

# Outline of the Survey of Household Economy

## I Outline of the Survey

### 1. Objectives

This survey is intended to grasp conditions surrounding consumption in terms of products related to information and communication technology, and goods and services ordered over the Internet, and expensive products and services with low frequency of consumption.

### 2. Universe and sampling

The survey unit is a household in Japan except institutional households. The sample households are selected as follows based on the 2020 Population Census:

#### a. Sampling Unit

The sample households are selected based on the two-stage stratified sampling method. The sampling units at two stages are namely, primarily the survey unit area composed of the Enumeration District (abbreviated as ED hereinafter) of the 2020 Population Census, and secondly the household.

#### b. Stratification and Allocation of Survey Unit Areas to Strata

i) Households in Japan are stratified by 9 districts and 4 city groups. The number of strata is 35 because there is no city corresponding to Major cities in the Shikoku district. The criteria of the districts and the city groups are as follows:

##### a) Districts

Hokkaido: Hokkaido;

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

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

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

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

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

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

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

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

#### b) City groups

Major cities: designated cities under the article 252-19 of the Local Autonomy Law and Ku-areas (ward) of Tokyo;

Middle cities: cities with population of 150,000 or more, excluding Major cities;

Small cities A: cities with population of 50,000 more but less than 150,000;

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

ii) The number of the survey unit areas is 3,000. The survey unit areas are allocated to each stratum in proportion to the number of households in the stratum which is based on the 2020 Population Census.

#### c. Sampling the Survey Unit Areas

i) The same number of EDs are randomly selected from each stratum (abbreviated as standard area hereinafter) as a quarter of the number of survey unit areas allocated in b. The municipalities with selected standard areas are selected municipalities.

ii) When the standard area in a selected municipality is only one, the selected municipality is a survey block, which is the area one enumerator covers. When two or more, the selected municipality is divided into the same number of survey blocks as the number of the standard areas so that each block contains nearly equal number of households. The number of the survey blocks reaches 750 in

Japan.

iii) Since the survey is conducted for five years in a survey block, the EDs contained in the blocks are divided into five areas, for each survey year so that each area contains nearly equal number of households.

iv) A divided survey block in iii) is divided again into four areas. An enumerator covers four survey unit areas in which the beginning month of the survey differs.

d. Sampling the Households

When sample households are selected from a survey unit area, the list of the households in a survey unit area is prepared from the basic resident register or the electoral roll. Ten households (of the two-or-more-person household is nine, one-person household is one) are randomly sampled from this list. As a result, 30,000 households in total are selected from 3,000 survey unit areas nationwide in Japan.

e. Rotation of sample

The sample households are continuously surveyed for 12 months, and then substituted with other households in another region divided in c. iii) and c. iv).

The sample households are divided into 12 groups. As a rule, one of the groups is replaced every month. Each group is composed of 2,500 households which are one-twelfth of all sample households.

Any household unable to continue with the survey due to moving or some other reasons is replaced by a substitute household for the remaining survey period if it is 3 months or more.

### 3. Survey items

The following items are surveyed:

a. Items related to the household conditions (Questionnaire A)

- Items related to the household
- Use state related to electronic money
- Purchase situation using the Internet

b. Items related to consumption of specific goods and services each month (Questionnaire B)

- Items related to the household (changes from the previous month)
- Expenditure over one month for specific goods and services
- Expenditure over one month for goods

and services through the Internet

### 4. Survey method

The survey is entrusted to a private survey institution. Enumerators will leave questionnaires with target households for them to answer, which will be collected later on. (On-line submission is also used.) Questionnaires shall be collected by enumerators, mailed by households, or answered through an on-line survey system by households.

Questionnaires are distributed when cooperation for the survey is requested and questionnaires of the previous month are collected. For paper questionnaires submission, as a rule, enumerators collect questionnaires in the first and sixth months of the survey and households mail private survey institution in the other months. Also, questionnaires are collected in the beginning of the following month of the survey.

### 5. Survey period

The survey is conducted every month.

### 6. Tabulation

a. Major tabulation items

- Items related to the household
- Use state related to electronic money
- Purchase situation using the Internet
- Amount paid for specific goods and services
- Amount paid purchase of goods and services through the Internet (Internet shopping)

b. Process for tabulation

The data are tabulated at the National Statistics Center, Japan.

c. Estimate formula

The national and regional averages are estimated as follows: There are differences in the sampling ratios of the covered households by stratum. Therefore, the reciprocals of the sampling ratios are used as the multiplication ratios (linear multiplication ratios) for the tabulation of the items used for the estimation of the household ratios. Using these ratios, the correction coefficients are obtained from the results of the Labour Force Survey. The results are estimated using these two multiplication ratios namely the linear multiplication ratios and the correction coefficients.

In case of one-person households, the linear multiplication ratio is fixed at one.

The quarterly and annual averages are obtained by the simple mean of monthly averages.

Monthly averages are estimated in the following formula:

- The number of households

$$N = \sum_i \sum_j \sum_k \alpha_{ij} C_{ik}$$

$N$  : Number of households

$\alpha_{ij}$  : Linear multiplication ratio of district  $i$  and city group  $j$

$C_{ik}$  : Correction coefficient by district  $i$  and household members  $k$  (one-person households by sex and age)

- The expenditure of monthly average

$$\bar{X} = \frac{\sum_i \sum_j \sum_k \sum_p X_{ijkp} \alpha_{ij} C_{ik}}{N}$$

$\bar{X}$  : Total expenditure

$X_{ijkp}$  : Expenditure on given item by districts  $i$ , city group  $j$ , household members  $k$  and household  $p$  (one-person households by sex and age)

#### d. Sampling error of estimate

The result of the sampling error for 2024 annual average by using monthly tabulated data is shown in the table at the end titled “Standard error and standard error ratio”.

The estimation method of the standard errors is as follows:

##### i) Standard error of monthly average

Standard error of monthly average is calculated by the following formula, regarding as the sample was composed of 12 sub-samples by the beginning month of the survey:

$$\hat{\sigma}(\bar{X}) = \sqrt{\frac{1}{12 \times (12-1)} \sum_{w=1}^{12} (\hat{X}_w - \bar{X})^2}$$

$\hat{\sigma}(\bar{X})$  : Standard error of monthly average

$\hat{X}_w$  : Estimation value by  $w$  sub-sample

$\bar{X}$  : Estimation value by all samples

##### ii) Standard error of annual average

Standard error of annual average is calculated by the following formula using the standard errors of monthly average:

$$\hat{\sigma}_{year}(\bar{X}) = \sqrt{\frac{\sum_{m=1}^{12} \hat{\sigma}(\bar{X})_m^2}{(12)^2}}$$

$\hat{\sigma}_{year}(\bar{X})$  : Standard error of annual average

$\hat{\sigma}(\bar{X})_m$  : Standard error of monthly average in month  $m$

Calculation of the ratio of standard error is as follows:

$$r_X = \frac{\hat{\sigma}(\bar{X})}{\bar{X}} \times 100$$

$r_X$  : Ratio of standard error

#### e. Effective response rate

The effective response rate of 2024 is 72.5%.

## 7. Utilization of the results

The results of this survey are utilized as basic data for the Quarterly Estimates of GDP and the Household Consumption Trend Index for the Family Income and Expenditure Survey.

## 8. Notes

The survey was conducted as a general statistical survey in compliance with the Statistics Act (Act No. 53, 2007).

Table Standard error and Standard error ratio (Specific goods and services)

(All Japan)

2024 Average		Total Households			Two-or-more-person Households			One-person Households		
		Expenditure (ln yen)	Standard error (ln yen)	Standard error ratio (%)	Expenditure (ln yen)	Standard error (ln yen)	Standard error ratio (%)	Expenditure (ln yen)	Standard error (ln yen)	Standard error ratio (%)
	Number of persons per household (persons)	2.18	0.00	0.0	2.89	0.00	0.0	1.00	0.00	0.0
	Number of earners per household (persons)	1.16	0.00	0.0	1.51	0.00	0.0	0.58	0.00	0.0
	Age of household head (years old)	59.9	0.1	0.2	61.3	0.0	0.0	57.6	0.2	0.3
	Total expenditure on specific goods and services (50 items)	76,980	695	0.9	96,996	695	0.7	43,938	1,496	3.4
01	Mobile telephones charges	9,147	37	0.4	11,517	41	0.4	5,234	57	1.1
02	Internet connection charges	3,768	14	0.4	4,447	13	0.3	2,647	29	1.1
03	Mobile telephones unit prices	1,436	47	3.3	1,812	42	2.3	815	97	11.9
04	Airplane fares	1,365	63	4.6	1,514	37	2.4	1,118	142	12.7
05	Accommodation services	2,979	40	1.3	3,782	44	1.2	1,653	80	4.8
06	Package tour costs (domestic)	1,736	46	2.6	2,152	47	2.2	1,048	92	8.8
07	Package tour costs (overseas)	934	69	7.4	1,163	69	5.9	556	131	23.6
08	Tuition (kindergarten-university) (public)	1,163	26	2.2	1,814	40	2.2	88	29	33.0
09	Tuition (kindergarten-university) (private)	5,449	125	2.3	8,322	158	1.9	702	216	30.8
10	Tutorial fees	2,521	54	2.1	3,831	48	1.3	360	120	33.3
11	Lesson fees, driving school	479	27	5.6	670	33	4.9	164	52	31.7
12	Rental fees for sports facilities	944	12	1.3	1,119	13	1.2	653	30	4.6
13	Men's suits	436	14	3.2	578	15	2.6	201	27	13.4
14	Women's one-piece dresses and suits	455	14	3.1	572	14	2.4	262	31	11.8
15	Japanese clothing	214	29	13.6	194	15	7.7	247	70	28.3
16	Wrist watches	254	18	7.1	330	23	7.0	127	29	22.8
17	Accessories	428	27	6.3	491	23	4.7	324	54	16.7
18	Delivery fees	188	15	8.0	303	24	7.9	-	0	-
19	Hospital charges (excluding delivery)	1,534	40	2.6	1,906	39	2.0	921	94	10.2
20	Chests of drawers	77	8	10.4	96	7	7.3	44	17	38.6
21	Beds	234	19	8.1	282	15	5.3	154	40	26.0
22	Quilts	258	11	4.3	322	11	3.4	153	21	13.7
23	Desks and chairs (for work or study)	124	7	5.6	163	8	4.9	59	12	20.3
24	Sideboards	64	6	9.4	88	9	10.2	24	8	33.3
25	Dining tables and chairs	110	8	7.3	154	11	7.1	37	11	29.7
26	Drawing room suites	148	11	7.4	195	14	7.2	71	18	25.4
27	Musical instruments (including parts of instruments)	131	14	10.7	184	17	9.2	42	15	35.7
28	Refrigerators	667	27	4.0	826	26	3.1	404	60	14.9
29	Vacuum cleaners	276	9	3.3	343	8	2.3	166	21	12.7
30	Washing machines	580	23	4.0	714	23	3.2	359	54	15.0
31	Air conditioners	1,444	48	3.3	1,799	44	2.4	860	91	10.6
32	Personal computers (including tablet devices, excluding peripherals and software)	981	59	6.0	1,121	32	2.9	749	146	19.5
33	TV	579	20	3.5	733	24	3.3	325	38	11.7
34	Video recorders (DVD or Blu-ray recorder, player, etc.)	107	7	6.5	123	6	4.9	81	17	21.0
35	Video game hardware (excluding software)	98	19	19.4	82	4	4.9	123	51	41.5
36	Cameras (including lenses only, excluding disposable cameras)	111	9	8.1	140	10	7.1	62	20	32.3
37	Video cameras	18	2	11.1	27	3	11.1	4	2	50.0
38	House-related equipping/ construction/ repair costs	6,252	237	3.8	7,690	245	3.2	3,883	478	12.3
39	Water supply and drainage construction costs	1,835	65	3.5	2,296	86	3.7	1,075	114	10.6
40	Gardens, trees and plants tending costs	447	25	5.6	477	20	4.2	398	51	12.8
41	Automobiles (new)	10,219	426	4.2	13,396	429	3.2	4,978	877	17.6
42	Automobiles (second-hand)	3,730	255	6.8	4,665	179	3.8	2,188	558	25.5
43	Automotive insurance premium (compulsion)	457	9	2.0	573	9	1.6	265	17	6.4
44	Automotive insurance premium (option)	2,590	32	1.2	3,266	34	1.0	1,473	62	4.2
45	Motorized vehicles other than automobiles	287	80	27.9	304	27	8.9	258	196	76.0
46	Automotive maintenance and repairs	2,952	57	1.9	3,613	40	1.1	1,860	133	7.2
47	Wedding ceremony and reception costs	524	116	22.1	548	63	11.5	483	285	59.0
48	Funeral service costs	2,828	169	6.0	2,651	138	5.2	3,121	348	11.2
49	Religion-related costs	1,136	58	5.1	1,097	51	4.6	1,201	136	11.3
50	Remittance	2,291	91	4.0	2,515	57	2.3	1,919	222	11.6

Monthly Expenditure per Household by All Japan

Table Standard error and Standard error ratio (Goods and services ordered over the Internet)

(All Japan)

2024 Average		Total Households			Two-or-more-person Households			One-person Households		
		Expenditure (ln yen)	Standard error (ln yen)	Standard error ratio (%)	Expenditure (ln yen)	Standard error (ln yen)	Standard error ratio (%)	Expenditure (ln yen)	Standard error (ln yen)	Standard error ratio (%)
	Number of persons per household (persons)	2.18	0.00	0.0	2.89	0.00	0.0	1.00	0.00	0.0
	Number of earners per household (persons)	1.16	0.00	0.0	1.51	0.00	0.0	0.58	0.00	0.0
	Age of household head (years old)	59.9	0.1	0.2	61.3	0.0	0.0	57.6	0.2	0.3
	Total expenditure on goods and services ordered over the Internet(22 items)	21,611	135	0.6	24,928	135	0.5	16,137	322	2.0
51	Gift items	793	17	2.1	910	12	1.3	600	39	6.5
	Total expenditure for home	20,818	134	0.6	24,018	133	0.6	15,537	317	2.0
52	Foods	2,952	26	0.9	3,626	25	0.7	1,840	62	3.4
53	Beverages	807	15	1.9	917	8	0.9	625	39	6.2
54	Deliveries	614	14	2.3	683	8	1.2	501	34	6.8
55	Home electronics	1,160	38	3.3	1,289	29	2.2	948	91	9.6
56	Furniture	386	17	4.4	463	12	2.6	259	38	14.7
57	Men's clothing	613	22	3.6	624	11	1.8	596	57	9.6
58	Women's clothing	988	17	1.7	1,262	16	1.3	537	36	6.7
59	Footwear and other clothing	520	11	2.1	650	7	1.1	305	26	8.5
60	Medicines	250	6	2.4	277	4	1.4	205	16	7.8
61	Health foods	692	13	1.9	799	10	1.3	514	28	5.4
62	Cosmetics	733	11	1.5	895	9	1.0	467	28	6.0
63	Private transportation	377	13	3.4	465	12	2.6	231	27	11.7
64	Books and other reading materials	381	7	1.8	432	5	1.2	297	18	6.1
65	Software (music, video, personal computer, TV game)	424	15	3.5	380	6	1.6	496	38	7.7
66	Digital books	318	10	3.1	256	4	1.6	420	26	6.2
67	Download music, video, applications	404	18	4.5	269	4	1.5	627	47	7.5
68	Insurance	884	23	2.6	1,099	19	1.7	528	49	9.3
69	Accommodation services, fares, package tours(payment on the Internet)	3,317	72	2.2	4,017	65	1.6	2,161	155	7.2
70	Accommodation services, fares, package tours(payment on-site)	936	37	4.0	1,178	34	2.9	538	84	15.6
71	Tickets	924	21	2.3	1,080	14	1.3	665	50	7.5
72	Other goods and services	3,139	68	2.2	3,359	44	1.3	2,778	164	5.9

Monthly Expenditure per Household by All Japan