Kyrgyzstan Multipurpose Poverty Survey

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Overall Procedures for the

Kyrgyzstan Multipurpose Poverty Survey

Conducted in October and November, 1993

INTRODUCTION

The Kyrgyzstan Multipurpose Poverty Survey (KMPS) was designed to measure the standard of living in Kyrgyzstan during Fall, 1993. On the basis of an excellent sample of about 2,000 households and 10,000 members of those households, it provides more than 4,800 variables from which to construct many indices of well-being at several levels of measurement: individual, household, and community. Since the files are linked, it is possible to study contextual effects on the welfare of individuals and households.

Due to the urgency of this research, tremendous effort has been placed on fielding the survey and getting the results out quickly. Agreement was reached on the content of the questionnaires in early July, 1993. Roughly speaking, in July the questionnaires were formulated (a total of more than 200 pages); in August, they were translated and pilot tested; in September, they were revised and printed. During the second week of October, 1993, interviewer training began. By the end of November, most field work was completed. Early December was spent on editing and coding, with special attention given to cleaning identification numbers so that there would be no difficulty in linking files. By mid-January, the first pass of the data entry of household and individual questionnaires was completed, and in response to a special request, these data were then made available--some three months after the beginning of field work. The verification pass on the household questionnaire was completed on January 25, 1994; it was completed on the 10,000 individual questionnaires one week later, and on the price and community questionnaires soon therafter. It is anticipated that data cleaning of branches and ranges will be finished by mid-March--five months after the beginning of field work.

This report describes the procedures followed by Paragon Research International (Michael Swafford) and the Russian Academy of Sciences' Institute of Sociology (Polina Kozyreva and Michael Kosolapov) in directing this survey. It describes the sample, questionnaire development and content, interview training, field work, questionnaire coding, data entry and cleaning.

THE SAMPLE OF KYRGYZSTAN

The purpose of this sample was to represent all households in Kyrgyzstan in Fall, 1993. "Household" was defined as a group of people who live together in a given domicile, who keep house together, and who share common income and expenditures.[1] In drawing the sample, we strove to approximate a probability sample--that is, a sample in which every household had some calculable random

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[1] Children of household members who were under eighteen years of age and who lived elsewhere as students were included as household members. For more detail, consult *Project Kyrgyzstan. Sample Survey of Households. Instructions to the Interviewer* (Bishkek, 1993), pp. 8 and 9. Also consult instructions in the household questionnaires.

chance of falling into the sample. This, for example, eliminated the possibility of using quotas or ofchoosing "typical" cities or regions.

Judging from the 1989 census, there were about 856,000 families containing 4,258,000 individuals living in Kyrgyzstan at that time--an average of about five members per family. Though our definition of "household" and the census definition of "family" differ somewhat, the figure 856,000 can be taken as an estimate of the number of households from which our sample was to be drawn. Since our target household sample size was 2,000, to allow for a modest non-response rate of about five percent, we drew a sample of 2,100 households. Incidently, this estimate of non-response, though low by Western experience, proved to be fairly accurate. The actual number of completed household interviews was 1,938--a response rate of 92.3%.

In addition to administering a questionnaire about the household to an authoritative member of each of the households drawn in this manner, we also administered separate individual questionnaires to all members of the selected households. Since questionnaires were obtained for all members of the households (with some non-response, of course), our procedures in principle yielded a probability sample of *individuals* in Kyrgyzstan, not just a probability sample of *households*.

As is common in drawing national samples of households, we used a multi-stage procedure. The number of stages depended on whether we were sampling from cities or rural areas. Following is a brief description of the stages. A more detailed preliminary technical report on the sample has already been distributed; the final technical report will be issued in May, 1994.

The Selection of Primary Sampling Units

The list of the 57 administrative-territorial units known as "raions" and "cities under the direct jurisdiction of oblasts" served as the basis of selecting PSUs. Twelve of these administrative-territorial units, containing about 34% of all households, were selected with certainty on the basis of size and importance: the four raions of the capital, Bishkek; the five other oblast administrative centers; and three other major cities.

Forty-five administrative-territorial units remained after the selection of the above twelve units. Forty of these were raions; five were cities under the direct jurisdiction of the oblast in which they were located. These five cities (Uzgen, Tash-Kumyr, Kyzyl-Kiya, Kara-Kul', and Mali-Sai) were combined with the raions in which they are geographically situated. This had the effect of increasing the heterogeneity of those raions (PSUs)--a desirable effect from the standpoint of fieldwork. Thus, forty units remained from which the rest of the PSUs were to be selected.

These 40 units were stratified on three salient bases by experts in GOSKOMSTAT of Kyrgyzstan: geographical conditions (mountain versus valleys); ethnic composition (pure Kyrgyz; mostly Kyrgyz and Uzbek mixed; mostly Kyrgyz and Russian-speaking); and type of production (agricultural versus agricultural-industrial). This process ultimately yielded eight strata. From

each of these eight strata, two raions were chosen systematically (except in stratum 7, where the two raions were chosen with certainty since there were a total of only two raions). The probability of selecting each raion was made proportional to size (PPS) within its stratum so that ultimately households of all raions had equal probability of selection. These sixteen PSUs and the twelve chosen with certainty yielded a total of 28 PSUs.

The Selection of Secondary Sampling Units and of Households

At the second stage, to make certain the urban and rural points were represented proportionally, the population points within selected raions were stratified by whether or not they were "city" (*gorodskoi*) or not--an exceedingly important dimension in Kyrgyz life. Normally, the number of urban population points in a raion was no more than two or three.

The procedure for selecting households differed for urban and rural areas. In urban areas, we relied on the microcensus enumeration districts which were just being revised by GOSKOMSTAT of Kyrgyzstan. Based on experience from the 1989 census, those were each expected to contain about 400 households. We considered it appropriate to choose eight to ten households from a given census enumeration district; we therefore selected enough enumeration districts to yield the desired number of urban households in a given PSU. They were chosen systematically with equal probability. No substitution was permitted.

In rural areas, villages were further stratified by ethnic composition-- also a very salient feature in Kyrgyz life. We took great pains to insure that the ethnic composition of villages was proportionally represented in the sample. In the raions falling into the sample, villages were grouped by nationality (ethnicity): Kyrgyz villages; Kyrgyz-Russian villages; Kyrgyz-Uzbek villages, etc. The number of households chosen from each group of villages was made proportional to the number of villages of each type in the *stratum* the raion was representing. Enough villages were selected so that no more than 18 to 20 households would be interviewed in a selected village.

To recapitulate, as is normally the case, the actually number of stages in the selection process differed across regions and types of population points. In the twelve self-representing PSUs, a two-stage procedure was used: selecting census enumeration districts and selecting households.[2] In the urban locations of the non-self-representing PSUs, there were four stages: selecting the two PSUs (where there were more than two units in a stratum); selecting the urban population points (if there were more than enough from

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[2]Since these units were selected with certainty, their selection is not actually a stage from the viewpoint of mathematical statistics. Also, bear in mind that stratification per se is not a stage either. Thus, in these twelve units, census enumeration districts are technically the PSUs; households are the SSUs. Individuals do not count as a stage since all individuals within each household were selected with certainty (though some may have declined to participate).

which to draw the necessary number); selecting the census enumeration districts, and selecting households. In rural areas, three stages were used: selecting the two PSUs (where there were more than two); selecting the villages; and selecting the households.

THE SURVEY INSTRUMENTS

Standard of living is determined by the interaction of individuals, households, and communities within the context of the countries and larger world in which they are located. To permit a thorough, multilevel analysis of these factors in Kyrgyzstan, the KMPS made use of several instruments: an adult questionnaire, a child questionnaire, a household questionnaire, a price survey, and a survey on community infrastructure.

A great sense of urgency accompanied the survey. At the outset, in May of 1993, we expected to save time by relying almost entirely on a set of questionnaires designed and employed for the same purpose in Russia during 1992 and 1993. We planned merely to make minor adaptations to the instruments to reflect Kyrgyz circumstances. (Since Kyrgyzstan was long a republic of the Soviet Union, differences are less than otherwise would be expected.) However, after a meeting with members of the World Bank in early July, fairly substantial changes in the household and individual questionnaires were adopted. These were then introduced into the Russian-language instruments in July and August, 1993.

Since the price and community questionnaires were to be filled out by professional staff members, there was no need to translate them from Russian. However, the individual (child and adult) and household Russian questionnaires were translated into Kyrgyz in August by two professional translators. Since the child and adult questionnaires, though quite similar, were translated independently by the two translators, a comparison of their translations proved to be useful in checking for mistakes. In addition, the questionnaires were reviewed in Osh by a professional sociologist with a doctorate, and the two translators met with the sociologist to settle all questions in August.

Somewhat later, after the sample was drawn, it became clear that it would be advisable to translate the Russian individual and household questionnaires into Uzbek as well, for use in the territory around Osh, which borders on Uzbekistan. The first translation proved to be too literary; a second was commissioned, and was completed in late September.

Given our extensive experience with the instruments used in Russia, the burden of pilot testing was somewhat diminished. Nevertheless, in August people from almost 100 households in Bishkek and its rural suburbs participated in a pilot study of the individual and household questionnaires. The Republican Center for the Study of Public Opinion, with whom we were collaborating, drew a haphazard sample including a wide range of respondents. Its Bishkek staff administered the questionnaires. Approximately half were

administered in Russian; half, in Kyrgyz. This process revealed several branching errors, but resulted in no major changes.

The finalized individual and household questionnaires were printed in Bishkek. The price and community questionnaires, as well as the instruction booklets and the food albums were produced in Moscow.

Content of the Survey Instruments

The contents of the five instruments may be summarized as follows.

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┌─────────────────────────────────────────────────────────────────────────┐
│                              HOUSEHOLD                                    │
│ Mean interview length:  1 hour; range: 30 minutes to 2:30                 │
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│                                                                           │
│  B.  Household composition (relationships among all members, age, year of birth,
│      marital status)                                                      │
│                                                                           │
│  C.  Housing conditions (ownership, structure, utilities, supplemental housing,
│      possession of consumer durables)                                     │
│                                                                           │
│  D.  Agriculture and animal husbandry (production and disposition of crops and
│      animals)                                                             │
│                                                                           │
│  E.  Expenditures (on food during 7 days; where key foods were purchased; on
│      clothes for three months; on consumer durables for 12 months; various other
│      items and services for thirty days; transfers)                       │
│                                                                           │
│  F.  Income (from all non-wage sources; rough estimate of total income including
│      wages)                                                               │
│                                                                           │
│  G.  Interviewer remarks                                                  │
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INDIVIDUAL	
ADULT Mean length: 77 minutes; range: 25-150 minutes.	**CHILD** Mean length: 47 minutes; range: 15-90 minutes.
I. *Place of birth, migration, language, ethnic identity, parents' education* [differences in Qs 8 & 12]	I. *Place of birth, migration, language, ethnic identity, parents' education* [differences in Qs 8 & 12]
J. *Work* (current primary and secondary employment; entrepreneurial activity; *education*; unemployment and pensioner status)	
	K. *Child* care arrangements for this child
L. *Medical service* (use of service, payment for services) [Qs 25-33 omitted]	L. *Medical service* (use of service, payment for services, vaccinations and innoculations)
M. *Health assessment* (includes personal service for the handicapped, drinking, smoking) [Qs. 66 ff omitted]	M. *Health assessment* (includes personal service for the handicapped, drinking, smoking) [Qs. 4, 6-34, 38-48, 53-65 omitted]
N. *Child-bearing and birth control*	
O. *Time budget* (recall covering one week)	O. *Time budget* (recall covering one week) [Qs. 45-46 omitted]
P. *Food consumption* on the previous day	P. *Food consumption* on the previous day
Q. *Measurement* of respondent's height, weight and girth	Q. *Measurement* of respondent's height, weight and girth
R. *Interviewer comments*	R. *Interviewer comments*

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                            PRICE QUESTIONNAIRE

This is accompanied by a separate instruction booklet which describes procedures.
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Form A.   List of all trade points in the neighborhood selling food, with data on
           location, type, hours open, size, type of ownership, and goods sold.

Form B.   List of all trade points selling fuel, with data on location, type of
           ownership, and type of fuel sold.

Form V.   Table for internal use in drawing the sample of food stores.

Form G.   Table for internal use in drawing the sample of fuel stores.

Form D1   Availability and price of food products in general state grocery
           stores.
Form D2   Availability and price of milk in state milk stores.
Form D3   Availability and price of bread products in state bread stores.
Form D4   Availability and price of meat in state meat stores.
Form D5   Availability and price of vegetables and fruits in state specialty
           shops.
Form D6   Availability and price of alcoholic beverages in state liquor stores.
Form D7   Availability and price of tobacco products in state tobacco shops.
Form D8   Availability and price of food products in general private grocery
           stores.
Form D9   Availability and price of milk in private milk stores.
Form D10   Availability and price of bread products in private bread stores.
Form D11   Availability and price of meat in private meat stores.
Form D12   Availability and price of vegetables and fruits in private specialty
           shops.
Form D13   Availability and price of alcoholic beverages in private liquor stores.
Form D14   Availability and price of tobacco products in private tobacco shops.

COMMUNITY INFRASTRUCTURE
1. Size and area
2. Rights to land and entrepreneurial use of building
3. Distance from governmental centers
4. Types of housing available
5. Transportation and communication infrastructure
6. Health care facilities
7. Public dining
8. Employment
9. Educational institutions
10. Banking
11. Fire and police
12. Utilities such as water, sewage, electricity
13. Governmental social support

ORGANIZATION OF FIELD WORK AND TRAINING

Conducting a good national survey is challenging under the best of circumstances. However, it presents a special challenge in Kyrgyzstan and other republics of the former Soviet Union (FSU). First, a host of logistical problems inevitably arise because of the lack of infrastructure: unreliable banking, telephones, postal service, transportation, and legal procedures. Second, the tradition of survey research is quite weak. The social sciences were severely restricted until recently. In fact, in the former Soviet Union, the first full-fledged university departments of sociology and political science were established only four years ago. True, there were a few sociological research institutes even in the 1960s. However, political constraints made it virtually impossible to conduct large-scale surveys based on random samples of the population. Thus, when survey research in the general population became possible in 1989 and 1990, much of the research was methodologically very problematic.

Under the circumstances, the best approach was to send an expedition of sixteen people (eight sociologists and eight dieticians) from Moscow to Kyrgyzstan in early October, 1993 to conduct interviewer training and to organize the survey in various locations. Upon arriving in Bishkek, teams were dispatched by chartered bus to five major cities in Kyrgyzstan: Dzhalal-Abad, Talass, Naryn, Karakul, and Osh (via air). Each team consisted of at least three people: a trainer, a dietician, and a representative of the Kyrgyz survey organization with which we were collaborating--the Republican Center for the Study of Public Opinion. Two cities (Dzhalal-Abad, Talass) received a double-sized contingent; two (Dzhalal-Abad and Karakul) also received GOSKOMSTAT representatives from Bishkek. Once in place, the sociological representative from Moscow in each location was responsible for finalizing the sample of households at the last stage. Each team was also responsible for training interviewers and for organizing the local staff, the vast majority of which had worked on previous national surveys in Kyrgyzstan. After seven to ten days, some extra people in these locations returned to Bishkek to draw the sample and train interviewers.

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To summarize, field work was organized around the following positions:

1. supervisor from Moscow or Bishkek;

2. dietician and interviewer trainer, both of whom trained interviewers and checked their initial work;

3. local supervisor, who worked with the representative from Bishkek in organizing local work;

4. local brigade leaders, who conducted the price surveys and checked the work of interviewers;

5. doctors and nurses hired to do the measurements at the end of the individual questionnaires;

6. interviewers, responsible for locating respondents, scheduling household and individual interviews, and returning questionnaires to administrators;

7. inspectors, sent from Bishkek to confirm that the proper families were interviewed, that the questionnaire had all been administered, and that families had been paid.

Steps in Interviewer Training

It is of considerable interest to examine the characteristics of the 178 interviewers who were recruited. Since almost all people need to supplement their wages, it was possible to attract many well-educated interviewers with responsible positions. Sixty-five percent had a higher education; another twenty-two percent had specialized secondary education (akin to junior college). Almost all others (except perhaps the six for whom we have no educational data) had some other kind of secondary education. The vast majority held professional jobs such as doctor, nurse, teacher, engineer, bookkeeper, and even a concert master. Heavy reliance was not placed on students: nine graduate students and six students participated. No occupational data are available for twelve interviewers.

Whatever their background, they underwent a demanding training regime. Here is a brief account of the steps we took in training these interviewers for the rigors of this survey. A longer document with full detail is available from Paragon Research. Several trainees were dismissed before field work because their performance in training revealed them to be unsuited for the job.

1) Lectured on the general principles of face-to-face interviewing. We provided a 70-minute video tape entitled "Introduction to Interviewing" to insure that all interviewers received the same instructions and examples. Where there was no VCR, we rented video salons.

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3) Required interviewers to read through the entire questionnaire in advance, then to fill out the questionnaire themselves.

4) Showed interviewers an example of a good interview with commentary, again using a video tape. The tape included a section on the diet.

5) Introduced them to the written questionnaire specifications, entitled "Interviewer Instructions" (covering the individual and household questionnaires) and "Instructions to Reporters" (covering the price survey).

6) Played the role of respondent while trainees took turns reading questions as they would in an actual interview.

7) Had the interviewers practice interviewing in triads. Interviewers formed groups of three. One assumed the role of interviewer; another, the role of respondent; the third, the role of observer, watching to see whether the interviewer was working properly. The trainer and perhaps some other experienced interviewers circulated among the triads to observe also.

8) Gave the interviewers written exercises which tested their ability to react properly to certain difficult situations in administering the questionnaire.

9) Reviewed the administrative procedures pertaining to the survey (see "Interviewer Instructions" in your documentation).

10) Gave the trainees practice in persuading respondents to participate by having them role play.

11) Required interviewers to complete at least one practice interview with a household who was not in the sample--preferably not a relative. They were allowed to practice with relatives first.

12) Examined their work after each of their first three interviews or more, until they demonstrated that they were competent.

FIELD WORK

In most cases, the chartered bus which took teams from Bishkek to outlying areas remained on location to take interviewers to the rural places in the sample. In other cases, cars were hired. In urban areas, public transportation was used. GOSKOMSTAT of Kyrgyzstan played a crucial role in solving logistical problems with transportation (fuel), housing, and sampling.

Since the interview schedule was very demanding (see the mean lengths reported in the questionnaire section above), the interviewer was usually obliged to return more than once. Furthermore, unless the interviewer had medical credentials, a nurse or doctor had to visit to get the necessary

measurements for the individual questionnaires. Nevertheless, a response rate of more than 92% of households was achieved. The response rate for individuals is more difficult to calculate, since some household members (e.g. students under 18 studying elsewhere) could not be interviewed. The final technical report on the sample will contain a thorough analysis of the response rate.

In all locations, field work began by October 18. In some areas with small samples, field work ended by the first week of November; it was finished in all areas by the first week of December.

EDITING, CODING, DATA ENTRY AND CLEANING

When questionnaires were returned to local supervisors, those supervisors were required to examine the questionnaires to locate problems which could be remedied in the field, e.g. returning to get key demographic information or cleaning ID numbers so that the roster of individuals located in the household questionnaire matched those on the individual questionnaires from that household. Later, all questionnaires were sent to Bishkek, where they were again checked for ID problems. The questionnaires were then sent by informal courier via airplane to Moscow, where yet another ID check was performed.

At this time, coders looked through all questionnaires to code so-called "other: specify" questions. However, open-ended questions (e.g. occupational and nationality questions) were not coded at this time. Instead, their text was fully entered into the data set. This offers several advantages. It allows data entry to begin immediately, with no delay for coding. It permits the use of computer programs to assist in the coding. And it allows any user of the data set at a later date to recode the data to suit his or her purposes without going back to the paper copies of the questionnaire. Codes for all open-ended questions except occupation were made available in mid-February.

Household questionnaires were given to a private data entry firm with whom we have often worked. They completed data entry and verification by January 25. Unfortunately, in merging files they made a formatting error which caused us to distribute erroneous preliminary values for 40 variables (of the 1,133 in the household file). This problem was found and corrected in February.

All other data entry was handled in-house using the SPSS data entry program. The first entry of the 10,000 child and adult questionnaires began on December 20, 1993; the verification pass began on January 20 and was completed by February 2. Entry of the community and price surveys began in late January and was completed in two weeks.

The period between mid-February and mid-March has been set aside for range and branch cleaning, after which the "final" data set will be distributed. As is normally the case, in the process of analysis other data-cleaning problems can be expected to surface.