

Traditional Gender Roles Persist: The Impact of Remote Work on Household Dynamics Amidst the COVID-19 Pandemic in Japan

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Key takeaways

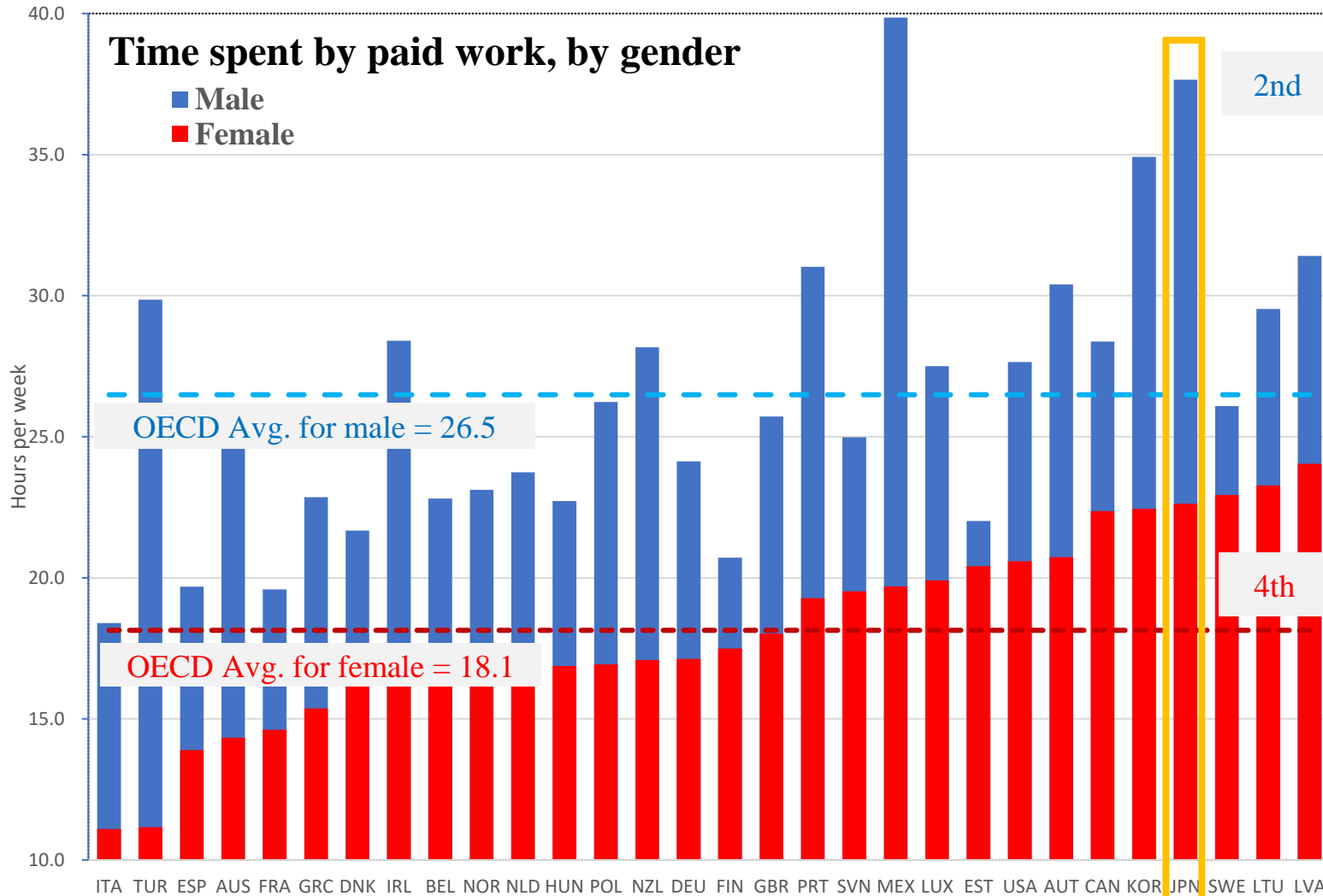
- Our study aims to explore the gendered impacts of telework and the COVID-19 pandemic on time allocation in household chores.
- We utilise data from the 2018 and 2021-2023 Osaka University's Preference Parameter Study (PPS).
 - We used the 2016-2018 PPS to examine the Ashenfelter's Dip. >> **No**
 - The following is the results.

	Pre-pandemic Telework	Post-pandemic Telework
Husbands	Market work ↑ (*) Housework ↑ (**)	Market work ↓ (*) Housework ↓ (**)
Wives	Market work ↑ Housework ↑	Market work ↓ (**) Housework ↑

Challenges (1) – Women and Promotion

- Women continue to face obstacles in advancing their careers (Kachi, et al. 2021, Kawase, et al. 2021, Kawaguchi 2019, McCurry 2015).
 - The heavy burden of housework and childcare responsibilities (Hamada 2021)
 - Prompting women to opt for more flexible forms of employment (T. Sato 2023, Takeda 2018)
- Even when women work full-time, these household obligations may hinder their ability to take on overtime hours.
 - Sending a negative signal to employers (Mahoney 2020, Iida 2018)
- Without support for housework and childcare, women are frequently overlooked for promotion opportunities (Kachi, et al. 2021, Kawase, et al. 2021, Kawaguchi 2019).

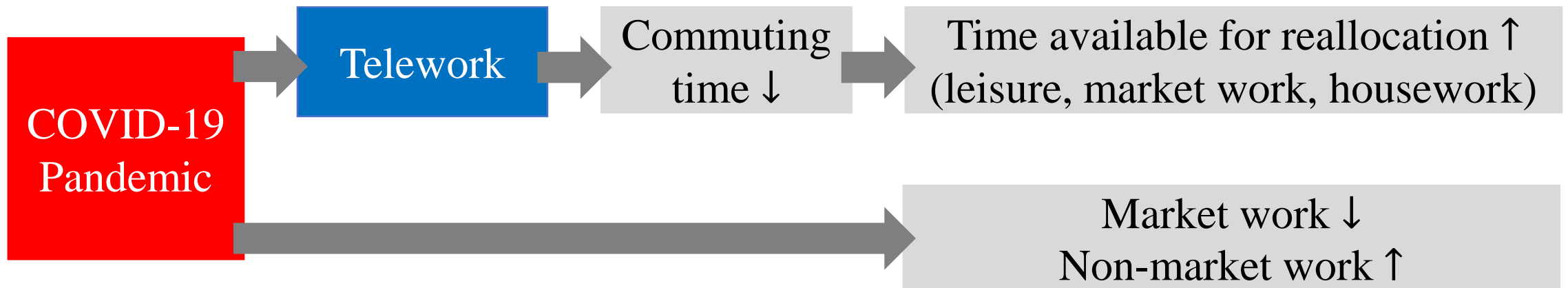
Challenges (2) – Men and Overwork



- Nevertheless, many men, especially those in full-time positions, already endure long working hours (Ono 2018).
- Japan is one of the OECD countries with the highest market work hours and one of the largest gender gap in work hour.

Roles of COVID-19 on Telework

- The onset of the COVID-19 pandemic in April 2020 brought about significant shifts in economic activity, resulting in reduced work hours.
- Concurrently, social distancing measures, including widespread adoption of remote work, led to a decline in commuting time.
- This shift in work dynamics potentially freed up more time for male workers to handle household chores.



Data - Preference Parameter Study (PPS)

- The 2016-2018 and 2021-2023 Osaka University's PPS
- By pooling these datasets, we gathered a total of 12,501 observations, which we categorized into double-income and single-income households.
- To simplify the analysis, our study focuses exclusively on the sample from double-income households from the 2018 and 2021-2023 (PPS).
- This specific group includes 1,883 observations or 1,052 individuals who consistently reported their time allocation to work and housework during these periods.

Dependent variables

Variable	PPS 2018, 2021-2023				
	Obs.	Mean	Std. Dev.	Min	Max
<i>Time on market work</i>	1,883	2,311.514	921.7993	120	6600
Husbands	949	2761.77	785.7799	180	6600
Wives	934	1854.026	819.0821	120	5400
<i>Time on housework</i>	1,883	259.2841	248.5103	0	1590
Husbands	949	91.63119	94.08716	0	1080
Wives	934	429.6296	240.7093	30	1590

unit: minutes

Explanatory variables

- Post-pandemic x Telework - assessed during the 2021-2023 PPS
 - The survey inquired about the frequency of home teleworking per week for both the respondents and their spouses, with classifications based on whether they almost always commute, telework once or twice a week, or telework three or more times per week. Those engaging in home telework at least once a week on average were classified as teleworkers (telework = 1); all others were non-teleworkers (telework = 0).
- (Pre-pandemic) Telework - assessed during the 2021 PPS
 - As telework data from the 2016-2018 PPS was unavailable, we relied on retrospective questions from the 2021 PPS about home teleworking situations in January 2020, prior to the pandemic.
 - Given potential inaccuracies, we **only** assumed telework behaviour in January 2020 was similar to that in 2018 and excluded observations from 2016-2017 in later regression analyses.

Within Transformation

$$\ddot{y}_{it} = T\ddot{e}le_{it}\gamma + P\ddot{o}st_{it}\delta + (Tele \ddot{*} Post)_{it}\theta + \ddot{X}_{it}\beta + \ddot{u}_{it} \quad (1)$$

To observe change within an individual over time, we focus on the within-transformation model, as shown in equation (1). y_{it} represents outcome variables of an individual i^{th} in period t . *Tele* represents telework behaviour. *Post* represents periods after COVID-19 were categorised as a pandemic.

Results – Within Transformation Model

Variables	Total work hour	Work hour	Paid overtime	Unpaid overtime	House- work	Weekday	Weekend
Telework	456.5** (208.2)	118.5 (338.4)	102.0 (188.2)	-69.89 (149.4)	26.37 (42.43)	31.56 (23.72)	-3.332 (26.62)
Post-pandemic	-72.02* (40.63)	-39.84 (49.95)	-8.655 (27.70)	-40.51* (21.34)	14.39 (8.949)	9.313* (5.005)	3.956 (5.673)
Telework x Post-pan	-496.8** (204.6)	-385.2 (328.7)	19.14 (182.7)	71.53 (145.2)	-25.29 (42.07)	-31.92 (23.52)	5.057 (26.40)
Obs.	1,873	1,141	1,144	1,175	1,883	1,878	1,851
No. of obs_id	1,049	747	749	762	1,052	1,048	1,039

Results: Time Allocation by Gender (1)

Pre-pandemic Telework	Total work hour	Housework
Husbands	585.9* (351.0)	115.9** (48.26)
Wives	407.9 (274.5)	27.61 (72.70)

- Husbands may have chosen to telework before the pandemic, motivated by the desire to reduce time spent on morning routines and commuting (Andalón and Jones 2022).
- This saved time could then be reallocated to increase their total work hours.
- The saved time may also improve husbands' mental health and mental capacity, leading to an increase in labour capacity (Marx 1990), which in turn could result in longer work hours and time spent on housework (Garcia 2023).

Results: Time Allocation by Gender (2)

Post-pandemic Telework	Total work hour	Housework
Husbands	-620.4* (359.6)	-126.6** (49.35)
Wives	-559.7** (243.2)	37.23 (66.60)

- The COVID-19 pandemic forced many employees into home telework, a transition for which many were unprepared or unwilling (A. Sato 2019, Denyer 2020, Tsuru 2021).
- The preference for telework positively influences telework labour supply regardless of whether office work is permitted (Andalón and Jones, 2022).
- Remote work during the pandemic may have caused anxiety among workers, decreasing their mental capacity (Niu, et al. 2021), diminishing labour-power (Marx 1990, Garcia 2023), and reducing their time spent on work and housework.

Conclusion

- We utilise data from the 2018 and 2021-2023 Osaka University's Preference Parameter Study (PPS) to explore the gendered impacts of telework and the COVID-19 pandemic on time allocation in household chores.
- There are correlations between work hour and telework behaviour.

	Pre-pandemic Telework	Post-pandemic Telework
Husbands	Market work ↑ (*) Housework ↑ (**)	Market work ↓ (*) Housework ↓ (**)
Wives	Market work ↑ Housework ↑	Market work ↓ (**) Housework ↑

- Preference for telework and preference for non-telework may determine the time allocation.
- Employee's technology adaptability may also influence the work behaviour.