

**How to Share Housework between
Husbands and Wives:
Improving Marital Satisfaction for
Working Wives in Japan**

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Issues in Japan

- Few families outsource household chores in Japan
 - Only 1.1% have utilized housekeeping services within the past 2 years (JILPT, 2014)
 - 83% (81%) preferred of women (men) that their own family members perform housework; only 18% (14%) preferred to use outside services (Cabinet office, 2010)
 - Inexpensive informal babysitting is not common (Aoki, 2012) (older school-aged girls and immigrant labor: not available)
- Market hours for men are long
 - Housework is mostly performed by wives
 - Married women's full-time participation: 30% since 1980s
- Fertility decline: Japanese population of working age ↓

This paper

- Are wives satisfied with their husbands when he performs a larger share of housework?
 - Differ by weekdays and weekends
 - On **weekdays**, husbands' wage $>$ wives' wage
 - Opportunity cost of not working in the market is greater for husband than for wives
 - On **weekends**, husbands' wage = wives' wage
 - Work opportunities are limited for both husbands and wives

Findings

- **Husbands** and ***working wives*** are more satisfied with their spouses when the spouse performs a larger share of housework on **weekdays**.
 - For dual-earner families, outsourcing housework improves marital satisfaction
- ***Nonworking wives*** are less satisfied with their spouses when the spouse performs a larger share of housework on **weekdays**
 - Opportunity cost of not working for husbands is high
 - ***Nonworking wives*** are more satisfied with their spouses when the spouse performs housework on **weekends**

MODEL

Setup

- Wife's and husband's market wage: w_w and w_h
- Housework:
 - H : hours needs to be spent on cleaning home, etc.
 - C : cost paid to the wife (or maid) if she does the housework
- Consider 2 scenarios
 1. Wife's & husband's decisions when $w_w < C/H < w_h$
 2. Wife's & husband's decisions when $C/H < w_w, C/H < w_h$

Scenario 1

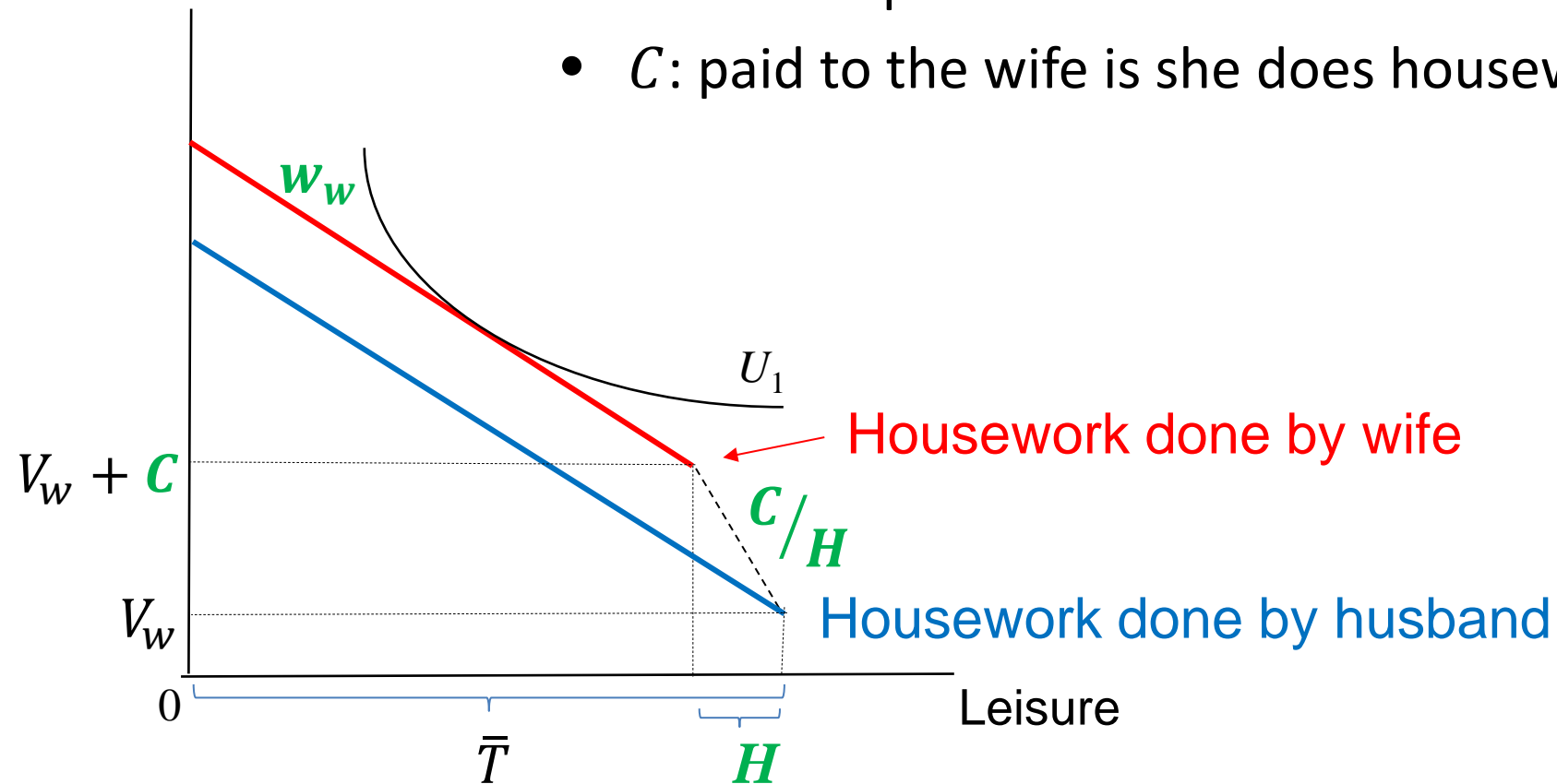
Wife's and husband's decisions

when $w_w < c/H < w_h$

Wife's decision when $w_w < C/H$

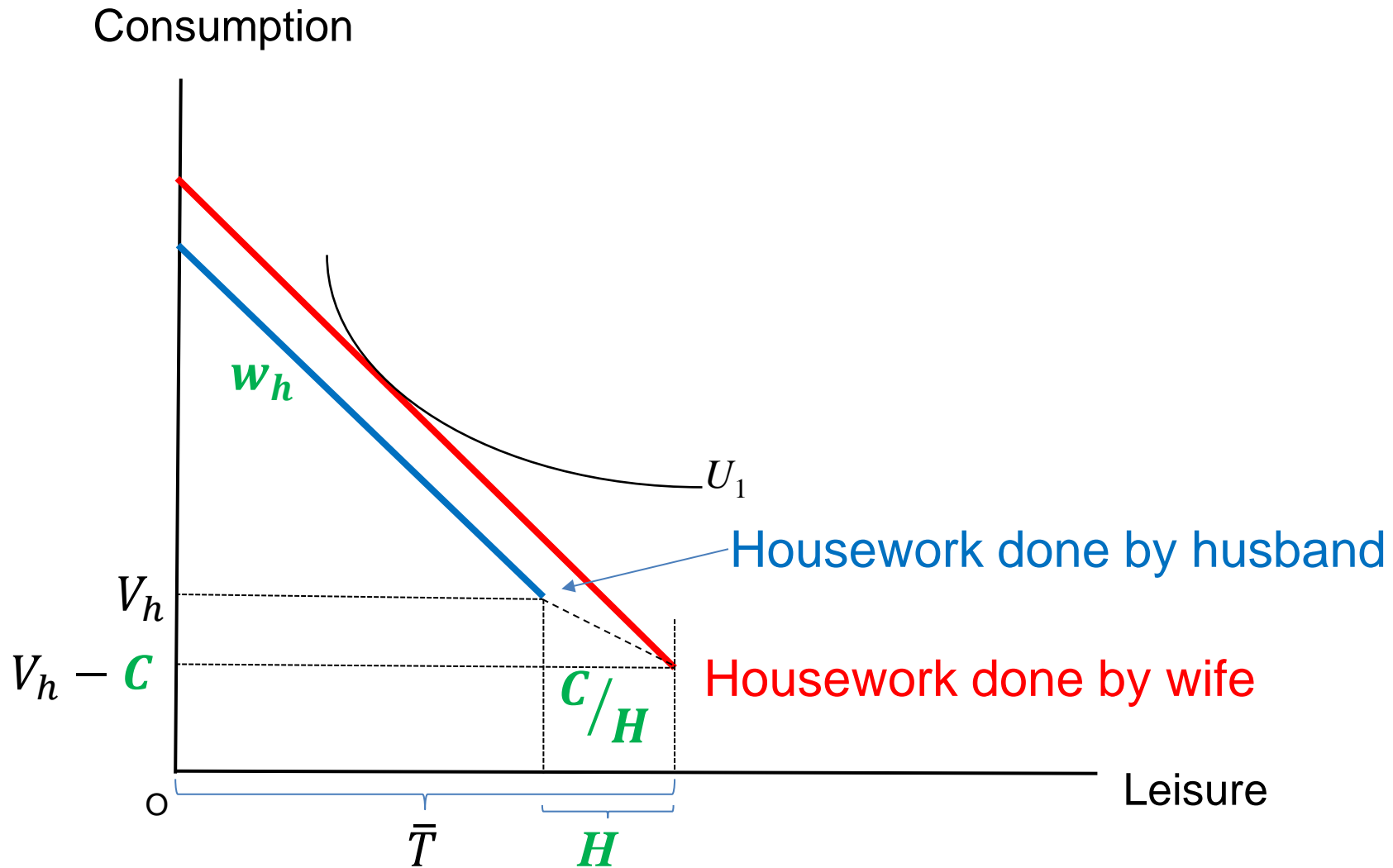
- \bar{T} : Total available time to wife
- H : hours spent on housework
- C : paid to the wife if she does housework

Consumption



Wife is happier if she does the housework

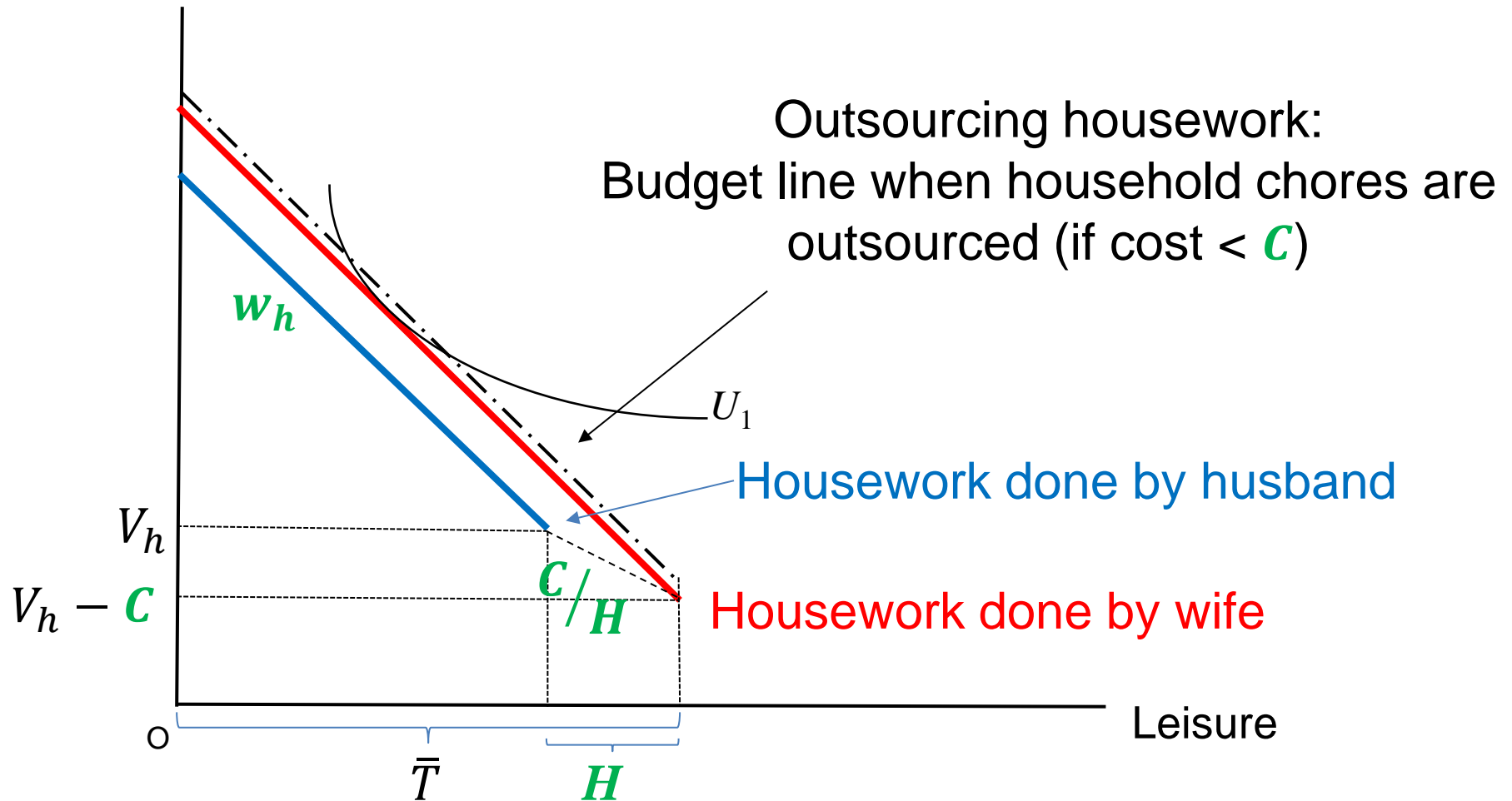
Husband's decision when $C/H < w_h$



Husband is happier if the wife does the housework

Husband's decision when $C/H < w_h$

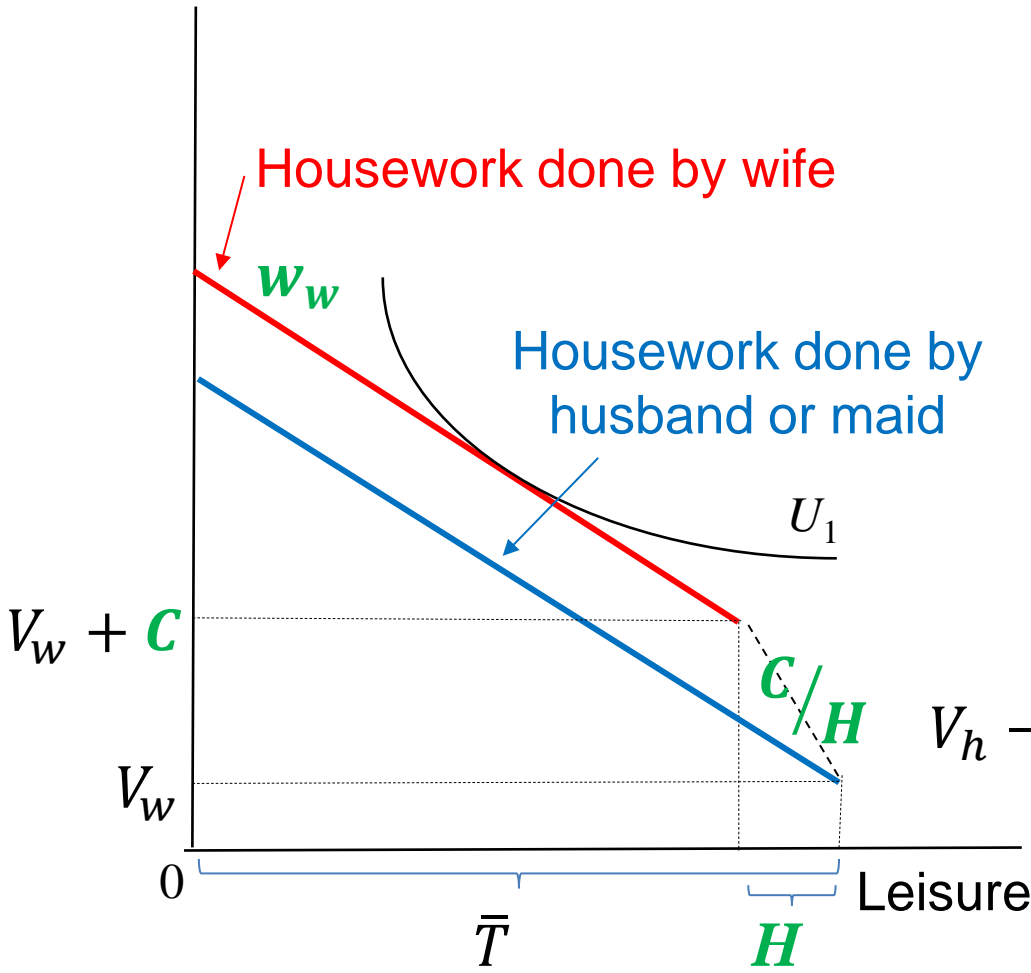
Consumption



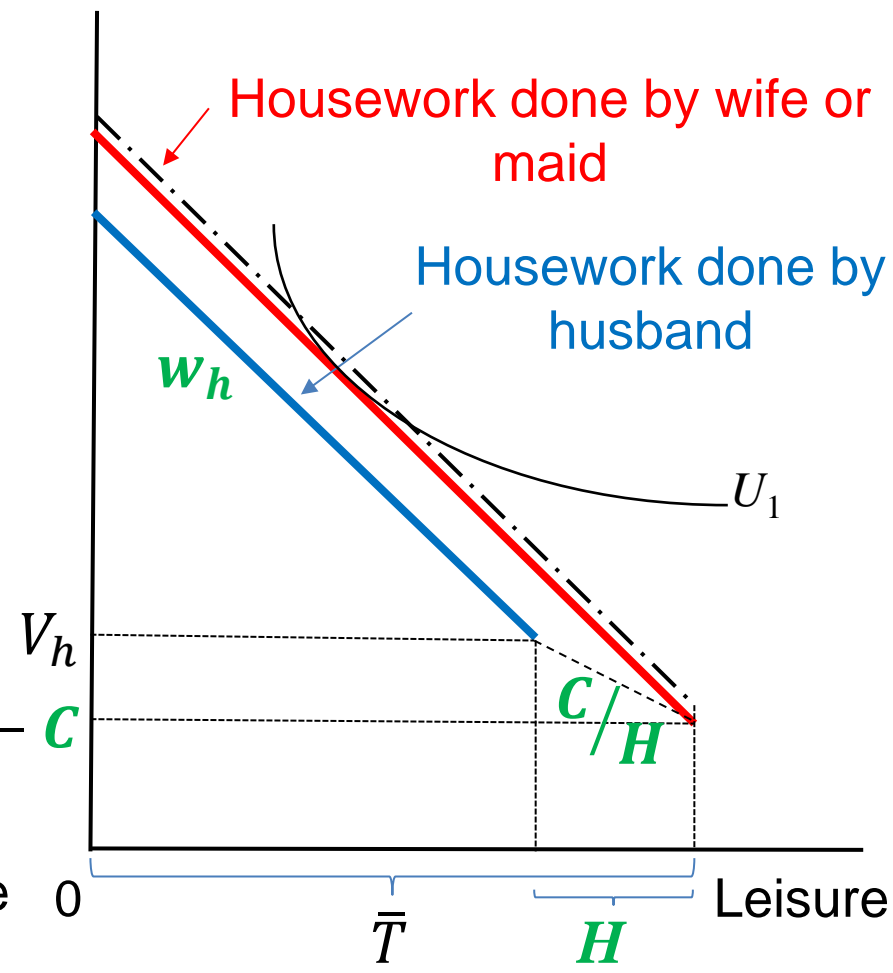
Husband is happier if the wife does the housework

Wife's & husband's decisions when $w_w < c/H < w_h$

Consumption



Consumption



Husband and wife are both happier if the wife does the housework

Outsourcing housework is not appreciated by both parties

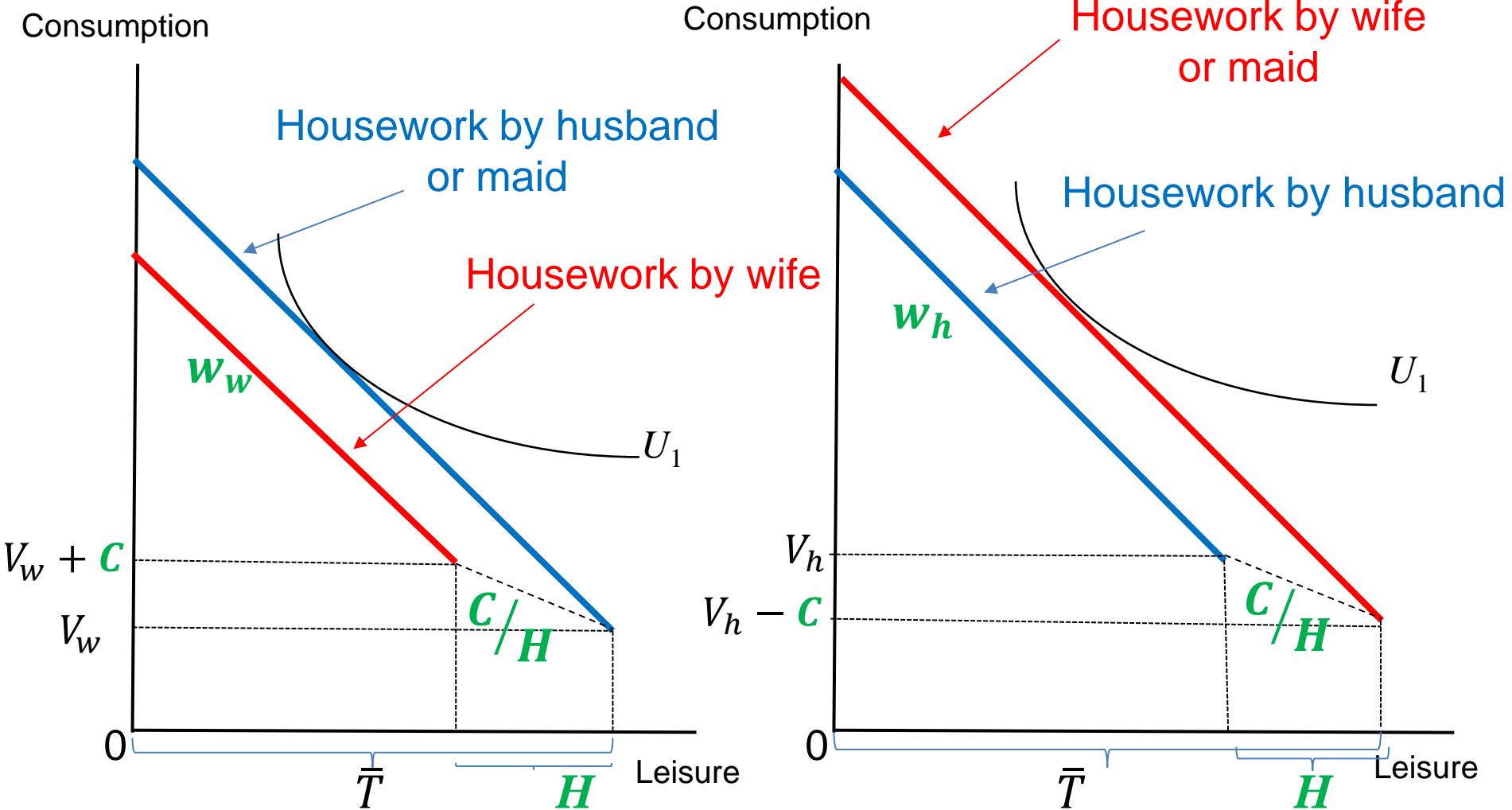
Scenario 2

Wife's and husband's decisions

when $c/H < w_w < w_h$

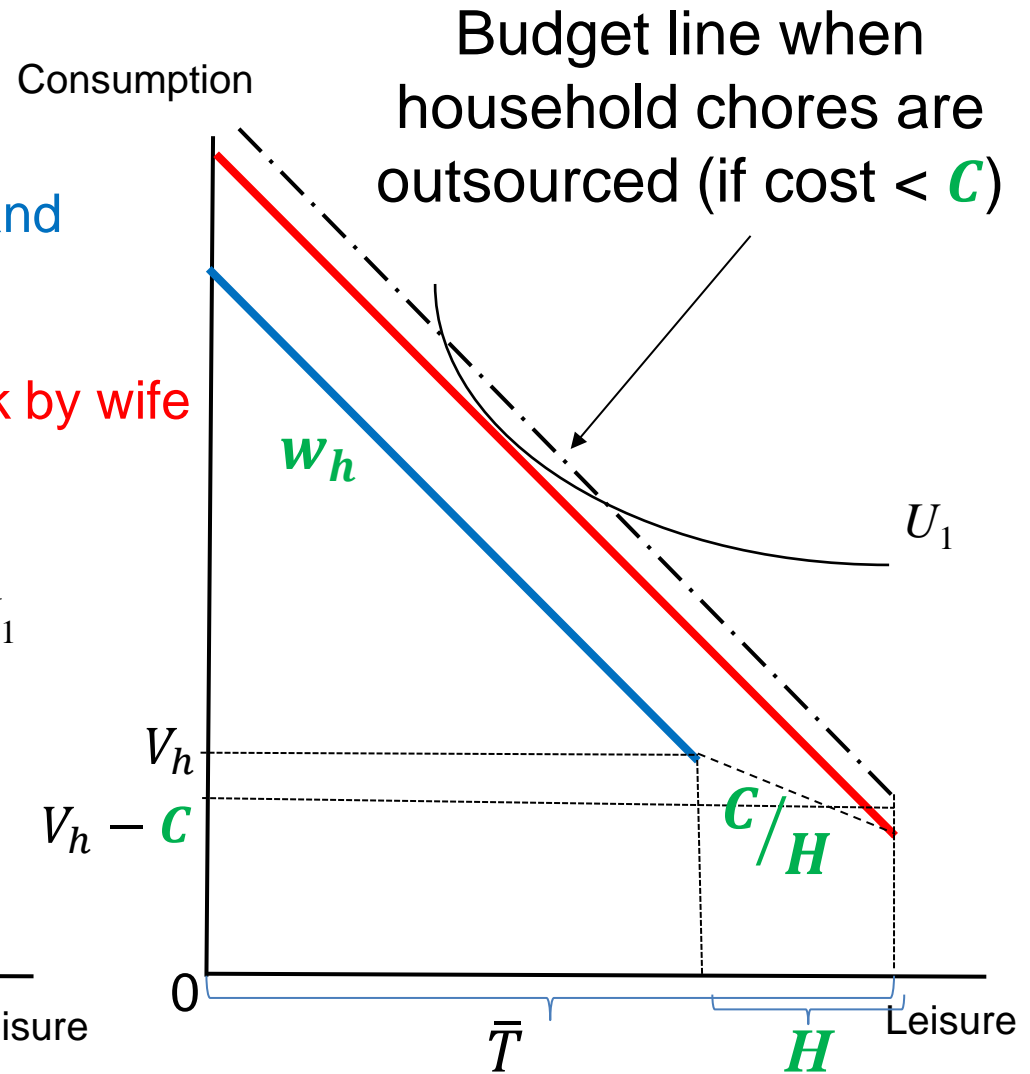
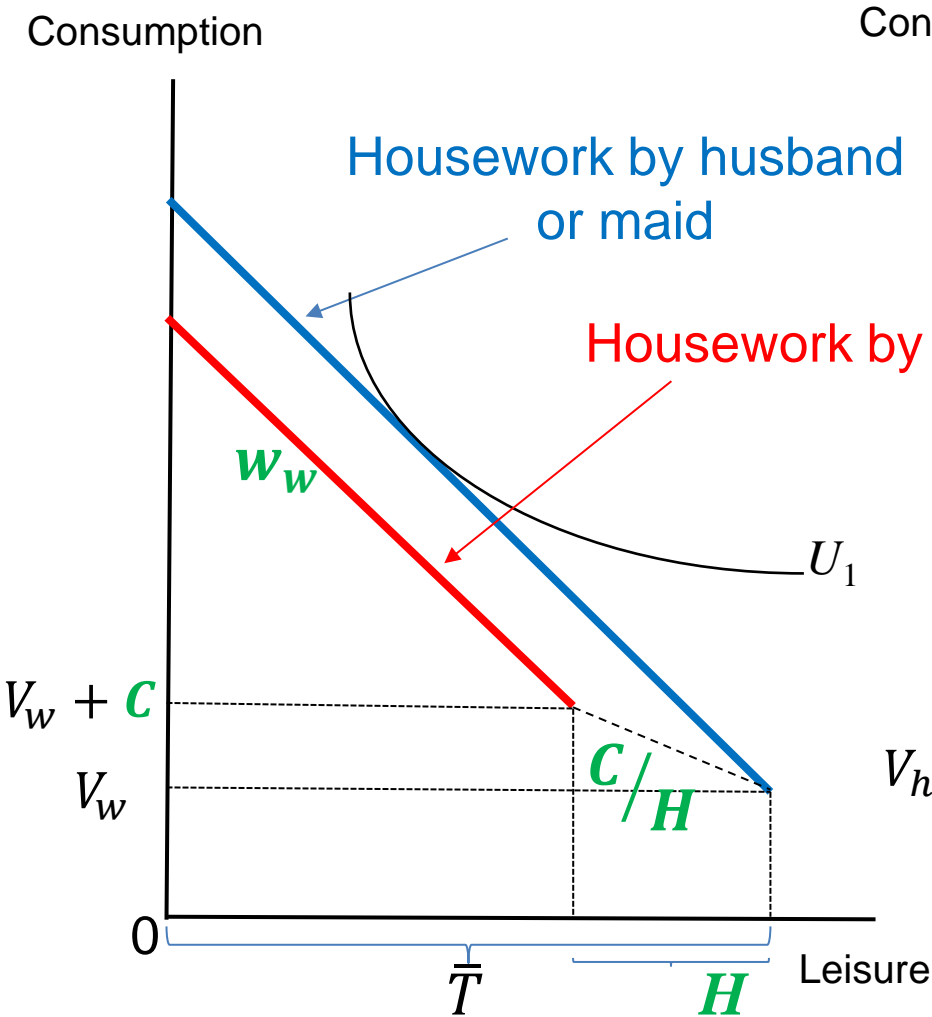
Wife's employment opportunity improves

Wife's & husband's decision when $C/H < w_w < w_h$



Both husband and wife prefer the other party do housework

Wife's & husband's decision when $C/H < w_w < w_h$



Both husband and wife prefer the other party do housework

Outsourcing may improve well-being of both parties

Predictions from the model

Improvement in wife's employment opportunities, $w_w \uparrow$

- Wife is happier if the husband does more housework
- Husband is happier if the wife does more housework

⇒ Outsourcing housework may improve family well-being

DATA

Data

- Panel survey conducted in 2012 and 2014
- Japanese Longitudinal Survey on Employment and Fertility (LOSEF)
 - Project of the Economic Analysis of Intergenerational Issues (Principal Investigator: Noriyuki Takayama)
- Men and women, 20 and 49 years of age in 2012.
- Total sample: 7,114 respondents
 - 2,203 are married women and 1,980 are married men in the first wave of the sample.

Satisfaction with their spouse

How satisfied are you with your spouse?

Please answer by using the following scale from one to six:

one being '*completely unhappy*'

and

six being '*completely happy*.'

Share of housework performed by married couples on weekdays and weekends

In your current household, approximately what percentage of household chores (e.g., child care, cooking, cleaning, and yard work) are taken on by:

1. yourself
2. your spouse/partner
3. other family/household member(s).

Percentages sum to 100.

**HOW IS HOUSEWORK SHARED
AMONG MARRIED COUPLES IN
JAPAN?**

Share of housework: Summary stats.

	Wife Not Working	Wife Working Part-time	Wife Working Full-time
Variables	Mean	Mean	Mean
Share of Housework			
Wife: Weekday	88.08	86.39	72.00
Wife: Weekend	75.79	76.93	67.78
Husband: Weekday	8.45	8.78	21.02
Husband: Weekend	20.45	18.30	27.16
Other Family Member: Weekday	3.46	4.82	6.84
Other Family Member: Weekend	3.76	4.77	5.01
N	2779	2545	2267

Large difference between husband and wife's shares of housework for nonworking and PT working wives.

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- Large difference between husband and wife's shares of housework for nonworking and PT working wives.
- **Husbands perform a greater share of housework on weekends, but much less housework than their wives.**

Share of housework

- **Estimate the effect of the share of housework on personal characteristics**
- Examine the changes in the shares of housework between 2012 and 2014 by changes in wives' employment status
 - First difference the model and include indicators variables for change in the wives' employment status between 2012 and 2014

Share of housework: Regression

Independent Variables	Wife's Share of Housework on Weekday		Wife's Share of Housework on Weekend		Husband's Share of Housework on Weekday		Husband's Share of Housework on Weekend	
	Coef.		Coef.		Coef.		Coef.	
Wife works Part-time	6.791	***	5.179	***	-4.771	***	-4.362	***
Wife works Full-time	-3.094		0.236		3.091	*	-0.174	
Wife's log of labor income	-2.263	***	-1.627	***	1.693	***	1.452	***
Husband Not Working	8.472	*	-2.440		1.038		9.769	**
Husband \geq 60h/week	3.546	***	4.006	***	-3.110	***	-3.641	***
Husband's log of labor income	3.786	***	0.785		-2.448	***	0.277	
Number of children								
Preschool children	0.165		-0.692		-0.955	***	0.445	
Elementary school children	-0.762	*	-0.377		-0.843	***	-1.137	***
Junior/High school children	-0.845	*	-0.281		-1.166	***	-1.601	***
children older than 19	-0.605		-0.247		-1.160	*	-1.251	*
Respondent is wife	-5.729	***	-7.167	***	6.019	***	7.521	***
N	6318		6300		6318		6300	

Share of housework

- Estimate the effect of the share of housework on personal characteristics
- **Examine the changes in the shares of housework between 2012 and 2014 by changes in wives' employment status**
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Change in share of housework: FD estimate

Independent Variables	Change in Wife's Share of Housework on Weekday	Change in Wife's Share of Housework on Weekend	Change in Husband's Share of Housework on Weekday	Change in Husband's Share of Housework on Weekend
	Coef.	Coef.	Coef.	Coef.
ΔWife's employment status				
Part-time → Part-time	-0.378	0.119	0.318	0.460
Full-time → Full-time	0.116	-1.168	0.017	1.285
Not working → Part-time	0.870	1.861	-0.312	-0.800
Not working → Full-time	-5.968**	-0.877	5.449**	1.793
Part-time → Not working	-0.336	-1.841	-0.112	1.605
Part-time → Full-time	-2.621	-3.130	4.503***	4.337**
Full-time → Not working	12.18***	1.876	-11.41***	-2.868
Full-time → Part-time	4.255*	0.930	-3.266	-0.686
N	2779	2762	2779	2762

No Work to FT: Wife housework ↓. FT to No Work: Wife housework ↑

PT to FT: Husband housework ↑ on weekday and weekend

**WHEN ARE WIVES MORE SATISFIED
WITH THEIR HUSBANDS?**

Share of spouse's housework by satisfaction with the spouse

Wife's Satisfaction with Husband	Wife Not Working		Wife Working Part-time		Wife Working Full-time	
	Husband's Weekday Share of Housework	Husband's Weekend Share of Housework	Husband's Weekday Share of Housework	Husband's Weekend Share of Housework	Husband's Weekday Share of Housework	Husband's Weekend Share of Housework
1 = <i>completely unhappy</i>	2.59	4.84	4.29	8.66	6.99	8.72
2	3.58	8.95	5.82	8.51	9.66	15.43
3	4.29	10.62	5.46	12.26	12.79	18.53
4	4.68	15.51	6.76	15.69	14.79	19.82
5	6.24	18.80	7.99	16.22	19.54	24.37
6 = <i>completely happy</i>	7.69	23.93	10.28	21.49	22.14	30.81

Husband's Satisfaction with Wife	Wife Not Working		Wife Working Part-time		Wife Working Full-time	
	Wife's Weekday Share of Housework	Wife's Weekend Share of Housework	Wife's Weekday Share of Housework	Wife's Weekend Share of Housework	Wife's Weekday Share of Housework	Wife's Weekend Share of Housework
1 = <i>completely unhappy</i>	68.00	49.06	76.58	69.21	55.29	55.43
2	85.66	77.94	84.67	68.33	66.67	62.78
3	83.05	72.30	82.95	73.10	64.47	61.92
4	87.12	74.55	85.36	73.85	67.77	63.11
5	86.64	73.75	85.00	72.35	68.73	61.96
6 = <i>completely happy</i>	86.08	72.04	85.15	74.20	69.50	64.66

Wives' satisfaction with their husbands is related to the spouses' share of housework, but this relationship is not strong for husbands' satisfaction with their wives

Satisfaction with the spouse

- **Estimate the effect of the spouse's shares of housework on weekdays and weekends on satisfaction with the spouse**
 - Use ordered probit model
 - Separately by wife's employment status
- First difference the model and include indicators variables for change in the wives' employment status between 2012 and 2014

Ordered probit estimates

	Wife's Satisfaction with Husband						Husband's Satisfaction with Wife	
	Wife Not Working		Wife Working Part-time		Wife Working Full-time			
Independent Variables	Coef.		Coef.		Coef.		Coef.	
Share of Housework								
Spouse: Weekday	-0.009	*	0.007	*	0.009	***	0.003	*
Spouse: Weekend	0.021	***	0.011	***	0.007	**	0.001	
Other Family: Weekday	0.011	*	0.000		-0.002		-0.009	**
Other Family: Weekend	-0.015	***	0.002		0.003		0.011	**
Log of Labor Income	-		-0.004		0.072	*	0.028	
Spouse Not Working	1.289	**	0.852		0.331		0.165	
Husband \geq 60h/week	-0.089		0.128		0.089		0.033	
Spouse Log of Labor Income	0.113		0.199	***	0.159	**	0.012	
Number of Children								
Preschool	-0.224	***	-0.224	***	-0.205	***	-0.149	***
Elementary School	-0.073		-0.067		-0.238	***	-0.069	*
Junior/High School	-0.192	***	-0.119	**	-0.254	***	-0.149	***
Children Older than 19	-0.102		-0.041		-0.071		0.055	
N	1060		1207		897		3104	

Husband and working wife: $C/H < w_w < w_h$; Nonworking wife: $w_w < C/H < w_h$

Ordered probit estimates

- **Husbands** and ***working* wives** are more satisfied with their spouses when the spouse performs a larger share of housework on **weekdays** and **weekends**
 - scenario: $c/H < w_w < w_h$
- ***Nonworking* wives** are more satisfied with their spouses when he performs a larger share of housework on **weekends**, but less satisfied on **weekdays**
 - scenario: $w_w < c/H < w_h$

Satisfaction with the spouse

- Estimate the effect of the spouse's shares of housework on weekdays and weekends on satisfaction with the spouse
 - Use ordered probit model
 - Separately by wife's employment status
- **First difference the model and include indicators variables for change in the wives' employment status between 2012 and 2014**

First-differenced estimates

<i>Variables</i>	Wife's Satisfaction with Husband		Husband's Satisfaction with Wife		
	Coef.	SE	Coef.	SE	
Spouse Weekday Share of Housework ×					
Wife: Not working → Not working	0.012	0.009	0.001	0.005	
Wife: Part-time → Part-time	0.007	0.008	0.007	0.006	
Wife: Full-time → Full-time	-0.005	0.006	0.001	0.004	
Wife: Not working → Part-time	-0.018	0.010	0.006	0.009	*
Wife: Not working → Full-time	-0.013	0.017	0.010	0.016	
Wife: Part-time → Not working	-0.049	0.013	-0.002	0.011	***
Wife: Part-time → Full-time	0.025	0.009	0.016	0.010	*** *
Wife: Full-time → Not working	0.008	0.015	0.024	0.006	***
Wife: Full-time → Part-time	-0.013	0.014	-0.006	0.009	
Spouse Weekend Share of Housework ×					
Wife: Not working → Not working	0.001	0.004	0.007	0.004	*
Wife: Part-time → Part-time	0.003	0.005	-0.008	0.006	
Wife: Full-time → Full-time	0.000	0.005	-0.001	0.004	
Wife: Not working → Part-time	0.001	0.005	-0.003	0.005	
Wife: Not working → Full-time	0.017	0.018	0.018	0.010	*
Wife: Part-time → Not working	0.034	0.009	0.000	0.011	***
Wife: Part-time → Full-time	-0.012	0.008	-0.001	0.007	
Wife: Full-time → Not working	-0.001	0.011	0.008	0.005	
Wife: Full-time → Part-time	0.017	0.015	0.017	0.009	**
Wife: Part-time → Part-time	0.021	0.083	0.030	0.086	
Wife: Full-time → Full-time	0.049	0.089	0.033	0.082	
Wife: Not working → Part-time	-0.202	0.158	-0.449	0.209	**
Wife: Not working → Full-time	-0.078	0.282	-0.701	0.314	**
Wife: Part-time → Not working	-0.013	0.228	0.389	0.276	
Wife: Part-time → Full-time	0.102	0.128	0.022	0.175	
Wife: Full-time → Not working	-0.267	0.366	0.011	0.309	
Wife: Full-time → Part-time	0.023	0.279	0.196	0.174	
N	1319		1344		

First-difference estimates

- In families in which wives transition from part-time work in 2012 to full-time work in 2014, both wives and husbands report higher satisfaction with their spouses, if their spouses increase their *weekday* share of housework
- Since husbands tend to work long hours, relying them to do housework on *weekdays* may be infeasible

Conclusion

- For dual-earner families, both husbands and wives report higher satisfaction with their spouses if the spouses do greater share of housework on *weekdays*
 - **Outsourcing housework** may improve marital satisfaction
 - **Reducing husbands' working hours** may enable them to perform a greater share of housework on weekdays
 - These policies may increase the number of married women who work more actively in the labor force