The 2017 Korea Welfare Panel Study (KOWEPS)



- Descriptive Report

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The 2017 Korea Welfare Panel Study (KOWEPS): Descriptive Report

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Prologue: Korea Welfare Panel and Background

Prologue: Korea Welfare ((Panel and Background

As the social and economic development of a nation increases, the demand for welfare grows. Welfare and social policy is thus increasingly emerging as a core focal area of policymaking for the Korean government. The introduction and expansion of various welfare programs since 2000, the continued growth of fiscal spending on welfare, and the increasing amounts of human and material resources invested in welfare policy attest to this phenomenon. These changes highlight the importance of establishing and evaluating policy measures on the basis of empirical evidence and expertise. There is, in other words, a strong need for statistical data that provide a wide range of highly reliable information.

A wide range of studies have been conducted to ascertain the welfare awareness and needs, as well as the income and expenditure patterns, of the Korean people. The resulting cross-sectional data have been applied to policy research in relation to a variety of subject matter. Cross-sectional data, however, are insufficient to identify the changing makeup of the social risks to which Koreans are exposed, Koreans' changing welfare needs, and how policy measures have been catering to these needs on a continuous basis. In other words, cross-sectional surveys are incapable of capturing the changes

in welfare needs over time due to changes in the age or generational characteristics of Korean society.

Accordingly, researchers worked in earnest to develop diverse panels, including those on income, expenditure and the labor market, to ensure the continued production and accumulation of panel data necessary for effective welfare-related policymaking. Since 2003, the Korea Institute for Health and Social Affairs (KIHASA) has been keeping a self-help panel, focusing on the members of low-income households who are capable of working, upon the request of the Ministry of Health and Welfare (MOHW). The Social Welfare Research Center of Seoul National University (SNU) has also been keeping a welfare panel on low-income households and their members (with the initial sample including 3,855 households) since 2005, also upon the request of the MOHW. In addition, KIHASA has been maintaining poverty and near-poverty panels (with an initial sample consisting of 1,142 households) since 2005, with the goal of analyzing the dynamics of poverty as experienced by low-income households, including those categorized as poor and near-poor, amid the acceleration of socioeconomic polarization in Korean society.

Although the three panels differ slightly from one another in terms of specific focus, they all involve similar samples. However, the panel surveys failed to produce representative panel data due to budgetary constraints that made it impossible

to secure sufficiently large samples.

KIHASA and the SNU Social Welfare Research Center thus agreed to merge their three independent panels, launching the Korea Welfare Panel Study (KOWEPS) in 2006. Accordingly, instead of assigning separate budgets for different panels, the MOHW decided to support the KOWEPS as an independent project of KIHASA. The SNU Social Welfare Research Center, in turn, decided to participate in the formation of a consortium responsible for organizing and conducting the KOWEPS. Ever since, the two organizations have been conducting the KOWEPS via this joint consortium.

Overview

- 1. Sampling
- 2. Questionnaires
- 3. Interviewers and Survey Method
- 4. Improvements Made to KOWEPS 2017

Overview ((

1. Sampling

The KOWEPS is a nationwide, longitudinal study based on a sample that encompasses all regions of South Korea, including Jeju-do. Whereas Statistics Korea's Household Trend Survey—a cross-sectional study—and the Korean Labor and Income Panel Study (KLIPS)—a longitudinal study like the KOWEPS—do not include rural (including the small scale district units of eup and myeon) communities in their samples, the KOWEPS does. A brief overview of the initial sample, the households added to the new sample, and the sampling method used for the addendum of the KOWEPS, i.e., the Additional Study on the Disabled, should suffice here.

The initial sample for the KOWEPS consisted of 7,072 house-holds¹⁾, and the study specifically targeted the sample house-holds, members of those households aged 15 or older, and individuals targeted by the additional study. The 7,072 house-holds of the initial sample were selected on the basis of the National Living Conditions Study of 2006, which, in turn, was

¹⁾ While the original target number of households to be included in the initial sample was 7,000, a total of 7,072 households were included after the first study.

based upon the 90 percent of enumeration districts included in the Population Census of 2005. To survey households' welfare needs more effectively, low-income households were deliberately over-represented in the sample. The initial sample consisted of 3,500 low-income households earning less than 60 percent of the median household income (i.e., OECD's relative poverty line) and another 3,500 households earning above 60 percent of median household income.²⁾

The new sample consisted of 5,400 households, which is triple the target number (1,800) of households to be obtained from all enumeration districts. The households so included in the sample were divided into general and low-income households according to the findings of a preliminary survey. Low-income households were again over-sampled, and all households were distributed across regions according to a ratio similar to that of the initial sample in order to maximize the homogeneity of the panel data. The tables presented in this study, listing a wide range of statistics, reflect analyses based upon the initial and new samples alike. In the longitudinal analyses in general, however, some households of the new sample are included in some analyses and omitted from others depending on the objectives of the given analysis.

²⁾ Although the intent was to have low-income households account for 50 percent of the sample, low-income households made up 45 percent and general households made up 55 percent of the sample in the actual study.

2. Questionnaires

The KOWEPS consists of a number of questionnaires, i.e., those pertaining to households, individuals (household members), and additional subjects (people with disabilities). The household questionnaire contains questions about the general characteristics and conditions of households, while the individual questionnaire includes questions about household members aged 15 or older.

(Table 1) KOWEPS Questionnaires

Household

- Targets: household heads and/or their spouses
- Survey method: direct face-to-face interviews conducted by researchers visiting sample households
- Reference period: as of December 31 of the previous year

Individual

- Targets: all household members aged 15 or older (excluding teenagers enrolled in secondary school)
- Survey method: direct face-to-face interviews conducted by researchers visiting sample households
- Reference period: as of December 31 of the previous year

Additional (People with Disabilities)

- Targets: household members who had participated, even just once, in Additional Studies on the Disabled in previous years and household members who were disabled at the time of the 11th KOWEPS
- Survey method: direct face-to-face interviews conducted by researchers visiting sample households
- Reference period: as of the interview date

3. Interviewers and Survey Method

The reference period for the 12th KOWEPS of 2017 is the previous year, i.e., 2016. Flow data were gathered with respect to all 12 months of 2016, while stock data were gathered as of December 31, 2016.

4. Improvements Made to KOWEPS 2017

The sample for the KOWEPS, which began with 7,072 households for the first panel study, decreased in size continuously, losing 561 households (7.93 percent) by the second study. The sample retention rate continued to decline, falling to 80.25 percent by the 5th wave in 2010 and 75.44 percent by the 6th wave in 2011. Deciding that it was necessary to include additional units in the sample, the researchers conducted a preliminary survey in 2012 with a view to determining the households to be newly included in the KOWEPS sample. The preliminary survey, which was conducted in the latter half of 2012, was completed with 1,800 households participating. These households were added to the KOWEPS sample, with the researchers making efforts to minimize sample loss and maintain the sample size for years to come in order to ensure the reliability and rigor of the analyses based thereupon. The 12th wave, conducted in 2017, had a sample of 6,879 households, of which 6,581 participated.

(Table 2) Results of KOWEPS 2017 (12th) and Trend of Sample Retention Rate

12 (Completed)	4,398 (11) ²⁾	62.19%	162	2.29%p	3.55%	296	87	883	5,081	1,426 (1) ²⁰	22	19	74	1,500	6,581
12 (Targets)		6 870 households	including original households and	households that had branched out	6,723 completed 11th wave	households) (1,534 new house-	(sploy+	12 returning households	+	144 households had branched out	of original house-	holds since the	11th study		
11	4,560 (13) ¹⁾	64.48%	200	2.83%p	4.20%	556	73	629	5,189	1,478	34	22	26	1,534	6,723
10	4,760	81.31%	136	1.92%p	2.78%	517	99	583	5,343	1,534	16	12	37	1,571	6,914
6	4,896	69.23% 67.31% 64.48%	208	2.94%p	4.08%	481	61	542	5,438	1,594	8	13	16	1,610	7,048
8	5,104	72.17%	167	2.36%p	3.17% 4.08% 2.78% 4.20%	433	82	515	5,619	1,690	-	3	3	1,693	7,312 7,048 6,914 6,723
7	5,271	83.92% 80.25% 75.44% 74.53%	64	7.93%p 5.42%p 2.73%p 3.67%p 4.81%p 0.91%p 2.36%p 2.94%p1.92%p2.83%p	1.21%	383	78	461	5,732	1,800	ı	ı	1	1,800	5,732
9	5,335	75.44%	340	4.81%p	5.99%	328	72	400	5,735	1	ı	ı	1	1	5,735
5	5,675	80.25%	260	3.67%p	4.38%	249	110	359	6,034	1	-	-	_	-	6,034
4	2:632	83.92%	193	2.73%p	3.15%	167	105	272	6,207	1	-	_	_	-	6,207
3	6,128	100.00% 92.07% 86.65%	383	5.42%p	5.88%	09	126	186	6,314	1	-	_	-	-	6,314
2	6,511	92.07%	561	7.93%p	7.93%	i	69	69	6,580	1	-	-	-	-	6,580
-	7,072	100.00%	I	i	_	i	i	ı	7,072	_	_	_	1	_	7,072
Wave	Z	Retention rate	Number of households leaving sample since previous year	Decrease in number of households from pre- vious year (%p)	Decrease in number of households from pre- vious year (%)	Existing branch house-holds (from 2nd study onward)	New branch house- holds of the year	Cumulative branch households	Total	Number of original households	Existing	New	Cumulative	Total	Households completing survey
			Original	holds	= =	Branch	house- holds			Numbei	New Branch	panel house-	holds		- Households
	nitial panel New Panel														

Notes: 1) Households that had left the KOWEPS since the 8th wave were included back in the sample. 2) Households that had left the KOWEPS since the 9th wave were included back in the sample.



KOWEPS 2017: Basic Analysis

- 1. General Characteristics and Economic Activity of Households
- 2. Economic Activity of Household Members
- 3. Household Economics: Income and Expenditure
- 4. Housing and Health
- 5. Family Relations and Living Conditions
- 6. Social Security



KOWEPS 2017: Basic (\langle Analysis

This report provides the results of a basic analysis of the general characteristics, economic activity, financial conditions, housing and health conditions, family relations, and life satisfaction of households, as indicated by their answers on the given questionnaires. What follows is a discussion of some of the more important findings of the study.

General Characteristics and Economic Activity of Households

In this report, we discuss the findings of KOWEPS 2017 pertaining to not only all households but also to two different groups (low-income households below 60 percent of the median household income³⁾ and general households above the 60-percent threshold).

Table 3 shows that "Other" households accounted for the largest proportion of the households surveyed (69.83 percent), followed by single-person households (27.91 percent). Single-mother households made up 1.39 percent; single-father households, 0.63

^{3) &}quot;Equivalized income" refers to the euivalized current income before public income transfers and is calculated as follows: equivalized income=(current income-public income transfers) / $\sqrt{\text{(number of household members)}}$

percent; and parentless households, 0.25 percent.

(Table 3) Types of Households

%	Overall	Low-income	General
Single-person	27.91	52.56	18.73
Single-mother	1.39	2.46	0.99
Single-father	0.63	0.87	0.54
Parentless	0.25	0.74	0.07
Other	69.83	43.37	79.67
Total	100.00	100.00	100.00

"Other" households also accounted for 79.67 percent of general households, which is a considerably larger share than the 43.37 percent of low-income households. The proportions of single-person and single-parent households, on the other hand, were higher among low-income households (52.56 percent and 3.33 percent, respectively) than among general households (18.73 percent and 1.53 percent, respectively). Parentless households made up 0.74 percent of low-income households, as opposed to a mere 0.07 percent of general households.

Table 4 shows the distribution of households by size. Single-person households made up the largest proportion overall, at 27.91 percent, followed by two-person households (26.51 percent), three-person households (21.42 percent), and four-person households (18.11 percent). Households with five members or more made up 6.05 percent overall.

Size	Overall (%)	Low-income (%)	General (%)
Single-person	27.91	52.56	18.73
Two-person	26.51	31.91	24.50
Three-person	21.42	10.29	25.56
Four-person	18.11	3.47	23.56
Five-person	4.70	1.52	5.88
Six-person	1.06	0.22	1.37
Seven-person	0.29	0.02	0.39
Total	100.00	100.00	100.00

(Table 4) Distribution of Households by Size

2. Economic Activity of Household Members

Of all household members aged 15 or older, 91.15 percent were capable of working; 3.36 percent were capable of unskilled labor; 3.95 percent were capable of limited unskilled labor; and 1.54 percent were incapable of working altogether. Specifically, 95.60 percent of general household members were capable of working, as opposed to 69.32 percent of low-income household members. Severe disability was the predominant reason for household members' inability to work, followed by illnesses and injuries and physical and mental frailty due to old age. Of general household members incapable of working, 68.99 percent were unable to work due to severe disability, while 18.17 percent could not do so due to illnesses or injuries. Of low-income household members incapable of working, on the other hand, severe disability accounted for 54.69 percent, while illnesses and injuries accounted for 42.03

percent (Table 5).

Household members were divided according to their work capability levels (capable of working, capable of unskilled labor, and capable of limited unskilled labor). Among these, the largest proportion, or 39.32 percent, were economically inactive, followed by 27.42 percent who were full-time wage earners, 14.24 percent who were part-time wage earners, and 7.67 percent who were self-employed. Whereas two out of every three low-income household members were economically inactive, only one out of every three general household members were so (Table 6).

(Table 5) Different Work Capability Levels of Household Members and Causes of Inability to Work

Status		Overall (%)	Low-income (%)	General (%)
	Capable of working	91.15	69.32	95.60
Work capability	Capable of unskilled labor	3.36	11.72	1.66
	Capable of limited unskilled labor	3.95	14.84	1.73
	Incapable of working	1.54	4.12	1.01
Total		100.00	100.00	100.00
	Severe disability	62.49	54.69	68.99
Causes of	Illnesses/injuries	29.01	42.03	18.17
inability to work	Frailty due to old age	8.40	3.07	12.84
	Other	0.10	0.22	0.00
Total		100.00	100.00	100.00

(Table 6) Employment Status of Household Members

Status	Overall (%)	Low-income (%)	General (%)
Full-time wage earner	27.42	2.70	32.47
Part-time wage earner	14.24	7.26	15.66
Day laborer for wages	4.19	4.52	4.12
Public/self-help work	0.70	2.58	0.32
Employer	2.25	0.70	2.57
Self-employed	7.67	6.99	7.81
Unpaid family business worker	2.44	3.55	2.21
Unemployed	1.77	2.21	1.68
Economically inactive	39.32	69.48	33.17
Total	100.00	100.00	100.00

Household members overall worked for an average of 11.41 months out of the 12 months of the year, 21.03 days per month, and 44.40 hours per week. Specifically, low-income household members worked for 37 hours per week, as opposed to the 45 hours per week of general household members, on average.

(Table 7) Months, Days, and Hours Worked by Household Members in the Previous Year

Type	Overall	Low-income	General
Avg. number of months worked in the year	11.41	10.82	11.46
Avg. number of working days per month	21.03	19.19	21.19
Avg. number of working hours per week	44.40	37.08	44.83

Note: The average number of working hours per week was measured based on individuals who worked on a regular basis.

3. Household Economics: Income and Expenditure

Table 8 shows that the annual average current income per household overall was 50.1 million won, with the median income being 40.61 million won. The average current income per household among low-income households was 13.55 million won, as opposed to the 63.71 million won among general households.

(Table 8) Annual Average Current Income per Household

(Unit: KRW 10,000)

Type	Median	Average	Standard error
Overall	4,061	5,010	57.02
Low-income	1,235	1,355	14.20
General	5,402	6,371	75.98

The categories of expenditure included: groceries (for preparing meals at home, eating out, alcohol, and tobacco products); housing (excluding the costs of home acquisition but including rent and maintenance costs); light, heat, and water; furniture and amenities (furniture, appliances, daycare, etc.); clothing and shoes; health and medicine; education (public and private); culture and entertainment; transportation and communications; other consumption expenditures; remitted aid (private income transfers); taxes; and social security insurance premiums. As for households working in the agriculture, for-

estry, livestock, and fishing industries, self-consumption and interest payments on household debts were included as additional categories of expenditure. Expenditure encompassing all these categories is referred to as "total household expenditure." All expenditure was measured in terms of monthly averages (except for self-consumption and interest payments of rural households). Self-consumption and interest payments, which were originally measured annually, were divided by 12 to determine the monthly amounts.

Table 9 provides descriptive statistics on average monthly total household spending. The median value is 3.07 million won, and the average is 3.64 million won. For low-income households, median spending was 1.08 million won, and the average was 1.38 million won, as opposed to the 3.97 million won and 4.48 million won, respectively, of general households. In other words, general households spent 3.2 times more than low-income households on a monthly basis.

(Table 9) Monthly Total Household Expenditure

(Unit: KRW 10.000)

Type	Median	Average	Standard error
Overall	307	364	3.31
Low-income	108	138	1.90
General	397	448	4.22

Table 10 shows the makeup of total household expenditure by category. Of the average total household expenditure of 3.64 million won, groceries accounted for the largest proportion at 20.93 percent, or 0.76 million won, followed by other consumption expenditure (19.02 percent, or 0.69 million won; transportation and communications (13.32 percent); social security insurance premiums (5.8 percent); education (5.54 percent); remitted aid (5.4 percent); taxes (5.17 percent); health and medicine (4.82 percent); culture and entertainment (4.09 percent); housing (3.87 percent); furniture and amenities (3.33 percent); clothing and shoes (3.21 percent); light, heat, and water (3.19 percent); interest payments on household debts (2.12 percent); and self-consumption (0.17 percent; for households involved in the agriculture and livestock industries only). The self-consumption of households involved in the fishing industry was negligible.

(Table 10) Makeup of Total Household Expenditure by Category

	Overall		Low-income		General	
Category	Amount (KRW 10,000)	%	Amount (KRW 10,000)	%	Amount (KRW 10,000)	%
Groceries	76	20.93	42	30.31	89	19.86
Housing	14	3.87	9	6.19	16	3.60
Light, heat, and water	12	3.19	9	6.69	13	2.79
Furniture and amenities	12	3.33	5	3.59	15	3.31
Clothing and shoes	12	3.21	3	2.31	15	3.31
Health and medicine	18	4.82	12	8.99	19	4.35
Education	20	5.54	4	2.88	26	5.85
Culture and entertainment	15	4.09	3	2.52	19	4.27
Transportation and communications	48	13.32	15	10.90	61	13.60
Other consumption expenditure	69	19.02	24	17.35	86	19.21
Remitted aid	20	5.40	4	3.21	25	5.65
Taxes	19	5.17	2	1.36	25	5.61
Social insurance premiums	21	5.80	2	1.77	28	6.26
Self-consumption (agriculture/livestock)	1	0.17	1	0.41	1	0.14
Self-consumption (fishing)	0	0.00	0	0.00	0	0.00
Interest payments on debts	8	2.12	2	1.53	10	2.19
Total	364	100.00	138	100.00	448	100.00

4. Housing and Health

As for housing status, 56.07 percent of households owned the homes in which they lived; 20.24 percent paid monthly rent; and 13.61 percent lived on jeonse leases. While homeownership was the most common housing status among both general and low-income households (60.66 percent and 43.72 percent, respectively), 27.57 percent of low-income households paid monthly rent (i.e., semi-jeonse leases), as opposed to 10.38 percent that lived on jeonse leases. In other words, one out of every four low-income households lived in rented homes requiring monthly rent. Among general households, the proportions of households living on jeonse leases and paying monthly rent were similar (15 percent and 17 percent, respectively).

(Table 11) Housing Status

Type	Overall (%)	Low-income (%)	General (%)
Own	56.07	43.72	60.66
Jeonse	13.61	10.38	14.81
Semi-jeonse (monthly rent with deposit)	20.24	27.57	17.50
Monthly rent	1.53	3.02	0.97
Other	8.56	15.31	6.05
Total	100.00	100.00	100.00

Of all household members, 39.69 percent had been diagnosed with chronic illnesses. This figure, however, rose to

66.68 percent among low-income household members, far higher than the 34.69 percent recorded among general household members. While 26.53 percent of all household members had been afflicted with chronic illnesses for six months or longer, the figure rose steeply to 62.06 percent among low-income households, indicating that the majority of low-income household members had been afflicted with chronic illnesses lasting for six months or longer.

(Table 12) Chronic Illnesses of Household Members and Heads

Members	Overall (%)	Low-income (%)	General (%)
None	60.32	33.33	65.31
Diagnosed	39.69	66.68	34.69
Afflicted for less than 3 months	4.97	2.80	5.37
Afflicted for 3 to 6 months	2.64	1.82	2.79
Afflicted for 6 months or longer	32.08	62.06	26.53
Total	100.00	100.00	100.00
Household heads	Overall (%)	Low-income (%)	General (%)
None	45.44	19.69	52.69
Diagnosed	54.56	80.31	47.32
Afflicted for less than 3 months	5.11	2.32	5.90
Afflicted for 3 to 6 months	2.48	1.58	2.73
Afflicted for 6 months or longer	46.97	76.41	38.69
Total	100.00	100.00	100.00

Of all household heads, 54.56 percent were afflicted with chronic diseases. Among low-income households, 80.31 percent of household heads were afflicted, as opposed to 47.32 percent of general household heads. Moreover, 76.41 percent

of low-income household heads had been afflicted for six months or longer, and those who had been afflicted for six months or longer made up 95 percent of all low-income households afflicted with chronic illnesses. Approximately 80 percent of general household heads afflicted with chronic illnesses had struggled with such illnesses for six months or longer.

5. Family Relations and Living Conditions

The frequency of contact with one's parents may serve as an indicator of how strong one's family relations are. KOWEPS 2017 compared low-income and general households in terms of the frequency of their contact (visits or telephone calls) with their parents. Overall, 45.71 percent of households lived independently of their parents. However, only 23.73 percent of low-income households lived independently of their parents, as opposed to 50.05 percent of general households.

(Table 13) Households Living Independently of Parents

Type	Overall (%)	Low-income (%)	General (%)
Yes	45.71	23.73	50.05
No	54.29	76.27	49.95
Total	100.00	100.00	100.00

As Table 14 shows, households overall visited their parents an average of 37 times over the previous year. The number of

visits was slightly higher among general households (37 times) than low-income households (33 times). Interestingly, however, the median number of visits to parents was five times among low-income households, as opposed to 12 times among general households. As for telephone calls, households overall called their parents an average of 84 times over the previous year. The number of telephone calls among low-income households, however, was 66 times on average, as opposed to 86 times among general households. In other words, the frequency of contact with parents was greater among general households than low-income households.

(Table 14) Frequency of Contact with Parents

Number of visits	Median	Average	Standard error
Overall	12	37	1.06
Low-income	5	33	3.45
General	12	37	1.11
Number of calls	Median	Average	Standard error
Overall	52	84	1.48
Low-income	24	66	4.28
General	52	86	1.58

Table 15 shows the results of household members' subjective sense of happiness measured using Cantril's Ladder of Life Scale. Overall, the average subjective happiness score was 6.4 points. Among low-income households, it was 5.3 points; among general households, it was 6.6 points.

(Table 15) Happiness Scores: Cantril's Ladder of Life Scale

(Unit: points)

Type	Median	Average	Standard error
Overall	7	6.4	0.02
Low-income	5	5.3	0.03
General	7	6.6	0.02

Note: Household members were asked to imagine a ladder, with steps numbered zero at the bottom and 10 at the top. The top step represented the best that the individuals expected from life, while the bottom represented the worst. Household members were then asked on which step of life they currently stood. The higher the score, the happier the individual.

6. Social Security

The National Basic Livelihood Security Program (NBLSP) provides necessary income and other benefits from public sources for eligible beneficiaries. The beneficiaries are chosen relative to the median income (or relative poverty line) and provided income and other benefits according to their circumstances. The analysis of the NBLSP thus encompasses the income, housing, educational, and medical benefits the program provides.

Of all panel households, 8.00 percent were receiving income support under the NBLSP, of which 92.65 percent were general beneficiaries; 7.01 percent, conditional support; and 0.34 percent, special exceptions. For nearly 80 percent of all households receiving support under the NBLSP, all household members were beneficiaries. For the remaining 20 percent, only some of the household members were beneficiaries.

100.00

Type Percentage 92.00 Not receiving support 8.00 100.00 Receiving support 7.42 General 92.65 Support Type 1 Conditional support 0.56 7.01 Special 0.03 0.34 Total 100.00 Not receiving support 92.00 100.00 Receiving support 8.00 All household 6.17 77.03 Support Type 2 members Some household 1.84 22.97

members

Total

(Table 16) Households Receiving Income Support Under the NBLSP

The Earned Income Tax Credit (EITC) Program is a public income-support scheme that encourages beneficiaries to work actively by providing tax credits for financially struggling workers or self-employed persons based on the number of dependent children they support and their total wages. The program was first introduced in 2008 and has been providing support since the first application was received in 2009.

Since 2015, the Child Support Tax Credit Program (CSTCP) has been providing tax credits for low-income households earning less than 40 million won a year while raising dependent children (under the age of 18). Because this program was first introduced in 2015, it was included in the KOWEPS beginning with the 11th study. Child support tax credits are calculated according to the total household earned income and number of household members and determined according to the child support brackets. However, households that receive income support under the NBLSP are not eligible for this particular tax credit.

Although these two tax credit programs have been introduced specifically to alleviate the financial burden on low-income households, 61.75 percent of all households participating in the study reported that they had never heard of the EITC. Another 21.05 percent answered that they had heard of it but did not know much about it. Only 4.49 percent answered that they had heard of it and knew about it in some detail. As for the CSTCP, 34.37 percent of households overall said they were unaware of it; 39.37 percent had heard of it but did not know much about it; and 25.26 percent had heard of it and knew about it in some detail. The CSTCP, which was introduced more recently than the EITC, was significantly better known.

(Table 17) Households' Awareness of the EITC and CSTCP

	Answer	Percentage
	Never heard of it	61.75
	Heard of it but do not know much about it	21.05
EITC	Heard of it and know a little about it	12.71
	Heard of it and know about it in some detail	4.49
	Total	100.00
	Never heard of it	34.37
	Heard of it but do not know much about it	39.37
CSTCP	Heard of it and know a little about it	18.93
	Heard of it and know about it in some detail	7.33
	Total	100.00

Note: In the 11th KOWEPS, all participating households were asked whether they were aware of the CSTCP, whereas only the original households were asked about the EITC. In the 12th KOWEPS (2017), therefore, only the new households were asked about whether they were aware of the EITC.

IV

Longitudinal Analysis

- 1. Poverty and Income Mobility
- 2. Factors of Marriage and Childbirth

IV

Longitudinal Analysis ((

1. Poverty and Income Mobility

The most important advantage of panel studies is that panel data give researchers chances to analyze the dynamics of people's lives. Given the characteristics of income data provided by the KOWEPS, the poverty dynamics as implied by KOWEPS 2017 was analyzed.

The market income and disposable income of households were equivalized by dividing by the square root of the number of household members. Next, the relative poverty lines (30 percent, 40 percent, and 50 percent of median income) were applied to categorize poor households. Income was divided into market and disposable types, because the income data of Statistics Korea are based upon these two types of income. Disposable income was also considered in addition to market income with the goal of determining, indirectly, the effects of public income transfers, taxes, and social insurance premiums after market income. The KOWEPS measures poverty rates every year. Using these annually calculated poverty rates, households that had been classified as poor five or more times throughout the 12 studies conducted so far were categorized as long-term poor; those classified as poor two to four times, as repeatedly poor; those classified as poor only once, as temporarily poor; and those that had never been classified as poor, as non-poor.

When the poverty lines of 30 percent, 40 percent, and 50 percent of the median market income were applied, the poverty rates were 9.0 percent, 12.7 percent, and 17.4 percent, respectively. In terms of disposable income, the long-term poverty rates dropped somewhat to 2.4 percent, 6.5 percent, and 11.7 percent, respectively. The percentages of households that had never experienced poverty over the past 12 years were 74.8 percent, 66.5 percent, and 58.4 percent, respectively. The higher the poverty line, the smaller the proportion of households that had never experienced poverty. The fact that poverty rates dropped significantly when the base income was changed from market to disposable suggests that the government's welfare programs have done much to alleviate poverty. Public income transfers, tax support, and social insurance premium discounts have been effective in reducing poverty, at least to some extent.

(Table 18) Poverty Dynamics Analysis: 1st to 12th KOWEPS

(Unit: percentage)

Income type		Long-term	Repeated	Temporary	Non-poor
	30% of median	9.0	7.6	8.6	74.8
Market income	40% of median	12.7	10.4	10.3	66.5
	50% of median	17.4	12.5	11.8	58.4
D: 11	30% of median	2.4	6.0	8.3	83.3
Disposable income	40% of median	6.5	9.2	11.3	73.0
	50% of median	11.7	13.2	12.0	63.0

What are the effects of long-term poverty? We may explore these effects by analyzing the socioeconomic status of young adults who had experienced long-term poverty in their childhood.

The young adults subject to this analysis were aged 18 to 29 as of 2016 (target of the 12th wave). Those who were 18 years old in 2016 were categorized as minors rather than adults up until, and including, the 11th wave. These 18-year-olds were seven years old when the KOWEPS was first launched, while those who were 29 years old in 2016 were 17 years old at that time. What effects of long-term poverty would be evident in young adults who had experienced poverty as children and minors up until the 11th wave? As of 2016, in terms of market income, 14.3 percent of young adults had experienced long-term poverty; 12.8 percent, repeated poverty; 15.2 percent, temporary poverty; and 57.8 percent, no poverty. In terms of disposable income, the percentage of young adults who had experienced long-term poverty dropped to 7.9 percent, while those of young adults who had experienced repeated and temporary poverty increased.

(Table 19) Dynamic Change in Childhood Experiences of Poverty (50% of Median Disposable Income, 2016)

Туре		Long-term	Repeated	Temporary	Non-poor
9 to 20 magne	Market income	14.3	12.8	15.2	57.8
8 to 29 years old	Disposable income	7.9	16.2	15.9	60.1

As of 2016, 60.0 percent of young adults who had experienced long-term poverty had high school education or below. This percentage is higher than in the case of young adults who had experienced repeated, temporary, or no poverty. On the contrary, young adults with college education or higher (including graduate schools) made up 23.6 percent of those with long-term poverty experiences, as opposed to 40.1 percent and 42.6 percent of young adults with repeated and temporary poverty experiences, respectively. Young adults who had no experiences with poverty were more than twice as likely than those with long-term poverty experiences to have college education or higher (58.1 percent).

(Table 20) Education of Young Adults (18 to 29) with Childhood Experiences of Poverty (50% of Median Disposable Income, 2016)

Type	Long-term	Repeated	Temporary	Non-poor
Middle school or below	3.3	0.3	1.2	0.1
High school	56.7	29.5	28.1	19.9
Vocational college	16.4	30.1	28.2	21.9
University	22.5	38.6	39.0	55.3
Graduate school	1.1	1.5	3.6	2.8

Note: Income is levelized disposable income.

How do childhood experiences of poverty affect young adults' participation in the labor market? A comparison of young adults who had experienced long-term poverty and other young adults in the labor market reveals significant differences. Whereas only 6.7 percent of the former worked in steady, full-time jobs, 24.2 percent of those who had experienced no poverty and 29.0 percent of those who had experienced temporary poverty worked in such jobs. Young adults with long-term poverty experiences, on the other hand, were over-represented among day laborers and the unemployed.

The percentages of economically inactive young adults who had experienced long-term poverty and attributed their economic inactivity to their inability to work, having given up on finding employment and become unwilling to work, were higher than the percentages of other young adults.

(Table 21) Young Adults (18 to 29) with Childhood Experiences of Poverty and Labor Market Participation (50% of Median Disposable Income, 2016)

Туре	Long-term	Repeated	Temporary	Non-poor
Full-time wage earner	6.7	17.5	29.0	24.2
Part-time wage earner	16.5	23.8	19.3	14.0
Day laborer for wages	8.5	4.1	4.0	2.9
Self-employed (including em- ployer and unpaid family business worker)	_	1.3	2.0	1.8
Unemployed	1.5	4.7	5.7	3.9
Economically inactive	66.8	48.6	40.0	53.2
Unable to work	5.9	-	6.3	0.3
In military service	6.0	8.5	10.1	1.8
Enrolled in school	39.3	54.3	54.1	64.6
Preparing for school	7.0	4.3	2.7	4.9
Searching for jobs	11.4	17.4	10.8	17.6
Caring for family members	6.1	5.2	6.4	3.5
Having given up on find- ing employment	4.1	5.4	4.4	1.3
Unwilling to work	20.2	4.7	5.3	5.4
Other	_	0.1	_	0.7

2. Factors of Marriage and Childbirth

The birth rate in Korea is plummeting, making it one of the most serious social issues today, and young people are putting off marriage and avoiding childbearing after they get married. What would explain these phenomena? An analysis of panel data might shed light upon the situation.

Individuals who had experienced marriage and childbirth, as

indicated in all 12 studies so far, were divided into three groups and compared in terms of possible factors of influence, such as income, education, and economic activity. The goal is to identify how these socioeconomic variables affect marriage and childbirth.

The three groups compared are: (1) individuals who had experienced both marriage and childbirth; (2) individuals who had experienced marriage but not childbirth; and (3) individuals who had experienced neither marriage nor childbirth. First, men and women participating in the 12 studies and aged 18 or older at the time of their participation were singled out. Next, the individuals whose marital status had changed over the course of the 12 years were identified. Of the individuals whose marital status had changed from unmarried to married, those who had experienced childbirth were put into the first group, while those who had not experienced childbirth even though their marital status had changed were put into the second group. Individuals who had remained unmarried and childless throughout the 12 years were put into the third group. As for the socioeconomic variables to be compared, the socioeconomic situations of the individuals in the first group in the year before their childbirth experiences were considered. For the second group, their socioeconomic situations in the year before their marriage were considered. For the third group, their situations in the most recent year (12th wave) were

considered.

Throughout the 12 years of the studies, 350 individuals had experienced marriage and childbirth; 682, marriage but not childbirth; and 9,247, neither marriage nor childbirth. The three groups were compared in terms of educational background, income level, economic activity & workplace size, housing status, and means of financing their homes.

The individuals were divided into four groups according to income level, i.e., below 50 percent of median income, 50 to 100 percent of median income, 100 to 150 percent of median income, and over 150 percent of median income. Whereas only 1.4 percent of individuals below 50 percent of median income had experienced both marriage and childbirth, 3.9 percent had experienced marriage only, and 9.2 percent had experienced neither. Similar patterns emerged in the next group, i.e., 50 to 100 percent of median income. On the contrary, among those earning 100 to 150 percent and over 150 percent of median income, the percentage of individuals who had not experienced either marriage or childbirth was the smallest. Income, in other words, exerts a decisive effect on people's decisions to get married and bear children.

(Table 22) Income and Experiences of Marriage and Childbirth (Disposable Income)

Income level	Married with children	Married without children	Unmarried
Below 50% of median income	1.4	3.9	9.2
50 to 100% of median income	18.6	20.1	28.1
100 to 150% of median income	41.2	33.1	30.9
Over 150% of median income	38.7	42.9	31.8
Total	100.0	100.0	100.0

Note: Individual weights applied.

Can education also be a factor of people's decisions on marriage and childbearing? In general, individuals who had experienced both marriage and childbirth tended to be better educated than those who had experienced neither. Whereas only 20.4 percent of the former had high school education or below and the remaining 79.6 percent had college education or higher, 34.5 percent of the latter had high school education or below, as opposed to 65.5 percent with college education or higher.

(Table 23) Education and Experiences of Marriage and Childbirth

Туре	Married with children	Married without children	Unmarried
Unschooled	_	0.8	1.1
Elementary school	0.1	1.0	1.2
Middle school	0.2	1.4	1.6
High school	20.1	24.1	30.7
College/university	74.6	67.2	61.9
Graduate school	5.0	5.5	3.6
Total	100.0	100.0	100.0

Note: Individual weights applied.

Whereas full-time wage earners made up more than 50 percent of both the first and second groups, they made up only 24.7 percent of the third group. On the other hand, the percentage of part-time wage earners and day laborers was the highest in the third group, at 18.3 percent. The third group also showed a relatively high percentage of unemployment. In other words, employment insecurity appears to have some influence on people's decisions to avoid marriage and childbearing.

(Table 24) Economic Activity and Experiences of Marriage and Childbirth (Unit: percentage)

Туре	Married with children	Married without children	Unmarried
Full-time wage earner	52.1	54.4	24.7
Part-time/day laborer/public works, etc.	11.0	14.6	18.3
Employer	4.2	4.9	0.4
Self-employed/unpaid family business worker	6.6	9.1	2.2
Unemployed	0.9	1.8	3.6
Total	100.0	100.0	100.0

Note: Economically inactive individuals excluded. Individual weights applied.

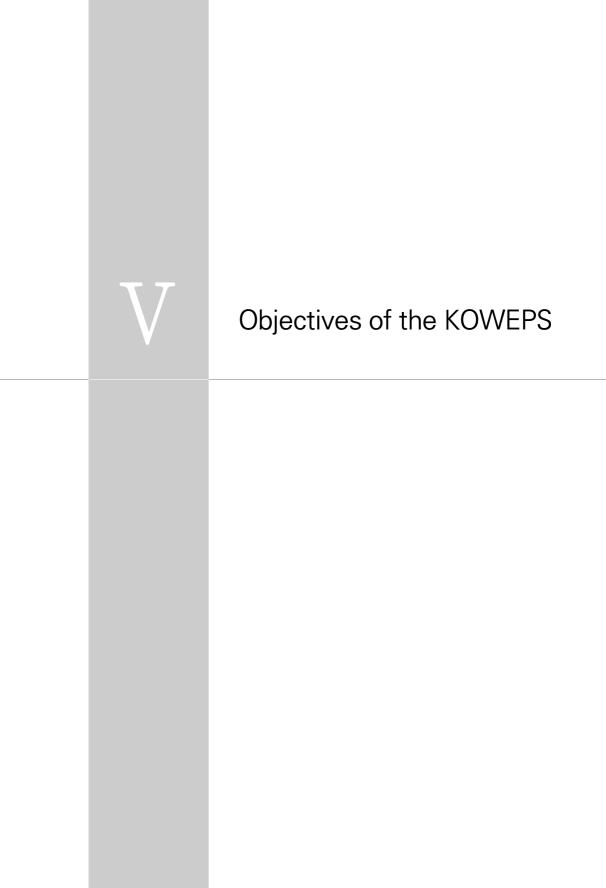
Another variable related to employment security, and thus to marriage and childbearing, is workplace size. Individuals who had neither married nor bore children tended to work in small workplaces, while those who had both married and bore children tended to work in large ones. In particular, 33.3 percent of individuals who had both married and bore children worked in workplaces employing 300 people or more each, where employee welfare is protected by law, as opposed to 18.9 percent of individuals who had neither married nor bore children. As wages and fringe benefits tend to increase with workplace size, workplace size appears to have some effect on decisions regarding marriage and childbearing.

⟨Table 25⟩ Workplace Sizes and Experiences of Marriage and Childbirth (Unit: percentage)

Number of employees	Married with children	Married without children	Unmarried
Up to 4	20.5	25.1	20.4
5 to 9	11.2	10.4	16.7
10 to 49	22.4	20.3	26.0
50 to 99	4.7	6.5	7.9
100 to 299	8.1	9.3	10.2
300+	33.3	28.7	18.9
Total	100.0	100.0	100.0

Note: Individual weights applied.

Our panel analysis reveals that individuals who had both married and borne children are less likely to be poor and tend to have higher education levels and more secure employment. The reverse was the case among individuals who had neither married nor borne children.



V

Objectives of the KOWEPS ((

The KOWEPS has the following objectives. First, as the household composition, income levels, and employment status of the poor, working poor, and near-poor have been changing rapidly since the foreign currency crisis of 1997, the KOWEPS provides analyses of the dynamics of the changes that have been occurring in the living conditions of these groups, helping policymakers develop more effective policy measures catering to them. Second, the KOWEPS provides analyses of the dynamics of the changes that have been occurring in the living conditions and welfare needs of diverse subsets of the Korean population, categorized by age, income, and employment status, so that policymakers can assess the effectiveness of the policy measures they have implemented and obtain the feedback they need for policy improvements and reform.

To achieve these objectives, the KOWEPS researchers established a number of specific goals, which they have continued to improve upon and supplement. The clarity and specificity of the goals guiding the development and maintenance of panel data are what set the KOWEPS apart from other panel studies.

The first goal is to produce accurate and reliable statistics, which are crucial to the success of any statistical study. Statistics are dubbed "the face of a nation." The rigor and ex-

tensiveness of statistics are often correlated to how advanced a national community is. There are, however, various obstacles to the creation of reliable statistics. First and foremost, samples of appropriate sizes must be secured. The KOWEPS boasts the largest sample size among all household-based panel studies in Korea. The initial sample started with 7,072 households with household members aged 15 or older. Over the 12 years since then, researchers have been making diverse efforts to improve the retention rate of sample households. The sample retention rates of the KOWEPS were thus maintained at 92.1 percent in the second study, 86.7 percent in the third, 83.9 percent in the fourth, 80.3 percent in the fifth, 75.4 percent in the sixth, 73.6 percent in the seventh, 72.2 percent in the eighth, 69.23 percent in the ninth, 67.31 percent in the 10th, 64.48 percent in the 11th, and 62.19 percent in the 12th. To retain as many of the original households as possible in the sample, the KOWEPS researchers surveyed, as part of the 7th wave, households that had left the original sample, raising the original sample retention rate to 74.5 percent.

Despite the efforts to keep the original sample as intact as possible, it is impossible to retain 100 percent of the original sample. As the panel study accumulates history, losses of the original sample and decreases in the sample size are inevitable. Accordingly, the KOWEPS researchers launched a preliminary survey with the goal of finding new households to add to the

panel sample of the 7th wave in 2012, settling upon 1,800 new households. Thanks to this intervention, the KOWEPS sample size has been maintained at an appropriate level, with 6,581 households (5,081 of the original households and 1,500 new households) completing the survey for the 12th wave. A large sample size means less sampling error and affords a greater richness in the diversity of analyses. While it is not possible to perform detailed longitudinal analyses on the newly added households for years to come, the utility of the sample will increase over time as the KOWEPS continues to be conducted.

In addition to the sample size, the regional comprehensiveness of the KOWEPS panel merits attention as well. In selecting the households to be included in the initial sample, the KOWEPS researchers surveyed 30,000 households across the nation and subjected the results of the first (income-based) survey to stratified double sampling so that the resulting panel would reflect the actual distribution of households across various regions of Korea. Statistics Korea's Household Trend Survey sample lacks households involved in the agriculture and fishing industries, while the Korea Labor Institute's Korean Labor and Income Panel Study sample is strictly confined to urban areas. The KOWEPS sample, by contrast, extends as far as Jeju-do in terms of geographical reach and encompasses rural households specializing in primary industries in terms of household types. It is thus rare among panel studies for its na-

tionally representative data.

Furthermore, the KOWEPS is also specifically designed to support analyses of the poor. Because the sample was deliberately designed to be comprised (50 percent or so) of households that earn less than 60 percent of the median income, the panel sample includes the largest number of low-income households among all panel studies in Korea and offers data and information necessary for poverty analyses and policymaking.

To increase the accuracy of the data, the KOWEPS was recently rescheduled so that the survey would take place earlier in the year. The first six studies until 2011 took place in May, coinciding with the filing of general tax returns, and thus ran the risk of sample households and their members being unable to recall their living conditions in the previous year with exactitude. In acknowledgment of this concern, the annual survey was redesigned to start in February, beginning with the 7th wave in 2012, so that the tracing survey would be completed in the first half of each year. Starting with the 9th wave in 2014, the survey was conducted in March. As the survey schedule was changed, the publication of the data was also rescheduled. Basic analysis reports were introduced to identify and correct issues with the surveyed data and provide analyzed data concerning the previous year early in the given year so as to ensure the timeliness of the data. The data generated by the 12th wave in 2017, concerning 2016, will be released in early 2018.

Another fact that sets the KOWEPS apart from other panel studies is that it is organized and executed by a consortium of KIHASA and the SNU Social Welfare Research Center, thus ensuring the accuracy and reliability of the resulting data and the professionalism and credibility of the research process.

Second, the accurate and reliable panel data are based upon multidimensional questionnaires that have been designed to aid research and analyses in multiple disciplines of the social sciences. The focus of welfare policy in Korea is increasingly shifting from a narrow definition to a broader conceptualization of welfare. The KOWEPS researchers respond to these changes in the makeup of households, diverse indicators of welfare, and the theory and reality of welfare policy by updating and supplementing the questionnaires, and also survey researchers with panel study experiences regarding new questions to be included in the questionnaires.

Finally, the KOWEPS also strives to accumulate and maintain panel data that are amenable to international comparison in years to come. The welfare policies of different countries are growing increasingly similar, and researchers are conducting a growing number of comparative studies that examine the inequality and welfare policies of various countries. These comparative studies provide important information on the relative state of welfare and the welfare needs and perceptions of people in a given country. The KOWEPS researchers have system-

atically surveyed the questions of welfare panel questionnaires used in other countries, and incorporated the findings of their survey into their own questionnaires with the goal of securing data that are internationally comparable. The KOWEPS questionnaires and data continue to be updated in English.

The anticipated benefits and effects of the continued accumulation of KOWEPS data are as follows.

First, the KOWEPS data are expected to help policymakers develop more efficient and effective social and welfare policy measures. The extensive panel data allow for systematic analyses of the welfare needs and perceptions of Koreans, including the poor, as well as the reality of social security programs and economic activity. Statistical analyses of changes in the national economy, social behavior, and the numbers and conditions of poor and low-income households will help policymakers review the effectiveness of policy measures that have been implemented so far and identify effective improvements and alternatives.

Second, the KOWEPS data are expected to contribute to the expansion of the statistical infrastructure for social and welfare policy measures. A significant number of social and welfare statistical studies produced by research institutes in Korea vary widely in terms of form and objective, making systematic management difficult. KIHASA, by contrast, has been accumulating panel data systematically over the years via the KOWEPS, with

the goal of establishing and expanding social and welfare statistics infrastructure that can serve as a reservoir of the basic data needed to improve policymaking. Moreover, KIHASA makes the raw data, basic analysis reports, and questionnaires of the KOWEPS available online, at http://www.koweps.re.kr, in an effort to ensure that the public has access to these data.

Finally, the KOWEPS is expected to invigorate research in various disciplines and promote interdisciplinary collaboration by providing basic statistics for academic discussions in all disciplines of the social sciences. Although quantitative studies that are highly dependent upon data make up an important part of social science research, reliable data that satisfy the standards of researchers have been lacking. The data collected and accumulated by the KOWEPS are of sufficient quality and reliability that researchers can base their basic and in-depth analyses upon them and share their findings through conferences and other academic gatherings, thus contributing to progress in social science research in Korea.