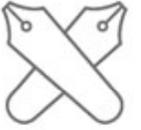




Keio's Panel Data Sets

Colin McKenzie
Faculty of Economics
Keio University

Outline of Presentation



1. Details of the Panel Data Sets Available at Keio (KHPS & JHPS)
2. Introduce some analysis based on the KHPS data set
3. Introduce some analysis based on the JHPS data set

Keio Household Panel Survey (KHPS)



Nationwide panel survey of households begun in 2004, and conducted annually.

Each survey denoted by year of implementation: KHPS2004, KHPS2005, KHPS2006, KHPS2007, KHPS2008, KHPS2009, KHPS2010.

Respondents limited to men and women aged between 20 & 69 in January 2004.

Final sample of 4005 respondents obtained after 13,430 individuals approached (29.8% response rate)

Supplementary sample started in 2007 (1419 respondents). Nationwide sample of men and women aged between 20 & 69 in January 2007.

Data for each survey available for internal usage around July of the survey year, and released to the public roughly two years later. Data up to KHPS2008 currently publicly available.

Questions in KHPS



Areas covered by the questions in KHPS include:

- * details of the respondent & family
- * details of the respondent's education
- * details of the respondent's labor market participation
- * details of the respondent's health status
- * similar details for spouse (education, labor market participation, health status)
- * details of household's financial assets and liabilities
- * details of income and expenditure
- * details of household's housing
- * past labor market participation ("life" table)
- * FUNDED BY MINISTRY OF EDUCATION COE & G-COE

Japan Household Panel Survey (JHPS)



Nationwide panel survey of households begun in 2009, and conducted annually.

Each survey denoted by year of implementation: JHPS2009, JHPS2010, Respondents limited to men and women aged 20 or over in January 2009 (no upper age limit).

Final sample of 4022 respondents obtained after 12,549 individuals approached (32.1% response rate).

Data for each survey available for internal usage around July of the survey year, and released to the public a year later. Only JHPS2009 currently publicly available. JHPS2010 will be released around July 2011.

Questions in JHPS



Areas covered by the questions in JHPS include (quite a deal of overlap with KHPS that allows pooling of the data sets):

- * details of the respondent & family
- * details of the respondent's education
- * details of the respondent's labor market participation
- * details of the respondent's health status, social security
- * similar details for spouse (education, labor market participation, health status, social security)
- * details of household's financial assets and liabilities
- * details of income and expenditure
- * details of household's housing
- * past labor market participation ("life" table)

Features of JHPS Design



In carrying out JHPS2009, various “experiments” conducted to investigate how response rates (responding to the survey itself, responding to individual questions) are affected by:

- a) variations in payments to surveyors;
- b) some of the questions being asked by an interviewer;
- c) the availability of the option of responding online.

JHPS2010 also conducted tests of the academic ability of children in the surveyed household who were either in primary school or junior secondary school.

Questions suggested by outside researchers welcome.

Representativeness of KHPS: Kimura (2004)



- Kimura compared summary statistics for KHPS with statistics for other surveys (e.g. Population Census, Labour Force Surveys, etc) to determine how representative the KHPS survey is.
- Kimura's conclusion is that with the exception of cases where definitional differences lead to divergences between the results, there are for the main part no significant differences in the distributions, and that the differences where present are within the bounds of statistical acceptability.
- It should be noted that single (young) unmarried individuals would appear to be slightly underrepresented (compared to population estimates), and that people living in apartment blocks are also underrepresented.

Retention Rates for Data Sets



	2004	2005	2006	2007	2008	2009	2010
KHPSA	4005	3314	2887	2643	2451	2290	
		82.7%	87.1%	91.5%	92.7%	93.4%	94.0%
KHPSB				1419	1240	1132	
					87.4%	91.3%	93.0%
JHPS						4022	3470
							86.3%



- In 2003, the Japanese Diet passed legislation to abolish part of the special deduction for spouses (*Haigusha Tokubetsu Kojo*), with the abolition to take effect for the 2004 tax year.

This paper investigates the impact of this tax reform on the female labour supply (labor market participation & hours worked).

A number of earlier studies have shown that married women are likely to adjust their labour supply so that their husbands will be eligible to take advantage of the spouse deduction.

By using data from the first and second waves of the Keio Household Panel Survey (KHPS) collected in 2004 and 2005, this paper uses the difference-in-differences approach to examine whether there has been any change in the behaviour of female labour supply as a result of this tax reform.



Information on the awareness of the policy change is used to find a control group and a treatment group for the hours worked analysis.

The empirical evidence indicates that the tax reform in 2004 did not have any impact on the decision of female spouses to enter the labour market.

However, there are some effects on the number of hours they worked conditional on their participation in the labour market. Due to the partial abolition of the special spouse deduction, it is estimated that part-time female workers increased their weekly hours of work by about 3.7 hours. Sakata and McKenzie argue that the awareness of the partial abolition of the spouse allowance is crucial in accounting for the changes in married women's labour supply.

Earthquake Risk and Housing Prices: Naoi et al (2007)



- Hedonic pricing approach is used to examine whether individuals alter their subjective assessments of earthquake risks before and after a massive earthquake.
- Using KHPS2004-2007 coupled with earthquake hazard information and the observations on major earthquakes, it is found that there is some updating of individuals' assessments of earthquakes.
- For homeowners, estimates of house prices are available; for renters, rents are available. Characteristics of houses (age, location to nearest station, number of rooms) are available. Although this information is not released to the public, we have information on the census area where the individuals live and this is linked to earthquake risk data base.

Earthquake Risk and Housing Prices: Naoi et al (2007)



- Hedonic models for house prices and rents suggest that both are significantly negatively affected by the “objective” risk of an earthquake.
- Difference in difference approach used to measure the impact of earthquake occurrences.
- Naoi et al s results suggest that for homeowners the price discounting from locating within a quake prone area is significantly larger after a major earthquake than before.
- The authors suggest that this is because homeowners initially underestimate earthquake risks.

Impact of the Childcare Leave Law: Sato & Ma (2008)



- Since its introduction in 1992, the Childcare Leave Law has been amended several times. Sato & Ma examine the determinants of whether or not women leave their job following the birth of their first child.
- A key to this analysis is the use of the “life table” in KHPS2004 which asks respondents (and their spouses) to indicate their main activity (study, job search, work, home maker, etc) from the age of 18 to the present. Information on activities in 15-17 age group collected in KHPS2005. Analysis uses KHPS2004-KHPS2007.
- Using a probit analysis that controls for differences in educational levels & cohort effects, it is found contrary to expectations of the childcare leave system that between 1992 and 1999, the law had little impact on “quit” rates of women.

Impact of the Childcare Leave Law: Sato & Ma (2008)



- From 2000 onwards, for firms that have a childcare leave system, it is found that there is a significant reduction in the number of women leaving their jobs.
- The authors suggest that tighter labor markets may have led firms to change the way they implement their childcare leave system, and make it easier for women to take advantage of the system

Social Economic Differentials and Health Differentials: Kawai (2007)



- Kawai uses data from KHPS2005 and KHPS2006 to examine the determinants of several health related factors: 1) obesity; 2) smoking; 3) drinking of alcohol; 4) lack of exercise; 5) lack of sleep.
- Explanatory variables include: hours worked, income, gender, age, educational level, geographic information.
- Kawai finds that
 - a) long working hours tends to significantly worsen some aspects of health (smoking, exercise, sleep)
 - b) lower incomes tend to increase smoking and lack of exercise
 - c) elderly people tend to smoke less, exercise more and get sufficient sleep

Micro Simulation Using JHPS: Doi (2010)



- Doi uses data from the JHPS2009 survey to undertake a micro-simulation of the impact of the Hatoyama Government's proposed policy relating to the child allowance and the associated revision of various deductions.
- Using household equivalent disposable income, households are allocated to 10 income groups.
- It is found that lower and middle income earners benefit from the payment of the child allowance.
- An elimination of the top up deduction for dependents aged between 16 and 18 would increase the tax burdens of households in the 6th to 9th deciles.
- Key assumption is that labor market responses do not change.

Survey Response Rates: Naoi et al (2010)



- Analyzes data relating to the experiments conducted when the JHPS2009 was implemented (prior explanation of JHPS by researchers to surveyors, changes in payments to surveyors, interview vs leave and pick up, use of the internet)
- Found that when surveyors are paid a higher payment for obtaining a completed survey from the “original” sample, response rates for this sample tend to rise.
- No difference in the response rates between interview + leave and pick up vs pick-up
- The sample obtained via internet responses is rather small, but tend to be high income individuals and they tend to be full-time workers

Social Economic Differentials and Health Differentials: Kawai (2007)



- Kawai also examines the determinants of hospitalization (including hospital visits) & medical checkups
- It is found that income levels do not appear to be related to hospitalization (including hospital visits). There are significant geographic differences that Kawai attributes to hospitals being concentrated in major cities.
- In contrast, lower income level individuals, the unemployed & non-regular workers have a tendency not to have medical checkups. Kawai suggests this is evidence of economic differentials.

Determinants of Academic Ability: Akabayashi et al (2010)



- This analysis combines JHPS2009, JHPS2010, and tests on the academic skills (math, “Japanese”, logic) of primary school and junior high school students of respondents.
- Preliminary analysis suggests that
 - a) the scores of children in math and “Japanese” are related to the level of schooling of both parents. Especially for math if the father is a university graduate, and for “Japanese” if the mother is a university graduate.
 - b) the sex of the child, the number of brothers/sisters and the birth order do not appear to have a significant effect on academic ability
 - c) being born “early” (Jan.-Mar.) has a limited negative impact on academic ability
 - d) family factors do not appear to influence logical ability