

# Deciphering “Commute” That Changed Due to the COVID Pandemic

Commute frequency, in addition to time, affects commuting stress

March 21, 2024

## Introduction

As companies responded to the COVID pandemic by increasingly adopting teleworking, such as working from home, commuting to the office every day on crowded trains became a work style of the past. Now that there appears to be a movement to return to the office after the pandemic, how has the commute of office workers changed?

In 2019, prior to the outbreak of the COVID pandemic, Xymax Real Estate Institute (“Xymax REI”) analyzed the relationship between commute time, commute stress and satisfaction among office workers in Greater Tokyo.\*<sup>1</sup>\*<sup>2</sup> In this report, we compare their results with the results of the *Metropolitan Areas Office Worker Survey 2023*\*<sup>3</sup> conducted in December 2023 to quantify the changes in the commutes of Greater Tokyo office workers before and after the pandemic. We hope that this will serve as a reference for companies seeking the optimal solution for coming to the office and teleworking so that commuting does not return to the previous stressful commute.

\*1 *Effect of Commuting Stress on the Working People’s Satisfaction*, released on June 4, 2019  
<https://www.xymax.co.jp/english/research/images/pdf/20190604.pdf>

\*2 *The Effectiveness of Setting Up a Workplace Other than in Central Tokyo*, released on October 4, 2019  
<https://www.xymax.co.jp/english/research/images/pdf/20191004.pdf>

\*3 *Metropolitan Areas Office Worker Survey 2023 (1) Work Style Reality and Needs*, released on December 13, 2023  
[https://www.xymax.co.jp/english/research/images/pdf/20231213\\_1\\_detailed.pdf](https://www.xymax.co.jp/english/research/images/pdf/20231213_1_detailed.pdf)

*Metropolitan Areas Office Worker Survey 2023 (2) Evaluation of Work Styles*, released on December 13, 2023  
[https://www.xymax.co.jp/english/research/images/pdf/20231213\\_2\\_detailed.pdf](https://www.xymax.co.jp/english/research/images/pdf/20231213_2_detailed.pdf)

### <Survey Overview>

<b>Original data</b>	<ul style="list-style-type: none"><li>Greater Tokyo Office Worker Survey 2019 <a href="https://www.xymax.co.jp/english/research/images/pdf/20190604.pdf">https://www.xymax.co.jp/english/research/images/pdf/20190604.pdf</a></li><li>Metropolitan Areas Office Worker Survey 2023 <a href="https://www.xymax.co.jp/english/research/images/pdf/20231213_1_detailed.pdf">https://www.xymax.co.jp/english/research/images/pdf/20231213_1_detailed.pdf</a></li></ul>
<b>Analysis targets</b>	Of those who replied that their regular office is in Greater Tokyo (Tokyo and three peripheral prefectures), those who commute to their office at least once a week.
<b>No. of valid answers</b>	<ul style="list-style-type: none"><li>2019: 1,895</li><li>2023: 1,922 (The aggregation was done by weighting back according to the percentage mix of gender and age of office workers in the <i>Greater Tokyo Office Worker Survey 2019</i>.)</li></ul>

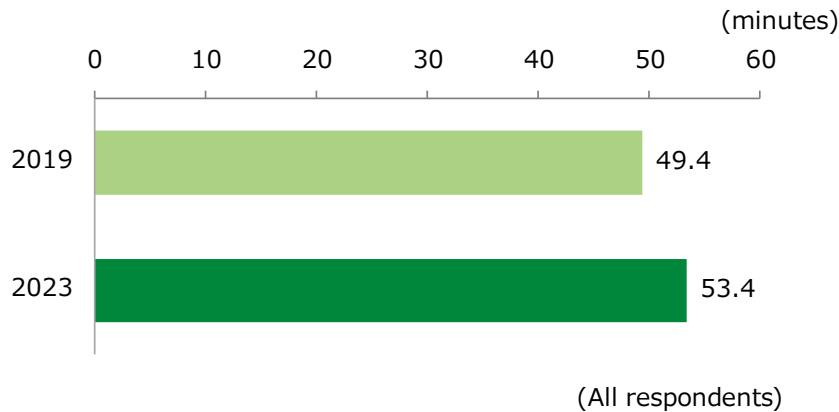
# 1. Changes in Commute Before and After the Pandemic

## 1.1. Commute time

**Figure 1** shows the commute time from the respondents’ homes to their regular offices.\*<sup>4</sup> The average commute time in 2023 was 53.4 minutes, longer than the 49.4 minutes in 2019.

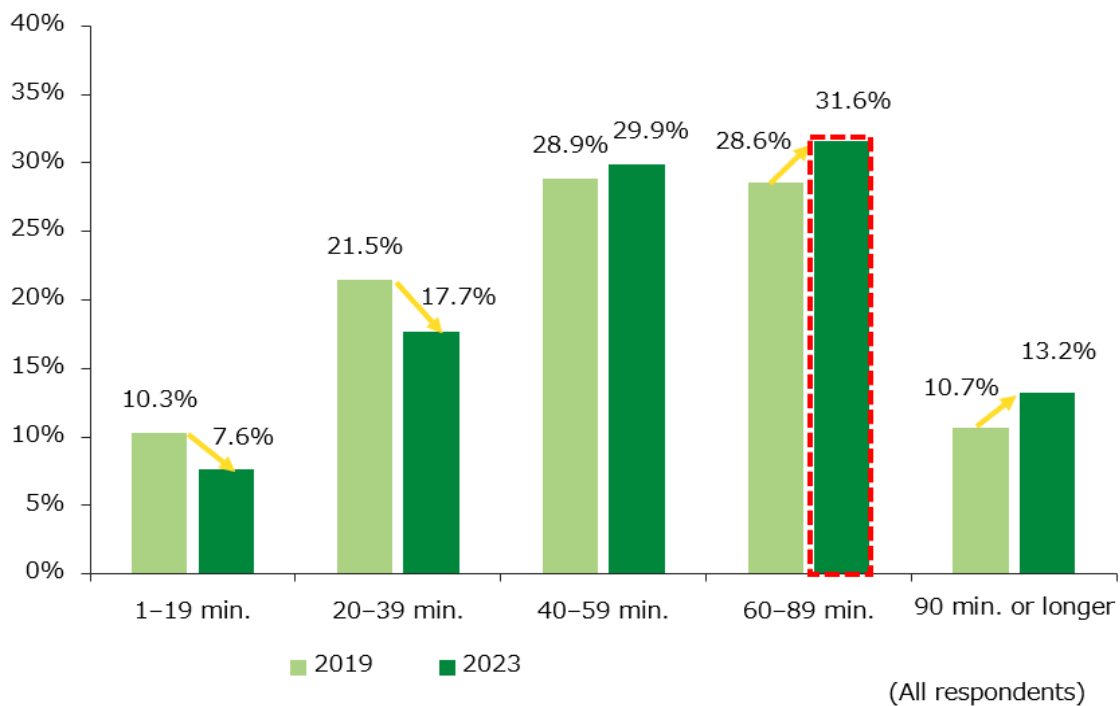
\*<sup>4</sup> Commute time: The door-to-door travel time (one-way) from the respondents’ home using their usual means of commuting (e.g., train, bus, car, bicycle, walking).

**Figure 1: Average Commute Time from Home to Office (2019 and 2023)**



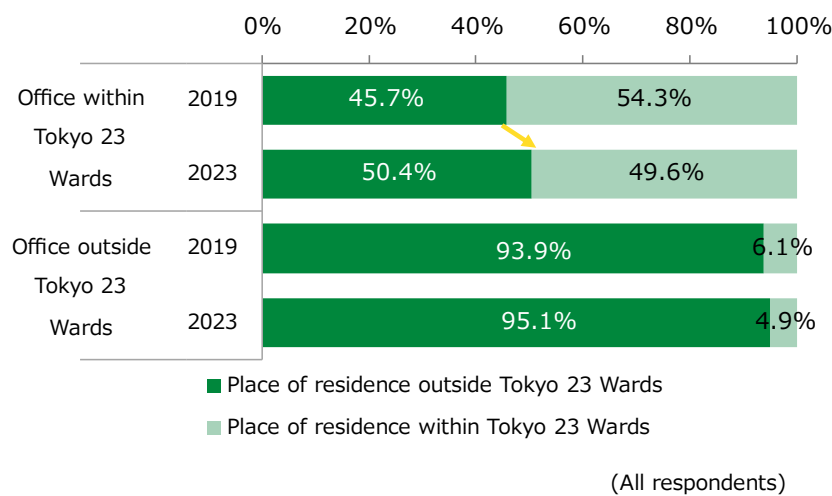
In terms of the distribution of commute times in 2019 and 2023, the most common commute time was “40–59 minutes” in 2019, increasing to “60–89 minutes” in 2023 (**Figure 2**). We also found that while the percentage of “1–39 minutes” commutes decreased, the percentage of relatively long commutes of “60 minutes or more” was on the rise.

**Figure 2: Distribution of Commute Times from Home to Office (2019 and 2023)**

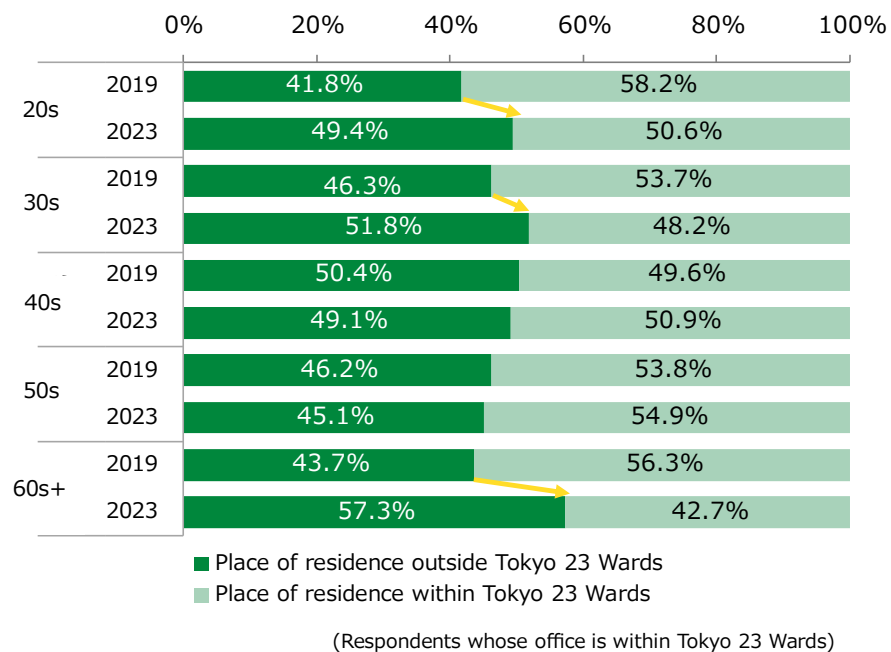


The factor for the longer commute times is that the place of residence of workers commuting to central Tokyo may have changed. **Figure 3** shows that while there was little change between 2019 and 2023 in the place of residence of workers commuting to an office outside the 23 wards of Tokyo (“Tokyo 23 Wards”), the percentage of workers who “commute to an office in Tokyo 23 Wards and live outside Tokyo 23 Wards” increased by 4.7 percentage points between 2019 and 2023. This trend is pronounced among older workers in their 60s and above and younger workers in their 20s and 30s (**Figure 4**). Possible factors include cases where the experience of teleworking during the pandemic may have shifted workers’ values away from living near the office in central Tokyo, resulting in longer distances between the office and place of residence.

**Figure 3: Distribution of Place of Residence (2019 and 2023) – By Office Location**



**Figure 4: Distribution of Place of Residence (2019 and 2023) – By Age; Office Within Tokyo 23 Wards**

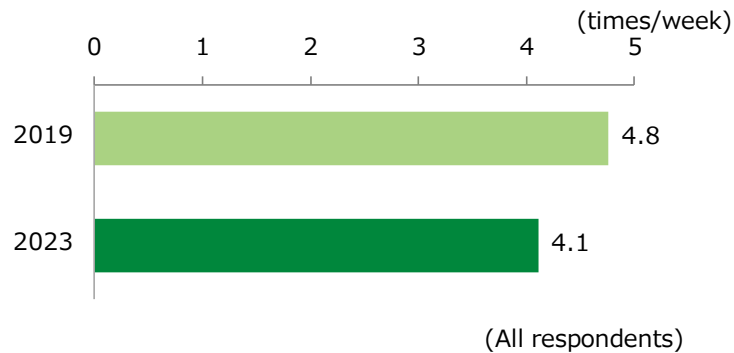


## 1.2. Commute frequency

**Figure 5** shows the frequency of commuting\*<sup>5</sup> to the office by office workers in Greater Tokyo. The average frequency of commuting per week in 2023 was 4.1 times, down from 4.8 times in 2019.

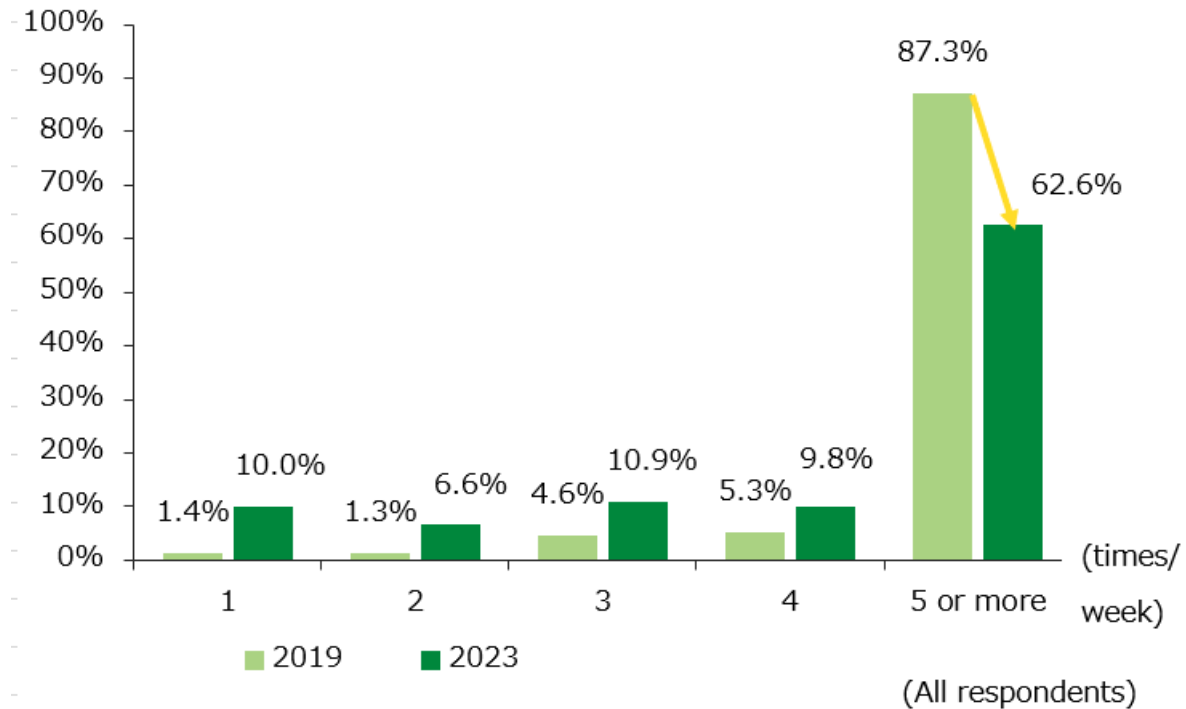
\*5 Frequency of commuting (commute frequency): The number of times per week respondents commute to their regular office (maximum of 7). However, the maximum number for 2019 is 5 by setting the workweek to a 5-day workweek (the answers from those who work for other than 5 days a week are converted to a 5-day workweek basis). Excludes those whose commute frequency is 0.

**Figure 5: Average Frequency of Commuting to the Office (2019 and 2023)**



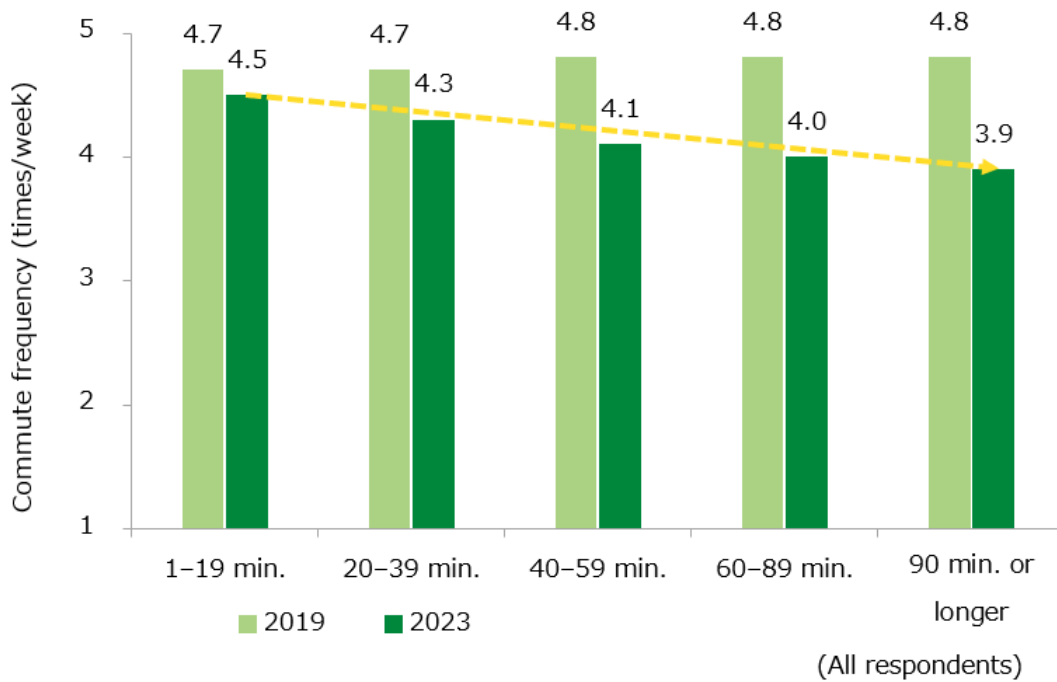
Looking at the distribution of commute frequency, the percentage of “5 or more times a week” decreased significantly by 24.7 points, from 87.3% in 2019 to 62.6% in 2023 (**Figure 6**). On the other hand, we found that the percentage of commute frequency of “1–4 times a week” has increased, especially for “Once a week”.

**Figure 6: Distribution of Frequency of Commuting to the Office (2019 and 2023)**



**Figure 7** shows the relationship between commute frequency and commute time. Looking at commute frequency by commute time, in 2019, before the pandemic, when it was assumed that all employees came to the office full time, commute frequency was roughly uniform at about 5 days per week regardless of commute time. In 2023, however, there was a tendency for those with longer commutes to commute less, suggesting that there is some kind of relationship between how often workers come to the office and their commute times.

**Figure 7: Commute Frequency (2019 and 2023) – By Commute Time**

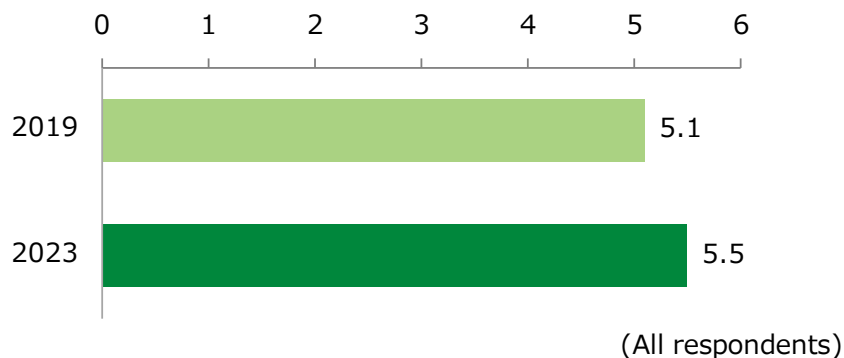


## 2. Changes in Commuting Stress

**Figure 8** shows the stress\*<sup>6</sup> that workers typically feel while commuting. Commuting stress felt by office workers tended to be higher in 2023 than in 2019.

\*6 Based on an 11-point rating from 0 (low stress) to 10 (high stress).

**Figure 8: Stress Typically Felt While Commuting to the Office (2019 and 2023)**

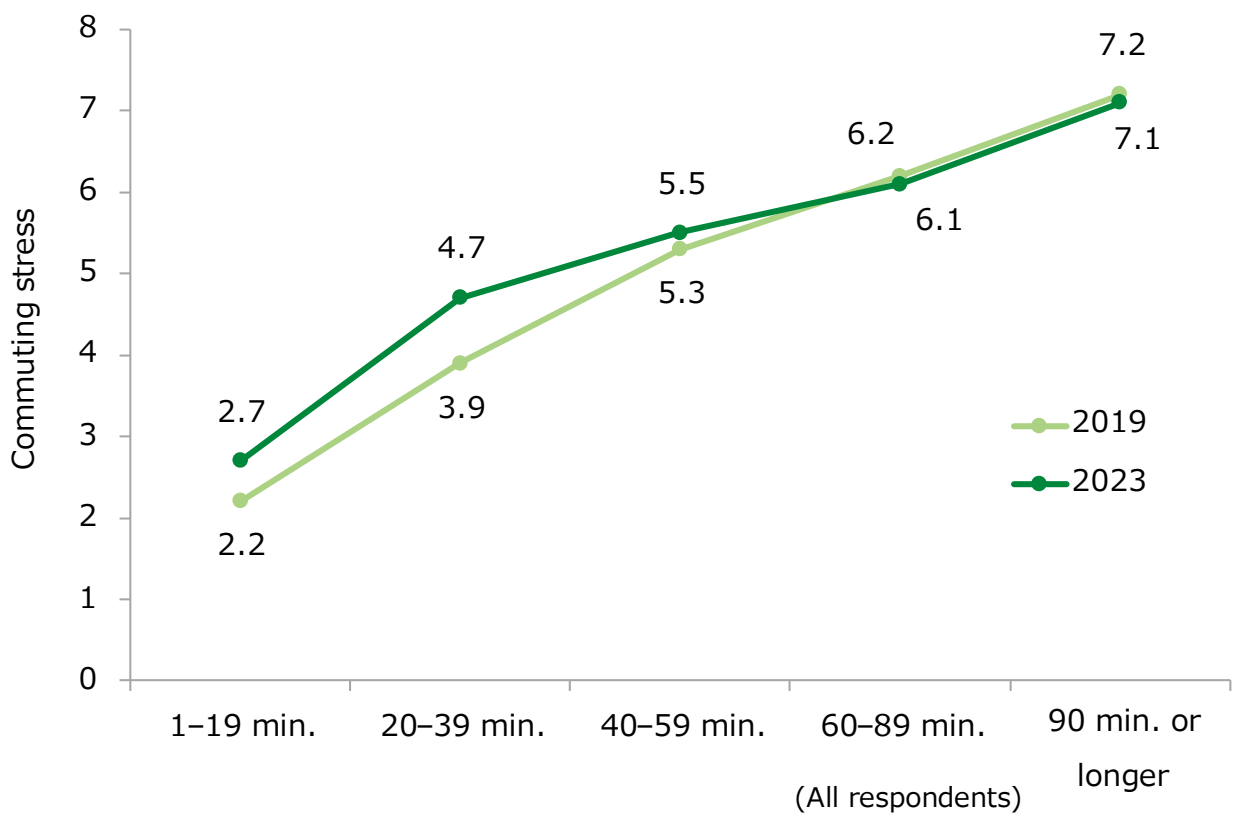


Could the reason for the increase in commuting stress despite the decrease in commute frequency per week (**Figure 6**) be the longer commute?

To examine this, we analyzed the relationship between commuting stress and commute time. **Figure 9** shows the results of comparing average commuting stress by commute time. The general trend in both 2019 and 2023 is that commuting stress is higher for those with longer commute times.

However, in 2023, the level of commuting stress for those with a relatively long commute of 60 minutes or more was roughly the same as in 2019. On the other hand, those with a commute time of less than 60 minutes tended to have higher commuting stress than in 2019. This may be related to the fact that, as shown in **Figure 7**, those with shorter commutes commuted more often than those with long commutes.

**Figure 9: Average Commuting Stress (2019 and 2023) – By Commute Time**



### 3. To Prevent a Return to Pre-Pandemic Stressful Commute

Before the COVID pandemic, the causal relationship was simple—the longer the commute, the greater the stress. Through our analysis, however, we found that the picture of commuting has changed after the pandemic—not only commute time but also commute frequency affects commuting stress. A possible background factor is that while before the pandemic, there was no option other than to commute “every day,” the existence of the option “not to commute every day” due to the pandemic has made workers feel stress more strongly when they choose to commute.

Companies must also pay more attention to reducing commuting stress for workers in order to hire and retain talent. The key, for example, would be to strike a balance between teleworking and an appropriate frequency of coming to the office so that workers do not feel commuting stress, as described below.

- We confirmed that commuting stress increases with longer commuting times, as it did before the pandemic. And since “Stressful commute” is workers’ top dissatisfaction with their current work style, as shown in Xymax REI’s *Metropolitan Areas Office Worker Survey 2023*,<sup>\*7</sup> it is desirable to provide a buffer against the disadvantages of long commutes. In addition to adjusting commute frequency, establishing and providing options for work locations, such as satellite offices near employees’ homes, could help reduce commuting stress.
- The fact that commuting stress is higher than before the pandemic, even for short commutes, cannot be overlooked. A possible factor is that the frequency of commuting is greater among those with short commutes than those with long commutes. However, since one of the top dissatisfactions of workers, as shown in the office worker survey in 2023,<sup>\*7</sup> is “Must come to the office even if the work could be done through telework,” it is desirable to create an environment where workers can telework equally regardless of commute time. Specifically, it would be important to eliminate the sense of inequality between those who can and cannot telework and to foster a corporate culture that avoids making it “difficult to telework due to atmosphere of workplace or intention of supervisor.”

<sup>\*7</sup> *Metropolitan Areas Office Worker Survey 2023 (2) Evaluation of Work Styles*, released on December 13, 2023  
[https://www.xymax.co.jp/english/research/images/pdf/20231213\\_2\\_detailed.pdf](https://www.xymax.co.jp/english/research/images/pdf/20231213_2_detailed.pdf)

In addition, a study<sup>\*8</sup> by Xymax REI has revealed that not only increasing the options for when and where to work but also giving workers discretion over where to work can be expected to improve worker satisfaction and engagement. Therefore, initiatives to encourage and support the effective use of such options will also be necessary. Updating the office itself will also be important. Companies should be conscious of creating offices and providing value so that workers want to come to the office voluntarily, rather than forcing them to commute to the office.

<sup>\*8</sup> *The Benefits of Hybrid Work for Companies*, released on May 24, 2023  
<https://www.xymax.co.jp/english/research/images/pdf/20230524.pdf>

The percentage mix in the charts contained in this report is rounded to the first decimal place and, therefore, may not add up to 100%.

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