

Impact of the COVID-19 Recession on Full-Time Workers: Shortened Work Hours, Working from Home, and Possible Widening of Income Disparities

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I. Introduction

This column examines the effects of the COVID-19 pandemic, especially its impact on full-time workers in April and May 2020. Also, it focuses on income disparities, which are highlighted by major fluctuations in work hours and access to working from home.

In Japan, no significant worsening of the unemployment rate following the advent of COVID-19 was confirmed in the government statistics (*Labor Force Survey*) for May 2020. However, the figures show that a large number of companies have been making various employment adjustments, as the number of employees on temporary leave had significantly increased as of April, and overtime work were significantly reduced (See Figure 6 of Statistical Indicators in this issue).

A survey conducted by the Japan Institute for Labour Policy and Training (JILPT) in May 2020 also showed that the most widespread impact of the coronavirus on employment and income was “decrease in working days and working hours,” which is associated with reduced income.¹ In addition, the analytical report cited above found that there are great differences in the level of decrease in working hours depending on industry and occupation.²

Shortened working hours are directly linked to loss of income for part-time workers and other hourly-wage workers.³ Even among regular workers who work full-time, it is quite probable that shortened working hours lead to shrinking income due to a reduced overtime allowances and salary

cuts associated with reduction of scheduled working hours. In assessing the impact of the COVID-19 recession on workers, whether or not working hours (labor supply) was maintained during this period may serve as an important indicator.



The spread of COVID-19 and stay-home requests forced many workers into changing their places of work. Specifically, a significant increase in working from home was observed. Remote working, which includes teleworking from home and mobile work, was being advocated under public policy aimed at promoting flexible working styles prior to the COVID-19 pandemic, but for a range of reasons it had not been widely adopted. Now, with this urgent impetus it appears to have suddenly caught on. However, while some enterprises seem to have transitioned to work from home relatively smoothly, others have been forced to make an imminent decision to have their employees work from home in response to social conditions and public health advisories. Furthermore, even during the first wave of infection period, not a few workers have never transitioned to work-from-home. And while the public was being requested to stay home, whether or not workers smoothly shift to work from home was strongly related to maintenance of both labor supply and income levels.

Overall, the COVID-19 recession through May 2020 (especially April and May) is clearly marked by changes in work hours and places, especially for full-time workers.⁴ JILPT conducted a questionnaire

survey of individuals from May 18 to 27 regarding the impact of COVID-19 on work and life. Reading between the lines of the data, we see disparities between those who have been able to cope with this crisis smoothly and those who have not. Below, let us drill down a bit on these findings.

II. Changes in working hours in April and May 2020

Whether or not the working hours of full-time workers could be maintained in some way during the national state of emergency (in April and May) can be considered as an indicator of whether the impact of the COVID-19 recession was moderated. Let us examine the issue.

First of all, what kind of change in hours worked in April and May among full-time workers? In this column, those whose weekly hours worked were 35 hours or more in an ordinary month before pandemic are treated as “pre-COVID full-time workers.”⁵ Figure 1 shows that there is an overall tendency for working hours to be decreased, and for quite a few people hours worked are cut to less than 35 hours, with some of them having hours drastically reduced (to less than 20 hours).⁶

When we speak of shortened working hours, the situation may be quite different between workers whose overtime hours are reduced, and those who

have experienced shortening of regular working hours involving temporary leave, shorter business hours and so forth. This is because the labor supply is severely restricted in the latter case, compared with the former in which full-time work is basically maintained. Although the two cannot be accurately distinguished based on this survey data, we have attempted to divide the samples roughly into two groups based on hours worked in April and May compared with those prior to COVID-19 outbreak.

Specifically, when actual hours worked in April and May were compared with those before the pandemic, survey samples can be classified into three categories described below. The first is “Maintaining working hours” group, where hours remained at a comparable level.⁷ The second is “Reduced overtime work” group, where hours decreased but remained more or less within the “full-time” range (i.e. overtime work outside regular working hours decreased). The third is “Experienced short-time work” group, where hours declined below the “full-time” range.⁸

Looking at the survey results according to these classifications, it is evident that the fluctuation of working hours is clearly stratified by degree of COVID-19 impact. As Figure 2 shows, compared to Maintaining working hours group, Reduced overtime work group and the Experienced short-time

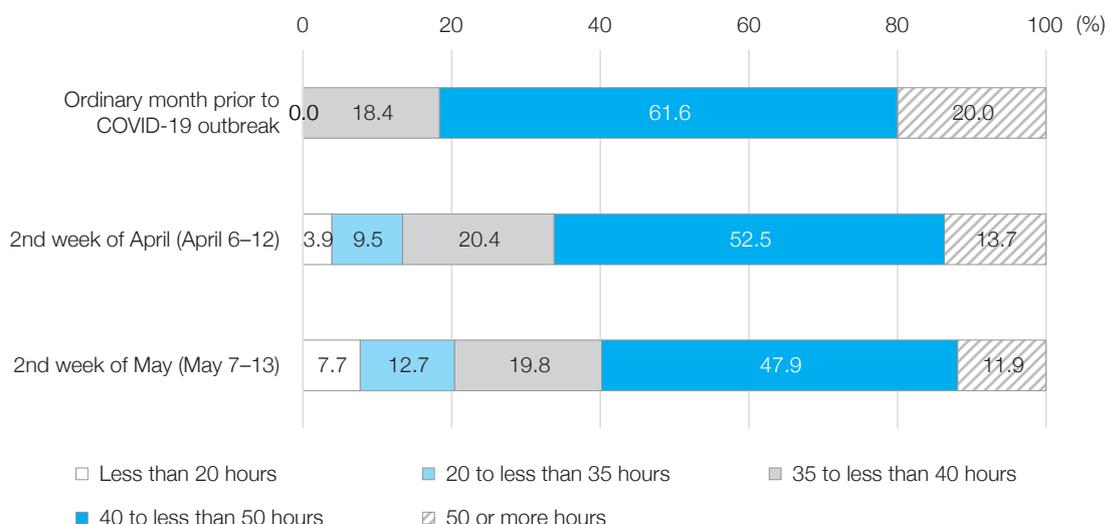


Figure 1. Change in distribution of hours worked during April and May 2020 among pre-Covid full-time workers (N=2,255)

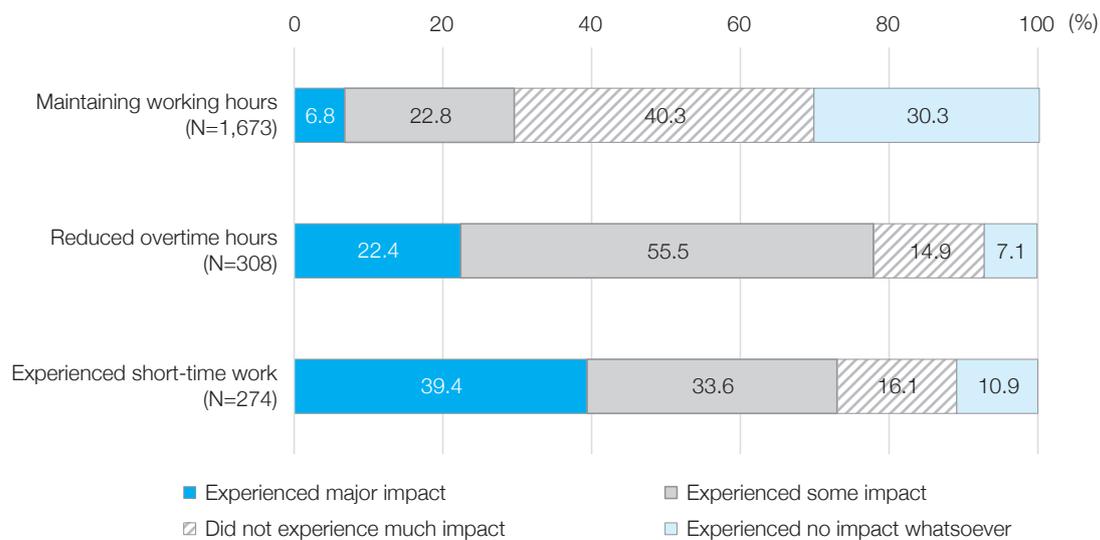


Figure 2. Impact of COVID-19 outbreak on employment and income (by change in working hours, among pre-COVID full-time workers)

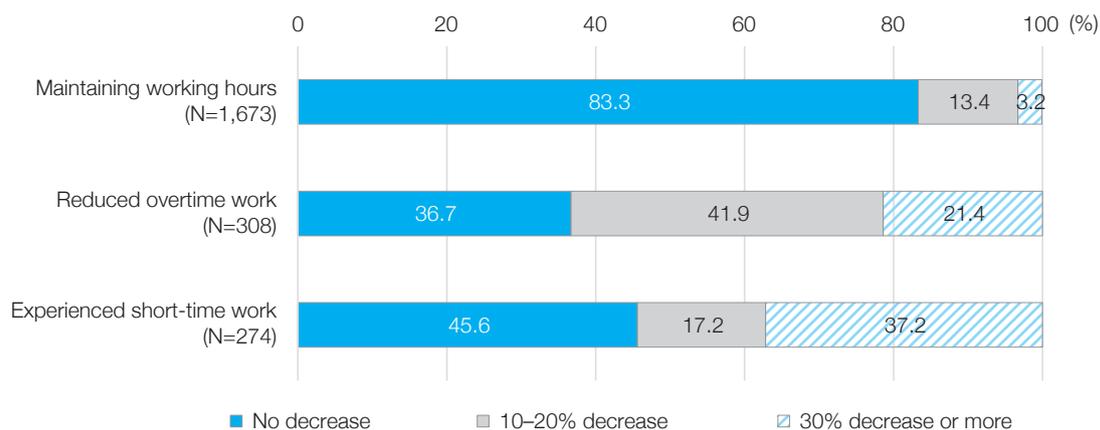


Figure 3. Change in income due to COVID-19 pandemic (by change in working hours, among pre-COVID full-time workers)

work group are more likely to experience impact on employment and income. It is particularly notable that a large percentage of Experienced short-time work group experienced “major impact.” Thus, changes in working hours during the April and May period are an effective yardstick for measuring the impact of the COVID-19 recession on full-time workers. Moreover, workers’ experiences were very different even among two groups where working hours decreased, depending on how they were decreased. Specifically, among Reduced overtime work group and Experienced short-time work group,

workers had different experiences depending on whether overtime hours were simply reduced within the full-time range, or working hours were shortened to below full-time levels. The latter case was found to be particularly significantly affected.

Obviously, declining income is more prevalent among the groups with reduced working hours compared to the employees maintaining working hours. As Figure 3 shows, Reduced overtime work group broadly sees income declines of 10% to 20%. We can infer that this is mainly due to decreased overtime allowance. In contrast, among Experienced

short-time work group, a high percentage sees income decrease by more than 30%. It is clear that many in this group suffered a significant income decrease during the COVID-19 crisis.⁹

So, who experienced fluctuations in working hours? See Appendix 1 for details. In summary, there are gender-based disparities, with more men having only overtime hours reduced, and more women experiencing short-time work.¹⁰ There are also major discrepancies depending on form of employment, with regular employee status correlated with reduced overtime work, and non-regular employees more likely to have their working hours reduced below full-time levels. Industry and occupation are also significant factors. By industry, short-time working is most prevalent in industries of accommodations, eating and drinking services. By occupation, the same tendency is most notable for service positions. Many in administrative and managerial positions and professional and engineering positions kept the same working hours, and even among those whose working hours fell, it was almost within the range of overtime reduction. When categorized by pre-COVID individual annual income, a relatively high percentage of those with incomes of “7 million yen or more” maintains the same working hours, while a lower income group is correlated with experiencing short-time work. There are also differences depending on region, and short-time work is more prevalent in the Tokyo metropolitan area and the Kansai and Fukuoka areas where infection rates were rising and stay-home requests were issued earlier.

III. Disparities associated with access to work from home: Tokyo metropolitan area as a case example

During the current crisis, much attention was paid to the expansion of working from home. The conventional wisdom thus far has been that remote working, which includes teleworking from home and mobile work, has not caught on for various reasons, but it seems that with the outbreak of COVID-19, teleworking has suddenly become popular. However, it should be noted that the expansion of working from home during this crisis seems to go beyond the

scope of the conventional criterion of “to what extent the work is feasible for ICT-based telework.” This is because, especially since mid-April, the government and municipalities have issued strong requests intended to curtail the number of commuters, and a lot of companies have unavoidably made the transition to work from home, prioritizing prevention of the virus’s spread. For those who have suddenly switched to work from home, there may have been cases where level of work performance could not be maintained. In that sense this kind of workers may be qualitatively different from those who had the option of working from home prior to the declaration of the state of emergency.

The following analysis is limited to the Tokyo metropolitan area, because degrees of increase in infection risk (number of confirmed cases, etc.) and work-from-home application rates vary greatly depending on the region.¹¹ In the Tokyo metropolitan area, the Governor of Tokyo held an emergency press conference on March 25 in which she requested that residents stay home unless they had an unavoidable and/or urgent need to go out, which was a major catalyst for aroused public awareness of the crisis. From then until the declaration of a state of emergency (on April 7 in the Tokyo metropolitan area), the situation has worsened due to a rapid rise in the number of COVID-19 cases, and the sense of crisis among the residents increased rapidly. While at this stage there was no legally binding prohibition on going to work, the access to working from home was seen as valuable option for workers in terms of preventing infection. In that sense, the situation during the phase lasting until the end of March was somewhat different from that during the phase after the first half of April, when advisories to avoid work attendance were strengthened and workers were strongly requested to stay at home. In light of this, workers who had options to choose working from home before the beginning of April could have changed their places of work smoothly without suffering a deterioration in work performance level. Conversely, the rushed transition to work from home from April onward must have been quite different. Let us examine the data below.

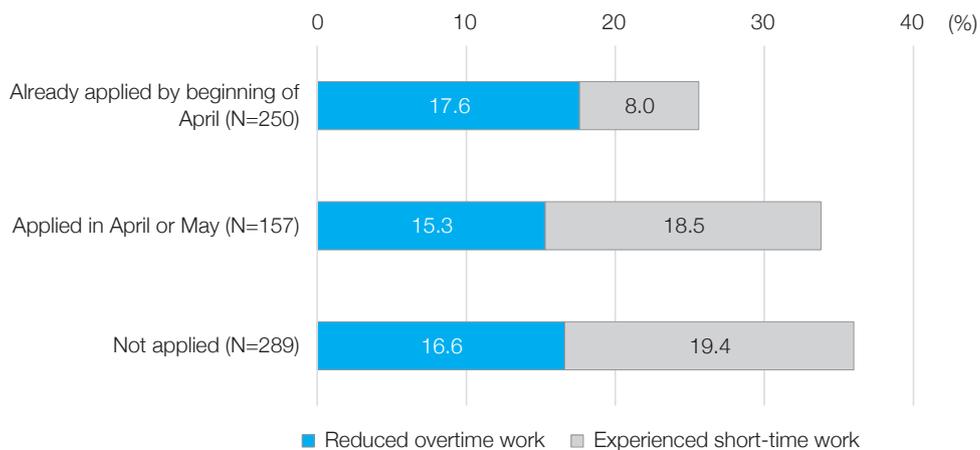


Figure 4. Change in working hours during April and May 2020, by timing when work-from-home arrangement was applied (Tokyo metropolitan area residents who were pre-COVID full-time workers)

Figure 4 shows differences in changes to working hours depending on when working from home was introduced. In cases of work from home was already in place as of the first of the April, percentages of workers experiencing short-time work were low and full-time work schedules were easily maintained.¹² By comparison, changes in working hours among workers whose employers introduced working from home in April or May were similar to those whose employers did not apply work from home at all, and a significant percentage saw an experience of short-time work. From this, although the transition to work from home in response to the declaration of a state of emergency had implications in terms of curbing work attendance, the actual levels of work performance also declined in cases where work from home is applied as an emergency measure

So, which workers were able to switch to work from home at the beginning of April smoothly? Appendix 2 shows relationships between application of work-from-home arrangement and gender, age, educational background, form of employment, industry, occupation, and company size. In addition, it is important to note the relationship with individual annual income. Individual annual income before the COVID-19 outbreak is strongly correlated not only with application of working from home, but also with changes in working hours and income during this period.

To summarize Table 1, higher income is correlated with faster transition to work from home,¹³ less change in working hours, and maintenance of income level. Higher income group was more likely to switch their workplaces flexibly, which in turn makes it possible to moderate change in working hours and prevent income decrease.¹⁴ Conversely, lower income group suffered severe damage due to the COVID-19 crisis in terms of changes in labor conditions such as reduced working hours and decreased income. To put it simply, this can be called a phase in which existing income disparities have widened drastically through fluctuations of working hours and access to working from home.

IV. Conclusion

This survey data shows the severity of this era of crisis, in which there are non-negligible social hierarchy in resources needed to weather the storms battering society, and these can directly lead to amplification of income disparities. The facts presented by this survey should be taken into consideration when considering not only labor policy, but also broader social policy.

This column is originally released in Japanese on July 1, 2020 (https://www.jil.go.jp/researcheye/bn/039_200701.html) and translated with additions and amendments in line with the gist of *Japan Labor Issues*.

Table 1. Application of work-from-home arrangement, change in working hours, and change in income during April and May 2020, by individual annual income prior to the COVID-19 outbreak (Tokyo metropolitan area residents who were pre-COVID full-time workers) (N=696)

(%)

	Application of work-from-home arrangement			Change in working hours			Change in income		
	Already applied by beginning of April	Applied in April or May	Not applied	Maintaining working hours	Reduced overtime work	Experienced short-time work	No decrease	10–20% decrease	30% decrease or more
Pre-COVID-19 individual annual income									
Less than 3 million yen (N=122)	13.9	16.4	69.7	55.7	9.0	35.2	59.0	17.2	23.8
3 million yen to less than 5 million yen (N=237)	21.9	27.0	51.1	68.4	16.9	14.8	71.3	17.3	11.4
5 million yen to less than 7 million yen (N=169)	38.5	24.3	37.3	68.0	21.3	10.7	66.9	23.1	10.1
7 million yen or more (N=168)	69.0	19.0	11.9	77.4	17.3	5.4	79.2	13.1	7.7

Notes: 1. With regard to “Application of work-from-home arrangement,” cases where response to the RENGO-RIALS (Rengo Research Institute for Advancement of Living Standards) April survey (conducted April 1 to 3, 2020) was “Already applied” are referred to as “Already applied as of the beginning of April,” while cases where working from home had not been applied at that stage but the response to the JILPT survey (conducted May 18 to 27, 2020) was “Already applied” are referred to as “Applied in April or May,” and cases where both responses were “Not applied” are referred to as such.

2. Figures for “Individual annual income prior to the COVID-19 outbreak” are based on the RENGO-RIALS April survey (conducted April 1 to 3, 2020), survey item “Your pre-tax income from wages over the past year.”

1. “Survey on Impact of the Spread of COVID-19 on Work and Life,” conducted by JILPT as joint research with the Rengo Research Institute for Advancement of Living Standards, RENGO-RIALS. For survey design and tabulation, refer to the material released in Japanese on June 10 at <https://www.jil.go.jp/press/documents/20200610.pdf> (later released as a summary in English “Results of ‘Survey on Impact of the Spread of COVID-19 on Work and Life’ (May Survey, a follow-up survey coupled with the respondents of April Survey) (First Aggregation),” at <https://www.jil.go.jp/english/special/covid-19/survey/documents/20200610.pdf>). I would like to thank my colleagues, Yuko Watanabe who provided survey data, and Koji Takahashi who provided crucial advice in the preparation of original column. It should be noted that opinions in this column are the author’s personal views and do not necessarily reflect that of institution with which he is affiliated.

2. Koji Takahashi (2020), “Decreased Working Hours and Impact on Wages: A Look Back at the Novel Coronavirus’s ‘First Wave’,” *Japan Labor Issues*, vol.4, no.26, October 2020 <https://www.jil.go.jp/english/jli/documents/2020/026-01.pdf> (originally released in Japanese on June 18, 2020, at https://www.jil.go.jp/researcheye/bn/037_200618.html). According to Takahashi (2020), there were particularly large decreases in working hours for service workers, in terms of occupational classification, and in, “Accommodation, eating and drinking services,” “Education and learning support,” and “Services (not elsewhere classified)” in terms of industry.

3. Takahashi (2020) also noted that compared to regular employees and contract employees, part-time workers and

dispatched workers had a more straightforward connection between reduced working hours and decreased wages.

4. In contrast, part-time workers may be experiencing more problems with continued employment than with reduced hours. See Takahashi (2020).

5. While there were some cases where people had changed or lost jobs by the time of the survey was conducted, this article deals only with those who remained employed by the same employer. Also, while most “full-time employees” are regular employees, this data includes some non-regular employees (see Appendix 1). As the focus of this article is the impacts on full-time workers, non-regular employees are not excluded from its scope.

6. Among those who were working less than 20 hours, some respondents replied that they were “working zero hour.” However, as long as an employment contract is in force, this article considers that there is no significant qualitative difference between “working zero hour” and working with extremely short hours, and does not make a particular distinction.

7. The “maintaining working hours” group includes both cases where average hours worked during April and May were the same as pre-COVID and those with increased working hours. Also, those who experienced reductions of less than approximately 5 hours were classified as the “maintaining working hours” group.

8. Among those whose working hours were reduced, cases where average hours worked in April and May were less than 30 hours, or hours worked were less than 20 hours in any given period, were classified as the “experienced short-time work” group. Since this survey was carried out immediately after holidays

at the beginning of May (called the “Golden Week”), it is an expedient dividing line considering the possibility of cases in which two days (for example, Thursday, May 7 and Friday, May 8) of paid leave were taken without being direct relation to the pandemic.

9. Among those in the “experienced short-time work” group, almost half of the respondents reported “no reduction” in income. Although there are limits to what can be inferred within the scope of this data, it is conceivable that there are cases where a considerable number of paid leave days were taken during this period, as well as cases where companies maintained wages by providing leave allowances while putting employees on temporary leave.

10. It appears that the reason the female labor supply decreased sharply was the temporary closure of elementary and junior high schools and nursery schools, and sudden changes in social and living conditions due to school closures. See Yanfei Zhou (2020), “How Women Bear the Brunt of COVID-19’s Damages on Work,” *Japan Labor Issues*, vol.5, no.28, January 2021 (this issue).

11. In fact, the data shows major discrepancies between the Tokyo metropolitan area and the Kansai area in terms of work-from-home application rates as of April 1, 2020. Among the seven prefectures covered by the declaration of a state of emergency issued on April 7, the situation was not uniform.

12. While the table containing this data was not included in this

column, the same tendency was observed in a regression analysis that controlled for gender, age, form of employment, industry, occupation, and company size. It should be noted that trends differed in the Tokyo metropolitan area and in other areas.

13. While the table containing this data was not included in this column, a strong correlation between income class and early transition to work from home was also observed in a regression analysis that controls for industry, occupation, company size, and other factors that have conventionally been related to the access to teleworking.

14. In this column, annual income of 7 million yen or more is designated as one of the income brackets based on distribution of responses, but it should be noted that this does not mean 7 million yen is some kind of specific demarcation. Also, it appears that significant factors underlying the influence of individual annual income on working from home relate to the presence or absence of a teleworking-compatible living space and the necessary information and communications equipment. However, there is no intention to further emphasize the importance of economic resources. Rather the individual annual income as discussed in this column is thought to be an index that represents the “position of individuals within industrial society (social status)” and cannot be fully explained according to industry, occupation, and size of company. It is necessary to continue examining the existence of so-called “good jobs” which relate to this social status.

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Appendix 1. Status of changes in working hours in April and May 2020 by attribute of pre-COVID full-time workers (N=2,255)

		Maintaining working hours (%)	Reduced overtime work (%)	Experienced short-time work (%)	N
Total		74.2	13.7	12.2	2,255
Sex	Male	75.2	15.4	9.4	1,496
	Female	72.2	10.3	17.5	759
Age	20–29 years old	68.0	14.5	17.5	331
	30–39 years old	72.0	15.1	12.9	510
	40–49 years old	76.8	13.0	10.2	706
	50–59 years old	74.7	14.7	10.6	546
	60–64 years old	80.9	6.8	12.3	162
Educational attainment	Junior high/High school graduate	76.0	11.9	12.1	663
	Vocational school/Junior college	72.0	13.0	15.0	432
	University/Graduate school	74.0	14.9	11.1	1,160
Form of employment	Regular employee	75.0	14.7	10.3	1,947
	Non-regular employee	68.8	7.1	24.0	308
Main type of business	Construction	83.0	13.1	4.0	176
	Manufacturing	76.9	14.3	8.8	679
	Electricity, gas, heat supply and water	85.7	9.5	4.8	42
	Information and communications	83.0	9.4	7.6	171
	Transport	71.9	16.3	11.9	160
	Wholesale and retail trade	69.1	15.2	15.6	269
	Finance and insurance	65.6	14.6	19.9	151
	Real estate	65.2	18.2	16.7	66
	Accommodations, eating and drinking services	37.5	22.9	39.6	48
	Medical, health care and welfare	93.3	3.9	2.8	179
	Education, learning support	69.4	13.9	16.7	36
	Postal services, cooperative association	88.9	5.6	5.6	18
	Services	60.8	16.5	22.7	260
Occupational classification	Administrative and managerial	79.2	14.6	6.2	308
	Professional and engineering	82.2	11.9	5.9	437
	Clerical	76.2	11.4	12.4	614
	Sales	61.5	19.9	18.6	322
	Service	59.4	12.9	27.7	155
	Security	78.6	7.1	14.3	14
	Production/skilled	74.3	12.3	13.4	253
	Transport and machine operation	66.7	20.0	13.3	60
	Construction and mining	83.9	12.9	3.2	31
	Carrying, cleaning, and packaging	77.0	14.8	8.2	61
Size of enterprise (number of employees)	29 or fewer employees	76.2	11.1	12.7	442
	30 to 299 employees	74.7	13.9	11.4	740
	300 to 999 employees	74.0	13.9	12.1	339
	1,000 or more employees	72.5	14.9	12.7	734
Pre-COVID-19 individual annual income	Less than 3 million yen	70.6	9.6	19.8	615
	3 million yen to less than 5 million yen	76.3	12.2	11.5	819
	5 million yen to less than 7 million yen	72.5	18.7	8.9	461
	7 million yen or more	77.8	17.5	4.7	360
Area of residence	Tokyo metropolitan area	68.6	16.9	14.6	687
	Kansai or Fukuoka area	68.9	15.7	15.4	408
	Six additional specific-alert prefectures	80.7	9.5	9.8	378
	Other areas	78.8	11.8	9.5	782

Notes: 1. Figures for “Pre-COVID-19 Individual annual income” are based on the RENGO-RIALS April survey (conducted April 1 to 3, 2020), survey item “Your pre-tax income from wages over the past year.”

2. “Area of residence” is classified according to prefecture, with those covered by the April 7 declaration of a state of emergency (Tokyo, Kanagawa, Chiba, Saitama, classified as the “Tokyo metropolitan area,” and Osaka, Hyogo, and Fukuoka classified as “Kansai or Fukuoka area”), and the six prefectures designated additionally by the new April 16 declaration of a state of emergency (Hokkaido, Ibaraki, Ishikawa, Gifu, Aichi, Kyoto) classified as “six additional special-alert prefectures,” and other prefectures as “other areas.”

Appendix 2. The timing of application of work-from-home arrangement by attribute of pre-COVID 19 full-time workers (N=696)

		Already applied by beginning of April (%)	Applied in April or May (%)	Not applied (%)	N
Total		35.9	22.6	41.5	696
Sex	Male	38.9	22.3	38.7	475
	Female	29.4	23.1	47.5	221
Age	20–29 years old	29.6	19.4	50.9	108
	30–39 years old	36.4	20.0	43.6	165
	40–49 years old	35.1	23.9	41.0	222
	50–59 years old	43.6	21.5	35.0	163
	60–64 years old	23.7	39.5	36.8	38
Educational attainment	Junior high/High school graduate	17.8	21.7	60.5	129
	Vocational school/Junior college	18.6	21.6	59.8	97
	University/Graduate school	44.5	23.0	32.6	470
Form of employment	Regular employee	37.6	22.8	39.6	606
	Non-regular employee	24.4	21.1	54.4	90
Main type of business	Construction	28.9	34.2	36.8	38
	Manufacturing	47.6	19.3	33.1	166
	Electricity, gas, heat supply and water	16.7	50.0	33.3	6
	Information and communications	63.4	24.7	11.8	93
	Transport	8.2	27.9	63.9	61
	Wholesale and retail trade	27.6	18.4	53.9	76
	Finance and insurance	50.0	23.5	26.5	68
	Real estate	29.0	25.8	45.2	31
	Accommodations, eating and drinking services	15.4	15.4	69.2	13
	Medical, health care and welfare	4.8	11.9	83.3	42
	Education, learning support	15.4	46.2	38.5	13
	Postal services, cooperative association Services	—	—	—	—
Occupational classification	Administrative and managerial	55.6	27.4	17.1	117
	Professional and engineering	49.2	19.7	31.1	132
	Clerical	34.3	23.9	41.8	213
	Sales	36.5	21.2	42.3	104
	Service	6.4	25.5	68.1	47
	Security	0.0	0.0	100.0	4
	Production/skilled	13.2	26.3	60.5	38
	Transport and machine operation	5.0	15.0	80.0	20
	Construction and mining	0.0	33.3	66.7	3
	Carrying, cleaning, and packaging	0.0	0.0	100.0	18
Size of enterprise (number of employees)	29 or fewer employees	14.7	24.5	60.8	102
	30 to 299 employees	19.1	29.6	51.3	199
	300 to 999 employees	41.0	21.0	38.0	100
	1,000 or more employees	52.9	17.6	29.5	295
Pre-COVID-19 individual annual income	Less than 3 million yen	13.9	16.4	69.7	122
	3 million yen to less than 5 million yen	21.9	27.0	51.1	237
	5 million yen to less than 7 million yen	38.5	24.3	37.3	169
	7 million yen or more	69.0	19.0	11.9	168

Notes: 1. With regard to “Application of work-from-home arrangement,” cases where response to the RENG0-RIALS April survey (conducted April 1 to 3, 2020) was “Already applied” are referred to as “Already applied as of the beginning of April,” while cases where working from home had not been applied at that stage but the response to the JILPT survey (conducted May 18 to 27, 2020) was “Already applied” are referred to as “Applied in April or May,” and cases where both responses were “Not applied” are referred to as such.

2. Figures for “Pre-COVID-19 individual annual income” are based on the RENG0-RIALS April survey (conducted April 1 to 3, 2020), survey item “Your pre-tax income from wages over the past year.”