Outline of the Family Income and Expenditure Survey
< Savings and Liabilities >
I Outline of the Survey

The Family Income and Expenditure Survey (FIES) aims at providing comprehensive data on income and expenditure of households in Japan. The data are used in various fields, such as policy planning, econometric analysis, market research, etc. It also supplies basic data to the calculation of such macroeconomic figures as the Gross Domestic Product (Expenditure approach) and the Consumer Price Index.

The FIES is a fundamental statistical survey conducted by the government for the purpose of producing the fundamental statistics provided by the Statistics Act (Act No.53 of May 23, 2007). It is carried out in accordance with the Family Income and Expenditure Survey Ordinance (Prime Minister's Office Ordinance No.71 of November 12, 1975) issued on the basis of the Statistics Act.

The status of savings and liabilities of households had been conducted every year since 1958 until 2000 as the Family Savings Survey. And then, in January 2002, the Family Savings Survey was incorporated into the FIES. For details, please refer to "7.History".

1. Coverage of the survey

The survey unit is the household in the entire area of Japan. The following households are, however, excluded as inappropriate households.

(1) One-person student households
(2) Inpatients in hospitals, inmates of reformatory institutions, etc.
(3) Households which manage restaurants, hotels, boarding houses or dormitories, sharing their dwellings
(4) Households which serve meals to the boarders even though not managing boarding houses as an occupation
(5) Households with 4 or more living-in employees
(6) Households whose heads are absent for a long time (three months or more)
(7) Foreigner households

2. Sampling Procedure

Sampling design is based on the data from the 2020 Population Census.

(1) Sampling Method

A stratified three-stage sampling method is adopted. The primary sampling unit is a municipality, the secondary sampling unit is a survey unit area, a pair of the Enumeration Districts of the 2020 Population Census, and the third sampling unit is a household.

(2) Sampling of Municipalities

The entire area of Japan is stratified into 168 strata (170 strata before December, 1977) according to the following criteria. From each stratum, one sample municipality is selected by the probability sampling proportionately to the number of private households excluding one-person households.

(i) Each of the capital cities of prefectures is made to be a stratum.
(ii) Each of Kawasaki-shi (city), Sagamihara-shi, Hamamatsu-shi, Sakai-shi and Kitakyushu-shi is made to be a stratum.
(iii) The remaining areas in Japan (cities with population of 50,000 or more) are divided according to the following criteria to form 74 strata.

a. Districts - 10 districts:

    Hokkaido: Hokkaido (prefecture)

    Tohoku: Aomori-ken, Iwate-ken,
        Miyagi-ken, Akita-ken,
        Yamagata-ken, Fukushima-ken

    Kanto: Ibaraki-ken, Tochigi-ken,
        Gumma-ken, Saitama-ken,
        Chiba-ken, Tokyo-to,
        Kanagawa-ken, Yamanashi-ken,
        Nagano-ken

    Hokuriku: Niigata-ken, Toyama-ken,
        Ishikawa-ken, Fukui-ken

    Tokai: Gifu-ken, Shizuoka-ken,
        Aichi-ken, Mie-ken

    Kinki: Shiga-ken, Kyoto-fu, Osaka-fu,
        Hyogo-ken, Nara-ken,
        Wakayama-ken

    Chugoku: Tottori-ken, Shimane-ken,
        Okayama-ken, Hiroshima-ken,
        Yamaguchi-ken

    Shikoku: Tokushima-ken, Kagawa-ken,
        Ehime-ken, Kochi-ken

    Kyushu: Fukuoka-ken, Saga-ken,
        Nagasaki-ken, Kumamoto-ken,
        Oita-ken, Miyazaki-ken,
        Kagoshima-ken

    Okinawa: Okinawa-ken

b. City groups - 2 groups:

    Cities with population of 150,000 or more excluding designated cities under article 252-19 of the Local Autonomy Act and Ku-areas of Tokyo (Middle cities), population of 50,000 or more, but less than 150,000 (Small cities A)

c. City pattern by major industry

d. Ratios of households which the age of household head is 65 years old and over

e. Ratios of densely inhabited district population

f. Population change rates from 2015 to 2020

The cities with population of less than 50,000, towns and villages are divided into 10 districts. They are subdivided to 42 strata according to the geographical characteristics and the ratios of households which the age of household head is 65 years old and over.

The strata were set based on the result of Population Census in 1960 when the coverage of the survey was expanded in July, 1962.

A part of the strata was revised in 1968, 1972, 1978, 1983, 1988, 1993, 1998, 2003, 2008, 2013, 2018 and 2023 based on the results of the Population Censuses to reflect population movement, consolidation of municipalities and changes of city groups, etc. As a result, the number of strata after 1978 (the number of the survey municipalities) is 168.

(3) Rotation of municipalities

Surveyed municipalities of the FIES have been fixed for a while since July 1962, when the survey was expanded. But since 1966, surveyed towns and villages have been regularly alternated. Surveyed cities have also been regularly alternated since 2009.

(4) Allocation of Sample Households to Municipalities

The allocation of sample households to municipalities in two-or-more-person households is determined by considering the following viewpoints.

【The accuracy of survey results】

The number of households has to be sufficient to maintain the accuracy of the results. To check the accuracy, we see the following rates:

a. Changes over the year of the monthly average by classes of households (income classes, occupations of the household head, etc.) in Japan, and changes over the year of the annual average by city group, by district

b. Changes over the year of the annual average by city with prefectural government

Table (i) Allocation of the number of households to be surveyed

	Number of surveyed municipalities	Two-or-more-person households		One-person households
		Number of surveyed households	Sampling rates	Number of surveyed households
Total	168	8,076	—	745
Cities with population of 50,000 or more	—	—	—	—
Ku-area of Tokyo	1	408	1 / 5936	34
20 major cities	20	2,016	1 / 2007～1 / 7257	168
Cities with prefectural governments (excluding major cities)	31	3,048	1 / 486 ～1 / 1678	254
Other cities	74	2,100	1 / 1192～1 / 13120	175
Cities with population of less than 50,000, towns and villages	42	504	1 / 1492～1 / 16976	42
Dormitories(One-person households)	(11)	—	—	72

※ Surveyed municipalities of Dormitories (One-person households) are included in Ku-areas (ward) of Tokyo and 20 major cities.

【Restriction of the field work】
a. An enumerator is in charge of two survey unit areas, containing 12 sample households.
b. Each household is surveyed for six months, and alternated to another household in seventh month. The alternation of the households is done by a survey unit area, containing 6 sample households. Every month, one sixth of all sample households are alternated.

【The procedure of allocation of sample households (Two-or-more-person households)】
The allocation of sample households to municipalities is based on the procedures of the following steps from ① to ③.
　① The sample size (approximately 5,000 households) necessary to maintain the accuracy of tabulation of Japan is allocated to municipalities according to the number of households for strata including each surveyed municipality.
　② In the districts less than 400 households by allocation in ①, the number of households to be surveyed is additionally allocated according to the number of households for strata in district including each surveyed municipality to maintain the accuracy of tabulation of area (except Hokkaido and Okinawa).
　③ In the cities with prefectural governments and designated cities under article 252-19 of the Local Autonomy Act less than 96 households by allocation in ① and ②, the number of households to be surveyed is additionally allocated up to 96 households to maintain the accuracy of tabulation.

Consequently, the number of households to be surveyed is 8,076 households.

The number of households allocated to each of city groups or the cities with prefectural governments is shown in Table (i) or "Appendix 1: Number of Surveyed Households, Adjustment Coefficient by Cities, Towns and Villages (Two-or-more-person Households)".

【Reference: Survey for one-person households】
a. One household selected from two survey unit areas is surveyed.
b. Each household is surveyed for three months, and alternated to another household in fourth month. Every month, one third of all sample households are alternated.
c. In addition, to grasp the young one-person households more properly, 12 dormitory survey unit areas are set, and 6 households are selected randomly from each survey unit areas. 6

households are surveyed for three months in a dormitory, and alternated to other households in fourth month.

(5) Sampling and Rotation of Survey Unit Areas

Each municipality is divided into the same number of areas as enumerators so that each partition contains nearly equal number of appropriate households. Each enumerator is assigned to one of these partitions, which limits the area that he or she has to cover.

From each of the partitions one survey block is randomly selected. The blocks, each containing 1500 - 3000 appropriate households, are made by subdividing the partitions. Two survey unit areas are randomly selected from the blocks. Each unit area is surveyed for a year, and after that the unit area is replaced by another within the same block. When all survey unit areas in the block have been used, the next block is selected and the survey unit areas are selected from the block in the same way.

(6) Sampling and Rotation of Households

・Two-or-more-person households

First, enumerators visit all the households in a survey unit area and make the list of the households, and then they select the sample households randomly from the list. The sample households are selected separately by three types of household, "Workers' households" , "No-occupation households" and "Other households". Inappropriate households are excluded from the selection beforehand. Six sample households are selected in each survey unit area, and the numbers of the sample households by three types of household are decided with their proportions in the survey unit area.

One sample household is surveyed for six months and is replaced by a new one. At replacing, enumerators visit all the households in the survey unit area again and revise the list of the household, and select the new sample households randomly. Each survey unit area is used for a year, and after that the survey unit area is replaced by another.

・One-person households

One sample household is selected at random from the list of households in a general survey unit area. For a dormitory, six sample households are selected at random from the list of households in a dormitory survey unit area, which contains all the households reside inside the dormitory.

3. Survey Method

(1) Organization

The survey is conducted through the following channel.

Minister for Internal Affairs and Communications → Prefectural Governors → Supervisors → Enumerators → Households

(2) Period of Survey

The survey is conducted every month. The sample households of two-or-more-person households are surveyed for six months, and one sixth of the sample households are monthly renewed. One survey unit area is surveyed for a year, and one twelfth of the survey unit area is monthly renewed. Sample households of one-person households are investigated continuously for three months as a rule, and one third of sample households are monthly renewed.

(3) Collection of Data

Data are obtained in four kinds of questionnaires, namely, Household Schedule, Family Account Book, Yearly Income Schedule and Savings Schedule. The online response system has been introduced from January 2018.

a. Enumerators fill in the Household Schedule with the aspect of household members and type of the dwelling.

b. Households are requested to fill in or enter the Family Account Books with daily income and expenditure for 6 months (3 months for one-person households). Workers' households and households whose heads have no occupation are requested to record both income and expenditure, while other households may record expenditure only.

Only two-or-more-person households are requested to record purchasing quantities as well as amount of purchase by each purchasing item. However, the amount of food is filled in only during the first month since 2002. One Family Account Book is designed to record income and expenditure for half a month, so that enumerators visit households except responded online every half month and collect the filled account books.

c. Households are also requested to fill in or enter the Yearly Income Schedule with income during the last one year, at the second half of the first month.

d. In addition, two-or-more-person households are also requested to fill in or enter the Savings Schedule with amounts of savings and liabilities etc. (at the first day of the third month) at the first half of the third month.

e. In case of the households which cannot make entries for some unavoidable reasons, enumerators fill in the Non-responding Household Schedule with which the average monthly living expenditures as well as some of the survey items in the Household Schedule are obtained.

4. Aggregation method
(1) Process for aggregation

First, Enumerators collect questionnaires, or households submit ones at online. Then, staffs in prefectures check them, and submit to the Statistics Bureau, Ministry of Internal Affairs and Communications. After the National Statistics Center receives them, regarding the savings and liabilities, questionnaire called "Savings Schedule" is read by Optical Character Reader (OCR) or loaded online answers, and processed by the computer. As for the income and expenditure, the National Statistics Center checks the contents, and code the income and expenditure at the same time. The contents of the questionnaires after coding are processed by the computer.

(2) Estimation
・Two-or-more-person households

First, the adjustment coefficients by municipality are calculated in order to compensate the difference in sampling ratios for strata. They are proportional to the inverses of sampling ratios so that the adjusted number of households in Japan will be equal to the number of the households in the universe multiplied by 1/486, the maximum of the sampling ratios for the strata.

Second, these adjustment coefficients are corrected by the distribution of two-or-more-person households by 10 districts and 4 groups by number of household members which are given by the results of Labour Force Survey.

Third, the average figures of All Japan and districts are estimated by these correction coefficients.

The monthly average figures are estimated in the next formula. The annual average values are calculated by the simple arithmetic means of monthly figures.

【Formula】 Two-or-more-person households

$$\overline{X} = \frac{\sum_i \sum_j \sum_k \sum_l X_{ijkl} \cdot \alpha_{ij} \left(\frac{N_{ij}}{P_{ij}}\right)^* \cdot C_{ik}}{\sum_i \sum_k W_{ik}}$$

$$C_{ik} = \frac{W_{ik}}{\sum_j \alpha_{ij} \left(\frac{N_{ij}}{P_{ij}}\right)^* \cdot P_{ijk}}$$

$$* \quad 1 \leqq \left(\frac{N_{ij}}{P_{ij}}\right) \leqq 2$$

$\overline{X}$: Average expenditure (Two-or-more-person households)

X : Expenditure of each household

α : Adjustment coefficient by municipality

N : Number of surveyed households

P : Number of tabulated households

C : Correction coefficient

W : Number of population households (Distribution of households in Labour Force Survey)

i : 10 districts by region

j : Municipality

k : 4 groups by number of household members

l : Household (Two-or-more-person households)

In the calculation of median, households whose amount of savings or liabilities is zero are excluded except as otherwise noted.

Please refer to the "Annual report on the Family Income and Expenditure Survey 〈Ⅰ Income and Expenditure〉" for the formula for total households and one-person households.

(3) Values used for the estimation of the amount of Savings and Liabilities

The amounts of savings and liabilities are the values at the first day of the third month after the survey started. For the estimation described in (2), their values are regarded as the amounts of saving and liabilities in the household during the survey period (six months). Also, the amounts of savings and liabilities are average values of the household surveyed in an aggregation period. The annual and quarterly average values are calculated by the simple arithmetic means of monthly values.

Therefore, the 2023 annual average values are a 12-month average of the amounts of savings and liabilities at the first day of the third month in the households surveyed on each month in 2023 (see the Fig.). It means that the amounts of savings and liabilities on January 2023 include that on October 2022 in the households finished the survey on January 2023, and then that on December 2023 include that on February 2024 in the households started the survey on December 2023.

Fig. The coverage of tabulated households in the Family Income and Expenditure Survey
< Savings and Liabilities >
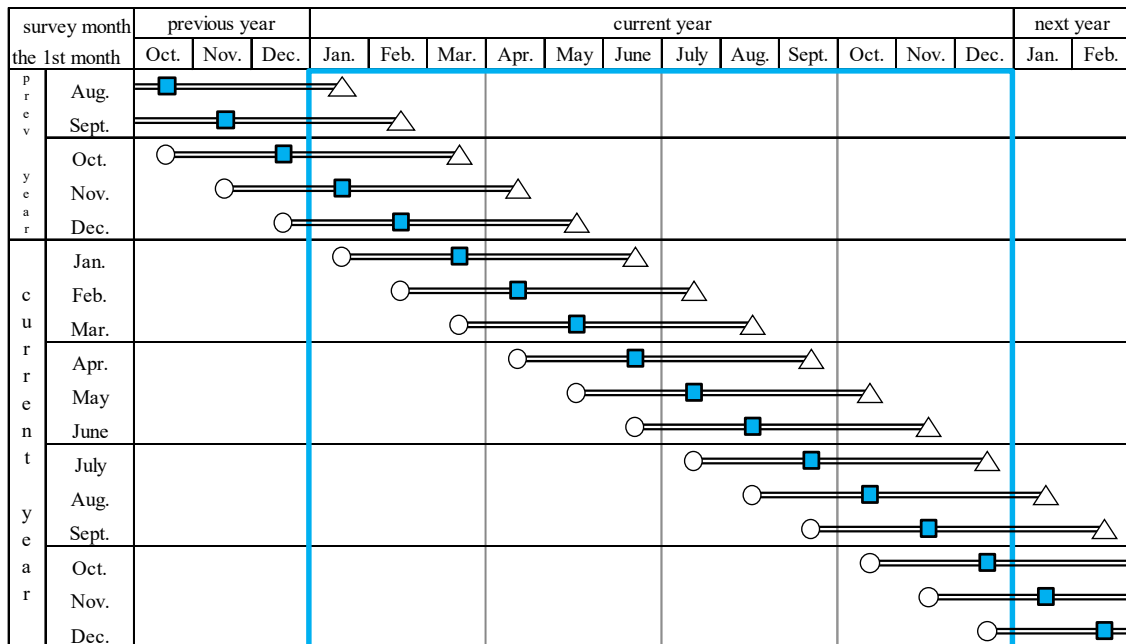
○··· The first month after the survey
△··· The last month after survey
■··· The month surveyed the Savings and Liabilities

* The amounts of savings and liabilities are the values at the first day of the third month since the survey has started.
  Their values are regarded as the amounts of saving and liabilities of the household during the survey period (six months).
  The households surrounded by the frame are the coverage of tabulated households in current year.
  The number of tabulated households in 2023 is 5,392.

(4) Standard Error

The rates of standard errors for 2023 are shown in the following table.

Table (ii)　The rates of standard errors (%)

District	Savings	Liabilities	Num. of tabulated households
All Japan	1.4	2.0	5,392
Hokkaido	7.0	9.0	191
Tohoku	5.7	6.2	602
Kanto	2.4	3.3	1,359
Hokuriku	6.0	7.2	434
Tokai	3.8	6.2	506
Kinki	3.6	5.0	728
Chugoku	4.7	7.7	453
Shikoku	5.6	8.1	328
Kyushu	3.8	6.2	679
Okinawa	18.4	19.0	112

5. Statistical Tables
(1) Main feature

This volume contains statistical tables on amounts of savings and liabilities per household, annual average of monthly income and expenditure by the amount of savings, net savings, liabilities, and so on.

(2) City groups and Districts

The classification of city groups used in this report is as follows:

Major cities
Designated cities under article 252-19 of the Local Autonomy Act and Ku-areas of Tokyo

Middle cities
Population of 150,000 or more
(excluding Major cities)

Small cities A
Population of 50,000 or more, but less than 150,000

Small cities B, towns and villages
Cites with population of less than 50,000, towns and villages

The classification of districts used in this report is shown in Appendix 1.

6. Release of the results
(1) Classification of the results

As to the survey results, there are mainly two classes; "Income and Expenditure" and "Savings and Liabilities" (Tabulation of the income and expenditure by group of amount of savings is classified into "Savings and Liabilities").

Regarding the "Savings and Liabilities", only two-or-more-person households are surveyed and tabulated. There are two series: results including agricultural, forestry and fisheries households and excluding them. However, the results excluding agricultural, forestry and fisheries households were abolished in 2008, only the results including agricultural, forestry and fisheries households is made public in Savings and Liabilities.

On the other hand, "Income and Expenditure" is classified into three groups: two-or-more-person households, one-person households and total households. As to the two-or-more-person households, there are two series: results excluding agricultural, forestry and fisheries households which are comparable since 1963 and results including them which are newly released in 2000. Results of total households are those of all target population of the FIES (two-or-more-person households (including agricultural, forestry and fisheries households) and one-person households combined).

(2) Release schedule and Publications
【Release schedule】

As a rule, the result of the survey concerning family income and expenditure is released on the following schedule:

(i) Results on income and expenditure
Two-or-more-person households
---The beginning of the second month after the survey

Total households and one-person households
---The beginning of the second month after the survey (Quarterly results)

(ii) Results on savings and liabilities
---The end of January, the middle of May, the end of July, October (Quarterly results)

【Publications】

(i) Annual report on the Family Income and Expenditure Survey 〈 Ⅰ Income and Expenditure 〉

(ii) Annual report on the Family Income and Expenditure Survey 〈 Ⅱ Savings and Liabilities 〉

7. History

After the end of World War Ⅱ, as Japan moved toward high growth through reconstruction and the lives of citizens became stable, people have taken an interest in the household savings which is source of the money for investment in companies. Therefore, some household surveys on saving behavior and holding financial assets of household were initiated in the 1950s. However, any survey couldn't get enough information about the relation between family budget and savings.

In addition, the saving rate of household in Japan was extremely high when compared internationally, so saving behavior of household attracted the attention. Accordingly, the Family Saving Survey was initiated to need to grasp the details of the relation between family budget and savings.

The Family Saving Survey was conducted on a trial basis for the purpose of finding out saving trends on family budget and getting the analysis information of survey method in February 1958 and December 1959, and then the survey was conducted every year in December from 1960. In 1962, the coverage of the survey was extended to include the entire areas of Japan. The survey was conducted every year until 2000, with several changes in the form of survey schedules, etc., as a survey supplemental to the Family Income and Expenditure Survey (FIES).

In January 2002, the Family Saving Survey was incorporated into the FIES, enabling us to investigate the status of savings and liabilities of two-or-more-person household by the present method, because clarification of the actual conditions of the family income and expenditure in correlation with the status of holding savings and liabilities had become increasingly important in analyzing the trend of consumers' behaviors.

The online response system has been introduced together with a change in survey unit areas, and it had been adopted in all survey unit areas by December 2019.

Also, it is expected that it will be necessary to distribute and collect survey forms by a method that does not face the survey household due to the occurrence of a disaster, etc., so it is possible to carry out a survey by mail as a special case since April 2020.

Part of savings items of the statistical tables were changed from 2021, due to the change in survey items of the Savings Schedule in August 2019 and March 2021. Results of the 2020 survey were made into statistical tables before and after the changes in savings items (Figures for the 2020 survey published in this report are the results of recombination.).