a few important observations. First, job gains in Bulgaria have been achieved mainly through employment expansions in continuing firms, rather than through firm entry (business start-ups). Second, job losses have occurred largely in contracting firms, rather than as a result of firm exit (closures). These two findings indicate that there are still significant obstacles to the entry and exit of firms in Bulgaria. Third, the job creation rate is moderate in Bulgaria, while job destruction is high by international standards. The job creation rate in Bulgaria was 11 percent, of which slightly less than 7 percent are in continuing firms. At the same time, they destroyed 14 percent of jobs, of which nearly 11 percent are in continuing enterprises. As a result, the overall number of jobs fell by over 3 percent. Despite barriers to entry, a significant share of all jobs in Bulgaria are being created by business start ups. If barriers to entry were removed, the job creation rate would be higher.

[48] One would have expected that the excess job reallocation rates will be higher in transition economies than in mature market economies, as the former need to redress the inherited problem of misallocation of resources.

Fourth, the high job destruction rate (especially in continuing firms) indicates that dismissal costs are not so excessively high that they deter firing. However, they may be high enough to discourage hiring. Finally, the high job turnover rate points to intensive restructuring in Bulgaria and a highly dynamic labor market. This implies that there is a fair amount of labor market flexibility. However, the modest *gross* and the negative *net* job creation rates (i.e. the fall in the overall number of jobs) suggests that more flexibility may be necessary to foster job creation and achieve positive employment growth.

The private sector is the main source of labor market dynamism in Bulgaria. Job destruction in the public sector exceeds job creation, while the opposite is true for the private sector, which is a net creator of jobs (Figure 4.2). The job creation rate in the private sector is high, at 15 percent, over twice as high as in the public sector (6 percent). The job destruction rate in the private sector is also high, accounting for 13 percent, but lower than in the public sector, which destroyed over 15 percent of jobs in 2000. Thus, it is the private sector which provides job opportunities, while the downsizing of the public sector contributes to unemployment increasing opportunities.

Figure 4.2: Job Reallocation in the Public and Private Sectors, 2000



Source: NSI data (2000), Bank staff calculations.

Small firms are a key to job creation. Job creation is much higher in small firms than in large firms. For example, the job creation rate in micro firms (which employ up to ten workers) is as high as 27 percent, while in large firms (with 251-1,000 employees) it is only 2 percent.[49] In contrast, the job destruction rate does not vary much by firm size. Micro firms eliminate about 12 percent of jobs and large firms eliminate some 10 percent of jobs per year. As a result, the small firm sector is expanding and offering job opportuni-

[49] To some extent the high job creation rate in small firms reflects their low employment level. Accordingly, large relative changes do not necessarily mean large absolute changes in employment.

ties, while the large firm sector is shrinking and shedding labor. It should be stressed, that business start-ups play a particularly important role in job creation. Newly established firms created as much as 36 percent of all new jobs in 2000. This represents more jobs than are created by all medium and large firms together. The birth of new firms and the development of existing small private firms are therefore key for employment growth and unemployment reduction.

Table 4.7: Job Turnover by Firm Size, 2000

Firm size	Job creation rate	Job destruction rate	Job turnover rate	Employment growth rate	Excess job reallocation rate
Micro	27.0	12.2	39.2	14.9	24.3
Small	10.4	15.2	25.6	-4.8	20.8
Medium	5.2	17.3	22.5	-12.1	10.4
Large	2.1	10.2	12.3	-8.1	4.2

Notes: Micro: 1-10 employees; Small: 11-50 employees; Medium: 51-250 employees; Large: 251-1000 employees. Classification is based on the employment level in the initial year.

Sources: Survey of Employment and Wages (2000), National Statistical Institute; Author's calculations.

In sum, small private firms are the engine of employment growth in the Bulgarian economy.[50] These new firms drive the transition and provide a foundation for sustainable growth. At the same time, the large firm sector, which was overgrown under central planning, has been gradually declining (Table 4.8). The number of enterprises has grown visibly in Bulgaria since the mid 1990s, a positive sign which indicates improvements in the investment climate. However, new firms (proxied by small firms) still account for a relatively low shares of total employment and value added. The share of small enterprises in employment was 38 percent and in value added was 24 percent in 1999, much lower shares than in leading reformers, such as the Czech Republic, Hungary in Poland (where it is well over 50 percent).[51] The share of small firms in employment in Bulgaria is below the threshold of 40 percent, which is considered a prerequisite for sustainable economic and employment growth (World Bank, 2002a).

The low share of employment in small enterprises in Bulgaria is of concern. A new World Bank (2002) report on transition concluded that having a large SME sector is not sufficient, unless it is accompanied by substantial growth in the share of employment in small firms. The low rate of new enterprise growth and the resulting low share of the new sector in employment point to barriers to entry and unfavorable business environment in Bulgaria. This may turn out to be a critical constraint for job creation and employment growth. Relatively slow growth of new enterprises is one factor behind high unemployment

[50] Firms are categorized as *small* if they employ up to 50 employees, and as *medium* if they employ 51-250 employees.

[51] Most recent (2000) NSI data show that the share of small firms in employment is 41 percent, which is still low.

Table 4.8: Number of Enterprises by Size (in thousands)

Enterprise size	1996	1997	1998	1999	2000
Micro-enterprises	164.1	175. 1	190.0	195. 3	205.9
Small enterprises	9.1	9.8	11.1	11.8	12.8
Medium enterprises	2. 1	2.0	2.2	2 .1	2 .1
Enterprises employing over 100 people	2.7	2.4	2.4	2.2	2.2
Total	178.0	189.4	205.6	211.3	223.1

Sources: Agency for Small and Medium-sized Enterprises (ASME) and National Statistical Institute; reported in Stoev (2002).

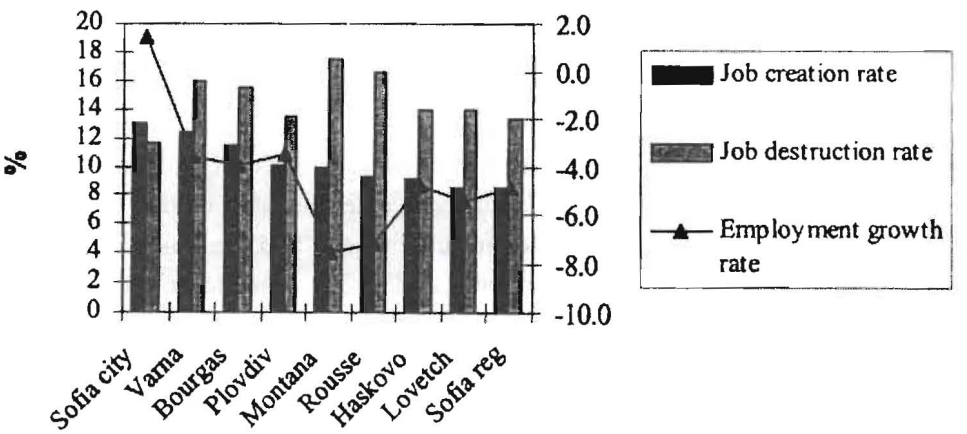
in Bulgaria, as the number of jobs created in the new, small enterprise, sector falls short of the number of jobs eliminated in the old, large enterprise sector.

Regional differences

Job creation and job destruction vary visibly, although not very strongly, by region, underscoring the spatial differentiation of labor market conditions in Bulgaria (Figure 4.3).[52] The regions with the highest job creation, and thus with the best employment opportunities, include Sofia City, Varna and Bourgas. In these regions the job creation rate is at 12-13 percent. In contrast, in depressed regions, which provide few job opportunities, the job creation rate is around 9 percent. These include Sofia district, Lovetch, Haskovo and Rousse.

Regions which eliminate most jobs (relative to their employment) and where the risk of losing work is the highest are Montana, Rousse, Varna and Bourgas. In all of these regions the job destruction rate is very high, at between 15 to 18 percent. Regions where

Figure 4.3: Job Reallocation by Region



Source: NSI data (2000), Bank staff calculations.

[52] Regional differentiation of labor market conditions and its sources are analyzed in Kotzeva (2002).

the risk of job loss is relatively low include Sofia City and Region, and Plovdiv. However even in the city of Sofia, where the job destruction rate is the lowest, it is nevertheless high at close to 12 percent.

In some regions, high job destruction goes hand in hand with high job creation. These are high turnover regions where workers are able to switch between jobs relatively quickly. These include Varna, Sofia City and Bourgas. In contrast, in some other regions the labor market is more stagnant, with less job turnover. In such regions once a worker loses a job, it is extremely difficult to find a new one. Examples of low job turnover regions include the district of Sofia, Lovetch and Haskovo.

Expanding and declining industries

Growing industries which provide the best job opportunities include business activities, legal services, accounting, business counseling, marketing, personnel recruitment, etc., trade (wholesale and retail), the apparel industry, and car sale. Employment in these areas increased by 13 percent in 2000 over the previous year (Table 4.8). The growth of these industries reflects the market transition and the growing share of services in the economy, Bulgaria's comparative advantage in international trade (the apparel industry), as well as increasing standards of living (car sales). These industries provide job opportunities for both highly skilled, white collar workers and less skilled service and blue collar workers.

Declining industries, where jobs are at risk and declining, include agriculture and forestry, health and education, manufacturing of transport and machinery equipment, and the travel industry (Table 4.8). The magnitude of employment reductions in some of these industries is indeed dramatic. For example, forestry decreased employment by about one-third over a year. The decline of these industries reflects economic development (agriculture), lack of comparative advantage (some manufacturing branche), and the downsizing of the inefficient public sector (education and health).

Job opportunities are provided not only in expanding industries, but also in industries characterized by high job turnover. These industries simultaneously create and close a large number of jobs, implying that the jobs they provide are often temporary. Nonetheless, for many workers they offer a chance to enter the labor market and gain work experience. Such high turnover industries include sewage and sanitation, construction, hotels and restaurants, food industry, and retail trade. For example, in the construction industry, over 16 percent of jobs were reallocated from shrinking firms toward expanding firms. These industries create employment opportunities largely for manual, less skilled workers.

Although it would be expected that during the course of economic transition jobs would largely be reallocated *between* industries, it turns out that this is no longer the case in

Table 4.9: Job Reallocation by Industry:

A. Top 10 industries with highest rates of job creation	Job creation rate
Electricity, gas & hot water supply*	34.2
Other business activities	23.8
Wholesale trade	21.9
Car sale	17.3
Hotels & restaurants	17.1
Retail trade	16.7
Sewage & sanitation	16.4
Construction	16.3
Leather	16.1
Apparel	15.1

B. Top 10 industries with highest rates of job destruction	Job destruction rate
Forestry	38.3
Electricity, gas & hot water supply*	37.7
Health care**	36.7
Agriculture	21.1
Real estate	20.5
Transport equipment	18.7
Construction	17.7
Wood	17.1
Sewage & sanitation	16.6
Machinery	16.1

C. Top 10 industries with highest rates of job reallocation	Job reallocation rate
Electricity, gas & hot water supply*	68.4
Sewage & sanitation	32.9
Construction	32.6
Hotels & restaurants	30.9
Real estate	28.9
Wood	28.1
Food	26.4
Retail trade	26.2
Furniture	25.2
Agriculture	23.8

D. Top 10 industries with highest rates of employment growth	Employment growth rate
Other business activities	13.0
Wholesale trade	10.8
Apparel	6.5
Car sale	6.4
Leather	5.1
Water (distribution)	4.0
Retail trade	3.6
Public administration	1.9
Publishing	1.8
Hotels & restaurants	1.6

(*) High job turnover in this industry reflects administrative changes and is largely spurious.

(*) High job destruction in the health sector in large part reflects changes in the type of employment relationship (employees of medical centers turning into self-employed GPs) and is largely spurious.

Source: Survey of Employment and Wages (2000), National Statistical Institute; Author's calculations.

Bulgaria. In other words the country has already approached the equilibrium industry employment structure, when job reallocation takes place mainly *within* industries. Specifically, in 2000 only 17 percent of jobs were reallocated between industries, while as much as 83 percent of jobs were shifted from shrinking toward expanding firms within an industry.

The dominance of within industry job reallocation over between industry reallocations is good news from the perspective of unemployment. It is presumably easier for workers who have lost their jobs to find a new job within the same industry, rather than in a different industry. Skill requirements are similar across firms within an industry, and thus

the problem of skill mismatch is likely to be less severe, implying a limited need for re-skilling and retraining. Still, the between industry component of job reallocation is non-negligible, implying that a significant fraction of workers who have lost their jobs in declining industries need to acquire new skills in order to find new jobs in growing industries.

Job Turnover and Unemployment

High job turnover may increase overall unemployment, but may also lower the average duration of unemployment (Garibaldi et al., 1996; Box 4.1). This is because high job turnover implies larger inflows into unemployment, while simultaneously creating larger outflows from unemployment to jobs. Conversely, low job turnover is expected to be associated with longer duration of unemployment, although the overall unemployment pool may be smaller.

Box 4.1: How Does Enterprise Restructuring Affect Unemployment?

Restructuring and associated job reallocation can contribute to unemployment through two channels: (i) productivity gains and (ii) frictional and structural unemployment:

Productivity improvements. Job reallocation brings about productivity gains because it supposedly entails the destruction of low-productivity jobs and the creation of high-productivity jobs. Higher productivity implies that the same output can be produced with fewer workers. The negative effect of productivity increases on unemployment has a short-term nature, since in the longer term productivity increases result in lower unit labor costs and lead to new investments which bring about new jobs which thus mitigate unemployment.[53]

Frictional and structural unemployment. Job reallocation means that displaced workers need to search for new jobs, which takes time and requires acquiring information on new job opportunities. Moreover, jobs that have been destroyed usually differ in salient characteristics (e.g. skills required to perform them, or location) from those which have been created. Workers need to acquire new skills and/or move to different locations to find new jobs. Given that workers are not perfectly mobile, structural (skill and spatial) mismatches arise. That is, job reallocation gives rise to the mismatch between the skills demanded and supplied in a given area, or causes an imbalance between the supplies of and demands for workers across areas. Frictional and structural unemployment are thus an unavoidable consequence of restructuring and associated reallocation of labor (Lilien, 1982, Abraham and Katz, 1986).

Source: Rutkowsk, (2002a).

Correlation analysis for 28 districts reveals that in Bulgaria, high job creation is associated with a high employment-to-population ratio and a shorter duration of unemployment (Table 4.9).[54] However, surprisingly, on its own, a high job creation rate does not reduce unemployment (at a district level). This implies that while the working age population at large benefits from greater availability of job opportunities, the unemployed may not. This may point to the skills gap, which prevents the unemployed from competing successfully for jobs with other members of the labor force.

[53] This is under the assumption that productivity gains are not fully consumed by higher wages but instead improve the rate of return on investments.

[54] The correlation analysis in this section shows an association between the variables and does not necessarily imply causation.

Table 4.10: Correlations Between Job Creation, Job Destruction and Other Indicators of Labor Market Conditions in 28 Districts, 2000

	jc	jd	egr	ejr	erate	urate	ltu	udur
jc	1.000							
jd	-0.061	1.000						
jt	0.702	0.669	1.000					
egr	0.739	-0.717	0.039	1.000				
ejr	0.969	0.108	0.799	0.603	1.000			
erate	0.471	-0.666	-0.124	0.774	0.333	1.000		
urate	-0.140	0.789	0.460	-0.626	-0.015	-0.837	1.000	
ltu	0.087	0.204	0.210	-0.074	0.144	-0.300	0.255	1.000
udur	-0.487	0.529	0.015	-0.693	-0.395	-0.851	0.732	0.415

Notes: jc = job creation rate; jd = job destruction rate; jt = job turnover rate; egr = employment growth rate; ejr = excess job reallocation rate; erate = employment-to-population ratio; urate = unemployment rate; ltu = long-term unemployed as a share of unemployment; udur = average duration of unemployment spells.
Note: correlations are weighted by the district's employment level.
Source: Author's calculations.

Conversely, a high job destruction rate at the district level is associated with a low employment-to-population ratio, a high unemployment rate, and longer unemployment duration. This, combined with the previous finding, indicates that the regional unemployment rate in Bulgaria is strongly affected by inflows into unemployment which are a consequence of job destruction, but is not sufficiently affected by the rate of job creation and associated employment opportunities. This is a negative phenomenon, which does not bode well for unemployment reduction in Bulgaria. Expectedly, it is the difference between the job creation and job destruction rates (i.e. the *net* job creation rate) that plays a critical role in determining labor market conditions. A higher net job creation rate implies higher employment and lower unemployment, as well as shorter duration of unemployment spells.

Net job creation, and therefore employment growth, tend to be higher in regions undergoing faster restructuring. There is a significant positive correlation between regional employment growth and the degree of enterprise restructuring as measured by the excess job reallocation rate (r=0.60). A region's employment growth depends in equal measure on job creation (r=0.74) as job destruction (r=-0.72). This implies, that a strategy to promote sustainable regional growth should focus improving the environment for job growth, rather than on preventing the destruction of unviable, low productivity jobs. In high turnover regional labor markets (as measured by the excess job reallocation rate) unemployment duration tends to be shorter. The correlation of these two variables is strong (0.60). However, a high rate of job reallocation does not seem to contribute significantly to unemployment. In other words, more intensive enterprise restructuring does not necessarily lead to higher unemployment.

The share of long term unemployment is virtually unaffected by job turnover. Specifically, a high job creation rate does not lower long-term unemployment. A large fraction of the long-term unemployed can exist in both dynamic and stagnant labor markets. This suggests that the long-term unemployed are left out of the labor market and face difficulties taking advantage of new job opportunities.

In summary, the rate of job turnover has a visible impact on labor market conditions in Bulgaria. There is evidence that higher job turnover reduces the duration of unemployment spells. However, a disturbing feature of the relationship is the asymmetric reaction of regional labor market conditions to changes in job creation and in job destruction. Unemployment is highly sensitive to the rate of job destruction. However, it is virtually insensitive to the rate of job creation. An increase in the rate of job destruction brings about an increase in the unemployment rate and in the average duration of unemployment spells. In strong contrast, an increase in the rate of job creation by itself does not lower unemployment significantly, and does not reduce the share of long-term unemployment, although it tends to shorten the job search duration.

The likely reason for this asymmetric reaction is that the unemployed lack the skills necessary to successfully compete for new jobs. These new jobs often differ significantly from the old jobs as regards the skill content, occupation and necessary qualifications. This problem is aggravated by the long duration of unemployment spells, which leads to the erosion of skills and morale, and thus further undermines the effectiveness of job search and renders the long-term unemployed unattractive to employers. This is a serious problem in Bulgaria which limits the unemployment reduction potential of economic growth and job creation.

D. The Regulatory Environment for Employment Growth

Business Climate

Despite the marked increase in the number of businesses in Bulgaria, there are still considerable obstacles to new entry and business growth. The legal framework is inconsistent, which creates scope for arbitrary decision making and abuse. Registration and licensing procedures are more difficult and lengthy than in other countries. For example, as many as seven different permits are needed to start a new firm in Bulgaria, in comparison with two in the U.K., and three in Estonia and Poland. In addition, the number of business activities that require a permit increased from 42 in 1995 to 100 in 2000 (Stoev, 2002). Business activity is over-regulated creating scope for bureaucratic harassment. Box 4.2 illustrates problems faced by small entrepreneurs from a recent opinion survey.

High taxes. Another constraint to small business growth is the level of business taxation in Bulgaria, which is among the highest in the region. High labor taxes (personal

Box 4.2: Small Entrepreneurs Complain about the Business Environment

Responses from a survey of small business entrepreneurs illustrate the problems they face in opening and running a business:

"If I had to start again, I would not even think of opening a business."

"I can not even remember how many times I went for each permit. It is just insanely long".

"During the inspections they pick on every single thing. When they decide to pick up your money, there is no way out. They always find something to pick on."

"You must hold a law degree to be able to open a cafeteria."

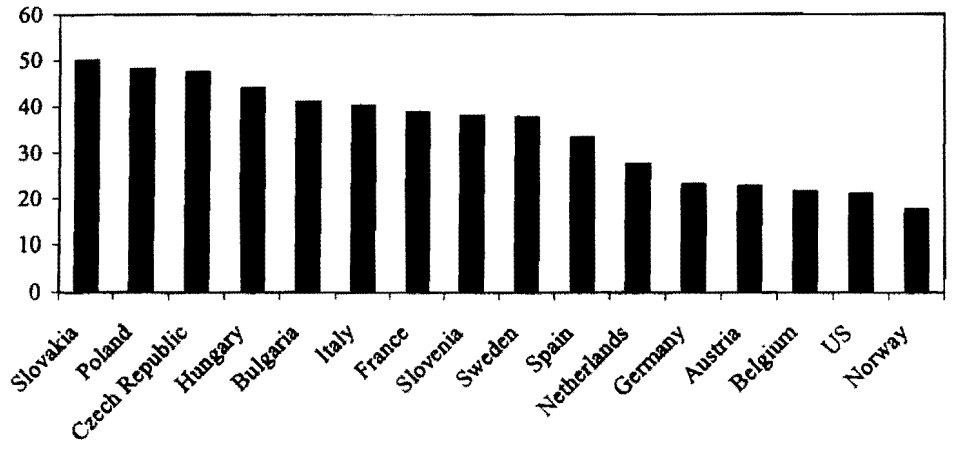
"Instead of thinking how to be more efficient we spend 60 percent of our time thinking how to cope with tax authorities and inspectors."

"There should be rules of the game, but clear ones and equally applicable to all".

Source: Gancheva et al. (2000).

income tax (PIT) and payroll contributions for social insurance) are of particular concern, as they negatively affect labor demand and job creation. The tax wedge between labor costs to employers and take home pay amounts to 41 percent in Bulgaria. In other words, of each 100 leva paid by an employer as labor compensation, employees receive only 59 leva, while the rest is taken in the form of taxes and contributions. These taxes and contributions in most part are used to finance the provision of important public services, such as education, health care, and social security. Nonetheless, the effect of a large tax wedge is lower wages and lower employment, representing a "deadweight loss" of taxation. Thus, reforms that improve the efficiency of public services can decrease social taxes and increase incentives for private investment and new jobs.

Figure 4.4: Payroll Taxes in Comparison (% of salary)



Sources: Rutkowski (2002a), World Bank (2001).

Legal Constraints to Labor Market Flexibility

Labor market institutions, including the regulatory framework anchored in the Labor Code, can limit labor market flexibility and consequently employment growth. In comparison with other transition countries, such as countries of the former Yugoslavia, regulatory barriers to labor market flexibility are modest in Bulgaria, and are broadly in line with those in other transition economies with relatively flexible labor markets.[55] The Bulgarian Labor Code was amended in March 2001 with the objective of adjusting it to the needs of a market economy and improving labor market flexibility. However, flexibility remains limited in some areas. While these remaining rigidities are not overwhelming in Bulgaria, there is room for enhanced flexibility along a number of dimensions.

Employment protection legislation is not unduly restrictive in Bulgaria. On the positive side, it includes relatively low monetary costs of dismissals (short advanced notice and low mandatory severance pay), and an option to redistribute working hours, which gives employers flexibility in adjusting labor input to fluctuations in product demand. In some areas, however, existing legislation excessively restrains employers from adjusting the size and composition of their workforce to changing economic conditions, with possibly negative consequences for firm performance. These areas include:

Procedural costs of dismissal[56]. The burden of proof that an employee lacks necessary skills, performs poorly or violated work discipline rests on the employer. Courts tend to exhibit a pro-labor bias, rule dismissal invalid and order reinstatement and/or payment of compensation. Moreover, the Labor Code does not list economic (efficiency), technological or organizational reasons as valid reasons for dismissal. All this renders dismissals difficult in practice, especially in firms with strong union presence High dismissal costs, which make it difficult for employers to fire redundant labor during a downturn, discourage hiring during an upturn. This is because employers do not want to be locked into an unprofitable relationship and try to avoid future costs associated with redundancies.

Strict limitation on the use of fixed-term employment contracts. Fixed-term contracts in Bulgaria are allowed only for work which is temporary or seasonal in nature, and can be renewed only once. This explains the limited incidence of fixed-term contracts in Bulgaria, and is likely to contribute to limited hiring. As mentioned, if employers cannot easily adjust the size and composition of their workforce according to business needs, then they resort to less hiring. Restrictions on the use of fixed term contracts especially hurt the employment chances of less productive workers (e.g. those with little labor market experience or low

[55] Refer to Rutkowski (2002, Annex 1) for a comparative summary of labor legislation in 5 transition economies.

[56] Procedural costs of dismissal relate to administrative, legal and judicial procedures necessary to carry out a valid dismissal. They should be distinguished from monetary costs of dismissal (such as severance pay). However lengthy and difficult administrative procedures involve an opportunity cost and eventually translate into monetary costs borne by the employer.

skills). In other words, precisely those workers who are most affected by long-term unemployment[57].

Restrictions on the use and high costs of overtime work. The use of overtime is in principle prohibited in Bulgaria, except in emergency situations and in the case of intensive seasonal work. The Labor Code also imposes a tight yearly limit of 150 overtime hours (the limit in Hungary is twice as large). The use of overtime is also very costly for employers, as they have to pay a premium of at least 50 percent of the base wage. These restrictions limit the ability of employers to adjust the volume of production to fluctuations in demand. However, on the positive side, a provision exists which allows employers to redistribute working hours over the period of one quarter, i.e. to lengthen working hours during peak demand and shorten them proportionately when demand is low. Still, greater working time flexibility would improve the competitiveness of Bulgarian enterprises.

Limitations on wage adjustments. According to the Labor Code, employers are obliged to pay 100 percent of wages during a production stoppage, and hence cannot adjust wages to changing demand conditions. While the intention of this provision is to protect worker earnings, in practice it may hurt workers by compelling the employer to reduce employment rather than wages during the period of depressed demand.

In addition, limitations on wage adjustment come from the statutory minimum wage. Until recently the minimum wage was low relative to the average wage, thus hardly hurting the employment opportunities of low skilled and inexperienced workers. However the minimum wage was raised in October 2001, which increased its "bite". Currently the minimum wage is at around 38 percent of the average wage, which implies that it is likely to limit employment opportunities of less skilled, less experienced workers in the depressed regions of the country. It should be noted that the minimum wage is not an effective anti-poverty tool, as often minimum wage workers are young persons who are secondary earners in non-poor families. At the same time, too high of a minimum wage hurts the poor, whose productivity is often low, by locking them out of employment.

[57] An objection can be raised that a widespread use of fixed term contracts may lead to higher poverty rates, as workers with fixed-term contracts are more often poor than workers with permanent contracts (see Table 3.8). This argument has a limited validity, however. First, as a rule it is the nature of a job, not contract, which determines the level of earnings. For example, temporary or seasonal jobs usually require less skills, and therefore are low-paid. Second, often an alternative for hiring a worker on a fixed-term contract may be not hiring on a permanent contract, but not hiring at all. Accordingly, to the extent that fixed-term contract encourage hiring they contribute to lowering poverty, not increasing it. Admittedly, fixed-term contracts can be abused by employers, and therefore some restrictions on their use – for example a limit on cumulative duration – are justified. The point is that these restrictions should not be excessive (as it is currently the case in Bulgaria) in order not to discourage hiring.

E. The Skills Gap

An important factor contributing to high unemployment in Bulgaria is the skills gap and the poor ability of the unemployed to compete for new jobs. The unemployed, and especially the long-term unemployed, have lower educational attainment and skills than the employed. In other words, there is an "excess supply" of poorly educated persons among the unemployed, as there are not enough low skilled jobs to eliminate unemployment.[58] Consequently, unemployment is disproportionately concentrated among workers with low educational attainment and poor skills.

The size of this skills gap can be estimated by assuming that the number of job vacancies is equal to the number of job seekers. The analysis suggests that nearly 20 percent of the unemployed cannot find a job because their skills fall short of employer needs.[59] This is a small increase from the mid-1990s, when the skills gap was estimated at 17 percent. Not surprisingly, the extent of the skill gap is more pronounced among the long-term unemployed than it is among the short-term unemployed, although the difference is relatively small, and smaller than in other countries. These estimates imply that the skills gap is responsible for over 20 percent of the current unemployment rate. This is a lower bound estimate under optimistic assumptions. In reality, the problem of skill gap may be even more pronounced.

The inadequate skills of the unemployed, and especially of the long-term unemployed, likely contribute to the relatively limited outflows from unemployment into work in Bulgaria. Poor skills prevent a substantial share of the unemployed from effectively competing for jobs, and can lead to their marginalization on the labor market. The high rate of job-to-job movements (10 percent),[60] compared with the low rate of exit from unemployment to work indicates that the unemployed in Bulgaria often lose in the competition for new jobs to those who already have jobs. The unemployed account for only 40 percent of new hires, while the rest is accounted for by persons who change jobs (40 percent), and

[58] A critical variable that here is assumed to be constant is the structure of wages. A flexible wage structure, entailing the fall in relative wages of low skilled workers, would in theory help to absorb unemployment among poorly educated workers. However, social norms embedded inter alia in the minimum wage, prevent wages from adjusting to supply and demand conditions.

[59] The formula to calculate the skill gap is: $sg = \sum_{i=1}^{L} (u_i - e_i)$ for $u_i > e_i$, where u_i and e_i are percentage shares of the i-th educational level in unemployment and employment, respectively, and L is the number of educational levels.

[60] The rate of job-to-job movements means 10 percent of workers who were employed in March 2000 were in a different job one year later. This rate is high compared with other transition economies. For example in Lithuania and Poland job-to-job movements are of the order of 5-6 percent, and are thus smaller than in Bulgaria in both absolute terms and in relation to movements form unemployment to employment. The relatively high rate of job-to-job transitions means that employers prefer to fill in existing vacancies by bidding away workers from other jobs, rather than hiring the unemployed. This suggests that the unemployed in Bulgaria are marginalized, more so than in Lithuania and Poland.

new entrants to the labor market (20 percent). In other words, there is some evidence that employers prefer to hire from the ranks of the already employed rather than from the ranks of the unemployed, whom they tend to perceive as less productive.

The importance of the skills mismatch in Bulgaria points to the role of educational and training systems in addressing the problem of low, narrow and inadequate skills. While the training system can sometimes address the problem of inadequate skills at the margin, the overall educational system needs to play a much more fundamental role in producing trainable, rather than trained, workers. That is, workers who are first of all capable of permanent learning, and are able to acquire new skills in response to ever changing job requirements. Thus, building human capital should be perceived as a central component of an effective employment policy.

As discussed in the previous chapter, there is also a regional dimension to the skills gap. There are substantial and increasing differentials in the unemployment rate across regions. This implies that there is a significant mismatch in the labor market across the country and suggests that there are barriers to labor mobility, which prevent unemployed workers from moving to areas where there are jobs. One such example is the limited housing market.

F. Findings and Policy Implications

How can unemployment in Bulgaria be lowered? No single measure can reduce unemployment on its own. However a package of measures can contribute to job creation, and thus to the reduction of unemployment. Many of the measures needed to improve labor market performance lie outside of the labor market, including structural reforms within the economy as a whole. Bulgaria has made considerable progress in regaining macroeconomic stability, as well as restructuring and closing non-functioning SOEs and banks, and privatizing non-infrastructure SOEs.

Bulgaria's on-going reform agenda includes measures which will – in addition to maintaining macrostability contribute to employment growth, including: (i) *sustaining structural reforms* in the enterprise sector with emphasis on the restructuring of the energy, railway, telecommunications, and water sectors; (ii) *strengthening market institutions*, focusing on entry and exit policies, regulatory costs, delivery of public services, competition, and judicial reform; (iii) *deepening the financial sector*, addressing the constraints to increased lending by the banking system and the development of financial markets; (iv) *improving governance*, including implementing the anti-corruption strategy, strengthening local governments, and reforming core public administration; and (v) *investing in human capital and strengthening social programs*, focusing on education, health, and pension reforms and social assistance effectiveness.

Closely related to the above, and within the labor market itself, three main areas of reforms can be addressed:

First, priority should be given to ***improving the business environment*** to facilitate the growth of small enterprises. Existing barriers to entry and constraints to growth of existing firms should be removed to encourage the development of the new, more productive sector of the economy. Developing a friendly business environment comprises creating transparent rules of the game, deregulation, less discretionary power for bureaucrats, and a lower level of business and labor taxation.

Improving conditions for business entry should involve easing requirements and reducing licensing and permit procedures to a minimum. Second, the tax burden, including labor taxes, should be reduced to foster both labor supply and labor demand. This requires a substantial improvement in the efficiency of public services to reduce required revenues.[61] These two groups of measures can help to achieve a third important objective, reducing the size of the informal sector, as they will lower costs of moving from the informal to the formal sector. This in turn can set in motion a virtuous circle of broadening the tax base and thus increasing budget revenues which will make it possible to further reduce tax rates.

Second, labor markets should be reformed to ***improve flexibility***. Reforms should be based on three principles: (a) *deregulation* of labor relations through changes to the Labor Code; (b) *devolution* of the responsibility for determining the labor relations to social partners, which entails adequate and genuine representation of employers and employees in social dialogue, and (c) *decentralization* of collective bargaining by strengthening firm level bargaining.

Third, ***educational and training systems should be improved*** to address the problem of the skills gap and skill mismatches. While the education system should be reformed with a view toward providing broad labor market skills to all students, and to produce trainable, rather than trained workers, adult training should be targeted at selected worker groups with well identified labor market problems and tailored to the needs of employers.

[61] For further discussion of public expenditure reform options in Bulgaria see the recent report: "Bulgaria: Public Expenditure Issues and Directions for Reform," Report No. 23979-BUL.

Chapter 5: Coping with Poverty[62]

A. Introduction

Social protection mechanisms in Bulgaria help many households cope with the risks of poverty and low income. Much of the dramatic decline in poverty since the 1997 crisis can be attributed to the role of social protection programs in keeping households out of poverty – especially in the context of high and increasing unemployment. Unemployment benefits, pensions and social assistance programs provide an important source of income for many Bulgarians. In 2001, over 80 percent of Bulgarians received at least one type of benefit. Total public spending on social protection increased from 9 percent of GDP in 1997 to 13 percent in 2000. In addition to these formal, public programs, many Bulgarians rely on informal coping strategies, including remittances, migration, working multiple jobs and own production of food.

This chapter discusses the role of both formal and informal social protection mechanisms in addressing poverty and helping households manage risks. The relatively low poverty gap – 0.7 percent of GDP in 2001, suggests that further improvements to the targeting and coverage of social protection programs could be made to increase the effectiveness of the safety net in reaching the remaining pockets of poverty. The experience of the 1997 crisis and the dramatic impact of price shocks on household welfare also highlight the importance of both public and private social protection mechanisms in helping households cope with temporary shocks. Following an overview of the main features of the social protection system, this chapter examines the poverty alleviation impact and effectiveness of the main programs.[63] It then discusses three of the programs which are most important from a poverty alleviation perspective in more detail: unemployment benefits, social assistance and child allowances. Finally, it discusses the role of informal coping strategies.

B. The Social Protection System

Bulgaria has a comprehensive social protection system consisting of three main categories of programs: (i) social insurance programs, including pension and unemployment benefits; (ii) social assistance benefits, including cash and in-kind benefits; and (iii) family benefits, including child allowances and maternity benefits. These programs comprise a mix of programs inherited from the socialist period, such as family benefits, as well as new programs, such as unemployment benefits, initiated during the 1990s to meet the needs of a

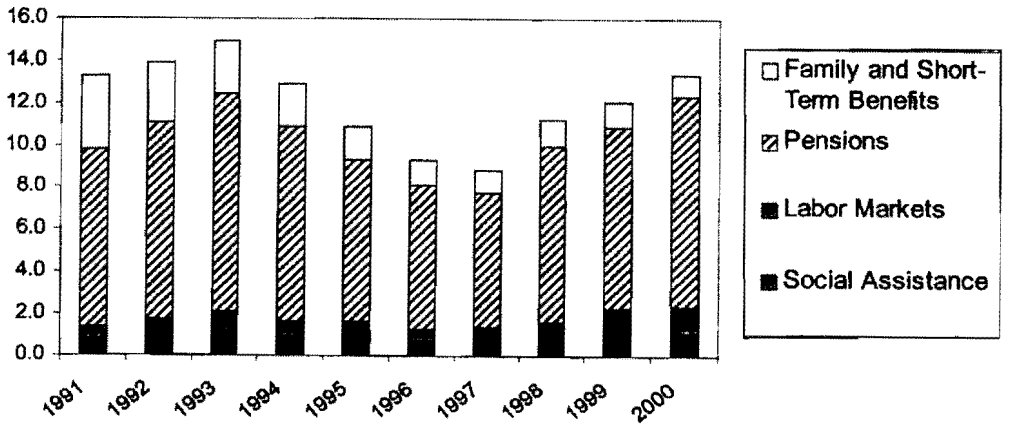
[62] This chapter is based upon the background paper on poverty and social protection by C. Tesliuc.

[63] Further information on the fiscal impact of social protection programs is provided in the 2002 public expenditure review.

market environment. Prior to 1991, guaranteed employment served as the main social protection mechanism in the country. Social assistance had a relatively small role, with limited programs for those who were not able to work, such as the elderly and the disabled. With the economic restructuring and reforms of the late 1990s, the social protection system has expanded to encompass welfare programs that explicitly help households to cope with the new risks of poverty and unemployment.

During the 1990s, social protection financing in Bulgaria averaged 12 percent of GDP, peaking at 15 percent in 1993, and dropping to a low of 8.8 percent of GDP during the crisis of 1997. Social protection spending increased at the outset of the transition period with the growth of unemployment and the influx of early retirees into the pension system. Real social expenditures fell dramatically beginning in 1992, reaching 31 percent of 1991 levels by 1997. After 1997, social protection spending grew alongside GDP, attaining 13 percent of GDP in 2000, but only partially recovering its purchasing power. (Figure 5.1). As a share of total consolidated government expenditures, social protection expenditures increased from 22 percent in 1996 to 28 percent in 2000.

Figure 5.1 Social Protection Expenditures (% of GDP)



Sources: MOLSP, MOF.
Note: Labor market expenditures include active and passive measures.

Coverage

Social protection programs in Bulgaria have wide coverage within the population. Over 80 percent of Bulgarians received at least one type of benefit in 2001 (Table 5.1). Since 1995, coverage of unemployment benefits, child allowances, and social assistance, including the extended Guaranteed Minimum Income (GMI) program (a combination of cash and in-kind means-tested programs which comprise the main safety net program) has become more widespread.

As a whole, social protection programs have become better targeted since the mid-1990s. In 1995, the share of poor and non-poor households receiving benefits was nearly identical.[64] Pensions and unemployment benefits had similar, outreach among poor and non-poor households. This is not surprising, as the primary objective of these social insurance benefits is income smoothing, rather than social assistance. Child allowances were received more frequently by the non-poor than the poor and, as expected, social assistance programs had a higher outreach among the poor. The pro-poor orientation of all social protection programs-with the exception of pensions-increased in 1997, and further in 2001. The share of poor households receiving all types of social assistance programs nearly doubled, from 26 percent in 1995 to 49 percent in 2001.

Table 5.1: Coverage of Social Protection Programs: 1995, 1997 and 2001 (% of persons receiving benefits*)

	Total			By Poverty Status of the Recipient					
				Non-poor	Poor	Non-poor	Poor	Non-poor	Poor
	1995	1997	2001	1995		1997		2001	
All social protection	80.4	79.4	83.6	80.4	82.1	76.9	83.8	82.5	92.0
Pensions	52.7	52.3	53.8	52.4	57.4	47.9	60.3	54.6	47.7
Unemployment benefits	6.0	6.4	13.4	5.7	11.7	5.1	8.7	11.4	28.3
Child allowance	33.7	36.9	40.5	34.6	19.2	36.6	37.5	39.4	48.4
Social assistance	12.8	11.1	19.1	12.1	25.5	8.7	15.2	15.2	48.8
Extended GMI	2.6	6.3	7.1	2.3	7.0	5.0	8.8	4.3	28.5
Maternity and childcare	6.6	3.8	6.6	6.1	14.8	2.9	5.5	5.3	17.0

Sources: BIHS 1995, 1997, 2001.

Note: (*) Beneficiary households weighted by household size. Poverty is defined as two-thirds 1997 mean per capita consumption.

The outreach of social protection programs is higher among the poor and in rural areas where poverty is concentrated. Various social protection programs have different outreach. Pensions have the largest incidence; almost half of the population live in households receiving an old age, disability or survivor pension. Of these, old age pensions are the most widespread, benefiting 25 percent of Bulgarians. The coverage of pension benefits extends further within the population; 50 percent of the population lives in households where at least one household member receives an old age pension. The incidence of benefits is higher in female headed households, with 88 percent receiving benefits, than in male headed households, where the figure was 83 percent. This is mainly due to greater incidence of survivor pensions among female headed households.

After pensions, the child allowance is the second most widely received social transfer, benefiting households in which 41 percent of the population lives. Although households with children benefit from virtually universal coverage, the survey data shows that as

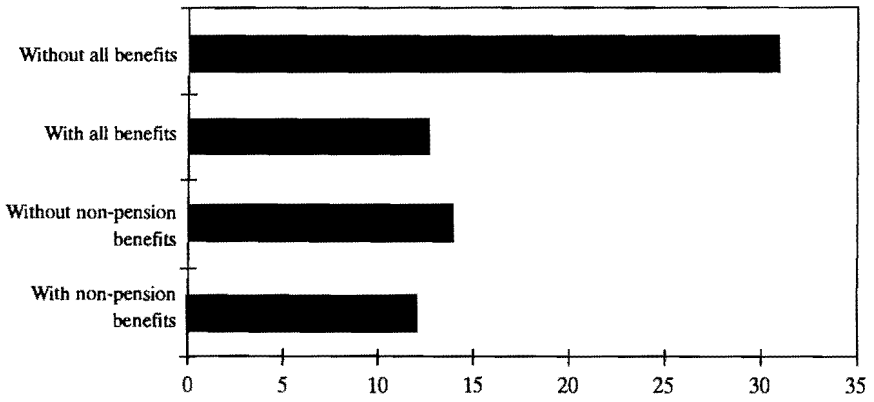
[64] Throughout this chapter the poverty line of two-thirds mean 1997 per capita consumption is used for the analysis.

much as 25 percent of persons living in households with children do not receive child allowances. This is a result of low coverage of benefits among the self-employed and other uninsured households. The take-up rate drops rapidly for households with children over 14 years old. Incidence among households in rural areas is 10 percentage points lower than for households in urban areas. The incidence of child allowance is higher in poor households, however 86 percent of recipients live in non poor households. About 13 percent of the population lives in households receiving unemployment benefits, as do 38 percent of those living in households where the head is unemployed.

Poverty Alleviation Impact

Social protection programs, particularly pensions, keep many households from falling into poverty. In order to quantify the impact of social protection benefits on poverty, the poverty rate was measured with (ex post) and without (ex ante) benefits. It is important to note that this simulation assumes no behavioral changes – in reality households will face incentives to change consumption patterns in the absence of benefits. Assuming this caveat, in the absence of social protection programs, poverty rates would be 18 percentage points higher (Figure 5.2, Table 5.2). Although the main objective of pension benefits is not poverty relief, these benefits are largely responsible for the reduction in poverty. Without non-pension benefits – all unemployment and social assistance, benefits – the poverty rate would be just two percentage points higher. The disproportionate role of pensions also reflects the older age distribution of the population.

Figure 5.2: Poverty Rates With and Without Social Protection Benefits, 2001



Source: BIHS 2001.

Social protection programs combined to reduce the overall poverty headcount from 29.9 percent to 11.7 percent in 2001. Among benefit recipients, the poverty headcount fell from a high of 35.1 percent before benefits (ex ante), to a low of 12.8 percent after benefits (ex post). In relative terms, ex post poverty is 61 percent lower than ex ante poverty (a weighted average of a 64 percent reduction among beneficiaries and 0 percent reduction

Table 5.2: Poverty Levels With and Without Social Protection Benefits, 1995, 1997 and 2001

	Recipient 1995		Total	Recipient 1997		Total	Recipient 2001		Total
	Yes	No		Yes	No		Yes	No	
Pop. Share:	80	20	100	79	21	100	84	16	100
Poverty Headcount (%)									
Without	24.2	5.0	20.5	52.7	28.4	47.7	35.1	6.4	29.9
	1.2	2.5	1.1	1.6	2.4	1.5	1.2	1.8	1.1
With	5.6	5.0	5.5	38.0	28.4	36.0	12.8	6.4	11.7
	0.8	2.5	0.9	1.6	2.4	1.5	1.0	1.8	0.9
Poverty gap									
Without	12.5	2.3	10.5	23.6	9.0	20.6	19.9	2.4	16.8
	0.8	1.5	0.7	1.1	1.3	1.0	0.8	1.0	0.7
With	1.6	2.3	1.7	12.1	9.0	11.5	3.8	2.4	3.6
	0.3	1.5	0.4	0.9	1.3	0.8	0.4	1.0	0.4
Poverty severity									
Without	10.1	1.2	8.4	15.0	4.5	12.8	17.4	1.2	14.5
	0.9	0.9	0.7	0.9	1.0	0.8	1.0	0.6	0.9
With	0.7	1.2	0.8	5.5	4.5	5.3	1.8	1.2	1.7
	0.2	0.9	0.2	0.6	1.0	0.6	0.2	0.6	0.3

Source: BIHS 1995, 1997, 2001.

among non-beneficiaries).

The reduction in the poverty headcount provides only a partial picture of the impact of social spending. The poverty headcount does not take into account the reduction in poverty among those poor who are not lifted out of poverty by social protection programs. This can be addressed by examining the "poverty gap" and "poverty severity" measures, which are more distributionally sensitive. Social protection programs as a whole succeeded in reducing the poverty gap by 79 percent from its ex ante estimate, and poverty severity by 89 percent. In 2001, non-pension social protection programs had a modest impact in reducing the overall headcount rate from 13 to 12 percent, the poverty gap from 4.7 to 3.6, and the poverty severity measure from 2.6 to 1.7. Social assistance expenditures amounted to 1.1 percent of GDP in 2000, and labor market expenditures 1.2 percent.

Effectiveness of Social Protection Programs

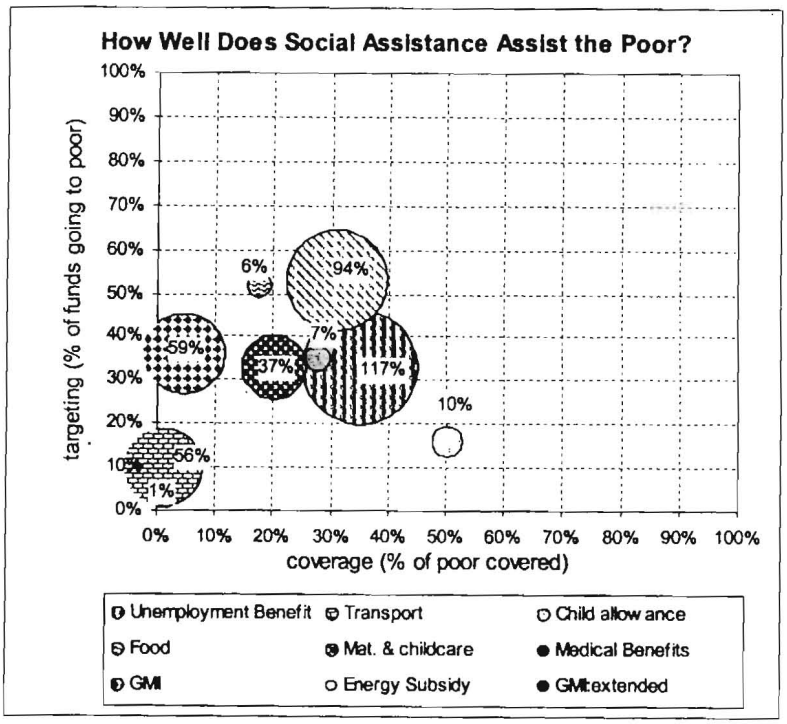
How effective is the social protection system at reaching the poor? Three related concepts are used to capture the capacity of the system in channeling funds to the poor. First, **coverage** is defined as the share of the poor receiving a particular benefit, or more specifically, the share of those who are poor before receiving the benefit and receive the benefit. Second, **targeting** refers to the share of funds channeled to the poor before they receive benefits. The complement of this measure is usually referred to as leakage, the

share of funds going to the non-poor. Finally, the **adequacy** of a transfer refers to the ratio of benefits to the pre-benefit consumption for a particular household[65].

Figure 5.3 plots these three indicators on one graph for 2001 for most national social protection programs, except pensions. The Annex Table at the end of this chapter includes the data used for the figure. The program coverage of the poor is read on the x-axis, and the targeting of resources to the poor on the y-axis. The adequacy of the program is proportional with the size of the "bubbles", and is listed above each bubble. In Figure 5.3, a perfect program would be located in the upper-right quadrant, where it would have 100 percent coverage of the poor, and 100 percent targeting. For a program to be perfect in terms of program adequacy it should provide benefits equal to the household consumption deficit (poverty gap) before the transfer (accounting for incentive effects).

None of the programs implemented in Bulgaria in 2001 are close to the upper-right quadrant, or the "perfect program" benchmark of coverage or targeting. Programs can be categorized into three groups based on targeting effectiveness. First, medical and transport

Figure 5.3: Coverage, Targeting and Effectiveness of Social Protection Programs



Sources: BIHS 2001.

[65] For few types of households and individual benefits, transfers exceed consumption. Thus, consumption in the absence of the transfer goes to zero (it cannot be negative), and the adequacy indicator goes to infinity. In these cases, we capped adequacy to a level of 200%.

benefits are targeting less money to the poor than their share in the population. These programs are regressive, and their design and implementation should be re-analyzed from a poverty-reduction perspective. At the other extreme, among the good performers, are the extended GMI program, which transfers 65 of funds to the poor. Two of its components, namely the food subsidy[66] and the GMI program, have targeting rates of 52 percent and 36 percent respectively. The remainder of the programs occupy a middle ground, with targeting rates at 16 percent for the child allowance, and 32-36 percent for the maternity and childcare for uninsured, the unemployment benefits and, energy subsidy.

C. Unemployment Benefits

In 2000, nearly one-third of the registered unemployed in Bulgaria received unemployment benefits. Unemployed workers are eligible for benefits if they are registered with a local labor office, have been employed for 9 months during the last 15 months, and are willing to accept a job or training, if offered. Benefits range from 85 percent to 140 percent of the minimum wage and are paid for 4 to 12 months, depending on the length of prior employment. The coverage rate of unemployment benefits has fallen dramatically over the past decade with the high growth in long-term unemployment and the share of unemployed workers who have exhausted eligibility for benefits. In 1990, 79 percent of registered unemployed received benefits, while by 1994 this figure had fallen to 27 percent.

Six months after the expiration of unemployment benefits, workers become eligible for unemployment assistance.[67] Unemployment assistance amounts to 60 percent of the minimum wage and is paid for six months. This benefit was introduced at the end of 1997 and replaced a means-tested allowance. Workers who remain unemployed following the expiration of unemployment assistance become eligible for social assistance benefits. In 2000, 17,524 individuals received unemployment assistance, this marked a significant increase over 1999, when 9,003 workers received the benefit.

The main objective of unemployment benefits is insurance and temporary income support for workers who have lost their jobs. Because of the tight link between unemployment and poverty, unemployment benefits are an important source of income for many poor households. Overall, the poverty alleviation impact of unemployment benefits is moderate. For beneficiary households, benefits reduce the poverty rate by 27 percent. Although a large share of the poor are not eligible for unemployment benefits, because they are among the long-term unemployed, the system has been reaching an growing number of poor households over time (Table 5.3). In 2001, over one-third of those receiving benefits were in poor households, and over one-third of the amount spent on benefits went to the poor. Benefits also had a significant impact on household consumption for those house-

[66] The food subsidy is the cash equivalent of in-kind food provided to poor households.

[67] This benefit was eliminated with the enactment of the Employment Incentives Law in January 2002.

holds who received them. Adequacy increased significantly in 2001, and comprised an average of 117 percent of the pre-benefit consumption of the poor.

Table 5.3: Effectiveness of Unemployment Benefits

	1995	1997	2001
Coverage (% of households who are poor)	15.9	8.8	35.2
Targeting (% of resources received by poor)	24.3	46.9	32.9
Adequacy (ratio of benefits received by the poor to pre-benefit consumption of the poor)	34.3	5.1	117.0

Sources: BIHS 1995, 1997, 2001.

The targeting of unemployment benefits in Bulgaria was lower than that of the main social assistance cash transfer programs, discussed below. In 2001, roughly two-thirds of the benefits went to the non-poor. This is a higher share than in other Central and Eastern European countries. Only Estonia had a targeting rate of 31 percent, close to Bulgaria's 33 percent. Benefit levels appear to be low enough not to have an adverse impact on work incentives. In line with the trend in other countries of Central and Eastern Europe, the replacement rate for unemployment benefits in Bulgaria has declined over the decade. In 1997 the replacement rate was 0.3, consistent with that of Poland and the Slovak Republic. However, further analysis of job search patterns of the unemployed is needed to assess this, as it is the replacement rate for marginal workers which is important for assessing incentives, not the average replacement rate.

D. Social Assistance

Social assistance programs encompass cash benefits and in-kind services. The main benefits include: (i) the Guaranteed Minimum Income (GMI) benefit, a means-tested cash benefit paid to low-income households below an income threshold; (ii) energy benefits, cash benefits paid to low-income households during the winter heating season (November-April); (iii) family benefits paid under the Birth Promotion Act, including child allowances, maternity leave and birth grants for uninsured households; (iv) cash and in-kind benefits for the disabled, including medical and transportation benefits; and (v) social care services and institutions.

The effectiveness of social assistance programs in reaching and addressing the needs of the poor in Bulgaria has improved over the decade (Table 5.4). The two main cash benefit programs, the GMI and energy benefit programs, have high incidence among the poor. In 2001 the 'extended GMI' program-encompassing cash and in-kind benefits-channeled 68 percent of resources to the poorest 20 percent of the population, while 53 percent of the energy benefit went to the bottom quintile.

Despite these achievements, there is scope for further improvements to the effec-

Table 5.4: Benefit Incidence by (ex ante) Consumption Quintile*

Cons. Quintile	Extended GMI (including in-kind)			GMI (cash benefits only)			Energy Benefit
	1995	1997	2001	1995	1997	2001	2001
1	47.3	18.4	68.3	54.7	20.3	60.5	52.9
2	16.9	18.5	12.4	9.9	7.4	17.6	21.7
3	2.7	11.6	8.2	0.2	17.4	12.4	11.9
4	19.4	26.5	8.5	0.0	38.9	9.3	10.0
5	13.8	25.0	2.5	35.2	16.1	0.3	3.4

Sources: BIHS 1995, 1997, 2001.

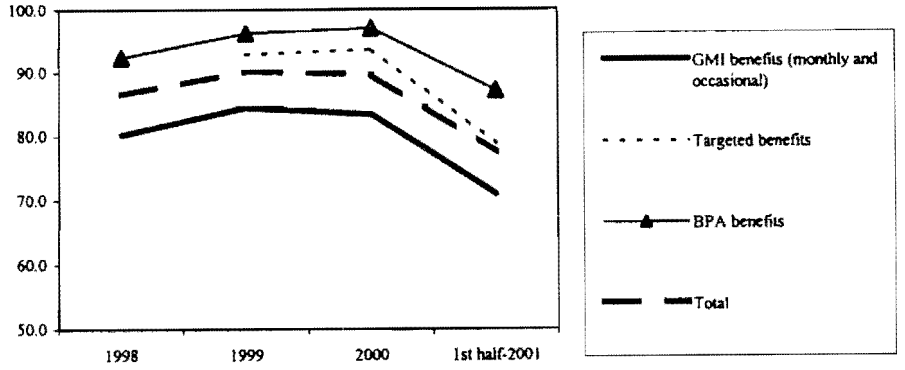
Note: (*) Table shows the incidence of the benefit, estimated in the absence of the benefit.

tiveness of social assistance in Bulgaria. Intergovernmental financing mechanisms for most benefits are weak and lead to underfunding in poor municipalities. Benefits are frequently paid irregularly or in-kind; and targeting can be refined to reach poor households which remain outside of the safety net.

Social Assistance Financing Gaps

Responsibility for funding social assistance benefits is currently shared equally between the state and municipal budgets. Beginning in 1999, the MOF incorporated earmarked funding for social assistance programs into the system of intergovernmental transfers to municipalities. This financing arrangement covers the main social assistance programs. While this has improved coverage, many municipalities, particularly the poorest, continue to have difficulty in mobilizing their share. The amount of the state budget transfer required is also consistently underestimated. In 2000, social assistance expenditures were 90 percent of planned need (Figure 5.5). At the end of 2001 there were 40 million leva (25 percent of the 2000 budget) of outstanding social assistance payments.

Figure 5.4: Paid Social Assistance Benefits as % of Planned (1998-2001)



Sources: MOLSP.

The effectiveness of the overall intergovernmental fiscal system needs to be strengthened in order to ensure that local governments have sufficient resources to cover their expenditure obligations, including social assistance. This will require adequate own revenues at the municipal level, as well as a transparent, predictable and equitable system of intergovernmental transfers. The current formula for allocating transfers is excessively complicated and changes annually. In the case of the earmarked transfers for social assistance, the transfers allocated do not cover local needs and, as a result, the central government provides compensating transfers periodically, either in the fiscal year in which the deficits accrue, or afterwards. This considerably limits the capacity of local governments to plan expenditures.

The 2002 budget law increases the share of funds coming from the central budget to 75 percent (25 percent to come from local budgets). This is a step in the right direction, however, in order to secure the safety net for the poorest households, payments should be fully centralized. The government is considering full centralization of social assistance benefits in 2003. In the absence of centralized financing, the poorest municipalities will still not be able to fully cover social assistance. Local governments will retain the discretion to provide additional benefits on top of the national programs. However, the basic safety net needs to be guaranteed centrally. The energy benefit program, another social assistance, provided during the November-April heating season, is 100 percent financed through central transfers and experiences no delays in payments.

Guaranteed Minimum Income (GMI) Program

The GMI program is the main national safety net benefit. The effectiveness of the program has improved considerably over the past seven years, in terms of coverage and poverty alleviation impact. In 2001, 31 percent of households receiving the benefit were poor, a significant increase from 11 percent in 1995, and 53 percent of the funds spent on the program were received by poor households (Table 5.5). The benefits had a substantial impact on the welfare of recipient households. For the poor, benefits comprised nearly 94 percent of the households' pre-benefit consumption.

These positive results mask a considerable weakness of the program – a large share

Table 5.5: Effectiveness of the Guaranteed Minimum Income Program*

	1995	1997	2001
Coverage (% of households who are poor)	11.1	8.8	31
Targeting (% resources received by poor)	26.9	39.7	53.1
Adequacy (ratio of benefits received by the poor to pre-benefit consumption of the poor)	33.3	0.6	93.7

Notes: (*) GMI includes all benefits (in-kind and cash) paid under means-testing criteria defined in the Social Assistance Act, including energy benefits. The poverty rate is 11.7 percent (see Box 1).
Sources: BIHS 1995, 1997, 2001.

of beneficiaries receive GMI benefits irregularly, or in-kind, substantially reducing the poverty alleviation capacity of the program. Only 16 percent of beneficiaries received regular cash benefits, 11 percent received one-time cash benefits, and the remainder received benefits in-kind, as food, or clothing.

The payment of benefits in-kind is linked to the local budget constraints discussed above. When municipal social assistance offices lack resources to pay benefits, they revert to paying benefits infrequently, or in the form of goods. In-kind benefits are in general less effective than cash, because they distort consumption and reduce welfare. They are also frequently – as reported by beneficiaries– provided in the form of inferior goods (e.g. low quality canned goods), and can generate secondary markets if beneficiaries sell or trade the goods. These benefits also represent an inefficient subsidy to the canned food industry. In-kind benefits should be eliminated in favor of the cash GMI benefit.

There is also scope for refining the targeting of benefits to reach the remainder of poor households and to reduce leakage. Over 70 percent of individuals in poor households live in a household that does not receive benefits through the GMI program (Table 5.5). Reasons for weak targeting may be related to the eligibility criteria in the Social Assistance Law, challenges social workers face in enforcing these criteria (Box 5.1), as well as administrative capacity.

Box 5.1: Eligibility Criteria are Sometimes Hard to Enforce

In Samokova, a municipality of 32,000, the local municipal social assistance office is confronted with a large number of applications for energy and GMI benefits, especially during the winter period, when local revenues are also limited. The office is overburdened, mainly with application from families with working age adults. The working age applicants have no difficulty proving they are unemployed and declare they lack a permanent income. It is easier for social workers to approve benefit eligibility based on categories, such as "long-term unemployed" rather than performing a means-test. In most cases working age applicants are very vocal, and particularly if they have children. Other categories in need, such as elderly or disabled, sometimes have to wait until groups that are more aggressive are served.

Faced with such pressure, the municipal social assistance office has difficulty enforcing eligibility. Their problems are aggravated if the community is poor or the local municipality has other priorities than financing social assistance. Moreover, the administrative capacity of the local office is hindered by weak incentives due to low pay and high staff turnover. Low pay affects both social workers and management. In three years, municipal social assistance office in Samokova had three directors and the current one, who is very qualified, was actively looking for a job somewhere out of the social assistance area.

The Energy Benefit Program

The energy benefit program is a cash supplement to the GMI program which is paid during the winter heating season of November-April. For the 2000/2001 winter period, the amount of the benefit was set at 37.4 leva (approximately US$ 17). In 2000, approxi-

mately 600,000 households received benefits under the program. A strength of the program is its method of financing. As funds are provided directly to municipalities through earmarked transfers from the central budget, the program does not suffer from underfunding or delays in payments which characterize the other social assistance programs which are reliant on local funding.

Coverage of the program is high at 28 percent. However, targeting and adequacy are weaker than the GMI program. Over 65 percent of funds go to non-poor households. This is a result of program design: while GMI benefits are provided to 'households,' energy benefits are paid to 'families.' As a result, members of an extended family-although living under the same roof with other family members-may claim benefits separately. In fact, the distribution of beneficiaries by family size indicates that nearly 60 percent of those receiving energy benefits are one-member 'families', many of whom are likely to be pensioners living together with other members of the family. Further efforts are, therefore, needed to extend coverage to large families, including revising eligibility criteria to focus the benefit on poor households, and continued public information activities to reach potential beneficiaries. The MOLSP is planning changes to the regulations of the Social Assistance Act in 2003 which will increase the eligibility thresholds for some vulnerable groups.

Table 5.6: Effectiveness of the Energy Benefit Program

	2001*
Coverage (% of households who are poor)	27.8
Targeting (% resources received by poor)	34.9
Adequacy (ratio of benefits received by the poor to pre-benefit consumption of the poor)**	14

Notes: (*) Energy benefits could not be distinguished in the household survey until 2001; (**) Estimated, assuming benefit is received over a 6 month period.
Sources: BIHS 1995, 1997, 2001.

While the energy benefit program has been a relatively effective mechanism for protecting the poor during the winter months, further analysis is needed to determine whether the poor can absorb future price shocks. Once the tariff increase schedules for electricity and district heating have been agreed, priority should be given to determining what additional resources will be needed for the program and to estimating the number of additional beneficiaries.

Child Allowances

Given the high level of poverty among households with many children, social assistance targeted to children can play a potentially important role. However, the current scheme is poorly designed to have a real impact on child welfare. All children in Bulgaria are eligible for child allowances through the age of 16 (18 if a student). Benefits are paid

Box 5.2: Poverty and Energy Prices

The share of household resources which Bulgarian households allocate toward housing expenses has been increasing. Even among poor households, the increase in the share is substantial, from 14.1 percent of total consumption in 1997 to 19 percent in 2001. Planned energy price increases will have a disproportionate impact on the poor. Electricity prices, in particular, will affect the poor, as 93 percent of poor households use electricity. Usage of central heating is less widespread, at 4.2 percent.

Table 5.7: Energy Usage by Source (%)

	Non-Poor	Poor	Total
District heating	14.8	4.2	13.9
Electricity	97.6	93.1	97.2
Wood	45.1	37.5	44.4
Gas	14.7	0.5	13.4
Coal	25.7	10.7	24.4
Oil	1.8	0.0	1.7

Source: BIHS 2001.

Poor households already find it difficult to meet their monthly energy payments. One-fourth of poor households are late on their electricity bill for an average amount of 49 leva (approximately US$ 22), and over three-quarters of poor households using district heating are in default. Even amongst the non-poor, one household in seven is late on its payment for district heating. Suggesting that price increases would increase the rate of default across the population.

Table 5.8: Arrears in Utility Payments, 2001

	Non-Poor			Poor			Total		
	% defaulting	Amount	Months	% defaulting	Amount	Months	% defaulting	Amount	Months
District heating	14.8	230	5.6	77.8	477	13.5	16.5	260	6.5
Electricity	5.3	43	1.3	25.1	49	2.3	6.9	45	1.6
Wood	11.5	71	4.9	31.7	80	6.2	12.9	73	5.2

Source: BIHS 2001.

through the social insurance system for children whose parents are employed, and through municipal budgets, for children of uninsured parents. Children of the self-employed receive benefits from the NSII if their parents pay contributions. In 2001 approximately 1.2 million children received child allowances, and total expenditures amounted to 0.7 percent of GDP.[68]

Child allowances have high coverage in the population, because of their near universal eligibility, 50 percent of poor households received child allowances in 2001 (Table 5.7). However, in terms of beneficiaries, only 16 percent of the resources spent went to these households. Benefit levels are also too low to have an impact on poverty. The level of the child allowance has been frozen in real terms, at 8.6 leva per child per month, since May 1997. Even for poor households, the child benefit amounted to less than 10 percent of

[68] This comprises 0.3 percent of GDP from the MOLSP budget, paid through municipalities, and 0.4 percent paid through employers and financed by the NSII.

Table 5.9: Effectiveness of Child Allowances

	1995	1997	2001
Coverage (% of households who are poor)	25.3	39.0	50.1
Targeting (% resources received by poor)	5.1	37.0	15.8
Adequacy (ratio of benefits received by the poor to pre-benefit consumption of the poor)	11.8	3.2	9.6

Sources: BIHS 1995, 1997, 2001.

pre-consumption household income.

In 2002, the Parliament adopted a new Law on Family Benefits which aims to improve the adequacy of child benefits and target them to poor households. Under the new Law, the benefit level is doubled to 15 leva per child, and benefits would be income tested, such that only households with income under 150 leva per capita per month would receive benefits. The proposed change to the benefit level is too low to have a significant impact on the poverty rate, and the income threshold is too high to effectively concentrate the program on poor families. Under the new law 1.15 million children are expected to receive child allowances, a decrease of 50,000. However, the new law would cover children who are currently not receiving the benefit, so the reduction in the number of beneficiaries would be greater. The increased child allowance will contribute to a modest reduction in poverty among households with two or more children, but will have no impact on the consumption distribution of families with one child.

E. Informal Coping Strategies[69]

In addition to the public social protection system, many Bulgarian households make use of private strategies to cope with the risks of low income and unemployment. Discussion in the prior chapters has already highlighted the prevalence of some of the main strategies in the Bulgarian economy including own production of food and informal employment as a supplement to formal sector jobs. Other strategies include remittances between households, having multiple jobs and migration. From a policy perspective it is important to understand the prevalence of these strategies, their impact on poverty alleviation, and the extent to which they may crowd out the formal transfer programs.

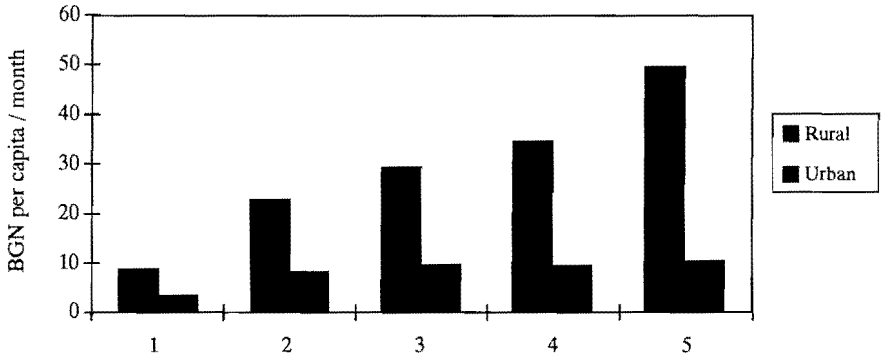
Own Consumption

Home consumption is an important resource for many households in Bulgaria. On average, nearly 22 percent of household food consumption comes from own produced goods. However, poor households make less use of home consumption than the non-poor. Households in the bottom expenditure quintile have the lowest share of home consump-

[69] This section draws from the background paper by D. Sahn, et al.

tion, and this increases markedly across expenditure quintiles (Figure 5.6). In fact, the rate of increase in home consumption income across the quintiles is more rapid than other major sources of income, such as pensions and wages. This implies that one of the important characteristics that distinguish the poorest households in rural Bulgaria is their inability to engage in own-account agriculture for their own consumption. This is consistent with findings discussed in Chapter 2 that suggest that a combination of land and labor constraints hold back the poorest households and contribute to the low level of earnings.

Figure 5.5: Home Consumption by Quintile



Source: BIHS 2001.
Note: 1 is the poorest quintile, 5 is the richest.

Remittances

Private transfers are an important source of income for many Bulgarians. Although a relatively small share of households receives transfers, at 14 percent, the impact of transfers for those households which do receive them is high. For households receiving remittances, the average amount of remittances received was 111 leva per month, representing 34 percent of total household consumption. The impact on the poverty rate is low for the

Table 5.10: Impact of Remittances on Poverty Rates, 2001

	Receive Remittances	Do not Receive	Total
No. Observations	1037.0	6289	7326
Percentage	14.2	85.8	100
Before Transfer			
Poverty rate	22.2	12.6	13.9
Gap	14.6	3.9	5.4
Severity	22.3	1.8	4.7
After transfer			
Poverty rate	6.3	12.6	11.7
Gap	2.0	3.9	3.6
Severity	0.9	1.8	1.7

Source: BIHS 2001.

population as a whole, but is significant for those households receiving remittances (Table 5.10). Remittances reduced the overall poverty rate by two percentage points, but reduced the poverty rate among recipient households by nearly 16 percentage points. Remittances have a greater impact on households in urban areas. Rural households are net remitters – with the exception of rural households in the poorest two quintiles. They transfer more resources to other households than they receive (Sahn et al., 2002).

Second Job Holding

Another coping strategy for impoverished households is to seek more work, 6.3 percent of adults in Bulgaria hold second jobs, with the share being more than twice as high in rural areas, 9.7 percent, than urban, 4.6 percent. In addition, the vast majority of secondary jobs are in own-account agriculture.

Table 5.11: Second Jobs, by Area and Type

	None	Wage work	Self-employ	Farming
Urban	95.4	5	5	3.7
Rural	90.3	4	4	9.0
National	93.8	5	4	5.4

Source: BIHS 2001.

Although second job holding is not widespread, poverty is lower for individual adults holding two jobs than it is for those holding only one, especially in rural areas. This suggests that having a second job is an important coping mechanism for some households. Multivariate analysis of the determinants of multiple job holding found that education is highly correlated with having more than one job. Secondary graduates are 11 times more likely to hold two jobs than to be inactive, in comparison to those with no education, and university graduates are 18 times more likely to do so. Secondary and university graduates are also twice as likely to hold two jobs rather than one.

Another important finding is that land, both coop and owned, strongly increases the probability that an individual has two jobs relative to being inactive, even though land holdings do not affect the probability of holding only *one* job. Having restituted land also increases the probability of second job holdings. This reflects the fact that the majority of second jobs are in own-account agriculture. But, consistent with the household welfare regressions discussed in Chapter 2, it highlights the policy importance of land holdings for poverty reduction, especially in rural areas, and sheds a favorable light on the restitution program. Finally, rural residents are significantly less likely to hold one job relative to inactivity, but significantly more likely to hold two jobs. Again, the fact that own-account agriculture is the most common form of secondary employment seems to be behind this.[70]

[70] This is subject to the reservation that cluster fixed effects are not controlled for.

Migration

One of the most extreme coping strategies is for an individual or household to leave home, or even the country altogether. Data show that many Bulgarians have left in search of opportunities elsewhere. Since 1989, more Bulgarians have left the country than have arrived. Net migration figures in Bulgaria have consistently been the lowest in the region, far above figures for Poland and Romania, which have also had negative net migration throughout the 1990s (Table 5.12).

The BIHS survey only provides a limited picture of the extent of migration in Bulgaria. Households which have left the country are simply not included in the sample, and households which may travel for seasonal work are less likely to have been sampled. The survey does have information on household members away from home. At the time of the survey, 5.4 percent of household members were away from home, but only 1.6 percent of these were away to work. Urban residents are somewhat more likely to migrate abroad to work, while rural residents are more likely to move to another location within the country.

Table 5.12: Net Migration in Comparison (immigrants minus emigrants, thousands)

	1989	1990	1991	1992	1993	1994	1995	1996
Bulgaria	-217.6	-87.6	-46.5	-67.7	-64.4	-62.7	-50.5	-64.5
Czech Republic	1.5	0.6	2.9	11.8	5.5	9.9	10	10.1
Poland	-24.4	-15.8	-15.9	-11.6	-15.5	-19	-18.2	-13.1
Hungary	23.9	22.6	17.3	10.8	13.3	13.1	13.2	12.1
Romania	-41.1	-96.9	-42.6	-29.4	-17.2	-16.3	-21.2	-19.5

Source: UNICEF-IRC TransMONEE.

Table 5.13: Reason for an Absence at Time of Survey, % of Household Members

	Urban	Rural	National
For work abroad	0.7	1.1	0.8
For work in Bulgaria	0.9	0.7	0.8
Other reason	4.2	2.9	3.8
Total	5.8	4.7	5.4

Source: BIHS 2001.

Only 4.3 percent of all people in the 2001 BIHS sample moved since 1995, and 5.4 percent since 1990, suggesting that migration of entire households is also not a major coping strategy in Bulgaria. Further, it is interesting to note that there is no clear dominance of rural-to-urban flows – significant shares of both urban and rural residents move to rural areas. Thus, unlike other developing countries, rural-to-urban migration does not seem to be an important phenomenon in Bulgaria, particularly when considering the size of the income declines observed in rural areas.

F. Findings and Policy Implications

Bulgaria's social protection system plays a substantial role in income support and keeping many households out of poverty. In comparison with many other countries in the region, Bulgaria's system is effective and well targeted. Indeed, the system has become more pro-poor over time and is partly responsible for the reduction in poverty rates which has occurred since 1997. The pension system, in particular, keeps many pensioners above the poverty line. In the absence of these benefits, the poverty rate would be over twice as high. Social assistance and unemployment benefits also provide important relief for those households which receive them. Similarly, informal coping mechanisms play an important role for many households.

Policy priorities include ensuring that the existing system continues to function, making refinements to improve effectiveness and ensuring that the system is sufficiently flexible to address future potential shocks – such as further increases in energy prices. Finally, on-going monitoring of poverty and program outcomes is essential. In particular, the incentive effects require careful evaluation to ensure that benefits do not discourage labor force participation.

Strengthening the Safety Net. The GMI program is the country's main cash transfer mechanism for low income households. While the program is an effective mechanism for reaching the poor it can be further improved through:

– Centralizing financing to ensure that all municipalities, including the poorest, are able to pay benefits to all eligible households;

– Reducing payment of benefits in-kind; and

– Further strengthening the administration for benefit delivery: by (i) training social workers to identify poor households; (ii) improving information systems to facilitate means-testing and reduce payment of duplicative benefits; and (iii) expanding communication activities to inform beneficiaries about eligibility criteria and application procedures.

Making Child Allowances More Effective. Because of the high level of child poverty in Bulgaria, child allowances are a potentially critical instrument. However, the current program is ill-suited to address poverty. Under the new Law, benefits remain too low to have a real impact on poverty. The Government faces a number of options to maximize the impact of these resources on poor households with children:

– Expanding coverage to poor households currently not covered by child allowances. The current system excludes children of the uninsured self-employed, a large share of whom are poor. In 2001, 23 percent of the children not receiving benefits were poor, representing 24 percent of poor children in Bulgaria.

– Increasing coverage and raising benefits for households with children through the GMI program. As the GMI program is an effective mechanism for reaching the poor, it can be further built upon to expand coverage for households with children.

– The cost of eliminating the poverty gap among households that do not receive child allowances is approximately 0.37 percent of GDP – indicating the proposed increase under the new Law would be better spent if targeted to a smaller pool of beneficiaries. This could be done by lowering the eligibility threshold.

Preparing for Energy Price Increases. Prices for electricity and district heating will increase over the near term. Consumer subsidies for energy amounted to 0.5 percent of GDP in 2001 and are not sustainable. The current energy benefit program is a useful mechanism for reaching the poor, however careful analysis of the proposed tariff adjustment for energy is needed to ensure that benefit levels are adequate to cover the price increase, and that coverage is extended to all households in need of the benefit.[71]

For electricity, the introduction of life-line pricing is another possibility. Under a life-line an initial block of consumption (called the basic need level) is subsidized, while consumption over the initial block is charged at full price. Life-line tariffs have been introduced in other countries in the region, including Hungary and Moldova and are attractive from the perspective of coverage and targeting (Lovei, et al., 2000).

[71] For the 2002-3 heating season the MOLSP has made important changes to the energy benefit program, including increasing benefit amounts and differentiating benefit amounts based on the type of energy used by the household.

Annex Table A5.1: Coverage, Targeting and Adequacy for Selected Social Programs, (ex ante)

Social Program:	Year	Coverage	Targeting	Adequacy
Child Allowances	1995	25.3	5.1	11.8
		(6.6)	(1.5)	(0.0)
	1997	39.0	37.0	3.2
		(2.2)	(2.7)	(0.0)
	2001	50.1	15.8	9.6
		(4.2)	(1.9)	(0.0)
Unemployment Benefit	1995	15.9	24.3	34.3
		(5.6)	(7.8)	(0.0)
	1997	8.8	46.9	5.1
		(1.3)	(8.0)	(0.0)
	2001	35.2	32.9	117.0
		(3.9)	(4.0)	(0.0)
Social Assistance, of which:	1995	34.4	20.9	147.0
		(6.4)	(4.4)	(0.0)
	1997	15.8	53.0	4.7
		(1.8)	(7.7)	(0.0)
	2001	53.7	35.4	200.0
		(3.9)	(3.8)	(0.0)
Mat. & childcare	1995	17.8	12.9	14.5
		(4.8)	(3.8)	(0.0)
	1997	5.9	50.9	10.9
		(1.2)	(9.4)	(0.0)
	2001	20.2	32.8	37.1
		(3.4)	(5.3)	(0.0)
Extended GMI	1995	11.1	26.9	33.3
		(4.8)	(13.6)	(0.0)
	1997	8.8	39.7	0.6
		(1.2)	(10.2)	(0.0)
	2001	31.0	53.1	93.7
		(4.4)	(6.8)	(0.0)
Energy Benefits	2001	27.8	34.9	7.0
		(4.1)	(4.3)	(0.0)

Source: BIHS 2001.

Standard errors displayed in parentheses below values.

Note: Adequacy is capped to 200%. All programs that transfer more than twice as much resource to households over their initial (before transfer) endowment are listed with 200% adequacy.

Note: **coverage** is the share of pre-benefit poor people receiving a benefit; **targeting** is the share of funds channeled to the pre-benefit poor; **adequacy** of a transfer is the ratio of benefit to the pre-benefit consumption.

Chapter 6: Building Human Capital

According to official data, Bulgaria is on track to meet the Millennium Development Goal targets in 2015. Enrollments in education are close to 100 percent and infant mortality is declining toward OECD levels. However, a closer look reveals that under the surface, the picture is not as positive. Gaps in access to both education and health services are real, particularly for vulnerable groups, including the poor, those in rural areas and ethnic minorities. Reforms in both sectors, including downsizing of the education sector and the introduction of health insurance are creating gaps in coverage which need to be addressed. These issues are critical for an overall strategy for poverty reduction in Bulgaria.

This chapter discusses education and health in turn, looking at levels of access and the barriers, as well as policy implications. The greater availability of data on education in the BIHS survey and qualitative information result in a more robust analysis. The lack of information on health highlights the need for future work in this area.

Education

A. Access to Education

The poverty profile in Bulgaria highlights a close relationship between education and living standards. Individuals with low education levels are at greatest risk of poverty, while poverty levels for those with higher education are lower than for any other group. Education also affects welfare through the labor market – as a key correlate of unemployment. The vulnerability of children in Bulgaria indicates that education contributes to a vicious circle of poverty, as poor households with low education levels face the greatest obstacles in sending their children to school.

Although official data indicate nearly universal enrollments in secondary education, the survey data reveal gaps in access. This chapter examines these gaps and explores the linkages between access to education and poverty. It draws from the BIHS data, as well as a qualitative survey of ten contrasting communities commissioned for this study. The survey found that access to education is constrained by a combination of factors related to economic costs, demand for education among parents and students, and specific issues facing ethnic communities. These factors, combined with the on-going reform of the education sector, pose substantial policy challenges.

Educational Attainment

School attendance in Bulgaria is compulsory from ages 7 to 16. The education sys-

tem consists of optional preschool education, eight years of basic school, secondary school which was recently (beginning in the 1999/2000 school year) extended from three to four years, and university and other post-secondary programs. Preschool education covers ages 3 through 7. Basic school is provided either in eight year schools, or a combination of "junior school," covering the first four grades, and "middle school," covering grades 5 through 8. Urban areas tend to have large schools offering the complete primary cycle, while small rural communities often have separate four-year junior and middle schools, with few children in each grade. Because of higher unit costs in rural areas, rural schools are generally kept to four grades, and children are bussed to bigger schools in larger towns or cities for higher grades. There are three main types of secondary education: (i) general, university-oriented secondary education; (ii) secondary vocational education which combines academic and vocational classes and allows graduates to continue on to university, and; (iii) secondary technical education which focuses on specific vocational training and does not allow for further study.

The educational attainment of the population is high, however there are disparities across groups. Nearly sixty percent of total population has secondary or higher education (Table 6.1). However, there are notable gaps between individuals in urban and rural areas. In urban areas the share of population with secondary or higher education is almost 70 percent, in comparison with just 46 percent in rural areas. More than 60 percent of individuals from non-poor households have secondary or higher education, while the same share for individuals from poor households is below 30 percent. There are notable differences in attainment by ethnicity – particularly for Roma. While 65 percent of Bulgarians have completed secondary or post-secondary education, for Roma this was just 10 percent. Gender differences are not significant. Women have slightly higher levels of attainment – most notably for general secondary and university education, which suggests that they are better

Table 6.1: Highest Level of Education Attained, 2001 (% of population 15 and above)

	No education	Basic	Secondary General	Secondary Technical	Secondary Vocational	University and Post Secondary	Total
Total Population	7.0	33.9	17.6	17.0	7.2	17.3	100.0
Males	6.4	32.0	15.1	22.0	8.2	16.2	100.0
Females	7.5	35.5	19.9	12.5	6.2	18.3	100.0
Rural	7.0	57.0	12.6	11.7	7.2	4.6	100.0
Urban	7.0	23.0	20.0	19.5	7.2	23.4	100.0
Poor	9.7	63.5	9.1	9.9	5.3	2.6	100.0
Non-Poor	6.7	30.5	18.6	17.8	7.4	19.0	100.0
Bulgarians	6.4	28.1	18.9	19.0	7.5	20.1	100.0
Roma	13.3	76.4	5.1	2.1	2.8	0.2	100.0
Turks	8.6	61.0	13.8	6.4	7.2	3.0	100.0

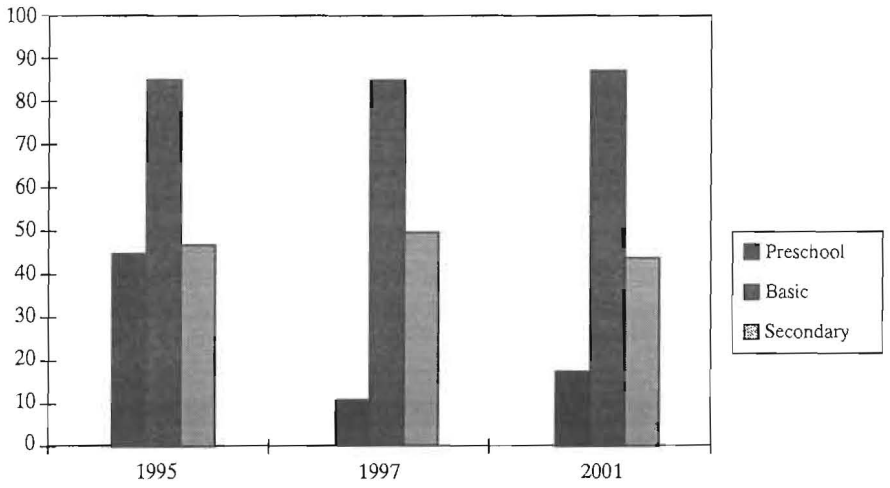
Source: BIHS 2001.

positioned to take advantage of labor market opportunities.

Enrollments

According to official statistics, enrollment rates in Bulgaria are high and have been increasing slightly since the mid-1990s. The latest figures from the NSI estimated gross enrollment rates of 95.1 percent for primary education, and 65 percent for secondary education, indicating that Bulgaria is on target to meet the education Millennium Development Goal calling for universal primary enrollment by 2015. The BIHS survey data provide a different picture. Survey data are believed to be more reliable for two reasons. Firstly, administrative data rely on the 1992 census data which is believed to be unreliable due to large demographic changes, and second, survey data include children who attend school, in contrast with administrative records which only record children who sign up for school, but may not actually attend.

Figure 6.1: Attendance Rates by Level (% of age group)



Source: BIHS 2001.

Attendance rates from the survey data, indicate worrisome trends, particularly for preschool and secondary education.[72] While attendance in basic education have increased slightly since 1995, attendance in preschool and secondary education in 2001 are both lower than 1995 levels. Between 1995 and 1997, attendance in preschool education fell from 44 to 14 percent. This may reflect the effect of the economic crisis, as preschool fees became too expensive for many households to bear during the contraction. The 2001 data show an increase in attendance to 22 percent, which is still half of 1995 levels. Annual fees for preschool are currently around 300 leva (approximately US$ 150) a year.

[72] Here attendance rates refer to the ratio of the number of children of official school age enrolled in school to the number of children of official school age in the population (a "net" measure). It differs from the gross enrollment rate, which is the ratio of all children, regardless of age, to the number of official school age.

Box 6.1: School Drop-outs: The Case of Missing Children

National administrative data paint a rosy picture of access to education in Bulgaria. Gross enrollment rates are nearly universal, and very few children are identified as being out of school. A qualitative survey conducted for this report found that the reality is much more grim. In fact many children fall through the cracks, never attend school, and do not show up in the official administrative data. The children who are left out are frequently those from the poorest households. In the Nadezhda district, a Roma neighborhood in Sliven, the researchers found a total of 273 children who had never been to school. Why is this the case? The study identified a number of reasons:

– There are no records of children from households which lack residence requirements. This is a serious issue for poor households, particularly Roma families who live in unregistered settlements, or in properties with illegal status.

– Monitoring of children has weakened. Children are no longer required to enroll in the school in the district in which they live. There is no coordination between district schools to ensure that all children are enrolled, and there is no system to monitor whether children who have left one school enroll in another.

– There are no mechanisms for following up on children who have been expelled, to find out what happens to them, and whether they have reenrolled in school. Similarly, there is no follow up for children who leave school voluntarily, who are not officially considered to be drop outs.

– School and local officials face incentives not to report drop-outs in order to maintain class sizes to avoid school closure.

Source: Kabakchieva and Iliev (2002).

Secondary attendance has followed a contrary trend. Attendance increased markedly between 1995 and 1997, from 47 to 55 percent, and declined sharply to 46 percent in 2001. The reasons driving the spike in attendance in 1997 may reflect a tendency of young people to stay in education during the crisis period, rather than exiting into employment. However, the persistent high rate of youth unemployment does not confirm this trend.

Aggregate attendance rates mask considerable disparities in attendance within the population, particularly between urban and rural areas and for ethnic minorities. Attendance rates are lower at all levels of education for children in rural areas. The gap is particularly pronounced for secondary education, where attendance rates are 31 percentage

Table 6.2: Trends in Attendance Rates, (% of age group)

	Preschool education			Basic education			Secondary education		
	1995	1997	2001	1995	1997	2001	1995	1997	2001
Total Population	44	14	22	87	88	90	47	55	46
Males	42	12	21	88	88	90	49	54	46
Females	46	15	24	85	88	89	45	56	46
Urban	46	13	24	88	90	92	52	63	53
Rural	40	14	20	83	84	84	31	32	22
Bulgarians	44	15	26	90	93	94	55	66	56
Turks	53	10	19	88	93	90	10	30	34
Roma	25	5	16	55	58	71	3	5	6

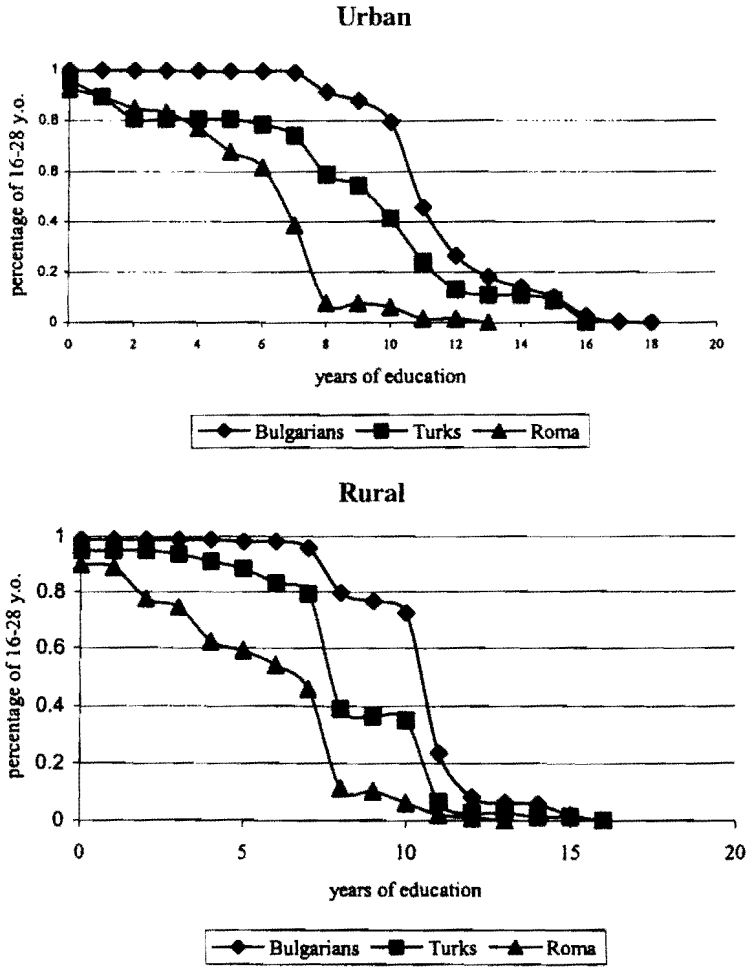
Source: BIHS 1995, 1997, 2001.

points lower. The trend is also striking. While secondary attendance rates in 2001 are comparable to 1995 rates in urban areas, in rural areas they fell eight percentage points over the period.

Gaps for ethnic minorities are similarly pronounced. Attendance rates for Turks and Roma are consistently lower than for ethnic Bulgarians across education levels, however the magnitude of the difference is much higher for Roma. Secondary enrollments for Roma remain in the single digits, at six percent, in comparison with a national level of 46 percent. Despite this gulf, enrollments for Roma children in basic and secondary have increased significantly between 1995 and 2001, from 55 to 71 percent at the basic level, and doubling from three to six percent for secondary education.

Figures 6.2a and 6.2b show completion rates by ethnic groups for 16 to 28 year olds. While ethnic Bulgarians maintain enrollment rates close to 100 percent throughout

Figures 6.2a and 6.2b: Completion Rates by Ethnicity and Location



basic education, and close to 80 percent in secondary education, these numbers are significantly lower for Turks and Roma. Drop-outs among ethnic Bulgarians occur mostly between basic and secondary school, while drop-outs amongst Turks and, especially Roma occur just after a couple of years of schooling. This is particularly evident among Turks and Roma in rural areas.

Poverty and Access

Attendance rates are highly and increasingly, correlated with income. While attendance rates among the richest consumption quintile were nearly universal at 97 percent, the rate for the poorest quintile was 77 percent. Most worrisome, the large income differentials have been growing over time – particularly for basic and secondary education. In basic education the attendance rate gap between the poorest and the richest quintiles grew from 15 percentage points in 1995 to 20 in 2001. The similar gap in secondary education did not increase significantly, but remained quite high at 40 percentage points in 1995 and 41 in 2001.

Table 6.3: Attendance Rates by Consumption Quintile, (%)

	Preschool			Basic education			Secondary		
Quintiles	**1995**	**1997**	**2001**	**1995**	**1997**	**2001**	**1995**	**1997**	**2001**
Quintile 1	33	12	17	74	75	77	23	38	14
Quintile 2	35	7	17	92	92	94	49	55	53
Quintile 3	44	22	32	90	95	94	51	60	50
Quintile 4	56	19	28	91	92	91	46	60	63
Quintile 5	60	12	23	89	90	97	63	65	56
Total Population	44	14	22	87	88	90	47	55	46

Source: BIHS 1995, 1997, and 2001.

Differentials in enrollments across quintiles are magnified in rural areas, particularly for secondary education. In 2001 only 5 percent of the poorest children in rural areas were enrolled in secondary school, in comparison with 24 percent in urban areas. The gap in enrollments between the poorest and richest quintiles in rural areas (45 percent) was nearly double that of urban areas (23 percent). For any given income group, an individual living in rural areas obtains 3 years less education than their urban counterpart. In urban and rural areas, an adult in the top expenditure quintile has on average 3 years more education than one in the bottom quintile.

B. Constraints to School Attendance

The widening gaps in enrollments are clearly of serious concern for Bulgaria. Analysis of the labor market has shown that the skills gap is a real phenomenon. There is a growing share of long-term unemployed whose labor market prospects are grim, because of their lack of qualifications and preparation. In order to understand the constraints to par-

ticipation in education for different types of households, a qualitative study was undertaken for this report in January and February 2002. The study examined issues surrounding access to education in ten contrasting sites in Bulgaria which were selected for their geographic, ethnic and socioeconomic diversity. While the study is not nationally representative, its findings highlight key issues which have important policy implications.[73] The following section draws from the study results, as well as the BIHS data.

The study found serious gaps in access along a number of dimensions. In some cases children do not attend school at all, while in other cases children drop out of school, or are enrolled but do not attend. Despite perceptions that non-attendance is an ethnic phenomenon, specific to Roma, the study found that many ethnic Bulgarian children do not go to school, as well as Turks and Pomaks (Bulgarian Muslims). However, some of the constraints do vary across ethnic groups. The main factors keeping children out of school relate to economic circumstances, demand and motivation of parents and students, and specific issues facing ethnic minorities such as language, and social exclusion in the case of Roma.

Costs of Education

The costs of education to households in Bulgaria are significant. These costs can be both direct, in the form of payments for school materials, or indirect, as opportunity costs to households, if children are needed to participate in housework or other activities. For poor families, the costs of education can be a critical deterrent to participation in education. Some parents explained that they could not afford suitable clothes for their children, particularly shoes to walk to school in during the winter. A headmistress described the situation of some of the poorest families:

> *Those who drop out are those who have no motive to study. When you are hungry you lose motivation for learning. Dropouts are children from extremely poor families. I have two of them. One of the boys lives in an extremely poor family, in a hut in the vineyards. They have no electricity or money. When [the shopkeepers] sell white brined cheese in the shop, they give this family tins with what is left of the brine. And the family takes the brine, adds flour and boils it. This is their staple diet. The often can't afford to buy bread.*

In some communities the opportunity costs of sending children to school are high, and children are kept home to work, most commonly in agricultural activities, or helping with housework and care of younger children. In Pomak (Bulgarian Muslim) and Turkish villages, nearly all children were employed in tobacco farming. A teacher in Chernoochene, explained that in May and June, when the tobacco is being planted, nearly

[73] The full results of the study are available in the background paper "Access to Education in Bulgaria" by Kabakchieva and Iliev (2002).

everybody works, students, as well as teachers. In some cases children need to work to help parents keep their jobs. A teacher from Haskovo explained:

> *One of the parents finds a job, they have a young child in the family, and the family decides that it's better for the parent to take the job and that someone must look after the baby. So they decide to keep our student at home. Especially if the student is already in the 1st or 2nd grade. The mother decides that that's more important so that she won't lose the job.*

The case studies highlighted the multidimensional relationships between education and poverty. Low income on its own is not always sufficient to keep children out of school. Rather poverty is interlinked with exclusion and marginalization, which combine to affect attendance. The study found high levels of non-attendance and dropouts among some of the most geographically remote communities. In many cases, poor children who were unable to attend school were those with the most difficult family circumstances, including those who are victims of domestic violence, alcoholism and abuse, and those with parents in jail (Box 6.2).

Box 6.2: Scavenging in Rousse

In Rousse three brothers aged 13, 11 and 7 from the Selemetya neighborhood cannot afford to go to school. To earn money, they search through garbage cans for waste paper which can be sold for recycling. They earn 70 stotinki to one lev per day, "just enough for a loaf of bread." Their father is in jail and any reference to their mother made them tremble, they refused to say what had happened to her. The two younger brothers had never gone to school, while the oldest boy had attended school for two years when they were still living with their father. He was visibly unhappy that he had left school. Now they live with their bedridden grandfather, who receives a monthly pension of 47 leva (about US$ 24), and other people, "there are many of them and we don't know who they are."

Source: Kabakchieva and Iliev (2002).

Out-of-pocket payments. Nearly one-third of households in Bulgaria make payments for education. Parents are charged fees for preschool education. At the basic and secondary school levels, there are no fees, although students are required to pay for educational materials and textbooks. The exception is first grade, when children are not expected to pay for textbooks.

Payments for school supplies were the most common, 70 percent of enrolled students made such payments. The second most common payments were payments for school meals, at 52 percent. Students from non-poor households pay for school meals more often than students from poor households. Payments for extra-curricular activities were the most expensive item averaging 32 leva, and also were more common among students from non-poor households.

In addition to the formal charges for education mentioned above, households also

Table 6.4: Out-of-pocket Payments for Basic Education, 2001

	Extra-curricular		School meals		Lodging		Supplies		Total		
	% hhs paid	Average (leva)	% hhs paid	Average (leva)	% hhs paid	Average (leva)	% hhs paid	Average (leva)	% hhs paid	Average (leva)	% of average monthly household exp.
Non-poor	17.97	32.59	55.76	18.21	0.92	32.33	73.58	9.83	88.33	26.64	5.66
Poor	3.03	9.67	25.25	9.32	0.00	0.00	53.54	6.91	57.58	11.02	6.07
Total	16.00	32.02	51.73	17.64	0.80	32.33	70.93	9.54	84.27	25.23	

Source: BIHS 2001.

Table 6.5: Informal Private Expenditures in Basic Education (per year)

	Refurbishments		Equipment		Gifts		Cultural		Total	
	% paid	Average	% paid	Average	% paid	Average	% paid	Average	% paid	Average
Non-poor	13.52	9.89	8.76	9.11	21.66	6.79	37.63	33.35	51.77	31.20
Poor	3.03	1.77	1.01	10.00	3.03	7.00	9.09	26.56	15.15	18.35
Total	12.13	9.62	7.73	9.13	19.20	6.79	33.87	33.11	46.93	30.66

Source: BIHS 2001.

make informal payments to schools, including payments for cultural activities, and for refurbishment of school buildings. On average, informal payments were made more often by students from non-poor households, at 52 percent, than those from poor-households, at 15 percent. The most common payments were payments for cultural activities, including after school activities. Every third enrolled student from non-poor households made such payments versus every tenth student from poor households. Gifts for teachers were common from students of better-off households (22%) than of poor households (3%). Same was true about payments for school refurbishments and equipment. Nevertheless, students from poor households spent a larger share (3.3%) of their monthly expenditure on informal payments than students from non-poor households (1.7%).

Migration. Work abroad in seasonal or longer term jobs is a common coping strategy for many poor families. In the town of Slashten, more than 100 people left for Greece, Spain or Portugal, while residents of Momchilgrad traveled to Turkey, Germany and Belgium. In some cases entire families travel, leading children to drop out of the education system entirely, In other cases, children from these families remain behind in Bulgaria in the care of relatives. Teachers reported that children who are left behind frequently drop out of school, as relatives tended to be lenient and do not monitor or encourage attendance. A teacher from Haskovo explained.

> *Many of the parents of our students are seasonal workers. Sometimes they migrate, move elsewhere to earn a living. There's no way those parents can leave their children.*

They have an opportunity to complete school, but it doesn't work because they haven't attended classes. Such children usually deteriorate fast and ultimately go bad. Their interest in school drops, they have no motivation to study.

Demand for Education

The motivation and attitudes of parents toward education can strongly influence school attendance. In some cases parents actively discouraged their children from attending school, citing reasons such as concern for their children's safety, the need for children to work, and the low value they placed on education. In many cases motivation is linked to poor economic conditions. Poor households have difficulty appreciating the value of education if their immediate circumstances appear hopeless. In some of the poorest Roma communities, formal unemployment was between 90 and 100 percent and the majority of the population subsists on social assistance benefits and unskilled informal activities, such as collecting scrap metal and waste paper for recycling. Under these conditions for some households education is simply not a priority.

Although the perception is widespread that demand for education among Roma is low, the picture is highly differentiated. While Roma parents from some areas are uninterested in education because of dismal economic conditions, or in other cases fear that their children would be subject to discrimination at school, in other cases Roma parents play an active role in their children's education. In the Roma mahala of Razgrad, Roma parents expressed serious concerns about the quality of their children's education. Turkish Roma from Rousse were found to be very engaged in school, as did those in a Christian Roma community in Loznets. Role models were found to be quite important in helping people recognize the link between abilities, education and opportunities.

Lack of motivation among children leads some to drop out. Teachers noted that some students had become frustrated with school and dropped out. A parent in Haskovo whose four sons had stopped attending school after 6^{th}, 3^{rd}, 2^{nd} and 1^{st} grade explained:

They simply don't want to go to school, we've done our best and tried to persuade them in every which way, but they don't want to and that's that.

Teachers do not consider these children who voluntarily drop out of school as formal drop outs, and as a result they are not accounted for in the official data and go missing in the system.

The Ethnic Dimension

The enrollment rates highlight the significant gap in attainment and access among Roma and Turks. Children from minority communities face stiffer challenges in accessing education than other groups. In addition to issues common to other poor households,

minorities face additional barriers including low language proficiency and geographic isolation. Cultural traditions also influence participation in education. Girls from some Roma and Turkish communities marry early and do not continue their education. Roma, in particular, face the added issues of discrimination and exclusion, and are more likely to end up in segregated schools, or special schools for the mentally and physically disabled which limit future education and labor market prospects.

Lack of Bulgarian language ability is a significant constraint for some Roma, as well as Turkish, children. In Momchilgrad, a municipality with a large Turkish-speaking population, many children do not speak Bulgarian, they do not go to preschool, speak Turkish at home and watch Turkish TV, so when they start primary school they have virtually no knowledge of Bulgarian. A teacher in Momchilgrad noted:

> *This is not a problem in the early grades only. Even 9th graders do not speak Bulgarian well. They cannot articulate their thoughts. We know that they have some knowledge and that the reason why they cannot demonstrate it is the language. And we turn a blind eye. We don't give them poor marks for underachievement.*

In this regard, preschool education can be a critical ingredient for the success of minority children in school. Participation in preschool can expose students to the Bulgarian language and provide them with basic knowledge, socialization and skills to facilitate communication with other children.

Discrimination and Exclusion. For many Roma discrimination and social exclusion are a reality which pose concerns for parents. Some Roma parents expressed fears that their children would face hostility at school. In Rousse a teacher explained that school officials had moved Roma from a preparatory class in a mainstream school into a separate 'neutral' building after a teacher from a mixed Bulgarian-Roma school had told them that she was afraid to let Roma primary school students out to buy snacks during breaks because they were bullied by older students. Tensions among ethnic groups can also discourage attendance. In some cases, relations are difficult between Roma groups from different neighborhoods, or even between groups in the same neighborhood. In some cases this is between Turkish and Bulgarian Roma, or between long settled Roma, and more recent migrants.

Roma Schools. Many Roma children study in segregated schools and classrooms. "Roma schools" are schools in which the share of Roma is over 50 percent. The overrepresentation of Roma in these schools is due to geographic reasons and the high concentration of Roma in certain areas, as well as attempts by some municipal and education officials to shift Roma students together into separate schools. A recent survey conducted by the Open Society Institute in Sofia found more than 60 elementary, 350 primary and 9 secondary schools in the country in which Roma comprise between 50 and 100 percent of the

student body. In general, quality and conditions in Roma schools are poorer than in mainstream schools, infrastructure is deteriorated and materials lacking (Denkov, et al., 2001). There are also serious problems with attendance in Roma schools. Teachers from Haskovo noted that in some cases Roma students do not show up to class for an entire year.

Roma schools reinforce segregation between Roma and non-Roma. This lack of contact contributes to social exclusion and breeds mistrust between communities. A recent cross-country study of Roma in Hungary, Romania and Bulgaria found empirical evidence that geographic separation of Roma in settlements has an adverse impact on living standards (Revenga, et al., 2002). In this regard, recent attempts by Roma NGOs to promote desegregation of schools are promising. In Vidin, in northern Bulgaria, the NGO DROM has been implementing a school integration program to allow Roma students to study in the mainstream school in the town (Box 6.3). Such initiatives may improve educational opportunities, but require careful evaluation, as well as coordination with national education policy. In the current context of downsizing within the education system, there is a risk that desegregation initiatives could lead to the closure of schools, without appropriate mechanisms in place to allow all students to continue their education.

A similar problem is the issue of the over representation of Roma children in special schools for the mentally and physically disabled, which provide room and board. These schools can have serious adverse implications for children's development, as they limit future participation in education and on the labor market. The OSI survey found 85 such schools, where the share of Roma was (except for in the district of Smolyan), over 50 percent. In the majority of cases, children in these schools are not disabled. Roma children end up in these schools for various reasons. If they are unprepared for primary school, if they are not proficient in the Bulgarian language, and/or if they did not attend preschool. Some parents support their children's enrollment in special schools, explaining that they felt that their children were safer and more protected in special schools, away from the risks of discrimination in mainstream schools. Poorer families, in particular, encouraged their children to enroll in special schools, because of the attraction of free room and board. This issue highlights the need for interventions to help households overcome the costs of schooling.

C. Access and Education Reform

Bulgaria's education system is in the midst of systemic reform along a number of dimensions. One of the main challenges facing the sector is to address the overcapacity inherited from the socialist period. The excess number of small schools and teachers in the system has been exacerbated by a dramatic and steady population decline. Bulgaria had negative population growth in the 1980s and this trend has continued. The current fertility rate of 1.09 is among the lowest in the region, and is slightly over half the level required to maintain a constant population size. As a result, the number of children entering the

Box 6.3: Desegregation of Roma Schools in Bulgaria: The Vidin Model

In Vidin, the Open Society Institute and the Roma NGO, DROM, have been collaborating on a innovative program to integrate Roma students into the mainstream school system. Vidin is a town of 85,000 in north-west Bulgaria, 6 percent of the population identified as Roma in the 1992 census. In the 2000/2001 school year 460 students, or 50 percent of school-age students, were integrated into the mainstream school system, more are expected to follow in the next school year. Under the project students are bussed from the settlement to school, and back. In addition to transportation, the project involves Roma monitors who interact with parents and the school to encourage attendance. Low income students also receive shoes and school lunches – students are given lunch on the bus to reduce the stigma of receiving it at school.

During the preparation of the program, DROM went door-to-door in the Roma settlement explaining the project to Roma families. DROM also sought the support of the schools, the mayor and the media. The project eventually gained support of all stakeholders, excluding the mayor. However, he did not try to block the project. With the agreement of a number of Roma parents, DROM invited the 6 mainstream schools in Vidin to participate in a TV program at which each school presented its program, philosophy, and teachers. Roma parents selected the school they wanted their children to attend. This lessened their concerns and was the first time, that their views had been solicited by the authorities.

Project success at the end of the first semester of the project was measured by 100 percent attendance; first term final grade averages were identical to the level of the non-Roma pupils; parental and teacher satisfaction; no known anti-Roma racism in the schools; full support from the Regional Directorate of the Ministry of Education and encouragement to scale up in other cities. In addition, 35 Roma parents of the bussed children have returned to school in adult education programs; 3 teenagers who had dropped out in the third grade asked to join the program and teachers agreed to work extra hours with them and others. On the negative side, twenty-four pupils received failing grades in one or more subjects and three have left the program. One returned to the Roma school and two 8^{th} graders who were functionally illiterate dropped out.

The success to date of the program is attributable to three major factors. First, the parents feel (a) that their children are protected from racial humiliation because of being bussed to and from school and monitored throughout the day by adult Roma and (b) that they can meet the higher scholastic standards. Second, the schools have accepted young adult Roma monitors in the schools who assure the children aren't mistreated. The monitors also monitor the engagement of the parents in overseeing homework, the participation of the pupils in extra-curricula activities and the cleanliness, feeding and appropriate attire of the children. The monitors help the teachers with teaching aides and understanding cultural differences. Working through the monitors and the local Roma NGO which employs them, grades and progress are monitored every day; problems are addressed on the spot. Third, the children are happy to be in schools where learning takes place. On-going assessment of project outcomes will be essential to understand the longer-term implications of the Vidin project.

Source: Open Society Institute.

school system is expected to continue to decline over the medium and longer term.

These demographic developments have serious implications for the size of the education system and the allocation of resources across the country. Under pressure from the Ministry of Finance and the IMF, the Ministry of Education has committed to reducing the number of teachers in the system by 10 percent before the start of the 2002/2003 school year and over 724 schools are slated for closure. Further downsizing may occur in subsequent years. This process requires careful consideration and planning in order to ensure that the downsizing within the sector does not have unintended adverse effects on access.

School and local government officials have already begun to respond to the challenge posed by these reforms. Because local governments are responsible for financing nearly all pre-secondary education, and have some limited administrative responsibilities, many take an active interest in the schools in their municipality. Local officials face incentives to ensure that their schools are not closed and that teachers are not laid off. School closure is viewed as a sign of failure for towns and villages which have already lost a large share of their working age population to migration. Officials are also wary about the affects on employment. In Razgrad village in the Vulchedrum municipality the school is the largest employer in the village – larger than the local cooperative and the municipal government. As a result, the mayor and teachers are actively engaged to ensure that no jobs will be lost.

The threat of downsizing has resulted in the implementation of innovative coping strategies in some municipalities. School and local officials have a strong interest in making sure that all children attend school and that class sizes are maintained. Strategies have included a combination of initiatives to provide incentives for children to attend school, as well as sanctions for those who do not. The most common approach has been to make receipt of social assistance benefits contingent on school attendance. In Varbitza, this increased the number of students in the school by 25 percent when it was first introduced. However, there are risks that linking social assistance and school attendance could backfire in some of the poorest communities if funds are not available to pay social assistance. The mayor of Razgrad explained:

> *In the fall we had problems with social assistance. The municipality did not have the money to make the payments. Then they said that if there was no social assistance they would not send their children to school.*

These risks require careful consideration before the link between social assistance and enrollments can be adopted as a national policy. In other municipalities, school and municipal officials provided free food and clothing to parents as an incentive for sending children to school. Such initiatives can make an important difference for poor households who otherwise would not be able to afford to send their children to school. However, in the study sites concerns were raised about the criteria for distributing the assistance. In all cases targeting was done in an ad hoc and discretionary way, rather than using the existing targeting mechanism for social assistance to deliver support to poor households with school age children. As discussed in Chapter 5, incentives for receiving benefits need to be assessed to avoid dependency traps.

An adverse outcome of the attempts by teachers to preserve mandatory class sizes to avoid layoffs has been an increase in social promotions. Teachers face incentives to pass children on to the next grade, even if the child is unprepared, in order to keep classes suffi-

ciently large to meet national norms. A teacher explained:

> *We had students who managed to reach fourth grade at school, or even higher. We see that the student does not know anything, that he/she does not even come to school, but shall we do. If he/she does not go further, our colleagues will remain unemployed.*

The incentives faced by school and local officials to keep schools open may ultimately have a positive affect on enrollment. However, this process needs to be managed to ensure that education quality is not effected through social promotion, and that measures to provide assistance to poor households are transparent and effective.

School Closures. In some cases it may be necessary to close schools due to unsustainably low classroom levels. In these areas measures are needed to ensure that the children in the locality are able to attend school elsewhere. The examples from the case studies highlight the issues. In Chernoochene, where nearly 35 percent of all students commute to school every day, a parent expressed fear about having their children travel by bus:

> *We are afraid throughout the whole day, we pretend to work in the fields but think whether something bad will happen to the children. Around half past three, when we see the bus arriving, we begin working.*

In the village of Bezvodno four families – representing half of the children in the village – moved away after the school was closed in 2000. In other areas, parents explained that it was difficult to have children attending school far away when they were needed to help work. For some Turkish communities involved in tobacco cultivation, children are needed to help with planting in May and early June. In Roma communities, children work in seasonal jobs between April and October.

D. Findings and Policy Implications

Despite the rosy picture provided by the national data, there are serious gaps in access to education in Bulgaria which have been widening for vulnerable groups. In particular, enrollments for children in rural areas and ethnic minorities – especially Roma – are significantly lower than the national average. Gaps in pre-school attendance, which is critical for future educational success, and at the secondary level are most pronounced. In 2001 only 6 percent of Roma children were enrolled in secondary education. This has substantial implications for their future employment prospects, and consequently the country. Another worrisome trend is the widening gap in access between rich and poor households. In 2001 children from the bottom quintile were 21 percent less likely to attend basic school and 74 percent less likely to attend secondary school than those in the richest quintile of the population. These developments have important policy implications as follows:

Improving the database. A major impediment to addressing access gaps in Bulgaria

is the lack of reliable information on school attendance. Education officials simply lack accurate information on how many children are in the area. In most cases it is the poorest and most marginalized children who are missed in the data. Improving the information base will require close coordination at the local level between local government officials, the municipal social assistance office and the police. Specific measures should involve:

– Providing opportunities for residents with illegal housing to obtain identification papers;

– Coordinating between public institutions which maintain various registers of the population (e.g. the Standard Public Registry Numbers (ESGRAON), social assistance registers, and health registers);

– Information sharing between schools to inform schools if a child is attending school outside their home district;

– Introducing follow up mechanisms for children who have been expelled or have dropped out of school.

Overcoming economic barriers to school attendance. Measures to help poor households overcome the costs of education are critical for facilitating attendance. An important step in this regard would be to make preschool attendance affordable for all children by waiving fees for low income households.[74] For compulsory education, a number of the approaches introduced at the local level could be scaled up nation-wide, including making receipt of social benefits contingent on school attendance, and providing cash and in-kind support for school materials to low income families.

However, as discussed, these measures need to be careful coordinated with overall social assistance policies to ensure that procedures for allocating assistance are transparent and well understood. Social benefits should only be linked to school attendance if the financing base for social assistance is secure. In the current environment when some local governments (frequently the poorest) are unable to maintain financing for social assistance, this will not have its intended impact. Other approaches to overcoming economic constraints could include school feeding and scholarship programs.

Reaching at risk children. The qualitative study underscored the complex relationship between school attendance and poverty. In many cases extreme poverty is linked with adverse household circumstances, including family dissolution, if one or more parents travel abroad for work, alcoholism and even abuse. Children in these circumstances are at risk of falling through the cracks and losing contact with schools and other institutions which can provide support, such as municipal social assistance offices. Improving information bases

[74] A directive issued by the Ministry of Education in 2002 indicates the Ministry's intention to waive preschool fees.

to track these children is the first step in identifying them. School counselors and social workers have a potentially critical role to play in providing support to these children. The recently passed Child Protection Act establishes the institutional framework for reaching children at risk.

Improving education for Roma. The wide gaps in educational attainment and enrollments for the Roma population highlight the need for focused interventions to address the needs of this particular group. In many Roma communities NGOs are already active in implementing specialized programs to facilitate Roma school attendance. At the policy level a number of measures can be undertaken including:

– Addressing the language constraint for Roma who do not speak Bulgarian at home. Initiatives, particularly at the preschool level, can help Roma make the transition to Bulgarian schools;

– Teacher training to prepare teachers for work in a multicultural environment;

– Supporting Roma teachers assistants. In some schools with a large share of Roma students, having a Roma assistant in the teacher can help overcome language issues and can provide a link between the school, parents and community.

– Facilitating secondary school attendance by providing support to prevent students from dropping out. Experimental programs in Hungary have adopted various approaches including mentoring and extracurricular activities to supplement school work (Box 6.4).

– Reducing the prevalence of segregation into "Roma schools" and classrooms.

Managing downsizing. There is no question that the Bulgarian education system will need to be restructured to adjust to the significant demographic decline in the country. The Ministry of Education is currently undertaking a detailed assessment of the school network to develop a feasible rationalization program for the sector. This will require attention to the issues identified above, to ensure that schools and classes which are closed will not have adverse effects on access. In the cases where school closures are necessary, it will be critical to have tailored plans to assist those children who may have to travel to attend school. This could include working with parents to discuss transportation arrangements and subsidy programs to ensure that transportation costs do not deter families from sending their children to school. Other approaches could include bussing teachers into village schools and greater use of multigrade classrooms.

Box 6.4: Alternative Secondary Schools in Hungary

There have been a number of experiments in Hungary with alternative approaches to secondary school education which aim to help Roma children bridge the gap between basic and secondary school, and to improve their performance and future opportunities. Roma in Hungary are much less likely to start and complete secondary school than other children. A 1993 survey of Roma found that only 1 percent of Roma took the final examination for secondary schools and only 13 percent received training as a skilled worker.

A recent review of alternative approaches commissioned by the World Bank looked at six different schools, most of which have been established during the past five years.[75] All of the schools are private and receive support from a range of local and international foundations and NGOs, as well as state budget subsidies. While the majority of students in each of the schools is Roma, not all of the institutions explicitly target Roma children.

The type of education provided by the different schools varies greatly. In some cases, the schools provide vocational training, such as the "Roma Chance" Alternative Vocational Foundation School, the Don Bosco Vocational Training Center and Primary School and the Budapest Kalyi Jag School. Others, such as the Jyszefvõros School and the Collegium Martineum, support students enrolled in secondary schools through extracurricular activities and classes and, in the case of the latter, dormitory accommodation in a supportive home environment. Finally, the Gandhi School and Students' Hostel in Pücs is a six year secondary school (or gymnasium) which prepares students for continuation to university education.

The schools differ in the extent to which they emphasize the Roma background of their students in their curricula and approach. In most of the schools, strengthening of Roma identity and community and preservation of traditions are an explicit and integral component of the mission of the school, and teaching includes classes in such topics as Roma language, history and art. Others, such as Don Bosco, focus on building the self-confidence of students through professional training and support for entering the labor market. There are also differences in the extent to which the schools address the underlying socioeconomic disadvantages of students. Some, such as the Collegium Martineum, target disadvantaged students and address the economic barriers to school attendance by providing housing and other support. Most of the schools involve parents in the educational process.

Characteristics of the schools and their approaches can be incorporated into mainstream public schools and/or schools which focus on education for Roma students and other disadvantaged groups. Many of the ingredients of success identified in these initiatives, including involving parents, supporting students outside of the classroom and incorporating multicultural approaches to education have the potential to improve the quality and inclusiveness of the education system as a whole.

[75] An exception is the Don Bosco School which was started in 1988.

Health

A. Health Status

Health status is an important element of welfare, which influences the ability of individuals to work, attend school and participate in society. Health indicators in Bulgaria have stagnated, and in some cases have worsened, during the transition period. Life expectancy at birth has declined over the past decade-from 68.1 in 1990 to 67.2 in 1997 – while it has increased in most other countries in Central and Eastern Europe. Although infant mortality has fallen slightly over the transition from 14.8 in 1990 to 13.3 in 1998, the decline in infant mortality has been less than for other countries in the region. The maternal mortality rate in 1999 increased significantly from 15.3 in 1998 to 23.5 in 2000, following a period of decline. Increasing incidence of certain infectious diseases, particularly tuberculosis and hepatitis is of particular concern as it suggests failures in public health efforts.[76]

Table 6.6: Basic Health Indicators in Bulgaria

	1990	1995	1996	1997	1998	1999	2000
Infant Mortality (per 1,000 live births)	14.8	14.8	15.6	17.5	14.4	14.6	13.3
Maternal Mortality Rate (per 100,000 live births)	20.9	19.5	19.4	18.7	15.3	23.5	—
Tuberculosis Incidence (new cases per 100,000)	25.9	40.5	37.2	41.3	49.9	45.5	—
Polio Immunization Rate	99.7	96.8	95.4	95.9	96.5	97.2	94.4
Hospital Beds (per 1,000)	10.3	10.6	10.7	10.4	8.6	7.8	7.4

Source: UNICEF-IRC, TransMONEE database, Ministry of Health of Bulgaria.

Bulgaria's health system has been undergoing a broad systemic reform, involving the introduction of health insurance financed through payroll taxes, and a the introduction of general practitioners. The reform also includes streamlining and downsizing to improve efficiency. Until 1997, Bulgaria's health care system was characterized as one of the most inefficient in Central and Eastern Europe, with the highest numbers of hospital beds and physicians per population. With downsizing efforts, Bulgaria has reduced capacity, however further reforms are needed to ensure the fiscal sustainability of the system and increase efficiency gains.

Little is known about the extent to which these developments in the health sector and trends in health status have had an impact on the poor. Existing instruments, including the BIHS survey, are limited in their ability to assess health and welfare status. Previous qualitative analysis has indicated that ethnic minorities, especially Roma, face greater health risks (Turnev et al., 2002). In particular, Roma are more susceptible to problems stemming from low education which is associated with a higher incidence of illness and mortality. Moreover, living conditions of Roma related to overcrowding, lack of sanitation

[76] Data from UNICEF/IRC, 2000. "Regional Monitoring Report No. 7: Young People in Changing Societies."

and substandard housing conditions in settlements place them at a much higher risk of illness. Chapter 1 illustrated that Roma were much less likely to have access to modern toilet facilities and sewage than non-Roma. Reports of outbreaks of communicable diseases, including hepatitis, polio, diphtheria and tuberculosis in Roma neighborhoods are not uncommon (Zoon, 2000). Researchers have also recently identified a number of health conditions which are specific to Roma, including a neurological disorder known as Lom disease (Turnev et al., 2002).

B. Barriers to Access

Utilization of Health Care Services

In 2001 about 15 percent of the population reported having an illness in the month preceding the survey and nearly one-third reported having a chronic illness during the year preceding the survey. Of those who reported having a chronic illness, over 80 percent received treatment at home, in most cases with a general practitioner, while a smaller share, 11 percent, were hospitalized. Residents of rural areas and ethnic minorities were less likely to receive hospital care, than those in urban areas and ethnic Bulgarians.

Table 6.7: Utilization of Health Services (% of individuals reporting a chronic illness)

		None	Home	Hospital	Sanatorium	
Total		7.04	80.94	11.27	0.75	100.00
	Urban	7.62	79.50	12.53	0.36	100.00
	Rural	5.66	84.39	8.23	1.72	100.00
	Bulgarian	7.12	80.78	11.64	0.45	100.00
	Roma	4.39	79.82	9.65	6.14	100.00
	Turk	4.82	90.36	4.82	0.00	100.00
	Quintile 1	11.25	73.75	10.00	5.00	100.00
	Quintile 2	4.66	85.05	9.80	0.49	100.00
	Quintile 3	6.84	86.33	6.84	0.00	100.00
	Quintile 4	4.70	79.19	16.11	0.00	100.00
	Quintile 5	9.24	78.31	12.25	0.20	100.00
# of observations		140	1609	224	15	1988

Source: BIHS 2001.

The main reason for not seeking treatment in the month prior to the survey was that treatment because the individual was not seriously ill and felt that treatment was not needed. Over one-quarter of respondents reported that they did not get care because it was too expensive. Ethnic minorities and those in the bottom two consumption quintiles most frequently avoided care because of its costs.[77] The cost constraint is also reflected in the fact that a smaller share of low income households reported missing work because of illness. Only 44 percent of working adults in the bottom two quintiles who reported illness

[77] Note that sample sizes are very small and results are not conclusive.

missed work, in comparison with 66 percent for the top three quintiles. Poor households both cannot afford to pay for care and cannot afford to miss work.

Table 6.8: Reasons for not Seeking Treatment (% of individuals reporting recent illness in the last 4 weeks)

	Not needed	Too Far	Wait too long	Too expensive	Other	Total
Total	59.36	2.26	3.23	26.13	9.03	100.00
Male	56.67	2.50	5.83	25.00	10.00	100.00
Female	61.06	2.11	1.58	26.84	8.42	100.00
Urban	52.83	5.66	0.00	33.02	8.49	100.00
Rural	62.74	0.49	4.90	22.55	9.31	100.00
Bulgarian	60	2.75	3.92	24.31	9.02	100.00
Roma	60	0.00	0.00	40.00	0.00	100.00
Turk	50	0.00	0.00	50.00	0.00	100.00
Quintile 1	35.9	10.26	0.00	53.85	0.00	100.00
Quintile 2	44.18	4.65	0.00	51.16	0.00	100.00
Quintile 3	65.98	0.00	6.19	15.46	12.37	100.00
Quintile 4	80	1.43	0.00	0.00	18.57	100.00
Quintile 5	50.82	0.00	6.56	37.70	4.92	100.00
# of observations	184	7	10	81	28	310

Source: BIHS 2001.

Out-of-Pocket Payments

The cost barrier is among the most important impediments to seeking care. Many patients report making formal and informal payments for services. Such payments are common in the region. The health reform introduced co-payments for services in 1999. Copayments for at risk groups, including the unemployed and those on social assistance are supposed to be exempt from these payments. In 2001, 24 percent of households reported making payments for health, which reflects a decrease from 33 percent in 1997. However, the share of monthly expenditures spent on health has more than doubled during the same period, from 2 percent in 1997 to 4.5 percent in 2001. This increase has been largely borne by the poor, as the share spent by the bottom two quintiles is higher than for the top of the consumption distribution (Table 6.9). It is not clear why the incidence of payments has declined, as utilization of services increased between 1995 and 2001. In 1995 61 percent of those reporting a recent illness sought care. This increased to 65 percent in 2001.

Out-of-pocket payments take different forms, ranging from expenditures on consultations and tests, medications and transportation, to 'gifts' to providers. Patients most frequently reported making payments for treatment and drugs (11.5%); the next most common payments were payments for consultations and tests (10%). A small share (0.4%) of patients reported making informal payments, however making distinctions between cate-

gories in this area is difficult. Roma, on average, paid almost twice as much as Bulgarians for consultations and tests and for transportation.

Table 6.9. Out-of-Pocket Payments for Health Care (% of total monthly expenditures)

	1995	1997	2001
Total	2.62	1.92	4.48
Urban	2.54	1.96	4.39
Rural	2.79	1.83	4.69
Bulgarian	2.70	1.96	4.49
Roma	3.04	1.17	3.92
Turk	1.30	1.64	4.77
Quintile 1	3.40	2.41	5.77
Quintile 2	3.01	2.16	5.12
Quintile 3	2.78	1.83	4.27
Quintile 4	2.23	1.75	4.05
Quintile 5	1.86	1.59	3.87
% of households making payments	30.15	32.90	23.88
# of observations	744	764	597

Source: BIHS 1995, 1997, 2001.

Note: Based on household expenditures in the last four weeks preceding the survey.

Coverage of Health Insurance

The transition to payroll based health insurance has led to gaps in coverage, particularly of lower income groups. Health care is financed through a 6 percent payroll tax divided between employers and employees. Non-working individuals are covered through general revenues. Contributions are limited to 870 leva per month, which makes the system somewhat regressive and creates a potential barrier for the working poor. Pensioners are covered by the state budget and coverage for the unemployed and other non-working individuals is paid through municipal budgets. The insurance contribution for these groups is based upon 70 percent of the minimum monthly wage, and as a result is significantly lower than the contributions for working individuals.

Coverage of the poor and unemployed is limited by municipal budget constraints. As is the case with social assistance, it is the poorest local governments which have the largest number of people in need of health coverage due to high unemployment levels. Qualitative evidence has indicated that these payment arrangements have had the greatest impact on vulnerable groups. In the town of Senovo, which has a population of 500 Roma, health insurance for nearly 90 percent of the Roma population is covered by the municipality because they are unemployed, the remaining 10 percent are not covered because they lack proper identification documents (Turnev et al., 2002). In other municipalities, local governments are not able to cover health insurance contributions.

Barriers for Roma

As is the case with education, Roma are more likely to fall through the cracks of the health system than other groups, because they lack necessary identification and registration papers. Lack of information and poor communication with providers has also meant that many Roma are not signed up with primary care physicians. In Senovo 80 percent of Roma did not know who their primary care doctor was. In other cases, discrimination and exclusion limit Roma access to care. There are reports of doctors refusing to add Roma patients to their general practitioner lists and of hospitals which put Roma in rooms away from non-Roma (Turnev et al, 2002).

Poor communication between Roma and health care providers reinforces exclusion and mistrust on both sides. In a 1999 qualitative survey, doctors complained that Roma refused to follow their instructions, and would only purchase part of the medicine that they prescribed, and would then stop treatment once the symptoms abated. Physicians also noted that some Roma women were fearful of immunizations and were reluctant to let they children be vaccinated. Customs among some Roma communities may also lead to adverse health, including the high rate of young marriages and pregnancy, which can lead to premature births, and intra-family marriages which increases the risk of congenital diseases.

C. Findings and Policy Implications

A priority for improving health status and the effectiveness of the health system is to ***improve the information base***. This chapter has highlighted the need for a better understanding of the linkages between health status and poverty. The BIHS survey provides a limited view of utilization patterns and barriers to care. In this vein, a priority will be to design a more robust module on health for the multi-topic household survey planned by the National Statistical Institute.

Ensuring health insurance coverage for the non-working population. The current system of financing contributions for the unemployed and poor through municipal budgets is not financially viable for the poorest municipalities. Alongside measures to strengthen the system of intergovernmental finance in Bulgaria, measures should be introduced to ensure coverage for vulnerable groups. Possibilities include shifting responsibility for payments to general revenue, or providing earmarked transfers to municipalities to cover contributions.

Overcoming costs of care for poor households. For poor households which are not covered by current payment exemptions, copayments for doctor visits and medicines may be unaffordable and may deter them from seeking needed care. Subsidies for the poorest groups could be provided through the social assistance system, taking advantage of the existing means-testing mechanism.

Improving access to care for Roma. As is the case with education, specific measures can overcome barriers to access for Roma. Health interventions can be designed to overcome exclusion and cultural barriers to accessing care. These could include:

– Training for physicians and nurses working with Roma communities.

– Involvement of Roma health mediators to act as a liaison between Roma patients and non-Roma physicians.

– Targeted public health information programs for Roma.

– Greater involvement of social workers in health promotion.

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ISBN 954-8964-5