KoWePS
Korea Welfare Panel Study
User Guidelines

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Korea Institute for Health & Social Affairs
Social Welfare Research Center of Seoul National University
Homepage: www.koweps.re.kr

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Chapter 1 Survey Overview

1. Purpose of the Survey

□ Producing and analyzing statistical data representing a nation has paved the way for policy creation and academic development.

○ The reshaping of the UK into a welfare state at the turn of 20th century was largely attributable to the publication of 'Rediscovery of Poverty' by Booth and Rowntree, a study on the life and poverty of workers. Since then, research has been considered important as it provides foundational data not only for academic advancement but also for the establishment of national policies.

○ In general, national policies including social welfare policies require flexibility to respond to contextual changes, such as, financial conditions, spending patterns, value systems, and poverty levels of its citizens. A cross-sectional study, however, shows limitations in its analysis for such trends.

○ In recognition of this limitation, foreign countries such as the US (PSID), the UK (BHPS), Germany (GSOEP), and Canada (SLID) have come up with their own panel study, and the result of such panel data has made a great contribution to shaping their policies.

□ The Korea Welfare Panel provides information enabling the analysis of the dynamic aspects and varying needs of people over the cycle of their life, with the

aim to improve flexible responses to policy.

○ Korea Welfare Panel Study (KoWePS) allows long-term samples to be maintained and effective analysis to be ensured by offering the largest sampling in Korea. In addition, the subject of study was selected to enable comparison between low-income and general families, with the questionnaires of various areas relating to social welfare made available.

2. Research Need and Expected Effect

1) Contribute to the Development of Effective Social Welfare Policies

□ The gathering of panel data related to social welfare allows systematic analysis to be conducted for the current social welfare status and needs of people including the poor, social security, state of economic activities, etc.

□ A statistical analysis on the nation's economy, social behavior changes, and particularly the size and trends of people living below or near the poverty line can help verify the effectiveness of current social welfare policies and define areas of improvement.

2) Establish Statistical Infrastructure for Social Welfare

□ The Korea Institute for Health and Social Affairs (KIHASA) has managed to establish a systematic panel data through the KoWePS, laying the groundwork for the overhaul of relevant statistical infrastructure as well as the establishment of central data production system for social welfare.

□ The Korea Welfare Panel homepage (http://www.koweps.re.kr) is in operation to ensure easy user access to survey relevant basic data such as original data, preliminary analysis reports, survey questionnaires, etc.

3) Contribute to Facilitating Research and Developing Policies by Offering Basic Data for Academic Discussion

□ Information collected via the KoWePS will be used as fundamental data for conducting preliminary analysis, academic conference, and welfare-related in-depth analysis.

□ As welfare-related research will likely accelerate through the establishment of KoWePS considerable contribution is expected in the areas of academic achievement and policy development.

Chapter 2
Sample Design and Weight

1. Population and Sampling Frame

□ Population

○ The target population of KoWePS concerns all households living across the country.

○ The KoWePS-led survey population represents 90% of the census conducted in 2005. (Islands and special facilities are excluded.)

□ Sampling Frame

○ The sampling frame of the KoWePS amounts to 230,000 enumeration districts (EDs) representing 90% of the 2005 Census excluding islands and special facilities

〈Table 2-1〉 Composition of Sampling Frame by City and Province

City or Province	number of EDs	number of Households	City or Province	number of EDs	number of Households
Total	237,682	14,260,103			
Seoul	49,440	3,005,559	Gangwon	7,871	462,601
Busan	18,165	1,074,589	North Chungchung	7,499	450,291
Daegu	12,128	738,953	South Chungchung	9,869	588,216
Incheon	12,713	737,976	North Cholla	9,275	544,563
Gwangju	6,793	416,208	South Cholla	9,243	544,741
Daejeon	7,268	434,710	North Kyungsang	14,025	830,597
Ulsan	5,053	308,537	South Kyungsang	15,857	940,076
Kyunggi	49,803	3,021,932	Jeju	2,680	160,554

○ We selected 517 EDs (24,711 households) from the primary survey to identify family income before extracting 446 EDs as the final sample.

□ Sampling Method

○ Phase 1: Take a sample of 517 EDs from the 90% of the 2005 census to investigate family income and economic activities of family members.

○ Phase 2: Extract 3,500 general and low-income families from the previous survey respectively, with a total of 7,000 sample households.

○ Determine final panel households by applying 'Stratified Double Sampling' model.

□ Sampling Method for Additional Survey

○ Additional survey for children: Of 7,072 families, a total of 759 children of 4th to 6th grades were selected and studied for sampling.

○ Additional survey for the awareness on welfare: A total of 1,259 families were extracted via stratified random sampling for each different region from the first-year panel sample households. Upon investigating the head of each household and spouse, we came up with 1,065 families (1,694 persons) in

total.

○ Additional survey for the disabled: Of the second-year panel sample households, a total of 1,000 people were selected via stratified systematic sampling in terms of region and type of disability. Upon the completion of the survey, we were able to extract 878 physically-impaired people of ages 15 years or older.

2. Weight Variable and Type

□ General Background

○ The Koweps data file consists of 3 files: SPSS, SAS, and Stat file.

○ Different weight variables are assigned for household and household members respectively. The latter again divides into longitudinal weight and cross-sectional weight.

〈Table 2-4〉 Weight Variable

Description	Variable Name	
Household weight	H_WG	H_WS
Individual cross-sectional weight	P_WG_C	P_WS_C
Individual longitudinal weight	P_WG_L	P_WS_L
Individual cross-sectional weight for additional survey (Children)	C_WG_C	C_WS_C
Individual longitudinal weight for additional survey (Children)	C_WG_L	C_WS_L
Individual cross-sectional weight for additional survey (Awareness on welfare)	WC_WG_C	WC_WS_C
Individual longitudinal weight for additional survey (Awareness on welfare)	WC_WG_L	WC_WS_L
Individual cross-sectional weight for additional survey (The disabled)	DA_WG_C	DA_WS_C
Individual longitudinal weight for additional survey (The disabled)	DA_WG_L	DA_WS_L

Chapter 3 Composition & Content of Survey Questionnaire

1. Composition of Survey Questionnaire

□ Survey questionnaires mainly comprise 'For households,' 'For household members,' and 'For additional survey.'

□ To address special issues identified every year, an additional survey is carried out either as a one-off study or on a recurring basis (i.e. once every few years). Currently, the survey on 3 main themes, namely children, welfare awareness, and the disabled, is conducted every 3 years.

○ According to the periodic cycle , the survey for children was performed in the 1st, 4th, 7th and 10th year; 2nd, 5th, 8th and 10th year for the awareness on welfare, and 3rd, 6th, 9th and 12th year for the disabled.

〈Table 3-1〉 Target and Method by Survey Questionnaire Type

Wave 1		
Survey for households (original & new)	Survey for household members (original & new)	Additional survey (Children)
• Target: Head of household or spouse • Method: Face-to-face interview via home visit • Survey year: 2006 • Survey base year: 2005 • Baseline time: 2005.12.31	• Target: Household members 15 years or older excluding middle & high school students • Method: Face-to-face interview via home visit • Survey year: 2006 • Survey base year: 2005 • Baseline time: 2005.12.31	• Target: All children in 4th, 5th, and 6th grades • Method: Face-to-face interview with self-administered survey via home visit • Survey year: 2006 • Baseline time: As of the date of survey conducted

Wave 2

Survey for households (original & new)	Survey for household members (original & new)	Additional survey (Awareness on welfare)
• Target: Head of household or spouse • Method: Face-to-face interview via home visit • Survey year: 2007 • Survey base year: 2006 • Baseline time: 2006.12.31	• Target: Household members 15 years or older excluding middle & high school students • Method: Face-to-face interview via home visit • Survey year: 2007 • Survey base year: 2006 • Baseline time: 2006.12.31	• Target: Heads & spouses of sampled households • Survey year: 2007 • Baseline time: As of the date of survey conducted

Wave 3

Survey for households (original & new)	Survey for household members (original & new)	Additional survey (People with disabilities)
• Target: Head of household or spouse • Method: Face-to-face interview via home visit • Survey year: 2008 • Survey base year: 2007 • Baseline time: 2007.12.31	• Target: Household members 15 years or older excluding middle & high school students • Method: Face-to-face interview via home visit • Survey year: 2008 • Survey base year: 2007 • Baseline time: 2007.12.31	• Target: Disabled persons sampled by disability type • Survey year: 2008 • Baseline time: As of the date of survey conducted

Wave 4

Survey for households (original & new)	Survey for household members (original & new)	Additional survey (Children)
• Target: Head of household or spouse • Method: Face-to-face interview via home visit • Survey year: 2009 • Survey base year: 2008 • Baseline time: 2008.12.31	• Target: Household members 15 years or older excluding middle & high school students • Method: Face-to-face interview via home visit • Survey year: 2009 • Survey base year: 2008 • Baseline time: 2008.12.31	• Target: Household members found currently studying in middle school of the respondents from the 1st year additional survey (children) • Method: Face-to-face interview in collaboration with the self-administered survey • Survey year: 2009 • Baseline time: As of the date of survey conducted

Wave 5

Survey for households (original & new)	Survey for household members (original & new)	Additional survey (Awareness on welfare)
• Target: Head of household or spouse • Method: Face-to-face interview via home visit • Survey year: 2010 • Survey base year: 2009 • Baseline time: 2009.12.31	• Target: Household members 15 years or older excluding middle & high school students • Method: Face-to-face interview via home visit • Survey year: 2010 • Survey base year: 2009 • Baseline time: 2009.12.31	• Target: Heads & spouses of old (the respondents of the 2nd year additional survey) and new sampled households • Survey year: 2010 • Baseline time: As of the date of survey conducted

Wave 6

Survey for households (original & new)	Survey for household members (original & new)	Additional survey (People with disabilities)
•Target: Head of household or spouse • Method: Face-to-face interview via home visit • Survey year: 2011 • Survey base year: 2010 • Baseline time: 2010.12.31	• Target: Household members 15 years or older excluding middle & high school students • Method: Face-to-face interview via home visit • Survey year: 2011 • Survey base year: 2010 • Baseline time: 2010.12.31	• Target: Respondents of 3rd year survey for the disabled • Survey year: 2011 • Baseline time: As of the date of survey conducted

Wave 7

Survey for households (original & new)	Survey for household members (original & new)	Additional survey (Children)
•Target: Head of household or spouse • Method: Face-to-face interview via home visit • Survey year: 2012 • Survey base year: 2011 • Baseline time: 2011.12.31	• Target: Household members 15 years or older excluding middle & high school students • Method: Face-to-face interview via home visit • Survey year: 2012 • Survey base year: 2011 • Baseline time: 2011.12.31	• Target: Respondents of 1st or 4th additional survey for children • Survey year: 2012 • Baseline time: As of the date of survey conducted

Wave 8

Survey for households (original & new)	Survey for household members (original & new)	Additional survey (Awareness on welfare)*
• Target: Head of household or spouse • Method: Face-to-face interview via home visit • Survey year: 2013 • Survey base year: 2012 • Baseline time: 2012.12.31	• Target: Household members 15 years or older excluding middle & high school students • Method: Face-to-face interview via home visit • Survey year: 2013 • Survey base year: 2012 • Baseline time: 2012.12.31	• Target: 19-year-old or older members of families selected from the sample households of the 7th survey • Survey year: 2013 • Baseline time: As of the date of survey conducted

Wave 9

Survey for households (original & new)	Survey for household members (original & new)	Additional survey (People with disabilities)
• Target: Head of household or spouse • Method: Face-to-face interview via home visit • Survey year: 2014 • Survey base year: 2013 • Baseline time: 2013.12.31	• Target: Household members 15 years or older excluding middle & high school students • Method: Face-to-face interview via home visit • Survey year: 2014 • Survey base year: 2013 • Baseline time: 2013.12.31	• Target: Respondents of 3rd year survey for the disabled • Survey year: 2014 • Baseline time: As of the date of survey conducted

Wave 10

Survey for households (original & new)	Survey for household members (original & new)	Additional survey (Children)
• Target: Head of household or spouse • Method: Face-to-face interview via home visit • Survey year: 2015 • Survey base year: 2014 • Baseline time: 2014.12.31	• Target: Household members 15 years or older excluding middle & high school students • Method: Face-to-face interview via home visit • Survey year: 2015 • Survey base year: 2014 • Baseline time: 2014.12.31	• Target: Respondents of 1st or 4th additional survey for children • Survey year: 2015 • Baseline time: As of the date of survey conducted

Wave 11

Survey for households (original & new)	Survey for household members (original & new)	Additional survey (Awareness on welfare)*
• Target: Head of household or spouse • Method: Face-to-face interview via home visit • Survey year: 2016 • Survey base year: 2015 • Baseline time: 2015.12.31	• Target: Household members 15 years or older excluding middle & high school students • Method: Face-to-face interview via home visit • Survey year: 2016 • Survey base year: 2015 • Baseline time: 2015.12.31	• Target: 19-year-old or older members of families selected from the sample households of the 7th survey • Survey year: 2016 • Baseline time: As of the date of survey conducted

Wave 12

Survey for households (original & new)	Survey for household members (original & new)	Additional survey (People with disabilities)
• Target: Head of household or spouse • Method: Face-to-face interview via home visit • Survey year: 2017 • Survey base year: 2016 • Baseline time: 2016.12.31	• Target: Household members 15 years or older excluding middle & high school students • Method: Face-to-face interview via home visit • Survey year: 2017 • Survey base year: 2016 • Baseline time: 2016.12.31	• Target: Respondents of 3rd year survey for the disabled • Survey year: 2017 • Baseline time: As of the date of survey conducted

* Note 1> Fourth, fifth, and sixth graders among household members included in the 1st wave of the panel study were chosen for the 1st wave of the additional survey of children. The 4th and 7th waves of the additional survey of children targeted the aforementioned students who grew up to become 7th, 8th, 9th, 10th, 11th, and 12th graders. Fourth, fifth, and sixth graders were newly sampled for the 10th wave of the additional survey of children. The additional survey of children based on a new sample will contribute to setting up data that can be compared with child cohorts belonging to different times.

* Note 2> The 2nd and 5th wave of additional survey for the awareness on welfare were criticized for their lack of representation as their sample was made up not of entire household members but one or two members: the head of the household and/or spouse. As such, the 8th additional survey was targeted for all family members aged 19 or above who were selected through PPS (probability proportional to size) sampling in terms of region and social class from the entire sample households of the 7th wave.

* Note 3> For the 3rd wave of the additional survey of the disabled, a total of 1,000 persons were sampled from the sample households for the 2nd wave of the panel study via stratified sampling by region and disability type. The sample for the 3rd wave of the additional survey of the disabled was used for the 6th wave thereof. However, due to lack of sampled children and students, all household members with disabilities younger than 15 among those for the 8th wave of the welfare panel study were added for the 9th wave of the additional survey of the disabled. All household members with disabilities not subject to the additional survey of the disabled among those for the 11th wave of the welfare panel study were added to the sample for the 12th wave of the additional survey of the disabled.

〈Table 3-2〉 Definition of Original and New Household/Members

Classification		Description
Household	Original	Panel households for which the survey was completed in the preceding year (i.e. The families fully studied for the 7th year will become original households for the following 8th year.)
	New	A family moving out of the original family (based on the head of household) prior to Sept. 30 of Survey Baseline Year (i.e. baseline year for the 8th wave: 2012) due to marriage, job, study, foster care, divorce, separation, etc. ※ A family member (living together for over 9 months) who moved out after Oct. 1 of the baseline year shall be considered, and thus surveyed as part of original family, not as a new family.
Members	Original family members	Household members who responded to the survey of the previous year (i.e. Respondents of the 7th wave survey will become original members of the 8th wave)
	New family members	Of household members who didn't respond to the prior year's survey, those falling into the following categories: 1) A member who turned 15 in the base year, but not in middle or high school 2) A member who dropped out or graduated from high school during Feb. of the base year 3) A member newly entered to original or new household during the base year

2. Areas of Survey

□ The KoWePS has been performing a multi-year study into diverse domains considered essential to continuously build data to understand the living conditions of people including the low-income families and their welfare needs.

□ In addition, we have defined special areas of focus such as children, welfare awareness, and people with disabilities to conduct a periodic survey.

〈Table 3-3〉 Areas of Survey

Survey Report Type	Areas of Survey	
For households (original & new)	I. General information on household II. Health & medical care (A) III. Economic activity status IV. Social insurance, retirement pension, and individual annuity held V. Medical care (B) VI. Housing VII. Living expenses VIII. Income IX. Debts, interest, and minimum cost of living (subjective)	X. Property XI. Living conditions XII. National basic livelihood security scheme XII-1. Earned income tax credit XIII. Use of welfare services by household XIV. Use of welfare services by the elderly XV. Use of welfare services by families with children XVI. Use of welfare services by the disabled XVII. Family
For household members (Original & new)	A. Social insurance, retirement pension, and individual annuity received B. Labor C. Satisfaction and views on the current living conditions D. Perception on social environment	E. Daily habits, family relationship, and mental health F. Education (Please answer if you are a new family member) G. Personal affairs (Please answer if you are a new family member

Survey Report Type		Areas of Survey	
Additional Survey	For children (1st/4th/7th/10th)	A. Current status B. My school life C. My thoughts & behavior D. My parents	E. My friends F. My health & livelihood G. My work experience (part-time) & activities H. My future career
	For the awareness on welfare (2nd/5th/8th/11th)	I. Overall social/political perception and attitude II. Welfare funding and scope of target	III. Political involvement and orientation
	For the disabled (3rd/6th/9th/12th)	(Common I) Causes for disability and current status (Common II) Everyday life (Individual I) Survey for pre-schoolers (from year 0 ~ before entering school) (Individual Ⅱ) Survey for students (elementary ~ high school) (Individual Ⅲ) Survey for adults (aged 18~below 65) (Individual Ⅳ) Survey for seniors (65 or older)	

〈Table 3-4〉 Composition by Survey Topic

Topic	Detailed Item	Area Covered
1.Background and personal affairs of family members	1) General information on household members	For household I. General information on household For household members F. Education
	2) Parents' generation	For household members G. Personal affairs
	3) Personal affairs	For household members G. Personal affairs
2. Labor activity	1) Previous job experience	For household members G. Personal affairs
	2) Economic activity status	For household III. Economic activity status For household members B. Labor
	3) Employment support program	For household members B. Labor
3. Financial status	1) Income	For household VIII. Income
	2) Expenditure & savings	For household VII. Living expenses, X. Property
	3) Assets & liabilities	For household IX. Debts, interest, minimum cost of living (subjective), X. Property
	4) Basic livelihood	For household XI. Living conditions

Topic	Detailed Item	Area Covered
4. Household conditions (welfare needs)	1) Childcare, education	For household XV. Use of welfare services by the families with children
	2) Health & medical care	For household II. Health & Medical Care (A), V. Medical Care (B)
	3) Housing	For household VI. Housing
	4) Family relationship	For household XVII. Family For household members E. Daily habits, family relationship, and mental health
	5) Other family conditions	Additional survey: For children (1st/4th/7th/10th) : For the disabled (3rd/6th/9th/12th)
5. Social security subscription status and the benefits currently receiving	1) Social insurance	For household IV. Social insurance, retirement pension, and individual annuity held For household members A. Social insurance, retirement pension, and individual annuity received
	2) Public assistance	For household I. General information on household (Basic social security benefits) XII. National basic livelihood security scheme XII-1. EITC/CTC
	3) Social welfare service	For household XIII. Use of welfare services by household XIV. Use of welfare services by the elderly XV. Use of welfare services by the families with children XVI. Use of welfare services by the disabled Additional survey for the disabled (3rd/6th/9th/12th)
6. Others	1) Other living conditions and social network	For household members C. Satisfaction & views on current living conditions D. Awareness on social environment
	2) Daily habits and mental health	For household members E. Daily habits, family relationship, and mental health
	3) Perception on welfare, social, and political issues	Additional survey for the awareness on welfare (2nd/5th/8th/11th) For household members D. Perception on social environment (gender-based role)

Chapter 4 Data Description

1. Handling of Missing Data and Data Merging

1) Handling of Missing Data

□ A family member with responses classified as 'incomplete' should be treated as below:

○ How to deal with incomplete answers

– A family member who falls into the categories of brain damage, mental retardation or developmental disorder of grade 1 and 2, death, depression, Alzheimer' s disease, legally incompetent, and etc in terms of 'Reason for Incomplete Answer' Code for both main and additional surveys wasn't asked to fill out a questionnaire except the cover page. In such case, the person in question can be excluded from analysis if necessary.

– If you wish to extract complete responses only from household members data for analysis, you just need to remove the ones defined as 'incomplete (code: 2)' from the variable of 'final survey results confirmed' (variable name: p**_cp).

– If you wish to extract complete responses only from additional survey data for analysis, you just need to remove the ones classified as 'incomplete (code: 2)' from the variable of 'final survey results confirmed' (variable name: c**_cp, wc**_cp, da**_cp).

□ The handling of missing data takes place only for incomplete answers from the survey of household members as well as in additional survey if deemed necessary.

2) Data Merging

□ Key variable setting

- Setting a key variable for data is required when extracting special data or linking two or more datasets together.
- Key variables for primary surveys (of household and household members) as well as additional surveys should be defined as the following:

○ Household data

- Merge key for household (h**_merkey)
- Individual Panel ID (h**_pid)
- - Individual Panel ID for Family Member number 1 (variable name: h**_pid1), Individual Panel ID for Family Member number 2 (variable name: h**_pid2), Individual Panel ID for Family Member number 3 (variable name: h**_pid3), Individual Panel ID for Family Member number 4 (variable name: h**_pid4), Individual Panel ID for Family Member number 5 (variable name: h**_pid5), Individual Panel ID for Family Member number 6 (variable name: h**_pid6), Individual Panel ID for Family Member number 7 (variable name: h**_pid7), Individual Panel ID for Family Member number 8 (variable name: h**_pid8), Individual Panel ID for Family Member number 9 (variable name: h**_pid9)

○ Household members data

- Merge key for household (h**_merkey)
- Individual Panel ID (h**_pid)

○ Additional survey data

- Merge key for household (h**_merkey)
- Individual Panel ID (h**_pid)

□ Data Merging Methodology

○ How to tie household data with data of members

- As the household data ranging from general household information with individual panel ID to member-specific sub-observations such as social insurance held, retirement pay available, and income level is provided in the 'wide type' format, reshaping such data to fit the 'long type' is required to link it to household members data based on individual panel ID.

- Step 1: , split household data into 9 different data files according to household member number from 1 to 9. For instance, a family of 3 members would have 3 data sets in place. Then, select an individual panel ID embedded variable from the areas of 'general information on household,' 'health & medical care (A),' 'economic activity status,' 'social insurances & retirement plan,' and 'income' with sub-observations available for each member. Assign 'sub-observation identifier variable name' to allow each data file to have the same variable name for an identical question. Assigning new sub-observation identifier variable name is driven by our attempt to enable data to append and merge by attaching identical variable name to a variable for the analysis of 9 separate datasets. Upon completion of treating all 9 data files, designate the dataset of member number 1 as 'master data' while defining the rest as 'using data' before proceeding to append and merge.

  • For example, suppose you want to conduct analysis by combing the sub-observations of general household information such as individual panel ID, household member number, relationship with head, sex, year & month of birth with household members data. The first thing you

need to do is divide household data into 9 data files corresponding to member number 1~9. As for the dataset of member number 1, each variable name relating to household member number 1 such as 'household member entry number (h**_pind1),' 'individual panel ID (h**_pid1),' 'family member number(h**01_2),' 'relationship with head (h**01_3),' 'sex (h**01_4),' and 'year of birth (h**01_5)' should be changed to appropriate identifier name such as h**_pid, h**_g1, h**_g2, h**_g3, h**_g4 respectively. Then, move on to the dataset of household member number 2. Switch the relevant variable names including 'household member entry number (h**_pind2),' 'individual panel ID (h**_pid2),' 'family member number (h**01_14),' 'relationship with head (h**01_15),' 'sex (h**01_16),' and 'year of birth (h**01_17)' to h**_pind, h**_pid, h**_g1, h**_g2, h**_g3, h**_g4 respectively. Make sure to have existing variable names changed to relevant identifier names for all outstanding data files (all the way down to household member number 9). Upon completion, append/merge the newly-altered 9 data files to form a new type of dataset that allows the data files of a whole family to align in 'long type' mode.

[Figure 4-1] Reshaping of Household Data

Sub-observation	Cover	General Information on Household																	
		Member number 1						Member number 2						Member number 3					
	Household panel ID	Member entry number	Individual panel ID	Member number	Relationship with head	Sex	Year of birth	Member entry number	Individual panel ID	Member number	Relationship with head	Sex	Year of birth	Member entry number	Individual panel ID	Member number	Relationship with head	Sex	Year of birth
Variable Name	h**_id	h**_pind1	h**_pid1	h**01_2	h**01_3	h**01_4	h**01_5	h**_pind2	h**_pid2	h**01_14	h**01_15	h**01_16	h**01_17	h**_pind3	h**_pid3	h**01_26	h**01_27	h**01_28	h**01_29
Observation	1000	1	10001	1	010	1	1950	1	10002	2	020	2	1952	2	10003	3	011	1	1975
	2000	1	20001	1	010	1	1952	1	20002	2	020	2	1954						
	3000	1	30001	1	010	1	1948	1	30002	2	020	2	1950	2	30003	3	012	2	1973

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Data File of Member number 1

Sub-observation	Household panel ID	Member entry number	Individual panel ID	Member number	Relationship with head	Sex	Year of birth	…
Identifier Variable Name	h**_id	h**_pind	h**_pid	h**_g1	h**_g2	h**_g3	h**_g4	…
Observation	100	1	10001	1	010	1	1950	…
	200	1	20001	1	010	1	1952	…
	300	1	30001	1	010	1	1948	…

+

Data File of Member number 2

Sub-observation	Household panel ID	Member entry number	Individual panel ID	Member number	Relationship with head	Sex	Year of birth	…
Identifier Name	h**_id	h**_pind	h**_pid	h**_g1	h**_g2	h**_g3	h**_g4	…
Observation	100	1	10002	2	020	2	1952	…
	200	1	20002	2	020	2	1954	…
	300	1	30001	2	020	2	1950	

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…

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Data File of Member number 9

Sub-observation	Household panel ID	Member entry number	Individual panel ID	Member number	Relationship with head	Sex	Year of birth	…
Identifier Name	h**_id	h**_pind	h**_pid	h**_g1	h**_g2	h**_g3	h**_g4	…
Observation	100	1	10009	9	015	1	1980	…
	300	1	20009	9	016	2	1985	…

- Step 2: Have master data (household) and using data (household members) each aligned based on key variable (h**_pid). If data sets are merged by the key variable in 'wide type' format, you can see the data files of all the corresponding family members converging horizontally.
- Step 3: In cases where the household members failing to respond are not essential to the analysis, have the 'final survey results confirmed' variable (p**_cp) set at '1' in order to capture the complete datasets only.

○ How to link household data to additional survey data
- Identical to the above

○ How to tie household members data to additional survey data
- Step 1: Get members data and additional survey data to align based on individual panel ID (h**_pid), which is a key variable.
- Step 2: Run a case data merge to combine data by the key variable.

○ How to combine data frames of household, members, and additional survey
- Tie household data to the merged data sets of members and additional survey. (The same methodology used in the data linking of household and members shall be applied .)

□ In terms of combining two or more data frames, if observations for individual panel ID are joined side by side, we call it 'Case Merge.' On the other hand, adding new individual panel ID one below the other is considered 'Append Merge.'

□ Questions including sub-observations

○ General information on household: Member entry number, individual panel ID, family member number, relationship with head, sex, year/month of birth, educational background, disability type and grade, marital status, religious

preference, residency

○ Health & medical care: Health status, number of outpatient visits, hospitalization frequency, number of days staying in hospital, reasons for hospitalization, frequently used form of medical institutions, number of medical checkups, chronic disease, major disease name, number of private health insurance policies held

○ Economic activity status: Level of labor capacity, reasons for incompetence, involvement in major economic activities, hiring relationship, type of working hours, terms of employment specified in the contract (Y/N), continuity of employment, industry category, occupation type, size of business, reasons for non-economic activities

○ Social insurance & retirement plan: Public pension subscription type, annuities currently held, national pension by policy type, premiums paid on time (Y/N), type of non-payment, reasons for exemption, period exempted, reasons for delinquency, overdue period, reasons for refusal, industrial accident compensation available, employment insurance available, severance pay available, retirement pension held, individual annuity held

○ Income: Economic activities of family members (permanent, temporary, daily, employer, self-employed, agriculture & livestock business, fishery, unpaid family business worker), gains from the concerned economic activity, other incomes earned.

□ Be sure to assign 'h**_pid' for the sub-observation identifier variable name of individual panel ID in the survey for households.

3) Data Merging of Wave 1 ~ 12

□ Merging of household data from 1st, 2nd, 3rd, … , 11th & 12th waves

○ Set a key variable at 'h**_merkey' to combine household data ranging from 1st to 12th waves.

- Step 1: Have each dataset sorted by the key variable
- Step 2: Implement a case data merge to combine data frames by the key variable.

□ Merging of individual member data from 1st, 2nd, 3rd, … , 11th, & 12th waves

○ Set a key variable at 'h**_pid' to combine individual data ranging from 1st to 12th waves.

- Step 1: Have each dataset sorted by the key variable
- Step 2: Employ 'Case Merge' to combine data frames by the key variable.

□ Configuration of key variable (h**_merkey)

○ It is composed of a total of 8 characters with a 4-digit Household Panel ID followed by 2 digits of New Family number and another 2 digits for Out-mover Serial number

- Household panel ID: A different serial number assigned to each household surveyed during the 1st year. In cases where a person moves out of original family to form a new family, the same household panel ID of original family is issued to the new family created.
- New family number: A variable that segregates original family from new family for household data. It represents the sequence number assigned to new family created after leaving the original family. Original family remains at '1' while new family is issued a new panel number.
- ex) 01: 1st (original family), 02: 2nd (new family), 03: 3rd (new), 04: 4th (new), … , 11: 11th (new), 12: 12th (new)
- Out-mover serial number: A serial number assigned to a new family formed after moving out of original family. If two or more families have moved out, the 1st family created shall be given '01,' 2nd family '02,' 3rd family '03,' and so forth.

【Reference】

□ Definition of 'survey base year (year)' and 'survey year (i_year)'

○ Survey base year (year) represents the baseline period on which survey respondents should base their answers.

○ Survey year (i_year) refers to the time in which the survey is conducted.

※ Survey base year (year) is considered 1 year prior to each survey year (i_year). However, it may differ depending on actual questions. That said, reviewing questionnaires closely is absolutely essential. (Every survey questionnaire has 'survey base year' or 'survey year' specified.)

□ Definition of 'member entry number (h**_pind)'

○ It means the number of new member added to the family; provided, however, that it is only limited to a family member living together for 9 months or more. A member newly entered into the family during the 12th wave study would be assigned '12;' a new entry made to the family for the 11th wave would be given '11;' new additions to the family during 10th, 9th, 8th, … , 3rd, and 2nd waves would be granted '10', '09', '09', … , '02' respectively. Finally, the members surveyed during the 1st wave would be assigned '01.'

□ How to separate Type 3 and Type 4 subjects

○ The survey for household members (Type 3, Type 4) is subject to all relevant family members living together for over 9 months as of Dec. 31 of the base year who are 15 years old or older and not attending middle & high schools.

○ Survey type 4 is targeted for any family members newly added to the scope of survey.

○ A variable (p**_tq) is used to identify type 3 and type 4 respondents. If p**_tq is filled with '3,' it means 'type 3;' if it is 4, it indicates 'type 4'.

2. Household Data

1) General Information on Household[1)]

【Notes on the Use of Variables】

□ All survey items in 'General Household Information' are answered based on Dec. 31 of relevant base year.

□ New families refer to those created prior to Sept. 30 of survey base year. (A family formed after Oct. 1 is perceived as part of original household, not new household.)

□ Q1) Number of family members (h**01_1)

○ This concerns a total number of family members living together over 9 months for the base year. In other words, they should be in a relationship of communal life in which both incomes and spendings are shared. (For new household, however, it should be answered based on family members who shared livelihood for three quarters of the period from the date of family creation during the base year until the end thereof)

○ Family members living separately due to work and/or studies are considered part of the household.

□ Q6) Disability type (h**01_8)

○ In case of multiple disabilities, enter a major handicap of higher grade only. If the grade is identical, enter the one that poses more difficulty for your life.

1) As 'General Household Information' section contains questions with sub-observations included (member number 1~9), it was discussed based on family member number 1.

□ Q7) Marital status (h**01_11)

○ Marital status is by default coded as '⓪ N/A' for any male & female respondents aged below 18 (as of survey base year). However, in cases where a family member has entered into marriage at such a young age, the field will be populated with '① Married'.

□ Q9) Residency (h**01_13)

○ The entry of 'Reasons for non-cohabitation' field (through the selection of ② ~ ⑪) involves those who lived together for over 9 months during the base year but were found living apart or separated as of Dec. 31 thereof.

□ Q10) Family type (h**01_110)

○ It shall be defined as the following (particularly, special attention is required for the definition of 'mother-offspring' and 'father-offspring' family):

- Single: One-person family
- Mother-offspring: A family consisting of mother and unmarried children under 18 years of age (If children are still in school, it is extended to below 22 years old)
- Father-offspring: A family consisting of father and unmarried children under 18 (If children are still in school, it is extended to below 22 years old).
- Grandparent-grandson or child head of household: Household headed by an under-aged child (below 18) or a family headed by a 65 year old or older grandfather/mother who is living with grandchildren.
- The ages mentioned above (mother, father, offspring, grandparent, grandchild) represent how old they were as of the base year.
- N/A: Those not specified above

□ Q11) Type of basic security benefits received (h**01_5aq1, h**01_5aq2)

○ It has been divided into 2 sub-questions since the 5th wave.

○ A single question (h**01_111) was asked during the period between the 1st and 4th waves.

- Example ⓪ N/A ① General (Entire family), ② Conditional (Entire family), ③ Partially general (Individual of ①, ② above), ④ Specially-designated (Entire family, individual)

□ Q12) Type of Medical Aid received (h**01_5aq3, h**01_5aq4)

○ It has been divided into two sub-questions since the 5th wave.

○ A single question (h**01_3aq1) was asked in the 3rd and 4th waves.

- Example ⓪ N/A, ① Medical Aid Class 1 (Entire family), ② Medical Aid Class 2 (Entire family), ③ Medical Aid eligible to part of family members (Individual member of ①, ② above).

□ Q 11) Customized benefits (livelihood, medical, housing, and education): the new system was established in the 2nd half of the 11th wave)

○ Livelihood benefits (h**01_11aq2, h**01_11aq3)

- h**01_11aq2: ⓪ N/A ① general recipient households ② conditional recipient households ③ special recipient households
- h**01_11aq3: ⓪ N/A ① for all household members ② for part of household members

○ Medical benefits (h**01_11aq5, h**01_11aq6)

- h**01_11aq5: ⓪ N/A ① medical benefit type 1 ② medical benefit type 2 ③ free services for men of national merit
- h**01_11aq6: ⓪ N/A ① for all household members ② for part of household members

○ Housing benefits (h**01_11aq8)

- h**01_11aq8: ⓪ N/A ① lease benefits (including special cases) ③ maintenance benefits (including special cases)

○ Number of education benefit recipients (h**01_11aq10): subjective responses (0: N/A)

□ Q 11) Basic and medical security benefit systems were converted into a customized benefit system on July 01, 2015 (starting from the 11th wave).

○ The basic and medical security system period for the 11th wave is from January 01 to June 30, 2015 (1st half).

○ The customized benefit period for the 11th wave (livelihood, medical, housing, and education) is from July 01 to December 31, 2015 (2nd half).

○ The customized benefit period for the 12th wave (livelihood, medical, housing, and education) is one year.

2) Health & Medical Care (A)[2)]

【Notes on the Use of Variables】

□ Q2-1) Outpatient visits (h**02_3)

○ If a respondent was treated at the same hospital for two or more times for different illnesses, it is counted as 'once'. However, if two different hospitals were used, it is regarded as 'twice' (based on hospital visits).

□ Q3) Reasons for hospitalization for the past year (h**02_6), Q6) Chronic diseases (h**02_aq1), Q7) Name of major diseases (h**02_9)

○ Each respondent was asked to answer the primary reason and the most severe illness suffered.

□ Q4) Frequently-used form of medical institutions (h**02_7)

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2) As 'Health & Medical Care (A)' section contains questions with sub-observations included (member number 1~9), it was discussed based on family member number 1.

○ A primary form of medical institutions used was asked during 1st~3rd waves.

○ From the 4th wave and onwards, each respondent was asked to answer only if he or she has had experience of getting medical attention for the previous year. If not, '⓪ N/A' was selected.

□ Q7) Major disease code (h**02_9)

○ The Major Disease Code section has been included since the 3rd wave.

○ The list below illustrates the main disease codes used during 1st and 2nd waves. (For major disease codes from the 3rd wave onwards, please refer to the survey questionnaire.)

[Type of Disease]			
1. Cancer (stomach, liver, lung, bronchitis, etc.)	6.Thyroid gland	11.Chronic respiratory inflammation (phlegm, coughing)	16. Fracture, post-accident symptoms
2. Arthritis, backache, sciatica, disc	7.High blood pressure, low blood pressure	12.Asthma	17.Osteoporosis
3.Gastritis, stomach ulcer, duodenal ulcer, etc.	8.Paralysis, cerebrovascular disease	13.Cataract, glaucoma	18.Other diseases
4.Chronic hepatitis, liver cirrhosis	9.Myocardial infarction, angina pectoris	14.Chronic tympanitis	00.None
5.Diabetes	10.Pulmonary tuberculosis, tuberculosis	15.Chronic renal failure (chronic renal illness)	

□ Q8) number of private insurance plans (h**02_3aq1)

○ As for family health insurance held (primary: head of household, secondary: spouse & offsprings), an entry for the field is made not only for the head but also for each family member.

3) Economic Activity Status[3)]

【Basic Tip】

□ The answers are based on Dec. 31 of the base year amid the participation of all family members aged 15 or above.

3) As 'Economic Activity Status' section contains questions with sub-observations included (member number 1~9), it was discussed based on family member number 1.

○ As far as irregular jobs (i.e. construction worker, daily farming worker) or seasonal work (i.e. agriculture) are concerned, the primary job held during the base year should be selected.

【Notes on the Use of Variables】

□ Q3) Involvement in major economic activities (h03_4)

○ Your answer should be based on your state of participation in major economic activities throughout the year.

○ In cases where you were involved in two or more economic activities, select the one that you consider as primary activity.

○ Students or housewives working over 1 hour a week to earn money, or those on temporary leave (i.e. sick leave, maternity leave, childcare leave) should be defined as 'employed'

□ Q3-1) Involvement in economic activities (as of Dec. 31) (h03_7aq1)

○ It has been added since the 7th wave. Only those who selected '③ Daily wage earner or ④ Self-support, public work programs, jobs for the elderly' for Q3) (h03_4) earlier are required to answer this question.

– It allows daily workers engaging in construction or farming industry or seasonal laborers to identify the main job they primarily held during the base year. It aims to specifically determine each respondent's exposure to economic activities as of Dec. 31.

□ Q8) Industry category (h03_7), Q9) Occupation type (h03_8)

○ Industry category/occupation type codes are assigned in accordance with the standard categorization guidelines set by the National Statistical Office (NSO).

– Industry category: The 1st, 2nd, and 3rd waves of panel study were subject to the 8th amendment of the Korea Standard Industrial Classification

(KSIC);' 4th~8th waves were in compliance with the 9th amendment thereof.

- Occupation type: The 5th amendment of the Korea Standard Classification of Occupations (KSCO) was applied from the 1st to 3rd waves; 4th~7th waves were subject to the 6th amendment thereof.

4) Social Insurance, Severance Pay (Pension), and Individual Annuity Held[4)]

【Notes on the Use of Variables】

□ Q3) By policy type (national pension) (h**04_aq3)

○ Your answers to 'Involvement in economic activities' of III Economic Activity Status section and 'By policy type' of IV Social Insurance may not be logically consistent.

- There may be cases in which you responded 'Self-employed (=6)', 'Unpaid family business worker (=7)', 'Unemployed (=8)' or 'Non-economic (=9)' for 'Economic Activity Status' (h**03_4+h**03_7aq1) as of Dec. 31, yet selected 'Workplace-based insured (=1)' for 'By Policy Type' (h**04_aq3).

○ These are circumstances where actual economic activity status differs from the type of social insurance subscribed under the regime.

- For instance, you are 'self-employed' in terms of actual economic status, yet your name is on the list of employees for a firm run by your friend, thus being entitled to the 4 major social insurances.
- In this case, the type of national pension policy held is workplace-based even if you are categorized as 'self-employed' in terms of economic activity status.

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4) As 'Social Insurance, Severance Pay (Pension), and Individual Annuity Held' section contains questions with sub-observations included (member number 1~9), it was discussed based on family member number 1.

□ Q4) Premiums paid on time (Y/N) (h**04_aq4)

○ You don't select 'No (=2)' in case of missed deadlines or insufficient balance on the day of automatic withdrawal, as they are not considered an act of intentional default. In such case, entering 'Yes (=1) is correct.

○ Even if you selected 'Yes (=1) for Q4) 'Premiums paid on time' (h**04_aq4), you should answer Q7) Reasons for delinquency (h**04_aq8) and Q7-1) Overdue period (h**04_aq9).

- The rationale behind this is Q4) is to be answered as of Dec. 31 of survey base year whereas Q7) and Q7-1) are required to respond for the entire base year. So, though it appears you were paying premiums for national pension at year-end, you may have defaulted your payment sometime during the relevant year.
- In cases when you were never behind for the entire base year, you should mark Q4) (h**04_aq4) as 'Yes (=1),' while putting in '0' for both Q7) (h**04_aq8) and Q7-1) (h**04_aq9).
- However, there exists logical discrepancy between wave 2 and 3 in terms of Q4), Q7), and Q7-1).

Classification	2nd wave	3rd wave onwards
Q4) Timely payment for national pension	Select '① Yes'	Select '① Yes'
Q7) Reasons for delinquency Q7-1) Overdue period	Bypass Q7) and Q7-1) (Treat as missing values) and go directly to Q9)Industrial Accident	Make certain to fill in Q7) and Q7-1)

□ Q13) Individual annuity held (h**04_aq11)

○ Given the fact that ones 'whole life can be convertible to individual annuity, having whole life in place was perceived as subscription to annuity (=1) beginning in the 2nd wave.

5) Medical Care (B)

【Notes on the Use of Variables】

□ Medical Care (B) is a question regarding how households used health insurance and medical benefits for one year (Jan. 01 ~ Dec. 31). However, the question concerning private health insurance premiums (h**05_3aq2) is based on December data.

□ Questions that have been added since the 3rd wave are about subscriber type (h**05_3aq1) and private health insurance premiums for December (h**05_3aq2). Question 4 regarding appropriate coverage for health insurance premiums (nh**05_8) and question 5 concerning satisfaction with medical services (nh**05_9) are used every three years. Therefore, all households answered the questions in the 1st, 4th, 7th, and 10th waves but new, rather than existing, households were asked to reply to the questions in the 2nd, 3rd, 5th, 6th, 8th, 9th, 11th, and 12th waves.

□ Q1) Health insurance held (Y/N) (h**05_1)

○ If any member of your family subscribes to the national health insurance plan or is a dependent of the insured, he/she should be marked as 'Insured,' too.

○ Also, (public) health insurance refers to national health insurance for the public as a whole, excluding private health insurance.

□ Q2-2) The period (h**05_6) during which health insurance premiums are not paid refers to the number of months for the year during which premiums are not paid.

□ Q4) Average monthly payment for private health insurance (h**05_3aq2)

○ With regard to a hybrid type of insurance (i.e. The coverage for illness is provided as a rider to a whole life policy), an attempt was made to identify the amount paid in association with diseases. The amount of disease related

proportion wasn't estimated if such attempt was deemed unsuccessful.

6) Housing

【Notes on the Use of Variables】

□ Monthly rent (h**07_3aq3)

○ It was included in ‘VI. Housing’ for the 1st and 2nd waves (h**06_7), but from the 3rd wave onwards, it was added to ‘VII. Living Expenses’ section.

□ Ⅶ. Living expenses: Q2-1) Monthly rent (h**07_3aq3) and Q6) Housing tenure (h**06_3) under VI. Housing section.

○ Even with the selection of 'Self-owned' and 'Others' for Q6) Housing tenure (h**06_3), an entry can be raised for Q2-1) Monthly rent (h**07_3aq3). The reasons are as follows:

— First, although the type of occupancy was marked as 'owned,' 'leased' or 'others' as of the year-end, monthly rent should still be asked if you had experience of living in a rented home over the past year.

— Second, there exist some cases in which land and house ownership remain separate even if the type of occupancy is 'owned' or 'others.' Specifically, if you own a building for housing yet hold no rights to the land your building is sitting on, you are then required to pay fees for the use of the land, and these fees are perceived as monthly rent.

□ Q6) Housing tenure (h**06_3)

○ The following circumstances fall under the category of ‘⑤ Others:’ 1) if you live in a house for free, 2) if the title of house is under the name of other than your family members, 3) if you reside in company housing or government residence offered at a cheap price, etc.

□ Q9) Housing-related liabilities (h**06_aq2, h**06_aq3)

○ 'Housing-related liabilities' include home purchase expenses, security deposits, and addition & improvement costs, excluding mortgage loans.

□ Q11) Type and usage of housing facilities (h**06_21 ~ h**06_25)

○ In case of any redundancy, the best or most advanced form of facility was selected.

7) Living Expenses Expenditures

【Notes on the Use of Variables】

□ Living expense-related questions deal with a monthly average arrived at by "adding all spendings incurred during the base year (01.01~12.31) before dividing the total sum by 12 months". An amount valued in thousand won or below is expressed with decimal point; provided, however, that an expenditure of 10,000 won or more should be rounded off to the nearest tenth. Calculate total living expenses with one-off expenditures (i.e. wedding, funeral, a particular surgery, etc.) not factored in.

○ For new households, it indicates the monthly average of the costs spent from the creation of family until Dec. of the base year.

□ Living expenses include groceries (self-consumption included), housing (monthly rent included), heating & water, furniture & household goods, clothes & shoes, healthcare, (public/private) education, culture & entertainment, transportation & communications, other spendings, private transfer (money sent to a family member staying away due to school, etc.), taxes & social security contributions.

□ Use of variables with regard to total living expenses

○ Spendings = Q14)Total living expenses (h**07_9) − Q12)Tax, Q13)Social

security contribution (h**07_4 + h**07_5)

※ It should be noted that the amount of spending derived from the above formula isn't accurate as Q14) Total living expenses (h**07_9), which include the private transfer (h**07_3aq15, h**07_3aq16 h**07_3aq17) of money to financially assist parents or children who are not part of your household.

○ Household spendings = Q14) Total living expenses (h**07_9) + Q2) Interest (h**09_aq7/12 + h**09_aq8/12) of IX. Debt & Interest

※ As Q2) Interest (h**09_aq7 + h**09_aq8) is analyzed "on a yearly basis," it must be divided by "12 months" for the calculation of household spendings.

8) Income[5)]

【Income-related Variables】

Variable Name	Classification	Detailed Item	Unit	Remark
h_din	Disposable income (annual)	-	10,000 won	4 places of decimals
h_cin	Ordinary income (annual)	-	10,000 won	4 places of decimals
h_flag	Disposable and ordinary income	Determine whether or not to implement 'non-response imputation'	0. No 1. Yes	-
h_hc	Households classified based on equivalized income	-	1. General families 2. Low-income families	-

【Notes on the Use of Variables】

□ Household income represents annual incomes earned by all family members for the year between Jan. and Dec. of survey base year. Earned income is obtained by asking all family members aged 15 or above as of the end of the base year to fill out all economic activities involved during the period and then state their gains earned (see the survey questionnaire). The income here refers to the amount before deducting tax and social security payment.

○ For new households, calculate a monthly average of income for the period from the creation of family until Dec. of survey base year. Then, multiply it by 12 months to produce an annual income.

□ As net profits for employer/self-employed or gains from farming/fishery business are calculated by subtracting total costs from total sales, they may come out as '0' or minus values. In that case, be sure to have '0' or negative values adjusted to

5) As 'Income' section contains questions with sub-observations included (member number 1~9), it was discussed based on family member number 1; provided, however, that for the previous waves of 1~3, it was filled in only by the family member earning an income. So, check family member number before proceeding further.

apply a log transform.

□ In case of the lack of a particular income, the relevant variable remains blank (sysmis). For example, if a family has no business income , all Business Income fields are left blank. Subsequently, if you want to calculate new income variable (i.e. ordinary income), you should make sure to have such blank fields re-coded to '0' when adding variables together.

□ Starting from the 2nd wave, the earned income of employer or self-employed has been examined from two perspectives: One is annual net income (h**08_148), which is calculated by deducting annual gross costs from annual gross sales. And the other is annual income brought in home (h**08_aq2) from the total revenue earned. For instance, let's say you earned 20 million won for the year, of which 13 million won was invested back and the remaining 7 million was transferred in to your home. In this case, 20 million won would be recognized as your net income while 7 million would be accounted for as your 'transfer-in' income.'

□ From the 4th wave and onwards, the additional income from side jobs was taken out and replaced by 'Other earned income.' This was driven by the fact that there may exist cases in which primary and secondary jobs are hard to distinguish in reality as a family member engages in two or more economic activities at the same time. (For the period of 1st to 3rd wave, when a full-time employee moonlighted as a daily worker, the gains earned from each economic activity were categorized as 'permanent earned income' and 'additional income' each.) 'Other earned income' representsgains earned from part-time work by a family member aged under 15.

[Figure 4-2] Income Classification

<table>
<tr><th colspan="3">National Statistical Office</th><th colspan="5">OECD</th><th>LIS</th></tr>
<tr><td rowspan="8">Income</td><td>Extraordinary income</td><td colspan="2">Gains from wedding/ funeral
Proceeds from the sale of recyclable wastes
Others</td><td colspan="5"></td><td></td></tr>
<tr><td rowspan="4">Ordinary income</td><td colspan="2">Earned income</td><td>Wage & salary income</td><td rowspan="4">Primary Income[1)]</td><td rowspan="3">Market Income</td><td rowspan="4">Gross Income)</td><td rowspan="7">Disposable Income</td><td rowspan="7">Disposable Income</td></tr>
<tr><td colspan="2">Business & additional income</td><td>Gross income for the self-employed</td></tr>
<tr><td colspan="2">Property income</td><td>Realized property income</td></tr>
<tr><td rowspan="2">Transfer income</td><td>Private</td><td>Occupational pension
Other private cash gains[2)]</td><td></td></tr>
<tr><td>Public</td><td>Social insurance & social aid cash benefits</td><td></td><td></td></tr>
<tr><td rowspan="6">Expenses</td><td rowspan="4">Non-consumable</td><td colspan="2">Public pension</td><td colspan="4" rowspan="2">Social security contribution</td></tr>
<tr><td colspan="2">Social insurance</td></tr>
<tr><td colspan="2" rowspan="2">Tax</td><td colspan="4">Income tax</td></tr>
<tr><td colspan="4">Property tax, land tax, automobile tax, license tax, etc.</td></tr>
<tr><td colspan="2">Other non-consumable expenses</td><td colspan="5"></td><td></td></tr>
<tr><td>Consumable</td><td colspan="2"></td><td colspan="5"></td><td></td></tr>
</table>

Note: 1) It is named as 'Factor Income' according to LIS.

2) They refer to private transfer income occurring on a periodic basis including parents/child support, other recurring cash gains, etc.

Source: 'An analysis on income distribution, poverty trends, and change factors', written by Park, ChanYong, Kang SeokHun, Kim TaeWan in 2002. KIHASA.

'Global comparison on income distribution and poverty study' written by Yu, KyungJun, Kim, DaeIl in 2003. Korea Development Institute

□ Earned income

○ Q2) Wage income for a full-time, regular worker = h**08_114 + h**08_116 + h**08_118 + h**08_120 + h**08_3aq2 + h**08_4aq70 + h**08_4aq72 + h**08_4aq74 + h**08_4aq76

○ Q3) Wage income for a temporary/daily worker = h**08_122 + h**08_124 + h**08_126 + h**08_128 + h**08_130 + h**08_4aq78 + h**08_4aq80 + h**08_4aq82 + h**08_4aq84

○ Earned income = Regular income earned + Temporary/daily income earned

□ Business & additional income

○ Q4-1) Business income for employer/self-employed (Net income) = h**08_148 + h**08_150 + h**08_152 + h**08_154 + h**08_4aq86 + h**08_4aq88 + h**08_4aq90 + h**08_4aq92 + h**08_4aq94

○ Q5-5) Earnings from agricultural and livestock business (Net income) = h**08_164

○ Q6-4) Earnings from fishery business (Net income) = h**08_170

○ Q7) Other earned income = h**08_172 + h**08_174 + h**08_176 + h**08_178 + h**08_4aq106 + h**08_4aq108 + h**08_4aq110 + h**08_4aq112 + h**08_4aq114

○ Business & additional income = Business income for employer/self-employed + Earnings from agricultural & livestock business + Earnings from fishery business + Other earned income

□ Property income

○ Q8) Property income

- Wave 1 = Property income (h**08_182)
- Waves 1 ~ 12 = Interest & dividend (h**08_aq9) + Rents received

(h**08_aq10) + Other property income (h**08_aq11)

□ Gains from private transfer

○ Q13) Gains from private transfer

− Wave 1 = Financial assistance from parents or children (h**08_193) + private insurance (h**08_192) + other private financial assistance (h**08_194)

− Wave 2 = Financial assistance from parents or children (h**08_aq31) + private insurance (h**08_aq15) + other private financial assistance (h**08_aq34)

− Waves 3 ~ 12 = Assistance from parents (h**08_3aq6) or children (h**08_3aq7) + Private insurances {Individual annuity (h**08_aq15) + Retirement pension (h**08_6aq1)} + Other private financial assistance (h**08_aq34)

※ The income of a family member living together for less than 9 months (h**08_aq32, h**08_aq33) isn't factored in the category of Private Transfer Income as it isn't covered in VII Living Expenses section. (Since it is not included in the living expenses, your income may appear higher when comparing earnings and expenditures)

□ Gains from public transfer

○ Q9) Social insurance benefits

− Wave 1 = Social insurance benefits (h**08_189) [national pension + government employees, military, and teachers pension + employment insurance + health insurance + occupational health and safety insurance + veterans pension]

− Waves 2 ~ 12 = Public pension (h**08_aq12) + Employment insurance (h**08_aq13) + Industrial accident compensation (h**08_aq14)

○ Q14) National basic livelihood security benefits

- Waves 1 ~ 10 = h**08_195
- Wave 11 = h**08_195 + livelihood benefits (h**08_11aq3) + housing benefits (h**08_11aq5) + education benefits (h**08_11aq8)
- Wave 12 = livelihood benefits (h**08_11aq3) + housing benefits (h**08_11aq5) + education benefits (h**08_11aq8)

○ Q11) Other government subsidies

- Wave 1 = h**08_206
- Waves 2 ~ 12 = Allowances for the disabled (disability pension and mild disability allowance) or families with handicapped children (h**08_aq16) + basic old-age pension (Jan. ~ June, 2014) (h**08_aq17) + basic pension (July ~ Dec. 2014) (h**08_10aq1) + transportation allowances for the aged (h**08_aq18) + support for single parent families (h**08_aq19) + foster care allowances or allowances for child breadwinners (h**08_aq20) + child-care allowances (infant care)(h**08_aq21) + financial support for child-care (Child-love card, Child-happy card)(h**08_5aq3) + financial support for education (including support from the Ministry of Agriculture and Forestry) (h**08_aq22) + subsidies for men of national merit (excluding veterans pension) (h**08_aq23) + government subsidies for agricultural and fishery business (h**08_aq24) + gas tax refund (h**08_4aq115) + emergency welfare support (h**08_4aq116) + voucher support (h**08_4aq117) + earned income tax credit (h**08_5aq1) + child tax credit (h**08_11aq1) + temporary livelihood support (h**08_5aq2) + subsidies for meals (h**08_7aq4) + tax cut or subsidies for energy bills (h**08_7aq6) + tax cut or subsidies for telecom fees (h**08_7aq8) + other subsidies (h**08_aq25)
- Allowance for the disabled or families with handicapped children

(h**08_aq16) + Basic old-age pension (h**08_aq17) + Support for single parent family (h**08_aq19) + Foster care allowance (h**08_aq20) + Allowance for child support (h**08_aq21) + Support for child-care (h**08_5aq3) + Support for education (h**08_aq22) + Support for men of national merits (h**08_aq23) + Government subsidy for agricultural & fishery business (h**08_aq24) + Emergency welfare support (h**08_4aq116) + Support for other vouchers (h**08_4aq117) + Earned income tax credit (h**08_5aq1) + Subsidy for meals (h**08_7aq4) + Tax cut or subsidy for energy bills (h**08_7aq6) + Tax cut or subsidy for telecom service fees (h**08_7aq8) + Other government subsidies (h**08_aq25)

○ Gains from public transfer = Social insurance benefits + National basic livelihood security benefits + Other government subsidies

□ Extraordinary income (Miscellaneous income)

○ Q12) Extraordinary income (Others)

− Wave 1 = Extraordinary income (h**08_214) [severance pay + pension lump-sum + gift & inheritance + income from family events + compensation + accident claim + other income]

− Waves 2 ~ 12 = Gift/Inheritance (h**08_aq26) + Gains from felicitations or commiserations (h**08_aq27) + Compensations (h**08_aq28) + Accident claim (h**08_aq29) + Severance pay, single payout for social insurance, surrender value of protection-type policy

(h**08_3aq5) + Proceeds from the sale of property or real estate (h**08_4aq118) + Others (h**08_aq30)

□ Income calculation (Annually)

○ Primary income = Earned income + Business & additional income + Property income

○ Market income = Earned income + Business & additional income + Private income + Gains from private transfer

○ Ordinary income (h**_cin) = Earned income + Business & additional income + Property income + Gains from private transfer + Gains from public transfer

○ Disposable income (h**_din) = Earned income + Business & additional income + Property income + Private transfer income + Public transfer income − Tax and social security contribution {(h**07_4+h**07_5)×12}

※ Note: Income shall be calculated on annual basis while expendituree estimates are made on monthly basis. Make sure to multiply 'tax and social security contribution' by 12 months before deducting from the income in order to obtain an accurate disposable income.

9) Liability & Interest

【Notes on the Use of Variables】

□ Liability and interest are studied based on the title of deed and present market value as of Dec. 31 of the base year surveyed; provided, however, that the interest for debt refers to the amount of interest actually paid for your liabilities over the base year.

○ For new households, obtain a monthly average of interest paid from the creation of family to Dec. of the base year before multiplying by 12 months

to derive an annual figure.

□ Total liabilities

○ Total liabilities = Q1) [Loans from financial institutions (h09_aq1) + Private loans (h09_aq2) + Credit card debts (h09_aq3) + Deposit for rent or lease received (h09_aq4) + Charge account and advance payment from 'Gye' (h09_aq5) + Other liabilities (h09_aq6)]

□ However, 'h0109_1~h0109_6' from the 1st wave data is about whether to have liabilities (0: No, 1: Yes). Total liabilities were entered.

10) Property

【Notes on the Use of Variables】

□ Assets are analyzed based on the title of ownership and present market value as of Dec. 31 of the base year surveyed.

□ Total assets/Net assets

○ Criteria of valuation by housing type

- House price (Self-owned)
- Deposit (Leased totally based on key money)
- Deposit (Leased with a mix of deposit and monthly rent)
- Appropriate valuations for others

○ Total value of assets = Q7)Price of house resided (h06_6) of VI. Housing + Q1) Real estate owned (h10_aq1+h10_aq2+h10_aq3) + Q2) Real estate occupied (h10_aq4+h10_aq5) + Q3)Financial assets(h10_aq6+h10_aq7+h10_aq8+h10_aq9+h10_aq10) + Q4) Farming equipment(h10_aq11+h10_aq12+h10_aq13+h10_aq14+h10_aq15) + Q5) Agricultural and livestock inventory (h10_aq16+h10_aq17+h10_aq18+h10_aq19+h10_aq20)

+Q6) Car price (h10_27)

+ Q7) Other assets (h10_aq23+h10_aq24+h10_aq25+h10_aq26)

○ Net assets = Total assets − Total liabilities

□ However, 'h0110_1~h0110_3, h0110_5~h0110_6, h0110_8~h0110_12, and h0110_14~h0110_18, h0110_20~h0110_24' from the 1st wave data are about whether to own property by item (0: No, 1: Yes). The total amount of properties was entered by item.

11) Living Conditions

【Basic Tip】

□ Living conditions related questions are intended to ask whether your family has encountered any difficulties due to financial hardship over the base year surveyed.

□ 'I have ever failed to pay rent for more than 2 months and moved house because I could not afford to pay rent.'(h**11_2), 'I have ever failed to pay public education fees for my children.'(h**11_5), and 'My eligibility to receive insurance benefits has ever been suspended due to failure to pay health insurance premiums'(h**11_3aq1) include the item '③ N/A', which should be noted.

□ In connection with the question, 'One of the household members has ever been a delinquent borrower.'(h**11_8), if a member was a delinquent borrower prior to the survey year and is still a delinquent borrower for one year during which the survey is conducted, the answer should be '① Yes'.

□ In connection with the question, 'My eligibility to receive insurance benefits has

ever been suspended due to failure to pay health insurance premiums.'(h**11_3aq1), the survey is based on the case where health insurance premiums were not paid for six consecutive months or longer. (※ However, the 1^{st} ~ 11^{th} waves of the survey are based on the case where insurance premiums were not paid for three consecutive months or longer.)

12) National Basic Livelihood Security Scheme

【Basic Tip】

□ Base your answer on the previous year.

○ For a family with two recipients available, make sure to receive answers based on the head of household.

【Notes on the Use of Variables】

□ The national basic livelihood security system was revised in July 2015, thereby changing what should be surveyed.

○ After system revision, livelihood, medical, housing, and education benefits are individually offered. Therefore, 'whether to be accepted as recipients', 'the period during which benefits are offered' and so forth are surveyed by benefit.

○ The survey leading up to June 2015 and the survey conducted since July 2015 differ in content. Therefore, variables should be carefully used, referring to the code book. (Variables used before the revision are h**12_1~h**12_22 while those used thereafter are h**12_2_11aq1~h**12_2_11aq59.)

□ Q2) Prior experience of being on welfare (h**12_7, nh**12_7, h**12_2_11aq13, h**12_2_11aq14)

○ h**12_7, h**12_2_11aq13, variables are directed at the existing families while nh12_7, h**12_2_11aq14 variables are only aimed at new families with some variance observed between questions.

□ Q2-1) Year in which you first received benefits (nh**12_8, nh**12_2_11aq15 etc.)

○ This question is applied to new families only. Please enter a relevant year that follows after the creation of family.

□ Q2-2) In case benefit receipt and failure to receive benefits are repeated, reasons for obtaining benefits and appropriateness of the level of benefits should be offered based on benefits provided most recently.

13) Earned Income(Child) Tax Credit (EITC/CTC)

【Basic Tip】

□ Base your answer on the previous year.

□ Between the 4th and 10th waves of the survey, only EITC was surveyed while CTC has also been included since the 11th wave of the survey as CTC was introduced in 2015.

【Notes on the Use of Variables】

□ EITC was added in the 4th wave. As the policy was scheduled to be introduced, our questions at the time were concentrated on whether survey respondents were aware of it and wished to apply for it.

○ Adding specific questions was followed with the disbursement of benefits from the 5th wave.

□ The CTC system has been implemented since the 11th wave of the survey.

○ Questions regarding application, receipt, the use of CTC, the usefulness of assistance, the impact on the will to work, and so forth were offered in the same way as EITC.

○ Since the 11th wave of the survey, new households have been asked about their recognition of both EITC and CTC while existing households have been only questioned about their recognition of CTC.

14) Household Use of Welfare Services

【Notes on the Use of Variables】

□ Q1) Welfare services used by households (h**13_2 ~ h**13_8aq2)

○ 'Various loans for livelihood, business, self-support, education, etc.' (h13_5aq1) were put in place from the 5th wave onwards.

○ The 8th wave witnessed 'Counselling Service' (h**13_8aq1) and 'Individual Development Account (Asset Building Program)' (h**13_8aq2) newly added

○ Since the 8th wave of the survey, questions about ‘counseling (trouble, conflicts, and mental health)’ (h**13_30), ‘drug-related counseling (h**13_34)’, ‘abuse or domestic violence-related counseling (h**13_38)’, ‘parent counseling and training for child care (h**13_42)’ have been deleted, adding the question ‘counseling service (h**13_8aq1)’ including the aforementioned items.

○ The category of welfare services refer to the cases where public institutions offer services or that the public sector partially provides financial aid even though private welfare services are used. This does not apply to the case where respondents are given private welfare services and bear all related

expenses.

□ Q2) Voucher services used for the past year (h**13_4aq1)

○ From the 4th wave onwards, a question concerning your experience with any voucher services for the past year has been included.

□ Q2-1) Voucher service experience in terms of service type (h**13_4aq2 ~ h**13_4aq15)

○ Starting with the 4th wave, a question was added to ask your experience with voucher services by service type.

○ Since the 5th wave, the 'subsidy for maternity related medical expenses' (h**13_5aq4), 'rehabilitation for children with disabilities' (h**13_5aq6), and 'i-Love childcare service (including the subsidy for kindergarten via 'Happy Kid' card) (h**13_5aq8)' have been newly implemented.

○ 'Support for language development' (h**13_6aq1) was introduced during the 6th wave.

○ Since the 10th wave of the survey, counseling services for parents of children with developmental disability (h**13_10aq1) have been included in 8 voucher projects (across the nation), leading the question to be added as an example item.

○ Since the 11th wave of the survey, ‘energy vouchers’ has been added as an example item. The vouchers are offered for heating in case there are the elderly, children, the disabled, and pregnant women among the members of households that belong to the category of medical benefit recipients in accordance with the National Basic Living Security Act.

□ Q3) Existence of any family members receiving long-term care insurance benefits (h**13_4aq16)

○ A new question was added from the 4th wave onwards to check if there

were any family members benefiting from long-term care insurance.

□ Q3-1) Amount paid for the use of long-term care service (h**13_4aq17)

○ It refers not to 'the total cost divided by 12 months' but to 'a monthly average for the month used.'

○ For instance, if you paid 10,000 won every month for 6 months for the use of long term care service, the monthly amount used is 10,000 won. Spending 30,000 won for only one month makes a monthly fee of 30,000 won. Let's say, for the service period of 2 months, you spent 30,000 won for the 1st month and 40,000 won for the 2nd month. In this case, the monthly rate would be 35,000 won.

□ Q3-2) Long-term care insurance experience by benefit (or service) type (h**13_4aq18 ~ h**13_4aq32)

○ A question concerning your experience with long-term care insurance in terms of benefit (or service) type was added from the 4th wave onwards.

15) Use of Welfare Services by the Elderly

【Notes on the Use of Variables】

□ Q1) Welfare services used by the elderly (h**14_4 ~ h**14_4aq1)

○ 'Basic old-age pension' (h**14_4) was originally studied under the name of 'seniors pension' for the period of 1st to 3rd year and 'seniors pension (basic old-age pension)' for the 4th year. Starting from 5th year, it has been officially renamed as 'Basic old-age pension.'

○ 'Jobs for the elderly' (h**14_3aq1) was added in the 3rd wave.

○ 'Social education services (Hangul class, yoga, singing class, etc.)' (h**14_4aq1) have been adopted since the 4th wave.

16) Use of Welfare Services by Families with Children

【Notes on the Use of Variables】

□ Q1) Welfare services used by families with children (h**15_4 ~ h**15_7aq1)

○ 'Voluntary domestic help & baby-sitting services'(h**15_4aq1) was added in the 4th wave.

○ 'Supplementary food for young kids (including nutrition-enhancing projects)' (h**15_7aq1) was added from the 7th wave onwards.

□ Q2) New entry of a child (h**15_aq1 ~ h**15_57)

○ 'A child newly added to family' (h**15_aq1) has been handled since the 2nd wave.

○ Ensure consistency in the family member number of your children. (h**15_40, h**15_43, h**15_46, h**15_49, h**15_52, h**15_55)

□ Q3) ~ Q6) Private education & childcare (h**15_60 ~ h**15_107)

○ 'Current status of private education and child-care services used' (h**15_aq2, h**15_aq3, h**15_aq4, h**15_aq5, h**15_aq6, h**15_aq7) has begun to be examined since the 2nd wave.

○ Ensure consistency in the family member number (h**15_60, h**15_68, h**15_76, h**15_84, h**15_52, h**15_55) of your children.

○ The numbering of examples for private education and childcare organizations varies depending on which wave of survey they relate to as shown below:

Wave 1~2	Wave 3~4	Wave 5~7	Wave 8 & onwards
1. Public or state-run day care center	1. Day cares that are either public/state-run or managed by social welfare organizations	1. Day cares that are either public/state-run or managed by social welfare organizations	1. Public or state-run day care
-			2. Day care run by social welfare organizations
2. Private day care	2. Private day care	2. Private day care	3. Private day care
3. Private play center	3. Private play center	3. Private play center	4. Home-based day care
4. Workplace based day care	4. Workplace-based day care	4. Workplace based day care	5. Workplace-based day care
5. Kindergarten with childcare services offered outside official hours	5. Kindergarten with childcare services offered outside official hours	5. Kindergarten with childcare service offered outside official hours	6. Kindergarten with childcare service offered outside official hours
6. Kindergarten operated within official hours only	6. Kindergarten operated within official hours only	6. Kindergarten operated within official hours only	7. Kindergarten operated within official hours only
7. Private educational institute	7. Private educational institute	7. Private educational institute	8. Private educational institute
8. Individual/group tutoring	8. Individual/group tutoring	8. Individual/group tutoring	9. Individual/group tutoring
9. Mail-in learning materials	9. Mail-in learning materials	9. Mail-in learning materials	10. Mail-in learning materials
10. After-school lessons available at school	10. After-school lessons available at school	10. After-school lessons available at school	11. After-school lessons available at school
11. After-school programs	11. After-school programs	11. After-school programs	12. After-school programs
12. Relatives	12. Relatives	12. Relatives	13. Relatives
13. Neighbors/friends or babysitters	13. Neighbors/friends	13. Neighbors/friends	14. Neighbors/friends
	14. Babysitter service offered by 'Healthy Family Support Center'	14. Babysitter service offered by 'Healthy Family Support Center'	15. Babysitter service offered by 'Healthy Family Support Center'
	15. Private babysitter	15. Private babysitter	16. Private babysitter
14. Others	16. Others	16. Others	17. Others
-	-	17. Other childcare facilities	18. Other childcare facilities

17) Use of Welfare Services by the Disabled

【Notes on the Use of Variables】

□ Q1) Welfare services used by the disabled (h**16_6aq1 ~ h**16_64)

○ New additions from the 4th wave onwards include 'voluntary domestic help service (i.e. cleaning, laundry, cooking, etc.)' (h**16_4aq1), 'home-visit nursing, caregiving, & bathing' (h**16_4aq4), 'services to help with social adjustment and job-seeking efforts' (h**16_4aq7).

○ Beginning with the 6th wave, 'disability pension (for severely impaired people)' (h**16_6aq1), and 'allowance for people with disabilities (with a minor handicap)' (h**16_6aq4) have been added.

○ Disability allowances (h**16__4) were divided into two types in accordance with the severity of disabilities in July 2010. Prior to July 2010, persons with disabilities received disability allowances (h**16__4) regardless of the degree of disabilities while since July 2010, persons with severe and mild disabilities have been given disability pension (h0616_6aq1) and disability allowances (h0616_6aq4), respectively. Therefore, in the 6th wave of the survey where respondents were asked about their experience in 2010 services, ‘disability allowances (h0616_4)’ applied to experience in services for the 1st half of 2010 while ‘disability pension (severe disabilities) (h0616_6aq1)’ and ‘disability allowances (mild disabilities) (h0616_6aq4)’ applied to experience in services for the 2nd half of 2010. Then, for the 7th wave of the survey, ‘the existing disability allowances (h0616_4)’ was deleted.

○ Since the 8th wave of the survey, ‘self-sufficiency services for the disabled (h**16_12)’ has been integrated into ‘social adaptation and employment-related services (h**16_4aq7)’.

○ Since the 8th wave of the survey, ‘rehabilitation aid tools and amenities services (h**16_20)’ has been integrated into ‘medical services for rehabilitation (h**16_24)’.

○ Since the 4th wave of the survey, ‘housework support services (h**16_28)’ has been deleted, adding ‘domestic service (h0416_4aq1)’ and ‘visiting nurse or care services (h0416_4aq4)’.

○ Since the 4th wave of the survey, ‘vocational rehabilitation and security

workplace (h**16_44)', 'employment services such as vocational training, job arrangement, and so forth (h**16_48)', and 'social rehabilitation, social adaptation, and independent living training (h**16_52)' have been deleted, adding 'social adaptation and employment services (h**16_4aq7)' including the aforementioned categories.

18) Family

【Notes on the Use of Variables】

□ Q1) Potential issues of concern or conflicts (h**17_1, h**17_2)

○ '11. Marriage related problems involving children' has been added since the 6th wave.

□ Q2) Actions taken to reconcile family differences (h**17_3 ~ h**17_7)

○ Capture an average of 5 items listed in relation to family conflicts resolution on a scale of 1~5. For h**17_3, h**17_4, h**17_6, h**17_7 items, please be sure to conduct reverse coding (1→5, 2→4, 3→3, 4→2, 5→1) before averaging out.

○ Family conflicts resolution = (h**17_3 + h**17_4 + h**17_5 + h**17_6 + h**17_7) / 5

○ Dividing by 5 will be omitted if the total sum is going to be used.

○ A higher final score indicates a more positive evaluation of such resolution.

3. Data for Household Members

1) Social Insurance, Severance Pay (Pension) & Individual Annuity Received

【Basic Tip】

□ A. This section should pertain to the base year surveyed.

【Notes on the Use of Variables】

□ Q1-1) Type of public pension (p**01_2, p**01_aq1)

○ Given that a respondent can be eligible for 2 or more pensions, he or she was asked to state up to 2 public pensions held starting from the 2nd wave onwards.

□ Q1-3) Total benefits received from national pension (p**01_4, p**01_5, p**01_6)

□ Q1-5) Total benefits received from special occupational pension (p**01_12, p**01_13, p**01_14)

□ Q1-6) Total benefits received from veteran's pension and others (p**01_7, p**01_8, p**01_9)

○ In cases when a respondent is the head of household and has a family member under 15 or in middle & high school receiving survivor's pension, he or she was asked to include this amount as well since the 2nd wave.

○ This measure was taken in response to the concern for the loss of data on survival pension due to recipients under the age of 15 or in middle/high school not being eligible as survey participant as household members.

2) Employment

【Basic Tip】

□ Your answers should be based on Dec. 31 of the base year or for the entire year.

【Notes on the Use of Variables】

□ Q1) Type of work (p02_1)

○ The type of work divided into '① Wage earner,' '② Self-employed/Employer,' '③ Unpaid family business worker,' and '④ Unemployed' for the 1st wave. However, from the 2nd wave onwards, it was classified in more detail into '① Wage earner,' '② Self-employed/Employer,' '③ Unpaid family business worker,' '④ Unemployed (capable to work),' and '⑤ Unemployed (incapable to work).'

□ Q2) Experience of losing a job (business) (p02_2)

○ If you are on a temporary leave due to illness, childbirth, etc., or conducting irregular nature of work such as farming and daily labor, it should not be perceived as losing a job.

□ Q3) Start date of work (p02_4, p02_5)

○ In cases in which your side job took over and became your primary activity, your answer should be that you left your first job, reckoning the first day worked as your start date of service.

○ For a public project worker, the reasons for quitting should be entered as 'Expiring contract,' with the start of service replied as the first day worked.

□ Q4) number of months worked per year (p02_6) and average number of days worked per month (p02_7)

○ If you are involved in farming , the number of months worked should be entered as 12 months.

○ In cases when you stayed hired yet took a leave for several months (paid or unpaid), your answer should be based on actual hours worked.

– For instance, if you were on maternity leave for a year, the number of

months worked would be filled as '0.'

□ Q5) Since the 8th wave of the survey, ‘average monthly wage (p02_8aq1)’ and ‘hourly wage (p02_8aq2)’ have been added.

○ The average monthly wage (p02_8aq1) refers to the average monthly wage for the months during which you worked, in case you worked regularly.

○ The hourly wage (p02_8aq2) refers to the hourly wage for the days during which you worked, in case you worked irregularly.

○ Workers on career break, employers, the self-employed, unpaid family workers, the jobless, and the economically inactive population were excluded.

□ Q7-2) Difficulties in seeking employment (p02_8aq3, p02_8aq4)

○ For the 1st to 7th waves of the survey, difficulties in seeking employment were measured on a 5-point scale but since the 8th wave thereof, such difficulties have been measured on a 2-point scale.

□ Q7-3) Expected salary (p02_31)

○ The question was posed to both the unemployed and non-economic population during the 1st~3rd waves, but from 4th wave onwards, it was directed at the unemployed only.

○ When you review the 1st~3rd waves to find connection for analysis, be sure to gather only the responses that answered '① Yes' for Q7) Job-seeking efforts (p02_10).

□ Q9) Experience and the period of participation in and satisfaction with government-sponsored employment support programs.

○ For the 1st to 2nd wave of the survey, participation in and satisfaction with self-support programs were surveyed, with questions being only given to the unemployed with the ability to work.

○ Since the 3rd wave of the survey, questions have only been asked of ‘the employed (paid workers, the self-employed, employers, and unpaid family workers)’ and ‘the unemployed with the ability to work.’

○ For the 4th wave of the survey, the government’s employment support programs were reclassified.

– For the 5th wave of the survey, ‘the project hope’ and ‘the youth internship program’ were added while for the 6th wave thereof, ‘the vocational capability development program’ was added.

○ Since the 8th wave of the survey, questions about the degree of satisfaction and the period of participation have been deleted, focusing on ‘experience (p02_8aq5 ~ p02_8aq15).’

– Since the 8th wave of the survey, the question about the usefulness of employment support programs has been deleted.

□ Q10) New job skills acquired (p02_aq2, p02_aq3), Q10-1) Job category that the acquired skill-sets fall into (p02_aq4, p02_aq5)

○ Applicable to the members of the original household only. For a new household, these questions will be covered by Q4-1) 'Job skills held (np06_28, np06_29, np06_30)' of Personal Affairs section.

3) Satisfaction & Views on the Current Living Conditions

【Notes on the Use of Variables】

□ Q3) Satisfaction with health (p**03_5) and overall satisfaction (p**03_12) are measured on a 5-point scale where 5 points and 1 point are given to ‘very satisfied’ and ‘very dissatisfied’, respectively.

□ Q3)-ⓒ Level of satisfaction for the living environment (p**03_7)

○ Examine the level of satisfaction for the living environment where a family member is actually residing in if he or she lives apart.

□ Economic status (p**03_3, p**03_4, p**03_4aq1), Idealistic society for the future (p**03_13)

○ Since they were analyzed every 3 years, only 1st, 4th, and 7th wave data contain these variables.

– The variable, 'p**03_4aq1', looking into a respondent's financial status as of the year before last is available only in the 4th and 7th wave.

4) Perception on Social Environment

【Notes on the Use of Variables】

□ Q1) People's reliability, Q2) willingness to help people in a state of emergency, and Q3) willingness to accept NIMBY facilities are asked every three years and were administered in the 1st, 4th, 7th, and 10th waves of the survey.

□ 'Contributions and volunteer services (p**04_4, p**04_6)' refers to the question about regular contributions or volunteer services.

○ Annual contributions (p**04_5) are measured in KRW 10,000.

□ Q2) Non-cohabiting parents (p**04_7)

○ Non-cohabiting parents mean they have different residences and livelihoods.

– This question is limited only to the parents of a respondent including his/her stepfather or stepmother.

– It is not applicable if a respondent presently lives with his/her stepfather or stepmother even though there is a biological parent with different residence and livelihood.

□ Q2-1) Frequency of visits to non-cohabiting parents (p**04_8~p**04_10), Q2-2) Frequency of calls to non-cohabiting parents (p**04_11~p**04_13)

○ Each respondent was asked to choose from weekly, monthly, or yearly frequency.

– Confirm which cycle was used (weekly, monthly, or yearly) and have it adjusted to meet the identical standard in order to perform a technical statistical analysis.

□ Q3) Perception on gender-based role (p**04_3aq1~p**04_3aq8)

○ This question was first introduced during the 3rd wave. This question is based on a 5-point scale where five points and 1 point are given to “strongly agree” and “strongly disagree”, respectively.

○ Family and Changing Gender Roles Ⅰ~Ⅲ (1988, 1994, 2002) of the ISSP (International Social Survey Programme) is the original scale of questions about gender roles (p**04_3aq1~p**04_3aq8). Among them, eight questions were chosen and translated. Specific areas measured by question are as follows:

– p**04_3aq1 ~ p**04_3aq2: perception of conflicts between women’s labor force participation and their responsibility for families.

– p**04_3aq3 ~ p**04_3aq5: perception of gender roles.

– p**04_3aq6 ~ p**04_3aq8: difficulties in work-life balance.

5) Lifestyle, Family Relationship, and Mental Health

【Notes on the Use of Variables】

□ Q1)~Q3) Smoking history, if any, throughout your whole life (p**05_3aq1 ~ p**05_3aq4)

○ The question concerning your history of smoking has been added since the 3rd wave.

○ Q1) ~ Q3) were applicable to all household members until the 6th wave. Starting from the 7th wave, however, they've been posed to the members of new households only.

□ Q4), Q4-1), Q4-2), Q4-3) Questions regarding current smoking status and prospect of quitting smoking (p**05_3aq5 ~ p**05_3aq8)

○ The above questions were added from the 3rd wave onwards.

○ Up until the 6th wave, Q4) 'Are you currently smoking?' (p**05_3aq5) was asked only when ① Under 5 packs' or '② 5 packs or more' was selected for Q1). However, Q4) applied to all household members since the 7th wave.

○ Up until the 6th wave, Q4-1) 'Average number of cigarettes consumed per day' (p**05_3aq6) was asked when '① Under 5 packs' or '② 5 packs or more' was selected for Q1). Starting from the 7th wave, however, it has been applicable to the selection of '① Yes' for Q4).

□ Q5), Q5-1) Indirect smoking (p**05_3aq9, p**05_3aq10)

○ Indirect smoking related questions were added during the 3rd wave.

□ Q6) Average alcohol consumption (p**05_2)

○ During the 1st~3rd waves, the examples below were presented for Q6) 'Average amount of alcohol consumed:' '① Once a week or less,' '② 2~3 times a week,' '③ 4 or more times a week,' and '④ Not at all.' However, they have changed to '① Once a month or less,' '② 2~4 times a month,' '③ 2~3 times a week,' '④ 4 or more times a week,' and '⑤ Not at all' beginning the 4th wave.

□ Q6), Q6-1), Q6-2), Q6-3) AUDIT (p**05_2 ~ p**05_4aq8)

○ Questions regarding problem drinking and alcohol dependence were introduced during the 4th wave by adopting AUDIT (Alcohol Use Disorder Identification Test) developed by the World Health Organization.

○ AUDIT comprises a total of 10 questions cutting across 3 domains.

- Harmful drinking behavior: Drinking frequency, alcohol consumption, high-risk drinking frequency
- Alcohol dependence: Loss of control over drinking, rising motivation for drinking, a morning drink
- Hazardous drinking: Feeling a sense of regret after drinking, not recalling things while drunk, alcohol related accident/injury, experiencing alcohol-related problems

○ AUDIT can be utilized as follows:

- 10 questions were coded as listed below:

Classification		Variable name	0 score	1	2	3	4
Harmful drinking behavior	Drinking frequency	p**05_2	⑤	①	②	③	④
	Alcohol consumption	p**05_3	①	②	③	④	⑤
	High-risk drinking frequency	p**05_4aq1	①	②	③	④	⑤
Alcohol dependence	Loss of control over drinking	p**05_4aq2	①	②	③	④	⑤
	Rising motivation for drinking	p**05_4aq3	①	②	③	④	⑤
	Morning drink	p**05_4aq4	①	②	③	④	⑤
Hazardous drinking	Feeling regretful after drinking	p**05_4aq5	①	②	③	④	⑤
	Not remembering things while drunk	p**05_4aq6	①	②	③	④	⑤
	Alcohol related accident/injury	p**05_4aq7	①	-	②	-	③
	Experiencing alcohol related problems	p**05_4aq8	①	-	②	-	③

- Add up the values of 10 coded variables above. A higher score indicates an increased likelihood of hazardous or harmful drinking behavior.
- The WHO-devised AUDIT scores are evaluated as follows: A score of 8 or more is suggestive of alcohol dependence with an evaluation of

hazardous and harmful drinking. However, as the effect of alcohol may differ depending on average weight, metabolism, etc., a score of 7 in women or seniors aged 64 or older can be used as a cut-off point.

- Other AUDIT-based studies allow us to determine how to interpret AUDIT scores. For instance, a person with a score of 8~15 needs simple counselling to cut back hazardous drinking. A score of 16~19 means that overall counselling and continuous monitoring are required. A score of 20 or more indicates a clear need for treatment that goes beyond a diagnostic assessment of alcohol dependence.

□ Q7) Experience of childbirth (p**05_3aq11)

○ This question was added starting with the 3rd wave.

□ Q8) Depression (p**05_9 ~ p**05_19)

○ CESD-11 was used to measure the degree of depression. It consists of 11 questions in total.

○ Depression scale can be utilized as follows:

- 11 questions were coded as shown below:

Variable Name	0 score	1 score	2 scores	3 scores
p**05_9, p**05_11, p**05_12, p**05_13, p**05_14, p**05_16, p**05_17, p**05_18, p**05_19	①	②	③	④
p**05_10, p**05_15	④	③	②	①

- The 11 coded variables are calculated as follows:
- Perception on depression = (p**05_9 + p**05_10 + p**05_11 + p**05_12 + p**05_13 + p**05_14 + p**05_15 + p**05_16 + p**05_17 + p**05_18 + p**05_19] × (20/11)
- Multiplication by 20/11 will be omitted if the total sum is going to be used.
- Generally, the higher the score, the more depressed.
- Depression diagnosis: A score of 16 or higher suggests that depression is

likely.

□ Q9) Self-esteem (p**05_20 ~ p**05_29)

○ Rosenberg Self-Esteem Scale was used to measure the degree of self-esteem. It consists of 10 questions.

○ Self-esteem scale can be utilized as follows:

– 10 questions were coded as listed below:

Variable Name	1 score	2	3	4
p**05_20, p**05_21, p**05_23, p**05_25, p**05_26	①	②	③	④
p**05_22, p**05_24, p**05_27, p**05_28, p**05_29	④	③	②	①

– The 10 coded variables are calculated as stated below:

– Perception on self-esteem = (p**05_20 + p**05_21 + p**05_22 + p**05_23 + p**05_24 + p**05_25 + p**05_26 + p**05_27 + p**05_28 + p**05_29) / 10

– Division by 10 will be omitted if the total sum is going to be used.

– Generally, a higher score means high self-esteem.

□ Q10) Marital relationship (p**05_4aq9, p**05_4aq10, p**05_4aq11)

○ It was added during the 4th wave.

□ Q11) ~ Q14) Level of satisfaction for family relationship (p**05_aq1, p**05_aq2, p**05_aq3, p**05_aq4)

○ The questions concerning family relationship were added from the 2nd wave onwards.

○ The concept of family in these questions mainly target blood relatives, thus failing to agree with the concept of household members.

□ Q15) ~ Q20) Suicide (p**05_6aq1 ~ p**05_7aq3)

○ ‘Q15) A thought of committing suicide’(p**05_6aq1, p**05_6aq2, p**05_6aq3), ‘Q16) A plan to commit suicide’ (p**05_6aq4, p**05_6aq5, p**05_6aq6), and ‘Q17) An attempt to commit suicide’ (p**05_6aq7, p**05_6aq8, p**05_6aq9) were added in the 6th wave, targeted for all household members.

○ Beginning in the 7th wave, Q15), Q16), Q17 have been limited to new household members only, whereas ‘Q18) A thought of committing suicide for the past year’ (p**05_7aq1), ‘Q19) A plan to commit suicide for the past year’ (p**05_7aq2), ‘Q20) An attempt to commit suicide for the past year’ (p**05_7aq3) are added to apply to original household members.

□ Q21) Well-being index (p**05_12aq1)

○ For the 12th wave of the survey, questions about subjective well-being were added.

○ For this study, respondents are asked to think of a ladder whose bottom to top are given numerical values from 0 to 10, respectively. The top (10) means the best state in life while the bottom (0) refers to the worst state in life. They are supposed to say on which step they think they are placed as of the survey date.

6) Education

【Basic Tip】

□ Applicable to members of new households only.

○ It was added in the 3rd wave.

□ Types of high schools and university majors are surveyed based on the times when respondents attended school.

7) Personal Affairs

【Basic Tip】

□ Applicable to members of new households only.

□ In case jobs were not changed, the first job (np**06_4~np**06_6) and the most recent job (np**06_7~np**06_9) are entered in duplicate.

□ Gifts from parents (np**06_43) include property (housing loans and security deposit from parents, etc.), vehicles, business funds, and so forth that respondents received from their parents when they married.

○ Refer to non-periodic gifts contributing to increasing property, excluding private transfers that occur on a regular basis.

4. Additional Survey

1) Additional Survey for Children

(1) Current Status

【Notes on the Use of Variables】

□ Q1) Current Status (c_grade)

○ The list of examples for 'Current Status' varies according to study panel wave as described below:

1st, 10th wave	4th wave	7th wave
1. 4th grade (elementary) 2. 5th grade (elementary) 3. 6th grade (elementary)	1. 7th grade (junior high) 2. 8th grade (junior high) 3. 9th grade (junior high)	0. 9th grade or below 1. 10th grade (freshman at high school) 2. 11th grade (junior at high school) 3. 12th grade (senior at high school) 4. Taking a leave of absence from middle/high school 5. Dropped out of middle/high school 6. Not joining high school after graduating from middle school 7. Graduated from high school or above

□ Q1-1) Q1-2), Q1-3) Taking a leave, dropping out, giving up school (c**01_7aq1 ~ c**01_7aq4)

○ The above questions have been added since the 7th wave.

(2) My School Life

【Notes on the Use of Variables】

□ Q2) Psycho-social perception for school life (c**01_1 ~ c**01_9)

○ The scale that measures psycho-social views on school life consists of 9 questions, which can be utilized as follows:

- 9 questions were coded as discussed below.

Variable Name	0 score	1	2	3
c**01_1, c**01_2, c**01_3, c**01_4, c**01_5, c**01_6	①	②	③	④
c**01_7, c**01_8, c**01_9	④	③	②	①

- Add up the values of 9 coded variables. A higher score likely indicates more positive views on school life.

□ Q3-1) Academic stress (c**01_7aq5 ~ c**01_7aq8)

○ Questions relating to academic stress were included starting from the 7th wave.

○ Academic stress scale is composed of 4 questions. Please refer to the Korea Youth Panel Study (2006) and the Seoul Children Panel (2005).

○ A respondent is more likely to be under stress if the total sum of the 4 variables is higher.

□ Q4) A sense of connection with school (c**01_4aq1 ~ c**01_4aq6)

○ It was introduced during the 4th wave.

○ The school life scale originally developed by Cavazos in 1990 was revised by Park, Hyeon-Son in 1998 to be used as a tool to assess the degree of connection with school. It consists of 6 questions.

○ This scale can be utilized as follows:

- 6 questions were coded as shown below:

Variable Name	0 score	1	2	3
c**01_4aq1, c**01_4aq2, c**01_4aq3, c**01_4aq5	①	②	③	④
c**01_4aq4, c**01_4aq6	④	③	②	①

- Add the values of 6 coded variables. A higher score likely indicates a stronger bond with school.

(3) My Thoughts & Behavior

【Notes on the Use of Variables】

□ Q5) Self-esteem (c**02_1 ~ c**02_13)

○ Self-esteem scale developed by Rosenberg was utilized to measure the self-esteem of a child. It comprises of a total of 13 questions.

○ The self-esteem scale can be utilized as follows:

– 13 questions were coded as discussed below:

Variable Name	0 score	1	2	3
c**02_1, c**02_2, c**02_3, c**02_4, c**02_5, c**02_6, c**02_7, c**02_8	①	②	③	④
c**02_9, c**02_10, c**02_11, c**02_12, c**02_13	④	③	②	①

– Add together the values of 13 coded variables. A higher score likely indicates a high level of self-esteem.

□ Q6-1) Depression and anxiety (c**02_14 ~ c**02_4aq1)

○ K-CBCL was employed to assess the degree of depression and anxiety experienced by children. It consists of 14 questions.

○ Variable values set at 1, 2, 3 are coded back to 0, 1, 2 before being added together. A higher score indicates higher likelihood of depression and anxiety.

□ Q6-2) Attention and concentration (c**02_27 ~ c**02_37)

○ Learning concentration scale for children was developed based on K-CBCL. It comprises of 11 questions.

○ Variable values set at 1, 2, 3 are coded back to 0, 1, 2 before being added together. A higher score likely means lower level of concentration.

□ Q6-3) Feeling weak & withdrawn (c**02_38 ~ c**02_46)

○ K-CBCL was used for the assessment of such feelings. It consists of 9 questions.

○ Variable values set at 1, 2, 3 are coded back to 0, 1, 2 before being added together. A higher score is suggestive of a child feeling more withdrawn and intimidated.

□ Q6-4) Delinquency (c**02_47 ~ c**02_4aq2)

○ K-CBCL was introduced to evaluate the degree of wrongdoing or misconduct by a child. It is composed of 13 questions.

○ Variable values set at 1, 2, 3 are coded back to 0, 1, 2 before being added together. A higher score likely indicates more severe delinquent behavior.

□ Q6-5) Aggression (c**02_59 ~ c**02_77)

○ K-CBCL wasused to assess the degree of aggression exhibited by a child. It consists of 19 questions.

○ Variable values set at 1, 2, 3 are coded back to 0, 1, 2 before being added together. A higher score likely means higher aggression levels.

□ Q7) Suicidal Thoughts (c**02_7aq1 ~ c**02_7aq6)

○ The scale for suicidal thoughts has been put in place from the 7th wave onwards.

○ This scale was created on the back of SIQ (Suicidal Ideation Questionnaire) developed by Raynolds in 1988, and it consists of 6 questions.

○ Add up the values of 6 variables. A higher score suggests an increasing frequency of suicidal thoughts.

□ Q7-1), Q7-2) Suicide attempts and frequency (c**02_7aq7, c**02_7aq8)

○ It was introduced in the 7th wave.

□ Q8) Subjective happiness (c**02_7aq9 ~ c**02_7aq14)

○ Subjective happiness scale was implemented from the 7th wave onwards.

○ This scale derives from the one created by the Social Development Research Institute of Yonsei Univ. (2010), and comprises of 6 questions.

○ Subjective happiness scale can be utilized as follows:

– 6 questions were coded as listed below:

Variable Name	0 score	1	2	3	4
c**02_7aq9, c**02_7aq10, c**02_7aq11, c**02_7aq12, c**02_7aq13	①	②	③	④	⑤
c**02_7aq14	⑤	④	③	②	①

– Add together the values of 6 coded variables. A higher score indicates an increased likelihood of subjective happiness.

□ Q9-3) Delinquent experience (c**02_83 ~ c**02_90)

○ Delinquency scale for children was developed based on the Seoul Children Panel (2005) with a total of 8 questions available.

○ Variable values set at 1, 2, 3, 4, 5, 6 are coded back to 0, 1, 2, 3, 4, 5 before being added together. A higher score likely means more experiences with delinquent behavior.

□ Q9-3) Prior encounter with sexual abuse (c**02_91, c**02_92)

○ Sexual abuse scale for children was developed based on the Seoul Children Panel (2005). It consists of 2 questions.

○ Variable values set at 1, 2, 3, 4, 5, 6 are coded back to 0, 1, 2, 3, 4, 5 before being added together. A higher score indicates an increased likelihood of exposure to sexual molestation.

□ Q10) Prior experience with school violence (c**02_93 ~ c**02_98)

○ The scale for school violence victim was developed based on the study released by Lee, Sang-Gyun (1999). It comprises 6 questions in total.

○ Variable values set at 1, 2, 3, 4, are coded back to 0, 1, 2, 3 before being added together. A higher score indicates an increased likelihood of having fallen victim to school violence.

□ Q11-1), Q11-2) Usual activities performed after school or over the weekend (c**02_4aq3 ~ c**02_4aq6)

○ The question as to what you usually do after school and during the weekend has been included since the 4th wave.

○ '11. Youth internship program' was added to the list of examples beginning the 7th wave.

□ Q11-3), Q11-4) After-school care (c**02_4aq7, c**02_4aq8)

○ The question with regards to after-school care was added from the 4th wave onwards.

(4) My Parents

【Notes on the Use of Variables】

□ Q12) Having a parent or any other adult filling such role available (c**02_7aq15)

○ The question as to whether you have a parent or any other adult filling such a role was created during the 7th wave.

□ Q13) Level of parents' involvement in education (c**03_4aq1 ~ c**03_4aq4)

○ The question regarding parents' involvement in education was added from the 4th wave onwards.

○ The question was addressed to all children who were responding during the 4th year. However, it has become applicable only to those who answered '1. Yes' for the preceding question Q12) since the 7th year.

○ The scale for parents' involvement in education was developed based on the

Seoul Children Panel (2005). It consists of 4 questions.

○ Variable values set at 1, 2, 3, 4, are coded back to 0, 1, 2, 3 before being added together. A higher score suggests that parents are more likely participating in the education of their children.

□ Q14) Degree of parental guidance/supervision (c**03_4aq5 ~ c**03_4aq8)

○ The scale for parental supervision was added from the 4th wave onwards.

○ The question concerned was posed to all children during the 4th year, but it has become limited only to those who answered '1.Yes' for Q12) beginning the 7th year.

○ This scale was developed based on the Seoul Children Panel (2005), and it is configured with 4 questions.

○ Variable values set at 1, 2, 3, 4, are coded back to 0, 1, 2, 3 before being added together. A higher score likely indicates higher levels of parental guidance or supervision.

□ Q15) Child abuse (c**03_4aq9 ~ c**03_15)

○ The question regarding child abuse has changed since the 4th wave.

○ The question was asked to all children in the 1st and 4th waves, but from the 7th wave onwards, it has been applied only to children who answered '1.Yes' for Q12).

○ The scale for child abuse was developed based on the Seoul Children Panel (2005). It consists of 8 questions; 1 question for physical abuse, 3 for emotional abuse, and 4 for child neglect.

○ Variable values set at 1, 2, 3, 4, 5 are coded back to 0, 1, 2, 3, 4 before being added together. A higher score is suggestive of more severe child abuse. Also, in terms of the type of abuse, it is categorized into physical abuse (c**03_4aq9), emotional abuse (c**03_6, c**03_7, c**03_8), and child neglect (c**03_9, c**03_13, c**03_14, c**03_15), thereby enabling individual

evaluation.

(5) My Friends

【Notes on the Use of Variables】

□ Q16) number of close friends (c**04_4aq1)

○ This question was added during the 4th wave.

□ Q16-1) Frequency of 'get-together' (c**04_4aq2)

○ The question as to how often a respondent meets his or her friends has been added since the 4th wave.

○ It was applicable to all children during the 4th wave, but starting from the 7th wave, it has been limited to those who answered 'more than 1' for Q16).

□ Q16-2) Attachment to friends (c**04_4aq3 ~ c**04_4aq6)

○ Friends attachment scale has been in place since the 4th wave.

○ It was applied to all children surveyed from the 4th wave. However, it is aimed only at children who answered 'more than 1' for Q16) beginning the 7th wave.

○ This scale was developed based on the Seoul Children Panel (2005). It is configured with 4 questions.

○ Variable values set at 1, 2, 3, 4, 5 are coded back to 0, 1, 2, 3, 4 before being added together. A higher score likely refers to stronger attachment to friends.

□ Q16-3) Degree of peer attachment (c**04_1, c**04_2, c**04_9, c**04_10)

○ It was asked to all children surveyed from the 1st and 4th waves. However, it has been limited only to those who answered 'more than 1' for Q16) starting from the 7th wave.

○ Peer attachment scale was developed based on the Seoul Children Panel (2005) with 4 questions available.

○ Variable values set at 1, 2, 3, 4, are coded back to 0, 1, 2, 3 before being added together. A higher score likely indicates stronger attachment to peers.

□ Q16-3) Delinquent behavior by my close friends (c**04_3 ~ c**04_8)

○ It was asked to all children surveyed from the 1st and 4th waves. However, it has been limited only to those who answered 'more than 1' for Q16) starting from 7th wave.

○ Delinquency scale for close friends was developed based on the Seoul Children Panel (2005). It consists of 6 questions.

○ The scale can be utilized as follows:

– 6 questions were coded as shown below:

Variable Name	0 score	1	2	3
c**04_4, c**04_5, c**04_6, c**04_7, c**04_8	①	②	③	④
c**04_3	④	③	②	①

– Add together the values of 6 coded values. A higher score is suggestive of more severe delinquent behavior displayed by close friends.

□ Q16-4), Q16-5) number of close friends who experienced disciplinary actions by school or got arrested by the police (c**04_4aq7, c**04_4aq8)

○ The above questions were added from the 4th wave onwards.

○ They were addressed to all children surveyed during the 4th wave. However, it has been applied only to those who replied 'more than 1' for Q16) beginning 7th wave.

(6) My Health & Livelihood

【Notes on the Use of Variables】

□ Q22) Did you ever skip meals because you didn't have money or food over the last week? (c**05_4aq1)

○ This question was added during the 4th wave.

□ Q23), Q24) Average hours for watching TV and using the internet for a day (c**05_18, c**05_19)

○ The time spent for watching TV and going online is described as a 4-digit figure. The first 2 digits represent hours, followed by minutes. (XX hrs, XX mins). For time calculation, hours and minutes should be separately used.

□ Q24-1) Internet addiction (c**05_7aq1 ~ c**05_7aq20)

○ The scale for internet addiction was included from the 7th wave onwards.

○ A simple form of self-assessment for youth internet addiction (Simplified K-Scale) developed by the National Information Society Agency was introduced to measure the degree of internet addiction. It comprises a total of 20 questions.

○ The scale can be utilized as follows:

- Add the scores for the 20 questions to produce a total score for internet addiction.
- By category, add c**05_7aq1 ~ c**05_7aq6 (6 questions) to acquire a score for 'Disruption in daily life;' c**05_7aq7 ~ c**05_7aq10 (4 questions) for 'Withdrawal;' and finally c**05_7aq17 ~ c**05_7aq20 (4 questions) for 'Tolerance.'
- Internet addiction can be diagnosed as discussed below:
  - High risk user: If a total score is 53 or above, or when the area-specific score for 'disruption in daily life,' 'withdrawal,' and 'tolerance' equals to or is higher than 17, 11, 13 each at the same time.
  - Potential risk user: A total score falling within a range of 48~52. If at

least one or more categories meet the following conditions; 15 or above for 'disruption in daily life,' 10 or above for 'withdrawal,' and 12 or above for 'tolerance'

- General user: If a total score stands at 47 or below with the above 3 categories rated equal to or below 14, 9, 11 respectively.

(7) My Work Experience (Part-Time) & Activities

【Notes on the Use of Variables】

□ Q26) Activities participated and services used (c**05_36 ~ c**05_4aq15)

○ The question concerning the frequency of each activity participated in or service used was introduced in the 4th wave.

○ ‘Hobby/talents related activities’ (c**05_4aq8), ‘Physical exercise’ (c**05_4aq10), ‘Volunteer works’ (c**05_4aq12), ‘Social exchange with children from other regions or countries’ (c**05_4aq14) were included during the 4th wave.

○ ‘Career/college counselling’ (c**07_7aq21) and ‘Job related programs such as youth internship program, career camp, etc.’ (c**05_7aq23) were added from the 7th wave onwards.

(8) My Future Career

【Notes on the Use of Variables】

□ Q27) Most wanted job (c**07_4aq1, c**07_4aq2)

○ This question was introduced in the 4th wave.

□ Q27-1), Q27-2) Inspiration for your first priority job, Likelihood of achieving your dream job (c**07_7aq1, c**07_7aq2, c**07_7aq3)

○ These two questions were added from the 7th wave onwards.

□ Q28) Career maturity (c**07_4aq3 ~ c**07_4aq23)

○ Career maturity scale was introduced during the 4th wave.

○ The scale was developed based on the Seoul Children Panel (2008). It is composed of 21 questions.

○ The scale can be utilized as follows:

– 21 questions were coded as listed below.

Variable Name	0	1	2	3
c**07_4aq3, c**07_4aq7, c**07_4aq8, c**07_4aq10, c**07_4aq13, c**07_4aq15, c**07_4aq16, c**07_4aq17, c**07_4aq19	①	②	③	④
c**07_4aq4, c**07_4aq5, c**07_4aq6, c**07_4aq9, c**07_4aq11, c**07_4aq12, c**07_4aq14, c**07_4aq18, c**07_4aq20, c**07_4aq21, c**07_4aq22	④	③	②	①

– Add the values of 21 coded variables. A higher score likely indicates an elevated level of career maturity.

2) Additional Survey for the Awareness on Welfare

【Notes on the Use of Variables】

□ Q4) Perception on income distribution (wc**_5aq1 ~ wc**_5aq3)

○ New items such as ‘Income gap in Korea is too large’(wc**_5aq1), ‘The government should ensure the jobless to live a decent life’(wc**_5aq2), ‘The government should cut down on the benefits provided for the poor’(wc**_5aq3) were added starting from the 5th wave.

□ Q5) Perceived causes for poverty (wc**_8aq1 ~ wc**_8aq11)

○ This was introduced in the 8th wave.

○ Feagin (1972) was adopted to evaluate the perception on how poverty was triggered. 'Insufficient level of education' (wc**_8aq6) was added to the original scale (consisting of 10 questions) and as a result, a 11-question scale was finally created.

○ As the entire question can't be treated as a single measure, it has been divided into 'Individual accountability' (wc**_8aq1 ~ wc**_8aq6) 'Social structural responsibility' (wc**_8aq7 ~ wc**_8aq10) and 'Pre-destination' (wc**_8aq11) subcategories.

○ The average of each sub-category should be used to run an area-by-area comparison in terms of the perception on the causes of poverty. However, if a single subcategory is separately in use, applying a total score is allowed.

□ Q12) Welfare service funding (wc**_47 ~ wc**_53)

○ From the 5th wave onwards, the list of examples was modified as discussed below:

2nd	5th, 8th, 11th
1. Government (central/local) 2. Family & relatives 3. Employer 4. Private organizations (for-profit) 5. Non-profit private organizations	1. Government (central/local) 2. Each individual 3. Family & relatives 4. Employer

□ Q19), Q20), Q21) Political involvement and orientation (wc**_5aq4 ~ wc**_5aq6)

○ The 5th wave study has seen new questions such as 'level of interest' (wc**_5aq4), 'level of satisfaction on Korea's political situation' (wc**_5aq5), and 'your political orientation' (wc**_5aq6) incorporated.

3) Additional Survey for the Disabled

(1) (Common 1) Causes for Disability & Current Status

□ Q3) Disability status over the past 3 years (da**_4)

○ For the status of disability over the past 3 years, a subjective answer was asked during the 6th wave as opposed to the 3rd wave of objective answer. Specifically, the state of handicap (i.e. improving, perpetuating, aggravating or progressing) was determined based on the objective change in disability type and grade for the 3rd wave. However, the 6th wave study allowed each respondent to make a subjective judgment on his/her conditions (i.e. improving, perpetuating, aggravating or progressing).

□ Q7-1) Main reasons for being stuck at home, not going out (da**_47)

○ The list of examples has been revised since the 6th wave as stated below:

3rd wave	6th, 9th, 12th wave
1. Inconvenient transportation 2. Lack of comfortable facilities for the disabled 3. Physically challenged 4. Didn't have time 5. Didn't want to go out 6. Worried about how people would look at me 7. Difficult communication 8. Others	1. Inconvenient transportation 2. Lack of comfortable facilities for the disabled 3. Physically challenged 4. Didn't have time 5. Didn't want to go out 6. Worried about how people would look at me 7. Difficult communication 8. Lack of time for caregiver's part 9. Others

(2) (Common 2) Daily Life

□ Q8-1) the Mainly Caregiver for you (da**_49 ~ da**_54)

○ The terms can be explained as follows:

– All of the terms including ⑪ Home-helper, ⑫Personal Care Assistant, ⑬Personal Assistant, ⑰ Certified Care Worker, ⑱ Care Helper for child

with disabilities are Job title in Korea, which mean sort of caregivers.

- The table below shows the difference among them.

	catagory	Training content and duration	sector	target
⑪ Home-helper	caregiver	no training, no license, no mimimum requirement.	Non-profit	the eldery poor
⑫Personal Care Assistant	caregiver	9 hours training After Examination for Personal Care Assistant	Private	Patients
⑬Personal Assistant	caregiver	no license, 40 hours training	Public	Person with disabilites
⑰ Certified Care Worker	caregiver	To be eligible for State Examination for Certified Care Workers: 240 hours theoretical training and education.	Public	the eldery
⑱ Care Helper for child with disabilities	caregiver	no license	Public	child with disabilites

- Back in the late 1990's, the South Korean Government didn't have enough budget to support the elderly that need helps for their daily life. So It asked various religious, non-goverment, government organizations to organize people who can render service as ⑪ home-helper for the elderly. Nowadays the number of home-helper is getting smaller and smaller.
- Since 2007, South Korean goverement has been creating specific caregivers in public sector. ⑰ Certified Care Worker was institutionalized by the introduction of Long Term Care Insurance in 2008. ⑬ Personal Assistant was institutionalized in 2008. And ⑱ Care Helper for child with disabilities was institutionalized in 2007.
- ⑬ Personal Assistant offers person-to-person services to assist people with disabilities with tasks they would perform if they did not have a disability. Traditionally, these services have focused on health care and activities of daily living.
- ⑱ Care Helper for child with disabilities comes to your home for a few

hours daily; looking after child with special needs as nannies, babysitter, teachers or other providers.

- The role of ⑫ Personal Care Assistant and ⑰ Certified Care Worker is very similar. Their duty include taking care of someone who has a chronic illness or disease; managing medications or talking to doctors and nurses on someone's behalf, ; helping to bathe or dress someone who is frail or disabled; or taking care of household chores, meals, or bills for someone who cannot do these things alone. But, ⑫ Personal Care Assistant cater to patient outside of the Long Term Care Insurance after implementing Long Term Care Insurance.

□ Q10) Ability to carry out basic daily routines (da**_59 ~ da**_70)

○ The scale for activities of daily living (ADL) was derived from the long-term care insurance plan for the elderly. It consists of 12 questions.

○ The ADL can be categorized as follows:

- No problem: If '1. Fully independent' was selected for all 12 items
- Minor: Of 12 items, if '2. Partially reliant' was selected for 1~4 items or '3. Fully reliant' was checked for 2 items
- Severe: If it exceeds the ceiling of 'minor' disability defined
- Add the values of 12 items together. A score of 12 is regarded as 'No problem'; a range of 13~16 is categorized as 'Minor' and 17~36 as 'Severe'

□ Q11) Ability to carry out instrumental daily activities (da**_71 ~ da**_80)

○ The scale for instrumental activities of daily living (IADL) was derived from the long-term care insurance plan for the elderly. It is configured with 10 questions.

○ The IADL can be categorized as follows:

- No problem: If '1. Fully independent' was selected for all 10 items
- Minor: Of 10 items, if '2. Partially reliant' was selected for 1~2 items or

'3. Fully reliant' was checked for 1 item

- Severe: If '2. Partially reliant' was selected for 10 or more items or '3. Fully reliant' was marked for 5 items if the 'minor' limit is surpassed
- Extremely severe: If it exceeds the ceiling of 'severe' category set forth
- Add the values of 10 items together. A score of 10 means 'No problem.' A range of 11~12 represents 'Minor' category; 13~20 'Severe,' and finally 21~30 'Extremely Severe.'

□ Q12) Social support (da**_6aq1 ~ da**_6aq10)

○ Social support scale was newly introduced during the 6th wave.

○ Social support scale was derived from the MSPSS (Multi-dimensional Scale of Perceived Social Support) which was developed by Zimet et al. in 1988 and later reshaped by Choi, Hee-Su in 1999. It comprises a total of 10 questions.

○ Add 10 items together. A higher score is indicative of stronger social support.

□ Q13) Level of support received for daily living, Frequency of physical assistance and caregiving (da**_81 ~ da**_9aq6)

○ The question regarding 'Personal assistant' (da**_6aq11 ~ da**_6aq13) was added from the 6th wave onwards.

○ Since the 9th wave of the survey, 'ⓚ Certified Care Worker' (da**_9aq1, da**_9aq2, da**_9aq3) and 'ⓛ Care Helper for child with disability' (da**_9aq4, da**_9aq5, da**_9aq6) have been added to the item, 'material support, the usefulness of assistance, and the frequency of care services in daily life for the past one month'.

(3) (Individual 1) Survey for Preschoolers (0 Year Old ~ Before Entering School)

□ Q1) Depression and anxiety (da**_111 ~ da**_124)

○ K-CBCL was employed to assess the degree of depression and anxiety. The scale consists of 14 questions.

○ Variable values set at 1, 2, 3 are coded back to 0, 1, 2 before being added together. A higher score indicates an increased degree of depression and anxiety.

□ Q3), Q3-1), Q3-2) Rehabilitation service for physically impaired children (da**_153 ~ da**_155)

○ 'Regional innovation project' was studied for the 3rd wave, but it has been replaced by 'Rehabilitation service for disabled children' since the 6th wave.

(4) (Individual 2) Survey for Students (Elementary ~ High School)

□ Q1) Depression and anxiety (da**_162 ~ da**_175)

○ K-CBCL was in place to measure the degree of depression and anxiety. It is configured with 14 questions.

○ Variable values set at 1, 2, 3 are coded back to 0, 1, 2 before being added together. A higher score suggests an increased level of depression & anxiety.

□ Q3) Depression (da**_210 ~ da**_220)

○ CESD-11 was adopted to assess the level of depression. The scale consists of 11 questions.

○ Depression scale can be utilized as follows:

– 11 questions were coded as listed below.

Variable Name	0 score	1	2	3
da**_210, da**_212, da**_213, da**_214, da**_215, da**_217, da**_218, da**_219, da**_220	①	②	③	④
da**_211, da**_216	④	③	②	①

– The 11 coded variables are calculated as discussed below:

– Perception on depression = (da**_210 + da**_211 + da**_212 +

da**_213 + da**_214 + da**_215 + da**_216 + da**_217 + da**_218 + da**_219 + da**_220] × (20/11)

- Multiplication by 20/11 will be omitted if the total sum is going to be used.
- A higher score indicates an increased likelihood of getting depressed.
- Diagnosis of depression: A score higher than 16 would be suggestive of depression.

□ Q5), Q5-1), Q5-2) Rehabilitation service for children with disabilities (da**_223 ~ da**_225)

○ 'Regional innovation project' was studied for the 3rd wave, but it has been replaced by 'Rehabilitation service for disabled children' since the 6th wave.

(5) (Individual 3) Survey for Adults (Aged 18 ~ Under 65)

□ Q2) Depression (da**_263 ~ da**_273)

○ Depression scale was developed based on CESD-11 with a total of 11 questions available.

○ The scale can be utilized as follows:

- 11 questions were coded as shown below.

Variable Name	0 score	1	2	3
da**_263, da**_265, da**_266, da**_267, da**_268, da**_270, da**_271, da**_272, da**_273	①	②	③	④
da**_264, da**_269	④	③	②	①

- The 11 coded variables are calculated as discussed below:
- Perception on depression = (da**_263 + da**_264 + da**_265 + da**_266 + da**_267 + da**_268 + da**_269 + da**_270 + da**_271 + da**_272 + da**_273] × (20/11)
- Multiplication by 20/11 will be omitted if the total sum is going to be used.

- A higher score indicates an increased likelihood of getting depressed.
- Diagnosis of depression: A score higher than 16 would be suggestive of depression.

(6) (Individual 4) Survey for Seniors (65 years or Older)

□ Q2) Depression (da**_309 ~ da**_319)

○ Depression scale was developed based on CESD-11 with 11 questions available.

□ Q7) 'Total elderly care service' or 'Long term care insurance for the elderly' (da**_326 ~ da**_6aq15)

○ 'Caregiver service for seniors' was surveyed during the 3rd wave, but for the 6th wave, 'total elderly care service' and 'long-term care insurance for the aged' were studied instead.

○ An updated list of examples has been used for Q7) since the 6th wave.

3th wave	6th, 9th, 12th wave
1. Yes, I do 2. No, I don't	1. Home-visit service for the total elderly care services 2. Day care service for the total elderly care services 3. Long term care insurance 4. I don't use either.

○ Q7-3) (da**_6aq14) and Q7-4) (da**_6aq15) were added with regards to the long-term care insurance for the elderly starting from the 6th wave onwards.