

Report No. 30294-KZ

Kazakhstan Dimensions of Poverty in Kazakhstan

(In Two Volumes) Volume I: Policy Briefing

November 9, 2004

Poverty Reduction and Economic Management Unit
Europe and Central Asia Region



Document of the World Bank

CURRENCY AND EQUIVALENT UNITS

(Exchange Rate Effective January 28, 2004)

Currency Unit = Tenge (KZT)

US\$1.00 = 150.50 KZT

Acronyms and Abbreviations

ADB	Asian Development Bank
CEE	Central and Eastern Europe
CIS	Commonwealth of Independent States
ECA	Europe and Central Asia Region
GDP	Gross Domestic Product
GNI	Gross National Income
ha	Hectare
HBS	Household Budget Survey
KPA	Kazakhstan Poverty Assessment
KZT	Kazakhstan tenge
LFS	Labor Force Survey
MI	Million
NFRK	National Fund of the Republic of Kazakhstan
NSA	National Statistical Agency of Kazakhstan
PAYG	Pay-as-you-go
PPP	Purchasing Power Parity
SOE	State-owned enterprise
TSA	Targeted Social Assistance Program
UNDP	United Nations Development Programme
WB	World Bank
WDI	World Development Indicators

Fiscal Year

January 1 to December 31

Vice President:	Shigeo Katsu
Country Director:	Dennis de Tray
Sector Director:	Cheryl Gray
Sector Leader:	Asad Alam
Team Leader:	Sarosh Sattar

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ACKNOWLEDGMENTS

This report is part of the World Bank's and Ministry of Economy and Budget Planning's Joint Economic Research Program for 2004 and is expected to serve as an input for the forthcoming Poverty Alleviation and Territorial Development Programs currently being developed by the Ministry. It is the result of substantial collaboration involving the National Statistics Agency of Kazakhstan, the Ministry of Economy and Budget Planning, the Ministry of Education, the Ministry of Health, and the Ministry of Labor and Social Protection. In addition, useful input at various stages was received from other donor agencies (especially, the UNDP and the ADB), research institutes, and a multi-disciplinary World Bank country team. The task was carried out under the management of Sarosh Sattar and members of the team included Zhanar Abdildina, Kathleen Beegle, Hanan Jacoby, Sara Johansson, Jeren Kabaeva, Leila Muzaparova, Jossy Moeis, Carlos Sobrado, Cornelia Tesliuc, Sasun Tsurinyan, and Paolo Verme.

The document benefited significantly from support of the National Statistical Agency of Kazakhstan. The team is particularly grateful to Dr. Yuri Shokomanov, Vera Osokina, and Nina Krivko. A special note of appreciation to the Ministry of Economy and Budget Planning of the Republic of Kazakhstan for their support to the team's work. In particular, we would like to thank Mr. Batyrkhan A. Issayev (Vice-Minister) and Mr. Tleugazy Bespalinov (Deputy Head of the Regional Policy Department).

As part of the Kazakhstan Poverty Assessment, successful efforts were made to benefit from national research expertise. This was carried out in two phases. In the first phase, a series of twelve papers were commissioned by the Bank under the leadership of Radwan Shaban. These papers from researchers were on a broad array of poverty related issues which were helpful in informing the topics selected for further analysis. The second phase which began in October 2003 focused on developing a better understanding of the population's access to services. For this purpose, the poverty assessment team was expanded to include Natalia Baitugelova, Svetlana Kunitsa, Bulat Mukhamediyev, Igor Samchenko, and Aigul Tagatova who produced valuable background papers for this final document. The activity of the national consultants was professionally coordinated by Leila Muzaparova. Hiromi Asaoka, Ellen Hamilton, Akiko Maeda, and Michael Mertaugh provided valuable guidance at various stages of the background papers analysis.

The peer reviewers are Arup Banerji and Jesko Hentschel whose advice significantly strengthened the final report. Additional comments and guidance were provided by Asad Alam, Dennis de Tray, Cheryl Gray, and Pedro Rodriguez. The team would also like to thank Gulmira Akshatyrova, Aliya Bultrikova, James Lynch, and Judy Wiltshire for their administrative assistance to the team.

LIST OF BACKGROUND PAPERS

Baitugelova, Natalia. *Kazakhstan's Health Care System National Peculiarities*

Jacoby, Hanan. *Kazakhstan: Rural Poverty.*

Kunitsa, Svetlana. *Assessment of the Service Accessibility and Quality for the Poor Population (Water and Sanitation)*

Moeis, Jossy. *Segmentation, Poverty and Inequality: An Analysis of Labor Market in Kazakhstan*

Mukhamediev, Bulat. *Appraisal of Availability and Quality of Heating Services for the Poor Population in Kazakhstan*

Samchenko, Igor. *Estimation of Accessibility and Quality of Education Services for the Poor Population in Kazakhstan*

Tagatova, Aigul. *Appraisal of Availability and Quality of Power Service for the Poor in Kazakhstan*

Tesliuc, Cornelia. *Social Protection and Poverty Reduction in Kazakhstan*

Verme, Paolo. *Explaining Changes in Poverty and Income Inequality in Kazakhstan 2001-2002*

Verme, Paolo. *Growth, Poverty and Income Inequality in Kazakhstan 2001-2002*

Verme, Paolo. *Regional Growth, Poverty and Income Inequality in Kazakhstan 2001-2002*

I. KEY FINDINGS

POVERTY SITUATION IN 2002

- Consumption poverty is estimated at 15.4%.
- Non-monetary dimensions of poverty (in particular, poor housing conditions and low education) affects another 27% of the population.
- Oblast poverty rates vary significantly, ranging from 2% to 32%.

DETERMINANTS OF POVERTY

- The strongest determinant of poverty is oblast of residence. Thus, persons with similar characteristics are more likely to be poor if they live in Zhambyl, Karaganda, or Kyzylorda
- Unemployment, low educational achievement, and household size are other strong determinants of poverty.

ECONOMIC GROWTH AND POVERTY REDUCTION IN 2001-2002

- Economic growth led to a decline in poverty.
- The poverty impact of growth was positive though modest: poverty declined because growth was so high.
- Oblasts with lower average living standards saw greater reductions in poverty.
- Poverty is increasingly becoming a rural phenomenon.

KEY SOCIAL AND PHYSICAL INFRASTRUCTURE SERVICES

- Though usage of facilities is high, health and education outcomes vary tremendously by oblast, urban/rural sector, and income—indicating possible large differences in service quality and comprehensiveness.
- The proportions of the urban population that use piped water, sewerage system, and district heating were respectively 75%, 62% and 60%.
- The reliability of infrastructure services of water and electricity shows some weakness.

EFFECTIVENESS OF THE PENSION AND SOCIAL PROTECTION SYSTEM

- The Targeted Social Assistance program is a good instrument for reaching the poor but its effectiveness can be further strengthened by expanding the coverage of the poor as well as increasing the level of benefit payments.
- Other programs such as the State Social Allowances and the Special State Allowances are not targeted to the income poor though the poor—as well as the non-poor—benefit from these programs.
- Pensions play a critical role in mitigating the risk of old age poverty.

II. POVERTY MONITORING AGENDA

- The Kazakhstan authorities (with assistance from the UNDP, ADB, and the World Bank), have made important strides to develop their poverty monitoring system, but the National Agency of Statistics of Kazakhstan (NSA) will need sustained support to maintain this important initial investment.
- Greater emphasis on creating 'demand' for these poverty monitoring efforts is needed possibly beginning with utilizing of poverty monitoring results as an input to key government initiatives (e.g., Territorial Development Program, Education Sector Program, Health Sector Program, and Rural Development Program), and when appropriate also as an instrument to evaluate the outcome of these programs.
- The Government and the NSA should also actively promote the use of this information by independent (domestic and foreign) research institutions, as this will not only contribute to identifying ways to improve the existing methodology, but would also provide alternative views and analysis on topics of national interest.

EXECUTIVE SUMMARY

A. INTRODUCTION

1. This report assesses the living conditions in Kazakhstan during 2001-2002 especially for the poor. Based upon consultations with the Government, research institutes, and nongovernmental organizations, three key questions related to poverty were identified as critical to understanding the current situation and to developing a poverty reduction strategy. These questions are: (i) what is the current poverty situation in Kazakhstan, (ii) what has been the impact of economic growth on poverty, and (iii) how effective is the social protection system in alleviating poverty.

2. Official government data indicate that poverty has been falling in Kazakhstan during 1997-2000. Both Government and World Bank poverty estimates indicate that the downward trend in poverty continued during 2001-2002 as can be seen in Table 1 below.¹

Table 1: Poverty Rates for 1996-2002

		Poverty Rates								
Poverty Line	Agency /a	Survey /b, c	Share of population living below the poverty line (in %)						2001	2002
			1996	1997	1998	1999	2000			
Subsistence Minimum	NSA/WB	LSS	34.6							
Subsistence Minimum	NSA	FBS		38.3	39.0	34.5	31.8			
Subsistence Minimum	NSA	HBS						28.4	24.2	
Basic needs	WB	HBS						17.6	15.4	

Sources: National Statistics Agency and World Bank staff estimates.

a/ NSA is the National Statistics Agency and WB is the World Bank.

b/ LSS is the Living Standards Survey; FBS is the Family Budget Survey; and HBS is the Household Budget Survey.

c/ Poverty rates from these surveys are not comparable to each other.

3. Six main findings on poverty in Kazakhstan are worth highlighting:
- Though consumption poverty affects about 15% of the population, an additional 27% suffer from housing or education poverty. Housing poverty and the broader problem of poor quality of basic infrastructure services are prevalent.
 - Economic growth led to a fall in poverty in 2001-2002. However, the impact of growth on poverty was relatively modest since 1% growth led to a comparable decline in poverty of 1.2%. Rural poverty in particular did not appear to benefit significantly from growth since it decreased only marginally in these high growth years.²

¹ World Bank and official estimates of poverty are not the same due to differences in the choice of the poverty line, measurement of household welfare, and methodology employed.

² A deeper analysis on the relationship between poverty and growth will need to be part of future poverty analysis, especially as data become available for a longer period of time.

- The greatest source of inequality in Kazakhstan is the divergence of living conditions across oblasts—whether measured using indicators of consumption expenditures, incomes, usage of services, or health indicators.
- Though the quality of education cannot be judged from the Household Budget Survey, the productivity of the future labor force could be in jeopardy since an estimated 50% of young adults—25-29 year olds—have a secondary school or lower degree.
- Infant mortality rates are high (and vary significantly across oblasts) despite the fact that 85% of the population lives within a 30 minutes walking distance from a health care facility.
- Social transfers helped reduce poverty but there was significant leakage to the non-poor. The best program for transferring income to the poor is the Targeted Social Assistance Program though it requires strengthening of its coverage and benefit levels.

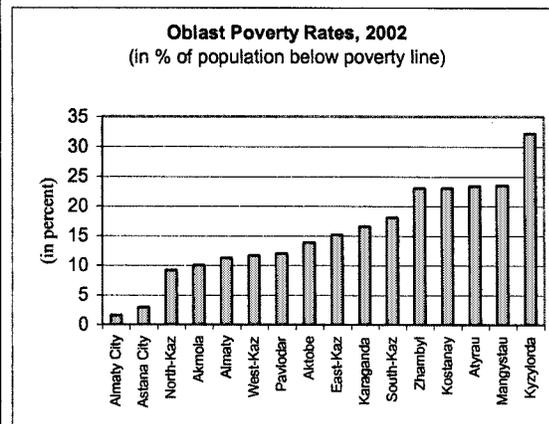
Table 2 and Figure 1: Poverty and Inequality Indicators, 2001-2002

Poverty and Inequality in Kazakhstan		
Region	2001	2002
POVERTY		
	(in % of population)	
National	17.6	15.4
Rural	23.2	21.7
Urban	13.0	10.2
INEQUALITY		
Gini Coefficient /a	0.29	0.28
Gini Coefficient /b	0.39	0.36
Share of Total Expenditures (in percent)		
of Lowest 40%	21.6	22.3
of Richest 10%	22.7	22.3

Source: Staff calculations based on HBS.

a/ Inequality of consumption expenditures.

b/ Inequality of cash income (all sources).



Source: Staff calculations based on HBS.

B. WHAT IS THE CURRENT POVERTY SITUATION?

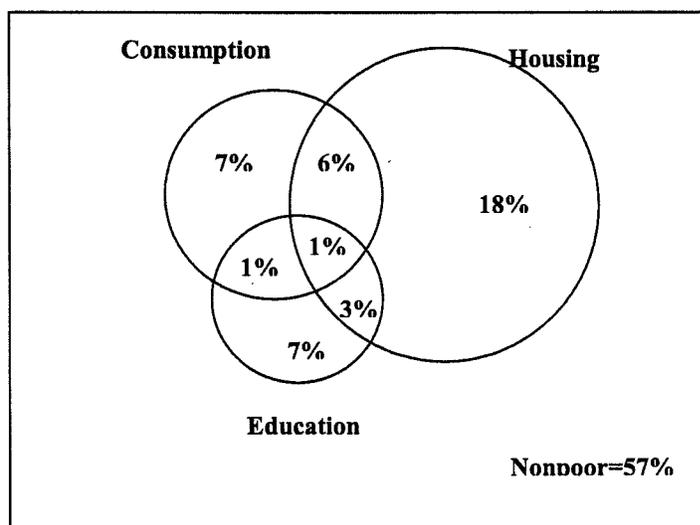
B.1. The Extent of Poverty and Inequality in 2002

4. In 2002, 15.4% of the population—or over 2 million persons—were unable to meet their basic food and non-food needs and consumed less than 40,138 tenge (or \$258) per person per year. These estimates of poverty are based upon the Household Budget Survey (HBS) administered by the National Statistics Agency (NSA) of Kazakhstan. The poverty line is established by the World Bank using international standard methodology and is lower than the Government's subsistence minimum but above the Ministry of Labor and Social Protection's poverty line. The measure of welfare is based upon consumption expenditures since households tend to more accurately in their report than their income. Consumption includes food (both purchased food and own-produced food) and non-food goods and services (which includes use-value of durable goods such as cars and washing machines).

5. The poor in Kazakhstan have a similar profile to what is seen in many other countries. The three most common characteristics of poor households are (i) large household size, (ii) relatively low educational qualification of household head, and (iii) lower probability of household adults being employed. In addition to household and individual characteristics, poverty has a strong geographical aspect: poverty is higher in rural areas (22%) than urban areas (10%) and in small and medium cities than in large cities. Also, the southern and eastern parts of Kazakhstan exhibit higher poverty. The oblasts with the highest rates of poverty are Kyzylorda at 32% and in Mangystau, Kostanay, Zhambyl, and Atyrau (23%-24%)—three of which are oil rich oblasts.

6. National-level inequality is relatively modest compared to other countries. The Gini coefficient computed using consumption expenditure per capita is 0.28 for 2002. However, despite, this the consumption expenditures distribution is uneven. The bottom 40% cumulatively consume as much as the top 10% of the population—22% of total consumption expenditures. There appears to be a positive shift towards declining inequality as seen by comparing the Gini coefficients (for both cash income and consumption) and shares of total consumption expenditures across the two years as seen in Table 2.

Figure 2: Multi-Dimensional Poverty in Kazakhstan in 2002



Source: Staff calculations based on HBS 2002.

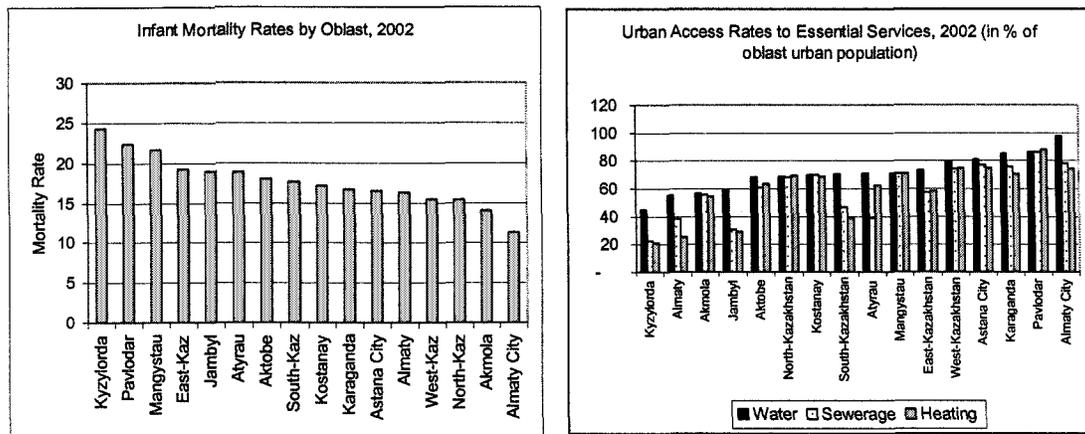
B.2. Non-Monetary Dimensions of Poverty

7. Consumption poverty is only one of the many forms in which poverty can exhibit itself; other forms of poverty include education and housing poverty. When taking into account other dimensions of poverty, it is possible to perhaps better capture those whose quality of life is not high though they may indeed have sufficient consumption levels. The housing poor³ is the largest

³ The housing poor are those who live in crowded conditions (with less than 6 square meters per person) or who take water from a public water pump or public well more than 100 meters from their dwelling or who take water from a spring, lake, pond, or river.

group of poor in Kazakhstan at an estimated 28% of the population whereas the education poor—those persons (15 years or older) who at most have completed primary school—were an estimated 11% of the population. As seen in Figure 2, overlap between the different types of poverty is largest between the housing poor and the consumption poor—an estimated 6% of the Kazakhstan population suffers from both types of deprivation. However, simultaneous deprivation along all three dimensions of poverty—consumption, housing, and education—is rare indicating that extreme poverty is not widespread. In part due to this limited overlap, the share of the population suffering from at least one form of poverty in 2002 is high and estimated at 43%.

Figures 3 and 4: Infant Mortality and Access to Key Services by Oblast



Source: Ministry of Health.

a/ Infant mortality rate is number of deaths per 1,000 live births

Source: Staff calculations based on HBS 2002.

B.3. Access to Services

8. Living standards are not high in Kazakhstan due to the sharp deterioration of essential social and physical infrastructure services in the early years of the transition. Inadequate government funds to maintain existing infrastructure during this period led to large losses of capital stock which have not been replaced. Furthermore, the dispersion of the population in Kazakhstan—with almost half of the population living in rural areas—makes provision of services expensive; and for the case of physical infrastructure services potentially uneconomical. Consequently, other alternatives to providing essential services centrally need to be explored and developed in order to facilitate upgrading the population's living standards.

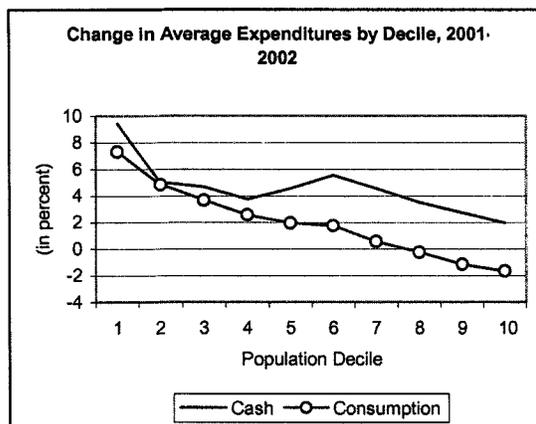
9. The population has relatively high access to key social services—health and education, but the HBS yields little information on their quality, adequacy, and comprehensiveness. Social indicators for Kazakhstan show great variation within the country. Infant mortality rates⁴ vary significantly across oblasts as can be seen in Figure 3—despite the fact that 85% of the population lives within a 30 minutes walking distance from a health care facility. The quality of education cannot be judged from the HBS. However, the productivity of the future labor force could be in jeopardy since an estimated 50% of young adults—25-29 year olds—have a high

⁴ Computation of infant mortality rate is based on the Soviet definition for live births which differs from the WHO definition.

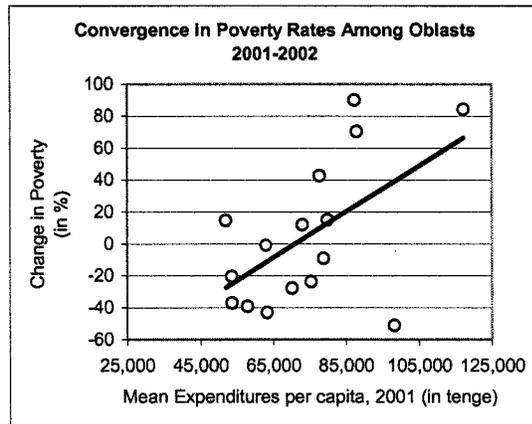
school or lower degree. There is also an income bias which is that among young adults in the bottom quintile 66% have a high school degree or less compared to only 29% of the top quintile.

10. Two great deficiencies in Kazakhstan are the population's lack of access—due to unavailability or because it is too expensive—to basic infrastructure services such as running water, sewerage, central heating, and gas and the collapse in the quality of essential services, especially for urban residents. Given that provision of network services is uneconomical in rural areas, the rural population uses mostly non-network services. Consistently across various services in urban areas, the larger the city, the higher the population's access to services. However, there is a strong regional aspect to urban access as seen in Figure 4. Finally, in urban areas, income and access to services are correlated—the poorer you are, the less likely you are connected to network services. What is of concern is that for key infrastructure services, the bottom quintile's access declined by about 5 percentage points for central heating, gas, sewerage, and water services in urban areas during 2001-2002.

Figures 5 and 6: Economic Growth and Poverty



Source: Staff calculations based on HBS.



Source: Staff calculations based on HBS.

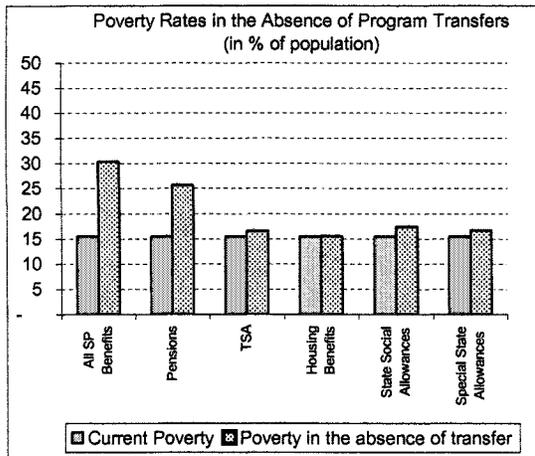
C. WHAT WAS THE IMPACT OF ECONOMIC GROWTH ON POVERTY IN 2001-2002?

11. In Kazakhstan, economic growth has resulted in the reduction of poverty. The economy grew by 10% per capita and poverty fell by 13% in 2001-2002. Even using an international poverty line (\$2.15 per day corrected for purchasing power parity), poverty fell from 4.9% to 3.6% of the population. Analysis of peoples' consumption from the HBS reveals that the average real consumption expenditures per capita for the population rose by only 1% during this period—much less than the increase even in non-oil GDP per capita would imply.⁵ But poverty decreased significantly because there was a sharp increase in the consumption expenditures per capita of the lower and middle-income groups resulting in the improvement of expenditure distribution and a decline in poverty: the bottom 20% of the population saw a 7% increase while the richest 20% saw a 2% decline. However, cash expenditures which includes actual spending on housing and durables (rather than the use value of the these goods) showed an increase for all population quintiles of the population as seen in Figure 5.

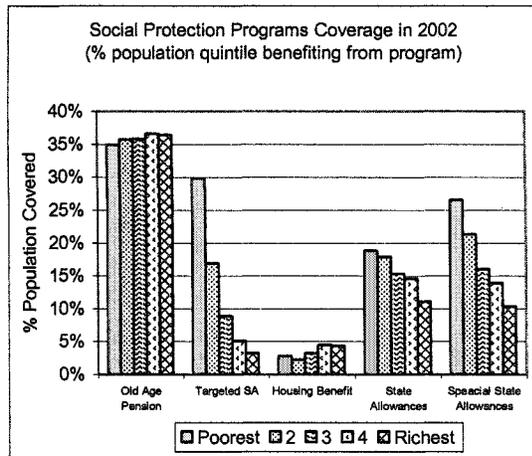
⁵ The change in real consumption as indicated by the national accounts data for private household consumption per capita was much higher at 11% between 2001 and 2002.

12. At the oblast level, there has been a small convergence in living standards as measured by the mean consumption per capita of the oblast.⁶ Thus, oblasts where living standards were low, in general achieved higher increases in consumption per capita—as well as large declines in poverty as seen in Figure 6. But convergence should not hide three aspects. First, poverty is indeed higher in poor oblasts as would be expected. Second, variation in average living standards across oblasts is large—with the poorest oblast (Kyzylorda) showing mean consumption expenditures per capita at less than half of the richest (Astana City). Third, the economic structure of oblasts vary significantly, consequently improvements in living standards and poverty will depend upon many factors including climate and international prices for agriculture output and oil.

Figures 7 and 8: Poverty and the Social Protection System



Source: Staff calculations based on HBS.



Source: Staff calculations based on HBS.

D. HOW EFFECTIVE WAS THE SAFETY NET IN REDUCING POVERTY?

13. Kazakhstan's social protection system has several components of which the main ones are the Targeted Social Assistance (TSA) Program, the state social allowances, special state allowances, housing benefits, and the pension system. Consolidated government expenditures on these programs were 5.4% of GDP in 2002 equivalent to 25% of total government expenditures, the bulk (82%) of which is allocated to pensions. Kazakhstan's social protection program has had a major impact on reducing poverty. In the absence of all social protection benefits (including pensions), poverty would have increased from 15% to 30% in 2002 as seen in Figure 7.

14. Programs such as pensions, the special state allowances, and state social allowances comprise the bulk of government social protection spending. However, their aim is to help the population smooth their consumption over time and prevent people from suffering devastating income shocks. These programs do not necessarily aim to raise the incomes of the poor. On the other hand, housing benefits which are indeed meant to assist the poor benefit them the least as can be seen in Figure 8.

⁶ GDP per capita is not used since it does not do as a good job of reflecting average living standards. This is especially true because of the oil sector where the majority of the revenues revert to the central government and not the oblast population.

15. The primary anti-poverty program is the TSA which has achieved a targeting performance comparable to the best programs internationally. A large share of the TSA's resources (an estimated 56%) are received by the bottom 20% of the population, indicating high efficiency, but also room for reducing leakage to the non-poor. A particular concern is that the TSA's benefit amount is too low to raise the majority of its poor beneficiaries out of poverty. Whether this is a result of the local governments being the primary sources of funding for this program rather than the Republican budget is not clear. However, oblasts with low value-added per capita also have high poverty rates which may make it difficult for them to sustain funding the program or provide adequate coverage and benefits.

E. CONCLUSION

16. This report aims to contribute to improving our understanding of the multi-dimensional nature of poverty in Kazakhstan, the linkage of poverty with broad economic developments, and an overview of some of the key social protection instruments the Government uses to assist the population fight poverty. An important finding which cuts across the analyses is the high level of diversity of outcomes in Kazakhstan especially among oblasts and sectors (urban and rural). Thus, national averages—whether of poverty rates or access to services—hide large variations whose understanding is critical to the development of a poverty reduction strategy.

1. POVERTY PROFILE

A. INTRODUCTION

1.1 The profile of poverty presented in this report is based on a multi-dimensional concept of poverty. The most commonly used measurement of poverty is consumption which is anchored in the notion of a person consuming inadequate amounts of food and non-food goods and services. In addition to this type of poverty, other measurements are used which assess non-monetary aspects such as housing conditions, educational achievement, and health status. Data from the Household Budget Survey (HBS) are used to estimate the share of deprivation along different facets of wellbeing.

1.2 This chapter provides an overview of the characteristics of the poor in 2002. It begins by discussing the methodology for computing the poverty line and welfare measures employed to assess different types of poverty. It will also provide some basic statistics on inequality and the level and depth of poverty both at the national level as well as at a more disaggregated level. Finally some information on the sources of income is included though these are less robust given people's unwillingness to reveal their income. A more detailed presentation of the poverty profile and in-depth discussion of the methodology is presented in Volume II of this report.

1.3 The main findings of this chapter are as follows:

- For the nation as a whole, consumption poverty afflicted 15.4% or over 2 million persons in 2002. Consumption poverty varies dramatically across oblasts ranging from 2%-32%.
- Though extreme deprivation as characterized by persons suffering multiple dimensions of poverty (e.g., education, housing, and consumption) is uncommon, an estimated 53% of the population suffers from at least one form of poverty.
- The chances of living in poverty increase with the specific oblast of residence, low educational attainment, unemployment, and household size.

B. MEASURING CONSUMPTION POVERTY

1.4 **Poverty and inequality indicators are estimated based upon the HBS.** The data used for this poverty assessment are from the 2001 and 2002 HBS, completed by the National Statistical Agency of Kazakhstan (NSA). The HBS marks the implementation of a comprehensive redesign of the household survey system by the NSA. In 2001, the HBS significantly improved the sample design and questionnaire content making it a reliable source for undertaking analysis of living standards in Kazakhstan and of poverty. The survey samples 12,000 households out of about 4 million households in Kazakhstan. It is representative at the oblast level and is stratified by rural, small-, medium- and large cities. The data collected includes information on household and individual characteristics as well as on household consumption and income.

Table I.1: Consumption Poverty in 2002

Region	Head Count Index	Poverty Gap	Poverty Severity	Distribution of the Poor
National	15.4	3.1	1.0	100
Rural	21.7	4.5	1.4	64
Urban	10.2	2.0	0.6	36
- Small cities /a	15.8	3.4	1.2	15
- Medium cities /b	16.3	2.8	0.8	7
- Large cities /c	6.7	1.3	0.4	14

Source: World Bank estimates based on Household Budget Survey (2002).

a/ Cities with less than 10,000 households.

b/ Cities with between 10,000–30,000 households.

c/ Cities with more than 30,000 households.

1.5 A person's welfare is measured by using household consumption per capita. The expenditure aggregate (or welfare measure) includes actual household expenditures on food, utilities, health, education and other non-food items and, additionally, estimates of the value of durables, gifts and home-produced food. The individual welfare level is obtained by dividing the household total consumption by the number of persons in the household. Housing is not included in the consumption aggregate since there are too few households in the sample who rent housing which would give us compute value of housing. The majority of people live in their own house or apartment; this is a feature which is common among transition economies.

1.6 An absolute poverty line is used to measure poverty. Individuals below this minimum standard of living—the poverty line—are deemed to be poor which gives an *absolute* measure of poverty. The poverty line estimated for this report was computed using a cost-of-basic-needs approach. The first step in this approach is to estimate the cost of buying 2100 calories per day which is considered the minimum number of calories per person, based on the food consumption patterns of a reference population. A minimum amount for non-food expenditures is then added to this food poverty line to construct a total poverty line. The poverty line is a per person poverty line and does not assume economies of scale—hence whether a person lives alone or is part of a household, they are assumed to need the same amount of minimum consumption expenditures. We adopt such a poverty line since tests for the economies of scale (see Volume II) and find that they do not impact the profile of the poor significantly. The poverty line is calculated as (2002) 40,138 tenge or \$258 per capita per year for food and non-food expenditures (excluding housing).

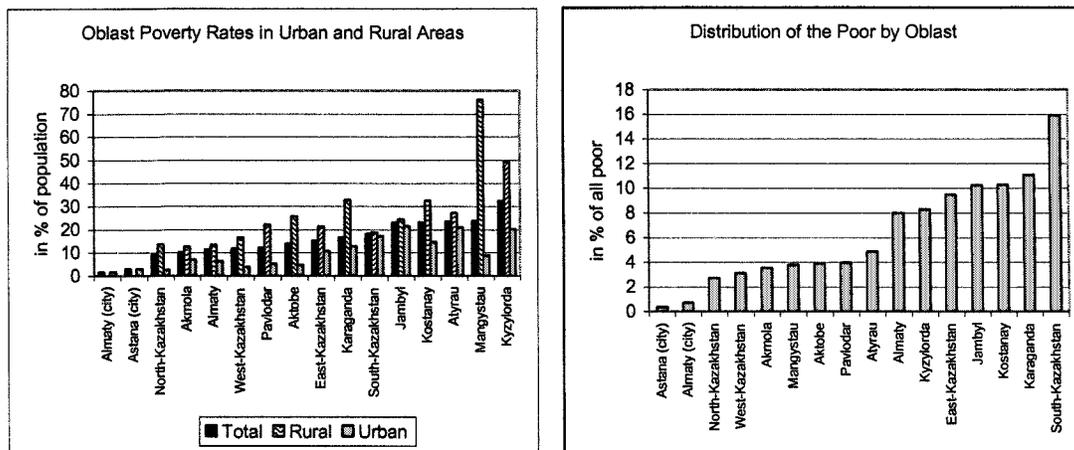
1.7 Poverty is measured using (i) the incidence of poverty (also called the headcount index), (ii) the depth of poverty, and (iii) the severity of poverty. The incidence of poverty is the percentage share of poor in the total population. While this is a useful concept, it has recognized weaknesses for analytical and policy purposes, and additional considerations need to be made. First, the proportion of people with expenditures below the poverty line does not give a sense of the depth of poverty, because it does not differentiate between the very poor and those just below the poverty line. Thus, the depth and severity of poverty are also measured by considering how far the poor are living below a minimum standard. It is moreover important to consider the robustness of a chosen poverty line and whether the profile of poverty (the ranking of groups in terms of poverty rates) changes given different poverty lines.

1.8 The share of the population living below the poverty line fell from 17.6% to 15.4% in 2001-2002. About one in five persons in the rural areas live in poverty compared to one in ten persons in urban areas. Among urban centers, the poverty incidence was highest in small cities

and lowest in large cities as seen in Table I.1. Improvements in poverty occurred across the board but declines in urban poverty—of 22%—far exceeded the fall in rural poverty of 7%.

1.9 Poverty in Kazakhstan is shallow indicating that small improvements in consumption can lift a large number of people out of poverty. The poverty gap measures the depth of poverty, specifically it measures the average poverty shortfall in the population (the non-poor have zero shortfall) as a proportion of the poverty line. At the national level, the average gap between the expenditures of the poor and the poverty line is 3 percentage points. Poverty was the shallowest in the large cities—1.3 percentage points—and the deepest in the rural areas.

Figures I.1 and I.2: Poverty Rates and Distribution by Oblast and Sector



Source: World Bank estimates based on Household Budget Survey (2002). Source: World Bank estimates based on Household Budget Survey (2002).

Note: Total, urban, and rural rates are based as share of oblast population living in all, urban area and rural areas of relevant oblast.

1.10 Poverty in Kazakhstan has a strong regional character with the majority of poor living in rural areas and in just five oblasts. An estimated 64% of all poor live in rural areas—this is a higher proportion than in 2001. Since poverty fell more rapidly in urban centers, poverty increasingly became a rural phenomenon during 2001-2002. Variation in poverty rates among oblasts is large—with poverty ranging between 2% and 32% in 2002 as seen in Table I.1. Oblasts with the highest incidence of poverty are Kyzylorda (32%) followed by Mangystau, Atyrau, Zhambyl, and Kostanay (23%-24%). However, given the large differences in oblast population size, more than half of all poor persons can be found in the five oblasts of South Kazakhstan, Karaganda, Kostanay, Zhambyl, and East Kazakhstan.

1.11 Inequality in Kazakhstan showed slight improvement during 2001-2002. One intuitive measure of inequality is the distribution of consumption by population decile. In Kazakhstan, the top 10% of the population consumed as much as the bottom 40% of the population. Another more common, though less intuitive, measure of inequality—the Gini-coefficient—fell from 0.29 to 0.28 for consumption and from 0.39 to 0.36 for income in 2001-2002. By international standards, inequality in Kazakhstan is modest especially relative to Latin American countries. The oblasts with the highest inequality rates are Aktobe, Kostanay, and East Kazakhstan with oblast Gini-coefficients for consumption between 0.30-0.31. Inequality is higher in urban areas than in rural areas.

Table I.2: Inequality in 2001 and 2002

Inequality Measure	2001	2002
Consumption Gini Coefficient	0.29	0.28
Income Gini Coefficient	0.39	0.36
Percent Share of Consumption Expenditures		
Held by bottom 20% of the population	8.5	8.9
Held by bottom 40% of the population	21.6	22.3
Held by top 20% of the population	37.8	37.1
Held by top 10% of the population	22.7	22.3

Source: World Bank staff estimates based on Household Budget Surveys 2001 and 2002.

a/ Consumption expenditures exclude housing.

C. HOUSEHOLD CHARACTERISTICS OF THE CONSUMPTION POOR

1.12 The strongest determinant of poverty is oblast of residence. By employing multivariate econometric analysis, we look at the relationship between consumption expenditures and selected household characteristics in order to identify those factors which have the largest impact. Oblast of residence has the largest impact on consumption per capita of the household head. In particular, people who reside in the oblasts of Zhambyl, Karaganda, and Kyzylorda have consumption expenditures which are lower than persons with similar characteristics in other oblasts.

1.13 Education is also another important determinant of poverty. Household head's with a post-secondary degree have higher consumption expenditures and are thus much less likely to be poor than those with only basic education. Vocational secondary education of the head also significantly increases consumption expenditures but to a lesser degree than post-escondary education. However, heads with only secondary education have no advantage over those with only basic education as their consumption expenditures are similar—indicating similar rates of return to these two levels of education. This is an important finding given the high proportion of young adults in Kazakhstan who are only completing secondary education rather than continuing their education to either acquire vocational skills or a college degree (see Chapter 5).

1.14 Household heads without a job are more likely to be poor. A person may not have a job either because he cannot find one, he is retired, or he is no longer is actively seeking one—perhaps because in the past he tried unsuccessfully and finally abandoned job search. Without employment, an important source of income is lost. As will be seen in a following section, wages provide over 60% of total income for all income groups—rich and poor alike. Furthermore, though the Government has anti-poverty programs to help the poor such as the Targeted Social Assistance Program as discussed in Chapter 6, many of the poor are not reached and the benefit levels are too low to raise recipients out of poverty.

1.15 The number of children and household size are also strong determinants of poverty. People who reside in large households with children, especially young children have lower consumption per capita. People in households in the bottom quintile have 6.4 household members while those in the top group have just above 3 households members on average. A large part of this difference is driven by a higher average number of children and prime-age adults in poorer households, whereas the number of elderly is not different across quintiles. In the bottom quintile, the number of children among the poor is 2.7 per household compared to 0.8 among those in the richest households. Families with young children are also disproportionately represented in the

lower quintiles. Almost half of the population in the lowest quintile has at least one small child in the household, whereas only 13% of the wealthiest have small children.⁷

Table I.3: Consumption Patterns of the Population in 2002

Component	Quintile					Region		Total
	Bottom	Second	Third	Fourth	Top	Rural	Urban	
Food	66.7	62.2	59.0	55.9	51.9	65.4	53.3	57.7
Food purchased, as gift or eaten out	47.4	44.5	44.1	43.5	42.7	40.5	46.1	44.1
Food self-produced	19.2	17.6	14.9	12.4	9.2	24.8	7.1	13.7
Non-food, frequently purchased	8.2	9.0	9.5	9.7	10.7	8.9	10.0	9.6
Clothes and shoes	4.9	5.6	5.6	5.5	6.3	5.6	5.8	5.7
Household goods	0.8	1.1	1.3	1.6	2.2	1.3	1.7	1.5
Utilities and other housing services	10.6	11.5	12.4	13.4	12.7	8.1	14.9	12.4
Education	1.5	2.0	2.4	2.7	2.8	2.1	2.6	2.4
Health care	1.4	1.8	2.2	2.6	3.0	1.8	2.7	2.3
Transportation services	2.1	2.7	3.0	3.4	4.2	2.7	3.6	3.3
Other, less frequent expenditures	1.7	2.0	2.3	2.6	3.3	2.1	2.8	2.5
Transfers: Goods received	0.8	0.7	0.5	0.6	0.6	0.7	0.6	0.6
Household durables	1.2	1.5	1.7	2.0	2.2	1.4	2.1	1.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: World Bank estimates based on Household Budget Survey (2002).

D. CONSUMPTION PATTERNS

1.16 Food expenditures represent at least over half of total consumption expenditures for all income groups. Poor households spend proportionally more on food (67% of total expenditures) and the share of food in consumption decreases among the wealthier households as seen in Table I.3. The wide availability of small plots of land to households (see Box I.1) makes own-production an important source of food, especially in rural areas where it contributes significantly to total food consumption.

1.17 Own-produced food represents 37% of the rural population's total food consumption. The vast majority of the rural population has access to land though 80% of rural households who own "household plots" own less than quarter hectare of land and about 15% report owning a "peasant" farm or a share in a consolidated holding with an average size of 34 ha. Since the vast majority of rural households own such small pieces of land, own production of food covers well below half of total food consumption per capita. However, own-production is more important for the poor than for the affluent. As a share of total food consumption, own production is 36% and 33% for the bottom and the top population quintile in rural areas.⁸

⁷ Although people in households with young children are more likely to be poor, the extent of malnourishment in Kazakhstan is not prevalent. According to the Kazakhstan Demographic and Health Survey (1999), 10% of children were moderately or severely stunted (having lower height-for-age), 2% moderately or severely wasted (having weight-for-height below international standards), and 4% moderately or severely underweight for age. More up-to-date national level data are presently unavailable.

⁸ Alternative data from the NSA's Agricultural Registry on agricultural production of "household plots" is significantly higher than indicated by the HBS. According to this source, in 2002 the average agricultural production was 138,842 tenge (\$994) per household plot equal to agricultural output of about 1.2 ml tenge (\$7644) per 1 ha of household plot land.

1.18 **Utilities and housing services are the second largest component of household expenditure.** Expenditures on utilities—which include water, sewerage, heating, electricity, gas, and telephone—and housing services are about 12% of total expenditures in Kazakhstan. The better off spend more on utilities and housing services than the poor though not significantly more. Rural households spend relatively less on network utilities and other housing services which may reflect that the utility expenditure category is not comprehensive as it may not capture expenses on alternative sources of water, heating, and fuel (e.g., firewood).⁹

Tables 1.4 and I.5: Sources of Cash Income in 2002

Source of Income	(% of households with income by source)								Source of Income	(% of total household income by source)							
	Expenditure Quintile					Region				Expenditure Quintile					Region		
	Bottom	Second	Third	Fourth	Top	Rural	Urban	Total		Bottom	Second	Third	Fourth	Top	Rural	Urban	Total
Earned income	99	99	99	99	99	99	99	99.2	Earned income	63	67	67	63	65	65	65	65
Pensions	31	34	38	43	43	40	39	39.1	Pensions	15	17	20	25	24	20	22	21
Rental Income	1	1	1	2	3	1	2	1.8	Rental Income	0	0	0	0	1	0	0	0
Social Transfers	50	37	31	28	24	38	28	31.7	Social Transfers	16	9	7	6	4	9	6	7
Private Transfers	52	49	47	49	51	48	51	49.8	Private Transfers	6	5	5	5	7	5	6	6
Other Income	6	6	7	6	5	9	4	5.9	Other Income	1	1	1	1	0	1	1	1
									Total	100	100	100	100	100	100	100	100

Source: World Bank estimates based on HBS 2002.

Source: World Bank estimates based on HBS 2002.

E. SOURCES OF CASH INCOME

1.19 **Earnings are the most prevalent source of household income highlighting the importance of employment and wage levels for household welfare.** Earned income includes salary and earnings from self-employment, agricultural production self-produced, agricultural revenue and other earnings. Virtually all households in Kazakhstan receive some form of earned income and it contributes 65% to total household income with little variation across quintiles. Employee income, from private and public employment, is the most source of income accounting for about 87% of all earned income, followed by self-employment and farm employment which are more important for the bottom 40% of the population.

1.20 **Even for rural households, wages are the mainstay of income rather than own-farm production.** Earnings from labor market activities are by far the largest component of cash income in rural Kazakhstan, and this is true across all quintiles. Most rural households derive little more than basic foodstuffs from their subsistence plots which for the majority of rural households average less than 1 ha (see Box I.1). Cash income comes mostly from sources other than their farms though this may include employment at agriculture enterprises which are still prevalent in Kazakhstan. Sales of crop and livestock products together account for only 10% of cash income,¹⁰ though less for the poorest bottom quintile.¹¹

⁹ However, greater disaggregation of the data reveal a more complex story on the cost of having to purchase certain utilities, such as water, privately. For example, the poor (whether in rural or urban areas) pay more for water than the affluent since lack of access to easily accessible water (either piped water or a well) results in their having to purchase water at a higher unit price from merchants. Another finding is that persons may have access to a network service but do not pay for it; for example, 16% of the poor and 5% of the non-poor do not pay for piped water and 9% of dwellers living in houses do not pay for central heating.

¹⁰ This is gross income in that it does not net out the costs of crop and livestock inputs. It also does not include the value of home-production except to the extent that it is sold.

¹¹ Only 15% of rural households make any cash sales of agricultural produce, a figure which varies little by quintile. Vegetable crops are seldom sold; their share of harvest marketed does not exceed 3%. The most "commercial" crops with sales-to-harvest ratios ranging from 10%-15% are grapes, melons, corn, and

Box I.1

Rural Households and Land Assets

The HBS collects information on rural households' land assets though whether it is representative of land ownership patterns in Kazakhstan is unclear and needs further investigation. Based solely upon the HBS, the main findings on land ownership of rural households are as follows:

- **Land holdings in Kazakhstan are highly concentrated though almost all (95%) rural households own land.** About 80% of all rural households own "household plots" and 15% of rural households own peasant farms or a share of a consolidated holding. The typical household plot is less than a quarter hectare of land. The peasant farms (or shares of consolidated holdings) households are 34 ha on average.
- **Among the majority of rural households, the concentration of land does not appear to be associated with a concentration of wealth.** Households in the upper quintiles of the rural per capita expenditure distribution of the HBS do not appear to hold a disproportionate amount of land. Partly this may reflect the land abundance of rural Kazakhstan, especially in the Northern areas; in remote or unirrigated areas, land values and utilization rates are low. Other reasons for this finding could be that the larger farmers are not captured by the HBS.
- **Even more skewed than the distribution of owned land is that of operated land.** Only about 7% of rural households operate more than a hectare of land, compared to 16% who claim to own at least this much. Moreover, 90% of the agricultural land area in the hands of individuals (i.e., excluding agricultural enterprises) is operated by just 6% of the households in the sample.
- **Almaty oblast is the main locus of small-scale family farming in Kazakhstan.** Of those rural households in Kazakhstan operating at least one hectare, more than 61% are located in Almaty oblast and 19% in East Kazakhstan oblast. The remainder 40% are scattered throughout Kazakhstan.

1.21 Pension income is the second most important source of income. Pensions are the second main source of income: 41% of all households in Kazakhstan have some pension income. But pensions account for less household income for the poorest households (which is consistent with the elderly being more prevalent among the better off households). About 27% of household income comes from pensions for the highest quintile compared to 16% for the households in the lowest quintile. As discussed in Chapter 4, for most pensioners there is a minimum pension guarantee at a relatively generous level which may be one reason why households with pensioners tend to be more affluent.

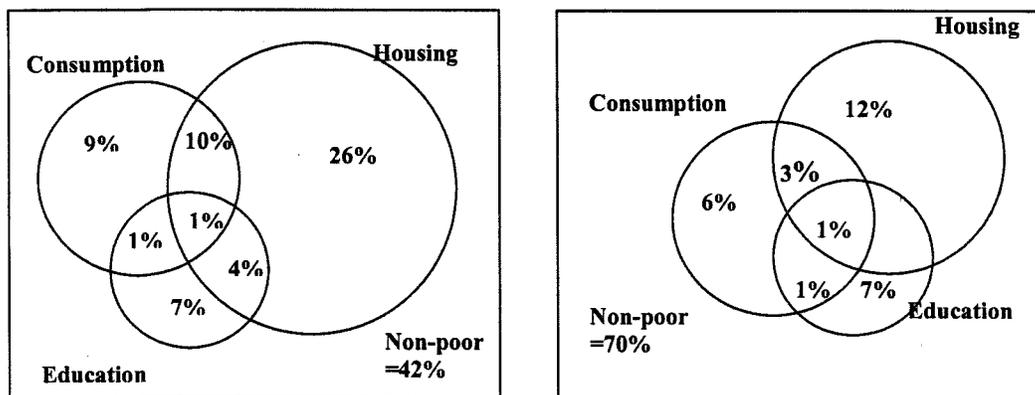
1.22 Subleasing of land by rural households is not prevalent. Only about 10% of rural households sublet land. The percentage of sub-lessors *increases* by per capita consumption quintile, going from 7% in the lowest to 15% in the highest quintile. Sub-leasing is heavily concentrated in northern oblasts (Akmola and North Kazakhstan), regions that have particularly low poverty rates for reasons that may be unrelated to the prevalence of land leasing. The median amount of land leased out, conditional on any leasing, varies little by quintile around the national average of 36 hectares.

wheat, though none of these crops is cultivated by a substantial number of households. In contrast to crop sales, many more rural households sell livestock products (52%). Meat shows the largest sales-to-production ratio of any major home-produced good, at 0.36, whereas those of milk (0.12) and eggs (0.15) are lower. Such sales are also less prevalent among the poor (38%) than the non-poor (55%). Rural households earn (before netting out production costs) almost six times as much cash from the sale of livestock products than they do from crops, but, for poor households, about three times as much.

1.23 Despite the dependence of rural households on labor earnings, pensions largely cover any income shortfall upon retirement, leaving household consumption relatively unaffected.¹² Nearly a fifth of rural households have at least one male beyond this retirement age, whereas over a third of households have at least one female in this category (partly because of the lower female retirement age and partly because of women's greater life expectancy).

1.24 Social and private transfers are prevalent sources of income among households though in general they contribute only 13% to total income. Social transfers are more prevalent among poorer households and their contribution to their income is significantly higher than for other quintiles. (These will be discussed in greater detail in Chapter 4.) Private transfers are very common with 50% of all household receiving some transfer—though their importance in total income is small and does not vary much by quintile. However, the presence of private transfers does suggest that there is some type of informal safety net in Kazakhstan that warrants further analysis.

Figure I.3: Multi-Dimensional Poverty in Kazakhstan in 2002: Rural and Urban



Source: Staff calculations based on HBS 2002.

Note: All percentages are a share of total population living in rural or urban areas.

F. DIMENSIONS OF NON-CONSUMPTION POVERTY

1.25 Consumption poverty is only one of many forms in which poverty can exhibit itself, others forms of poverty include education and housing. This section will look at the extent of poverty across these other dimensions as well as the overlap between the different types of poverty. When taking into account other dimensions of poverty, it is possible to perhaps better capture those whose quality of life is not high though they may indeed have sufficient consumption levels.

1.26 The housing-poor is the largest group of poor. Persons are considered housing poor if they lack reasonable access to water or they live in over-crowded living conditions (less than 6 square meters per person). If a person lacks reasonable access to water this means that the house they live does not have tapped water and the person has to walk more than 100 meters to obtain

¹² Anecdotal evidence reported in World Bank (2001) seems to bear out this result (e.g., "The life of the teachers and families having pensioners is easier," p. 69).

water or the person takes water from a non-improved water source. The share of the population who are housing poor is 28% in 2002 as can be seen in Figure 2. Rural housing poverty at 42% is significantly higher than urban housing poverty of 17%.

1.27 Education poverty affects 11% of the population in Kazakhstan. People (15 years or older) who fall in this category have at most completed primary school, hence this includes persons with no schooling or incomplete primary schooling. The share of the population that falls in this category is 11% in 2002 and falls to 2% if we only look at those with incomplete or no primary schooling. This seems to indicate that the Kazakhstan has been relatively successful in educating the majority of its citizens to at least—and most likely beyond—a minimum level so that their futures are not jeopardized by lack of a basic level of human capital.

1.28 Simultaneous deprivation in three dimensions of poverty is rare indicating that extreme poverty is not widespread. As can be seen from Figure I.3, the subset of persons who are consumption poor as well as housing and education poor is 1%. Even in rural areas where poverty is more prevalent, only 2% of the rural population suffers from poverty simultaneously along all three dimensions. The largest overlap between different dimensions of poverty lies between consumption and housing poverty. An estimated 6% of the population suffers from both forms of poverty. The second largest overlap between the education and housing poor is at 3% of the total population.

1.29 An estimated 43% of the population suffers from at least one form of poverty in 2002. As noted earlier, the major forms of poverty in Kazakhstan are housing, consumption, and education poverty and overlap between these different dimensions of poverty is not large. Consequently, a significant share of the population suffers from at least one form of poverty. Only 57% of the population does not suffer from one of these three dimensions of poverty indicating that poverty when looked at from a multi-dimensional perspective is a significant problem in Kazakhstan, far exceeding what is indicated only through the measurement of welfare using consumption expenditures. Poverty in rural areas along at least one dimension of poverty is high at 58% compared to urban areas where some form of poverty affects 30% of the population.

2. GROWTH AND POVERTY REDUCTION IN 2001-2002

A. INTRODUCTION

2.1. An important question for Kazakhstan is whether economic growth has led to a commensurate improvement in living standards of the population especially for the poor. During 1997-2000, official statistics reveal that poverty indeed fell substantially during a period when growth averaged 6% per annum. Due to an improvement in the household survey instrument, there is a break in the poverty series, which disallows comparisons of poverty rates between this period and subsequent years. However, data for 2001-2002 are available, and poverty continues to trend downwards (according to both the National Statistics Agency and the World Bank estimates) as the economy grew by 10%. Kazakhstan's economy grew by 10% as a whole and the non-oil economy grew by an impressive 8%.

2.2. This chapter aims to shed light on the linkage between economic growth, poverty reduction (as measured by consumption expenditures), and redistribution in 2001-2002. This period is one of high growth and represents the beginning of a structural shift in Kazakhstan's economy as oil income increased in importance. These years are also ones for which comparable and robust household level data are available. A closer analysis of changes during this period can help us understand the mechanisms which reduced poverty under such favorable circumstances in Kazakhstan. The chapter first places poverty levels in Kazakhstan in an international context and then looks at oblast level poverty rates. It then discusses the respective roles of growth and redistribution in lowering poverty in Kazakhstan, at both the national and oblast levels. The chapter then discusses whether and how growth trickled down to the average household.

2.3. The main findings of this chapter are as follows:

- Though economic growth resulted in poverty reduction in 2001-2002, its impact was not especially strong—indicating that sustaining future poverty reduction will require continued high rates of growth.
- Lower income groups benefited more from economic growth than the more affluent in 2001-2002, though on average consumption expenditures per capita grew only modestly.
- Growth did not result in welfare improvements across the board, rather poverty changes varied greatly among oblasts and even increased in some northern and central oblasts.
- Employment growth and rapid wage growth were instrumental in decreasing poverty.

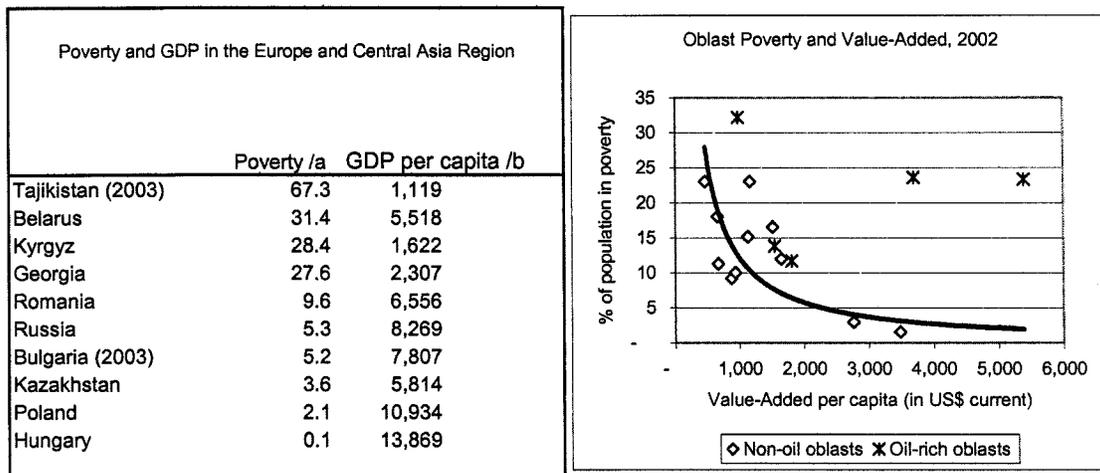
B. POVERTY, INCOME AND INEQUALITY

2.4. **The poverty rate in Kazakhstan is consistent with its level of economic development.** In the ECA region, poverty levels are strongly correlated with GDP per capita as seen in Table II.1. One implication of this strong correlation is that inequality levels do not vary significantly

across the region which is borne out by available Gini-coefficients. Another implication is that economic growth is indeed critical to raising people out of poverty and an emphasis on policies which achieve this faster growth are likely to be pro-poor over the long-term. However, whether this holds true when a significant share of growth is a result of extractive growth – especially oil – from which benefits accrue primarily to the Government is uncertain.

2.5. Inequality in Kazakhstan is relatively moderate—at least for the sample of households captured by the Household Budget Survey. The Gini-coefficient which is one measure of income distribution is estimated at 0.28 for 2002 which is below the average for a sample of countries from the Europe and Central Asia region. Another way of measuring inequality is to compare the share income (as proxied by consumption expenditures) held by the bottom 20% versus the top quintile. For Kazakhstan we find that in 2002, the shares to the bottom and top quintiles were 9% and 37% of total income—that is, the bottom 20% of the population had a disproportionately small share of income. Here, we should also note that the share held by the top 20% of the population is probably much higher since the very rich do not appear to be captured in the survey.

Table II.1 and Figure II.1: Correlation between Poverty and Income



Source: World Bank. (Poverty estimates from ECA database.)

a/ Poverty estimate is for share of population below \$2.15 in 1996 PPP. All data for 2002 except where noted otherwise.

b/ GDP is corrected for PPP.

Sources: World Bank staff based on HBS 2002 and NSA data on value-added per capita.

2.6. Oblast-level poverty is determined to a large extent by average living standards in the oblast. Regional poverty levels vary considerably with the share of the poor ranging from 2% to 32% of an oblast's population. Much of the variation—though not all—can be explained by the mean consumption expenditures per capita which is different from oblast value added per capita. Alternatively, when living standards are measured using national accounts data, specifically, value-added per capita of the oblast (i.e., a similar concept to the GDP per capita), a strong correlation exists between poverty and income for all *non-oil* producing oblasts as seen in Figure II.1. In the oil-producing oblasts—Atyrau, Mangastau, Kyzylorda, West Kazakhstan, and Aktobe—expenditures per capita are lower than value-added per capita suggesting that the mining industry has generated wealth but that this has not trickled down to households. This is

indeed true since profits from this capital-intensive industry are repatriated to the central government treasury.¹³

C. GROWTH AND REDISTRIBUTION: DRIVERS OF CHANGES IN POVERTY

2.7. According to official statistics, the share of the population living below the subsistence minimum fell over the period 1997-2000 and 2001-2002. This fall closely tracked changes in the GDP per capita changes as seen in Figure II.2. These data are at best indicative since the sampling methodology did not obtain a nationally representative sample and income rather than consumption aggregate was used to estimate welfare. Data for 2001-2002 are more robust and show an improvement in the poverty situation. It should be noted that these two series are not comparable due to different surveys and methodologies employed.

Table II.2: Poverty Estimates for Kazakhstan, 1996-2002

Poverty Headcount Indices									
Poverty Line	Survey	Agency /a	Share of population living below the poverty line (in %)						
			1996	1997	1998	1999	2000	2001	2002
Subsistence Minimum	Living Standards Survey	NSA/WB	34.6						
Subsistence Minimum	Family Budget Survey	NSA		38.3	39.0	34.5	31.8		
Subsistence Minimum	Household Budget Survey	NSA						28.4	24.2
Basic needs	Household Budget Survey	WB						17.6	15.4
Memorandum:									
GDP per capita (in constant 1995 tenge)			24,539	25,233	25,113	26,191	29,204	33,504	36,936
GDP per capita (in constant 1995 US\$)			1,258	1,293	1,287	1,342	1,497	1,717	1,893

Sources: National Statistics Agency and World Bank staff estimates.

a/ NSA is the National Statistics Agency and WB is the World Bank.

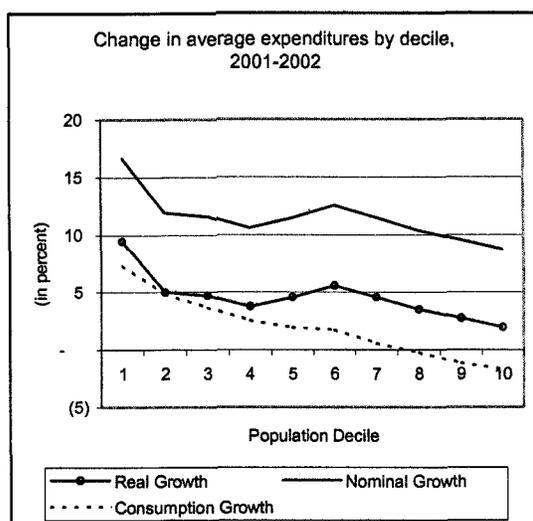
2.8. **World Bank analysis using different poverty lines and methodology corroborate the NSA's findings for 2001-2002.** The results show a decline in poverty from 17.6% to 15.4% using a basic needs poverty line with food and non-food components. The drop in poverty is consistent with the relatively large decline seen in official poverty figures. The methodology used in computing poverty rates by the World Bank differs from that applied by the National Statistics Agency as discussed in Volume II of this report.

2.9. **High GDP growth did not result in a significant increase in average consumption expenditures per capita during 2001-2002 according to household level data.** While GDP per capita grew by almost 10%, mean consumption expenditures per capita grew by less than 1% according to the HBS which gathers detailed data on household expenditures. There are several potential explanations for this. Households may have been able to save more of their income in better times, keeping consumption constant. This seems to be supported by the data which show an increasing number of households (21% in the fourth quarter of 2002) who report saving. Another explanation could be that the type of growth, including the non-oil economic growth, has accumulated in enterprises and not been distributed to households. Though this is less likely to be the case since wages grew rapidly.

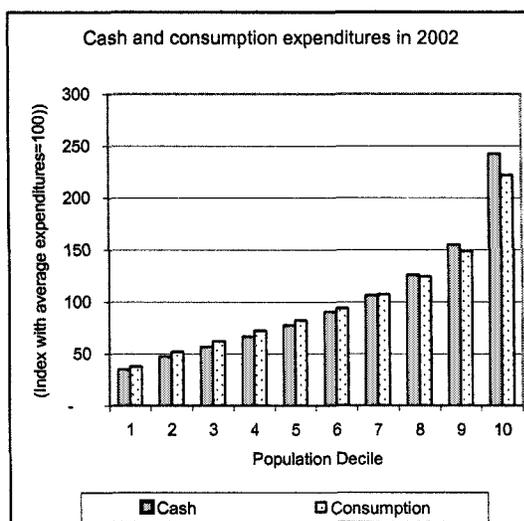
¹³ The simple correlation between GDP per capita and mean household income is 0.9 for non-oil oblasts, but only 0.2 if oil oblasts are included.

Box II.1 Population Expenditures

It seems counterintuitive that in a booming economy, consumption of the affluent fell rather than increased. However, consumption expenditures used to estimate poverty are different from total actual expenditures of households as can be seen in the graphs below. The first figure shows the increase in cash expenditures (real and nominal) compared to the increase in consumption expenditures as used in the computation of poverty rates. The second figure compares cash and consumption expenditures for 2002 and shows how the distribution of consumption expenditures compares to cash expenditures by decile.



Source: Staff estimates based on HBS 2001 and 2002.



Source: Staff estimates based on HBS 2002.

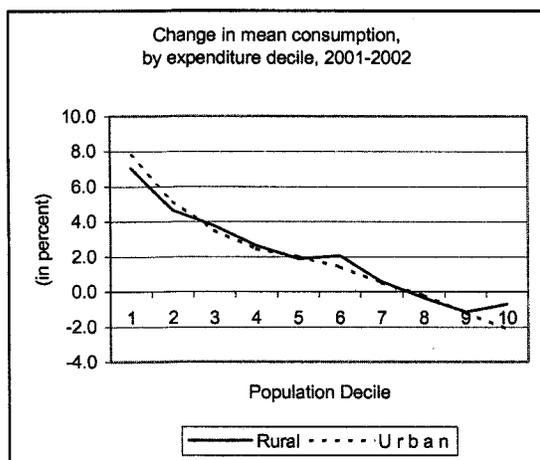
Note: Note mean expenditures are the same for cash and consumption expenditures.

Why are cash expenditures different from consumption expenditures? There are four main differences.

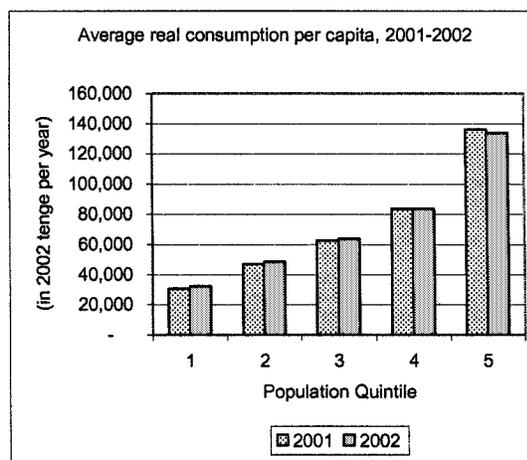
- Consumption expenditures include “use value” of durables rather than the actual value of the durable good (for example, a car or washing machine). Thus, if a person buys a car, the use value of the car is included as part of his consumption rather than the price which he may have paid for the car. Furthermore, the use value of a durable does not correct for quality—thus, the use value of BMW would be the same as for a Honda.
- Consumption expenditures includes the value of own-production whereas cash expenditures do not. Hence, lower quintiles who get a larger portion of their food from their land would show a smaller level of cash expenditures.
- Housing rental expenditures are not included in consumption expenditures. Most persons in Kazakhstan own their own homes; hence, there were too few observations to compute the use value of housing. But this also means that households that pay for rent do not see that expenditure reflected in their consumption expenditures.
- Consumption expenditures are adjusted for regional price differences whereas cash expenditures (including real cash expenditures) are not.

2.10. **But household expenditure growth was pro-poor, benefiting the poorest income groups.** The modest overall growth rates are hiding a divergent growth pattern between the poor and the rich. Indeed, although mean household consumption grew by 1% between 2001 and 2002, the expenditures of the poorest decile of the population grew by 7% and that of the second poorest decile by 5%. In contrast, the richest 10% saw their consumption expenditures fall by 2%. Figure II.3 traces the growth in expenditure by expenditure decile. As the downward sloping curve shows, growth was indeed decidedly pro-poor in 2001-2002, benefiting the groups at the bottom of the distribution, in both urban and rural areas (though growth was marginally more pro-poor in urban areas).

Figures II.2 and II.3: Changes in Consumption per capita, 2001-2002



Source: Staff calculations based on HBS.



Source: Staff calculations based on HBS.

2.11. **A disproportionate share of the growth in expenditures during 2001-2002 was captured by lower and middle-income groups resulting in the improvement of income distribution and a decline in poverty.** A significant reduction in national poverty levels was driven by a more equitable distribution of expenditures, rather than high average levels of growth in consumption. As can be seen in Figure II.3, this does not mean that the welfare of the more affluent deciles fell significantly. A decomposition of poverty changes shows that 85% of the total reduction in poverty headcount index resulted from a redistribution of expenditures in favor of the poor while the remaining 15% was due to a growth in consumption. What this also indicates is that a large number of people are concentrated near the poverty line and hence modest increases in expenditures can lead to many of poor shifting out of poverty.

2.12. **The redistribution of income reflects a pro-poor inter-regional growth pattern, with growth shifting to the poorer regions.** A key result from the poverty profile was that poor regions saw faster rates of poverty reduction. In general, the poorer regions also saw faster growth in household mean income¹⁴ than less poor regions. Being centered in the poorer regions, growth was thus pro-poor from an inter-regional perspective. Within regions, the role of redistribution is less clear as seen in Figure II.4. Among regions where poverty increased (the left side of the chart), negative growth appears to have been key in raising poverty rates: indeed, Pavlodar, North Kazakhstan and Karaganda were the regions that saw the by far the largest falls in mean household income of -16%, -20%, and -12%, respectively. In Kyzlorda and East

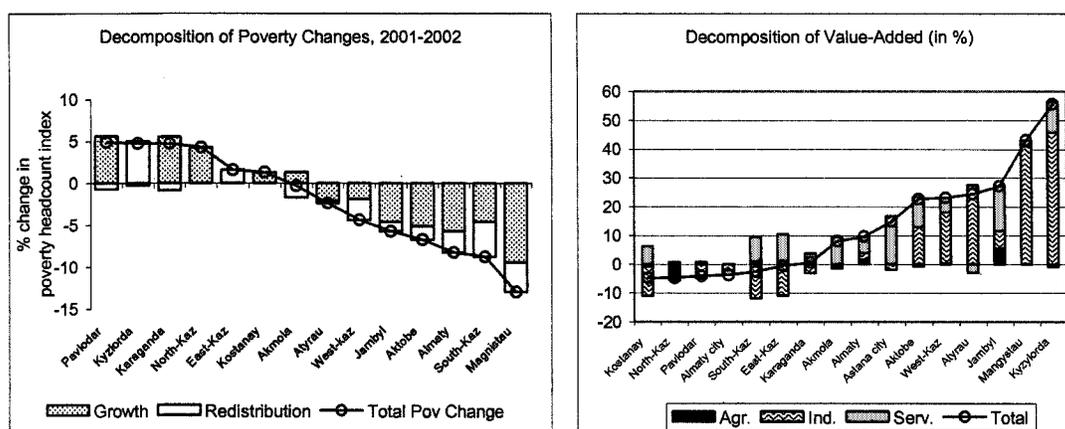
¹⁴ This should not be confused with value-added per capita for the oblast.

Kazakhstan, however, worsening income distribution dominated. Among the regions where poverty fell, high growth rates have been important, but redistribution effects are not negligible either, especially in South- and West-Kazakhstan.

D. IMPACT OF THE SECTORAL GROWTH PATTERNS ON REGIONAL DIFFERENCES

2.13. **The structure of output varies considerably across oblasts indicating that it may be an important factor in understanding changes in oblast level poverty.** The national level data on economic growth mask significant regional differences. Kazakhstan's oblasts can be classified into four broad categories based upon the importance of the sector's value-added in total value added for the oblast. The four groups are oil-producers, agriculture-based, service centers (Astana City and Almaty City), and non-oil industrial-based oblasts. Out of the 16 oblasts, 10 saw increases in value-added during 2001-2002. Thus, even the non-oil GDP growth of 9% over this period was not spread evenly across regions.

Figure II.4 and II.5: Underlying Factors behind Poverty Reduction in Oblasts



Source: Staff calculations based upon HBS 2001 and 2002.

Source: Staff calculations based on NSA data.

2.14. **A boom or slump in the agricultural sector has been an important determinant for rural poverty,** at least in areas where agriculture still accounts for an important share of output. In Almaty oblast and Zhambyl, agriculture contributed 2 and 6 percentage points respectively to total output growth, and rural poverty fell by -35% and -19%. In North Kazakhstan, where agriculture is the dominant sector, agricultural growth was negative and rural poverty more than doubled, as seen in Table II.3. The variation in growth rates in agriculture output in a single year among the oblasts indicates that the agriculture sector is not a monolith but rather than its structure varies considerably by oblast.

2.15. **Oil-rich oblasts saw very high growth rates in the non-agricultural sector and substantial reductions in urban poverty.** Economic growth rates of the non-agriculture sectors of the five oil-producing oblasts ranged between 18%-51% during 2001-2002 primarily due to the increase in oil production. Oil production itself does not result in broad-based growth since it employs relatively few workers, most profits are repatriated to the central budget, and there are few local down-stream or up-stream businesses. But spillovers of the increase in the oil sector did appear to have occurred as evidenced by the urban poverty decline ranging between 13%-63%. However, rural poverty appears to remain sensitive only to agricultural conditions even in these oblasts indicating that rural areas remain more isolated from the rest of the economy. For

example, in Kyzlorda, in spite of high growth rates in the non-agricultural sector, negative growth in agricultural value-added led to an increase in rural poverty.

Table II.3: Rural and Urban Poverty and Impact of Sectoral Growth

Oblast Category	Agriculture		Rural poverty		Non-agriculture		Urban poverty	
	Growth contribution/a	P(0) 2002	% change 2001-2002	Growth contribution	P(0) 2002	% change 2001-2002	Growth contribution	P(0) 2002
Oil-rich								
Atyrau	0.0	27	17	24.4	21	-13		
Mangestau	0.0	76	-20	43.0	9	-61		
Kyzlorda	-0.8	49	70	56.4	20	-27		
West Kaz	0.2	17	-17	22.9	4	-63		
Aktobe	-0.8	26	-12	23.4	5	-54		
Agricultural								
Akmola	-0.9	13	17	8.8	7	-39		
Almaty	1.5	13	-35	8.0	6	-66		
Jambyl	5.5	24	-19	21.7	21	-23		
Kostanay	-0.8	33	5	-4.0	14	31		
N-Kaz	-3.8	14	119	-1.0	2	-41		
S-Kaz	1.2	19	-41	-3.8	17	-28		
Non-oil industry								
E-Kaz	0.2	21	17	-0.7	11	11		
Karaganda	0.8	33	96	-0.3	13	22		
Pavlodar	0.7	22	218	-4.8	5	-11		
Service centers								
Astana City	0			14.8	3	81		
Almaty city	0			-3.8	2	-51		

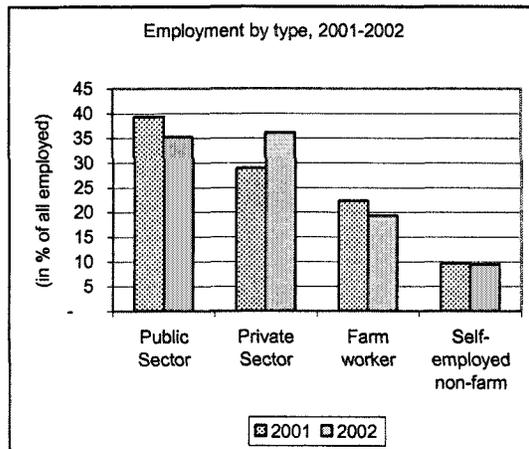
Source: Staff estimates based on data from NSA and HBS 2001 and 2002.

a/ Contribution to growth = growth rate times share in output.

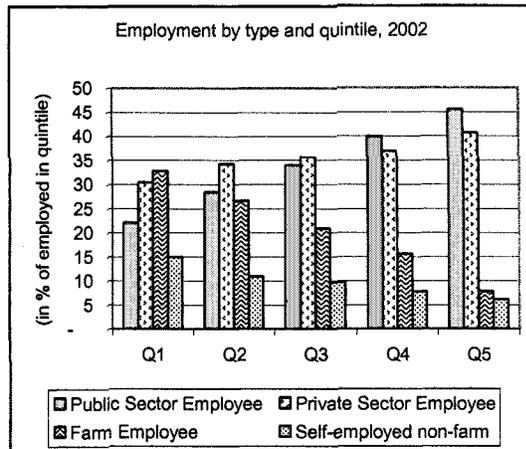
E. IMPACT OF LABOR MARKET DEVELOPMENTS ON POVERTY

2.16. More people entered the labor market and became employed during 2001-2002 according to the HBS. The labor market is one of the main channels through which economic growth in developing countries benefits the vast majority households; this is achieved through an improvement in wages and/or employment.¹⁵ During 2001-2002, the proportion of employed among the working age population increased from 54% to 58% due both to greater participation and a modest decline in the number of the unemployed. This occurred against a background of a small contraction in the overall working-age population of about 0.8%. The significant increase in participation—which rose from 68% to 71% of the working age population—was a result of a growing share of persons in the age category of 45-64 years entering the labor market, especially in the urban sector. On the other hand, unemployment fell in large part due to a decrease in urban unemployment and among 15-44 year olds (including among the youth aged 15-24 years).

¹⁵ There are of course other channels through which growth could be distributed to households such as through government transfers and corporate profits and dividends. The latter category is likely to play a minor role in Kazakhstan.

Figure II.6 and II.7: Employment by Type

Source: HBS 2001 and 2002.



Source: HBS 2001 and 2002.

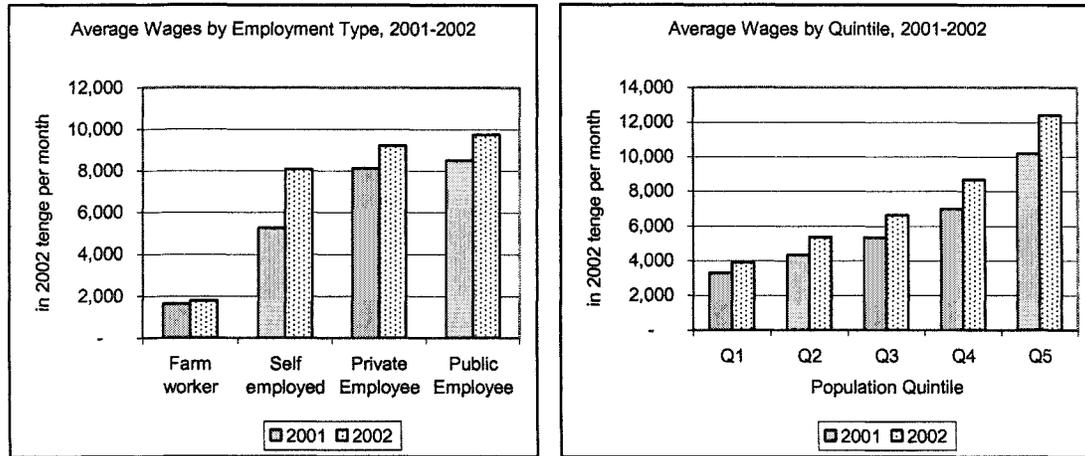
2.17. **The poorest quintile has the lowest proportion of employed and the highest of unemployed among its working-age population.** Even though employment rates rose across the board, the probability of being employed is still markedly lower for poorer people. About 70% of the new employment opportunities were taken up by the middle class (i.e., the second and third quintiles) rather than the poor or the more affluent in 2001-2002. According to the HBS 2002, 48% of the working-age population is employed among the lowest quintile versus 65% of the top quintile. This difference in employment rates is due not to variation in participation rates among the quintile groups but rather to unemployment rates indicating that the poor have greater difficulties in finding a job. Among the lowest quintile, a higher share of the quintile's working age population is unemployed (21%) compared to the average rate (15%). Also, at the oblast level, unemployment rates and non-labor force participation rates are strongly correlated with poverty.

2.18. **Employment increased in the private (non-farm) sector and fell in the public sector, farm, and self-employment categories.**¹⁶ The share of employed in the private sector increased dramatically within a one year period from 29% to 36% according to the HBS as seen in Figure II.6. However, aggregate changes in employment hide changes in the distribution of jobs among the population quintiles. Though farm employment fell in absolute terms, the bottom two quintiles saw an increase in the number of persons working on farms. Large drops in farm employment occurred among the rest of the population though much of it came from the top two deciles. Among the self-employed, a modest number of jobs were created in net terms, but the lowest 40% of the population lost these jobs and the top 60% saw a remarkable increase in self-employment by 37% possibly indicating the growth in more high-productivity service sector jobs. But despite the changes that occurred, the public sector remains a relatively well-paying employer, hence public sector employees are among the more affluent followed closely by the

¹⁶ The HBS definition of public sector is a "public organization or enterprise", consequently it includes civil servants, teachers, doctors, and workers in state-owned enterprises.

private sector. Farming is the main source of employment for the bottom 20% of the working age population as seen in Figure II.7.¹⁷

Figures II.8 and II.9: Average Wages by Employment and Quintile



Source: Staff calculations based on HBS 2001 and 2002.

Source: Staff calculations based on HBS 2001 and 2002.

2.19. Wages vary significantly across sector, oblasts, occupational categories, and gender according to data collected from the HBS. As would be expected, wages in the rural sector are significantly lower—less than half—the average urban wage (\$380 per year versus \$797 in 2002) though this does not correct for rural/urban price differences or for the workers educational level. Mean wages vary greatly across Kazakhstan’s oblasts ranging from \$433 to \$1221 per year in 2002—*after correcting for regional price variation*; oblast wages are closely correlated with oblast value-added per capita. Oblasts with the highest wages are two of the oil-producers (Mangystau and Atyrau) followed by the country’s main service centers (Almaty City and Astana City). The oblasts with the lowest wages are Almaty, Akmola, and North Kazakhstan—all oblasts where agriculture has a dominant role. Hence, not unexpectedly, as seen from Figure II.8, farm wages are the lowest among occupational category—18% of public sector wages. On average the highest paid occupation is still the public sector with an average wage about 6% above the private (non-farm, non-self-employed) sector mean wage. Even in a post-socialist economy, gender differences in wages remain. On average, male wages are 31% higher than female wages in 2002 and the variation remains high within occupations including the public sector.

2.20. Wages increased for all quintiles, worker categories, and age groups during 2001-2002 but wage disparities among the poor and the rest of the employed are growing. Wages are an important source of income and on average contribute 65% of total household income with only small variation across quintiles. Average growth of wages as reported by households in the HBS was 21% in 2001-2002 but once we exclude self-employment “wages”, the rate of increase falls to 17%. Wages of the lowest quintile grew by 18% compared to 21% for the rest of the population indicating growing income inequality as can be surmised from Figure II.9. Wage growth varied significantly by occupational category. Self-employment saw the highest increase

¹⁷ Official data indicate that 25% of the total labor force is employed in the public sector in 2002. However, this definition excludes employees of SOEs and other productive enterprises.

(by 54%) while farmer workers saw the lowest (9%).¹⁸ Even within employment type, the wages of the poorest quintile did not increase as much as the other quintiles and farm workers in the lowest quintile actually saw a decrease in their average wage by 8% during 2001-2002.

2.21. The labor market in Kazakhstan shows evidence of segmentation, disfavoring women and the rural population in terms of accessing jobs or income earned. This segregation contributes to sustaining poverty. Transitional economies tend to be characterized by relatively low worker flows across economic sectors, regions and occupations. As a result, workers with the same qualifications receive different wages because of location, sector of work, or other characteristics. Several studies have concluded that the Kazakhstan labor market is segregated along regional and gender dimension.¹⁹ An analysis of the 2002 HBS data showed that, other things equal (i) being a female significantly lowered the chances of finding an employment, and lowered the level of earnings (ii) workers in high poverty regions were less likely to hold a job than other workers with similar qualifications and in the same sectors (iii) the public sector (including state-owned enterprises) had the highest wage premium, and (iv) workers in agricultural regions like Akmola, Almaty, North Kazakhstan and East Kazakhstan, saw much lower earnings than workers in other regions, also for non-farm occupations.

F. CONCLUSIONS

2.22. The analysis in this chapter suggests that for economic growth to improve the living standards of the population, not only is economic expansion important but also the pattern of growth and labor market developments. The performance of the agricultural sector is still the primary determinant for rural poverty in most regions, and disconnected from growth in non-agricultural sectors. Spill-over effects from the oil-industry in oil-rich regions may have fuelled the urban economy, and led to a reduction in urban poverty, but did not affect rural areas. Finally, given the importance of an individual's employment status in determining the poverty status for the household, there is a need to better understand the functioning of the labor market in Kazakhstan, and the existing obstacles to job creation as well as worker mobility.

¹⁸ The high growth in self-employment wages is indicative of the change in the composition of self-employment jobs with the entry of upper-income groups establishing new businesses rather than the general wage increase; furthermore, they are more correctly categorized as profits rather than wages.

¹⁹ For example, Verme (2000) concluded that high paying jobs in the private sector are predominantly distributed among male and in urban areas and are not related to education levels or other characteristics. Arabsheibani and Mussurov (2003) found that males earn more on average than females at the same education level.

3. ACCESS TO SERVICES

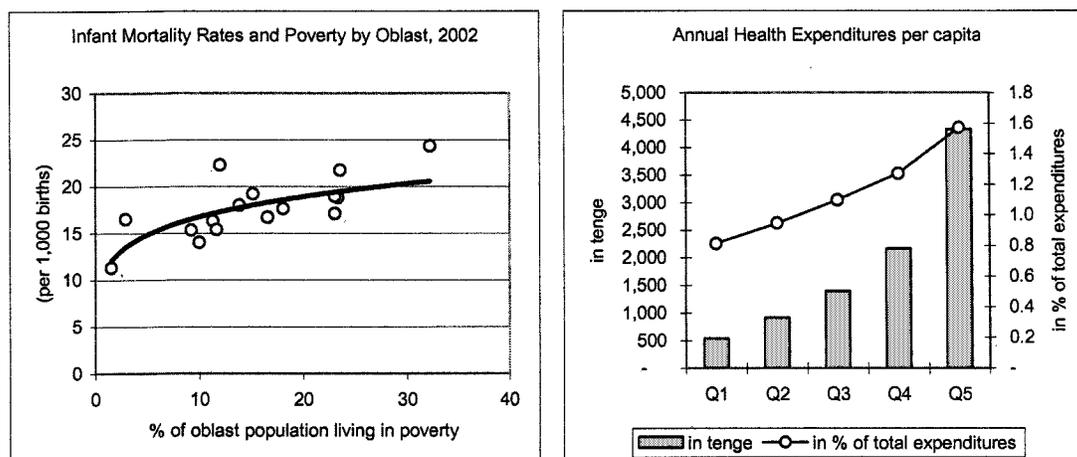
A. INTRODUCTION

3.1 The population's quality of life was significantly impacted by the dissolution of the Soviet Union, especially as measured by people's access to services. In the early years of the transition, social and physical infrastructure services deteriorated. Inadequate government funds to maintain existing infrastructure during this period led to large losses of capital stock which have not yet been replaced. However, the economic structure of Kazakhstan has changed and continues to change with some cities (such as those classified as "company towns") no longer viable in the new economic order while other areas of the country are attracting new investment and more people. Furthermore, the very size of Kazakhstan makes the delivery of infrastructure services a challenge, especially to the rural population which is dispersed in small communities over a large land mass.

3.2 This chapter will discuss the population's consumption of key social and physical infrastructure services: health, education, water and sanitation, heating, and power. The analysis will focus primarily on consumption and usage (referred to "access" throughout the remainder of the report) but will also analyze, where possible, the quality of services and the cost aspects. It does not aim to provide answers for how to improve the population's consumption of these services nor does it provide information on the supply-side constraints such as availability or provision. The data on access and expenditures are derived from the Household Budget Survey (HBS), primarily for 2002 but with some reference to 2001 where necessary. These data will allow us to disaggregate access to services by income group as well as by oblast and sector (urban and rural).

3.3 The main findings of the chapter are as follows:

- Though most of the population has access to social services, health and education outcomes vary tremendously by oblast, sector, and income—indicating possible large differences in service quality and comprehensiveness.
- The share of the urban population using piped water, sewerage system, and district heating are 75%, 62% and 60% respectively.
- The most important determinants of access to piped water, sewerage system, and district heating are size of city of residence and income levels: lower income groups and those living in smaller cities have less access than the affluent or large city residents. However, even the affluent or residents of large cities lack full access to essential services.
- Access to electricity is almost universal in Kazakhstan though reliability of supply is a significant problem, especially for the lower income groups.

Figures III.1 and III.2: Health Outcomes and Expenditures

Source: Ministry of Health for IMR data and staff calculations; Source: Staff computations based on HBS.

B. HEALTH SERVICES

3.4 Health indicators are low by international standards and show a disturbing trend towards greater deterioration. The two main health indicators on which this statement is based on are life expectancy and infant mortality rates²⁰. In 2002, life expectancy in Kazakhstan was 62 compared to 69 for developing countries in the Europe and Central Asia region (ECA) and for lower-middle income countries globally. Both men and women's life expectancy rates were below international averages and *falling*. Infant mortality rates are also higher than the average of lower middle income countries at 81 compared to 33.²¹ It also shows a deterioration in the trend and is the underlying reason for the decline in life expectancy rates. In terms of these health indicators, Kazakhstan's profile is closer to a low income country.

3.5 Infant mortality rates vary dramatically across oblasts and are generally worse in poorer oblasts. Infant mortality rates, as published by the Ministry of Health, vary by over 100% among oblasts with Kyzlorda recording the highest and Almaty City the lowest. (Maternal mortality rates also vary significantly by oblast as well.) Poorer regions, such as Kyzlorda, Mangystau and Atyrau, have higher infant mortality rates than oblasts such as Akmola and North Kazakhstan, where poverty headcount indices are lower. As seen in Figure III.1, infant mortality rates vary significantly with poverty rates at the oblast level indicating a potentially strong link between consumption poverty of the household and poor health outcomes.

3.6 Persons from the lower income groups tend to use medical services to a lesser extent than the affluent indicating possible under-utilization of health services. In terms of health service access, a large share of the population, some 85%, have a medical facility nearby (within 30 minutes walking distance), with no major differences among income levels or rural-urban

²⁰ Infant mortality rate is from Ministry of Health which uses definition for live births which differs from WHO definition.

²¹ The infant mortality rate for Kazakhstan as reported by WBI is 81 rather than the lower estimate by Government of Kazakhstan. The divergence between the two estimates exists because of the differing measurements of the infant mortality rate (IMR) by the Government and international agencies due to the different definition used for live births.

locations. However, utilization of services varies significantly by quintile with only 6% of the poorest quintile versus 16% of the richest quintile seeking medical attention in the previous six months. But geographical trends show poorer health outcomes in poorer oblasts, indicating that poorer communities suffer worse health outcomes. The lower utilization rates reported by the poor could mean that they are not accessing needed services (perhaps due to lack of comprehensiveness of services), delaying medical treatment, and/or are not undergoing preventive checkups—all reasons which are consistent with the poor's revealed preference for self-treatment using pharmaceuticals from the HBS.

3.7 Irrespective of income level, the population uses the same type of health care institutions. There are no major differences as to the kind of institutional facility the poor or the rich utilize, though information is lacking on the quality of the institutions which may vary also within the same category of medical institutions. Around 70%, whether rich or poor, seek assistance from a doctor in a state medical facility and on average 4% visit doctors from a private medical facility. The only difference arises in the use of "feldshers". These health service professionals practice in more remote villages, and so the poor tend to make more use of them. There is also a slight difference in the use of mid-wives—the more affluent may prefer to consult a doctor for child birth.

3.8 Expenditures on health care are correlated with income. The poor spend less on their health than the more affluent, in absolute and relative terms (see Figure III.2) which may be a reflection of their lower utilization rates possibly due to under-reporting of illnesses. Health expenditures comprise a small share of total consumption expenditures per capita (1.3% on average), however, as a share of "disposable expenditures" (consumption expenditures excluding food and utilities), they represent 8% on average with little variation by quintile. Though few even among the poor report that costs were a deterrent in seeking medical care, a significant proportion of the poor and nonpoor report facing financial difficulties in paying for health care.

C. EDUCATION SERVICES

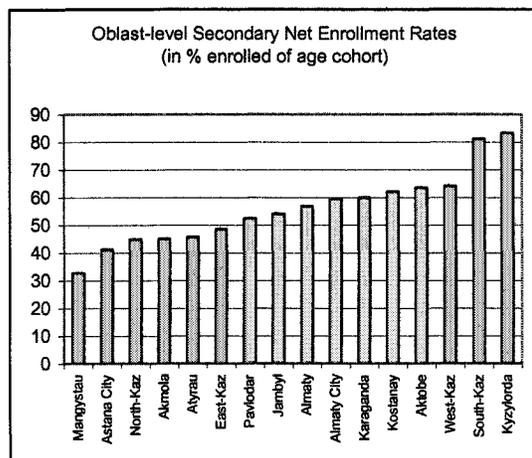
3.9 Kazakhstan has a history of widespread public education, and private schools still account for a minimal share of total enrolment. Today, almost everybody is literate and has attended primary school, and there are no considerable rural-urban or gender linked disparities at lower levels of education. The education analysis emerging from the household data from 2002 confirm these achievements, but it also indicates some areas where the disparities between the poor and the affluent are important, especially as regards higher levels of education.

3.10 A significant majority of young children do not attend pre-school. Almost one half of the children in the relevant age group do not attend preschool, because of the absence or scarcity of these institutions. This is striking given the high labor force participation rates of women in Kazakhstan. Differences in preschool attendance appear to be explained in part by location and income category. Thus, children from rural families and poorer families are less likely to attend preschool compared to other categories.

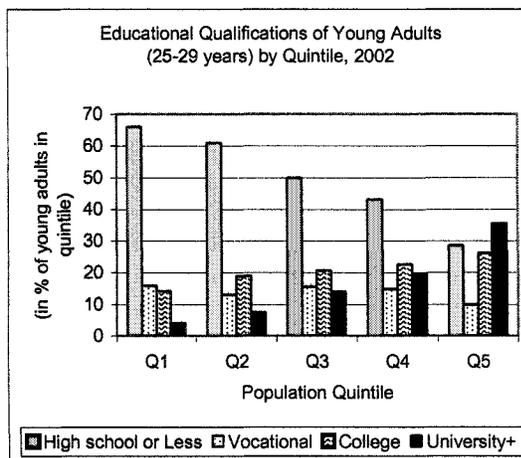
3.11 There are no major differences in terms of physical access to schooling. A majority of the population lives within 20 minutes distance to a school facility. Importantly, there are no major differences across expenditure quintiles, and rural areas appear to be as well served as urban areas. The majority of the population attending school can walk to school; 93% of the poor and 71% of the rich do so. Between 96% (for the poorest quintile) and 99% (for the richest quintile) of the population above 7 years have attended school at some point in their life, and

again, no location or gender bias is present. However, despite this, secondary enrollment rates vary significantly by oblast as seen in Figure III.3 above.

Figures III.3 and III.4: Education Outcomes by Oblast and Income Groups



Source: Staff computations based on HBS.

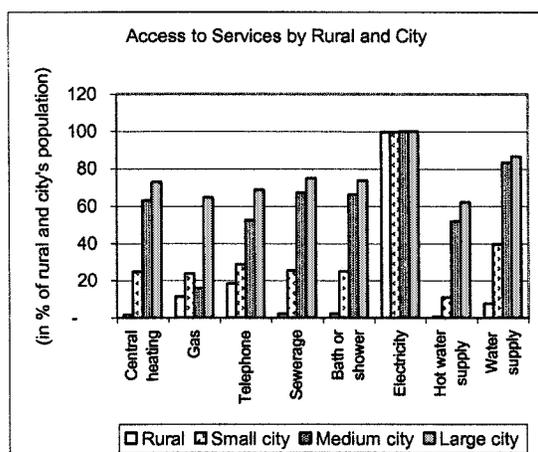


Source: Staff computations based on HBS.

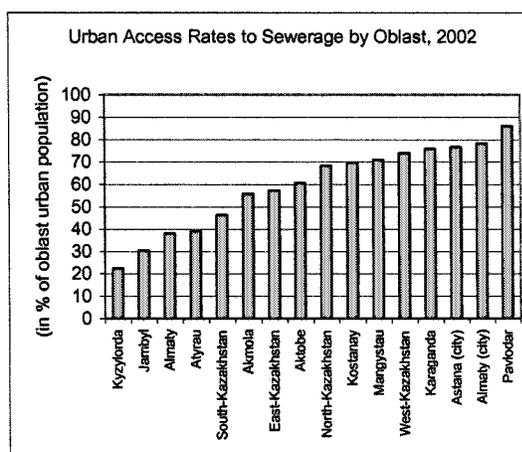
3.12 But the poor have much lower levels of education than the rich. While schooling has been near universal at lower levels of education, the disparities emerge at higher levels of schooling. Most of the poor have completed less than high school (51%), or high school (33%), while many of the richest (45%) have completed university or college. Of more immediate concern is the education level among young adults, especially among persons in the lowest quintile. Among 25-29 year olds, an estimated 50% have a high school or lower degree as seen in Figure III.4. There is also an income bias which is among young adults in the bottom quintile 66% have a high school degree or less compared to only 29% of the top quintile.

3.13 There appears to be a mismatch between job market needs and education in rural areas. Unemployment rates are higher in rural areas than in urban areas and among the poor rather than the affluent as seen in the poverty profile. However, unemployment in rural areas is not concentrated among the uneducated; an estimated 40% of total unemployment in rural areas is in fact of people from the two poorest quintiles with at least a high school degree. The flip side of the coin is among the employed. The majority of the employed from the poorest quintile have less than a high school degree. This indicates that especially in the rural sector, the less skilled are able to find jobs while the more educated are not. This lack of mobility on part of the educated may be indicative of several problems including labor market segmentation with workers lacking mobility, high overall unemployment rates especially for skilled workers, or a high reservation wage among more educated workers.

3.14 The poor spend relatively less on education than the more affluent households. Households in the richest quintile spend more than six times the amount on education than households in the poorest quintile: 4.4% versus 1.7% of total expenditures. Though this may seem very small, it is worth recalling that the poor allocate about two-thirds of their consumption towards food leaving very limited flexibility in their budget. The difference between the rich and the poor in this category may partly reflect the different access to tertiary education. Furthermore, it may also not take into account the benefits accruing to less well-off households through the scholarship programs for post-secondary students.

Figures III.5 and III.6: Access to Services: Variation by Urban/Rural and Oblast

Source: Staff computations based on HBS 2002.



Source: Staff computations based on HBS 2002.

D. PHYSICAL INFRASTRUCTURE SERVICES IN URBAN AREAS

3.15 This section focuses on the urban population's access to essential infrastructure services, especially those which are network services such as electricity, piped water, sewerage system, and central heating. As noted elsewhere, the rural population does not—and should not—have access to network services due to the prohibitive cost of providing such services to small, geographically dispersed communities—with the exception of power (electricity). In order to understand their well being—and access to heat (rather than central heating) and potable water (rather than piped water), additional in depth analysis would need to be undertaken on alternative sources of heat, water, and sanitation services which is beyond the scope of this report.

3.16 Utility payments account for the largest category of consumption expenditures after food for the average household. Urban households allocate on average 10.6% of their total consumption expenditures per capita to utility expenditures which is more than one-fifth of their non-food expenditures.²² Among the urban population, lower income groups allocate marginally more of their total expenditures to utilities than the more affluent (11.1% and 9.6% for the bottom and top quintiles respectively). Utility expenditures are comparatively high according to international norms. Furthermore, these expenditures are for under-consumption of essential services and with full access to water, sewerage, and heating would be significantly higher.

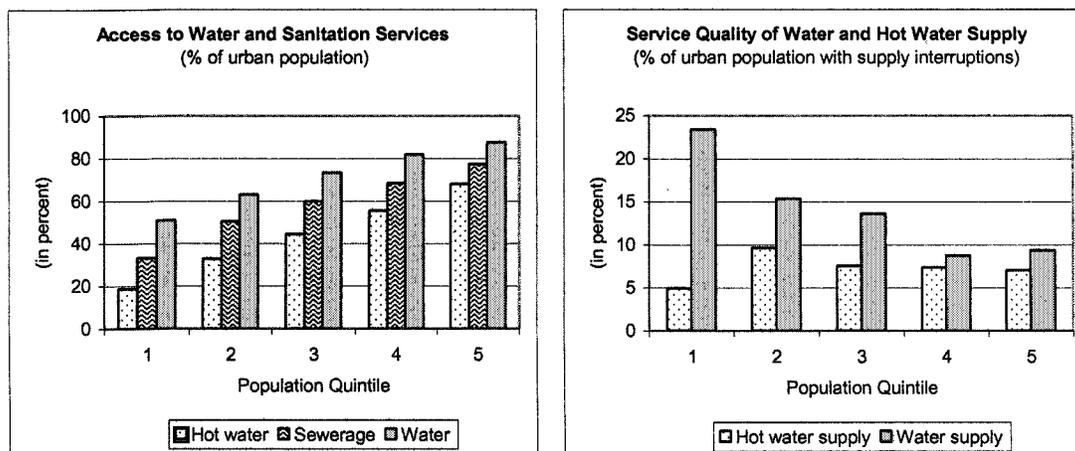
D.1. Water and Sewerage Services

3.17 Water and sanitation services are composed of a package of several individual services which together deliver a certain basic level of health and convenience to the population. Water services include access to safe drinking water, cold water, and hot water. The package of sanitation services would include sewerage system, a garbage collection system, and availability of a bath/shower—all with the main goal of preventing contact with harmful agents. The HBS

²² This differs from the share of consumption expenditures spent on utilities as seen in Table I.4 since it excludes "other housing services".

does not allow for a qualitative analysis of access to water and sanitation services especially in any comprehensive manner.

Figures III.7 and III.8: Urban Access and Quality of Water and Sanitation Services



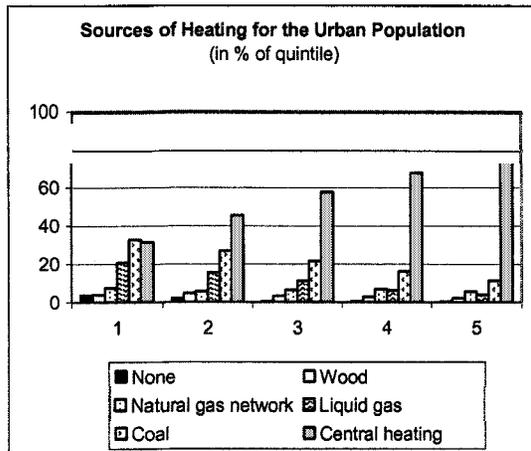
Source: World Bank staff calculations based on HBS 2002. Source: World Bank staff calculations based on HBS 2002.
Note: Supply interruptions that occurred in the last 30 days.

3.18 The urban population only has partial access to a reasonable package of water and sanitation services. In 2002, an estimated 75% of the urban population had water supplied through pipelines, 16% obtain their water from public water-pumps, wells, rivers, lakes, and water-carriers, while the remaining 10% get imported water or water from open water reservoirs. (There is no information in the HBS that would allow an analysis of people's access to safe drinking water or what measures (such as boiling and filtering) they take to improve water quality if necessary. Reportedly, some 30% of the population use water that does not meet adequate health standards.²³) About 48% had access to hot water though it is unclear whether from a network or individually installed water heaters. Access to sewerage system is low at 62% and it remains unclear what people do to compensate for this lack of access.

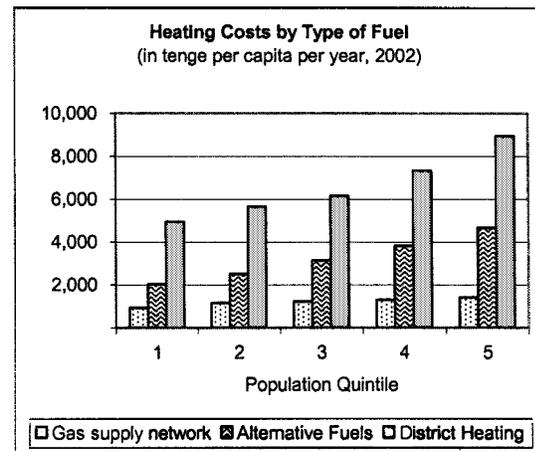
3.19 Urban access rates to water and sanitation services vary greatly by oblasts and city size. Access rates to these important services increase significantly with city size as seen in Figure III.5. For example, average access rates for sewerage in small cities is 25% compared to 74% for large cities. This variation in rates exists at the oblast level. Access to water ranges between 45% (Kyzylorda) and 98% (Almaty City). The oblasts with the lowest access rates in most services are Kyzylorda, Almaty, Zhambyl, and Akmola, while those with the highest include Karaganda, Pavlodar along with the Astana City and Almaty City as seen in Figure III.6.

3.20 The urban poor have less access to water, hot water, and sewerage services than the non-poor, but even the affluent lack access to these services. There is a strong correlation between income and access across all water and sanitation services with the poor's access lagging significantly behind that of the affluent as seen in Figure III.7 above. For example, access to sewerage for the bottom and top quintiles are 33% to 77% respectively. However, what is remarkable, that almost one-quarter of the affluent (top quintile) lack access to sewerage systems in urban areas and 12% lack access to piped water.

²³ Kazakhstan Information Agency, Speech by the Minister of Health, October 2003.

Figures III.9 and III.10: Access and Reliability of Heating by Quintile Group

Source: Staff calculations based on HBS 2002.



Source: Staff calculations based on HBS 2002.

Note: Alternative fuels include coal, wood, and liquid gas.

3.21 The weak reliability of water supply services affects the urban poor the most. Though only about 12% of the population suffered from water supply interruptions in a thirty day interval, almost one-quarter of the lowest quintile suffered from interruptions compared to 9% of the top quintile. Hot water supply appeared to be more reliable, but this should not be interpreted as the reliability of the hot water supply *network* as significant share of the population may rely on water heaters whose constancy of service is likely to be linked that of the electricity.

3.22 Poor people spend much more on water relative to their income than do the rich. The level of expenses on cold water and sewerage does not differ between poorer and richer households which may be a consequence of the use of normative pricing rather than actual consumption. The differences arise for hot water, which is also the most expensive item of the three. Since expenses apart from hot water are similar across quintiles, the costs for water and sanitation make up a considerably higher portion of total expenditures for the poor than for the rich. Moreover, people that do not have access to the central water supply have to purchase water at a higher price from merchants or go to public water sources, spending additional time and money on queuing, water storage and boiling.

D.2. Heating Services

3.23 The cold winters of Kazakhstan make heating an essential service. The average temperature in January in North Kazakhstan is as low as minus 16-19 degrees C (10 to 25 F) and in South Kazakhstan minus 4-12 degrees C (-2 to 3 F). Under these circumstances, heating is clearly critical to maintaining a minimum standard of living. But there is also an important environmental dimension to the heating sector—the choice of methods and fuels for heating will have implications for the level of pollution.

3.24 Though district heating is the most prevalent heating source, it is used by less than two-thirds of the urban population. Notwithstanding the need for heating during winter, only 60% of the urban population in Kazakhstan has access to district heating. Unconnected households mainly use coal (20% of the urban population) or liquid gas (10%). Wood and the natural gas network are other minor sources of heating. Only 1% of the urban population does not

access any type of heating perhaps underlying this services critical importance to human survival in Kazakhstan.

3.25 Access to district heating is closely correlated to incomes. As seen in Figure III.9 above, 31% of the poorest quintile compared to 77% of the top quintile are connected to district heating. The poorest quintile uses coal (33% of individuals) for heating which declines—along with other fuels—steadily as income increases. An estimated 4% and 2% of the bottom first and second quintiles do not have any heating indicating a high degree of deprivation on their part. The use of coal and liquid gas by lower income groups raises questions about indoor pollution and possible adverse impact on immediate health, especially for the young and elderly.

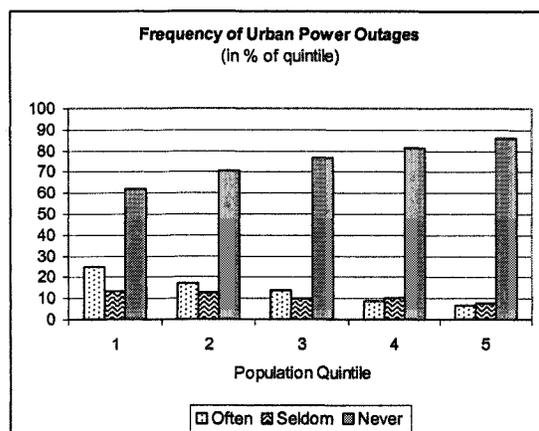
3.26 The largest share of heating expenditures by all quintiles is for district heating with little variation across income groups. On average 62% of total heating expenses of the urban population is for district heating followed by 27% for alternative fuels (e.g., coal, firewood, etc.) and 11% for network gas. Though total heating expenditures increase with income (as seen in Figure III.10), there is little variation in the proportion of expenses on these three categories of fuel by quintile. Thus, out of total quintile heating expenditures, the poorest quintile spends 62% on district heating and the richest 60%. Further investigation is required to understand why the affluent continue to allocate over one-third of their heating expenditures for low efficiency, relatively high polluting fuels.

3.27 Heating costs can be high for households, hence the poor are more likely to cut back on expenditures and use cheaper alternatives. Heating networks appear to be the most costly source of heating. Coal, firewood, and stove fuel are cheaper than district heating, which also explains the poor's greater utilization of these types of fuel over other options. Furthermore, the poor are more apt to reduce heating expenses in the face of an income shock. For example, between 2001 and 2002, the elasticity of heating to changes in consumption expenditures was 0.6 for the poor and 0.3 for the non-poor. Similarly, prices for central heating increased ten-fold between 1995 and 2002, while the prices for solid fuels almost stagnated in nominal terms. This is likely to have prompted the population at large, and especially the poor, to turn to cheaper—and less environmentally friendly—fuels.

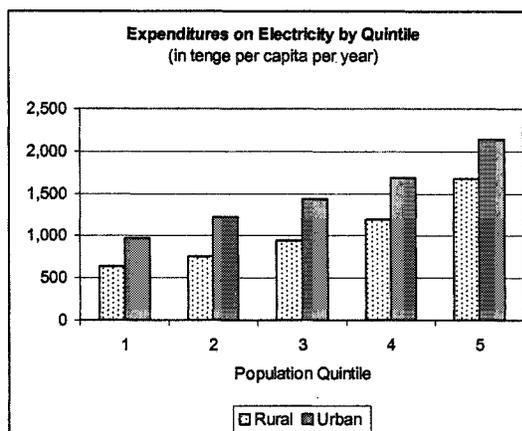
D.3. Power Services

3.28 Access to power is universal. In Kazakhstan, virtually everybody has access to electricity through a distribution network. Access to power is thus not an issue either for rural areas or for the poor. But average consumption per capita has dropped between 1992-2000, though it is expected to increase over the coming years, reflecting a catch-up vis-à-vis past years with low growth and higher growth rates at present.

3.29 But problems exist with the dependability of the power supply. One measurement of service quality is the frequency of blackouts. In 2002, 67% of the population indicated that they had never experienced power blackouts, 17% said they seldom experience outages while 16% reported experiencing outages often or very often. Rural areas are generally worse off than urban areas in terms of the reliability of electricity, but the difference between poor and rich is more pronounced in urban areas. An estimated 19% and 12% of rural and urban residents experienced power outages either often or very often. Power outages were experienced in the prior month "often or very often" by 25% of the poorest and 12% of the richest quintiles in urban areas.

Figures III.11 and III.12: Reliability and Expenditures on Power by Quintile Group

Source: Staff calculations based on HBS 2002.



Source: Staff calculations based on HBS 2002.

3.30 Power reliability varies tremendously by region. As many as 95% of the households in Kyzlorda had experienced power failures, and 60% had experienced blackouts in Zhambyl and in South Kazakhstan. This can be contrasted with the considerably lower power failure rates in the Akmola, North and East Kazakhstan oblasts which ranged between 7%-9% only of households had experienced power failures. Mostly, regions with low poverty rates were less likely to experience power outages, with the exception of Mangystau.

3.31 The poor pay significantly less for power than the rich. Average payments for power by the poorest quintile are 45% of the electricity payments of the rich as can be seen in Figure III.12. This still implies that power expenditures account for a higher relative proportion of expenditures of poor households expenditures. The poor however are able to reduce their expenditures on power by reducing consumption since this is the only service which is routinely metered.

E. CONCLUSIONS

3.32 The biggest challenge facing Kazakhstan is improving its population access to adequate quality social and physical infrastructure services. The HBS appears to indicate that the population has reasonably easy access to social service facilities but despite this social outcomes are uneven across the country and some—such as infant mortality rates—are significantly worse in poorer oblasts. Furthermore, it appears that low income population groups consume less of these important services which can be critical for current productivity and welfare (health care services) or future productivity and income (educational achievement).

3.33 The population has neither full nor uniform access to essential infrastructure services. Among the urban population, persons living in small cities had significantly lower access to infrastructure services as did poorer households; but even persons living in large cities or the affluent had less than full access. In addition to access problems, service reliability was uneven and appears to disproportionately affect the lower income groups. Finally, the expenditures on these essential services are significant and a relatively higher share of the poor's consumption expenditures than the better off—despite the fact service provision to the poor is of worse quality.

4. THE SOCIAL PROTECTION SYSTEM

A. INTRODUCTION

4.1 Kazakhstan is faced with the challenge of lifting over two million persons to a level of income where they can meet their basic food and non-food needs. In order to achieve this goal, the Government has a key role to play through the administration of a safety net system which effectively and efficiently transfers income to those who are unable to benefit directly from growth. Kazakhstan has the advantage that few other countries have—guaranteed high economic growth into the foreseeable future; this will help to ensure the availability of fiscal resources for raising people out of poverty.

4.2 Kazakhstan is fortunate to have a large portfolio of instruments to fight poverty. This provides the Government with the opportunity to assess their effectiveness and to choose the ones which are successful in meeting the State's goals. These programs at the state and sectoral level which are currently under implementation number about 75. However, due to the social protection system Kazakhstan inherited from its Soviet past, many programs exist which target those that are not necessarily in need but have contributed to the State in some way and, hence, have earned the gratitude and the requisite financial compensation (e.g., war veterans).

4.3 This chapter assesses the social protection system's effectiveness and efficiency in terms of poverty alleviation. It focuses on only a few of the largest programs—Targeted Social Assistance, state social allowances, and old-age pensions though reference is made to other important programs such as the housing benefits and special state allowances. (A description of these programs is given in Box IV.1.) The main issues addressed in the chapter are (i) social protection spending; (ii) the effectiveness and efficiency of the safety net; and (iii) the way forward.

4.4 The main findings of the chapter are as follows:

- The social protection system—pensions and assistance programs—reduce poverty significantly and help the population smooth consumption overtime. But its efficiency can be improved by addressing problems of duplication of benefits and leakage of benefits to the un-intended beneficiaries.
- The most important program for raising the incomes of the poor is the Targeted Social Assistance Program. Though it has a good track record, its coverage and benefits are too low. Furthermore, local (oblast) financing of the program increases the likelihood that it will be under funded.
- A better understanding of the implications of the new pension system is warranted in order to understand potential future demands on the Government's old-age allowance program (under the state social allowances) from people who have not contributed at all (i.e., those in the informal sector or farmers) or not enough (women who have career interruptions due to child rearing).

B. SOCIAL PROTECTION SPENDING

4.5 **Internationally, Kazakhstan is among the most vigorous reformers of all aspects of the social protection system.** Many beneficial social protection reforms were implemented during 1998-2002 such as the reform of the pension system in 1998 which introduced an accumulation scheme; the further monetization and consolidation of numerous benefits and subsidies in 1999-2000 that introduced special state allowances; and introduction of means-tested social assistance in 2002. Much has been accomplished and now the opportunity exists for Kazakhstan to consolidate these reforms, by improving program administration, implementation, monitoring and evaluation, and by regulating the system of transfers for poverty alleviation from the central to the local government

4.6 **Kazakhstan's public spending on social protection was 5.4% of GDP or 25% of total public expenditures in 2002.** Though this amount appears high, it is modest compared to many CIS countries and to the ECA region with spending on social security and welfare are an estimated 8.1% and 10.1% of GDP respectively. This is explained by the relatively lower number of pensioners in Kazakhstan and by the absence of universal programs such as child or family allowances that consume a large budget in many ECA and CIS countries or programs with substantial coverage as the unemployment insurance programs. Though Kazakhstan has more social benefits than many other countries in the region, the coverage of many of them is limited to narrow groups at risk. As a matter of priorities, social protection spending is the major item within total government spending in Kazakhstan as in other countries in the region.

Table IV.1: Main Social Protection Programs in 2002: Spending and Beneficiaries

	As a proportion of (in %)			Number in '000 Recipients
	GDP	Social spending	Population	
Total social protection expenditures	5.4	100		
Republican budget	4.4	82		
Pension program	3.2	59	11.4	1,691
State social allowances	0.9	16	5.3	792
Special state allowances	0.1	3	0.9	134
Local Budgets	1.0	18		
Special state allowances	5.9	874
Targeted social assistance	0.2	5	7.6	1,137
Housing benefits	0.1	1		

Source: Ministry of Finance and Ministry of Labor and Social Protection

4.7 **After years of decline, social protection expenditure per capita is expected to increase 70% in real terms by 2006 compared to 2002 level though not as a share of GDP.** As late as 1997, the share of social protection was 10% of GDP and 39% of total government expenditures. The subsequent drop was due to the reduction in the real value of many social benefits (through lack of indexation and payment arrears) but also to diminishing government liabilities towards pensioners with the introduction of fully funded defined contribution pension system and the gradually phasing out of the old pay-as-you-go system (PAYG) starting in 1998. The Government currently proposes to keep the share of social protection in GDP constant, but the anticipated GDP growth of 7%-9% per year for 2003-2006 implies large increases of funds available for social assistance during a period when (consumption) poverty is likely to fall further.

Box IV.1

Overview Description of Major Social Protection Programs in Operation in 2002

Old age pension. The pension system is an insurance program based upon individual contributions under its fully funded component and takes into account length of service and contribution history. At present, Kazakhstan pension system consists of a phasing out PAYG system, mandatory 10% individual contributions and voluntary individual contributions allocated to individual accounts in the accumulation funds and invested in available financial instruments. Since July 2001 the retirement age for civil pensioners is set at 63 and 58 years respectively for men and women. Full size civil pensions are awarded to retired men and women with not less than 25, and 20 years of service respectively, as of January 1998. The full size civil pension is estimated at 60% of average monthly income during 3 consecutive years of service since January 1995. Less than full size civil pensions are in proportion to certified years of service. The government guarantees a minimum pension to those who retired before January 1998. Those who retired afterwards and made mandatory contributions during the required period are entitled to receive an *old age allowance* to bring their retirement income up to the minimum pension, if their combined public and accumulation plan pensions fall below that minimum level.

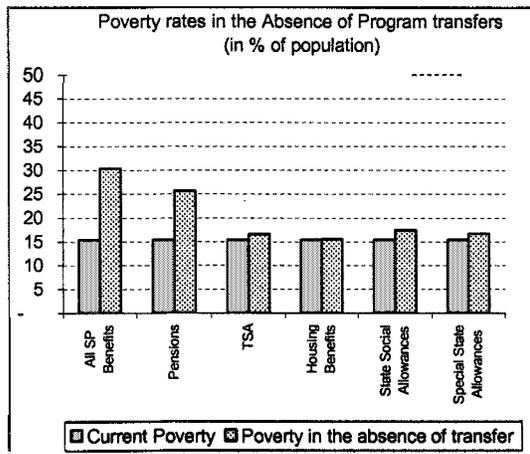
State social allowances. This category of allowances consists of disability allowance, survivor allowance, and old age allowance. **Disability allowances** are paid in cash on a monthly basis during the whole disability period. Once the disabled reach retirement age and become eligible for pension payments, disability allowance is terminated. However, if the total of individual's PAYG pension and accumulation pension is less than previously paid monthly disability allowance, the allowance will continue to be paid, its size being equal to the difference between the awarded pension and earlier disability allowance. **Survivor allowance** is paid to all eligible family dependents of the deceased breadwinner. The survivor allowances are awarded for the period during which the recipients remain unable to work or until they reach the retirement age. **Old-age allowances** are paid to the individuals who have reached retirement age but are either ineligible for pension payments or are entitled to a pension below the minimum. Retirement aged persons who have been making the mandatory contributions to the pension system may also receive old age allowance in the amount sufficient to bring their income to the minimum monthly pension.

Special state allowances. Special state allowances were introduced in 1999 to replace earlier existing cash and non-cash preferences and discounts designed for various groups of population related to payment for housing maintenance and utilities, fuel, telephone, medicines, glasses, public transportation, periodical subscription, etc. The special state allowances are now paid in cash to the following eligible categories: IOWW, disabled, individuals who participated in the liquidation of Chernobyl catastrophe, families of military deceased in service, individuals awarded orders or medals, victims of political repressions, mother and families with many children.

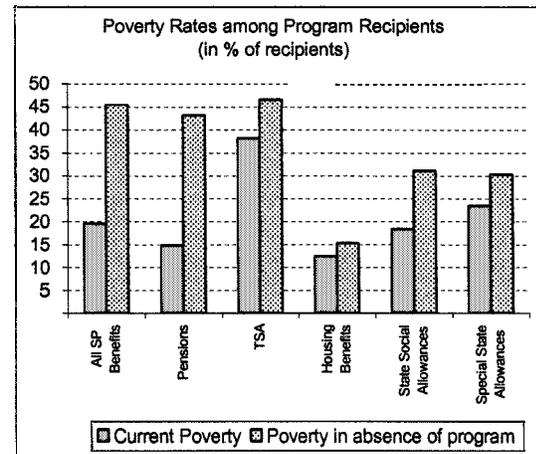
Targeted social assistance. State targeted social assistance, effective January 2002, is a cash payment provided to the individuals (or families) with average per capita monthly income below the poverty line set for each oblast. The size of the assistance is estimated as a difference between the average per capita income and the poverty line in the region per each eligible household member. Eligibility is confirmed by the authorized bodies within the local governments based on the recommendations made by the specially created district commissions. The program is funded by local budgets. To continue to be eligible, the beneficiaries need to submit evidence about their income on a quarterly basis.

Housing assistance. Represents compensation provided to the low income and socially protected groups of population to cover expenses on housing maintenance, utilities, and leasing of housing from state housing fund. Housing assistance is extended to the poor households if the actual housing and utilities expenses exceed a certain percentage of the aggregate household income defined by the local government. The size and procedure of housing assistance is defined by the local authorities.

Employment program. The state provides the following social support to the unemployed: assistance in finding employment, professional training, public works. Professional training is financed out of the Republican and local budgets. Public works are organized by central and local executive bodies and funded from republican and local budgets, as well as funds of the employers. There is no unemployment benefit as such, but the low income unemployed receiving professional training are eligible to receive state targeted social assistance.

Figures IV.1. and IV.2: Impact of Social Transfers on Poverty and Beneficiaries

Source: Staff estimates based on HBS 2002.



Source: Staff estimates based on HBS 2002.

4.8 The Government's largest social protection programs aim to help citizens smooth consumption or cope with income shocks. The main programs with this objective are pensions, state social allowances, special state allowances, housing allowances, and Targeted Social Assistance Program (TSA) which are described in Box IV.I. Pensions currently consume about 60% of total social protection consolidated public expenditures followed by state allowances (16%). The program which directly targets the poor, the TSA receives 5% of public expenditures. As seen in Table IV.1, about 18% of total social security and welfare expenditures (including here the TSA and housing benefits) are decentralized to the local level which raises concerns that these program may not have guaranteed funding given that oblasts revenue streams are more volatile and unlikely to see the same growth as the central government's.

4.9 Though the Republican budget finances most of the social protection system, the most important anti-poverty program—the TSA—has been fiscally decentralized. Though most programs are run and financed by a single government agency, the Ministry of Labor and Social Protection, the TSA is financed from local budget revenues.²⁴ The drawback of this fiscal decentralization arises because poor oblasts in general have lower revenues and more poor persons; hence, facing a greater demand for the program benefits. At present, the system allows for some poor oblasts to receive transfers from the central budget to supplement their resources for the TSA, but such arrangements are *ad hoc* and not a part of a legislated, predictable financing mechanism. This issue of under-financing is potentially serious for Kazakhstan given the large regional differences in poverty rates.

4.10 Financing arrangements of the TSA program should be re-visited, especially the devolution to the local level. As noted earlier, the TSA is financed from local budget revenues. A better division of responsibilities in the implementation of targeted social assistance program could be as follows. The central government establishes the eligibility criteria, provides financing, and monitors and evaluates how the program is implemented by the local government.

²⁴ There are a few exceptions to this rule, such as resettlement and social protection of repatriates (oralman) coordinated by the Agency on Migration, and of the military and security officers coordinated with interior/defense bodies.

The responsibilities of the local government could be to administer the program which would include receiving applications, screening and selecting eligible applicants and issuing payments.

4.11 Income poverty could be eliminated with an additional expenditure of \$124 ml - \$207 ml under assumptions of 0% – 40% leakage of benefits to the non-poor. In 2002, the poor's average consumption expenditure per capita annually was \$210 (about 32,000 tenge) compared to the poverty line of \$263 (40,386 tenge). This implies an average gap per person of \$53 for the 2.3 million poor. Eliminating poverty only through redistribution requires increasing the share of social expenditures by an additional 9%-15% depending upon the extent of leakage expected. Though this may appear substantial, it is affordable for Kazakhstan given the growing oil revenue stream. This amount can be covered through the automatic increases envisioned in social spending that will result in keeping the share constant in a growing GDP. For example, between 2002-2006, expenditures on social welfare are expected to increase by 180 billion tenge which can easily accommodate this amount (i.e., 26 billion tenge even with a 40% leakage). Moreover, by 2006 the cumulative poverty gap will fall if all the population will share proportionally in the expected expansion of GDP of about 34% during 2003-2006.

C. ASSESSING THE EFFECTIVENESS AND EFFICIENCY OF THE SAFETY NET

C.1. Overall Effectiveness of the Safety Net

4.12 In the absence of social security and welfare benefits, poverty would increase substantially both at the national level as well as among program beneficiaries. Social protection transfers was responsible for halving the poverty headcount²⁵ from 30% to 15% of the population in 2002 as seen in Figure IV.1. Among the households who receive at least one such transfer, poverty would have increased to 45%. Pensions, given the large volume of resources they redistribute, have a larger impact. Without pensions, the national poverty rate would rise to 25%. This suggests that for most pensioner-headed households the pension is the main income source, and any deterioration of its purchasing power can result in widespread poverty among this group. For all other programs except pensions, the increase in poverty resulting from discontinuing them would have been 4.4 percentage points, bringing the national poverty headcount to 20%.

4.13 Slightly more than half of the population receives at least one social protection transfer. By program coverage we mean the share of population who receives, directly or indirectly, benefits from the program, or the share of program recipients in the total population. Nationwide, 57% of the population has benefited from at least one cash-transfer, including pensions, for at least one month during 2002. Among the poor and non-poor, the coverage of the social protection programs is 66% and 54% respectively. The programs with the largest coverage are: old-age pensions (36%); special state allowances (18%); state allowances (16%); and targeted social assistance (13%). Compared to Eastern European countries, the social protection transfers have lower coverage primarily due to less expansiveness of the pension scheme and replacement of the child allowance with the targeted social assistance program.

4.14 Exclusion and duplication coexist because the system of social assistance is narrowly focused. The three main programs among which duplication is occurring are the TSA, housing benefits, and the special state allowances. About 15% of the households who benefit from social

²⁵ In the absence of the social protection transfers, household consumption is assumed to fall by an amount equal to the full value of the transfers.

assistance cash in multiple benefits, more often households who receive both TSA and special state allowances. At the same time there are people who are considered poor who do not benefit from any type of support. Exclusion and duplication coexist because the system of social assistance is narrowly focused. Single focus programs or agencies often work only on the single problem they know how to handle (e.g., vocational training, public works, entitlements to special state allowance, housing benefits, and residential care). People with complex problems often fall through the cracks and do not receive the full range of services they need to pull their lives together though they may continue to receive a specific benefit for years. These problems exist because of lack of a coordinated or merged application process, high case management loads/or lack of specialized caseloads, lack of a shared database to facilitate referral and service tracking, co-location to facilitate referral and poor communication between relevant government agencies.

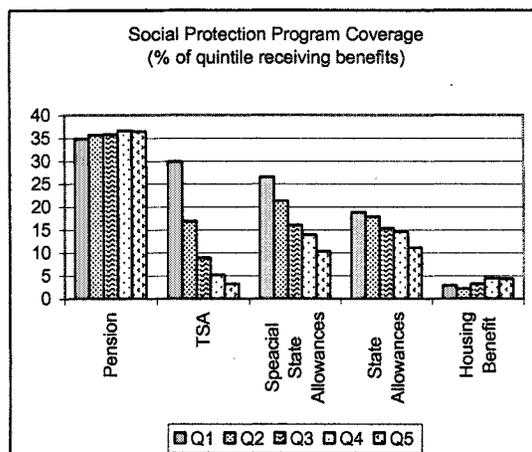
C.2. Effectiveness and Efficiency of the Targeted Social Assistance Program

4.15 The Government's main anti-poverty program, the TSA Program, achieved a targeting performance comparable to the best programs worldwide. This is a new safety net program which the Government introduced in 2002. Compared to the previous social assistance programs that it administered, this program has adopted better targeting methods and tailored the size of the assistance to the household's circumstances. The main eligibility criteria for this program is the family's poverty status, strengthened by a self-targeted work-test requirement. The TSA benefit is a monthly cash transfer granted to individuals or families whose per capita income is below the official, oblasts-specific poverty line, to cover the income gap up to that line. This program has the potential of alleviating poverty successfully through continued reforms in targeting and benefits and financing.

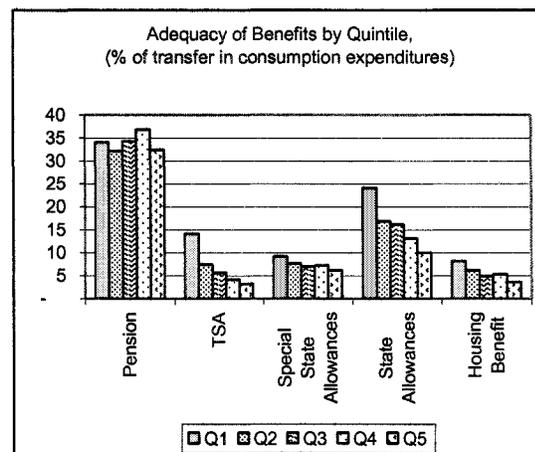
4.16 The TSA Program reaches 30% of the bottom quintile of the population. This program has the strongest poverty focus which is consistent with its objective as seen in Figure IV.3. It is more successful in rural areas than in urban areas reaching 40% and 17% respectively of the poor living in these sectors. Regionally, we find that the program coverage is higher in Mangystau (where 75% of the poor live in households receiving the benefits), Aktoba (59%) and North-Kazakhstan Oblasts (52%). Distribution of benefits are greatest in the oblasts with high population density: South Kazakhstan (19% of all beneficiaries), Almaty (13%), Karaganda, and East Kazakhstan oblasts.

4.17 The TSA Program's benefit amount is too low to raise the majority of its poor beneficiaries out of poverty. The average value of the transfer per recipient family is equivalent to 4,330 tenge per capita per year which is 8% and 10% of the official and World Bank poverty lines respectively. The TSA benefit represents on average about 13% of the bottom quintile's consumption expenditures as seen in Figure IV.4. The benefits are relatively more generous in urban area and for small size families though the poverty gap is higher in rural and large size families. The adequacy of TSA benefit depends on the available resources channeled by the local governments for this type of program and the severity of poverty of the recipients. Administrative data on the actual spending on TSA suggest there is large variation among oblasts. Oblast with higher local revenues can afford to spend more on welfare programs. Consequently, the oblasts of Atyrau and Mangystau (which are oil-rich) can allocate more than double the average national amount for TSA while Zhambyl or Kostanay can only allocate half that amount.

Figures IV.3 and IV.4: Program Coverage and Adequacy of Benefits by Population Quintile



Source: Staff estimations based on HBS 2002.



Source: Staff estimations based on HBS 2002.

4.18 Over half of the transfers of the TSA Program were received by the bottom quintile of the population indicating that though efficiency is high, it could still be improved. In 2002, 56% of transfers were received by the bottom quintile and an additional 25% by the second quintile. Though the performance of this welfare program is superior to others, including the Special State Allowances and Housing Benefits, given the relatively modest resources allocated towards it, leakage implies that perhaps twice as many poor persons could have been helped. Leakage occurs due to difficulties in accurately measuring the family's income especially in circumstances where a large share of the income comes from the informal sector and because income verification and recertification is not done in a systematic way. A certain amount of leakage is acceptable as long as it comes from unavoidable measurement errors under reasonable verification efforts. Anecdotal evidence suggests that inclusion errors do happen and they may arise from preferential treatment.

Effectiveness of State Social Allowances and Housing Benefits

4.19 The State Social Allowances—the largest welfare program in terms of financing—does not target the poor but rather aims to replace income lost due to life events. This program which provides disability, survivor, and old-age benefits guarantees a minimum level of income to these vulnerable groups of the population. With the exception of old age social allowance that are granted on a means-tested basis to those not covered by the pension system, the survivor's and disability allowances do not specifically target people based upon their welfare/poverty status. The size of the allowance is based upon a formula which does not take into consideration the previous level of the beneficiary's income. Hence, both high-paid and low-paid workers prior to disability will be receiving the same disability benefit indicating that the better-off worker will experience a sharp reduction in income.

4.20 The Law of Mandatory Social Insurance will help strengthen the population's coverage against the risk of income loss from disability or death. The Government introduced legislation (to be effective January 1, 2005) to begin the transformation of covering disability and survivor through social insurance rather than allowances. Since disability and death are insurable events, insurance will allow smoothing of consumption in the case of such events. Under the new system, the Law envisages the introduction of disability, survivor, and unemployment insurance

based on social contributions made by employers and employees to the State Social Insurance Fund. The main benefit of moving to this insurance system will be that in case of an event leading to disability or death, consumption can be better smoothed by linking the level of benefits to the recipient's income.

4.21 Though not poverty reduction programs, the state allowances do disproportionately benefit lower income groups. As seen in Figure 3.3, state allowances are progressive and help the lower income groups more than the upper income groups. Without the state allowances, poverty among the beneficiaries of these allowances would rise from 18% to 32%. In terms of the adequacy of the benefits in alleviating poverty, they are second to only the pension payments in terms of their share in the household's consumption expenditures. The average state allowance is about 41,000 tenge in 2002 per recipient household per year. According to the Household Budget Survey this represents about 17% of all beneficiary household consumption expenditures and 25% of that of poor beneficiary households.

4.22 Housing allowances intended to support destitute families in paying utility bills appear to be poorly targeted. A household allowances directed at helping out with utility costs for poor families is one of the smaller programs of the social protection system. Household allowances are provided to families whose income is less than the subsistence wage minimum, and if household maintenance expenses exceed 30% of total household income. According to the HBS, 5.2% of all households receive the household allowances. But the data also suggest that the program has a poor targeting record: only 3% of the bottom quintile receive this benefit and only one fifth of the benefits go to the bottom quintile.

C.3. Effectiveness of Pension System in Alleviating Poverty

4.23 The pension system is the main mechanism for preventing poverty among the elderly. The pension program covers the largest share of population (11.4%) compared to the other social security programs and accounts for more than half of the total social protection spending. Pensioners do not comprise a significant share of poor (including those pensioners living alone) and represent for many households an important income earner rather than a dependent. The pension system provides a minimum level of protection to the elderly and their families. The ratio of the minimum pension to the subsistence minimum of almost 90% during 1999-2001 and 116% in 2003 appears both adequate and reasonable. The establishment of minimum pensions and old age allowances gave a significant poverty focus to the pension system and provided a minimum standard for old age pensioners. Furthermore, a strong redistributive effect within the pension system is given by the imposition of a maximum pension that cannot exceed 75% of 15-times monthly-base enumerate²⁶, or 9,810 tenge equivalent of US\$70 in 2003.

4.24 Under the pension reform, the level of benefits will decline significantly. The average wage replacement rate for new retirees is expected to decline by more than half when the reformed system fully matures.²⁷ Currently, total pension benefits consist almost exclusively of PAYG benefits because nearly all retirees have accumulated sufficient work histories for full benefits under the old system. This will continue until 2020 when new retirees will no longer have the requisite years of service that entitles them to receive full PAYG benefits. The model

²⁶ The monthly base enumerate is an administrative number specified in the budget law for calculating PAYG and other social benefits. The value of MBE was set at 872 tenge per month.

²⁷ For further details see *The New Pensions In Kazakhstan: Challenges in Making the Transition*, World Bank, 2004, forthcoming.

indicates that after 2020 there will be a steep decline in the value of PAYG benefits because benefit levels (and equally significantly the Minimum Pension Guarantee) will begin to be pro-rated for service periods of less than 20 (or 25) years. The projections indicate that the average wage replacement rate for new retirees will decline from about 50% in 2010 to about 21% by 2045. The overall decline is substantially driven by the steep decline in the value of women's pensions. Female replacement rates are anticipated to decline from current levels above 50% (because many receive minimum pensions that provide very high replacement for low wages) to about 16% by 2045. This is due to the more direct relationship between wages and years of work in the fully-funded system resulting in much lower accumulations for women in conjunction with the lower annuity values that result from a retirement period that is more than double that of men due to earlier retirement age and greater longevity. In contrast male replacement rates will decline from current levels of about 40% (substantially constrained by the reference wage cap) to 30% after the transition when the value of the fully-funded accounts face no similar limitation.

4.25 The significant reduction of pension benefits could lead to a greater prevalence of poverty among the elderly, especially women, or substantially increase demands on the old-age allowance program. The loss of the minimum pension guarantee that currently provides significant income support for elderly women will be a growing factor in increasing their vulnerability to poverty. Furthermore, if the old age social allowance remains at 13% of average salary, and average female replacement rates fall to 10% of the average wage as the projections indicate, the incentives to avoid the effective 31% payroll tax for social insurance may substantially increase in the future. This could result in much lower participation rates in the pension system and a greater reliance on old age state allowances.

4.26 The current pension system does not address the special problems faced by workers in the rural sector or informal economy. The effective 31% payroll tax for social insurance may prove to be a cost too high to motivate active population operating outside the formal sector to contribute today to a pension system that promises a low wage replacement value of pensions in the future. For farmers or workers in the informal sector the cost of working capital required today to operate their farms or businesses may be much higher than the return on their pension savings, so many people may opt to stay out of a system where participation imposes a high opportunity cost.

D. CONCLUSIONS

4.27 The Government's social protection system is comprised of both insurance and welfare components which have undergone significant changes and developments of the last several years in order to strengthen their sustainability as well as effectiveness. The objective of these programs range from smoothing consumption to transferring income to the population perceived to be in need of assistance. The analysis in this chapter yielded several findings that may be of use as the Government continues to refine the programs:

- Though the TSA program is a good instrument for assisting the poor, it suffers from problems of limited coverage of the poor, low benefit levels, and leakage of benefits to the non-poor. Furthermore, devolution of financing the program to the local level increases the likelihood of under-financing.
- Under the new pension system, female workers, informal sector workers, and farmers may accrue insufficient benefits in the pension system resulting in potentially high demand on the Government's old age allowance program to compensate for the lack of income in retirement.

- The housing benefits program has low coverage of the poor and a poor targeting record.
- Overlap between programs—especially the TSA, housing benefits, and special state allowances—dilutes the efficiency of the social protection system.

REGIONAL ANNEX

INDICATORS /a	MEASUREMENT	Akmola	Aktobe	Almaty	Atyrau
Consumption Poverty Levels					
Poverty rate, 2002	in % of total oblast pop. below poverty line	10.0	13.8	11.3	23.3
Urban poverty rate, 2002	in % of urban oblast pop. below poverty line	6.9	4.6	6.3	20.8
Rural poverty rate, 2002	in % of rural oblast pop. below poverty line	12.5	25.3	13.3	27.1
Distribution of poor, 2002	in % of Kazakhstan's poor living in oblast	3.5	3.9	8.0	4.9
Poverty rate, 2001	in % of total oblast pop. below poverty line	11.0	18.2	19.9	23.6
Urban poverty rate, 2001	in % of urban oblast pop. below poverty line	11.3	10.1	18.6	23.9
Rural poverty rate, 2001	in % of rural oblast pop. below poverty line	10.7	29.0	20.4	23.1
Distribution of poor, 2001	in % of Kazakhstan's poor living in oblast	3.4	4.6	12.4	4.4
Non-consumption Poverty					
Housing poverty	in % of oblast pop. living in poor housing conditions	31.4	36.7	39.4	52.7
Education poverty	in % of oblast pop. 15+ years with prim. sch. or less	10.1	11.3	13.8	2.4
Multi-Dimensional Poverty /b					
Total poverty rate, 2002	in % of oblast pop. suffering from some form of poverty	42.3	46.9	51.0	58.7
Inequality (consumption) /g					
Consumption of poor, 2002	in % of total oblast exp. held by bottom 20% of the pop.	9.5	7.7	10.3	8.3
Consumption of the affluent, 2002	in % of total oblast exp. held by top 20% of the pop.	35.5	38.4	34.1	36.6
Consumption of poor, 2001	in % of total oblast exp. held by bottom 20% of the pop.	9.0	7.5	9.7	8.2
Consumption of the affluent, 2002	in % of total oblast exp. held by top 20% of the pop.	36.7	40.1	34.9	36.7
Health /c					
Infant mortality rate, 2002	infant deaths per 1,000 live births	14	18	11	19
Maternal mortality rate, 2002	maternal deaths per 100,000 births	39	40	40	80
Education					
Secondary net enrollment rate, 2002	in % of 15-18 year olds in oblast enrolled in sec. sch.	45	64	57	46
Less than secondary school	in % of 22-65 years old with less than sec. sch.	16	9	8	6
Access to Network Services					
Water, 2002	in % of urban oblast pop. with piped water	57	68	55	71
Sewerage, 2002	in % of urban oblast pop. with sewerage	56	61	38	39
District heating, 2002	in % of urban oblast pop. with central heating	55	63	25	62
Unemployment /d, e					
Unemployment rate, 2002	in % of 16+ years old LBF who seek a job	11	20	15	35
Urban unemployment rate, 2002	in % of 16+ years old urban LBF who seek a job	17	21	20	31
Rural unemployment rate, 2002	in % of 16+ years old rural LBF who seek a job	6	20	13	42
Distribution of unemployed, 2002	in % of unemployed persons in Kaz. living in oblast	4	5	8	5
Economic Data /f					
Value-added, 2002	in billion tenge	101	159	161	372
Value-added, 2002	in nominal US\$ million	648	1,019	1,034	2,388
Value-added, 2002	in % of Kazakhstan's value-added	3	5	5	11
Value-added per capita, 2002	in nominal US\$	862	1,526	664	5,309
Agriculture, 2002	in % of total oblast value-added	34	7	28	2
Industry and Construction, 2002	in % of total oblast value-added	25	48	36	64
Services, 2002	in % of total oblast value-added	42	45	36	34
Population, 2002	in thousands, period average	752	668	1,558	450
Distribution of population, 2002	in % of Kazakhstan's pop.	5	4	10	3
Rural population share, 2002	in % of total oblast pop.	54	45	71	42

Sources: HBS 2002, National Statistics Agency, and Ministry of Health

a/ All data are staff calculations based on HBS 2002 unless noted otherwise.

b/ People suffering from at least one dimension of poverty (consumption, housing, or education).

c/ Data from Ministry of Health. Soviet definition used for live births which differs from WHO definition.

d/ Unemployment rates from HBS 2002 but are not the same as Labor Force Statistics

e/ LBF is labor force participant.

f/ Data from NSA's national accounts.

g/ Exp. Is consumption expenditures

Regional Annex (continued)

INDICATORS /a	MEASUREMENT	West-Kaz	Jambyl	Karaganda	Kostanay
Consumption Poverty Levels					
Poverty rate, 2002	in % of total oblast pop. below poverty line	11.7	23.0	16.5	23.0
Urban poverty rate, 2002	in % of urban oblast pop. below poverty line	3.8	21.4	12.7	14.4
Rural poverty rate, 2002	in % of rural oblast pop. below poverty line	16.5	24.3	32.7	32.5
Distribution of poor, 2002	in % of Kazakhstan's poor living in oblast	3.1	10.2	11.1	10.3
Poverty rate, 2001	in % of total oblast pop. below poverty line	16.2	29.0	11.6	20.6
Urban poverty rate, 2001	in % of urban oblast pop. below poverty line	10.4	27.8	10.4	11.0
Rural poverty rate, 2001	in % of rural oblast pop. below poverty line	19.7	29.9	16.7	31.1
Distribution of poor, 2001	in % of Kazakhstan's poor living in oblast	3.6	11.1	6.8	7.9
Non-consumption Poverty					
Housing poverty	in % of oblast pop. living in poor housing conditions	35.1	16.6	13.3	32.0
Education poverty	in % of oblast pop. 15+ years with prim. sch. or less	5.5	13.9	12.4	12.5
Multi-Dimensional Poverty /b					
Total poverty rate, 2002	in % of oblast pop. suffering from some form of poverty	43.0	44.0	34.4	47.1
Inequality (consumption) /g					
Consumption of poor, 2002	in % of total oblast exp. held by bottom 20% of the pop.	9.8	10.0	9.3	7.3
Consumption of the affluent, 2002	in % of total oblast exp. held by top 20% of the pop.	35.1	35.0	36.3	37.5
Consumption of poor, 2001	in % of total oblast exp. held by bottom 20% of the pop.	9.6	9.8	8.9	7.6
Consumption of the affluent, 2002	in % of total oblast exp. held by top 20% of the pop.	34.9	35.1	36.3	37.6
Health /c					
Infant mortality rate, 2002	infant deaths per 1,000 live births	15	19	17	17
Maternal mortality rate, 2002	maternal deaths per 100,000 births	36	42	35	37
Education					
Secondary net enrollment rate, 2002	in % of 15-18 year olds in oblast enrolled in sec. sch.	64	54	60	62
Less than secondary school	in % of 22-85 years old with less than sec. sch.	13	12	11	14
Access to Network Services					
Water, 2002	in % of urban oblast pop. with piped water	79	59	85	70
Sewerage, 2002	in % of urban oblast pop. with sewerage	74	30	76	70
District heating, 2002	in % of urban oblast pop. with central heating	75	29	70	69
Unemployment /d, e					
Unemployment rate, 2002	in % of 16+ years old LBF who seek a job	21	28	20	24
Urban unemployment rate, 2002	in % of 16+ years old urban LBF who seek a job	13	22	22	25
Rural unemployment rate, 2002	in % of 16+ years old rural LBF who seek a job	25	33	9	22
Distribution of unemployed, 2002	in % of unemployed persons in Kaz. living in oblast	5	10	11	9
Economic Data /f					
Value-added, 2002	in billion tenge	167	70	311	165
Value-added, 2002	in nominal US\$ million	1,072	449	2,001	1,064
Value-added, 2002	in % of Kazakhstan's value-added	5	2	9	5
Value-added per capita, 2002	in nominal US\$	1,785	458	1,495	1,147
Agriculture, 2002	in % of total oblast value-added	7	23	5	24
Industry and Construction, 2002	in % of total oblast value-added	49	29	56	33
Services, 2002	in % of total oblast value-added	44	47	39	43
Population, 2002	in thousands, period average	601	979	1,339	927
Distribution of population, 2002	in % of Kazakhstan's pop.	4	7	9	6
Rural population share, 2002	in % of total oblast pop.	57	55	17	46

Sources: HBS 2002, National Statistics Agency, and Ministry of Health

a/ All data are staff calculations based on HBS 2002 unless noted otherwise.

b/ Poor in terms of at least dimension of poverty (consumption, housing, or education).

c/ Data from Ministry of Health. Soviet definition used for live births which differs from WHO definition.

d/ Unemployment rates from HBS 2002 but are not the same as Labor Force Statistics

e/ LBF is labor force participant.

f/ Data from NSA's national accounts.

g/ Exp. is consumption expenditures

Regional Annex (continued)

INDICATORS ^a	MEASUREMENT	Kyzylorda	Mangystau	South-Kaz	Pavlodar
Consumption Poverty Levels					
Poverty rate, 2002	in % of total oblast pop. below poverty line	32.2	23.5	18.0	12.0
Urban poverty rate, 2002	in % of urban oblast pop. below poverty line	20.2	8.8	15.9	5.1
Rural poverty rate, 2002	in % of rural oblast pop. below poverty line	49.2	76.1	18.6	22.1
Distribution of poor, 2002	in % of Kazakhstan's poor living in oblast	8.3	3.8	15.9	4.0
Poverty rate, 2001	in % of total oblast pop. below poverty line	28.1	38.8	28.7	6.3
Urban poverty rate, 2001	in % of urban oblast pop. below poverty line	27.6	22.8	22.1	5.8
Rural poverty rate, 2001	in % of rural oblast pop. below poverty line	28.9	95.5	31.5	7.0
Distribution of poor, 2001	in % of Kazakhstan's poor living in oblast	6.5	5.2	22.1	1.8
Non-consumption Poverty					
Housing poverty	in % of oblast pop. living in poor housing conditions	51.0	9.3	31.9	24.7
Education poverty	in % of oblast pop. 15+ years with prim. sch. or less	7.5	9.0	11.6	12.8
Multi-Dimensional Poverty ^b					
Total poverty rate, 2002	in % of oblast pop. suffering from some form of poverty	67.0	37.3	48.4	39.0
Inequality (consumption) ^g					
Consumption of poor, 2002	in % of total oblast exp. held by bottom 20% of the pop.	10.2	9.4	11.1	9.4
Consumption of the affluent, 2002	in % of total oblast exp. held by top 20% of the pop.	36.0	38.7	32.6	35.4
Consumption of poor, 2001	in % of total oblast exp. held by bottom 20% of the pop.	11.2	8.4	10.0	9.2
Consumption of the affluent, 2002	in % of total oblast exp. held by top 20% of the pop.	34.1	40.5	35.0	35.5
Health ^c					
Infant mortality rate, 2002	infant deaths per 1,000 live births	24	22	18	22
Maternal mortality rate, 2002	maternal deaths per 100,000 births	33	67	63	44
Education					
Secondary net enrollment rate, 2002	in % of 15-18 year olds in oblast enrolled in sec. sch.	83	33	81	52
Less than secondary school	in % of 22-65 years old with less than sec. sch.	5	3	8	12
Access to Network Services					
Water, 2002	in % of urban oblast pop. with piped water	45	71	70	86
Sewerage, 2002	in % of urban oblast pop. with sewerage	22	71	46	86
District heating, 2002	in % of urban oblast pop. with central heating	21	71	39	88
Unemployment ^{d, e}					
Unemployment rate, 2002	in % of 16+ years old LBF who seek a job	32	17	11	26
Urban unemployment rate, 2002	in % of 16+ years old urban LBF who seek a job	23	17	15	26
Rural unemployment rate, 2002	in % of 16+ years old rural LBF who seek a job	47	17	9	28
Distribution of unemployed, 2002	in % of unemployed persons in Kaz. living in oblast	6	2	8	8
Economic Data ^f					
Value-added, 2002	in billion tenge	91	189	212	190
Value-added, 2002	in nominal US\$ million	583	1,214	1,366	1,222
Value-added, 2002	in % of Kazakhstan's value-added	3	6	6	6
Value-added per capita, 2002	in nominal US\$	968	3,641	652	1,622
Agriculture, 2002	in % of total oblast value-added	6	0	18	7
Industry and Construction, 2002	in % of total oblast value-added	60	61	36	48
Services, 2002	in % of total oblast value-added	34	39	46	45
Population, 2002	in thousands, period average	602	333	2,095	753
Distribution of population, 2002	in % of Kazakhstan's pop.	4	2	14	5
Rural population share, 2002	in % of total oblast pop.	40	23	61	36

Sources: HBS 2002, National Statistics Agency, and Ministry of Health

^{a/} All data are staff calculations based on HBS 2002 unless noted otherwise.^{b/} Poor in terms of at least dimension of poverty (consumption, housing, or education).^{c/} Data from Ministry of Health. Soviet definition used for live births which differs from WHO definition.^{d/} Unemployment rates from HBS 2002 but are not the same as Labor Force Statistics^{e/} LBF is labor force participant.^{f/} Data from NSA's national accounts.^{g/} Exp. is consumption expenditures

Regional Annex (continued)

INDICATORS /a	MEASUREMENT	North-Kaz	East-Kaz	Astana (city)	Almaty (city)	National
Consumption Poverty Levels						
Poverty rate, 2002	in % of total oblast pop. below poverty line	9.2	15.2	2.9	1.6	15.4
Urban poverty rate, 2002	in % of urban oblast pop. below poverty line	2.4	10.6	2.9	1.6	10.2
Rural poverty rate, 2002	in % of rural oblast pop. below poverty line	13.5	21.3			21.7
Distribution of poor, 2002	in % of Kazakhstan's poor living in oblast	2.7	9.5	0.4	0.7	100.0
Poverty rate, 2001	in % of total oblast pop. below poverty line	5.4	13.2	1.6	3.2	17.6
Urban poverty rate, 2001	in % of urban oblast pop. below poverty line	4.1	9.6	1.6	3.2	13.0
Rural poverty rate, 2001	in % of rural oblast pop. below poverty line	6.2	18.1			23.2
Distribution of poor, 2001	in % of Kazakhstan's poor living in oblast	1.4	7.4	0.2	1.2	100.0
Non-consumption Poverty						
Housing poverty	in % of oblast pop. living in poor housing conditions	41.4	21.6	18.3	6.7	28.0
Education poverty	in % of oblast pop. 15+ years with prim. sch. or less	13.0	14.9	4.3	4.8	11.1
Multi-Dimensional Poverty /b						
Total poverty rate, 2002	in % of oblast pop. suffering from some form of poverty	49.1	40.4	23.7	12.2	42.8
Inequality (consumption) /g						
Consumption of poor, 2002	in % of total oblast exp. held by bottom 20% of the pop.	9.8	8.0	9.2	10.4	8.9
Consumption of the affluent, 2002	in % of total oblast exp. held by top 20% of the pop.	33.5	37.2	37.7	34.7	37.0
Consumption of poor, 2001	in % of total oblast exp. held by bottom 20% of the pop.	9.9	8.4	10.0	9.6	8.5
Consumption of the affluent, 2002	in % of total oblast exp. held by top 20% of the pop.	34.0	36.9	36.8	35.9	37.8
Health /c						
Infant mortality rate, 2002	infant deaths per 1,000 live births	15	19	17	16	17
Maternal mortality rate, 2002	maternal deaths per 100,000 births	53	65	18	65	51
Education						
Secondary net enrollment rate, 2002	in % of 15-18 year olds in oblast enrolled in sec. sch.	45	48	41	60	59
Less than secondary school	in % of 22-65 years old with less than sec. sch.	17	14	8	5	12
Access to Network Services						
Water, 2002	in % of urban oblast pop. with piped water	69	73	81	98	75
Sewerage, 2002	in % of urban oblast pop. with sewerage	68	57	77	78	62
District heating, 2002	in % of urban oblast pop. with central heating	69	58	75	74	60
Unemployment /d, e						
Unemployment rate, 2002	in % of 16+ years old LBF who seek a job	20	15	3	15	19
Urban unemployment rate, 2002	in % of 16+ years old urban LBF who seek a job	21	16	3	15	19
Rural unemployment rate, 2002	in % of 16+ years old rural LBF who seek a job	20	14			18
Distribution of unemployed, 2002	in % of unemployed persons in Kaz. living in oblast	6	8	0	6	100
Economic Data /f						
Value-added, 2002	in billion tenge	92	256	211	608	3,355
Value-added, 2002	in nominal US\$ million	593	1,645	1,355	3,910	21,563
Value-added, 2002	in % of Kazakhstan's value-added	3	8	6	18	100
Value-added per capita, 2002	in nominal US\$	864	1,116	2,724	3,433	1,452
Agriculture, 2002	in % of total oblast value-added	39	12	0	0	9
Industry and Construction, 2002	in % of total oblast value-added	18	44	25	17	40
Services, 2002	in % of total oblast value-added	44	44	74	83	51
Population, 2002	in thousands, period average	687	1,474	498	1,139	14,854
Distribution of population, 2002	in % of Kazakhstan's pop.	5	10	3	8	100
Rural population share, 2002	in % of total oblast pop.	63	41			43

Sources: HBS 2002, National Statistics Agency, and Ministry of Health

a/ All data are staff calculations based on HBS 2002 unless noted otherwise.

b/ Poor in terms of at least dimension of poverty (consumption, housing, or education).

c/ Data from Ministry of Health. Soviet definition used for live births which differs from WHO definition.

d/ Unemployment rates from HBS 2002 but are not the same as Labor Force Statistics

e/ LBF is labor force participant.

f/ Data from NSA's national accounts.

g/ Exp. is consumption expenditures

POVERTY ESTIMATES USING INTERNATIONAL POVERTY LINES

	Using 1996 PPP Conv. Factor /a	
	2001	2002
a. Official Exchange Rate (period avg. tenge/US\$)	147	153
b. PPP Conversion Factor (tenge/US\$) /b	33	36
c. Poverty Lines (tenge per capita):		
	(in tenge per day)	
- Lowest poverty line of \$1.08 PPP per day	36	38
- Middle poverty line of \$2.15 PPP per day	72	77
- Upper poverty line of \$4.30 PPP per day	144	153
	(in tenge per year)	
- Lowest poverty line of \$1.08 PPP per day (equal to \$392 PPP)	13,104	13,968
- Middle poverty line of \$2.15 PPP per day (equal to \$785 PPP)	26,207	27,937
- Upper poverty line of \$4.30 PPP per day (equal to \$1,570 PPP)	52,451	55,912
d. Headcount poverty using (% of population)		
- \$1.08 PPP	0.18	0.19
- \$2.15 PPP	4.9	3.6
- \$4.30 PPP	37.1	35.5

Source: 1996 PPP conversion factor (19.89 tenge/US\$) is from WDI (2002) or Beegle (2003).

The 2001 and 2002 official exchange rates are from SIMA.

Poverty headcounts are computed using the 2001 and 2002 HBS.

a/ The most recent PPP conversion factors are for 1996.

b/ The national poverty line for 2002 is 40,386 tenge/capita/year or US\$ 1,134.46 PPP.

