Introduction to household income and expenditure statistics in Korea

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There are two basic surveys on household income and expenditure scale, structure, and distribution in Korea. One is monthly Household Income and Expenditure Survey (HIES) for urban areas, and the other is 5-year periodical National Survey of Household Income and Expenditure (NSHIE). These two surveys are conducted by the National Statistical Office of Korea.

In this paper, I will briefly explain the outline of the two surveys. Based on this information, more proper analysis of income distribution and international comparison relating poverty statistics may develop.

Household Income and Expenditure Survey (HIES)

1. History of the Survey

A Survey of household income and expenditures was conducted from 1942 to 1945. In July 1951, the Bank of Korea conducted the survey of the income and expenditures on the basis of purposive sample of 60 households in Pusan city in order to measure the level of households consumption expenditures during the Korean War.

In 1954, a sample of 200 salary and wage earners' households was drawn in Seoul, and the income and expenditures of those households were surveyed until 1959. Since this survey covered only a small fraction of the salary and wage earners' households and was confined in Seoul, the value of information obtained through this survey was not so great.

In 1960, it was again reformed overall to extend the coverage so as to obtain various data on urban-households' income and expenditures by changing the method of survey.

In 1963, the responsibility of the survey was transferred to the National Statistics Office in order to strengthen government statistics. The Office extended the coverage of the survey by including all cities. Since then, the sample of the survey was revised seven times in 1969, 1972, 1977, 1982, 1988, 1993, 1998 in order to reflect the results of quinquennial Population and Housing Censuses.

Besides, the survey method was also changed. In 1975, an account-book keeping method which had been applied to the item of Food & Beverage until then was extended to the other items which had been investigated quarterly by interview method.
2. Purpose of the Survey

The Purpose of the survey is to collect up-to-date information on urban households' income and expenditures, and to serve the following objectives:

1) to analyze the variation in the levels of living and the disparities among the different socio-economic groups
2) to obtain weights for the construction of the consumer price index
3) to supply basic data for the formulation of various economic and social planning

3. Scope and Coverage of the Survey

The survey covers urban households residing in 69 cities (There are 77 cities in Korea) and the number of sample households is about 5,200. However, the following types of households are excluded as inappropriate households:

1) farmers’ households
2) fishermen’s household
3) single person households
4) households whose ordinary incomes and expenditures are difficult to be separated from business incomes and expenditures:
   a. households which manage restaurants, inns, dormitories or boarding houses using their dwellings
   b. households with 2 or more living-in employees
5) foreigner households

4. Survey Method

The survey is conducted monthly by about 280 enumerators, who distribute an Account Book to each sample household prior to the survey so that respondents can record income source, types of expenditure and their value daily.

Households are requested to fill in the Account Book with daily incomes and expenditures for 5 years. Enumerators fill in the Household Status with the number of household members, occupation and industry of householder and his(or her)spouse, type of the dwelling, etc.

Among the sample selected for the survey, some households refuse to participate in the survey. The overall response rate is approximately 83.2% (2000 year average).

For the imputation of non-response, NSO inputs two times of responded household account with similar conditions like occupation types of household head, number of household members and regional locations.
5. Items Classification

Items of incomes and expenditures are classified by commodity in accordance with ILO classification. Income item has 23 subordinate items, and expenditure item has 516 subordinate items.

Income is divided into current income and non-current income. The former is subdivided into labor earnings, income from business & subsidiary work, returns from assets and transfer income. The non-current income includes such as retirement bonus, scholarship and windfall gains from lotteries.

In consumption, 9 major groups had been applied since Jan. 1982 survey. In 1995, 'Education, Culture and recreation group' was divided into two groups - Education group and Culture & recreation group. From that time, we divided consumption expenditure item into 10 major groups, namely, Food, Housing, Fuel,light & water, Furniture & utensils, Clothing & footwear, Medical service, Education, Culture & recreation, Transportation & communication and Others.

The estimated values of own house and deposits for the lease of a house are categorized as special items separated from income and expenditure lists.

6. Sample Design

The data and materials from 22,029 ordinary enumeration districts (ED's) derived from the 1995 Population and Housing Census (10% Sampling ED's) are used for the sample selection. Islands and social institution are excluded from the sample selection.

The sample is a probability sample, using a stratified three stage sampling with two or three contiguous ED's as the primary sampling units (PSU's).

Every PSU has more than 60 census households.

(1) Selection of Primary Sampling Units(PSU)

The sample of HIES is based on the EAPS (Economically Active Population Survey) sample. In the EAPS sample, the country is divided into 16 regions, i.e., seven large cities and nine provinces. The latter are further divided into dongs, ups & myons. Therefore, there are 25 strata.

Within each stratum, ED's(PSU) are systematically selected with a probability proportional to its measure of size. A total of 1,231 PSU's are selected in 25 strata. Each selected PSU consists of 3 segments, each segments with 8 households on average.
In HIES, PSU's are divided into 16 strata, i.e., seven major cities and DONG (urban area) regions of nine provinces. Sampling ratios of 16 strata are different.

From the 1231 PSU’s of EAPS (Economically Active Population Survey), a total of 697 sample PSU's reflecting dong (urban) areas are selected. In each stratum, the sample PSU's are systematically selected with a probability proportional to its size.

(2) Selection of Ultimate Sampling Units (USU's)

In each sample PSU, about 10 households are selected as USU.

The sample is self-weighting in each stratum while the sampling rates are different from stratum to stratum. The average number of households in the 2000 monthly survey was about 5,216 households with the overall sampling rate of 1/1,439.

These households do not include impertinent households like one-person household.

7. Publication of the Results

The results of the survey are published in four kinds of forms, namely, the prompt report (data for news report), the Monthly Statistics of Korea, KOSIS(DB for statistics) and “annual Report of the Family Income and Expenditure Survey”.

The prompt report (data for news report), the Monthly Statistics of Korea and KOSIS(DB for statistics) are quarterly released or updated two or three months after the survey, and the annual report is published in May of the following year.

Income and expenditure data of urban wage & salary workers' households are published in all the those forms, and the expenditure data of all the urban households (wage & salary workers’, enterprisers' and no-occupation households) are published in the Monthly Statistics of Korea, KOSIS(DB for statistics) and ‘Annual Report of the Family Income and Expenditure Survey’. But income data of enterprisers' and no-occupation households is not made public.
National Survey of Household Income and Expenditure

1. History of survey

The National Survey of Household Income and Expenditure (NSHIE) has been conducted every 5 years since 1991.

This year, 2000 National Survey of Household Income and Expenditure is under way.

2. Objectives of NSHIE

This survey will cover receipts, disbursement, yearly income, savings & liabilities and durable goods of households from the national sample households in order to analyze patterns of income and expenditure of households.

This survey will be conducted on the whole country in a large scale in order to clarify the features of income and consumption, to produce data for the patterns of income and expenditure by family composition or one-person households and to supply basic data for the deep analysis of the structure of national income and consumption.

3. Legal Base

This survey is undertaken as the national designated survey in accordance with the Statistics Law.

4. Scope of Survey

The survey will cover households of which household income, expenditure and assets & liabilities can be enumerated. The sample households are about 29,000 households. (refer to sampling)

Exceptions are as follows:

- In the case of two- or more- person households
  - Combined households running restaurants, inns or boarding facilities
  - Households with two or more employees
  - Foreigners' households

- In the case of one-person households
  - Under 15 years old
  - Inmate of social institutions
5. Period of the Survey

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<th>Period to be surveyed</th>
<th>actual survey</th>
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<td>Receipts and Disbursement</td>
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<td>Yearly Income</td>
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<td>Durable Goods, Savings &amp; Liabilities</td>
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6. Field Survey Operation

The information about status of households, receipts and disbursement, yearly income, durable goods will be obtained upon interview and recorded on the questionnaires by the enumerators.

Last two NSHIE surveys adopted the account book keeping for two months of all the sample households. But, upon the evaluation that the account book method required too much burden on responding households as well as enumerators and the data quality severely lacks accuracy and reliability, the 2000 NSHIE survey no longer employs this method.

For the quality of survey, however, 2000 NSHIE survey has adopted an auxiliary survey by weekly expenditure diary for 4 weeks. This auxiliary data is expected to be used as a reference of yearly expenditure.

7. Survey items

A. household status and residence

Items concerning household status and residence will clarify the various characteristics of the households surveyed. In regard to the households, household type(salary and wage earners')
households, other households), family composition (not working, aged household, mother and children, dual-income household, others), number of household members, number of earners and types of living quarters are surveyed.

And in regard to each household members, the survey asks names, relationship to the household head, sex, age, education attainment, industry employed and occupation. Also, in regard to the residence, type of dwelling (apartment, house, etc.), total floor space will be surveyed.

B. Disbursements

This part first asks to answer the yearly amount of nine major consumption expenditure items - food & beverages, housing & fuel, light, water charges, furniture & utensils, clothing & footwear, medical care, education, culture & recreation, transportation & communication, and other consumption (tobacco, personal care, contributions, etc.). The education item has a sub-item of private supplemental education.

Next item asks non-consumption expenditures like direct tax except income tax and subsidies for other households. Non-consumption expenditures include not only direct tax and subsidies for other households but also contributions to public pension, social insurance and paid interest. The public pension and social insurance are covered in the savings part, and the income tax is covered in income part. Paid interest as a non-consumption expenditure is covered in the liability part.

C. Yearly Income

This survey collects information about each household member's income for one year from Jan. 1st, 2000 to Dec. 31st, 2000. In this survey, income is classified into labor earnings, business income, returns from assets and transfer income. Labor earnings include wages & salaries and bonus.

Returns from assets include received interest, dividend and rents received. Transfer income includes social security benefits, national pension, private gifts & assistance. In the case of business income, net income (sales revenue minus cost) will be enumerated.

D. Durable Goods

Durable goods such as beds, computers, automobiles and so on (total number of the goods is 31) will be surveyed of quantities that were possessed at the end of year 2000 and purchased in year 1998, 1999, 2000 and before 1997. Durable goods surveyed are for household use only and the usable period must be more than 3 years. The goods include those lent to
others, those bought as second hand, homemade or presented items and those having completed the contract but not yet received.

Items excluded in the survey are as follows: those used for business, those used more for business purposes in case of being used both for household and business, those taken away from the home for a long period by other household members for working away from home or studying away from home and those possessed by employees.

E. savings and liabilities

Savings are various types of money deposits, contributions for pension, stocks, bonds, and other private loans evaluated at the end of year 2000.

Liabilities item first asks total amount of debts by the borrowing sources as of the end of year 2000 and secondly, three main usages of borrowing and lastly, yearly paid interests for all the debts.

F. real estate

The first item refers to the dwelling. It asks first dwelling types - owner's, long-term lease and monthly rent - and next, for owner's, it asks purchase or building year, fund source and the each amount of source, and the market price at the end of year 2000. For long-term lease, it asks the amount of lease guarantee deposit, and for monthly rent, it asks the amount of guarantee deposit and monthly rent.

The next item asks the market prices of the other real estates like land, house and other buildings.

Lastly asked item is an amount of received lease deposit for houses or other buildings, which is in fact of liabilities.

8. Sampling

The sample of year 2000 NSHIE is same with the sample of monthly Economically Active Population Survey (EAPS) in principle.

The data from approximately 22,029 ordinary enumeration districts (ED’s), which are 10% sample of the 1995 Population and Housing Census are used for the sample selection.

Islands and social institutions are excluded from the sample selection.
(1) Selection of Primary Sampling Units (PSU)

According to the classification of major administration regions, the country is divided into 16 regions, i.e., seven large cities and nine provinces. The latter are further divided into dongs, ups & myons. Therefore, there are 25 strata.

Within each stratum, ED's (PSU) are systematically selected with a probability proportional to its measure of size. A total of 1,231 PSU's are selected in 25 strata. Each selected PSU consists of a corresponding number of segments with 8 households on average.

(2) Selection of Secondary Sampling Units (SSU) and Ultimate Sampling Units (USU)

Within PSU, three contiguous segments (SSU) are randomly selected, and all households in each selected segment are the ultimate sampling unit of the survey. The sample is self-weighting in each stratum while the sampling rates are different from stratum to stratum.

As a result, a total of 29,529 ('97. 10. 1 present) households are included in the sample of the 1995 Population and Housing Census count, with the overall sampling rate of about 1/430. The average number of households in the 2000 monthly survey was 28,807.

9. Definition of Terms

o Household

Household is a social entity in a dwelling. It is different from "family" which shares blood or legally related and is not necessarily in a same dwelling.

In this survey, households are divided into "two-or-more-person household" and "one-person household".

A "two- or more -person household" is defined as a group of two or more person sharing residence and living expenses.

A "one-person household" refers to a person living alone.

o Household Head

A "household head" represents his household actually and refers to a person earning the main income of the household, and not necessarily the legal household head.

o Wage and Salary earner's household

In case when the activity status of household head is classified as an employee for wage & salary.