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Data in Brief





Data Article

Dataset: Japan household panel survey on Sustainable Development Goals 2019-2020



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ABSTRACT

The dataset concerning the Japan Household Panel Survey on Sustainable Development Goals (JHPSDGs) was collected through online surveys conducted in March 2019 and March 2020. The dataset consists of 12,098 observations, including two-period panel datasets of 3,227 individuals. The IH-PSDGs include a wide range of individual survey responses, which allows researchers and policymakers to investigate a variety of social science research topics, including but not limited to Sustainable Development Goal (SDG) awareness, pro-sustainable behavior, and labor market decision-making. The variables include detailed demographic information, labor market information, SDG awareness, sustainable and financial decision-making, and personality traits. The dataset can be used to conduct quantitative analyses, especially in the areas of business, economics, and psychology. The dataset is available to the public via the Harvard Dataverse and provides access to questionnaires, codebooks, data, and descriptive statistics.

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Abbreviations: SDGs, Sustainable Development Goals; JHPSDGs, Japan Household Panel Survey on Sustainable Development Goals.

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Specifications Table

Subject	Social science		
Specific subject area	The dataset of a comprehensive household panel survey allowing researchers		
	to investigate a wide range of research topics.		
Type of data	Tables		
	Figures		
How the data were acquired	The data were collected through an online survey using Qualtrics (a survey platform).		
Data format	Stata (dta) files and Comma Separated Value (CSV) files in raw format		
Parameters for data collection	The parameters include survey responses. The variables collected include: household composition; number of children; the highest education completed and corresponding major; work and employment statuses; total annual household and individual income; job-seeking status and reservation wage; household assets and debt; big five personality traits; belief and attitudes regarding the SDGs; a sustainable lifestyle; pro-environmental behavior; female participation in society; economic growth; the role of government and SDG awareness; and decision-making (including the decision-making involved in the purchase of durable and daily goods and decision-making concerning savings and investments).		
Description of data collection	Data were collected via online surveys.		
Data source location	An online survey company supplied the respondents. Quota sampling was used		
Buta source rocution	to ensure the representativeness of the sample.		
	City/Town/Region: all regional blocs Country: Japan Country: Japan		
Data accessibility	Repository name: Harvard Dataverse		
	Data identification number: doi.org/10.7910/DVN/QWB200		
	Direct URL to data: https://doi.org/10.7910/DVN/QWB200		
Related research article	Study 1 used a maximum of 157 variables from the dataset presented in the current paper. The variables used in this paper are presented in the below referenced article. Table 1 of the below study lists 13 dependent variables and a variable of interest. Appendix A in the Supplementary Data lists 143 potential covariates.		
	Yamane, T., Kaneko, S., 2021. Is the younger generation a driving force toward achieving the sustainable development goals? Survey experiments. J. Clean. Prod. 292, 125932. https://doi.org/10.1016/j.jclepro.2021.125932		

Value of the Data

- The dataset is a comprehensive household panel survey of representative samples collected from Japan. The dataset consists of 12,098 observations, including two-period panel datasets of 3,227 individuals. The original intention of the authors was to conduct research on the SDGs. However, the dataset includes comprehensive socio-demographic variables, and there are potentially many research topics that users can investigate using this dataset.
- Researchers and policymakers can use this dataset to analyze a wide range of topics. Specifically, social scientists in the areas of business, economics, and psychology may find the dataset beneficial for conducting analyses.
- The dataset can also be used to examine individual behaviors concerning the SDGs, such as sustainable decision-making, consumer behavior, labor market participation, and gender equality. The SDGs are a set of 17 global goals aimed at achieving a sustainable society by requiring global citizens to transform their behavior. The dataset contains general SDG awareness levels and variables related to Goals 4 (quality education), 5 (gender equality), 8 (decent work and economic growth), and 12 (responsible consumption and production).

1. Data Description

The dataset of the Japan Household Panel Survey on Sustainable Development Goals (JH-PSDGs) was collected through online surveys conducted in March 2019 and March 2020. In these online surveys, respondents were requested to participate in 1) a conjoint survey, and 2) a household survey. For conjoint surveys, please refer to our previous work [1,2]. The dataset described in the current paper comprises household surveys. As provided in the Specifications Table (above), a part of the dataset was used in the paper; however, as this dataset includes a wide range of variables, researchers may find it useful for their research. The dataset consists of 12,098 observations, including two-period panel datasets of 3,227 individuals. Table 1 presents the sample size based on the demographic quotas used in the survey. The questionnaire and codebook – in Japanese and their English translations – are available on the repository website alongside the report on the descriptive statistics and the dataset [3]. The data available in the repository include the raw survey response data in both csv and dta formats.

Fig. 1 presents the distribution of the respondents' total household income along with data from Japan's National Livelihood Survey (NLS) to illustrate the representativeness of the JHPSDGs. In the JHPSDGs, respondents selected the most suitable choice from the categorical variables, as presented in Table 1. In the NLS, respondents reported their actual income. We recategorized the NLS responses using a disclosed report [4] to ensure compatibility with the JHPSDGs. Data collection for the NLS was cancelled, and no data were available for 2020. Although respondents in the JHPSDGs tended to have a higher income, the income distributions of the sample and population appear to be similar.

Table 2 presents a list of all variables included in the dataset. Using "year" and "rakutenid" variables, users can construct a panel dataset. The variable "rakutenid" is the identification number given to each respondent, whereas "panel" indicates if the observation is a panel dataset. A value of 1 indicates the observation occurred in both years and 0 indicates that the observation is not a panel.

The variables we collected include:

- Household composition
- · Number of children

	JHPSDGs2019	JHPSDGs2020	NLS 2019
less than 1 million yen	3.39	3.54	6.40
1-2 million yen	5.61	5.96	12.60
2-4 million yen	21.72	21.15	26.40
4-6 million yen	23.95	23.63	19.20
6-8 million yen	18.26	18.23	14.30
8-10 million yen	11.30	11.92	8.90
10-12 million yen	6.60	6.86	5.00
12-14 million yen	3.30	3.27	2.90
14-16 million yen	2.37	2.04	1.60
16-18 million yen	0.77	0.71	0.90
18-20 million yen	0.77	0.67	0.50
20 million yen or more	1.97	2.02	1.20
Total	100.01	100.00	99.9

Fig. 1. Distribution of income from the JHPSDGs and NLS. Values indicate shares of respondents in each category (%). In the JHPSDGs, respondents who did not respond to the question were excluded from the calculation.

Table 1Distribution of respondents based on quota

Regional bloc	Hokkaido Tohoku	Kanto	Chubu	Kinki	Chugoku	Shikoku	Kyushu Okinawa
Age group	2019 Male						
18-19	9	28	17	14	5	2	10
20-24	21	82	37	36	12	5	23
25-29	21	83	40	34	12	5	22
30-34	25	93	44	37	13	6	26
35-39	28	100	48	41	14	7	28
40-44	33	117	59	52	18	9	32
45-49	32	120	58	51	17	8	30
50-54	29	102	51	44	14	7	27
55-59	31	86	46	39	14	8	29
60-64	33	82	48	38	15	8	32
65-69	41	102	61	51	20	11	38
70-74	27	82	46	42	15	8	26
				2019 Fem	ale		
18-19	8	25	15	13	5	2	9
20-24	19	76	35	36	11	5	22
25-29	20	77	36	34	11	5	22
30-34	24	86	40	39	13	6	27
35-39	27	94	45	43	14	7	30
40-44	32	110	55	54	17	9	34
45-49	32	113	56	54	17	9	32
50-54	30	96	48	48	14	9	29
55-59	32	84	47	41	15	8	32
60-64	35	81	48	41	17	11	34
65-69	43	106	63	57	21	12	41
70-74	33	90	50	48	17	9	31
				2020 Ma	ile		
18-19	10	29	16	14	5	2	10
20-24	22	83	37	36	12	5	22
25-29	21	84	40	34	12	5	24
30-34	24	93	44	37	13	6	26
35-39	28	101	48	41	14	7	28
40-44	33	117	61	50	18	9	32
45-49	32	121	59	52	17	8	30
50-54	29	102	50	44	14	7	27
55-59	31	87	46	39	14	8	29
60-64	34	82	47	39	15	8	32
65-69	40	101	59	51	21	12	39
70-74	27	81	45	41	15	8	27
				2020 Fem	ıale		
18-19	8	25	15	13	5	2	9
20-24	20	77	35	36	11	6	22
25-29	21	77	37	35	11	5	22
30-34	24	89	40	39	14	6	27
35-39	27	94	45	43	14	7	30
40-44	33	111	56	52	17	9	33
45-49	32	115	56	54	17	9	32
50-54	30	95	49	46	14	8	29
55-59	32	82	47	41	15	8	32
60-64	35	81	49	41	16	9	34
65-69	44	106	63	58	21	12	43
70-74	33	90	50	58 47	21 17	9	43 29
/U-/4		90	JU	4/	17	<i>3</i>	23

Table 2 List of variables in the JHPSDGs

Variable name	Definition	Source
Year	Year of the survey	
rakutenid	panel id	
panel	1 if panel data	
•	Household composition: Single	ILDC CDC
Q9_1_1		JHPS-CPS
Q9_1_2	Household composition: Spouse	JHPS-CPS
Q9_1_3	Household composition: Child's spouse	JHPS-CPS
Q9_1_4	Household composition: Parents of spouse	JHPS-CPS
Q9_1_5	Household composition: Children	JHPS-CPS
Q9_1_6	Household composition: Child's spouse	JHPS-CPS
Q9_1_7	Household composition: Grandchildren	JHPS-CPS
Q9_1_8	Household composition: Your siblings	JHPS-CPS
Q9_1_9	Household composition: Spouse's siblings	JHPS-CPS
Q9_1_10	Household composition: Other relatives	JHPS-CPS
Q9_1_11	Household composition: Non-relatives (friends, etc.)	JHPS-CPS
Q9_2	Number of households	JHPS-CPS
Q9_3_1	Number of dependent children: 1 year old or below	
Q9_3_2	Number of dependent children: 2-3 years old	
Q9_3_3	Number of dependent children: 4-6 years old	
Q9_3_4	Number of dependent children: 1st-3rd year of elementary school	
Q9_3_5	Number of dependent children: 4th-6th year of elementary school	
Q9_3_6	Number of dependent children: Junior high school	
Q9_3_7	Number of dependent children: High school	
Q9_3_8	Number of dependent children: College students	
Q9_4_1	Final Education: You	JHPS-CPS
Q9_4_2	Final Education: Spouse	JHPS-CPS
Q9_4_3	Final Education: Father	JHPS-CPS
Q9_4_4	Final Education: Mother	JHPS-CPS
Q9_5_1	Final Education: Major-You	JHPS-CPS
Q9_5_2	Final Education: Major-Spouse	JHPS-CPS
Q9_5_3	Final Education: Major-Father	JHPS-CPS
Q9_5_4	Final Education: Major-Mother	JHPS-CPS
Q9_6_1	Current Work Status: You (Current Job)	JHPS-CPS
Q9_6_2	Work Status: You (First Job)	ESS
Q9_6_3	Current Work Status: Spouse	JHPS-CPS
Q9_6_4	Current Work Status: Father	JHPS-CPS
Q9_6_5	Current Work Status: Mother	JHPS-CPS
Q9_7_1	Employment status: You (Current Job)	JHPS-CPS
Q9_7_1 Q9_7_2	Employment status: You (First Job)	ESS
Q9_7_2 Q9_7_3	Employment status: Spouse	JHPS-CPS
		•
Q9_7_4	Employment status: Father	JHPS-CPS
Q9_7_5	Employment status: Mother	JHPS-CPS
Q9_8_1	Your personal total income last year	JHPS-CPS
Q9_8_2	Spouse's total income last year	JHPS-CPS
Q9_8_3	Total household income last year	JHPS-CPS
Q9_8_4	Total income your household is aiming for	JHPS-CPS
Q9_9	Hourly wage for the current job	JHPS-CPS
Q9_10_1	Are you currently looking for a job? You	JHPS-CPS
Q9_10_2	Are you currently looking for a job? Spouse	JHPS-CPS
Q9_11	Reservation wage (hourly wage)	JHPS-CPS
Q9_12_1	Assets such as houses and land	JHPS-CPS; categorical variables were modified
Q9_12_2	Balance of financial assets	JHPS-CPS; categorical variables were modified

Table 2 (continued)

Variable name	Definition	Source
Q9_12_3	Current Mortgage Balance	JHPS-CPS; categorical variables were
Q9_12_4	Non-mortgage debt	modified JHPS-CPS; categorical variables were
Q10_1_1	Big five: Extraverted, enthusiastic	modified JHPS-CPS; Scale was modified from 7
Q10_1_2	Big five: Critical, quarrelsome	to 5 JHPS-CPS; Scale was modified from 7 to 5
Q10_1_3	Big five: Dependable, self-disciplined	JHPS-CPS; Scale was modified from 7 to 5
Q10_1_4	Big five: Anxious, easily upset	JHPS-CPS; Scale was modified from 7 to 5
Q10_1_5	Big five: Open to new experiences, complex	JHPS-CPS; Scale was modified from 7 to 5
Q10_1_6	Big five: Reserved, quiet	JHPS-CPS; Scale was modified from 7 to 5
Q10_1_7	Big five: Sympathetic, warm	JHPS-CPS; Scale was modified from 7 to 5
Q10_1_8	Big five: Disorganized, careless	JHPS-CPS; Scale was modified from 7 to 5
Q10_1_9	Big five: Calm, emotionally stable	JHPS-CPS; Scale was modified from 7 to 5
Q10_1_10	Big five: Conventional, uncreative	JHPS-CPS; Scale was modified from 7 to 5
Q10_2_1	If I have work that can wait to be done tomorrow, I wait until tomorrow to do it	JHPS-CPS
Q10_2_2	Men's jobs are about earning income, women's jobs are taking care of the home	JLPS
Q10_2_3	It is best for women to have a job in order to be independent	JLPS
Q10_2_4	It is the government's responsibility to take care of those who cannot take care of themselves financially	JHPS-CPS
Q10_2_5	It is good to maintain economic growth	W.D
Q10_2_6	In general, most people are trustworthy	JHPS-CPS
Q10_2_7	Work is ikigai (the reason for being)	JHPS-CPS
Q10_2_8	I enjoy competing with others	JHPS-CPS
Q10_2_9	Work is for contributing to society	JHPS-CPS
Q10_2_11 Q10_2_10	Work is for contributing to society I desire job security	JHPS-CPS JHPS-CPS
Q10_2_10 Q10_3_1	I participate in international cooperation and international exchange activities	jiiro-cro
Q10_3_2	I devise to reduce power consumption	IGSS
Q10_3_3	I only buy food that I can consume	3
Q10_3_4	I purchase imperfect food (such as those with some scratches or varying in sizes)	
Q10_3_5	I consume products with fairtrade labels	
Q10_3_6	Think about your work and the rewarding way you work	
Q10_3_7	Buy locally produced ingredients	
Q10_3_8	Set the air conditioner temperature higher in winter and lower in summer	
Q10_3_9	Collect peace news with interest	
Q10_3_10	Trade stocks	
Q10_4_1	Decision-making: Purchase of durable consumer goods	JHPS-CPS; categorical variables were modified
Q10_4_2	Decision-making: Purchase of daily necessities	JHPS-CPS; categorical variables were modified
Q10_4_3	Decision-making: Saving/Investment	JHPS-CPS; categorical variables were modified
		(continued on next nage

Table 2 (continued)

Variable		
name	Definition	Source
Q12_1_1	Did you know the SDGs?	
Q12_1_2	Did you know the Government of Japan's	
	SDGs Action Plan?	
Q12_1_5	Please select "I haven't heard of" in this	
010 0 1	question (lie scale)	DCC CDC to i l i l i l
Q12_3_1	I hope the municipality I am currently living in becomes actively involved in the SDGs.	DCS-SDGs; categorical variables were modified
Q12_3_2	I hope the school/company I currently belong	modified
Q12_3_2	to becomes actively involved in the SDGs.	
Q12_3_3	If I were to move to a different location in	DCS-SDGs; categorical variables were
	the future, I wish to live in a municipality	modified
	that is actively involved in the SDGs.	
Q12_3_4	If I were to get a job or change occupation, I	
	wish to work for a company that is actively	
012.2.5	involved in the SDGs.	HIDC CDC
Q12_3_5	If there is a 50:50 chance of gaining a 20,000yen return or 10,000yen loss, I will	JHPS-CPS
	not invest.	
Q12_3_6	People around me have a higher standard of	JHPS-CPS; scale modify from 5 to 3
C	living than I do	,, mounty nom 5 to 5
Q12_3_7	I am happier today than I was a year ago	JHPS-CPS; categorical variables were
		modified
Q12_3_10	I care about corporate strategy when I choose	CABS; with some modifications
	their product or service	
Q12_3_11	I care about corporate SDG contribution when	
Q12_3_12	I choose their product or service I purchase a sustainable product or service	
Q12_3_12	even if it is more expensive	
sdg_meta1_	Browser respondent used to participate	
Browser		
sdg_meta1_	Operating system respondent used to	
Operat-	participate	
ingSystem		
sdg_meta1_	Resolution of the device respondent used to	
Resolution	participate Gender	
gender female	Female	
age	Age	
pref	Prefecture	
region	Region bloc	
it_resptime	Response time (min)	
agegroup	Age group by 5 years	
	Personality extraversion: Q10_1_1	
p_extraversion	(reverse) + Q10_1_6	
a agracablance	Personality agreeableness:	
p_agreeableness	Q10_1_2 + Q10_1_7 (reverse) Personality conscientiousness: Q10_1_3	
p_conscientiousness	(reverse) + Q10_1_8	
	Personality neuroticism: Q10_1_4 + Q10_1_9	
p_neuroticism	\$ \$\frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \qu	
p_openness	Personality openness: Q10_1_5	
	(reverse) + Q10_1_10	
schooling	Years of schooling: recoded Q9_4_1 as (1=9)	
	(2=10.5) (3=12) (4=13) (5=14) (6=14)	
	(7=16) (8=15) (9=18) (10=19.5) (11=21)	
higher_ed	(12=.) 1 if college or above; generate higher_ed=1 if	

Table 2 (continued)

Variable	D. C. V.	
name	Definition	Source
	Spouse's years of schooling; Q9_4_2 is	
spouse_schooling	recoded using the same method as	
	"schooling"	
	Father's years of schooling; Q9_4_3 is recoded	
father_schooling	using the same method as "schooling"	
	Mother's years of schooling; Q9_4_4 is	
mother_schooling	recoded using the same method as "schooling"	
income	Income (10 thousand yen); recoded Q9_8_1 as	
	(1=50) (2=150) (3=300) (4=500) (5=700)	
	(6=900) (7=1100) (8=1300) (9=1500)	
	(10=1700) (11=1900) (12=2000) (13=.)	
ln_income	Log of income	
income2	Individual income	
spouse_income	Spouse income (10 thousand yen); Q9_8_2 is recoded using the same method as	
spousc_mcome	"income"	
	Log of spouse_income	
ln_spouse_income		
hh_income	Household income (10 thousand yen); Q9_8_3	
	is recoded using the same method as	
	"income"	
In the images	Log of hh_income	
ln_hh_income	Household income hoped for (10 thousand	
hopeful_income	yen); Q9_8_4 is recoded using the same	
	method as "income"	
	Log of hopeful_income	
ln_hopeful_income		
hhsize	Number of hhd = Q9_2	
children	Number of children up to university age	
child_underprimary	1 if a respondent has children below primary school age	
cinia_unacrprimary	1 if a respondent has children of primary	
child_primary	school age	
	1 if a respondent has children of secondary	
child_secondary	school age	
1911	1 if a respondent has children of university	
child_university	age 1 if a respondent decides to purchase durable	
dm_durablegoods	goods; recoded as 1 if Q10_4_1 is 1, 0	
um_uurubregooub	otherwise	
	1 if a respondent decides to purchase daily	
dm_dailygoods	goods; recoded as 1 if Q10_4_1 is 1, 0	
	otherwise	
dm_invest	1 if a respondent decides to invest or save;	
v_intl	recoded as 1 if Q10_4_1 is 1, 0 otherwise 1 if int'l corporation; recoded as 1 if Q10_3_1	
v_IIIti	is 1 or 2, 0 otherwise	
v_energy	1 if decrease energy consumption; recoded as	
	1 if Q10_3_2 is 1 or 2, 0 otherwise	
v_eat	1 if buy only what you can eat; recoded as 1	
	if Q10_3_3 is 1 or 2, 0 otherwise	
v_product	1 if buy imperfect products; recoded as 1 if	
u fainteada	Q10_3_4 is 1 or 2, 0 otherwise	
v_fairtrade	1 if buy fair trade; recoded as 1 if Q10_3_5 is 1 or 2, 0 otherwise	
v_work	1 if think about your job satisfaction; recoded	
	as 1 if Q10_3_6 is 1 or 2, 0 otherwise	
	-	(continued on next nage)

Table 2 (continued)

Variable name	Definition	Source
v_localgrown	1 if buy locally grown food; recoded as 1 if O10.3.7 is 1 or 2, 0 otherwise	
v_ac	1 if use AC efficiently; recoded as 1 if	
	Q10_3_8 is 1 or 2, 0 otherwise	
v_peace	1 if interested in news on peace; recoded as 1	
	if Q10_3_9 is 1 or 2, 0 otherwise	
v_invest	1 if invest; recoded as 1 if Q10_3_10 is 1 or 2,	
	0 otherwise	

Note: Variable names are a list of all the variables included in the dataset. Definition indicates a brief definition of the variables and a calculation method if constructed using other variables. The source indicates where a question was adopted from, if any.

- The highest education completed and corresponding major of the respondent, their spouse, and their parents
- Work and employment statuses of respondents' first and current jobs, that of their spouses, and their parents
- Total annual household income, respondents' individual incomes, and the income goal that the household aims for
- · Job-seeking status of respondents and their spouses as well as their reservation wage
- · Household assets and debt
- Big Five personality traits (Japanese version of the Ten Item Personality Inventory [5])
- Beliefs and attitudes toward a sustainable lifestyle, pro-environmental behavior, female participation in society, economic growth, and the role of government
- SDG awareness
- Decision-making regarding the purchase of durable and daily goods and regarding savings and investments

2. Experimental Design, Materials and Methods

2.1. Survey design

When we developed the questionnaire for household surveys, we referred to national household survey initiatives, including the Japan Household Panel Survey on the Consumer Preferences and Satisfaction (JHPS-CPS) [6], the Japanese Life Course Panel Survey (JLPS) [7], the Japanese General Social Surveys (JGSS) Project [8], and national-level large-scale surveys, including the Employment Status Survey (ESS) [9], Consumer Awareness Baseline Survey (CABS) [10], and the Dentsu Consumer Survey on SDGs (DCS-SDGs) [11]. Table 2 presents the sources for where and how the JHDSDGs adopted questions.

Using the online survey platform, Qualtrics, we developed a device-friendly survey website. The survey screen given to each respondent was optimized based on the device used.

2.2. Data collection

An online survey was conducted in March 2019 and March 2020. Quota sampling was used to construct a representative demographic dataset. Fig. 2 shows the overall flow of data collection. For both years, we first set a convenience sample size of 6,000 adults aged 18-74 years. Based on Japan's demographics, we determined 168 quota groups (5-year age groups \times sex \times regional blocs = 12 \times 2 \times 7), as shown in Table 1. In Japan, the 47 prefectures are categorized into seven regional blocs. First, we divided the patients into seven groups based on regional blocs,

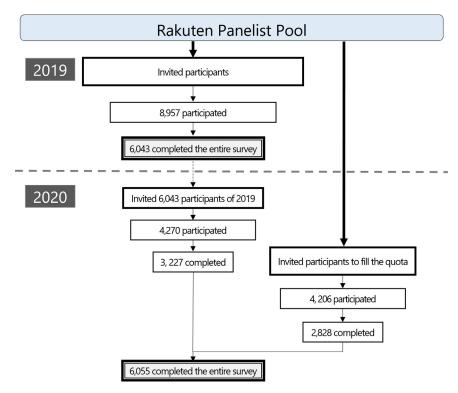


Fig. 2. Data collection flowchart.

then into two groups based on sex, and finally into 12 5-year age groups. Based on the Japanese population census, the targeted sample size for each quota group was determined. We assigned Rakuten Insight Inc. (Rakuten), one of the largest research companies in Japan, to provide respondents from a pool of panelists in which over 2.2 million Japanese are registered [12].

As of April 1, 2018, Rakuten had 2,212,088 registered panelists, of which 50.7% were female and 49.3% were male [12]. To understand the characteristics of its own panelist pool, Rakuten conducted a study comparing it with the national census, and several surveys were collected offline through random sampling [13]. Compared with the national population census regarding resident location, household characteristics, housing status, and employment, the Rakuten panelist pool consists of relatively more residents of Kanto, which includes Tokyo and its neighboring prefectures, married couples only households, and employed males; however, the distributions of both the Rakuten panelist pool and the census are similar [13]. Compared with the Public Opinion Survey on the Life of the People regarding standard of living and life satisfaction, the Rakuten panelist pool consists of more panelists claiming a median standard of living, that quality of life remained the same, and that the prospects for quality of life in the future would remain the same [13]. Regarding media outlet exposure, the Rakuten panelist pool consisted of more Internet users and fewer traditional media users, such as newspapers, TV, and radio, compared with the Media Preference Survey respondents [13].

In 2019, Rakuten sent its panelists an invitation email, guiding them to the Rakuten survey website with access to the Qualtrics survey link, which was linked to the survey screen that we developed. After each quota was filled, the link was closed so that additional invitees could no longer access the survey and data collection was completed from the filled quota. In total, 6,043 of the 8,957 participants completed the surveys. In 2020, invitations were sent to 6,043 respondents who completed the survey in 2019. Of these, 4,270 participated and 3,227 completed the

survey. Different panelists were invited to fulfil the quota allocations. Among them, 4,206 participated and 2,828 were completed. The 2019 method was used to fill the planned quota for 2020.

Ethics Statement

The study design was approved by the Ethics Committee of the Graduate School for International Development and Cooperation, Hiroshima University on January 8, 2020 (entry 2). Informed consent was obtained from all subjects involved in the study.

CRediT Author Statement

Author Contributions: All the authors approved the final version of the manuscript; **Tomomi Yamane:** contributed to the conceptualization, project administration, data curation, writing of the original draft, review and editing, and funding acquisition; **Shinji Kaneko:** contributed to the conceptualization, review and editing, and funding acquisition.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that have or could be perceived to have influenced the work reported in this article.

Data Availability

Japan Household Panel Survey on Sustainable Development Goals (JHPSDGs) (Original data) (Dataverse).

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