## New approaches of the 2009 Korean Time Use Survey

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While other papers deal with data from time use surveys for users or researchers, my paper focuses on introducing the KTUS(Korean Time Use Survey) as an official time use producer, especially new approaches of 2009 Korean Time Use Survey.

### **Abstract**

This paper presents a major procedure related to methodological issues and new approaches of the 2009 Korean Time Use Survey (KTUS). The KTUS was conducted in 1999 and 2004 by the Korea National Statistical Office (KNSO) and will be conducted for the third time in 2009. The KNSO has employed new approaches for the 2009 KTUS such as inserting the item "with whom" with the main activities. By successfully testing questionnaires through a rehearsal survey, the "persons being together" has been applied to the survey. There are some differences between the 2004 and 2009 classification of activities. In consideration of seasonal effects, the KNSO conducted the survey once in the spring of 2009 and will conduct it again in the fall of the same year.

Also, the 2009 KTUS focuses on collecting women's time of caring for their child,

especially under school age, by including not only direct care activities but also indirect

ones like time spent with their child or taking their child along to activities because of a lack

of an alternative supervisor. This report describes the design and implementation of the

survey.

Keywords: main activities, seasonal effects, alternative supervisor

1. Introduction

The 2009 Korean Time Use Survey will be the third survey involved in collecting information

on how Koreans spend their time. This survey is conducted every 5 years beginning in

1999. The purpose of the survey is to provide information on how Koreans spend their time

and when they conduct certain behaviors. The results of the survey provide information for

the evaluation of life style and quality of life of Koreans. Data on time spent on unpaid

household work can be used to evaluate household work of women. Data on time spent on

other various activities can be used in academic areas and public policies related to labor,

welfare, culture, education, and transportation.

2. Description of the survey

2.1. Sample design

The sample for the Time Use Survey can be defined at four levels: a sample of

enumeration districts(EDs), a sample of households, a sample of individuals and a sample

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of diary days. EDs totaling 540 from the survey population and 15 households from each sampled ED were selected by the stratified sampling method and simple random sampling, respectively. Within each household, all household members aged 10 years or older were included in the sample of individuals. The diary days were pre-assigned according to the order in the household address file.

### 2.1.1. Sampling of the household and individuals

The sample frame for the Time Use Survey was drawn from the Social Survey household sample in which the present sample frame was derived from the 2005 Population and Housing Census using the systematic selection with probability proportional to size after ordering by 25 regional strata and subclass characteristics such as type of living quarters, ratio of farm household, ratio of persons aged 60 and over, etc. The 540 EDs were selected from the Social Survey household sample using the systematic sampling method after ordering by 25 regional strata and subclass such as type of living quarters, ratio of house owners, and ratio of employment. The 15 households were selected at random in each ED. The sample for 2009 Time Use Survey consists of approximately 21,000 individuals aged 10 years and over and 8,100 households from 540 EDs(according to the Population projections for Korea in 2009, the average number of household member aged 10 years and over is 2.6 persons per household).

### 2.1.2 Sampling of the diary days

The days to record activities in a time-diary were assigned as follows: first, 15 households in each Enumeration District (ED) were evenly divided into 5 groups by the order in the household file per ED (A to E; 3 households in each group) and then two days were assigned to record the activities of each group within the period of the survey. Also, Saturday and Sundays are twice of the other weekdays to estimate for weekdays, Saturday and Sunday. Here, we allowed respondents to change diary days between households if a household was not available for a group. The time use pattern might be affected by days, so each group must keep an identical number of households. Therefore, even diary dates could be exchanged with another household, as long as each group keeps 3 households within each ED.

Group A							
9. 11	9. 12						
Fri.	Sat.						
3 hous	3 households						

Group B					
9. 13	9. 14				
Sun. Mon.					
3 households					

Group C							
9. 15	9. 16						
Tue.	Wed.						
3 hous	eholds						

Gro	ıp D				
9. 17	9. 18				
Thu.	Fri.				
3 hous	eholds				

Group E					
9. 19	9. 20				
Sat.	Sun.				
3 hous	eholds				

All the household members aged 10 years and over were asked to keep the time-diary except those who were absent from their home during the entire survey period, had serious physical or mental defects. or were generally unable to keep a time-diary for themselves.

### 2.2. Design of questionnaires and diaries

The 2009 Time Use Survey includes three parts : a Household Questionnaire for the

household representative, Individual Questionnaire for respondents 10 years old and over, and the Time-Diary.

### 2.2.1. The Household questionnaire and Individual questionnaire

The Household Questionnaire collected data on household characteristics including the type of occupancy, dwellings and floor space. The Individual Questionnaire collected data on individual characteristics including relationship to the head of the household, gender, age, caring for infant children, feelings about pressure of time, the gender roles, economic activity, side job, weekly working time, industry, occupation, employment status, monthly average of income, days-off, and subjective evaluation of time pressure and tiredness.

### 2.2.2. Time-Diary

In the Time-Diary, all of the household members aged 10 years and over were asked to record the main and simultaneous activities in the time diary which was structured in 10 minutes intervals for the designated two days. Afterwards, all of the self-recorded activities in the Time-Diary were coded into three-digit activity codes designating 143 different activity categories. The Time-Diary included the following main activity, with whom do you do the main activity, simultaneous activity, home or away from home and mode of transportation.

### 2.3. Classification of Activities

All of the activities are classified into 9 first-level categories, 50 mid-level categories, and 143 third-level categories.(see the appendix) In the first stage, the nine activity categories are developed and designated by the first digit of the activity code; in the second stage, the mid-level categorization is made within the boundary of the first-level categories and the second digit of the activity codes stands for the mid-level classification; lastly the mid-level categories are further classified into the more specified activity groups and the third digit of the activity codes stands for the third-level classification.

< The 2-digit group >				
1 PERSONAL CARE ACTIVITIES	6 VOLUNTARY WORK AND COMMUNITY			
11 Sleeping	PARTICIPATION			
12 Eating/drinking	61 Helping/doing favors			
13 Personal hygiene	62 Community participation			
14 Health care	63 Unpaid voluntary work			
19 Personal care activity n.e.c				
	7 SOCIAL LIFE / RECREATION AND LEISURE			
2 EMPLOYMENT RELATED ACTIVITIES	71 Social activities			
21 Employed work/Self-employed work	72 Attendance of free-time courses for adults			
22 Unpaid work in family business	73 Mass media			
23 Unpaid work on family farm	74 Religious activities			
24 Unpaid work in family garden	75 Entertainment (as spectator)			
25 Job seeking	76 Sport and outdoor activities			
26 Purchasing employment related goods	77 Hobbies, games and other leisure activities			
29 Employment related activities n.e.c	78 Purchasing social and leisure related goods			
	79 Recreation and leisure n.e.c			
3 EDUCATION ACTIVITIES				
31 School/University	8 TRAVEL (by purpose)			
32 Informal education	811 Personal care			
	821 Commuting			

33 Purchasing education related goods	822 During work				
	831 Education				
4 DOMESTIC ACTIVITIES	841 Domestic activities				
41 Food preparation/clean up	851 Family care				
42 Laundry and clothes care	861 Voluntary work and community participation				
43 Cleaning dwelling and arrangements	871 Social activity				
44 Household upkeep	872 Attendance of free-time courses for adults				
45 Purchasing domestic goods	873 Recreation and leisure n.e.c				
46 Household management	891 Other purpose				
49 Domestic activities n.e.c	800 Waiting for a bus, train, etc.				
5 FAMILY CARE	9 OTHERS				
51 Preschool child care	919 Filling in time use diary				
52 School child care	999 Others				
53 Spouse care					
54 Parents care					
55 Family care n.e.c					

There are still some limitations in the Classification of Activities. Some activities do not have a clear classification within the three-digit groups.

In principle, activities are classified by their purpose. Therefore, we have some problems in collecting some information such as people's time of computer usage because of the purpose based classification system.

For example, using a computer for studying is classified as an education related activity, while using a computer for working is classified in the working activity group. However, purchases made on the computer are classified in the category which includes the purpose of purchasing and computer games are classified by leisure activity according to the principle of classification by purpose. Some activities related to computer usage can vary because the activities are classified independently, while other activities are not. Here, we can not calculate computer usage time.

### 2.4. Overall process of the survey

### 2.4.1 Administrative procedures

In the beginning of the planning stage of the survey, we have several group meetings with experts from the KNSO as well as public/private sector consultants in Korea. Then we create a questionnaire, print all materials related to the survey, and prepare PR matters and gifts for respondents(approximately \$10 per person)

### 2.4.2 Field procedures

Since the survey is conducted at every local branch(approximately 50), we train the supervisors from every local office at a single location. Afterwards, the educated supervisors train the part-time interviewers at their branch offices who were hired for the survey.

All trained interviewers visit the households prior to the time-diary date to explain the survey, confirm their cooperation and give them a gift for their participation(\$13 for head of household, plus \$5 for every other household member who completed the diaries). There are two methods to collect data from each respondent. We collect information from each respondent with a face-to-face interview for the Household and Individual Questionnaire whereas it is self-recorded in the time-diary.

After completing the questionnaire, all interviewers code activities, edit, and input data into programmed system .

### 2.4.3 Data processing

Inputted data and questionnaires are sent to headquarters so as to re-edit the data by central analyst. Lastly data processing is done and the results of the survey are provided in the following year.

### 3. New approaches of the 2009 KTUS

The third Time Use Survey in Korea has undergone a several changes to meet the new demands.

### 3.1 Methodological issues

In consideration of the various seasonal effects during the year, the KNSO conducted the survey once in spring of 2009 and is conducting it again in the fall at the same year.

We determined that two observations a year on time usage provides an acceptable average for the entire year. Selection of the survey period and duration of the survey are also very important in accurately representing. In the 2009 KTUS, spring and September were selected as representative months of the year.

#### 3.2 Questionnaire

The 2009 Time Use Survey included the phrase "with whom" in the time diary with the activities to assist in fully understanding the main activities.

We defined "with whom" as other person(s) contributed to the same responsibility for the main activity.

We divided the "with whom" categories as follows: alone, child aged under 7, spouse, other family or relatives, other(exclude unknown, audience, etc)

There are some limitations and problems in deciding the definition of "with whom". For example, At church or in a meeting, do we include the audience or crowd? Also, in the work place do we consider the work with others as" with whom" even though employed work separately at their desk without meeting.

To consider the correct use of categories "with whom", we need to limit its use to major activities including 4. housework, 5. caring, 6. participants & volunteering, and 7. leisure.

### 3.3 Classification of activities

We developed our own classification of activities in 1999 with consideration to our cultural heritage and the present trends such as the increasing usage of computers and related technologies. We also followed the guidelines from the proposal of EUROSTAT and the UNSD. There are 9 main groups, 50 2-digit groups and 143 3-digit groups in 2009.

The difference between the 2004 and 2009 classification of activities are in the 3-digit

groups. To incorporate new activities, the KNSO further divided the 3-digit group from 137 in 2004 into 143 in 2009.

For example, 260 purchasing employment related goods is divided by 261 purchasing employment related goods through off-line methods(visiting store) and 262 purchasing employment related goods through on-line methods(Internet, home shopping, etc). Also, it was applied in the same way to 330. purchasing education related goods and 780 leisure activities related goods.

As there are many kinds of outlets for media in leisure activities, we clarified the new medium's groups, for example, PMP(Portable Multimedia Player) and DMB(Digital Multimedia Broadcasting). For 737 Internet surfing, the KNSO breaks it down into 737 Internet surfing for information and 738 other Internet use(Homepage, Blog management) according to the purpose of internet use.

To calculate women's time spent caring for their children under school age, we focused on time spent supervising children. The reason behind this is that supervising children and passive child care might have been under-reported in the previous survey. Time spent supervising children would have to be obtained as a secondary activity to the main activities, such as doing housework, watching television, or meeting friend. So the KNSO included both direct care activities and indirect ones such as time for taking their child along to activities because of a lack of alternative supervisor.

As computer usage is increasing, we separately classify shopping for 2. Employment, 3. Study, and 7. Social life, recreation and leisure as shopping via the Internet and offline methods(4.Domestic activities related to shopping has already been separated as online and offline in the previous survey)

We do not separate the "pet care" activity as its own 3-digit group but the activity is included in the category of 443 other home maintenance within 44. household upkeep.

The KNSO need to separate the "pet care" activity from the present category such as other countries since the population that owns pets is increasing in Korea.

## 4. Response distribution from the survey in spring, 2009

- O Collection rate by ED(member of household)
- Collection rate of 2009 was higher than that of 2004 with 1.0%p gap
  - Collection rate was higher in ordinary ED than that in apartment ED

ED	Total	Under 10 years old	10 years old and over	Collect		Refuse	Collection rate (exclude impossible)
	11,407	1,205	10,202	10,004	129	69	99.3
Ordinary	5,667	454	5,213	5,119	68	26	99.5

Apartment	5,740	751	4,989	4,885	61	43	99.1

X Collection rate: 94.7% in 1999, 98.3% in 2004

- O Dist. by household characteristic
- By number of households, those with 2 members were surveyed more than households with 1 member.

	Number of households					Rate(%)				
	Total	Total 1person 2 3 4+						3	4	5+
	4,045	665	1,164	889	1,327	16.4	28.8	22.0	24.3	8.5
<b>※</b> 2009										
Population	16,916,966	3,415,121	3,869,563	3,547,686	4,517,450	20.2	22.9	21.0	26.7	9.3
projections										

- By type of dwellings, apartment EDs were more surveyed than any other types of dwellings.

		Number of	households	Rate(%)			
	Total	Total Detached APT Others				APT	Others
	4,045	1,586	1,881	578	39.2	46.5	14.3
× 2005							
Population	15,887,128	7,064,128	6,628,993	2,194,007	44.5	41.7	13.8
Census							

- O Dist. by household members' characteristics
- By gender, women were slightly more surveyed at 52.0% than men, and those in their 20's are somewhat less surveyed than other age classes.

### < Gender >

	respondents(person)			rate(%)		
	Total	men	women	men	women	

	10,004	4,800	5,204	48.0	52.0
<b>※ 2009</b>					
Population	48,746,693	24,481,480	24,265,213	50.2	49.8
projections					

# < Age >

	respondents(person)									rate(%)				
	Total*	10's	20's	30's	40's	50's	60+	10's	20's	30's	40's	50's	60+	
	10,004	1,791	1,277	1,717	1,974	1,424	1,821	17.9	12.8	17.2	19.7	14.2	18.2	
※2009  Population  projections  (thousands)	43,839	6,623	7,015	8,185	8,371	6,351	7,293	15.1	16.0	18.7	19.1	14.5	16.6	

<sup>\*</sup>Total: 10 years old and over

# < Marital status >

		respo	ondents(p	erson)	rate(%)				
	Total	not	with	bereave	divorce	not	with	bereave	divorce
	Total	married spouse ment	divorce	married	spouse	ment	uivoice		
	10,004	3,202	5,825	693	284	32.0	58.2	6.9	2.8
<b>※</b> 2005									
Population	20.055	44 470	22 557	2 200	4 4 4 0	20.0	E0 2	7.6	2.0
Census	38,055	11,479	22,557	2,880	1,140	30.2	59.3	7.6	3.0
(thousands)									

# O Number of episodes per day

- Average number of episodes per day slightly increased in 2009

	Total	Men	Women
	33	31	34
<b>※</b> 1999	25		
<b>※</b> 2004	31	-	-

## 5. Conclusion and suggestions

The KNSO carried out the time use survey once a year in 1999 and 2004. In 2009, the KNSO pursued a new trial for conducting the survey twice a year to more fully represent people's time use patterns during the entire year. In order to nullify the seasonal effect in the future, we need to carry out the survey four times a year or even perhaps 12 times to accurately represent the time use of people throughout the whole year.

The KNSO classified several further activities to properly reflect our life patterns. However, limitation exist in classifying some activities. We need to clarify some categories for new trends in activities, for example, the use of PC and Internet.

To get the optimal sample for the time use survey, we have to consider the inclusion of household's characteristics such as the number of families in a strata for sampling. It would be more effective to include a household's characteristics in sampling instead of considering them after stratifying for weight which has been applied to the 2009 survey.

For the non-response sample, we take the substitute method, which means if a household refuses to answer questions, we substitute another household neighborhood within the same ED. Therefore, we have over a 98% collecting rate for questionnaires. This collecting rate is very different from the response rate, so we have to prepare a solution for the non-response treatment in future.

Expert groups involved in the international classification for time-use activities need to further discuss the development of an international standard for the Classification of Activities for comparison between countries.

To overcome the problem and to develop the survey, the KNSO have to study the survey and improve it constantly. Thus, we are now considering the option of conducting the survey every 3 years instead of every 5 years.

After releasing the data for 2009, the KNSO will hold Time Use Research seminar for further analysis in time use. The KNSO will encourage users not only to analyze further time use data but also to provide some idea for the future survey's development. In the future, we would like to hold an international conference to share the information concerning time use research with the international community.

Appendix
► Results of 2004
How did Koreans spend their time in 2004?
1. Time Use of People Aged 10 and Over
People aged 10 and over spent 10 hours and 34 minutes per day, which occupied 44

percent out of each day, on personal indispensable activities such as sleeping, eating, and washing. This figure increased by 16 minutes from 1999.

People aged 10 and over spent 8 hours and 13 minutes per day, which accounted for 34 percent out of each day, on obligatory activities such as paid work, household care, study, and commute. This figure fell by 29 minutes from 1999.

- They spent 3 hours and 26 minutes on paid work. household care accounted for 1 hour and 52 minutes. They spent 1 hour and 14 minutes on study.

People aged 10 and over spent 5 hours and 13 minutes a day on leisure, which accounted for 22 percent out of each day. This figure grew by 12 minutes from 1999.

(Unit : hours: minute)

	All		Men			Women			
	2004	1999	rate	2004	1999	rate	2004	1999	rate
* Indispensable act.	10:34	10:18	0:16	10:35	10:18	0:17	10:34	10:18	0:16
Sleeping	7:49	7:47	0:02	7:52	7:51	0:01	7:47	7:44	0:03
Eating	1:37	1:33	0:04	1:39	1:34	0:05	1:35	1:32	0:03
Others	1:08	0:58	0:10	1:04	0:53	0:11	1:12	1:01	0:11
* Obligatory act.	8:13	8:41	-0:29	8:01	8:27	-0:26	8:24	8:55	-0:31
Paid work	3:26	3:43	-0:17	4:20	4:39	-0:19	2:34	2:47	-0:13
Household care	1:52	1:56	-0:04	0:32	0:28	0:04	3:11	3:21	-0:10
Study	1:14	1:28	-0:14	1:19	1:34	<i>-0:15</i>	1:09	1:22	-0:13
Commute	1:40	1:35	0:05	1:51	1:46	0:05	1:30	1:24	0:06
* Leisure	5:13	5:01	0:12	5:24	5:14	0:10	5:03	4:47	0:15
Mass media	2:19	2:23	-0:04	2:22	2:29	-0:07	2:16	2:18	-0:02
Social act.	0:52	0:53	-0:01	0:47	0:48	-0:01	0:56	0:57	-0:01
Hobbies and games	0:59	0:52	0:07	1:14	1:04	0:10	0:45	0:40	0:05
Others	1:03	0:52	0:11	1:01	0:54	0:07	1:06	0:52	0:14

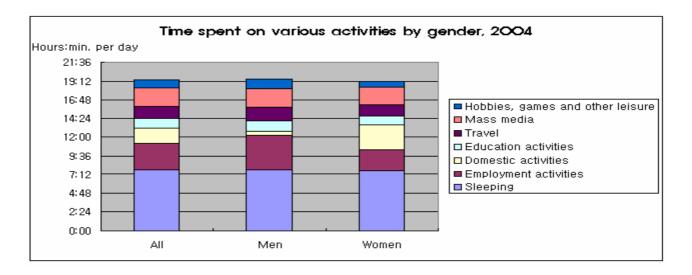
2. Comparison of time use by gender in 2004

- People aged 10 and over spent 7 hours and 49 minutes per day on sleeping
  - 7 hours and 52 minutes for men and 7 hours and 47 minutes for women
- People aged 10 and over spent 3 hours and 26 minutes on paid work.
  - 4 hours and 20 minutes for men and 2 hours and 34 minutes for women
- People aged 10 and over spent 1 hours and 52 minutes on household care.
  - 32 minutes for men and 3 hours and 11 minutes for women
- People aged 10 and over spent 1 hour and 14 minutes on study.
- 1 hours and 19 minutes for men and 1 hours and 9 minutes for women
- People aged 10 and over spent 59 minutes in a day on hobbies, games and other leisure activities
  - 1 hours and 14 minutes for men and 45 minutes for women

There were some differences between men and women: men were more likely than woman to spend time in paid work and leisure activities and conversely women were more likely than men to spend time on household care such as domestic work and caring for children.

Time spent on main activities by gender, 2004

	All	Men	Women
Sleeping	7:49	7:52	7:47
Employment activities	3:26	4:20	2:34
Domestic activities	1:52	0:32	3:11
Education activities	1:14	1:19	1:09
Travel	1:40	1:51	1:30
Mass media	2:19	2:22	2:16
Hobbies, games and other leisure	0:59	1:14	0:45



► Map of Korea with KNSO's local branch offices



# ► Facts about Korea

Location	Territory	Population	Life expectancy (years old)	GNI per capita	GDP growth rate
Located at the crossroads of Northeast Asia, between Japan, the Russian Far East and China	223,098km²	48.75million (2009,population projections	Males 76.1 Females 82.7(2007)	\$19,231 (2008)	2.2%(2008

ACTIVITY CLASSIFICATION: 2009 Korea Time Use Survey (9 first-level, 50 mid-level, 143 third-level)

# 1 PERSONAL CARE ACTIVITIES

11 Sleeping

111 Sleeping

112 Nap

- 12 Eating/drinking
- 121 Eating a meal with family
- 122 Eating alone
- 123 Eating a meal with other persons
- 124 Eating a snack or drinking a non-alcoholic beverage
- 13 Personal hygiene
- 131 Personal hygiene (ex. Washing, showering, shaving, using the toilet, etc.)
- 132 Dressing, make-up (ex. Getting ready to go out, skin, hair preparations, etc.)
- 133 Purchasing personal care services
- 14 Health care
- 141 Personal medical care
- 142 Purchasing medical care service
- 143 Rest because of illness
- 19 Personal care activity n.e.c
- 199 Personal care activity n.e.c

### **2 EMPLOYMENT RELATED ACTIVITIES**

- 21 Employed work/Self-employed work
- 211 Main job
- 212 Other jobs
- 213 Breaks
- 214 Training
- 215 Work brought home
- 216 Employed work/Self-employed work n.e.c.
- 22 Unpaid work in family business
- 220 Unpaid work in family business
- 23 Unpaid work on family farm
- 230 Unpaid work on family farm

24 Unpaid work in family garden

240 Unpaid work in family garden (ex. Gathering nuts, mushrooms, not for sale)

25 Job seeking

250 Job seeking

26 Purchasing employment related goods

261 Purchasing employment related goods, through off-line(visiting store)

262 Purchasing employment related goods, through on-line(Internet, TV home shopping, etc)

29 Employment related activities n.e.c

299 Employment related activities n.e.c

#### **3 EDUCATION ACTIVITIES**

31 School/University

311 Classes and lectures

312 Breaks

313 Self study at school (ex. Self study before, after or between classes)

314 School/University events during class time (ex. School excursion, Field day)

319 School/University activities n.e.c

32 Informal education

321 Study at informal institutions

322 Homework

329 Informal education n.e.c.

33 Purchasing education related goods

331 Purchasing education related goods, through off-line(visiting store)

332 Purchasing education related goods, through on-line(Internet, TV home shopping, etc)

#### **4 DOMESTIC ACTIVITIES**

- 41 Food preparation/cleanup
- 411 Cooking meals, setting table
- 412 Clearing table, washing dishes
- 413 Preparing food for later use
- 42 Laundry and clothes care
- 421 Washing and hanging
- 422 Folding and putting clothes into/from the wardrobe
- 423 Ironing/care of clothes and shoes
- 424 Purchasing clothes care services
- 425 Clothes making
- 43 Cleaning dwelling and arrangements
- 431 Arranging and tidying items inside the house
- 432 Cleaning dwelling (ex. Dusting, vacuuming, washing floors, etc.)
- 433 Cleaning yard, veranda, garage (ex. cleaning windows, packing for a trip)
- 44 Household upkeep
- 441 Home/equipment repairs
- 442 Vehicle maintenance
- 443 Other home maintenance (ex. Disinfecting the house, tending plants/pets)
- 444 Purchasing Home/equipment repairs services
- 445 Purchasing Vehicle maintenance services
- 446 Purchasing Other home maintenance services(ex. Disinfecting the house, tending plants/pets)
- 45 Purchasing domestic goods
- 451 Purchasing daily necessities/groceries, through off-line(visiting store)
- 452 Purchasing durable consumer goods, through off-line(visiting store)
- 453 Purchasing daily necessities/groceries, through on-line(Internet, TV home shopping, etc)
- 454 Purchasing durable consumer goods, through on-line(Internet, TV home shopping, etc)
- 46 Household management
- 461 Keeping household accounts

- 462 Planning and arranging, budgeting
- 463 Administrative service(Visiting bank, municipal authorities, post office, etc.)
- 49 Domestic activities n.e.c
- 499 Domestic activities n.e.c

### **5 FAMILY CARE**

- 51 Preschool child care
- 511 Physical care of preschool children
- 512 Reading
- 513 playing
- 514 Nursing
- 519 Preschool child care n.e.c
- 52 School child care
- 521 Physical care of school children (ex. Preparing children for school.)
- 522 Teaching the child (ex. Helping with homework, guiding and playing, etc.)
- 523 Visiting school (ex. Attending parent-teacher meetings, etc.)
- 524 Nursing
- 529 School child care n.e.c
- 53 Spouse care
- 531 Nursing
- 539 Spouse care n.e.c
- 54 Parents care
- 541 Nursing
- 549 Parents care n.e.c
- 55 Family care n.e.c(ex. Relatives care)
- 551 Nursing
- 559 Family care n.e.c

#### **6 VOLUNTARY WORK AND COMMUNITY PARTICIPATION**

- 61 Helping/doing favors for friends, neighbors (ex. Except for family)
- 611 Helping Employment related activities
- 612 Helping Domestic activities
- 613 Helping/doing favors n.e.c
- 62 Community participation
- 621 Civic obligations, ceremonies
- 621 Voluntary community participation
- 63 Unpaid voluntary work
- 631 Voluntary work for national or local events
- 632 Voluntary work for school or kindergarten children
- 633 Voluntary work for the handicapped or the aged, etc.
- 634 Rural communities, natural disaster relief activities
- 639 Unpaid voluntary work n.e.c

#### 7 SOCIAL LIFE / RECREATION AND LEISURE

- 71 Social activities
- 711 Telephone conversations
- e.g.) Conversations with members of the family, friends, relatives, etc.
- 712 Social activities and conversations with members of the family, relatives
- e.g.) Parties, visits, participating in family ceremonies, etc.
- 713 Social activities and conversations with friends, neighbors
- e.g.) social activities with people other than family and relatives
- 714 Social activities using Internet (internet chatting, e-mail)
- 715 Visiting a family grave/cutting the weeds around a grave
- 719 Social activity n.e.c
- 72 Attendance of free-time courses for adults
- 721 Language
- 722 Computer related

- 723 Courses for a qualifying examination/employment examination
- 724 Hobby related
- 729 Attendance at free time study and courses n.e.c
- 73 Mass media
- 731 Reading newspapers
- 732 Reading magazines
- 733 Watching TV
- 734 Video, DVD, PMP, DMB
- 735 Listening to radio
- 736 Listening to records/CDs/Tapes/MP3
- 737 Accessing internet
- 738 Accessing internet n.e.c(Blog an Personal Homepage management, etc)
- 74 Religious activities
- 741 Activities practiced alone or with family(ex. Praying, reading bible at home)
- 742 Religious services (ex. Visiting church, temple for worship, etc.)
- 743 Religious activities n.e.c
- 75 Entertainment (as spectator)
- 751 Movies/cinema (ex. Watching a movie at a cinema, not home)
- 752 Concert/theatre
- 753 Museum/exhibition
- 754 Sports event
- 759 Entertainment (as spectator) n.e.c
- 76 Sport and outdoor activities
- 761 Walking
- 762 Climbing/Hiking
- 763 Exercise for personal fitness (ex. Aerobics, yoga, swimming, etc.)
- 764 Other sports (ex. football, badminton, bowling, surfing, etc.)
- 765 Driving/Sightseeing (ex. Driving for pleasure, looking at views, etc.)
- 766 Outdoor activities n.e.c(ex. Fishing, camping, visiting an amusement park)

- 77 Hobbies, games and other leisure activities
- 771 Reading books
- 772 Computer games
- 773 Playing/gambling (ex. Playing with toys, playing cards, etc.)
- 774 Hobbies/arts/crafts
- 775 Drinking alcohol/Singing at a commercial singing establishment
- 776 Smoking
- 777 Resting (ex. Doing nothing)
- 78 Purchasing Social life/ Recreation and Leisure related
- 781 Purchasing Social life/ Recreation and Leisure related, through off-line(visiting store)
- 782 Purchasing Social life/ Recreation and Leisure related, through on-line(Internet, TV home shopping, etc)
- 79 Recreation and leisure n.e.c
- 799 Recreation and leisure n.e.c

### 8 TRAVEL (by purpose)

- 811 Personal care
- 821 Commuting
- 822 During work
- 831 Education
- 841 Domestic activities
- 851 Family care
- 861 Voluntary work and community participation
- 871 Social activity
- 872 Attendance of free-time courses for adults
- 873 Recreation and leisure
- 891 Other purpose
- 800 Waiting for a bus, train, etc.

#### 9 OTHERS

### 919 Filling in time use diary

999 Others

### [Person with whom]

- 1 Alone
- 2 Spouse
- 3 Preschool child
- 4 Other family and relatives
- 5 Others

### [LOCATION]

- 0 Outside home (ex. Workplace, school, other person's home, etc.)
- 1 Home

### [MODE OF TRAVEL]

- 2 Travelling on foot
- 3 Travelling by urban bus
- 4 Travelling by subway
- 5 Travelling by taxi
- 6 Travelling by passenger car
- 7 Travelling by bicycle, motorcycle, commuter bus, school bus, etc.
- 8 Travelling by train, suburban bus, long-distance bus
- 9 Others (ex. Truck, cultivator, airplane, boat, etc.)

# ► Comparison with other countries in overview of Time Use Survey

2009. 8.10

	Korea	U.S.	Japan	UK	Canada	Australia	France	Germany	Netherlands
Title	Time Use Survey	American Time Use Survey	Survey on Time Use and Leisure Activities	The Time Use Survey	General Social Survey-Time Use	Time Use Survey	Time Use Survey	Time Use Survey	mini-TUS(Tim e Use Survey)
Org.	KNSO (Korea National Statistical Office)		Statistics Bureau	ONS (Office for National Statistics)	Statistics Canada	ABS (Australian Bureau of Statistics)	INSEE (Institut National de la Statistique et des Etudes Economiques)	Otationio	Statistics Netherlands
History	since 1999	2003	1976	1995	1985	1992	1966	1991	1987
Period	Every 5 years	Monthly	Every 5 years	Every 5 years	Every 5 years	Every 5 years	_	Every 10 years	Every 10 years
latest released	2004	2008	2006	2005	2005	2006	1999	2001	1997
Coverage	10 years old and over	15 years old and over	10 years old and over	8 years old and over	15 years old and over	15years old and over	15-60	10years old and over	12years old and over
Sample size	8,100households (about 21,000 persons)		80,000households	5,000diaries	19,597persons	3,870households	_	12,000persons	50,000persons
Mode of collection	face-to-face interview & self-recorded	CATI	Self-recorded	face-to-face interview & self-recorded	CATI	face-to-face interview & self-recorded	face-to-face interview & self-recorded	-	face-to-face interview & self-recorded
Diary days	2days every 10min. after-coded diary	1day every 15min.	conduct both pre-coded and after-coded 2days	1day every 10min.	1day every 5min.	2days every 5min.	7days	3days every 10min.	1day every 5min.

every 15m	in.	