

The Japanese Panel Survey of Consumers

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Overview

The Japanese Panel Survey of Consumers (JPSC) is the longest running nationwide panel survey of individuals in Japan. The Institute of Research on Household Economics (IRHE), a public interest incorporated foundation, started this survey in 1993 with a sample of 1,500 young females. Since then, the survey has been conducted annually and expanded to include four new cohorts of younger females at five-year intervals. As of 2013, about 2,540 women aged 24–54 are covered in the survey. The project has benefited from the advice of a committee of distinguished social scientists. The committee chairperson is Professor Yoshio Higuchi, a labor economist at Keio University. The advisers help select items and devise the survey design.

The JPSC examines the lifestyles of relatively young women from a wide spectrum of factors, including income, expenditure, savings, work patterns, and family relationships. The survey has been designed, implemented, and analyzed with a focus on changing lifestyles. Many of the young women selected as participants are at an age at which their similar lifestyle paths have diverged. Some may experience significant changes in their family life as they go from school graduation to getting a job, getting married, and having children; while others may remain single. The objective of the survey is to identify various factors and problems associated with these changes and differences in the lifestyles of the study participants.

In particular, the data ensures that the labor market experiences of women around the time of marriage and childbirth can be examined. It is commonly believed that many Japanese women's working situations have changed since around 1990. The Equal Employment Opportunities law, which intended the equal treatment of men and women regarding labor issues, such as recruiting, employment, and promotion, was enacted in 1986. The ratio of females advancing to college and university surged from the late 1980s to the early 1990s. The JPSC captures women's work and lifestyles since this period of dramatic change.

The central aim of the survey is to collect information on income and expenditure of households. JPSC respondents provide information about themselves, their spouses, and other family members. In general, Japanese women have greater control over

household finances and understand them in more detail than men do. A person surveyed can be drawn directly from the general population in Japan using the official resident register. Gathering precise household data in a cost effective manner is one of the main reasons why only women are selected.

Features of the Japanese Panel Survey of Consumers

Survey design

The JPSC began in 1993 with a representative national sample of 1,500 women aged 24–34 years. Since then, younger female representatives have been added to the original cohort at about five-year intervals. Table 1 provides an overview of the JPSC cohorts. Each cohort is named with an alphabetic suffix that denotes the chronological order of launch. The ages of respondents range over a 5-year span for all cohorts except Cohort A, which has a 10-year age span. The original size of Cohort A was about twice as large as those of others.

Table 1. The JPSC: Survey cohort, sample size, and survey years

	Age cohort	Birth year cohort	Original sample	Initial year	Number of surveys	Number at the latest survey
Cohort A	24-34	10/1/58-9/31/69	1,500	1993	21	732
Cohort B	24-27	10/1/69-9/31/73	500	1997	17	231
Cohort C	24-29	10/1/73-9/31/79	836	2003	10	478
Cohort D	24-28	10/1/79-9/31/84	636	2008	6	451
Cohort E	24-28	10/1/85-9/31/89	648	2013	1	648

The initial plan of the JPSC project was solely to follow up the original cohort. It was intended that a refreshment sample of the original cohort would be added as the first 5-year period ended. However, a relatively high retention rate of the original cohort and widespread research interest in women in their 20s led to the decision to start a new survey of younger cohorts. Since then, the JPSC has been augmented by adding another four cohorts of younger females about every five years. All of the cohorts continue to be surveyed on an annual basis. The JPSC now covers a wide range of ages of women and is able to provide cross-cohort analysis. During the 21st survey round, 2,540 women aged from their late 20s to early 50s were investigated. As of 2013, the data contain information on 37,312 participants on person-year basis.

The JPSC employs stratified multistage sampling design. Samples of each cohort are selected in the same way. First, the municipality and the survey unit area are selected. The survey sets a target number of completed interviews within each area, taking into consideration the population size of target age groups by marital status. It also considers whether unwed respondents live with their parents or not. The second step is to draw respondents by means of systematic sampling from the Basic Resident Registers of each area. For each area, three to five “backup respondents” are drawn, in addition to the initial sample. The backup respondents are intended to be surveyed only when individuals from the initial sample cannot be surveyed for specific reasons, such as refusal and moving out. The sample size per age is about 125 women for all cohorts. Although population size has shrunk with successive generations in Japan, the JPSC has not downsized the number of respondents per age by each cohort. Age composition is consistent within each cohort but not between cohorts.

The survey instrument is a paper and pencil self-administered questionnaire, which is handed over and retrieved a couple of weeks later by an enumerator of Central Research Inc., one of Japan’s leading research companies. The survey is typically conducted every October. There are two types of questionnaires, depending on a respondent’s marital status. Married respondents provide information about their spouses (e.g., income, employment, and time use) as well as themselves. In addition, newlyweds fill in supplemental questionnaires that include information on marriage expenses and their husbands’ educational and employment histories. It is not necessary to let spouses answer the items applicable to them in person, or even to ask them. Many respondents, or wives, appear to fill in those sections on their own. Essentially, each cohort is surveyed using the same forms.

Major data element

A central aim of the JPSC since inception has been to collect information on the life paths of women as well as household income and expenditure. Data are collected on a wide array of social, demographic, and economic topics, which, in turn, facilitates analysis in multidisciplinary fields. Table 2 shows the main topic in the JPSC.

Table 2. Main topics in the JPSC

<p>A. Income sources and amounts: Earnings of family members Business/farm income Dividends, Interest, trust, fund Employment compensation Child support Social security Other welfare Help from relatives</p> <p>B. Household expenditure: monthly information on Food, Housing, Clothing, Medical Care yearly information on Durable goods Educational spending of R's each children</p> <p>C. Other financial matters: Savings Assets Estimate of taxes paid and social insurance premium</p> <p>D. Family structure and demographic Marital events and status Age at first marriage ever divorced/widowed Fertility events Number of children Children expected ideal number of children</p> <p>E. Employment information (R's/spouse's): Annual monthly, and weekly information c hours worked hours overtime worked days of paid vacation months unemployed For main job: occupation and industry hours overtime worked per week hours unpaid overtime worked per week days of paid vacation per year Work experience: total employer specific Employment status: employment status at time of interview whether have been looking for work and if so how Event-history dating employment change movements between employers title changes with same employer reason for changing employers</p>	<p>F. Housing: Size and type of housing structure Whether own home, pay rent, or what House value</p> <p>G. Socioeconomic background: Education history Parents' completed education Number of siblings Parent's income (occasionally)</p> <p>H. Health and Morale: General health and disability of respondent Distress scale (CES-D) happiness satisfaction with job, life and expenditure</p> <p>I. Miscellaneous Time use of weekday and holiday (R's/spouse's) Smoking habit Drinking habit Social network</p>
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Response rates

Annual response rates of all the surveyed cohorts have been relatively high in every year except the first. Table 3 presents the numbers of JPSC individuals and response rates for each wave from 1993 to 2013. The first year's response rates for each cohort are calculated based on the amount of survey request letters, which were sent to prospective respondents in advance of visits. These rates are around 30–40% and have

been in decline with each succeeding cohort. Since the second year, almost all wave-to-wave response rates have exceeded 90%. In recent waves, the response rate of all cohorts is around 95%. Generally speaking, the wave-to-wave response rates have also been lower with each succeeding cohort.

Table 3. Response rate each wave by cohort type: 1993–2013

Wave	Year	Cohort A		Cohort B		Cohort C		Cohort D	
		Number of individuals	Response rate	Number of individuals	Response rate	Number of individuals	Response rate	Number of individuals	Response rate
1	1993	1,500	41.4% ¹	—	—	—	—	—	—
2	1994	1,422	94.8%	—	—	—	—	—	—
3	1995	1,342	94.4%	—	—	—	—	—	—
4	1996	1,298	96.7%	—	—	—	—	—	—
5	1997	1,255	96.7%	500	34.3% ¹	—	—	—	—
6	1998	1,196	95.3%	442	88.4%	—	—	—	—
7	1999	1,137	95.1%	412	93.2%	—	—	—	—
8	2000	1,102	96.9%	386	93.7%	—	—	—	—
9	2001	1,059	96.1%	366	94.8%	—	—	—	—
10	2002	1,032	97.5%	344	94.0%	—	—	—	—
11	2003	980	95.0%	323	93.9%	836	28.4% ¹	—	—
12	2004	944	96.3%	312	96.6%	724	86.6%	—	—
13	2005	904	95.8%	292	93.6%	674	93.1%	—	—
14	2006	875	96.8%	278	95.2%	621	92.1%	—	—
15	2007	847	96.8%	271	97.5%	588	94.7%	—	—
16	2008	828	97.8%	261	96.3%	560	95.2%	636	30.5% ¹
17	2009	799	96.5%	255	97.7%	541	96.6%	573	90.1%
18	2010	778	97.4%	246	96.5%	522	96.5%	543	94.8%
19	2011	765	98.3%	243	98.8%	507	97.1%	509	93.7%
20	2012	748	97.8%	233	95.9%	491	96.8%	483	94.9%
21	2013	732	97.9%	231	99.1%	478	97.4%	451	93.4%

¹number of participants divided by total number of survey request letters

An attrition rate of even 5% from wave to wave accumulates over time. Participant retention rates of each cohort can be calculated from Table 3. As of 2013, only 49% of participants remained in Cohort A. Moreover, the rate of Cohort B, which comprises four fewer annual surveys than Cohort A, reached 46%. The low retention rates among cohorts, as well as their different attrition speed, have led to concerns of attrition bias.

To understand the attrition mechanism, the JPSC has tried to collect the reasons for unit non-response since the second wave. Essentially, enumerators gather information on the reasons for respondents' refusal to participate or record non-contact cases. The known dropout reasons for Cohort A for the initial 10-year period are shown in Table 4. As much as 29.4% of non-respondents stated time pressures as the reason for their refusal to participate further. The more than 60 pages of the JPSC questionnaires appear to be a burden on respondents. There is evidence that respondents who have jobs quit the survey more often than those who do not (Sakamoto 2006). Family issues, such

as marriage, divorce, and childbirth, are another main reason for sample attrition. Sakamoto shows that those with plans to marry are prone to dropping out. However, the JPSC's composition of marital status and its transition is consistent with those of the census (Sakaguchi 2013). Finally, "move away" and "absence" are non-contact of respondent cases. If a respondent moves without providing notice, the JPSC research staff attempt to trace the respondents' new addresses from the resident registers of municipal offices; however, some offices restrict access to their registers.

Table 4. Reasons for dropping out of the survey: Cohort-A (1st–10th waves)

Reasons	
too busy	29.4%
family concerns	18.5%
move away	18.4%
absence	10.6%
ill-health	7.4%
family opposition	6.3%
perceived burden	5.1%
privacy concerns	3.1%
mortality	1.2%
total	100%

Murakami (2003)

Nevertheless, the JPSC has consistently achieved higher response rates than any other panel survey in Japan. These high rates may be attributable to a number of factors, including: a reward of several thousand yen for participation, which is higher than other Japanese survey projects; women are easier to contact at their places of residence than men in Japan; a respondent newsletter highlights the importance of the study and provides briefs of survey findings; and inter-wave communication with respondents in the form of New Year's Greeting Cards, which serve the double function of gathering updated contact information.

Data distribution and user support

The IRHE provides researchers with JPSC data and documentation. To obtain data, researchers should submit application documents and consent to stipulated conditions

of use, which include a pledge to make no attempt to identify survey respondents and to use the data for academic purposes only. The application documents can be obtained from the JPSC website, <http://www.kakeiken.or.jp/en>. This site also provides an overview of the survey and questionnaires. Data are available for 2,000 yen on a CD-ROM with the JPSC user manual and data code books. As yet, the data set cannot be downloaded from the internet. Furthermore, the data lending period is one year. Users need to return the CD-ROM to the IRHC and submit an analysis report on the JPSC data by the end of the lending period.

There are several limitations for users. The time period is restricted between the last data set available and the most recently collected data. As a general rule, the restriction term is set at two years. In this period, data problems are to be solved; these include time inconsistencies, for example, twice-coded cases in both current and previous waves, and incorrect data on other family members' age, gender, and relationship to the respondent. The eligible applicants are restricted to those with experience using JPSC data. The accessing of geospatial identifiers is restricted because of confidentiality concerns. Only applicants seeking prefecture-level codes are given access. Users can use prefecture-level codes in their analysis, such as for control variables, but are prohibited from describing explicitly a prefecture-based estimate.

The JPSC project tries to answer users' queries. For further information on data distribution and other user services, contact JPSC User Support via email at jpschelp@kakeiken.or.jp.

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