KYRGYZ POVERTY MONITORING SURVEYS (KPMS)

Fall 1996 - Fall 1998

Basic Information Document

Development Research Group
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ACRONYMS used in the documentation:

BTI	Bureau of Technical Inventory
JSK	Residential Construction Office
KLSS	Kyrgyz Living Standards Survey
KMPS	Kyrgyz Multipurpose Poverty Study
KPMS	Kyrgyz Poverty Monitoring Survey
LSMS	Living Standards Measurement Study
MA	Ministry of Agriculture
ME	Ministry of Education
MH	Ministry of Health
MLSP	Ministry of Labor and Social Protection
NATSTATCOM	National Statistical Committee
PCU	Project Coordination Unit
PMC	Poverty Monitoring Component
PSU	Primary Sampling Unit
RTI	Research Triangle Institute
SELSOVETS	Ayl Kanesh - Rural council
SSN	Social Safety Net
MEc	Ministry of Economy
MF	Ministry of Finance

This document is part of an expanded program of documentation and further development of the Living Standards Measurement Study (LSMS), managed by Kinnon Scott in the Poverty and Human Resources Division of the Development Research group (DECRG). It was prepared by Tilahun Temesgen (DECRG). Shamsia Ibragimova (NATSTATCOM) and Diane Steele (DECRG) provided important inputs.

CONTENTS

1. OVERVIEW

To date, Living Standards Measurement Study (LSMS) household surveys have been conducted in about forty developing countries. The main purpose of these surveys is to collect individual, household and community level data in order to measure the levels of living standards across the population, and to evaluate the effects of government policies on the living standards in these countries.

As of now, five rounds of such household surveys have been carried out in the Kyrgyz Republic. The first of these surveys, called the Kyrgyz Multipurpose Poverty Study (KMPS) was conducted in October and November 1993 with a sample of about 2,000 households and 10,000 members of those households. The 1993 KMPS survey was designed to be a nationally representative survey of living standards in the Kyrgyz Republic during the second half of 1993.[1]

After the 1993 KMPS, a Social Safety Net (SSN) project was launched in the Kyrgyz Republic. This SSN project had a Poverty Monitoring Component (PMC) which includes conducting an annual Kyrgyz Poverty Monitoring Survey (KPMS) for four years, 1996-1999. The task of conducting these surveys and overall coordination of project activities was given to the National Statistical Committee (NATSTATCOM) of the Kyrgyz Republic with technical assistance from Research Triangle Institute (RTI) based in the United States.

The first KPMS data collection was completed during the months of February and March (Spring) 1996 using the same survey questionnaires as the 1993 survey.[2] After that NATSTATCOM decided that survey data would be collected during the Fall season and as a result the remaining KPMS were carried out during the months of October and November (Fall) of 1996, 1997 and 1998. This document covers the Fall 1996 to 1998 surveys.

The questionnaires used in KPMS were more or less similar.[3] The Fall 1996 (second) KPMS added an Employment Module on the household questionnaire used earlier (Spring 1996). The 1997 (third) KPMS added questions on Family Planning ito the Female Health Module. The

[1] Information on the 1993 Kyrgyzstan Multi-purpose Poverty survey and other LSMS surveys can be found on the LSMS website: www.worldbank.org/lsms/lsmshome.html

[2] The LSMS Office has only the questionnaires from the Spring 1996 KPMS. No other information is available at this time.

[3] These questionnaires are significantly different from the 1993 and Sprint 1996 questionnaires.

1998 (Fourth) KPMS used a similar questionnaire to that of the 1997, but with an extended agricultural module.

The KPMS surveys are the only national household surveys in Kyrgyz Republic collected using Probability Sampling.[4] The main purpose of these surveys is to provide data for the study of multiple aspects of household welfare and behavior, analysis of poverty, and understanding the effect of government policies on households. The Fall 1996 KPMS had a small sample size (around 1,951 Households) and the sample design allows disaggregation of the findings only to the Urban and Rural levels. The design of the subsequent rounds, however, allows disaggregation down to the oblast level, and sample sizes are also larger -- about 2,700 households.

An important component of the PMC process was the inclusion of a 'User's Group' to work in an advisory capacity to the NATSTATCOM team. This User's Group includes representatives from the President's Office, Ministry of Labor and Social Protection (MLSP), Ministry of Health (MH), Ministry of Education (ME), Ministry of Agriculture (MA), Ministry of the Economy (MEc), and Ministry of Finance (MF). The group's primary role was to assist in the design of the annual survey instruments and to become familiar with each year's survey data with an objective of utilizing it for their ministry's work. Another major objective of the PMC was building capacity through training staff of the NATSTATCOM and enabling them to design and implement future national surveys; and also to reform and restructure the NATSTATCOM's survey system and methodology of data collection in order to properly measure changes as the economy moves from a command to a market system.

This document is organized as follows: Section two discusses the two types of questionnaires used for data collection in the KPMS -- the Household and Population Point Questionnaires. Section three discusses details of the sampling procedures. Section four discusses field work including survey preparations and training. Section five discusses the constructed consumption and income aggregate files. Section six describes data files and variables, data quality and linking of data files. Appendices A, B, C, D and E respectively describe procedures for KPMS data access, definition of Oblast codes, a glossary of terms used in this report, identification of Oblast and Rayons from the Household ID variables, and

[4] The Household Budget Survey, the standard income and expenditure survey of the republics of the Former Soviet Union, uses quota sampling and, thus, can not be extrapolated to the national population.

documents available with KPMS Fall 1996 to 1998 data files. Studies and reports on KPMS data sets are listed in Appendix F.

2. SURVEY QUESTIONNAIRES

The KPMS surveys were carried out using a household questionnaire and a community (population point) questionnaire. The household questionnaires were used to collect demographic information on the composition of the household, housing, household consumption including home production, as well as economic activities in agricultural and non-agricultural sectors. For each household member, individual level data on health, education, migration and labor was collected using the household questionnaires. Community questionnaires were used to collect price data and the presence of social services and infrastructure in the community (population point) where the sampled household is located.

The household questionnaire was extensive and required several hours of intense interviewing to gather all that was needed from each household and its embers. The household questionnaire was split into two parts. The first part was used to collect data through a face to face interview on household roster, dwelling, education, health, migration, etc. At the end of the first part, members who shop for food for the whole household and those who know most about income, expenditure and savings of other household members were identified and designated as respondents for the next part (second round). The second round of interview was administered two weeks after the first half and collected data on crops, food and animal products produced by the household, food expenditure and home produced food consumption.

Some sections of the household questionnaire such as those that deal with dwelling and expenditure information were administered to the person most knowledgeable of the family's overall expenditures, income and other finances as well as about the family's business activities and employment. In other sections, each adult[5] in each sample household was interviewed individually. The information gathered from each household included extensive data on education, health, employment, migration, reproduction and reproductive health (for women aged 15 to 49), land use, expenditure, revenue and other financial matters, as well as anthropometric

measurements (for children 5 years and younger). Information about children under 14 years of age was collected by asking the relevant questions to the adult household member who is primarily responsible for each child's care.

The community (Population Point) questionnaires were administered to each sample cluster. They were used to collect data on prices of goods and services, distance to schools, shopping and medical facilities, types of housing, commercial and private land use and availability of infrastructure.

2.1. Household Questionnaire

The KPMS household questionnaires generally contain 15 major sections, and each of these sections covers a separate aspect of household activity. In some cases, the section has sub-sections. These household questionnaires were designed to better assess the changing environment brought about by the advent of a market economy and to enable a more in depth analysis of topics such as housing, health, and education. The various sections of the KPMS household questionnaire are described below. As mentioned earlier, the household questionnaires administered in the KPMS surveys are more or less similar with minor modifications and additions in the successive rounds of the KPMS. Whenever there is such a modification (change), the section name is followed by an asterisk (*) and the changes are discussed in the table.

HOUSEHOLD QUESTIONNAIRE
I . HOUSEHOLD ROSTER: This section collects basic demographic data such as name, age, sex, relation to the household head, legal ethnicity, marital status of each member, and education level and other information of parents of each member as well as information on children not currently living in the household.

[5] Adults, for purposes of the survey, are defined as individuals aged 14 and older.

II. DWELLING:

This section collects information on the type of dwelling the household lives in, number of rooms, ownership, construction, and access to services such as electricity and water, toilets, etc. It also collects information on dwelling expenditures such as payments for electricity, telephone, trash collection, heating and water supply. This part of the questionnaire is to be answered by the head of the household or a well informed principal respondent.

III. EDUCATION:

This section collects daycare (pre-school child care) information for children 6 years old and younger and education information on all members 7 years or older. Questions include educational attainment and expenditures including the number of years of study, highest diploma or certificate obtained as well as subject area of specialization. In this section, parents provide the information for pre-school children and those 7 to 13 years old. Children 14 years and older answer the questions by themselves. The section also collects information on training courses for household members who are 14 years and older.

IV. HEALTH: (*)

This section collects information on chronic illness and disability, recent illness or injury for each household member. It also includes information on the health status of each member of the household, and smoking and drinking habits of the household members. Parents respond on behalf of children 13 years of age and under. Part 'C' of this section in 1996 KPMS asks questions on dental and eye related problems, whether the person wears glasses or a hearing aid, etc. For the 1997 and 1998 KPMS, this part is replaced by questions on hospitalization.

V. EMPLOYMENT AND INCOMES: (*)

This section collects information on whether any adult member of the household has been out of work and searching for employment, his/her former place of work, sector and position of employment. For members who are still working, the information collected includes the sector of employment, number of days worked, salary, subsidies received, place of work, distance, union availability, etc. It also includes information on whether any member is involved in a secondary job or activity, and if so, similar information for that secondary job or activity as for the primary job. Other information collected in this section includes old age pension, disability pension, etc. In the 1996 KPMS, this section of the questionnaire included a sub section on privatization which collects information such as whether the household received privatization coupons and, if received, the value of such coupons, what was done with the coupons as well as the main way that privatization changed the life of the household. This sub-section was not included in the 1997 and 1998 KPMS questionnaires.

VI. MIGRATION:

This section collects information about nationality, place of birth, whether the place of birth is a capital, oblast or rayon center or a rural village, reason for coming to the present place of residence, whether the member is registered to live and work in the current place of residence, whether he/she has ever been any where else for more than 3 months.

VII. RESPONDENTS FOR ROUND TWO:

This section collects information that identifies the principal respondent/s who will be interviewed when the interviewer revisits the household two weeks from the date of the first interview. The information collected includes whether any member of the household worked as an independent farmer or on the household's leased land raising crops or animals such as poultry, cattle, sheep, pigs, etc. The different trades, businesses, services, or professions owned or operated by members of the household; who in the household knows most about other expenses, income and savings of household members.

VIII. FAMILY PLANNING AND FEMALE HEALTH:

This section collects information from up to three female household members who are between 15-49 years of age. The information was collected using a form which women either fill out on their own (or with a help from somebody if the person cannot read or write). The information collected is about women's health issues such as having children and family planning including whether she has ever been pregnant, number of live births she has had, number of children who died and date of each death, whether each child has been inoculated against disease, assistance from nurse, doctor or midwife at birth, place of child's birth and child's weight at birth, abortion, miscarriage, as well as the various methods of birth spacing. The 1997 and 1998 KPMS questionnaires have added additional questions in this section such as age when the woman had her first period, number of children her parents had and her opinion about family planning.

IX. AGRO-PASTORAL ACTIVITIES: (*)

This section collects information about type of land the household works on, number of hectares of each type, selling and leasing value of the land, main source of irrigation for each type, etc. Types of crops grown during the past 12 months (if any), amount kept as seed, amount sold, lost due to insects/ rodents/fire/spoilage, consumed by household, amount put in storage, etc.; investment on young plants, amount and cost of mineral fertilizers used, spending on various kinds of paid labor such as clearing land, plowing, renting farm animals, irrigation charges, fuels, land taxes, livestock taxes etc. The section also collected information on food products from crops grown by the household, livestock, poultry, bees or other animals, household made products obtained from animals raised by the household, veterinary services, livestock expenditures such as feed, hired labor for herding, packaging of animal/poultry products, hand instruments and other farming equipment. The 1996 KPMS questionnaire also collects some information on agricultural credit (which is not included in the 1997 and 1998 KPMS questionnaires). The 1998 extended agricultural module included additional questions such as whether the land used by the household is private property or rented, amount of rented land in hectares, if any, and the size of land used for purposes of vegetable allotment, orchards and vineyards, herding, buildings, etc.

X. NON-FARM SELF EMPLOYMENT:

This section collects information on the trades, business, production, professional services and other self-employed activities of the members of the household including working conditions, assets owned by each business, types of expenditures made by each business during the past 12 months as well as revenues generated by each business.

XI. FOOD EXPENDITURE AND HOME FOOD CONSUMPTION:

This section collected detailed information on the type, amount and value of food items purchased for consumption in the house during the past 12 months; place where these items are bought, amount the household spent on each item of consumption since the last visit to the household by the interviewer (i.e. last two weeks). It also collects information about meals or snacks purchased and eaten outside of the home or drinks outside of home by member/s of the household since the last visit to the household by the interviewer.

XII. EXPENDITURES AND DURABLE GOODS:

This section collects data on the various details of two-week and annual expenditures from the most informed respondent/s of the household. It includes the various expenditures by items made by each individual member of the household and the sum of such itemized expenditures at a household level independently for the past two weeks as well as the past 12 months. Also included are information on losses such as non-disbursement from banks, theft, bad investment and loans not being repaid; ownership of durable goods such as gas or electric stove, refrigerator, automatic washing machine, car, radio, camera, motorcycle, personal computer and television. Possession of real estate assets other than the current dwelling, type and value of the assets as well as expenditures for remittances are also included in this section.

XIII. INCOME RECEIVED FROM RELATIVES AND OTHER SOURCES:

This section collects information on whether any member of the household received money or goods from persons who are not members of the household such as assistance sent by relatives working elsewhere or by children of household members as well as income from inheritance, payments from insurance, dowry, dividends, alimony income, lottery winnings, aid from NGOs, dividends and interest earned.

XIV. LOANS AND SAVINGS:

This section collects information on any loans made by members of the household to other people such as friends, neighbors, relatives, etc. as well as loans on which members of the household made payments, values of loans and borrowings, types of bank accounts owned by any member of the household as well as household savings.

XV. ANTHROPOMETRICS:

This section collects information for all children in the household aged 5 and under on the household card. The information includes height, waist, size of upper arm and hips (in centimeters) and weight (in kilos)

2.2. Population Point Questionnaire

The community (population point) questionnaire was used to collect information and data that are relevant to the community/population point where the household is located. The questionnaire was designed to be administered in the geographical area of each sample cluster. It was used to collect data regarding prices of goods and services in the local area and data on community infrastructure. Respondents to these questionnaires are those believed to be well informed members of the community that the interviewers identified by going to the rayon, city, oblast administration or other governmental agency located in the population point[6]. The questionnaire also contains sections to be administered to retail outlets in the neighborhoods that sell various products such as food, drinks, tobacco products and fuel. Other data collected using the population point questionnaire includes distance to schools, distance to shopping and to medical facilities, commercial and private land use in the community, availability of electricity, water, communication and other infrastructure. Similar population point questionnaires were used in all KPMS. The population point questionnaires were completed by the field supervisors.

The population point questionnaire contains nine (9) major sections as described below.

POPULATION POINT QUESTIONNAIRE
I. DEMOGRAPHIC INFORMATION: This section collects information such as the number of population, the approximate area of the population point (cluster) as well as the major ethnic groups in the cluster.
II. INFRASTRUCTURE OF POPULATION POINT: This section collects information on housing, whether the population point is a capital, oblast center, rayon or town, availability of facilities such as hot water supply and centralized garbage collection system, etc. It also includes information on transport and communication such as types and quality of roads, circulation of newspapers, distance to the capital - Bishkek, etc.

[6] Oblasts are administrative divisions of the country which in turn are sub divided in to Rayons.

III. ECONOMY: This section collects information about the major economic activities in the population point and the most serious economic problem of the people in the region, percentage of the population engaged in individual economic activities, etc.
IV. REFUGEES AND DISPLACED PERSONS: This section collects information on refugees and displaced persons that reside in the population point, where they live, whether they are provided with financial assistance, food, free medical service and the like in the population, and the most serious problem they face.
V. EDUCATION: This section collects information on the portion of the school-age children in the population point that attend school, the most serious school problem, and the general quality of teaching at schools in each region, etc.
VI. HEALTH: This section collects information about the quality of health services, where most people in the population go for medical assistance, portion of children age 5 and under that have been vaccinated, and availability of most frequently used medications (such as antibiotics) at drug stores in the population point.
VII. AGRICULTURE: This section collects information about the people that are engaged in agricultural activities, the major agricultural activity in the population point, portion of agricultural products grown on irrigated land, average salary of a person engaged in different activities in the sector, etc.
VIII. INSTITUTIONS: This section collects information on the availability of various types of institutions in the population point such as post office, police, fire brigade, etc. as well as distance and time it takes from the center of the population point to the nearest of these institutions.
IX. PRICES: This section collects item by item information and prices for each of the various products available in the population point if they are bought from shops, kiosks, and market.

3. SAMPLE DESIGN:[7]

In order to expedite the survey process, NATSTATCOM used much of the same sample design and survey instruments as those used for the 1993 Baseline Survey.[8] However, the Fall 1996-1998 KPMS surveys used a new sampling frame based on the Kyrgyz Household Registration System. This system was taken from the Census Posts intended for use by the first National Census of the Kyrgyz Republic. Using this system, NATSTATCOM updated the central household registration files effective January 1, 1996, and the information that was used for the sampling frame was as up to date as possible. The procedures followed in the stratification and identification of Primary Sampling Units (PSUs) were similar for all rounds of the KPMS as discussed below.

3.1. Formation of Strata

Initially the country was divided into seven (7) strata defined by oblasts[9] and by residence location (i.e. urban vs. rural) within oblasts. The rural portion of Bishkek oblast was combined with the rural portion of neighboring Chui oblast for stratification purposes as Bishkek has practically no rural population.

The sample allocations to urban and rural components within oblasts for the 1996 and 1998 KPMS (as obtained from a NATSTATCOM report) are shown in Tables 1a and 1b below.[10]

[7] The sampling information in this document was collected and put together from the survey final reports prepared by NATSTATCOM. In some places, the information may not be complete. For further information and clarifications, readers should contact NATSTATCOM using the address given in Appendix A.

[8] The 1993 survey was conducted with the assistance from Russian technical staff. The sample design information for the 1993 KMPS survey can be found from the Basic Information Document prepared for that survey.

[9] Oblasts are administrative divisions of the country which in turn are sub-divided in to Rayons.

[10] At the moment, we do not have the sample allocations table for the 1997 KPMS. We do not also have information about the sampling as well as selection of PSUs and households for 1997. However, we believe that the procedures are similar to that of 1998.

Table 1a. Sample Allocation to Strata for KPMS 1996

Oblast	Urban		Rural	
	HH counts as of Jan. 1996 (000s)	PSUs	HH counts as of Jan. 1996 (000s)	PSUs
Osh	93.25	28	218.66	20
Dzalal-Abad	58.13	18	120.60	11
Talas	8.60	4	41.84	4
Chui	61.25	19	157.68	14
Bishkek	176.58	55	0.00	0
Issyk-Kul	31.92	10	72.30	7
Naryn	11.83	4	45.17	4
Total	441.56	138	656.25	60

Table 1b. Sample Allocation to Strata for KPMS 1998

Oblasts	Urban		Rural	
	HH counts as of April 1998 (000s)	Sample SU's	HH counts as of April 1998 (000s)	Sample SU's
Osh	45.8	33	223.63	7
Dzalal-Abad	57.45	20	126.39	9
Talas	7.2	10	42.82	20
Chui	66.09	22	158.03	9
Bishkek	200.15	64	0.00	0
Issyk-Kul	33.91	17	75.62	12
Naryn	10.71	12	47.52	20
Total	421.31	178	674.01	77

3.2. Selection of PSUs and Households

1996: As shown in Table 1a above, a total of 198 PSUs were identified for the whole of the Kyrgyz Republic of which 138 were in urban and 60 were in rural areas. The total number of households in the Kyrgyz Republic, as of January 1996, was about 1.1 million of which about 442,000 were classified as urban. It was initially targeted to select clusters of 6 responding households from each urban PSU and 20 responding households from each rural PSU (which would give us a total of 138*6 + 60*20=2,028 sample households). Table 2a below shows the

steps in the preliminary calculations used to derive the required number of sampling units (households) within urban and rural areas and to obtain an overall sampling rate close to the target. It was also initially assumed that a 90 percent response rate would be attainable (though given the higher response rates obtained in the prior surveys, it could even be higher). The overall adjusted sampling rate was set at 1/500. It was then concluded that this overall sampling rate, combined with the projected response rate of somewhat above 0.90 would yield a sample size of close to 2,000 respondent households.

Table 2a. Sample Allocation to Urban and Rural Residence: KPMS 1996 Survey

Item	Urban	Rural	Total **(Y)**
Number of households **(X1)**	441,560	656,245	1,097,805
Allocation of respondent Sample households **X2=(X1/Y)*2000**	804	1,196	2,000
Adjustment for nonresponse **X3=X2*1.111**	894	1,328	2,222
Trial allocation: **X4=X2/ cluster size** Urban clusters of 6 & Rural clusters of 20 households	134.1	59.8	—
Final allocation **(X5=number of clusters)**	138	60	198
Projected average cluster size of Respondent households **X6=X2/X5**	5.8	19.9	—
Adjusted cluster size **X7=X3/x5**	6.5	22.1	—
Target Sampling Rates (after adjustment for non-response) **X8=X3/X1**	0.002024	0.002024	—
Adjusted sampling rate (1/500)	0.002000	0.002000	0.002000

1998: For the 1998 KPMS, a total of 255 PSUs (of which 178 were urban and 77 rural) were identified. The estimated total population was around 1.1 million of which about 421,000 was classified as urban. A minimum of 384 households per oblast was targeted in order to get a

representative data at the oblast level[11]. This translated in to a targeted sample size of 2,688 households for the whole of the Kyrgyz Republic (i.e. 384*7 oblasts=2,688). As shown in the following table, these households were divided into urban (887 households) and rural (1,801 households). The overall projected response rate for the 1998 KPMS was also set at somewhat above 0.90. With an overall sampling rate of 1/336, this resulted in to a sample close to a target size of 3,000 households for the whole survey.

Table 2b. Sample Allocation to Urban and Rural Residence: KPMS 1998 Survey

Item	Urban	Rural	Total
April 1, 1998 households	421,000	674,000	1,095,010
Allocation of respondent sample *	887	1,801	2,688
Adjustment for non response	986	2,001	2,987
Final allocation	178	77	255
Projected average cluster size Respondents	5.6	23.5	—
Total	6.8	28.8	—
Target sampling rates	0.002741	0.002741	—
Adjusted sampling rate (1/336)	0.002630	0.003251	0.002973

* Unlike Table 2a of the 1996 KPMS, no information is available about how the figures in the allocation between rural and urban areas are derived. The table was taken from NATSTATCOM final report.

Once the strata and PSUs were formed and identified as discussed above, selection of sample PSUs and households was then carried out in the following order:

1) Selection of large and small towns[12]

2) Selection of Census Posts in urban areas

[11] According to a survey final report prepared by NATSTATCOM, the number 384 was arrived at using the formula $N=[t^2p(1-p)]/(\varepsilon^2)$ where t=the critical value, p(1-p)=0.25, and ε=expected sampling error. For a 95% level of confidence and a corresponding t-value of 1.96, this results in to $N=[(1.96^2)*0.25]/(0.05^2)=384$.

[12] For the 1998 KPMS, large towns were defined as those with a population size of 41,125 or larger. Small towns are those with population less than 41,125. This number, according to a NATSTATCOM document was calculated as follows: n=4.7*350*25. This calculation was based on an estimated household size of 4.7, an estimated interval rate of 350 and an average work load per interviewer of 25 households. No further information is available regarding the bases of such an assumption. At the moment, we do not have information about the cut off number that separates large towns from small ones for the other two KPMS.

3) Selection of Ayil Kenshes (village authorities) and population points in rural areas, and
4) Selection of households from selected Census Posts and Ayil Kenshes.

In the rural stratum of each oblast, villages were used as the listing units and within these listing units, equal probability sampling methods were used to select the ultimate sampling units (households).

In urban areas, the centralized computer listings from various sources of household registration were used for the selection of households. These lists are categorized into four:

Type 1 - Private house resident households listed by BTIs

Type 2 - Public house residents listed with other organizations with dormitories only

Type 3 - Public and private households listed by JSKs

Type 4 - Public and private households listed by all other organizations.

In some cases, private households were included in the last three public categories (Types 2, 3 and 4). However, only public households were selected from these types since it was believed that any private households listed in these category types were also included in the Type 1 category. The counts for Type 2, 3, and 4 lists were then adjusted based on the oblast estimates of all urban households.[13] Prior to actual household sample selection, lists from types 2 to 4 were updated and adjusted to remove private households, so that any potential double eligibility was eliminated. Urban strata were then formed within each oblast based on type of household listing. In most cases, types had to be combined to form strata of a reasonable size. Table 3 below shows the allocation to the urban strata within each oblast for KPMS 1996. We do not have similar tables for the 1997 and 1998 KPMS, but we believe that similar procedures were followed in the sample allocations of urban strata. Within the limits of rounding and requiring at least one sampling unit per stratum, the allocation of sampling units to urban strata was proportional to the number of households projected for that stratum after allowing for removal of duplicates (private households appearing on a BTI and other lists).

[13] The counts can be viewed as approximate size measures for sample allocation and sample selection purposes. The adjusted counts reflect an estimate of the number of public households. This is an appropriate size measure because only "public" households were selected from type 2, 3, and 4 lists.

As for rural households, selection of urban households was done using systematic random sampling within each stratum except that more subdividing of urban lists was required before selecting the final list sample that defines each sampling unit.

Table 3. Urban Stratum Definitions and Sample Allocations - KPMS 1996

Oblast	Stratum no.	List types	Sampling units assigned
Osh	1	1	20
	2	2	2
	3	3,4	6
Dzhalal-Abad	1	1	11
	2	2	2
	3	3,4	5
Chui	1	1	17
	2	2	1
	3	3,4	1
Talas	1	1	3
	2	2,3,4	1
Bishkek	1	1	44
	2	2	6
	3	3,4	5
Issyk-Kul	1	1	8
	2	2,3,4	2
Naryn	1	1	3
	2	2,3,4	1
Total	—	—	138

Even though the list sources were identified and sampled using data as of January 1, 1996 (and using projections of unduplicated counts in some cases), the final listings were updated in the field just prior to the survey period. Therefore, the sample households in selected areas were drawn from the most current available listings.

4. ORGANIZATION OF THE SURVEY

4.1. Survey management and Preparations

Conducting the Kyrgyz Poverty Monitoring Surveys (KPMS) and the overall coordination of project related activities were mandates of the NATSTATCOM. Research Triangle Institute (RTI) of the United States was contracted to provide technical assistance to NATSTATCOM in relation to most of the KPMS activities.

Once the final schedule for the KPMS surveys had been established by NATSTATCOM, a number of early survey preparations were done. These included the finalization of the statistical sampling design, the creation of survey training manuals, finalization of survey field forms and instruments, and the planning for and selection of appropriate staff to assist with the surveys, both from within the Central NATSTATCOM and from the oblast (regional) statistical offices.

Representatives of various ministries who made up the users' group were provided with draft copies of both the Household and Population Point Questionnaires in each round of the KPMS. The group members provided insights to the various modules of the questionnaires based on their sectoral knowledge.

Training manuals and field forms were created for the proper administration of the KPMS surveys. Final translations of the survey instruments into Russian and Kyrgyz were completed and the instruments printed. Field Supervisor and Field Interviewer Manuals were also prepared. Two copies of the final sample cluster household listings were given to each oblast office so that the oblast coordinators and field supervisors would have their own copies.

To properly staff the survey field operations within each oblast, the number of clusters expected from each oblast and the number of households expected from each cluster were calculated and this information was also given to the oblast coordinators. With assistance from the survey team, the oblast coordinators identified the proper locations of clusters within their oblasts for field supervisors and field interviewers. Supervisors and interviewers were assigned on a full-time basis for the whole period of data collection. Generally these supervisors and interviewers were NATSTATCOM oblast employees and this was a key to the success of the survey operations. By having supervisors and interviewers who already reported to the oblast

coordinator (or NATSTATCOM Chairman) in their regular jobs, the chain of command was already established, well understood and adhered to.

Other preparations for the survey included the identification and procurement of appropriate anthropometric equipments. These included scales (for weighing sample household family members) and measuring tapes (for measuring the upper arms, waist and hips of the members). Although the anthropometric procedures were simple, care was taken in the preparation of proper instructions that clearly define these procedures.

A Data Entry Operator's Manual was also prepared. This manual provided full instructions for entering the data, quality control measures to be taken and preparation of the final data files to be taken to the NATSTATCOM central office.

4.2. Training of survey staff

Training was given to field staff at several levels sequentially in the following order: central office staff, oblast coordinators (the NATSTATCOM chairman in each oblast), field supervisors, and field interviewers. The appropriate training materials were also developed. The training schedules for KPMS 1996 and 1998 were as follows[14]:

1) Central NATSTATCOM staff training (in Bishkek) -- This training took place between October 26 and November 1, 1996 for KPMS 1996 and between September 10 to 15, 1998 for the 1998 KPMS.

2) Oblast Coordinators and Field Supervisors from all oblasts (in Bishkek) -- This took place between November 4 and 10, 1996 for KPMS 1996 and between September 19 to 24, 1998 for the 1998 KPMS.

3) Field Interviewers in each oblast (at the oblast offices) -- This took place between November 11 and 18, 1996 for KPMS 1996 and between September 27 to 31, 1998 for KPMS 1998.

[14] We do not have information about the exact dates of trainings for KPMS 1997. However, the sequence and types of the trainings should be similar with the other two surveys.

The NATSTATCOM oblast coordinators (chairmen) and the field supervisors attended training both in Bishkek and in their respective oblasts. The initial training in Bishkek focused on proper survey administration, quality control and financial management.

Care was taken in training to review the procedures for locating and identifying sample households within the sample clusters selected. This training was reinforced by careful review and further explanation of the actual sample listings provided, for each cluster, to both the field supervisors and field interviewers. The importance of correct ID numbering and field quality control procedures by both interviewers and supervisors was stressed throughout the training.

On the last day of each training session, extensive consultation was done to ensure a clear understanding of the materials, and what is expected from each trainee and the procedures to be followed in conducting the interview. Survey supplies and anthropometric equipment were then distributed.

After the completion of the training for field supervisors and field interviewers, training was given to data entry staff at the NATSTATCOM central offices followed by training of the data entry staff in each oblast [15]. The data entry personnel at the central office were trained first. This was followed by training at the oblast level via visits to each oblast. Data entry training in oblasts were conducted following a few weeks of survey data collection. Thus these data entry people were able to use actual data from a backlog of completed questionnaires for their "hands-on" training.

The key data entry people were first trained about the overall data entry procedures for two days. They then started to enter the actual survey data while, at the same time, their work was closely supervised as a quality control measure for about two more days. Key entry personnel who had problems were retrained and brought up to a proper quality level or replaced. Oblasts with too few key entry personnel were provided assistance from the central NATSTATCOM key entry staff. Upon completion of the data entry at each oblast, diskettes containing all data were sent to the central office (NATSTATCOM) for compilation, final editing and cleaning. All population point questionnaires were keyed by the central office data entry staff.

[15] The software used for the data entry was BLAISE III, a product of the Department of Statistics for the Netherlands.

4.3. Quality Control

Quality control procedures set forth and utilized by the interviewers included: careful use of sample household location procedures, detailed household member identification and selection for interview procedures, instructions on how to organize household survey materials, instructions on how to appropriately fill the questionnaires, instructions on correction of mistakes, if any, prior to data entry, and documentation of the "incentive payments to the family"[16]. Quality control procedures set forth for the field supervisors included: review of all cluster materials prior to assigning them to each interviewer, strict control over the activities of a small group of interviewers (3 to 5 interviewers per field supervisor), weekly updates and meetings with each interviewer, verification of 20% of the work of each interviewer via field visits to selected households, and final accounting for and review of all data from each interviewer prior to data entry.

Extensive field survey records were maintained about interviewer assignments, interview questionnaires distributed and utilized, money provided for transportation expenses and incentive payments to participating families. These records were discussed with each oblast coordinator and his/her field supervisors on a weekly basis by telephone or via personal visits to each oblast by a central office staff member.

4.4. Final data collected

The final data collected for the Fall 1996 KPMS are as follows[17]:

[16] Interviewed families were given a payment for their participation in the survey, but we do not have any information on what that payment was.

[17] Currently, we do not have such details for the 1997 and 1998 KPMS.

Total Sample Households Selected	2,193
Minus households found to be vacant	- 128
Minus households found to be demolished or uninhabitable	- 18
Minus households found to be used for commercial purposes	- 4
Minus households found to be ineligible for other reasons	- 8
Total Sample Households Eligible for Interview	2,035
Minus households that refused to be interviewed (2.7%)	- 56
Minus households that were unable to be contacted (1.0%)	- 20
Minus households that did not respond for other reasons (0.4%)	- 8
Total Households That Completed an Interview (95.9%)	1,951

The distribution of number of Household and Population Point Questionnaires that were completed in each oblast for each round of the KPMS is as follows:

Table 4: Distribution of household and population point questionnaires completed

Oblast Name	Household Questionnaires Completed			Population Point Questionnaires Completed		
	1996	1997	1998	1996	1997	1998
Bishkek	391	409	429	55	69	49
Chui	370	373	495	33	34	23
Osh	535	627	563	47	40	34
Jalal-Abad	274	318	443	27	25	24
Issyk-Kul	188	344	417	17	26	37
Naryn	115	224	335	8	20	25
Talas	78	309	297	8	16	36
Total	1,951	2,604	2,979	195	230	228

5. CONSTRUCTED VARIABLES

Aggregate income and expenditure variables were created for all the three KPMS during the analyses of the final data and they are included in the data that we distribute. The same methodology, as explained below, was used in the calculation of these aggregates for all the KPMS. These aggregate variables are stored in the files named EXPENDxx (for

consumption/expenditure) and TOTINCxx (for income) where xx refers to the years 97 or 98.[18] Researchers who decide to use these constructed variables should review the procedures that were used to create them (see below). It should be noted that the procedures explained below and the resulting aggregate datafiles are distributed with the understanding that no further documentation is available.

5.1. Construction of the consumption aggregate

Consumption aggregate variables were created using the following procedures:

5.1.1. Obtaining a nominal per capita household consumption measure

In constructing the consumption aggregate, data on a wide variety of consumption and expenditures were drawn together:

Education expenses:

Information pertaining to education expenses and child-care was collected at the individual level as well as some additional costs for private classes for adults and children at the household level. Expenses reported for each household member were first converted to annual expenses, and then aggregated at the household level.

Food

Purchased Food: Total annual expenditures on food items were calculated as the product of the amount normally purchased each month times the total number of months each year that this food item was normally purchased. The amount spent per year on each food item was then aggregated across all food items to get the total annual amount spent on purchasing food.

Meals taken outside the household: The amount spent on meals purchased and consumed outside the household in the period since the last visit was added up and converted to annual amounts. The scale factor used to convert the amounts reported in the data set to annual amounts was 365 (i.e. total

[18] There were originally EXPEND96 and TOTINC96 data sets included in the Fall 1996 database, but they were subsequently found to contain data from the Spring 1996 data collection and have been removed from the data for distribution.

number of days in a year) divided by total number of days in the time period between the two visits by the interviewer teams.

Food gifts: Annual food gifts were taken to be the product of the total number of months in the past 12 months that the household usually received food as a gift, times the estimated value of gifts received each month.

Home-production of crops: The total annual value of home-produced food items for self-consumption was calculated based on data from the questionnaire section on agricultural activities (Note that fodder crops and grasses were excluded when calculating the total value of this sub-aggregate). First, the average price for each crop was calculated based on selling prices for each crop reported in this section with separate prices being calculated for the northern and southern areas of the country. Next, these prices were used to calculate the total value of food crop consumed by the household during the past 12 months. Finally, this value of consumption per crop was then aggregated across all crops reported as being cultivated by each household to get the total consumption of home-produced crops.

Home-produced animal products: The total value of home-produced animal products consumed by each household was also calculated based on data from the agricultural activities module of the questionnaire. An average price for each animal product was first calculated based on the total value of sales and total quantities sold. Next, this price was used to calculate the total value of animal products that were consumed by the household during the past 12 months. Finally, this value of consumption of each animal product was then aggregated across all reported categories to get the total consumption of home-produced animal products.

Frequently purchased non-food goods and services:

This includes expenditures on such things as newspapers, local transport, personal hygiene products and cleaning products, as well as services such as laundry, saunas, and haircuts. The total amount spent on each of these non-food items in the period since the last visit was first aggregated for each household, and then scaled up to convert to annual amounts. Once again, the scale factor used to convert amounts reported in the data set to annual amounts was 365 (i.e. total number of days in a

year) divided by total number of days in the time period between the two visits by the interviewer teams.

Infrequently purchased non-food goods and services:

This includes expenditures on such items as clothing and footwear, furniture, home maintenance, books, jewelry, linens and inter-city and international transport. The total amount spent on each non-food item in the past 12 months was aggregated for each household.

Durable goods:

Data pertaining to ownership of durables was collected in the survey, both information on the amount spent by the household on purchasing durable goods during the past 12 months, as well as on current value of the total stock of durables owned by the household. As no other information was available in the data set that would allow one to estimate services received from durable goods, this consumption sub-aggregate was estimated indirectly. First, the total value of the stock of durables owned by each household was aggregated. Next, data from the housing section was used to estimate the relationship between current stock value and flow of services from durable goods (i.e. between the total value of each dwelling unit, and between its actual or estimated rental value). This same derived discount rate (which was found to be approximately 10%) was then used to impute a consumption flow to all other durable goods owned by each household.

Housing:

In principle, if all households rented their dwelling unit, then the total rent paid per year could be taken to be the value of housing services consumed by each household. However, less than 3 percent of households in the Kyrgyz Republic rented the dwelling unit in which they resided. Attempts were made, using hedonic regression models, to impute a use value for housing: rent. Additional information from questions on what people estimated the value of their housing to be were also analyzed. The result was that the housing values estimated were not robust and, small changes in the estimation process made large changes in the poverty rankings of households. For these reasons, a value for housing consumption was not included in the consumption aggregate.

Utilities:

This sub-aggregate was derived using data on monthly expenditures on heating, electricity, gas, coal, oil, wood, other fuels, water, trash collection, telephone, apartment building fees, and janitors. These were first aggregated, and then converted to annual amounts for each household.

Total and Per Capita Consumption:

All consumption sub-aggregates described above were then added up to get a measure of total annual household consumption. Finally, per capita annual consumption estimates were obtained by dividing this aggregate by household size. (No intra-household data is collected. Thus, if an individual lives in a household that is poor, that individual is considered to be poor.)

5.1.2. Adjusting for regional price differences

Before the measure of per-capita consumption obtained by following the steps outlined above could be used to compare standards of living of different households, it was necessary to take into account differences in cost of living in different parts of the country. Given the varied topography and geographic diversity of the Kyrgyz Republic, prices of goods and services is likely to vary considerably across different areas of the country, and so this spatial variation in prices should be taken into account when comparing welfare levels across different parts of the country.

In principle, if information on regional price variations was available in the form of a consumer price index (CPI) or other such measure of differences in prices across the country, the adjustment for cost of living differences could be done using this as a basis of correction. Nominal consumption measures across different parts of the country can be deflated by the appropriate price index to arrive at a "price-adjusted" or "real" measure of consumption that is comparable across different parts of the country. As such a regional CPI was not available for the Kyrgyz Republic, data collected by the KPMS on prices of goods and services in different parts of the country was used instead to construct these price indices.

In deriving price indices, households residing in different parts of the country were first divided into various groups for which separate price indices were constructed. The four groups used were (i) Urban North, (ii) Rural North, (iii) Urban South, and (iv) Rural South. Having defined the groups for which the price index needed to be constructed, the next step in calculating the price index consisted of specifying a bundle of goods and services for which prices were to be compared across regions.

In principle, if information on prices were available for all the items included in the consumption aggregate, it would be possible to use this information to derive an overall price index for each of the four groups based on the relative cost of purchasing the goods in the reference bundle. However, direct price information was available in the survey for food items only -- about 44 percent of total household outlay. In order to derive a price index that covered as wide a range of goods and services as possible, price indices were also derived for housing based on the hedonic regression for housing described earlier. Thus the overall price index derived for the country covers both food items and housing, which together constitute about 75 per cent of total household consumption.

First of all, Laspeyres food price indices were constructed for each of the four groups. Price information was available for almost 64 of the 89 items in the KPMS food expenditure and consumption section. Using the data, the reference food bundle was defined by taking the average budget shares of these food items in the country as a whole. The next step was then to determine the cost of purchasing this reference bundle in each of the four groups. Finally, the ratio of the cost of this reference bundle in each group to the average cost in the country overall gave us the food price index for the group.

5.2. Construction of the income aggregates

The household income aggregates were constructed using various sections of the household questionnaires where income and production related data were collected. Appropriate conversion factors have been used to convert all figures into months and all the components are reported as monthly. For a hypothetical variable 'Y', for example, its monthly equivalent M_Y is computed as follows:

M_Y=Y	if the reporting time unit is month
M_Y=Y*30	if the reporting time unit is day
M_Y=Y*4	if the reporting time unit is week
M_Y=Y / 3	if the reporting time unit is quarter
M_Y=Y / 6	if the reporting time unit is semi-annual
M_Y=Y / 12	if the reporting time unit is year

The corresponding conversion factors were therefore 1, 30, 4, 1/3, 1/6 and 1/12 respectively for 'month', 'day', 'week', 'quarter', 'semi-annual' and 'year' reporting units. The process of constructing the income aggregates involved the following six (6) major steps:

5.2.1. Calculating gross agricultural income

Gross agricultural income was computed for each household as a sum of the values of agricultural outputs from crops (see section 9B of the questionnaire for the various crop types for which data is collected) and from food products (see section 9D). Section 9 of the 1998 KPMS questionnaire was a little bit different from the earlier ones in that quantities of crops were reported in one of three units (kg, Centner or Ton) while in earlier KPMS questionnaires crop quantities were reported only in Kgs. Centner is a Russian weight or mass unit which equals to 100 Kgs while one ton equals 1000 Kgs. In order to convert these quantities in to Kgs, therefore, conversion factors (Ton=1000 Kgs; Centner=100 kgs) were applied.

The various agricultural income components created in this step are:

Aginc1=Agricultural income from crops (see section 9b)

Aginc2=Agricultural income from sale of food products less of expenditures (section 9d)

Aginc3=Agricultural income from sale of animal products (see section 9f)

Aginc3b=Agricultural income from Livestock production (see section 9e)

Aginc=Sum of aginc1 to aginc3b listed above

5.2.2. Calculating total costs of agricultural inputs

Total cost of agricultural inputs for each household was computed as a sum of expenditures of fertilizer, organic manure, pesticides and herbicides, cost of labor, seeding or saplings, packaging and transportation. The resulting aggregate variable name from this step is Aginput. One can calculate the net agricultural income using variables created in the above two steps as the difference between AGINC and AGINPUT.

i.e. NETAGINCxx = AGINCxx - AGINPUTxx (where xx refers to the years 96 to 98).

5.2.3. Calculating income from wages, non-business self-employment and social assistance

Here we added individuals' salary from main wage employment, income from secondary employment, other employment income, food and other in-kind payments as well as various subsidies such as transport subsidy, housing subsidy and medical services subsidy. The resulting income from these additions is total monthly wage income for each employed household member. On top of this, we added monthly self-employment income for each member so employed, total pension income as a sum of old age pension, disability pension, etc. and income from allowances calculated as a sum of temporary disability allowance, unemployment allowance, etc. to derive total income from employment for each employed member. Summing up these figures over the household, we derived the corresponding total household income from employment. The procedure in this step created the following variables:

wage = Total monthly household wage income (excluding self-employment income, pensions and the various types of allowances)
self = Total monthly household income from self-employment of members
b_pens = Total monthly household income from pensions/social assistance
sb_allow = Total monthly household income from various allowances

5.2.4. Calculating net income from self-employment in business

The Kyrgyz Poverty Monitoring Surveys collected data on household business activities (output/revenue and expenditures) for up to three businesses (see section 10 of the household questionnaire). For each household owned business, we calculated total revenue (m_rev01, m_rev02, and m_rev03) and total expenditure (m_exp01, m_exp02, and m_exp03). We also calculated the overall total business revenue and expenditures as sums of the revenues and expenditures of all businesses owned by the household.

i.e. totrev = m_rev01+m_rev02+m_rev03
and totexp = m_exp01+m_exp02+m_exp03

Net revenues were then calculated as:

Netrev = totrev – totexp (total net revenue from the whole household business)
Netrev1 = m_rev01 – m_exp01 (total net revenue from the first business)
Netrev2 = m_rev02 – m_exp02 (total net revenue from the second business)
Netrev3 = m_rev03 – m_exp03 (total net revenue from the third business)

Since most households have only one business, only netrev is reported.

5.2.5. Calculating net transfers (remittances) and rental incomes

Transfers: Here we summed individual level gross transfer receipts and transfers given to the household. Net transfer income can just be computed as the difference between the two.

Rental income: Rental income was calculated as self-reported rental income (if available) or imputed using a hedonic regression that takes into account the various characteristics of the house such as material used in construction, number of rooms, location, source of water and light, etc.

5.2.6. Calculating total household income

Once the various components of household income were computed using the procedures as described, we computed the household total income variable as a sum of net agricultural income, wage and self-employment income, social benefit income, remittances and imputed rental income as follows:

HHTMINC = AGINC – AGINPUT + WAGE + SELF + SB_PENS + SB-ALLOW + TR_RECV + IMPRENT where:

HHTMINC = Household total monthly income
AGINC = Total agricultural gross income
AGINPUT = Total monthly agricultural cost of inputs
AGINC – AGINPUT = Net agricultural monthly income
WAGE =Total household wage income
SELF = Total household income from self-employment business
SB_PENS = Total household income from pension
SB_ALLOW = Total household income from allowances
TR_RECV = Total gross transfers received by the household
TR_RECV = Total household net transfer
IMPRENT = Total household rental income (for owner occupied dwellings)

6. USING THE KPMS DATA SETS

Sampling and selection of households in each KPMS year was done independently. As a result, no individual or household level panel data can be formed from these surveys.

6.1. Response rates and weighting

Response rates were examined during the 1996 KPMS period to see if differential response rates for different strata might justify unequal weighting to reduce any potential bias during data analysis. Table 5 below shows response rates for different strata and response rates by oblast for rural versus urban strata as well as the overall response rate.

Table 5. Response Rates by Stratum for the Fall 1996 Survey

Oblast	Strata	Number of Ineligible Households[a]	Number of Responding Households	Number of Nonresponding Households	Total	Response Rate [b]
Osh	urban	15	124	5	144	0.961
	rural	10	411	3	424	0.993
Dzalal-Abad	urban	19	57	2	78	0.966
	rural	7	217	3	227	0.986
Talas	urban	0	18	0	18	1.000
	rural	4	60	1	65	0.984
Chu	urban	27	95	7	129	0.931
	Rural	28	275	19	322	0.935
Bishkek	Urban	34	391	41	466	0.905
Issyk-Kul	Urban	8	45	1	54	0.978
	Rural	4	143	2	149	0.986
Naryn	urban	2	18	0	20	1.000
	Rural	0	97	0	97	1.000
All Urban		105	748	56	909	0.930
All Rural		53	1,203	28	1284	0.977
Kyrgyzstan Total		158	1,951	84	2,193	0.959

[a] Ineligible households are defined as those that were found to be vacant (128), demolished or uninhabitable (18), those used for commercial puposes (4) and those that could not be interviewed for other reasons (8).
[b] RTI did not indicate how these rates were calculated.
Source: Year 2 Survey Final Report, Research Triangle Institute.

As can be seen from the table, the differences in response rates among strata were small, as the rates range from 0.905 to 1.000. The overall response rate was high (0.959) and, as expected, the response rate for rural strata was slightly greater than the one for urban strata. Under these circumstances, weight adjustment for nonresponse appears optional. For most analyses, it was believed that it would have little impact and would unnecessarily complicate the analysis. No such weighting adjustment was therefore done for all the KPMS surveys.

In analyzing the KPMS datasets, however, there are two weighting variables that should be used to extrapolate results nationally. These variables are 'Weight' and 'Expansion Factor' and

are included in the consumption/expenditure aggregates of the 1997 and 1998 KPMS datasets. The 1996 expenditure aggregate does not have these variables, but average comparative weighting factors can be derived using the inverse of the sampling rate. Weight is a variable derived as a product of household size multiplied by the expansion factor and it is used for household level variables. Expansion factor is a variable that is used for individual level variables.

6.2. Data sets and filenames:

Most of the file names in all KPMS data files are self-explanatory with regard to the section and sub-section of the questionnaires they refer to. For example, for Fall 1996 KPMS, SECT1A_B refers to section 1, sub-sections A and B; SECT1_C refers to section 1, sub-section C. Some file names contain the whole of a section: For example, SECT_02 refers to the whole of section 2. ANTHFL96 refers to the anthropometric data for Fall 96 KPMS; ANTHFL97 refers to the anthropometric data for Fall 97 KPMS and ANTHFL98 refers to the anthropometric data for Fall 98 KPMS. Expenditure aggregates, income aggregates and community level data are named respectively as EXPENDxx, TOTINCxx.and COMMxx (where xx refers to one of the years 96 to 98). The following tables provide details of the file names for each KPMS and the section of the questionnaire they belong to.

6.2.1. Fall 1996 KPMS

The Fall 1996 KPMS data consists of 25 individual files of which two are the constructed aggregate files discussed above. These files and sections of the questionnaire they represent are tabulated below:

Section in the questionnaire	Filenames representing section or sub-section
1. Household Roster	SECT1A_B, SECT1_C
2. Dwelling	SECT_02
3. Education	SECT3A_C
4. Health	SECT4A_D

5. Employment and Income	SECT5A_K
6. Migration	SECT_06
7. Respondents for Round II	SECT_07
8. Female Health	SECT_08
9. Agricultural activities	SECT9_A, SECT9_B1, SECT9_B2, SECT9_C, SECT9D_E, SECT9F_G, SECT9H_K
10. Non-Farm Self Empl.	SECT_10
11. Food Expenditure	SECT_11
12. Expenditures on durable	SECT_12
13. Other Incomes	SECT_13
14. Loans and Savings	SECT_14
15. Anthropometry	ANTHFL96
Community data	COMM96
Prices data	PRI96xxx (A zip file consisting of 8 individual price files. xxx refers to the data format, i.e. dta for Stata, dat for Ascii, etc.)

6.2.2. Fall 1997 KPMS

The Fall 97 KPMS has 43 files. The file names and questionnaire sections are:

Section in the questionnaire	Filenames representing section or sub-section
Cover page	SECT00A, SECT00B
1. Household Roster	SECT01AB, SECT01C
2. Dwelling	SECT02AB1, SECT02B2
3. Education	SECT03A, SECT03B, SECT03C, SECT03D
4. Health	SECT04
5. Employment and Income	SECT5A_C, SECT5D_I
6. Migration	SECT06
8. Female Health	SECT08
9. Agricultural activities	SECT09A, SECT09B, SECT09C1, SECT09C2, SECT09D SECT09E, SECT09F, SECT09G, SECT09H
10. Non-Farm Self Empl.	SECT10A, SECT10B, SECT10C, SECT10D
11. Food Expenditure	SECT11A, SECT11B

12. Expenditures on durable	SECT12A, SECT12B SECT12C, SECT12D, SECT12E, SECT12F
13. Other Incomes	SECT13A, SECT13B
14. Loans and Savings	SECT14A, SECT14B, SECT14C
15. Anthropometry	ANTHFL97
Community data	COMM97
Prices data	PRICE_97
Expenditure aggregate	EXPEND97
Income aggregate	TOTINC97

6.2.3. Fall 1998 KPMS

The Fall 98 KPMS has 41 files. The file names and questionnaire sections are:

Section in the questionnaire	Filenames representing section or sub-section
Cover page	SECT_00
1. Household Roster	SECT_01A, SECT_01B, SECT_01C
2. Dwelling	SECT_02AB, SECT_02B2
3. Education	SECT_03
4. Health	SECT_04
5. Employment and Income	SECT_05
6. Migration	SECT_06
7. Respondents for Round II	SECT_07
8. Female Health	SECT_08
9. Agricultural activities	SECT_09A, SECT_09B, SECT_09C, SECT_09D, SECT_09E, SECT_09F, SECT_09G, SECT_09H, SECT_09J
10. Non-Farm Self Empl.	SECT_10A, SECT_10B, SECT_10C, SECT_10D
11. Food Expenditure	SECT_11A, SECT_11B
12. Expenditures on durable	SECT_12A, SECT_12B, SECT_12C, SECT_12D, SECT_12E, SECT_12F
13. Other Incomes	SECT_13A, SECT_13B
14. Loans and Savings	SECT_14A, SECT_14B, SECT_14C
15. Anthropometry	ANTHFL98

Community data	COMM98
Expenditure aggregate	EXPEND98
Income aggregate	TOTINC98

6.3 Data Quality

There are no significant data quality problems, but the following deserve mentioning.

6.3.1. Fall 1996 KPMS

i) In discussions with NATSTATCOM staff, it was learned that the household registration that was used in the sampling process may not actually cover all resident persons. As more migration occurs, some residents may either be homeless or occupy housing units not included in the household registration system. It was pointed out that trends in household registration coverage need to be monitored in the future. If this becomes a serious problem, a move toward strict area probability sampling might be the only alternative that would provide near complete household population coverage.

ii) A review of the sample selection process was conducted after the survey by a senior statistician on site in Bishkek. According to the review, field sampling steps were completed according to plan, but problems were encountered in four clusters with classifying households into the four types listed in section 3.2. As a result, too many households were selected and interviewed in these clusters. To insure appropriate level of representation in the sample from these clusters, only a subsample of the interviews from these clusters were retained for the final data file.

6.3.2. Fall 1997 KPMS

i) Reproductive health/Nutrition Module (section 8): There are many missing observations in this section of the data. During the data collection stage, there was a restriction that only up to 3 (three) adult women (14 to 49 years of age) per household can be interviewed for this section, but even with this restriction, the number of observations with valid data is very low.

ii) Information on parents of household members (section 1B): The ID codes for the Father or Mother of household members in this section are mostly incorrect. The interviewers in most cases used the code for 'relationship to the head of the household' and entered the value of '5' -- i.e. they copied the values of question 3 of section 1A (Roster) instead of copying the ID codes of the Fathers/Mothers of household members from that section.

iii) Anthropometric data (section 15): The anthropometric data are not also very reliable. The height variable varies significantly because in some places it was recorded in inches and in others in Centimeters.

6.3.3. Fall 1998 KPMS

i) There have been no significant data quality problems identified so far.

6.4. Linking components of the KPMS data sets

6.4.1 - Linking Household and Individual Level data sets

1996

The household level data sets of Fall 96 KPMS can be linked using the variable 'HHID' which is a unique ID for each household. To link (merge) individual level data files with each other, however, one has to use both HHID and the variable 'ID_CODE' which is the ID code for each individual member of a household. Identification of the URBAN/RURAL classification of a household is possible using the variable 'RESIDENCE' where a value of '1' indicates that the household is located in Urban area and '2' indicates that the household is 'Rural'.

1997 / 1998

For Fall 1997 and 1998 KPMS data sets, the household identification code is FPRIMARY and the ID code for each individual member in the household 'PID'. Linking of the different data files is the same as above: household level data sets can be linked using the 'FPRIMARY' variable. Individual level data files can be linked with each other using both 'FPRIMARY' and

'PID'. Identification codes for oblasts and rayons can also be derived from the variable FPRIMARY (see Appendix C).

6.4.2 - Linking Community Level data with Household/Individual Level datasets

1996

The community and price data files can be linked with household/individual data using the oblast and rayon variables together with the urban/rural dummy. The oblast and rayon variables may not be included as separate variables in all the files, but they can be derived from the household identification variable (HHID) or the ID variable of the community data file (See Appendix C for details of deriving these variables). We do not have information if there are other ways of linking these data sets (community/price and household data files). We are not also sure if it is possible to derive a six digit community identification code from the household level data sets that can be used with the ID of the community data

1997

The 1997 community and price data files can be linked with the household level data sets using the first four (4) digits of the 'POP_ID' variable of the community or price data file and the first four (4) digits of the FPRIMARY variable of the household level data. The 'POP_ID' variable has 5 digits (columns) where the first four digits respectively stand for oblast, urban/rural dummy and PSU group. (See Appendix D for more information.)

1998

The community and household data sets of the 1998 KPMS can be linked using the first seven (7) digits of the 'POP_ID' variable of the community data and the first seven (7) digits of the FPRIMARY variable of the household level data. The 'POP_ID' variable has 8 digits (columns) where the first seven digits respectively stand for oblast, urban/rural dummy, rayon and PSU group. (See Appendix D for more information.)

APPENDIX A: OBTAINING THE KPMS DATA SETS

All of the KPMS data sets are the property of the government of the Kyrgyz Republic. The National Statistical Committee (NATSTATCOM) has decided to be responsible for the distribution of the data for the Spring 1996, Fall 1996, Fall 1997, and Fall 1998 data. Requests should be sent to:

National Statistical Committee of the Kyrgyz Republic (NATSTATCOM)
374 Frunze Street
Bishkek 720884
KYRGYZ REPUBLIC
Tel: 7-3312-22-63-63 or 7-3312-22-50-35
Fax (7-3312-22-07-50)
E-mail: 311@Nsc.Bishkek.Su
LSMS@Nsc.Bishkek.Su

The request should include a short explanation of the proposed research, the KPMS data to be used, and the policy relevance to the country of the proposed research.

For information on how to obtain the 1993 data and data from other countries, users can look at the LSMS Web Site:

http://www.worldbank.org/html/prdph/lsms/lsmshome.html

APPENDIX B: Definition of Oblast Codes

Oblast Code	Name of Oblast
1	Bishkek
2	Issyk-Kul
3	Jalal-Abad
4	Naryn
6	Osh
7	Talas
8	Chui

APPENDIX C: Glossary of terms and definitions

BTI	Bureau of Technical Inventory. It is a registration office of private households that maintains information on building size, certification of ownership, etc.
JSK	Residential Construction Office. It is also a house registry office
SELSOVETS	Ayl Kanesh - Rural council. It is a local government office for rural areas that does registration of households.

APPENDIX D: Identification of oblast and rayons, etc. from household ID variables

The 1997 and 1998 KPMS use the variable 'Fprimary' as the ID code for the households. For 1996 KPMS, the household identification variable is 'HHID'. Variables such as oblast and rayon identification can also be found from the different columns of these household ID variables as well as community (population point) ID variables as follows:

a) 1996:

Oblast and rayon variables can be derived from the 'HHID' variable of the household data and from the ID variable of the community data. The HHID variable in the household data has 9 columns while the ID variable in the community data has 6 columns. In the HHID variable, the first column represents oblast number while columns 2 and 3 (01 to 09) represent rayons. In the ID variable, the first and second digits can respectively be used to derive oblast and rayon values.

Deriving such variables using column numbers can be done using some tricks of commands depending on the specific program used. For example, in order to derive oblast and rayon variables from the first and second columns of the ID variable of the 1996 KPMS community data, we can run the following STATA commands:

```
. gen oblast=int(id/100000)
. gen ray1=int(id/10000)
. gen rayon=ray1 - Oblast*10
```

b) 1997:

The 1997 Fprimary variable has 7 (seven) columns where:

- Column one identifies the oblast. It's value varies from 1 to 8. (See Appendix B for the definition of these oblast codes).
- Column 2 represents the classification whether the household is located in an Urban or rural area. A value of 1 means the household is located in an Urban area, and a value of 2 represents a rural area.
- Columns 3 and 4 together represent the Group Number (PSU)
- Column 5 is a control number that data entry people used to detect errors. We do not have any information as to how this is constructed and what each number means.
- Columns 6 and 7 refers to the number of the household within the group (PSU)

For example, if we take the Fprimary 4206137, it means that it is in Oblast 4 (Naryn), it is a rural household (2), it is in the sixth group (PSU #6), has a control number 1 and the number of the household within group six is 37.

The 'POPID' variable of the 1997 KPMS community data has five (5) columns where:
- Column 1 identifies the oblast
- Column 2 identifies the urban/rural classification
- Columns 3 and 4 together represent the Group Number (PSU)
- Column 5 is a control number that data entry people used to detect errors.

c) 1998:

The 1998 Fprimary variable has 10 (ten) columns where:
- Column one identifies the Oblast and it's value varies from 1 to 8 as in that of 1997 KPMS.
- Column 2 represents the classification whether the household is located in an Urban or rural area. As indicated above, a value of '1' indicates that the household is located in urban area and '2' indicates that the household is located in rural area.
- Columns 3 to 5 together represent the Rayon
- Column 6 and 7 is the group number (PSU)
- Column 8 is the control number
- Columns 9 and 10 refers to the number of the household within the group (PSU)

For example, if we take the Fprimary 3141502804, then it is in Oblast 3 (Jalal-Abad), it is an urban household (1), it is in the rayon code 415; it is in the second group (PSU # 02), has a control number 8 and the number of the household within the second group is 04.

The 'POP_ID' variable of the 1998 KPMS community data has eight (8) columns where:
- Column 1 identifies the Oblast
- Column 2 identifies the urban/rural classification
- Columns 3 to 5 together represent the rayon
- Column 6 to 7 is the group number (PSU).
- Column 8 is a control number.

APPENDIX E: DOCUMENTATION AVAILABLE WITH KPMS DATASETS

Basic Information Document for the Fall 1996 through Fall 1998 Surveys

Kyrgyz Republic Fall 1996 Poverty Monitoring Survey
- Household Questionnaire
- Population Point Questionnaire
- Field Interviewer Manual
- Field Supervisor Manual
- Data Entry Operator's Manual
- Data Dictionary
- Programs used to Create Constructed Files

Kyrgyz Republic Fall 1997 Poverty Monitoring Survey
- Household Questionnaire
- Population Point Questionnaire

Kyrgyz Republic Fall 1998 Poverty Monitoring Survey
- Household Questionnaire
- Population Point Questionnaire

APPENDIX F: STUDIES AND REPORTS DONE USING KPMS DATASETS

Note: As some researchers did not provide us with lists of their products that are based on KPMS datasets, the list may not be complete.

1) Kathryn Hart Anderson, "Poverty in the Kyrgyz Republic" (with R. Pomfret), Asia-Pacific Development Journal, vol. 6 (1), June 1999, pg.73-88.

2) Kathryn Hart Anderson, "Transition and Poverty in Central Asia" (with R. Pomfret), 1998. Soviet and Post-Soviet Review, v.28(no.2):149-162..

3) Kathryn Hart Anderson, "Post-soviet Pension Systems, Retirement, and Elderly Poverty: Findings from the Kyrgyz Republic" (with C. Becker), 2000. MOST: Economies in Transition, v.(no.):

4) Kathryn Hart Anderson, "Living Standards During Transition to a Market Economy: the Kyrgyz Republic in 1993 and 1996," (with R. Pomfret), Journal of Comparative Economics, v.28,(no.?),2000.

5) Kathryn Hart Anderson, "Technical Report 6: Labor Supply Response to Social Contribution Rates and Labor Force Participation Among the Elderly in the Kyrgyz Republic, " Asian Development Bank, February 1999, with Charles M. Becker.

6) Kathryn Hart Anderson, "Background Report 6: Characteristics and Well-Being of the Elderly in the Kyrgyz Republic, 1996," Asian Development Bank, February 1999.

7) Kathryn Hart Anderson, "Transition and the Economic and Social Status of Women in Kyrgyzstan," (with B. Kilbourne). (Work in Progress)

8) Kathryn Hart Anderson, "Gender, Education, and the Standard of Living During Transition to a Market Economy: The Kyrgyz Republic," (with R. Pomfret). (Work in Progress)

9) Dorabawila, Vajeera, Maureen Lewis and Aleksandra Posarac. "Transition and Women's Time Use in the Kyrgyz Republic 1993-1997: Myths and Reality". A poster presented at the Annual Meetings of the Population Association of America, March 24, 2000 in Los Angeles CA

10).Lewis, Maureen, Aleksandra Posarac and Vajeera Dorabawila. "Transition and Women's Health in the Kyrgyz Republic 1993-1997: Myths and Reality". A paper presented at a Seminar at Cambridge University, United Kingdom, January 15, 2000.

11) Dorabawila, Vajeera. 1999. "Out of Pocket Expenditures in Health, Kyrgyz Republic 1993-1997". Background Note. Europe and Central Asia Region, processed

12).Dorabawila, Vajeera, 1999. "Education and Private Expenditures, Kyrgyz Republic 1993-1997. Background Note. Europe and Central Asia Region, processed.

13)Namazie, C.Z. and P. Sanfey, "Happiness and Transition: The Case of Kyrgyzstan." Review of Development Economics, forthcoming. (and DARP/STICERD, LSE Working Paper No. 40.) (KPMS Fall 1993)

14) Namazie, C.Z. Regional Monitoring Report N° 7 for the MONEE project (co-financed by the World Bank) on Youth in Transition. Forthcoming Unicef Report: KPMS 1996 was used in the Chapter on "Youth Labour Market and Education".

15) Jane Falkingham, Social Policy Department, LSE. "A paper on Child Welfare in Transition", written for a conference in Luxembourg (using KPMS Fall 1996). Being published as a UNICEF working paper.

16) Namazie, C.Z. and Chris de Neubourg: "Back to the Office Report" for a mission to the Kyrgyz Republic. December 1998, concerning the Social Sector Adjustment Credit (Using KPMS Fall 1996)

17) Namazie, C.Z. Ph.D. Thesis: "Welfare and Labour Markets in Transition: The case of the Kyrgyz Republic", forthcoming (using KPMS Fall 1993 & 1996)

18). Heinrich, Georges, "Fundamental Economic and Social Change: The Case of Kyrgyzstan 1993-97", United Nations University (UNU)/World Institute for Development Economics Research (WIDER) working paper # 174, Februrary 2000

19) Kyrgyz Republic: Update on Poverty in the Kyrgyz Republic, The World Bank, June 1999

20) Kyrgyz Republic: Sources and Impediments to Growth, The World Bank, June 2000