

Introduction of the Korean Longitudinal Survey of Women and Families

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Introduction

Diverse areas of women's lives which are emerging as major issues are frequently strongly correlated in the planning and implementation of gender equality policy. Matters connected to women's economic activities, for instance, are not simply a labor issue, but involve family structure, decision making structures within the family and its relationships, social and cultural consciousness and conventions and the external labor market.

The construction of general data on women's life needs to be carried out in a longitudinal rather than simply a cross-sectional form. Conventionally, the cross-sectional survey method is unable to estimate the precise effect of variables of interest because it is unable to control unobserved heterogeneity of female individuals.

Korea Women's Development Institute has been conducting the Korean Longitudinal Survey of Women and Families (KLoWF), a nationwide panel survey, since 2006 in order to scrutinize women's lives and the structure of families, as well as the changes in their families. This survey aims to build a massive database able to longitudinally track women's changing status in economic activities for each aspect of women's life cycle: job experience, changes in family-related values, relationships, formation process and events, and structure.

While longitudinal data on women's lives and economic activities have already been established in labor panel and other longitudinal surveys, these surveys included the general public without distinction of sex and thus have limitations for conducting meaningful analysis on the subgroup of women. In addition, since these research tools are not optimized for women's lives, it is difficult to draw upon them in establishing all aspects of the needed information.

The KLoWF has been conducted as a means to overcome the limitations of these existing cross-sectional surveys. This survey provides information on expanding female economic activities and the consequent work-family life balance, and thus helps empirically

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examine women's lives by looking into the present and future of families in Korean society. At present, Korean society is faced with pressing issues such as a low birth rate, aging, childcare, the balance between work and family, creation of a family-friendly social environment and other related issues. In this situation, the extensive results of this panel survey will be used as a major basis for establishing far-reaching policies for women.

The KLoWF began with a nationwide sample survey of 10,000 women aged 19 to 64 in 2007. The first wave was completed in 2008, the second wave in 2009, the third in 2011 and the fourth in March 2013.

Overview of the Fourth wave of KLoWF

Questionnaire Structure

The questionnaires for the KLoWF are divided into three types: A questionnaire for households, one for female individuals and another on employment. Each questionnaire type consists of the following.

Questionnaire for Households

Along with general characteristics, the questionnaire for households is composed of residence status, household income and consumption, and assets and liabilities. Since the first survey, there have been select changes to the contents. In the second survey, some questions were adjusted in order to ascertain the changes in household members since the first wave. Questions on disabled persons and long-term care patients were shifted from the individual category to the household category in the third wave.

Questionnaire for Individuals

The questionnaire for individuals is largely divided into a new subject questionnaire and existing subject version. The new subject questionnaire is used on initial panel surveys and is composed of 26 sections.

Five major sections on "Personal Background", "First Job Experience", "Job Experience at First Marriage", "Job Experience at the First Childbirth", "Job Experience at Second Childbirth", which do not need to be repeated, have been deleted from the existing subject questionnaire.

The contents of questions are categorized into "Growing up and General Information", "Marital Life", "Pregnancy, Childbirth & Family Planning", "Relation with Children and Children's Education", "Family Values", and "Female Health." The detailed questions are as follows.

Table 1. Questionnaire for Individuals

| | |
|--------------------------------|--|
| New Subject Questionnaire | <ul style="list-style-type: none"> A. Growing up B. School Life C. First Job Experience D. Marriage Experience E. Unmarried Women F. Job Experience at First Marriage G. Marriage and Marital Life H. Housework I. Husband's Job J. Temporarily Non-cohabitating Couple K. Separated L. Divorced M. Widowed N. Pregnancy, Childbirth and Family Planning O. Job Experience at First Childbirth P. Job Experience at Second Childbirth Q. Children's Education(Preschool-age Children) R. Children's Education(Primary and Secondary School Children) S. Relationship with Unmarried Adult Children T. Relationship with Married Adult Children U. Relationship with Parents V. Relationship with Husband's Parents W. Siblings X. Husband's Siblings Y. Family Values Z. Female Health |
| Existing Subject Questionnaire | <ul style="list-style-type: none"> A. School Life B. Marriage Experience C. Unmarried women D. Marriage and Marital Life E. Housework F. Husband's Job G. Temporarily Non-cohabitating Couples H. Separated I. Divorced J. Widowed K. Pregnancy, Childbirth and Family Planning L. Children's Education(Preschool Children) M. Children's Education(Primary and Secondary School Children) N. Relationship with Unmarried Adult Children O. Relationship with Married Adult Children P. Relationship with Parents Q. Relationship with Husband's Parents R. Siblings S. Husband's Siblings T. Family Values U. Female Health |

Questionnaire on Employment

Like the individual section, the questionnaire on employment is divided into a new subject questionnaire and existing subject version. The basic structure of the questionnaire is divided into “Wage Worker”, “Non-wage Worker” and “Special-type Worker” after determining whether or not the subjects are employed.

“Characteristics of Job”, “Job Satisfaction”, “Jobs Other than Main Job”, “Discrimination”, and “Maternity Protection System” are addressed if they are employed and “Job Hunting Experience” is queried if they are not. Every panel has responded to the questions on

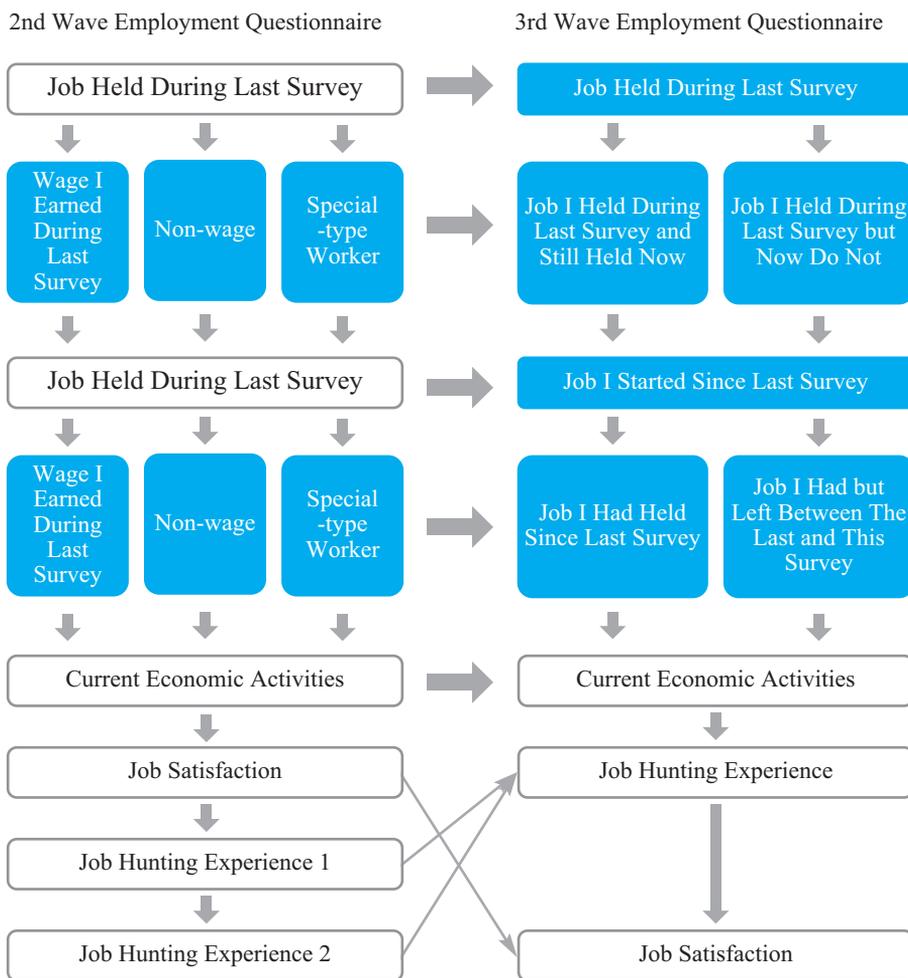


Figure 1. Changes to the Third Wave Employment Questionnaire

“Previous Jobs”, “Education and Training,” and “Social Insurance” in their initial surveys.

This questionnaire has grown more detailed since the third wave in order to better investigate work history. The questionnaire with regard to employment has also been improved since the third wave so as to ascertain the changes in women’s careers by asking respondents separate questions on their current job and the one they held at the time of the previous survey if it has changed.

Figure 1 and Table 2 show the changes in and organization of questionnaire on employment.

Table 2. Composition of Employment Questionnaire

| | |
|--------------------------------|---|
| New Subject Questionnaire | <ul style="list-style-type: none"> A. Current Economic Activities B. Wage Worker C. Non-wage Worker D. Special-type Worker E. Job Satisfaction F. Jobs other than Main Job G. Job Hunting Experience H. Previous Job I. Education and Training J. Social Insurance K. Work and Family Life L. Discrimination M. Maternity Protection System |
| Existing Subject Questionnaire | <ul style="list-style-type: none"> A. Job Held during Last Survey B. Job Held during Last Survey and Still Held (Wage Worker Job) C. Job Held during Last Survey and Still Held (Non-wage worker Job) D. Job Held during Last Survey and Still Held (Special-type Worker Job) E. Job Held during Last survey but Now Do Not (Wage worker Job) F. Job Held during Last Survey but Now Do Not (Non-wage worker Job) G. Job Held during Last Survey but Now Do Not (Special-type worker Job) H. Job I Started since Last Survey I. Job I Have Held since Last Survey (Wage Worker Job) J. Job I Have Held since Last Survey (Non- wage Worker Job) K. Job I Have Held since last survey (Special-type Worker Job) L. Job I Held but Left between the Last and this Survey (Wage Worker Job) M. Job I Left between Last and this Survey (Non-wage worker Job) N. Job I Left but Quit between Last and this Survey (Special-type Worker Job) O. Current Economic Activities P. Job Hunting Experience Q. Job Satisfaction R. Education and Training S. Social Insurance T. Work and Family Life U. Discrimination V. Maternity protection system |

Subjects and Principle of Tracking

Subjects

The subjects of the fourth wave are the original sample households, original eligible households, any split-off households that emerged from the second to the fourth year, and eligible households among split-off households which are subject to the conditions under which they can become subjects, which is, that they cohabit with split original sample households. As a result, the subjects for the fourth wave included 11,234 women aged 19 to 64 from the original eligible households.

Households subject to the survey were a combined 9,329 households included in the first through the third wave, and 154 split-off households new to the fourth wave survey. The 9,329 households included 9,068 original households established in the first wave, 100 split-off households from the second wave, and 161 split-off households from the third wave.

Individual subjects in the survey totaled 11,234 persons. This figure is the sum of 10,442 female household members aged 19 to 64 from the first wave, 127 newly eligible household members from the second wave, 166 newly eligible household members from the third wave, eligible households failed to be examined in the second and third waves, newly eligible household members who turned 19 in the fourth wave and newly eligible household members in the fourth wave.

Sampling

The basic sampling frame of the KLoWF is roughly 260,000 Enumeration Districts (EDs) based on the results of 2005 Population and Housing Census. The method of sampling is as follows.

Method of Selecting the Primary Sampling Unit (PSU)

The Primary Sampling Unit (PSU) is stratified into the Enumeration Districts (EDs) of the results of 2005 Population and Housing Census according to degree of urbanization, proportion of workers by industry, proportion of households by housing type, household distribution by number of household members, age of the head of household, and sex of the head of household. Next, 1,700 EDs are selected by applying Probability Proportional to Size sampling (PPS). When it comes to sample survey distribution district, we applied the distribution method of the square root proportion of regional EDs instead of the simple proportional distribution method.

Method of Selecting the Secondary Sampling Unit (SSU)

A Secondary Sampling Unit (SSU) is a household within a selected ED as a PSU. Household to be surveyed are selected by systematic sampling from the 1,700 households

finally selected as PSUs. About five households are selected by systematic sampling from each sampling ED in order to examine female household members, which is the ultimate goal. However, in the actual survey, between four and seven households were selected per ED.

Principle of Tracking

Principle 1: The KLoWF is a panel of individual females that belong to a household

- It is an individual panel survey which tracks original eligible household members by sample design conducted in the first wave.

Principle 2: It tracks all eligible household subjects chosen in the first wave

- If an original eligible household fails to proceed with the survey in the first wave, the KLoWF continues tracking it in the next wave, and if it fails again, the survey will pass to the next wave.
- Let new respondents answer via new subject questionnaires for the current wave and answer the existing subject version afterwards.

Principle 3: If there are women aged 19 to 64 living in subject households (original sample households and split-off households), examine them all

- Subject households consist of original sample households and original eligible households chosen in the first wave, as well as split-off households from the original eligible households.
- Split-off household means a separate household that breaks away from original sample households on the grounds of marriage or the economic independence of original eligible household members.
- If there are women who are not original eligible household members aged 19 to 64 among the split-off households, count them as subjects. However, because they are not from original eligible households, they become subjects only in term of living together with original eligible households.
- Women who turn 19 years old from among original sample households or split-off households are examined only while they live together, on principle.
- Women under 64 who are not original members of eligible households among split-off households are tracked after they turn 65 only for the period of living together with original eligible households.

Principle 4: If there are no remaining members in an original sample households due to them moving out of the original eligible households, that household is eliminated and the split-off households from original eligible household succeed the original sample household.

Principles are as follows.

- Split-off households which have original eligible household members succeed original sample households.
- If more than two original eligible household members exist, split –off householders or their spouses who made up original eligible households, succeed original sample households.
- Households which have senior original eligible household members succeed original sample households if there are no women or their spouses among original eligible household members.

Principle 5: Individual females who respond to the fourth wave survey for the first time are examined as follows.

- Individual females who have responded to the fourth wave survey for the first time refers to: (1) household-member women living under one roof who are original sample household members and turned 19 years old since the third wave survey; (2) newly participating original eligible household women; (3) non-original eligible household member women aged 19 to 64 who live in households split-off from the fourth wave survey of original eligible household members.
- These new respondents to the fourth wave survey are scrutinized only for living under the same roof with original eligible household members (temporarily moving out is included).

Survey Methods

The survey method for the KLoWF is CAPI (Computer Aided Personal Interview). It proceeds as follows. First, a researcher visits each household and asks questions, and then interviewees input their response in person into a computer. Second, third-party substitute or leaving method are not allowed, even when the researcher has difficulty meeting interviewees. Third, those subjects who are unable to participate due to death, business trip, travel, hospitalization or disappearance are examined as follows. Subjects who return to their position temporarily or completely during the survey period complete the survey at first hand. Subjects who are inmates in prison or are in a nursing home or out of town for a long term business trip are excluded, but their personal contact information is left on the questionnaire. Fourth, if the principles of 1 to 3 must inevitably be changed due to force majeure, researchers from the Korea Women’s Development institute are consulted.

Panel Management Methods

Range of Panel Management

Fourth panel management households total 9,477 (9,068 households established in 1st wave and 100 2nd wave split-off households and 161 split-off households from the 3rd wave and 148 4th wave households). A total of 87 households (those who could not be examined due to death, illness or accident, emigration, study abroad or long-term business trip) and 31 of households who withdrew from the panel were ruled out among subjects for panel management. However this total of 118 household panels is kept separately in the management system and excluded from panel management services such as thank-you calls or mailing service.

The total number of eligible household members, who are the subjects of management panel, is 11,791. Among total eligible household members, eligible household members who failed were also included in the subject management panel to encourage failed eligible household members to participate in the survey.

Deceased eligible household members, who were withdrawn from the panel and eligible household members excluded due to impossibility of contact are handled separately through the management system.

Panel Management Methods

The panel has been managed in four respects: before survey, in-process, after survey and ongoing.

Table 3. Panel Management Methods

| | |
|---------------|--|
| Before Survey | <ul style="list-style-type: none"> - Send a survey guide and check information on address, contact number and so on by phone prior to launching 4th survey. - Print basic information and info-sheet containing details of response. - Promote the survey and release brochure. |
| Ongoing | <ul style="list-style-type: none"> - Send an official document and proceed with survey promotion material. - Send a request letter. - Hold a gift drawing to raise the participation rate. - Send a text message about providing a gift card for updating household address. |
| After Survey | <ul style="list-style-type: none"> - Proceed with gift drawing. - Send a thank you letter, KLoWF newsletter, and memento. - Check panel information on address and contact number. - Update panel address and contact information as verified through 4th wave survey. |
| Ongoing | <ul style="list-style-type: none"> - Send birthday cards and housewarming gifts as appropriate. - Year-round panel management is performed by panel management program. |

The KLoWF was conducted annually through the second wave, but it has been changed to a biennial survey from the third wave due to budget constraints. In response, different interim fieldwork measures were devised in order to manage the panel during the years in which the survey was not conducted. Interim fieldwork first started in 2011 after the third wave survey was completed and the second interim fieldwork, that for the 2013 version, is in preparation. The purposes of interim fieldwork are (1) to draw attention and promote collaboration, (2) to manage the at-risk group which may be inclined to drop out of the panel, and (3) to form rapport with the panel prior to the next survey. Interim fieldwork is conducted every two-year period and the subjects of the survey are all surveyees of the most recent KLoWF.

The panel is classified into four areas for management according to the risk of being uncooperative in the survey. Panel management types are divided into “Stable panel retention group”, “Panel entry group with stable retention”, “Panel entry group with risk of dropping out”, and “Panel group with risk of dropping out” based participation in the most recent survey. The proportions of each panel management and the number of households are as follows.

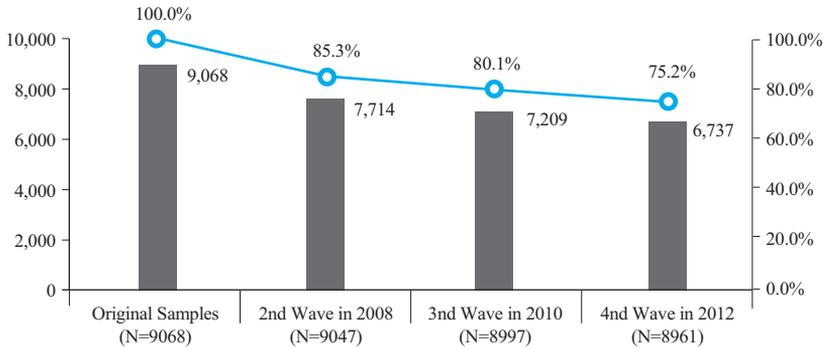
Table 4. Panel Management by Type

Unit: households, %

| Panel Type | Description | Number of Panel Households (Number of households impossible to survey) | Proportion |
|---|--|---|------------|
| Stable Panel Retention Group | • Panel group which participated in the 1st, 2nd, 3rd, and 4th wave surveys and was predisposed to survey participation | 6,229 | 69.5 |
| Panel Entry Group with Stable Retention | • Panel group which successfully participated at least twice among the 1st to 4th wave and participated in the 4th wave. | 438 | 4.5 |
| Panel Entry Group with Risk of Dropping Out | • Panel group which did not participate successfully in the 4th wave survey, and showing a risk of dropping out after failing to participate at least twice among the 1st to 4th wave surveys. | 734 | 8.4 |
| Panel Group with Risk of Dropping Out | • Panel group which entered the panel in the 1st wave survey, but strongly refused to participate in the 2nd, 3rd and 4th wave surveys, and therefore is highly likely to drop out of future panels. | 1,597 | 17.6 |
| Total | | 9,068 | 100.0 |

Retention Rate

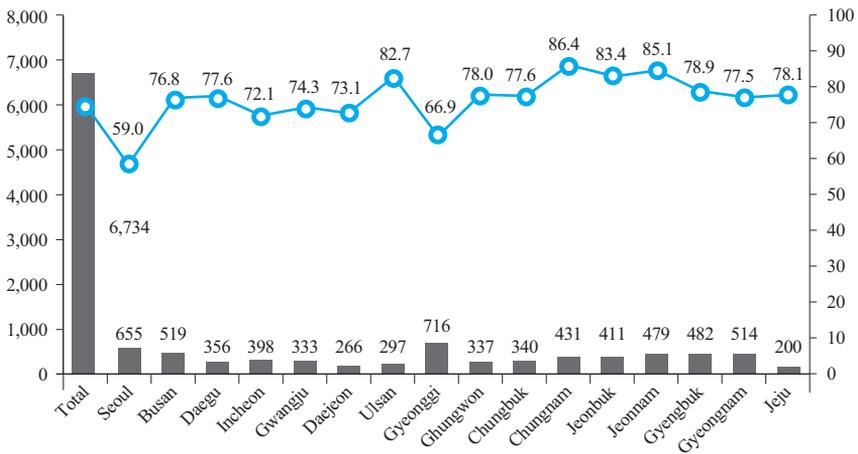
The retention rate of the fourth original sample survey is 75.2%, with 6,737 original sample households successfully retained out of 9,068 original households. This result is 4.9% lower than the 80.1% recorded for the third wave survey.



Note: Based on 1st wave households

Figure 2. Retention Rate of the 4th Wave Sample

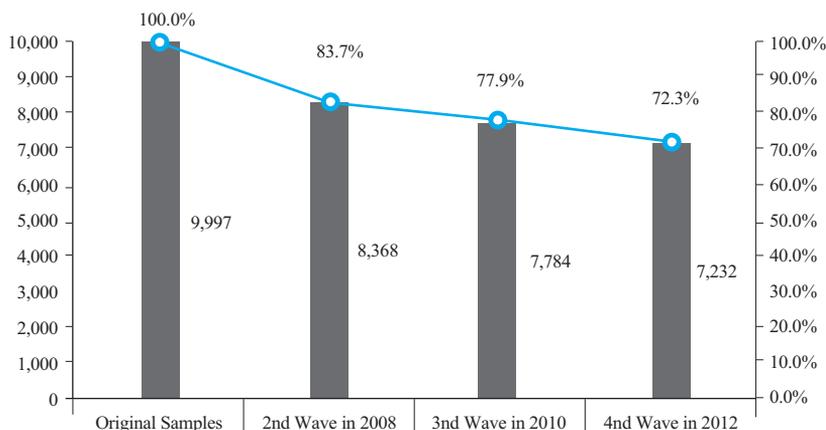
By region, the retention rate of South Chungcheon Province is the highest at 86.4%, followed by South Jeolla Province (85.1%), North Jeolla Province (83.4%), and Ulsan (82.7%). However, Seoul is very low at 59.0%, along with Gyeonggi Province (66.9%) and Incheon (72.1%). Success in the capital area is relatively lower than in other areas.



Note: Based on regional retention rate of 1st wave households

Figure 3. Retention Rate of the 4th Wave Sample by Region

Meanwhile, the household member retention rate in the 4th wave is 72.3%, indicating 7,232 successful responses out of the 9,997 household members of the 1st wave survey.



Note: Based on retention rate of 4th wave main survey

Figure 4. Retention Rate of the 4th Main Survey Sample

Descriptive Data Analysis of the Fourth Wave

Major Characteristics of Households

Households and Household Members

The number of members per household in the fourth wave data averaged 3.37 people. Four-person households took up the largest portion with 38.1% of all households, followed by

Table 5. Distribution of the 4th Wave Household Members by Number

Unit: household, %

| Number of Household Members | Number of Households | Proportion |
|-----------------------------|----------------------|------------|
| 1 Person | 418 | 6.0 |
| 2 Persons | 1,459 | 21.1 |
| 3 Persons | 1,424 | 20.6 |
| 4 Persons | 2,636 | 38.1 |
| 5 Persons | 782 | 11.3 |
| 6 Persons or More | 209 | 3.0 |
| Total | 6,928 | 100.0 |

two-person households, three-person households and five-person households. These accounted for 21.1%, 20.6% and 11.3%, respectively.

Characteristics of Head of Household

The largest age group of male heads of households is 40s (32.71%), followed by 60s or older (27.18%) and 50s (24.89%). However for female heads of households, 60s or older is the most common age group (40.24%), followed by 50s (26.36%) and 40s (20.44%).

Table 6. Heads of Households by Age and Gender

Unit: households, %

| Category | 20s | 30s | 40s | 50s | 60s or Older | Total |
|--------------------------|------|-------|-------|-------|--------------|-------|
| Male Head of Household | 30 | 860 | 1,912 | 1,455 | 1,589 | 5,846 |
| | 0.51 | 14.71 | 32.71 | 24.89 | 27.18 | 100.0 |
| Female Head of Household | 32 | 108 | 221 | 285 | 435 | 1,081 |
| | 2.96 | 9.99 | 20.44 | 26.36 | 40.24 | 100.0 |
| Total | 62 | 968 | 2,133 | 1,740 | 2,024 | 6,927 |
| | 0.9 | 13.97 | 30.79 | 25.12 | 29.22 | 100.0 |

Households with Long-Term Care Patients and Transnational Immigrants

The number of household including long-term care patients is 228 households (3.3%) out of 6,928, and one-person households among long term care patients makes up the largest portion (94.3%; 215 households).

Table 7. Households with a Long-Term Care Patient

Unit: households, %

| (Number of long-term care patients) | Number of Households | Proportion |
|-------------------------------------|----------------------|------------|
| Have | 228 | 3.3 |
| 1 Person | 215 | 94.3 |
| 2 Persons | 12 | 5.26 |
| 3 Persons | 1 | 0.44 |
| Don't Have | 6,700 | 96.7 |
| Total | 6,928 | 100.0 |

Among long-term care patients, 49.6% (120 persons) are taken care of by one household member, 33.5% (81 persons) are taken care of by no one and 10.7% (26 persons) are taken care of by care workers.

Table 8. Caregiver of Long-Term Care Patient by Household

Unit: persons, %

| Category | | Rate of Long-Term Care Patient | Proportion |
|--------------------------------------|---|--------------------------------|------------|
| Caregiver of Long-Term Care Patients | One Household Member | 120 | 49.6 |
| | No Caregiver | 81 | 33.5 |
| | Certified Care Worker | 26 | 10.7 |
| | Employed Care Worker (except for certified care worker) | 10 | 4.1 |
| | Other | 3 | 1.2 |
| | Relatives | 2 | 0.8 |
| | Total | 242 | 100.0 |

The most burdensome perceived expenditure stems from transportation and communication, followed by education and food.

Table 9. Burden of Expenditures in the Household Economy (multiple responses)

Unit: households, %

| Category | Number of Households | Proportion |
|--|----------------------|------------|
| Food | 2,117 | 16.2 |
| Medical Costs | 680 | 5.2 |
| Education | 2,411 | 18.4 |
| Housing (maintenance fee, monthly rent and other) | 1,496 | 11.4 |
| Repayment of the Principal and Interest for Loans or Other Debts | 1,331 | 10.2 |
| Savings for Buying a Home | 139 | 1.1 |
| Family Occasions | 509 | 3.9 |
| Transportation/Communication | 2,526 | 19.3 |
| Insurance | 552 | 4.2 |
| Child Rearing Costs | 8 | 0.1 |
| Child Marriage Fund | 5 | 0.0 |
| Maintenance of Parents | 5 | 0.0 |
| Clothing | 4 | 0.0 |
| Taxes | 3 | 0.0 |
| Expenses for Family Events | 3 | 0.0 |
| Other | 14 | 0.1 |
| None | 1,282 | 9.8 |
| Total | 13,085 | 100.0 |

The Characteristics of Female Respondents

Demographic Features of Individual Females

Among the 7,658 individual female respondents, the number of respondents in their 40s is 2,202 (28.8%), followed by aged 19 to 29 is 2,200 (28.7%), 50s is 1,716 (22.4%) and 60s or older is 1,540 (20.1%).

By education level, the number of high school graduates is 2,683 (35.0%), two-year college or higher is 2,594 (33.9%), and middle school or lower is 2,380 (31.1%). By marital status, the number of married respondents is 6,856 (89.5%) and of unmarried respondents it is 802 (10.5%). Lastly, by employment status, the number of employed respondents is 4,184 (54.6%) and of unemployed respondents is 3,474 (45.4%).

Table 10. Demographic Features of Individual Females

Unit: persons, %

| | Category | Frequency | Proportion |
|-------------------|----------------------------|-----------|------------|
| Age | Under 30 Years Old | 2,200 | 28.7 |
| | 40s | 2,202 | 28.8 |
| | 50s | 1,716 | 22.4 |
| | 60s or Older | 1,540 | 20.1 |
| | Total | 7,658 | 100.0 |
| Education Level | Middle School or Lower | 2,380 | 31.1 |
| | High School | 2,683 | 35.0 |
| | Two-Year College or Higher | 2,594 | 33.9 |
| | Total | 7,657 | 100.0 |
| Marital Status | Unmarried | 802 | 10.5 |
| | Married | 6,856 | 89.5 |
| | Total | 7,658 | 100.0 |
| Employment Status | Employed | 4,184 | 54.6 |
| | Unemployed | 3,474 | 45.4 |
| | Total | 7,658 | 100.0 |

Happiness in Marital Life

Women's overall marital life score with their husband is 6.68 points out of 10. Younger and more educated people report greater happiness. The satisfaction of those in the 30s or younger group is the highest at 7.00, 40s is 6.82, 50s is 6.41 and the 60s or older group is 6.37. The score for respondents who only received a middle school education or lower is 6.28,

high school graduates average 6.63 and two-year college or higher graduates report 7.13.

Unemployed women feel happier in their marital lives with their husbands than do employed women. Employed women's happiness in their marital lives with their husbands is 6.66, 0.05 points lower than the results from unemployed women (6.71 points).

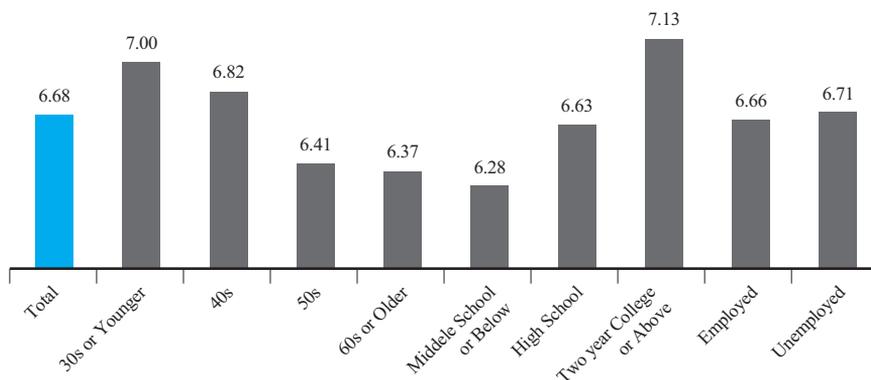


Figure 5. Overall Happiness Marital Life

Sharing of Housework Between Couples

In the results on the sharing of housework between couples, women fix meals and do the dishes almost every day, but most men do such things less than one day per week.

The proportions of women fixing meals or cooking and dishwashing almost every day are 94.1% and 92.6% respectively. The proportions of men fixing meals or cooking and dishwashing under one day per week are 84.2% and 80.4% respectively. Five women out of 10 do the laundry almost every time it is needed; three out of ten women do it one to two days per week. On the other hand, 5.5 men out of 10 never do the laundry within a given week. One man in ten does the laundry once per week.

30.7% of women go shopping, including for groceries, one or two days per week, 27.0% of women do it almost every time or one day a week. The proportion of men who never do the grocery shopping is 37.4%, and the proportion of less than once per week is 25.4%.

Lastly, 66.4% of women report doing all of the house cleaning, while 37.4% of men contribute nothing. In other words, women do housework such as fixing meals or cooking and dishwashing almost entirely. Men, on the other hand, do housework less than once per week.

Table 11. Housework Sharing between Couples

Unit: persons, %

| Category | | Almost Every Time | 4-5 Days a Week | 2-3 Days a Week | 1 Day per Week | Less than 1 Day per Week | Never | Total |
|----------|-------------------------------|-------------------|-----------------|-----------------|----------------|--------------------------|--------------|---------------|
| Wife | Fixing Meals or Cooking | 6,451 (94.1) | 197 (2.9) | 122 (1.8) | 25 (0.4) | 31 (0.5) | 29 (0.4) | 6,855 (100.0) |
| | Washing Dishes | 6,346 (92.6) | 292 (4.3) | 125 (1.8) | 26 (0.4) | 34 (0.5) | 32 (0.5) | 6,855 (100.0) |
| | Doing Laundry | 3,316 (48.4) | 1,038 (15.1) | 2,140 (31.2) | 280 (4.1) | 45 (0.7) | 36 (0.5) | 6,855 (100.0) |
| | Shopping, Including Groceries | 1,849 (27.0) | 410 (6.0) | 2,107 (30.7) | 1,852 (27.0) | 588 (8.6) | 49 (0.7) | 6,855 (100.0) |
| | Cleaning the House | 4,555 (66.4) | 1,067 (15.6) | 938 (13.7) | 178 (2.6) | 70 (1.0) | 47 (0.7) | 6,855 (100.0) |
| Husband | Fixing Meals or Cooking | 238 (4.0) | 167 (2.8) | 538 (9.0) | 612 (10.3) | 1,289 (21.6) | 3,118 (52.3) | 5,962 (100.0) |
| | Washing Dishes | 240 (4.0) | 201 (3.4) | 728 (12.2) | 744 (12.5) | 1,233 (20.7) | 2,816 (47.2) | 5,962 (100.0) |
| | Doing Laundry | 145 (2.4) | 89 (1.5) | 378 (6.3) | 735 (12.3) | 1,326 (22.2) | 3,289 (55.2) | 5,962 (100.0) |
| | Shopping, Including Groceries | 114 (1.9) | 53 (0.9) | 391 (6.6) | 1,662 (27.9) | 1,512 (25.4) | 2,230 (37.4) | 5,962 (100.0) |
| | Cleaning the House | 239 (0.7) | 233 (3.9) | 846 (14.2) | 1,171 (19.6) | 1,242 (20.8) | 2,231 (37.4) | 5,962 (100.0) |

Planning to Have a Child

5.3% of women who have a spouse and are aged under 49 responded that they plan to bear one or more children in the future. 11.6% of women in their 30s or younger, the major childbearing age, have plans to bear a child and 0.8% of those in their 40s have such plans, which is remarkably low. According to education level, two-year college or higher educated women make up the largest portion of those planning to have a child, at 8.0%, followed by high school graduates with 3.0%. The proportion of unemployed women is slightly higher than that of employed women, at 6.5% and 4.2%, respectively.

Table 12. Plan to Have a Child

Unit: persons, %

| Category | | Yes | No | Don't know | Total |
|------------|----------------------------|------------|-------------|------------|--------------|
| Age | 30s and Under | 167 (11.6) | 1199 (83.2) | 75 (5.2) | 1441 (100.0) |
| | 40s | 15 (0.8) | 1950 (98.2) | 20 (1.0) | 1985 (100.0) |
| | Total | 182 (5.3) | 3149 (91.9) | 95 (2.8) | 3426 (100.0) |
| Education | Middle School or Lower | 1 (0.7) | 134 (97.8) | 2 (1.5) | 137 (100.0) |
| | High School | 48 (3.0) | 1545 (95.1) | 31 (1.9) | 1624 (100.0) |
| | Two-Year College or Higher | 133 (8.0) | 1469 (88.3) | 62 (3.7) | 1664 (100.0) |
| | Total | 182 (5.3) | 3148 (91.9) | 95 (2.8) | 3425 (100.0) |
| Employment | Employed | 73 (4.2) | 1649 (94.2) | 29 (1.7) | 1751 (100.0) |
| | Unemployed | 109 (6.5) | 1500 (89.6) | 66 (3.9) | 1675 (100.0) |
| | Total | 182 (5.3) | 3149 (91.9) | 95 (2.8) | 3426 (100.0) |

Value of Marriage and Children

Concerning the value of marriage, 64.0% of respondents gave a positive answer to the value statement “Marriage is a must” (Strongly agree and Somewhat agree). On the other hand, 30.6% of respondents answered ‘Somewhat disagree’, and 5.4% said ‘strongly disagree’, or 36.0% in total. 79.2% of respondents gave a positive answer (59.8% somewhat agree and 19.4% strongly agree) to “People must marry someone with a similar family background”. 55.5% of respondents gave negative answers to “It is good to marry early,” the result of the sum of 47.4% answering “somewhat disagree” and 8.1% answering “strongly disagree.” These negative results are higher than the positive ones.

Table 13. Value of Marriage and Children

Unit: persons, %

| Category | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree | Total |
|--|----------------|----------------|-------------------|-------------------|-----------------|
| Marriage is a must | 1719 (22.4) | 3184 (41.6) | 2344 (30.6) | 411 (5.4) | 7658 (100.0) |
| People must marry someone with a similar family background | 1485 (19.4) | 4580 (59.8) | 1383 (18.1) | 210 (2.7) | 7658 (100.0) |
| It's good to marry early | 797 (10.4) | 2612 (34.1) | 3627 (47.4) | 622 (8.1) | 7658 (100.0) |
| It's good to have children early when married | 1678 (21.9) | 4046 (52.8) | 1709 (22.3) | 225 (2.9) | 7658 (100.0) |
| People must have a child or children | 2575 (33.6) | 3647 (47.6) | 1244 (16.2) | 192 (2.5) | 7658 (100.0) |

In their responses to “It’s good to have children early when married”, 52.8% of respondents answered “Somewhat agree” and 21.9% of respondents answered “Strongly agree.” The total positive responses made up 74.7%, notably higher than negative responses, which are 22.3% with “Somewhat disagree” and 2.9% “Strongly disagree”.

Lastly, positive responses to “People must have children” accounted for a relatively high proportion. In the proportions of the response to “People must have children”, “Strongly agree” made up 33.6%, the highest proportion on the value of marriage and children, and “Somewhat agree” took 47.6%. The percentage of people giving a negative response is 18.7% (the sum of “Somewhat disagree” and “Strongly disagree”).

Female Health

According to Figure 6, 6.8% of respondents strongly agreed to “I get stressed in the workplace, at home or in school” while 46.7% of respondents agreed somewhat with the statement. 8.4% of respondents strongly agreed with “I get stressed due to financial problems”, and 33.8% of respondents answered “Somewhat agree”.

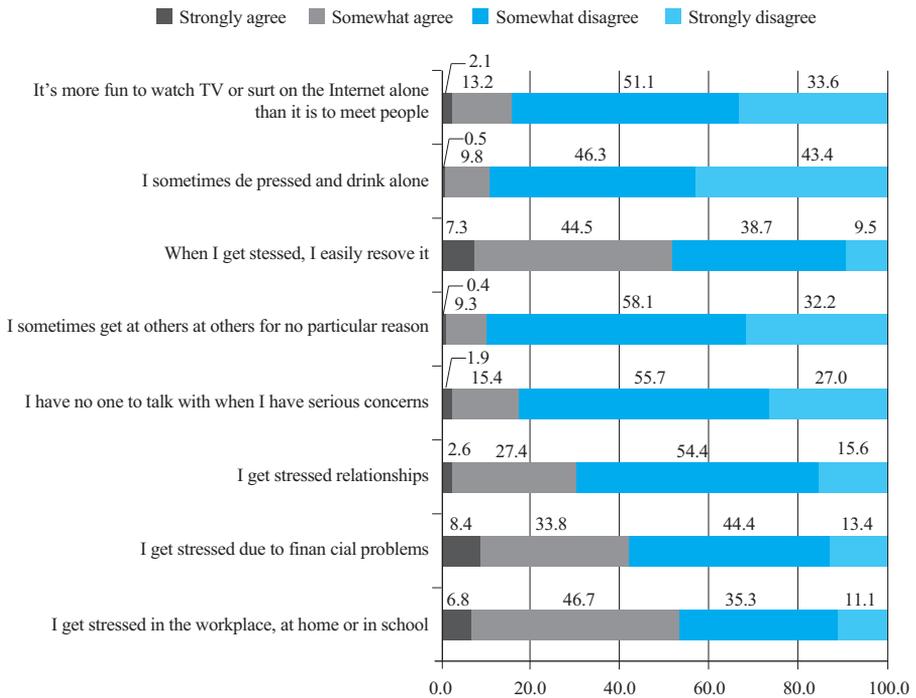


Figure 6. Proportions of Behaviors or Feelings over the Preceding Week

Among responses to “I get stressed in relationships”, 2.6% of total respondents strongly agreed and 27.4% of respondents somewhat agreed. 1.9% of respondents strongly agreed to “I have no one to talk with when I have serious concerns,” while 15.4% of respondents answered “Somewhat agree”.

In the response to the statement “I sometimes get angry at others for no particular reason”, 0.4% of respondents answered “Strongly agree” and 9.3% answered “Somewhat agree.” 7.3% of respondents strongly agreed to “When I get stressed, I easily resolve it” and 44.5% reported “Somewhat agree”.

0.5% of respondents strongly agreed to “I sometimes depressed and drink alone”, while 9.8% of respondents somewhat agreed. The proportions of respondents who answered positively to “It’s more fun to watch TV or surf on the Internet alone than it is to meet people” are 2.1% (strongly agree), and 13.2% (somewhat agree).

The general measure of depression, CES-D, shows that the rate of depression differs by education level: if the education level is low then depression seems to be high. According to this measure, first, 2.5% of respondents who have graduated from middle school or lower and 1.2% of two-year college or higher graduates respondents strongly agreed to “I felt bored with something I was usually ok with.” 26.4% of middle school graduates or lower, 23.6% of high school graduates, and 18.8% of two-year college graduates or higher somewhat agreed.

Second, in the case of “It was hard to concentrate on anything I did”, 1.7% of respondents who had received middle school education or less, 0.6% of respondents who had received high school education, and 0.7% of respondents who had received two year college or higher education answered “Strongly agree.” 17.5% of middle school or less educated respondents, 12.3% of high school educated respondents, and 9.3% of two-year college or higher educated respondents answered “Somewhat agree.”

Third, 3.0% of middle school or lower educated respondents and 2.0% of high school and two-year college or higher educated respondents strongly agreed to “I was depressed.” 27.7% of middle school educated respondents answered “Somewhat agree.” On the other hand, only 17.6% of high school educated respondents, and 13.1% of two-year college educated respondents answered the similarly.

Fourth, the proportion of middle school or less educated respondents who strongly agreed to “Whatever I did, I felt it was hard to do” was 14.5%, the proportion of high school educated respondents was 20.2%, and two-year college and higher educated respondents was 25.7%. In term of the proportions giving the answer “Somewhat agree”, among middle school or lower educated respondents it was 57.3%, high school educated respondents showed 59.4% and two-year college or higher educated respondents reported 59.3%.

Fifth, 28.6% of middle school or lower educated respondents, 34.1% of high school educated respondents and 39.1% of two-year college educated respondents strongly disagreed in response to “I got along relatively well.” 59.7% of middle school educated respondents, 58.3% of high school respondents, 54.5% of two-year college or higher educated respondents replied with “Somewhat disagree.”

Sixth, 10.9% of middle school educated respondents, 14.4% of high school and two-year college or higher educated respondents strongly agreed with “I felt fear/afraid.” Also, 32.8% of middle school educated respondents, 37.3% of high school educated respondents and 31.0% of two-year college or higher educated respondents somewhat agreed in response to this statement.

Seventh, in terms of the question, “I couldn’t sleep well”, the proportion giving the answer “Strongly agree” was 10.3% among middle school or less educated respondents, 15.2% among high school educated respondents, and 19.2% among two-year college or higher educated respondents. The proportions for the answer “Somewhat agree” were 48.7% of middle school or lower educated respondents, 48.6% of high school educated respondents and 51.0% of two-year college or higher educated respondents.

Eighth, 24.1% of middle school or lower educated respondents, 29.7% of high school educated respondents and 35.3% of two-year college or higher educated respondents strongly disagreed to “I got along without any major complaints.” The proportions of responses of “Somewhat disagree” are 55.8% of middle school or lower educated respondents, 58.4% of high school educated respondents and 55.7% for two-year college or higher educated respondents.

Ninth, among respondents to the statement “I felt lonely, as if I was all alone in the world”, 1.7% of middle school or lower educated respondents, 0.8% of high school educated respondents and 0.8% of two-year college or higher educated respondents strongly agreed. 15.9% of middle school or lower educated respondents, 10.2% of high school educated respondents, 6.5% of two-year college or higher educated respondents somewhat agreed.

Lastly, in response to the statement of “I had no energy to begin anything at all”, 1.7% of middle school or lower educated respondents and 0.8% each of high school educated and two year college educated respondents strongly agreed. 15.9% of middle school or lower educated respondents, 10.2% of high school educated respondents, 6.5% of two-year college or higher educated respondents somewhat agreed to the statement.

Table 14. Comparing Behavior or Feelings during the Last Week by Education Level

Unit: persons, %

| Category | | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree | Total |
|---|----------------------------|----------------|----------------|-------------------|-------------------|-------|
| I felt bored with something I was usually ok with | Middle School or Lower | 60 | 628 | 1184 | 508 | 2380 |
| | | 2.5 | 26.4 | 49.7 | 21.3 | 100.0 |
| | High School | 27 | 632 | 1442 | 582 | 2683 |
| | | 1.0 | 23.6 | 53.7 | 21.7 | 100.0 |
| | Two-Year College or Higher | 31 | 487 | 1408 | 668 | 2594 |
| | | 1.2 | 18.8 | 54.3 | 25.8 | 100.0 |
| | Total | 118 | 1747 | 4034 | 1758 | 7657 |
| | | 1.5 | 22.8 | 52.7 | 23.0 | 100.0 |
| It was hard to concentrate on anything I did | Middle School or Lower | 40 | 416 | 1378 | 546 | 2380 |
| | | 1.7 | 17.5 | 57.9 | 22.9 | 100.0 |
| | High School | 16 | 329 | 1648 | 690 | 2683 |
| | | 0.6 | 12.3 | 61.4 | 25.7 | 100.0 |
| | Two-Year College or Higher | 18 | 242 | 1580 | 754 | 2594 |
| | | 0.7 | 9.3 | 60.9 | 29.1 | 100.0 |
| | Total | 74 | 987 | 4606 | 1990 | 7657 |
| | | 1.0 | 12.9 | 60.2 | 26.0 | 100.0 |
| I was depressed | Middle School or Lower | 72 | 659 | 1183 | 466 | 2380 |
| | | 3.0 | 27.7 | 49.7 | 19.6 | 100.0 |
| | High School | 26 | 473 | 1561 | 623 | 2683 |
| | | 1.0 | 17.6 | 58.2 | 23.2 | 100.0 |
| | Two-Year College or Higher | 26 | 341 | 1515 | 712 | 2594 |
| | | 1.0 | 13.1 | 58.4 | 27.4 | 100.0 |
| | Total | 124 | 1473 | 4259 | 1801 | 7657 |
| | | 1.6 | 19.2 | 55.6 | 23.5 | 100.0 |
| Whatever I did, I felt it hard to do | Middle School or Lower | 346 | 1364 | 584 | 86 | 2380 |
| | | 14.5 | 57.3 | 24.5 | 3.6 | 100.0 |
| | High School | 541 | 1595 | 487 | 60 | 2683 |
| | | 20.2 | 59.4 | 18.2 | 2.2 | 100.0 |
| | Two-Year College or Higher | 666 | 1537 | 339 | 52 | 2594 |
| | | 25.7 | 59.3 | 13.1 | 2.0 | 100.0 |
| | Total | 1553 | 4496 | 1410 | 198 | 7657 |
| | | 20.3 | 58.7 | 18.4 | 2.6 | 100.0 |

| Category | | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree | Total |
|--|----------------------------|----------------|----------------|-------------------|-------------------|-------|
| I got along relatively well | Middle School or Lower | 18 | 261 | 1420 | 681 | 2380 |
| | | 0.8 | 11.0 | 59.7 | 28.6 | 100.0 |
| | High School | 8 | 194 | 1565 | 916 | 2683 |
| | | 0.3 | 7.2 | 58.3 | 34.1 | 100.0 |
| | Two-Year College or Higher | 9 | 157 | 1413 | 1015 | 2594 |
| | | 0.3 | 6.1 | 54.5 | 39.1 | 100.0 |
| | Total | 35 | 612 | 4398 | 2612 | 7657 |
| | | 0.5 | 8.0 | 57.4 | 34.1 | 100.0 |
| I felt fear/afraid | Middle School or Lower | 260 | 780 | 1017 | 323 | 2380 |
| | | 10.9 | 32.8 | 42.7 | 13.6 | 100.0 |
| | High School | 248 | 1002 | 1097 | 336 | 2683 |
| | | 9.2 | 37.3 | 40.9 | 12.5 | 100.0 |
| | Two-Year College or Higher | 136 | 805 | 1282 | 371 | 2594 |
| | | 5.2 | 31.0 | 49.4 | 14.3 | 100.0 |
| | Total | 644 | 2587 | 3396 | 1030 | 7657 |
| | | 8.4 | 33.8 | 44.4 | 13.5 | 100.0 |
| I couldn't sleep well | Middle School or Lower | 245 | 1158 | 768 | 209 | 2380 |
| | | 10.3 | 48.7 | 32.3 | 8.8 | 100.0 |
| | High School | 409 | 1305 | 759 | 210 | 2683 |
| | | 15.2 | 48.6 | 28.3 | 7.8 | 100.0 |
| | Two-Year College or Higher | 499 | 1324 | 542 | 229 | 2594 |
| | | 19.2 | 51.0 | 20.9 | 8.8 | 100.0 |
| | Total | 1153 | 3787 | 2069 | 648 | 7657 |
| | | 15.1 | 49.5 | 27.0 | 8.5 | 100.0 |
| I got along without any major complaints | Middle School or Lower | 49 | 429 | 1329 | 573 | 2380 |
| | | 2.1 | 18.0 | 55.8 | 24.1 | 100.0 |
| | High School | 26 | 293 | 1567 | 797 | 2683 |
| | | 1.0 | 10.9 | 58.4 | 29.7 | 100.0 |
| | Two-Year College or Higher | 20 | 213 | 1446 | 915 | 2594 |
| | | 0.8 | 8.2 | 55.7 | 35.3 | 100.0 |
| | Total | 95 | 935 | 4342 | 2285 | 7657 |
| | | 1.2 | 12.2 | 56.7 | 29.8 | 100.0 |

| Category | | Strongly Agree | Somewhat Agree | Somewhat Disagree | Strongly Disagree | Total |
|--|----------------------------|----------------|----------------|-------------------|-------------------|-------|
| I felt lonely as if I was all alone in the world | Middle School or Lower | 41 | 379 | 1375 | 585 | 2380 |
| | | 1.7 | 15.9 | 57.8 | 24.6 | 100.0 |
| | High school | 22 | 274 | 1536 | 851 | 2683 |
| | | 0.8 | 10.2 | 57.2 | 31.7 | 100.0 |
| | Two-Year College or Higher | 20 | 168 | 1443 | 963 | 2594 |
| | | 0.8 | 6.5 | 55.6 | 37.1 | 100.0 |
| | Total | 83 | 821 | 4354 | 2399 | 7657 |
| | | 1.1 | 10.7 | 56.9 | 31.3 | 100.0 |
| I had no energy to begin anything at all | Middle School or Lower | 41 | 379 | 1375 | 585 | 2380 |
| | | 1.7 | 15.9 | 57.8 | 24.6 | 100.0 |
| | High School | 22 | 274 | 1536 | 851 | 2683 |
| | | 0.8 | 10.2 | 57.2 | 31.7 | 100.0 |
| | Two-Year College or Higher | 20 | 168 | 1443 | 963 | 2594 |
| | | 0.8 | 6.5 | 55.6 | 37.1 | 100.0 |
| | Total | 83 | 821 | 4354 | 2399 | 7657 |
| | | 1.1 | 10.7 | 56.90 | 31.3 | 100.0 |

Looking into the proportions of those considering suicide by age and education, as age rises, suicidal thoughts also increase. 4.0% of those in their 30s or younger, 5.6% of 40s, 7.8% of 50s, 10.1% of 60s or older reported considering suicide. Lower educated respondents thought of suicide more than highly educated respondents, which causes a health inequality. 10.4% of middle school or lower educated respondents, 5.4% of high school educated respondents, 4.2% of two year college or higher educated respondents reported the experience of considering suicide.

There was no relation in attempting suicide between age and the highest level of education. 7.9% of those in their 30s or younger, 8.9% of 40s, 5.3% of 50s, 7.1% of 60s or older had attempted suicide. The 9.6% of high school educated respondents attempting suicide were the highest percent of attempting suicide, followed by 6.5% of middle school or lower educated respondents and 5.6% of two-year college or higher educated respondents.

Table 15. Thinking of or Attempting Suicide by Age and Education Level during the Preceding Year

Unit: persons, %

| Category | | Experience of Thinking of Committing Suicide | | | Experience of Suicide Attempt | | |
|-----------|----------------------------|--|-------|-------|-------------------------------|-------|-------|
| | | Yes | No | Total | Yes | No | Total |
| Age | 30s or Younger | 89 | 2111 | 2200 | 7 | 82 | 89 |
| | | 4.0 | 96.0 | 100.0 | 7.9 | 92.1 | 100.0 |
| | 40s | 123 | 2079 | 2202 | 11 | 112 | 123 |
| | | 5.6 | 94.4 | 100.0 | 8.9 | 91.1 | 100.0 |
| | 50s | 133 | 1583 | 1716 | 7 | 126 | 133 |
| | | 7.8 | 92.2 | 100.0 | 5.3 | 94.7 | 100.0 |
| | 60s or Older | 156 | 1384 | 1540 | 11 | 145 | 156 |
| | | 10.1 | 89.9 | 100.0 | 7.1 | 92.9 | 100.0 |
| Total | 501 | 7157 | 7658 | 36 | 465 | 501 | |
| | 6.5 | 93.5 | 100.0 | 7.2 | 92.8 | 100.0 | |
| Education | Middle School or Lower | 247 | 2133 | 2380 | 16 | 231 | 247 |
| | | 10.4 | 89.6 | 100.0 | 6.5 | 93.5 | 100.0 |
| | High School | 146 | 2537 | 2683 | 14 | 132 | 146 |
| | | 5.4 | 94.6 | 100.0 | 9.6 | 90.4 | 100.0 |
| | Two-Year College or Higher | 108 | 2486 | 2594 | 6 | 102 | 108 |
| | | 4.2 | 95.8 | 100.0 | 5.6 | 94.4 | 100.0 |
| | Total | 501 | 7156 | 7657 | 36 | 465 | 501 |
| | | 6.5 | 93.5 | 100.0 | 7.2 | 92.8 | 100.0 |