


TRANSPORT FINDINGS

Attitudes toward and the Current Adoption and Future Expectations of Working from Home in Hong Kong during the COVID-19 Pandemic

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Findings

This study employs a dataset from the Hong Kong Mobility Survey to investigate attitudes towards working from home (WFH) among 901 workers in Hong Kong. A latent-class cluster analysis identified three clusters, each of which displays distinctive attitudes towards WFH. Those with positive attitudes tend to have a higher frequency of WFH while those with negative attitudes tend to have a lower frequency. Near-future expectations, however, do not appear to be affected by differences in attitudes toward WFH.

1. Questions

Recent studies have reported that attitudes toward working from home (WFH) have affected the adoption and frequency of WFH during the pandemic (Beck, Hensher, and Wei 2020; Conway et al. 2020; Nguyen 2021); few, however, have focused on WFH in highly dense Asian cities. In response, we answer the following questions in the context of Hong Kong.

1. What are the attitudes towards WFH among workers?
2. What are the profiles of various groups of workers?
3. How often do members of each group expect to work from home in the near future (April 2021)?

2. Methods

This study uses a dataset from the first wave of the Hong Kong Mobility Survey (Lee and De Vos 2022). Data collection was carried out during the fourth wave of the COVID-19 pandemic in Hong Kong from December 2020 to January 2021. Using convenience sampling, the survey targeted adults aged 18 and above living in Hong Kong. The survey was distributed through Facebook advertisements and deployed by Qualtrics. Out of 4,213 responses in total, we find 1,139 effective cases, and for this paper, we employ its worker subsample (N=901).

We begin by conducting an exploratory factor analysis (EFA) to derive underlying attitudinal constructs from 15 attitudinal questions that asked about WFH in a five-point Likert scale ranging from strongly disagree to strongly agree. [Table 1](#) presents the EFA results of the attitudes towards WFH. The identified attitudinal factors are (1) distraction-while-WFH, (2) autonomy-via-WFH, (3) virtual-meeting-is-effective, (4) firm-is-supportive, and (5) technology-is-challenging. Second, we employ a latent-class cluster

Table 1. Exploratory factor analysis on attitudinal statements towards WFH (N=901).

Attitudinal Statement	Attitudinal Factors				
	Distraction-while-WFH	Autonomy-via-WFH	Virtual-meeting-is-effective	Firm-is-supportive	Technology-is-challenging
At home, I am easily distracted by household chores during work.	0.765				
Working from home makes me less disciplined/self-controlled.	0.630				
At home, I am easily disturbed by family members, children, or others who live together during work.	0.504				
Working from home helps me avoid unwanted distractions/interruptions often taking place in the workplace.		0.604			
I like the flexibility to decide when and where to do my work.		0.562			
I find my productivity in online meetings to be similar to or even better than that in in-person meetings.			1.004		
I experience good support from my employer to work from home.				0.999	
While working from home, technologies do not always work properly (e.g., spotty internet during online meetings).					0.517
Learning how to use new technologies is often frustrating (e.g., software updates of online meeting/collaboration tools).					0.499
The quality of interactions during online meetings is disappointing.			-0.325		0.275
I experience substantial gains in efficiency when working from home.	-0.390	0.453			
Working from home helps me save on large expenses (e.g., commuting and parking).		0.450			
At home, I have office hardware for working from home (e.g., desktop/laptop, camera, headset, printer).					-0.270
While working from home, it is difficult to draw the boundary between my work and my personal life.	0.419				
The nature of my job requires me to physically go to work, even during the pandemic.				-0.289	

Notes: We choose principal axis factoring with the oblimin rotation, and we compute factor scores with the pattern matrix of a rotated solution via the Bartlett score method. Loadings smaller than .25 are suppressed for brevity. We employ R package *psyche*.

analysis (LCCA) to probabilistically assign respondents into distinctive groups according to their attitudes as *indicators*. Next, to understand the profiles of individuals across clusters, we include *inactive covariates*, such as sociodemographic, household, and teleworking characteristics.

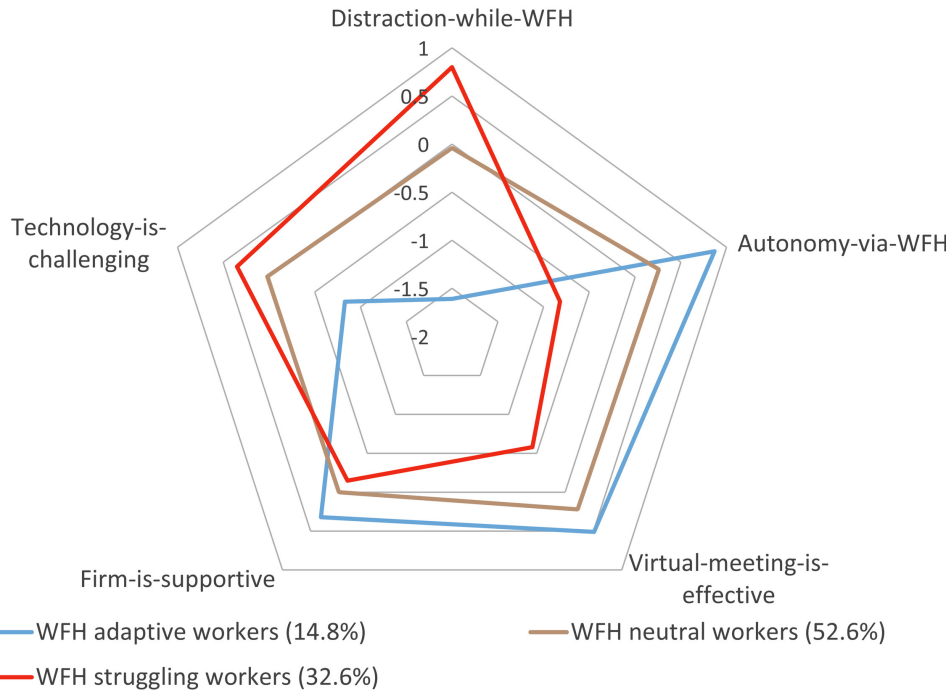


Figure 1. Average scores of the attitudinal factors for the three classes.

3. Findings

[Figure 1](#) graphically illustrates the average scores of the attitudinal factors for individual clusters, or classes, and [Figure 2](#) presents the frequency of WFH of the three classes at different time periods. In addition, [Table 2](#) presents the class-specific probability-weighted summary statistics of the indicators and covariates.

Among the classes, **WFH adaptive workers** (14.8%) express the most positive attitudes towards WFH. The majority of these workers (84.7%) hold either a bachelor's degree or a graduate degree, which is higher than that of the remaining sample (70.2%). Also, the portion of these workers with a monthly household income of \$60,000 or more is noticeably higher than the sample average (33.6% vs. 27.0%, respectively). Some 55.8% of this class live in the New Territories, where most new suburban towns with moderate density are located. This class has the smallest household size (3.13) with the smallest share of those with children (17.6%), and its members have the largest residential space per capita (211 sq. ft). These workers also have the highest percentage of individuals working on Hong Kong Island (40.6%) and report the highest car ownership among the classes (15.0%). Their average one-way commute (44.91 minutes), however, is only slightly longer than the sample average (43.94 minutes), partly because of their longer commutes and traffic congestion. Members of this class report the highest frequency of WFH before and during the pandemic (e.g., about 38.4% WFH before the third wave and 70.4% during

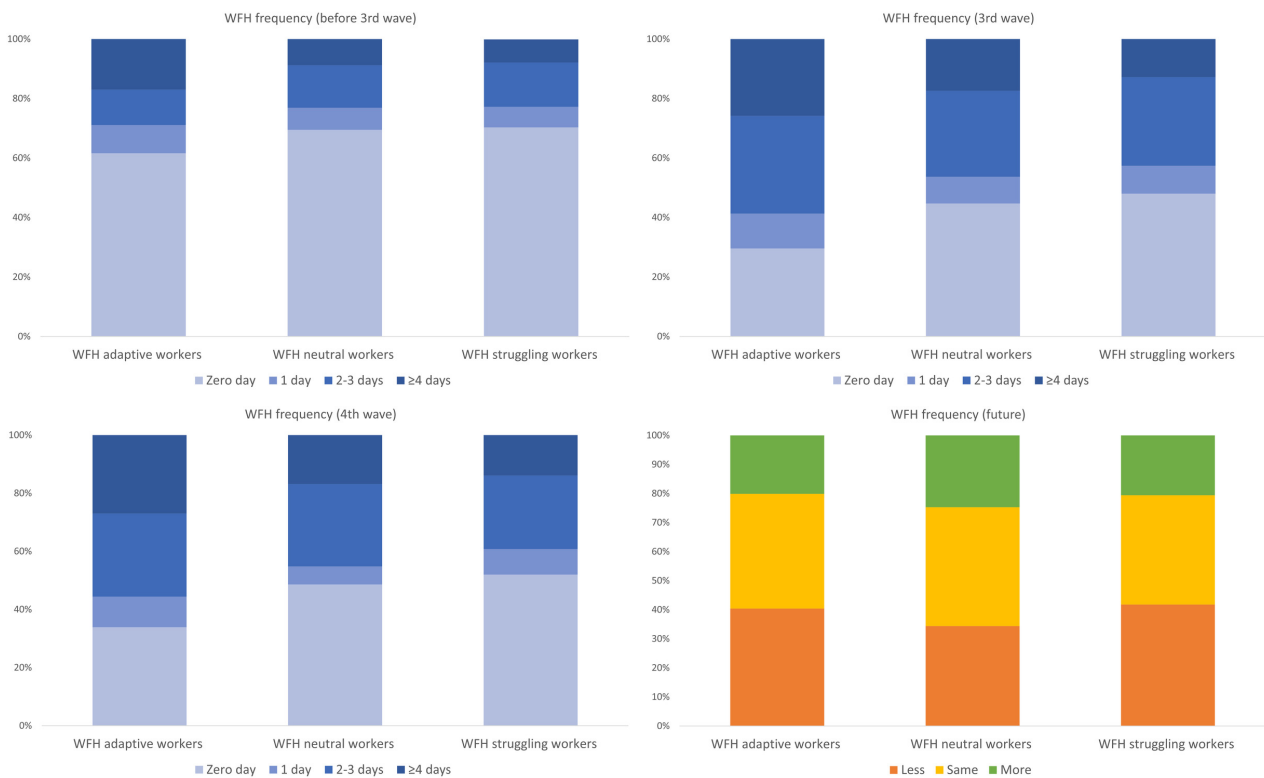


Figure 2. Frequency of WFH of the three classes at different time periods.

the third wave). Its share of teleworkers, however, slightly decreased to 66.5% during the fourth wave, possibly because people experienced ‘quarantine fatigue’ after working from home for several months.

WFH neutral workers (52.6%), which account for more than half the sample, exhibit somewhat neutral attitudes towards WFH. Compared to the sample, this class consists of slightly larger shares of those aged 18-24 and 25-34 (12.4% vs. 11.9% and 38.2% vs. 37.0%, respectively). These workers, which comprise the largest share of those with a monthly household income of \$20,000 or below (16.1%), live in average sized households of 3.43 and an average living space of 165 sq. ft. per person, both of which are similar to the sample averages. The percentages of those WFH at least once a week during the third and fourth waves were 55.4% and 51.4%, respectively, similar to the sample average.

WFH struggling workers (32.6%) can be viewed as opposite to WFH adaptive workers. Adults aged 45-64 are more common in this class than in the sample (22.9% vs. 18.9%, respectively), and its members are less-educated than those of the other classes. This class also has the highest share of members residing on Hong Kong Island (20.4%) and in Kowloon (32.5%), denser and less affordable than the New Territories. Workers in this class also have the largest share of those with children and live in the largest households with an

Table 2. Distributions of indicators and covariates within clusters (N=901).

	WFH adaptive workers (14.8%)	WFH neutral workers (52.6%)	WFH struggling workers (32.6%)	Sample (N=901)
Indicators				
Distraction-while-WFH	-1.61	0.04	0.80	0.00
Autonomy-via-WFH	0.87	0.26	-0.82	0.00
Virtual-meeting-is-effective	0.51	0.22	-0.58	0.00
Firm-is-supportive	0.32	0.00	-0.15	0.00
Technology-is-challenging	-0.83	-0.02	0.35	0.00
Covariates				
<i>Age</i>				
18-24	11.6%	12.4%	11.3%	11.9%
25-34	36.0%	38.2%	35.2%	37.0%
35-44	35.1%	31.6%	30.1%	31.7%
45-54	11.6%	13.0%	16.9%	14.0%
55-64	5.2%	4.1%	6.0%	4.9%
65 and over	0.6%	0.7%	0.4%	0.6%
<i>Gender</i>				
Male	31.0%	32.0%	38.1%	33.8%
Female	69.0%	68.0%	61.9%	66.2%
<i>Education attainment</i>				
Below bachelor's degree	15.1%	32.0%	33.0%	29.8%
Bachelor's degree	54.5%	46.5%	47.0%	47.9%
Graduate degree	30.4%	21.5%	20.0%	22.3%
<i>Type of employment</i>				
Education and government	19.7%	18.1%	15.6%	17.5%
Essential	15.0%	16.6%	17.7%	16.7%
White collar	58.3%	61.2%	63.0%	61.4%
Others	7.1%	4.1%	3.7%	4.4%
<i>Monthly household income</i>				
Below \$20,000	12.8%	16.1%	13.4%	14.7%
\$20,000 to \$39,999	27.8%	34.4%	36.9%	34.2%
\$40,000 to \$59,999	25.9%	23.0%	25.1%	24.1%
\$60,000 or more	33.6%	26.5%	24.7%	27.0%
<i>Residential district</i>				
Hong Kong Island	19.1%	17.3%	20.4%	18.5%
Kowloon	25.0%	31.0%	32.5%	30.6%
New Territories	55.8%	51.7%	47.2%	50.8%
<i>Household size</i>				
	3.13	3.43	3.55	3.42
<i>Average living space per person (sq. ft)</i>				
	211	165	158	169
<i>Presence of school-aged child(ren)</i>				
No	82.4%	77.1%	71%	75.9%
Yes	17.6%	22.9%	29.1%	24.1%

<i>WFH frequency (before 3rd wave)</i>				
Zero day	61.6%	69.5%	70.3%	68.6%
1 day	9.5%	7.4%	6.9%	7.5%
2-3 days	11.9%	14.3%	14.9%	14.2%
≥4 days	17.1%	8.8%	7.8%	9.7%
<i>WFH frequency (3rd wave)</i>				
Zero day	29.6%	44.7%	48.0%	43.5%
1 day	11.7%	9.0%	9.4%	9.5%
2-3 days	32.9%	28.9%	29.8%	29.8%
≥4 days	25.8%	17.5%	12.9%	17.2%
<i>WFH frequency (4th wave)</i>				
Zero day	33.9%	48.6%	52.0%	47.5%
1 day	10.5%	6.2%	8.8%	7.7%
2-3 days	28.6%	28.4%	25.3%	27.4%
≥4 days	27.4%	16.8%	13.9%	17.4%
<i>WFH frequency (in April 2021)</i>				
Less	40.4%	34.4%	41.8%	37.7%
Same	39.5%	40.9%	37.6%	39.6%
More	20.1%	24.7%	20.6%	22.7%
<i>Work location</i>				
Hong Kong Island	40.6%	32.7%	31.1%	33.3%
Kowloon	30.0%	34.7%	36.9%	34.8%
New Territories	29.4%	32.6%	32.0%	31.9%
<i>Average one-way commute (minutes)</i>				
	44.91	44.49	42.68	43.94
<i>Car ownership</i>				
No	85.0%	87.3%	88.9%	87.5%
Yes	15.0%	12.7%	11.2%	12.5%

Notes: **Bold** values indicate the highest value for each row.

average size of 3.55. They have the smallest average living space per person (158 sq. ft), which suggests insufficient space for home offices. Compared to the sample average (34.8%), a larger percentage of members work in Kowloon (36.9%), which shortens their commutes (42.68 minutes). Not surprisingly, members of this class are the least likely to work from home. Despite a drop in the share of zero days WFH during the third wave, their frequency of WFH at least once per week was still the lowest among the classes during both the third and fourth waves (52.0% and 48.0%, respectively).

Our results reveal that positive attitudes and perceptions of WFH do not necessarily translate into more WFH in the near future. The majority of workers in all three classes intend to either reduce or maintain the frequency of WFH in the near future. One possible explanation is that the constrained living space in Hong Kong may not support long-term WFH. According to Task Force on Land Supply (2018), the average living space per person in Hong Kong was only around 160 sq. ft. in 2018. Another possible explanation

is that Hong Kong is a highly compact city, so most workers have a short commute between work and home. That is, the comparatively small savings in the commute time may not motivate workers to continue WFH in the future.

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