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WINNERS AND LOSERS OF SRI LANKA'S WORK FROM HOME POLICY

SURESH RANASINGHE
NISHA ARUNATILAKE



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Suresh Ranasinghe is a Research Assistant working on health, education and labour policy at the IPS. He holds a BA honours in Economics (First Class) from the University of Colombo and an LLB from the Open University of Sri Lanka. During his undergraduate studies, Suresh was awarded the 'Best Student Prize' in the Banking and Finance stream at the University of Colombo.
sureshr@ips.lk



Nisha Arunatilake is a Research Fellow (since 2000) and the Director of Research (since 2018) of the IPS. She has extensive postdoctoral experience in conducting policy related economic research in labour market analysis, education, public finance and health. She heads the Labour, Employment and Human Resource Development research at the IPS. She holds a BSc in Computer Science and Mathematics with summa cum laude from the University of the South, USA and an MA and PhD in Economics from Duke University, USA.
nisha@ips.lk

Please address orders to:
Institute of Policy Studies of Sri Lanka
100/20, Independence Avenue, Colombo 7, Sri Lanka.
Tel: +94 11 2143100 Fax: +94 11 2665065
Email: ips@ips.lk
Website: www.ips.lk
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Labour and Migration Research Series



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SURESH RANASINGHE AND NISHA ARUNATILAKE

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Abbreviations

DCS	- Department of Census and Statistics
ICT	- Information and Communications Technology
ILO	- International Labour Organization
ISCO	- International Classification of Occupations
ISIC	- International Standard Industry Classification
LFS	- Labour Force Survey
LKR	- Sri Lankan Rupee
OECD	- Organisation for Economic Co-operation and Development
SLSIC	- Sri Lanka Standard Industry Classification
SMEs	- Small and Medium Enterprises
WFH	- Work from Home

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Abstract

Labour markets across the globe were severely affected by the adverse effects and uncertainties arising from the coronavirus (COVID-19) pandemic. The resulting lockdowns, the social distancing measures and the economic slowdown have led to the loss of work hours and jobs. Some firms overcame this problem by allowing workers to work from home (WFH). However, not all workers can WFH. This study identifies how WFH policy affects the economic engagement of different workers. The study maps the plausibility of WFH probabilities compiled by Dingel and Neiman (2020), using Sri Lankan data to assess the WFH probabilities for Sri Lankan workers. The results show that the potential for WFH depends on the industry and occupation of work and socio-economic factors such as age, gender, education, income and geographical location. The study further illustrates that employees with low educational attainment and living in rural and estate areas can WFH the least. Notably, in Sri Lanka, most employees belong to occupations where the feasibility to WFH is relatively low.

1. Introduction

Global labour markets face many challenges and uncertainties due to the adverse economic impacts triggered by the coronavirus (COVID-19) pandemic. Most countries implemented stringent measures of social distancing and other health practices to contain the spread of the virus. Such policies have issued directives on workers' activities at the workplace during the pandemic. These measures have also resulted in partial or full-closure of workplaces and work from home (WFH) practices. As revealed by the International Labour Organization (ILO, 2020), around 68% of the total workforce, including 81% of employers, live in countries with recommended or required workplace closures.¹ Under this situation, a key concern for awareness on the adverse labour market impacts arising from the pandemic requires investigating whether workers can plausibly carry out work from home (Saltiel, 2020).

Notably, WFH is not a novel concept in the labour market. For instance, in the United States of America (USA), 28 million people WFH in 2001 (Kowalski & Swanson, 2005). It was also a popular practice mostly in developed countries like the United Kingdom (UK), Finland, Netherland even two decades ago. However, WFH received considerable attention worldwide recently due to the COVID-19 pandemic containment measures. The extent to which this WFH practice is feasible is a determinant of the economic consequences of containment measures. The practicality of WFH depends on three main factors. First, the nature of work and the plausibility of conducting job-related activities from home. Two, the capability of the management and the workers to adapt to WFH methods. Lastly, availability of information and communications technology

“As per the ILO estimations, only 18% of workers are in occupations suitable for WFH and reside in countries with necessary infrastructure to enable WFH practices.”

(ICT) infrastructure and access to the internet for both workers and businesses (Arunatilake & Thilanka, 2021).

As per the ILO estimations, only 18% of workers are in occupations suitable for WFH and reside in countries with necessary infrastructure to enable WFH practices. These statistics indicate that a few occupations are not affected or minimally affected by the social distancing measures, while most occupations cannot be performed from home. The extent to which a country is affected by WFH practices depends on the structure of its labour market as well as the level of access to ICT infrastructure.

In this context, this study assesses how a WFH policy will affect the labour market and different workers in the labour market. A better understanding of how WFH affects different types of workers can help to develop policies to improve labour market activity under lockdown conditions.

¹ As of 29 April 2020.

2. Sri Lanka's Labour Market during the Pandemic

In general, before the COVID-19 pandemic, WFH practice was not common within the public sector in Sri Lanka. But in the private sector, industries such as ICT and financial services have used WFH in their operations. For instance, employees occupied in ICT-related jobs, data-entry jobs, consultancy services, freelance writers/analysts and those affiliated with international companies/organisations have often WFH, even before the onset of the pandemic (Federation of IT Industry Sri Lanka, 2022). In addition to that, employees in home-based industries have also WFH. With the onset of COVID-19, the WFH practice became more common, and in most cases, was the only available mode of operation.

“The overall computer literacy rate in Sri Lanka is 63.2% among the employed population, limiting the ability to WFH (Department of Census and Statistics [DCS], 2018).”

The Sri Lankan government adopted strict measures to contain the spread of COVID-19 from mid-March 2020 onwards. Notably, with the implementation of the national lockdown in some areas (owing to emerging COVID-19 clusters), the government initially declared a WFH week for public and private sectors and issued formal directives and circulars to both sectors to follow WFH practices. Subsequently, WFH was further developed and extended as a means of social distancing to expedite adherence to health guidelines.

Different types of pandemic containment policies constrained the activities of the country's main economic sectors. A survey-based study by the Department of Labour conducted in May 2020 found that among the businesses interviewed, 53% were closed, while 44% worked under-capacity at the time of the survey. The study further revealed that 64% of employees did not work due to various reasons, while movement restrictions were identified as the main reason for partial or full closure of businesses (Wimalaweera, 2020). However, as indicated earlier, not all workers can WFH. Computer literacy and access to ICT infrastructure is a key determinant of the ability to WFH. Computer literacy across the occupational groups in the labour market varies significantly. The overall computer literacy rate in Sri Lanka is 63.2% among the employed population², limiting the ability to WFH (Department of Census and Statistics [DCS], 2018).

² Computer literacy among computer aware employed population (aged 15-69), 2016-2018.

3. Literature Review

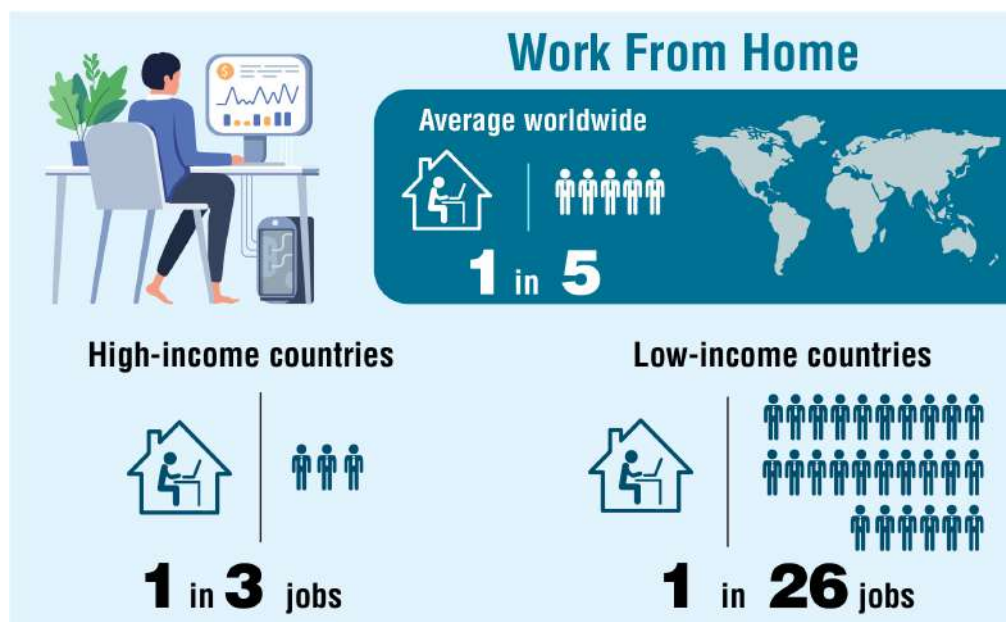
With many countries resorting to WFH policies to continue economic activities, there has been much interest in assessing how these policies affect labour markets. Dingel & Neiman (2020) conducted a detailed study to determine the plausibility of WFH associated with different occupations groups. They found that 37% of jobs in the US can be performed entirely at home, although there are substantial differences across cities and industries in the country. Besides, a country-specific result indicates that countries with lower income levels are less likely to adopt WFH practice, resulting in a lower share of jobs performed at home.

Sanchez, et al. (2020) show that, on average worldwide, 1 in 5 jobs can be done at home, but this ratio lowers to 1 in 3 jobs in high-income countries while it increases to 1 in 26 jobs in low-income countries. In a similar study, Saltiel (2020) finds that the share of jobs that can be carried out from home in developing countries is small compared to the corresponding shares in developed countries. These shares range from 6% in Ghana to 23% in China. The share of workers who can WFH in developing countries is nearly 20% lower than in developed countries

(Gottlieb, Grobovšek, Poschke, & Saltiel, 2020). Further, the ILO (2020), examining the worldwide WFH potential shows that around 30% of North American and Western European workers are in occupations that allow home-based work, while only 6% of sub-Saharan African and 8% of South Asian workers, are in occupations that allow home-based work. The corresponding statistics for Latin American and Eastern European workers are 23% and 18%, respectively.

Several country level and individual level factors affect the share of workers who can WFH in a country. At the country level, the industrial and occupational structure of the economy affects these shares (Lund, Madgavkar, Manyika and Smit (2020), Deng, Morissette and Messacar (2020), Kawaguchi & Motegi (2020), Brussevich, Dabla-Norris & Khalid (2020)). Further, the authors explain that the potential to WFH depends on the mix of activities undertaken in each occupation and on their physical, spatial and interpersonal context.

In this context, they find that the business and financial services sector has the highest potential for WFH among countries. In developing



economies, employment is skewed toward occupations that require physical and manual activities in sectors like agriculture and manufacturing. Therefore, the amenability to WFH is lower in these countries (Lund, Madgavkar, Manyika, & Smit, 2020). Kawaguchi & Motegi (2020) revealed that the ability to WFH was more likely to be available to those in professional occupations, characterised by non-routine, analytical and non-interactive tasks. The author further explained that workers subject to Human Resource Management (HRM) practices that measure individual output rather than time spent at work are more likely to engage in remote work. Similarly, Brussevich, Dabla-Norris & Khalid (2020) show that workers in elementary occupations - such as construction workers and street vendors - are the least able to WFH, while workers in managerial, official and legislative activities are the most able to WFH.

Deng, Morissette & Messacar (2020) find that in addition to the economy's structure, the geographical locations, age and the educational level affect the plausibility to WFH. According to the study, the highest WFH capacity is recorded in jobs in business and finance, insurance, educational services, and scientific and technological services, while the lowest WFH capacity is recorded in the accommodation and food services sector and agriculture forestry, fishing and hunting sector.

According to the Organisation for Economic Co-operation and Development (OECD), WFH across regions reflects the local workforce's skill composition but not only depends on skills. Even regions with high skilled workers may have a lower share of workers working from home due to the nature of the tasks carried out by workers (OECD, 2020).

The adaptability of WFH also varies significantly among workers, depending on their individual characteristics such as gender, education level, economic status and other socio-economic

attributes. Gottlieb, Grobovšek, Poschke & Saltiel (2020) investigated plausibility of WFH in developing countries. The study revealed that high-school graduates have higher WFH ability than their counterparts across all occupations and the ability to WFH for wage employees is higher than for self-employed workers. The study also revealed that women have a slightly higher WFH ability than men.

Gabrielyan (2020) identified that WFH is more common in the industries with better educated and better paid workers, with finance and ICT being prominent. The group seizing the highest advantage of this opportunity are the formal workers, highly educated and younger professionals (Gabrielyan (2020); Saltiel (2020); Bonacini, Gallo, & Scicchitano (2020)). In contrast, informal workers, self-employed workers, workers with a migrant background, low wage earners, young and poorly educated workers and those on temporary contracts are the least likely to WFH and more vulnerable employment aspects related to the COVID-19 employment (Mongey, Pilossoph, & Weinberg (2020); Sanchez, et al. (2020); Adams-Prassl, et al. (2020); Gottlieb, Grobovšek, Poschke, & Saltiel (2020); Holgersen, Jia & Svenkerud (2021)).

Some studies find that social distancing measures exacerbate inequality depending on the accessibility of the internet and using internet-powered electronic devices that are mandatory for engaging in WFH. As such, the presence of above-average high-speed internet in a particular region leads to an increase in the residents' ability to WFH in the US. Such situations intensify the difference between high-income and low-income regions, further creating a digital divide (Chiou & Tucker, 2020). Sanchez, et al. (2020) also noted that two out of every three jobs in low-income countries cannot be performed at home due to ICT constraints. The authors disclosed that since the share of ICT intensive jobs increases with the level of economic development, the plausibility to perform WFH is lower in developing countries.

Also, internet connectivity, and especially residential access, is poorer in developing countries, further hampering the ability to WFH (Sanchez, et al., 2020). Therefore, improving telecommunications infrastructure and digital advances such as digital authentication, mobile banking and mobile payment systems can potentially increase the feasibility for people to WFH in developing countries (ILO, 2020).

The literature defines occupations that are less able to adapt to WFH practices as low-WFH occupations (Bick, Blandin, & Mertens, 2020; Mongey & Weinberg, 2020; Mongey, Pilossoph, & Weinberg, 2020). Most studies find that workers in low-WFH occupations are more economically vulnerable. These workers are less likely to have employer-provided healthcare, more likely to be in rental housing, and are likely to be in the bottom half of the income distribution.

Further, these workers are also less likely to have a degree. As these workers are less able to carry on their activities during lockdowns, they are also more likely to experience pay cuts and be made redundant. Kim, et al., 2020 note that the sharp rise in the unemployment rate among less-educated Asian American workers is related to the decrease in on-site-work employment, due to social distancing measures. Dingel & Neiman (2020) confirm that low WFH occupations are likely to be more vulnerable but for different reasons. They find that these workers are less likely to have stable jobs, be employed full-time, and be employed in large firms. Further, those who WFH are more likely to have been unemployed since the previous year to the pandemic.

“Two out of every three jobs in low-income countries cannot be performed at home due to ICT constraints.”

4. Motivation and Research Questions/Objectives

The ability to WFH can determine the extent to which an economy can survive and persist under lockdown measures. However, as noted above, a WFH policy can affect different types of workers differently. A better understanding of how sectors and occupation groups are affected by social distancing measures can help design policies to enable countries to adapt better to the new work arrangements. Further, WFH policies are to be advocated even after the end of the pandemic to reduce traffic congestion, pollution and a host of other reasons, while having a better understanding of how WFH affects different workers would allow policymakers to design policies that are more effective. In the above backdrop, this study aims to examine the following:

- What is the share of Sri Lankan workers who can WFH?
- What are the socio-economic characteristics of those workers?

This study will also attempt to find different means in which firms can be encouraged to facilitate a WFH environment by identifying the capacity and skill issues, as an alternative to the work-on-location practice in the face of the pandemic.

The remainder of this report is organised as follows. The next section briefly explains the methodology of the report including the initial methodology of the Dingel & Neiman (2020). Section 5 examines the results of the report which comprises comprehensive sections on ordered-probit model analysis, marginal analysis and the strengths, weaknesses, opportunities and threats (SWOT) analysis. Section 6 presents the conclusion of the report.

5. Methodology

Box 1: Methodology - Dingel and Neiman (2020)

Dingel & Neiman (2020) have examined the plausibility to WFH by assigning different occupations a score on 'plausibility to work from home' based on work context and work activities. They have used two Department of Labour's Occupational Information Network (O*NET) surveys to classify occupations using the above two measures. The work context aims to capture 'physical and social factors that influence the nature of work'. It is determined by factors such as frequency of using emails, involvement in outdoor job-related activities, necessity to wear common or specialised protective or safety equipment, necessity to deal with people, and the need to spend time on walking and running. Work activities aims to capture the 'general types of job behaviours occurring on multiple jobs.' The work activities are determined by job-related activities such as: the importance of performing general physical activities, handling and moving objects, controlling machines and processes other than computers and vehicles, operating vehicles, mechanised devices, or equipment, performing for or working directly with the public, repairing and maintaining mechanical equipment, repairing and maintaining electronic equipment, inspecting equipment, structures or materials. For example, based on work context, an occupation where the worker usually works outdoors and have to work with people, and rarely use e-mails will be coded as a low-WFH-occupation. According to work activities, a worker whose work involves physical activities, operating machines other than computers, and repairing machines will be considered as a low-WFH-occupation.

First, occupations are classified at the six-digit level, as at the disaggregated levels it is easier to identify work contexts and work activities. The six-digit occupations are then aggregated by assigning weights by employment counts in the U.S. Bureau of Labour Statistics (BLS) Occupational Employment Statistics. This results in a plausibility to WFH factor for each occupation category, ranging from 0 (cannot do at home completely) to 1 (can do at home completely). This database includes standardised and occupation-specific descriptors on almost 1,000 occupations, by classifying occupational fields as described earlier. These descriptors are merged with BLS to obtain the prevalence of each occupation.

Source: Based on the survey by Dingel & Neiman (2020).

For this study, the plausibility to WFH shares was assigned to occupations in Sri Lanka by mapping the plausibility to WFH shares compiled by Dingel & Neiman (2020) on Sri Lanka's Labour Force Survey (LFS) 2018 data. Hence, as the first step,

this study provides an analysis of employees' WFH using an ordered-probit model. In the model, WFH is used as the dependent variable by categorising the variable into five quintiles. Based on the literature, variables such as age, gender,

education level, income level, industry, major industry groups, occupation, sector, province, firm size, and English literacy are selected to the model as independent variables. These independent variables selected cover socio-demographic (age, gender, education, province, etc) factors as well as industry/occupational factors (major industry group, occupation, firm size, etc) that affect WFH in general.

Also, a SWOT analysis has been carried out based on the literature to provide a broader view of the WFH facility in the context of Sri Lanka. It was created based on a balanced-list of internal advantages and disadvantages and external factors affecting the WFH obtained from various literature.

6. Results Analysis

6.1.1 WFH of Employees: An Ordered-Probit Model Analysis

An ordered-probit analysis was deployed to detect what factors significantly affect WFH of employees. As per LFS in 2018, the total number of employees (age 15 years and above) was 4,633,022. Among these, 4,060,584 (87.6%) employees who were engaged in 438 occupations were successfully assigned plausibility values through mapping US occupation codes to Sri Lankan occupation codes. Considering the availability of data of explanatory variables, data relating to 3,004,403 employees (64.8%) were used in the ordered-probit model analysis.³

In this analysis, WFH is used as the dependent variable by categorising the WFH variable into five quintiles. Other variables such as age, gender, education level, income level, industries, major industry groups, occupation, sector, province, firm size, and English literacy are used as independent variables. Variable 'female' represents the dummy variable for the 'gender' variable. Furthermore, except for the variable 'age' and variable 'English literacy', all other variables are in categorical form (See Table 1 and Appendix Table 2).

As depicted in the Appendix Table 5, four ordered-probit models were deployed to provide a comprehensive analysis. In model 1, gender, age, income level, education level, sector, province, occupation, English literacy, industry group, and firm size are used as independent variables. Also, model 2 has used the same independent variables except for the variable 'firm size'. In model 3 and model 4, the variable 'industries' is used instead of the variable 'industry group' and

it provides evidence on WFH of employees in each industry. Model 3 captures the impact of firm size on WFH while model 4 has used the same independent variables as model 3 except for the variable 'firm size'.

Hence, the first two models capture the changes in WFH in major industry groups such as agriculture, industry and services. The third and fourth models were deployed to get a broader explanation about changes in WFH across different sub-industries. Also, the variable 'firm size' is included in models 1 and 3 to examine the changes in WFH due to the firm size.⁴

Consequently, four different models were deployed to avoid possible multicollinearity problems between variables 'major industry groups' and variable 'industries' as well as to provide a more comprehensive analysis. According to the results, all four models are statistically significant since the P-value of the F statistic is 0.000 in all the models.

As shown in model 1 (See Appendix Table 5), compared to male employees (reference category), female employees have a 0.174 low probability to WFH, given all other variables in the model are held constant. Also, as depicted by the results, plausibility to WFH slightly decreases with age. As employees' age level increases, the probability of being in high level of WFH decreases by 0.003. This situation can be expected since older workers have less awareness about novel technologies and equipment compared to younger workers. However, it is also notable that, older workers' adjustment to the WFH may be more responsive to relational factors such as relationship with the organisation, organisational

³ The sample size is different due to the missing values of data relating to education level and respective firm size of the employees in LFS 2018.

⁴ The models with the firm size variable (models 1 and 3) are only applicable to the non-public sector.

Table 1: Descriptions of the Variables Used

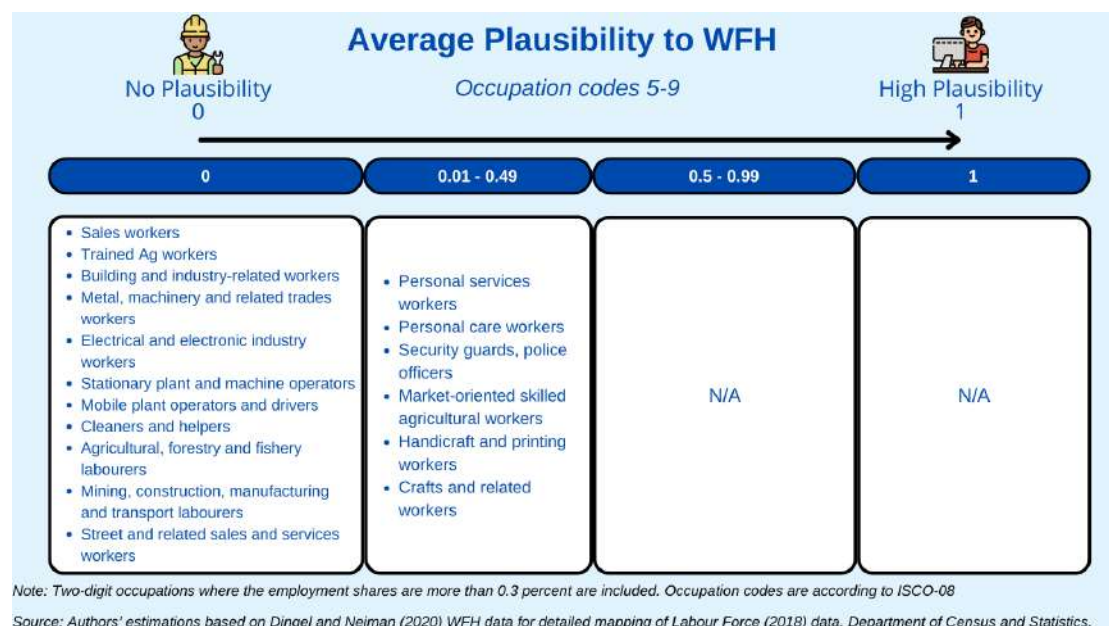
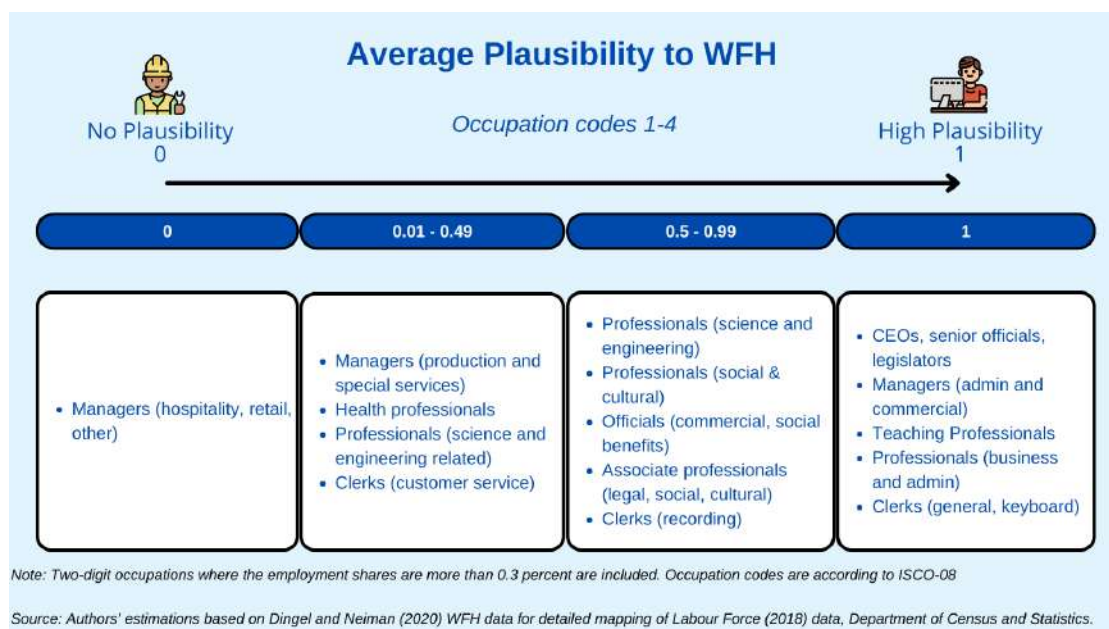
	Variable	Description of the Variable
Dependent Variable	WFH	Categorical variable Explains the WFH of employees through five quintiles (Q1: 0.00-0.2, Q2: 0.21-0.40, Q3: 0.41-0.60, Q4: 0.61-0.80, Q5: 0.81-1.00)
Independent Variables	Age	Non-categorical variable Indicates the age of employees
	Female	Dummy variable Variable 'female' represents the dummy variable for the 'gender' variable.
	Education Level	Categorical variable Indicates the education level of employees (below O/L, O/L passed, A/L passed, degree and above)
	Income Level	Categorical variable Indicates the income level of employees (below Sri Lankan Rupees (LKR) 35,000, LKR 35,000=<85,000, LKR 85,000=<135,000, LKR 135,000 and above)
	Industry Group	Categorical variable Indicates the employees' major industry group. (agriculture, industry, services)
	Industries	Categorical variable Indicates the employees' sub-industry groups employed in. (agriculture, mining, manufacturing, public utilities 1, public utilities 2, construction, wholesale and retail trade, transportation and storage, accommodation and food service, information and communication, finance and insurance, real estate, professional services, administrative and supportive activities, public administration and defence, education, arts and entertainment, other service activities, activities of households as employers, activities of extra territorial organisation and bodies)
	Occupation	Categorical variable Indicates the types of occupations of employees. (clerks, senior officials, professionals, technicians, market sales workers, skilled agricultural workers, craft workers, machine operators; elementary occupations)
	Sector	Categorical variable Indicates the sector (rural, estate, urban)
	Firm Size	Categorical variable Indicates the firm size (micro, small, medium, large, no institution, no regular employees)
	Province	Categorical variable Indicates the province that the employees reside in (Western, Central, Southern, Northern, Eastern, North-Western, North Central, Uva, Sabaragamuwa)
	English Literacy	Non-categorical variable Indicates the level of English literacy of employees

Source: Authors' calculations.

connectedness, organisational experience and trust. In contrast, young workers' adjustability to WFH may depend on structural factors such as how they will be evaluated, how they behave on the job, work independence etc., than older workers. Compared to employees whose income level is below LKR 35,000 (reference category), WFH of employees whose income level is between LKR 85,000-135,000, decreases the probability by 0.418. This can be expected because particular occupations cannot be performed through WFH. For instance, health professionals, science and engineering-related

professional, production and service-related managers, hospitality and service-related managers are included in high-income occupations that are unable to perform through WFH.

Moreover, as employees' education level increases, the probability of being in the high WFH level also increase. In comparison to employees who have below O/L educational attainments (reference category), the probability of WFH of employees who have degrees and above qualifications increases by 0.282. For employees



in the estate sector, the WFH probability compared to the rural sector (reference category) decreases by 0.579. The feasibility of WFH is low in the estate sector due to less educated and unskilled employment, the prevalence of daily-wage employment, lack of ICT infrastructure, occupations based on high physical proximity, especially in the plantation sector, etc.

Additionally, according to the results, compared to the Western province (reference category), the probability of being in the high level of the WFH decreases by 0.265 in the Northern province. Likewise, the probability of WFH is also low in Eastern and Southern provinces. Lack of physical and ICT infrastructure, the prevalence of physical labour-oriented occupations, labour mobility towards industrial towns such as Colombo and Gampaha can materialise as severe effects to deteriorate the feasibility to WFH in these provinces.

Furthermore, as shown in model 1, employees' ability to WFH also varies across types of occupations. Compared to the employees who are occupied as 'clerks and clerical support workers' (reference category), the probability of being in the high level of WFH of 'professionals' and 'skilled agriculture' workers increases by 0.722 and 0.634, respectively. The 'professionals' have high feasibility to WFH because of the nature of their jobs. On the other hand, skilled agricultural workers also showed high feasibility to WFH. Especially, in Sri Lanka, farming, and other agricultural activities can be considered possible from home because in general, plots, paddy fields, plantations are located very close to farmer homes.

Moreover, many agricultural industries are home-based and some agriculture-related occupation activities such as agricultural advisory services, etc., can be carried out from home. Therefore, the feasibility to WFH can be high in relation to skilled agricultural workers. But when the size of the farm or paddy field, or estate increases, this amenability to WFH can decrease. In contrast to

'clerks and clerical support workers' (reference category), employees occupied as senior officials, managers' have 0.976 low probability of WFH, given all other variables in the model held constant. Notably, probability of WFH for managers, senior officials and legislators has a low value compared to 'clerks and clerical support workers' (reference category) due to the prevalence of interactive tasks for managers and senior officials.

However, even within a major occupation category, the average plausibility to WFH varies for different sub-occupation groups since the task content of occupations too varies among each occupation (see Appendix Table 1). For instance, among professionals, health professionals have extremely low average plausibility (0.05) to WFH as they directly deal with patients and need hospital infrastructure to do most of their activities while ICT professionals have high average feasibility to WFH (1.00) and they can perform most of their activities from home since these occupations rely on less physical proximity.

Also, an increase in the 'English language literacy' positively impacting WFH of employees. As the level of 'English literacy' increases, the probability of being in a high level of WFH increases by 0.69 under 10% significant level.

Likewise, the ability to WFH also can vary due to the firm size. As indicated by results, employees in medium and large industries have low probability compared to the employees in micro industries (reference category). This can be expected since most of the medium and large enterprises in Sri Lanka consist of manufacturing, agricultural and construction firms, where the usage of labour-intensive technology is high. These manufacturing, agricultural and construction occupations require a high level of physical proximity and interactive involvement. Furthermore, as shown by the results, compared to employees in agriculture sector (reference category), employees in the service sector has 1.833 of high probability.

Model 2 provides the same results as model 1 with slightly different magnitudes of probabilities. However, it further clarifies that, compared to the employees who are occupied as 'clerks and clerical support workers' (reference category), the probability of being in the high level of WFH of 'technical and associate professionals' decreases by 0.490. Model 3 also illustrates the similar to results of model 1. However, model 3 includes the detailed industries as an independent variable instead of industry groups to capture the varying degrees of WFH of employees occupied in each industry. Therefore, the results indicate that compared to the employees in 'agriculture sub-industry; (reference category), employees in the service sector sub-industries have a high probability of being in a high level of WFH. For instance, compared to the 'agriculture sub-industry', the probability of WFH of employees in the 'education sub-industry' increases by 2.568. Similar to model 1, model 3 is only applicable to the non-public sector. In addition to that, model 4 also exhibit on average similar results to the model 2 and the model 3 with slightly different magnitudes of probabilities.

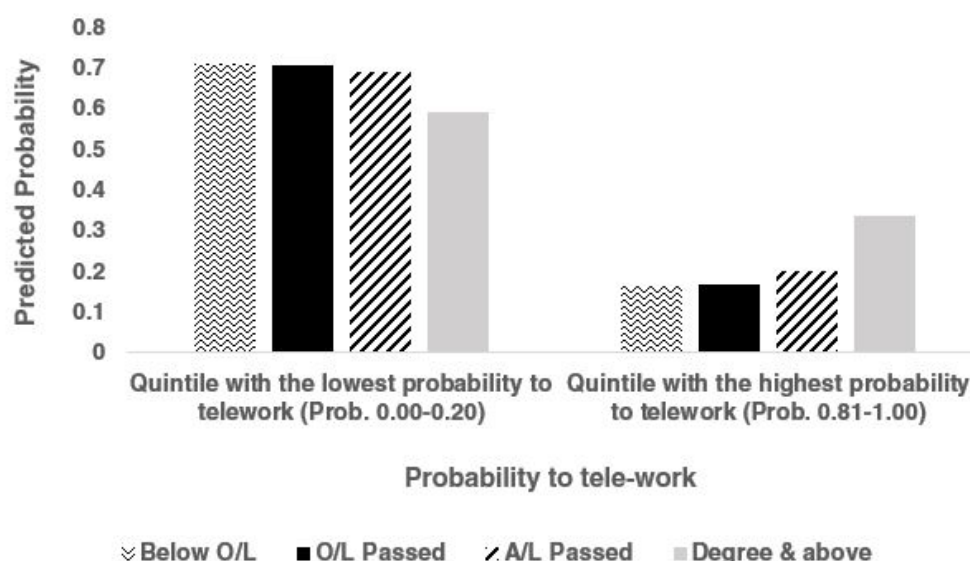
Furthermore, a few tests of hypotheses were deployed to detect the overall effect of each

categorical variable on employees' WFH. The results indicate that the overall effect of each categorical variable on employees' WFH is statistically significant since the P-values of each and every test relating to categorical variables are lower than 0.05 (See Appendix Table 6). Also, a separate ordered-probit model was deployed to detect the WFH of employees aged 15-60 and the results are included in the Appendix (See Appendix Tables 13, 14 and 15).

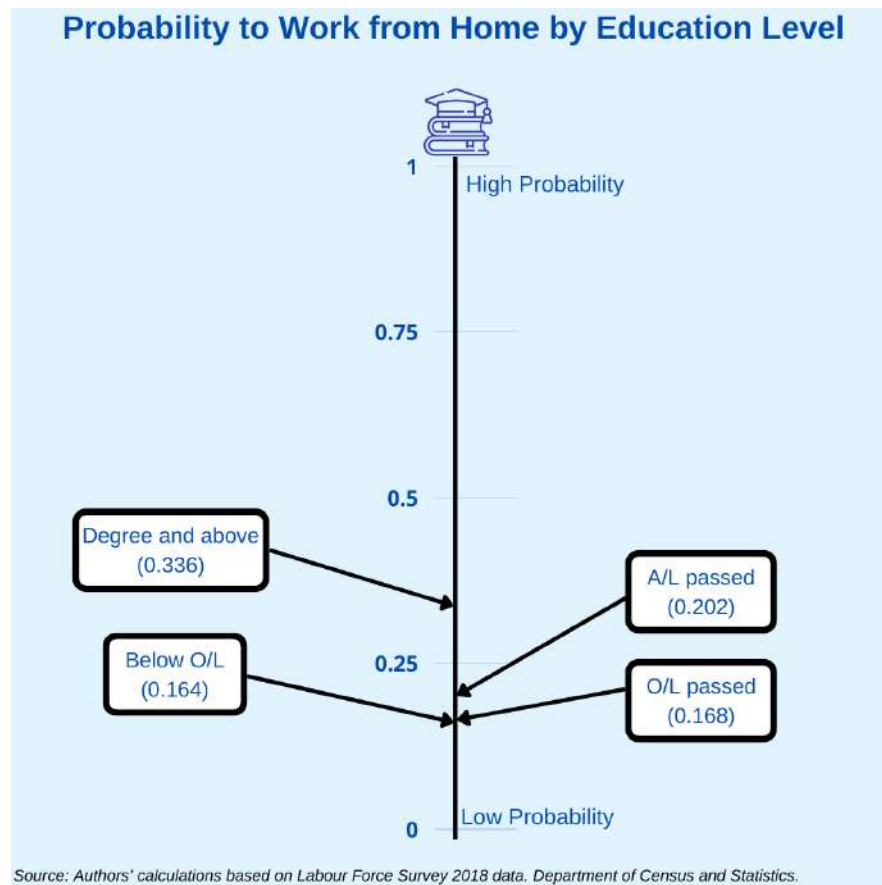
6.1.2 WFH of Employees: Marginal Analysis

Appendix Table 7 highlights the predicted probability of WFH by educational level. According to the results, the predicted probability of being in high WFH occupations (Q5) is high for employees who have high educational qualifications (Degree and above) while it takes a low probability for employees who have low educational qualifications (below O/L). For instance, the predicted probability of being in a high WFH occupation (Q5) is 0.164 for employees who have below O/L qualification. In contrast, the predicted probability of being in a high WFH occupation is 0.336 for employees who have degree or above educational qualifications (See Figure 1).

Figure 1: Predicted Probabilities (WFH and Education Level)



Source: Authors' calculations based on Labour Force Survey 2018 data, Department of Census and Statistics.

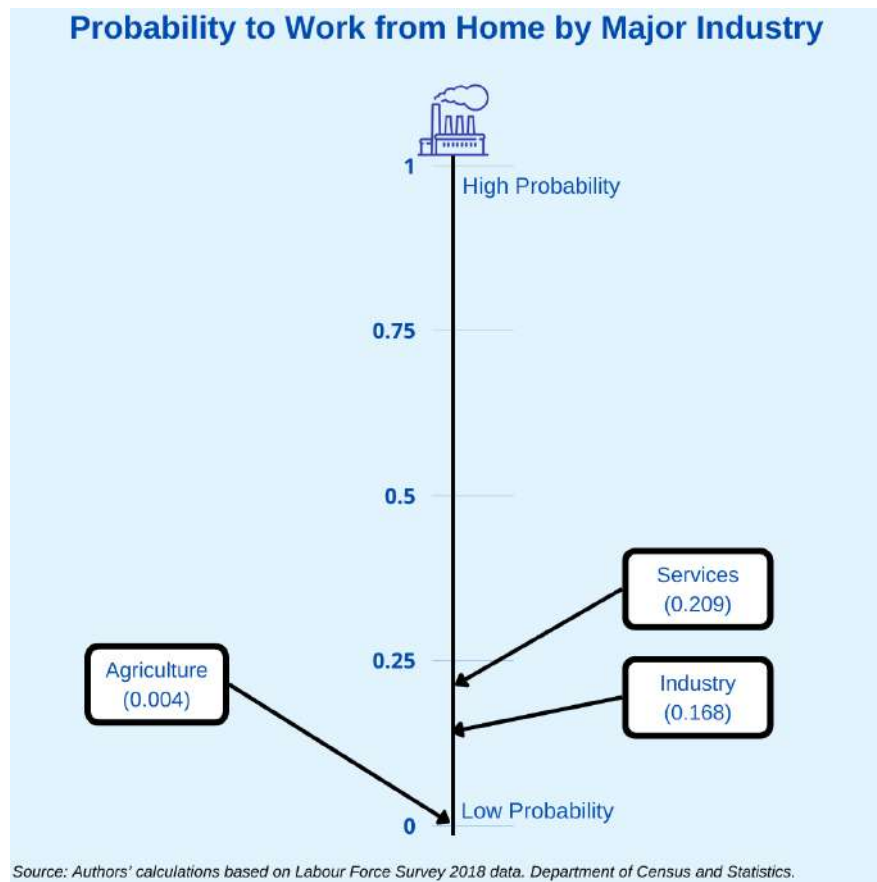


Appendix Table 8 illustrates the predicted probability of WFH by income level. The predicted probability of being in high WFH occupations (Q5) is high among low (below LKR 35,000) and middle income (LKR 35,000-85,000) levels but at high income levels (LKR 135,000 and above), it takes a low probability. As shown by the results, the predicted probability of being in high WFH occupations (Q5) is 0.111 for employees whose income level is LKR 35,000-85,000 while the predicted probability of being in high WFH occupations (Q5) is 0.059 for employees whose income level is LKR 135,000 and above.

Appendix Table 9 shows the predicted probability of WFH by major industry group. According to the results, the predicted probability of being in high WFH occupations (Q5) is 0.209 for employees in the 'Service sector'. In contrast, the predicted probabilities of being in high WFH occupations (Q5) are 0.141 and 0.004 for the employees who are employed in the 'Industrial sector' and 'Agricultural sector', respectively.

According to Appendix Table 10, employees occupied as clerks, professional and skilled agricultural workers have a high predicted probability of WFH (Q5). For instance, the predicted probability of WFH (Q5) is 0.564 for clerks and it is 0.587 for professionals. In contrast, the predicted probability of WFH is low for craft workers (0.107), machine operators (0.107) and those employed in elementary occupations (0.088). However, according to the Appendix Table 11, 30.5% of total employees are in elementary occupations while 13.29% are employed as craft workers. Further, 11.23% of total employees are service and market sales workers. This shows that the majority of employees belong to occupations with low feasibility of WFH.

All in all, the results exhibit that employees' feasibility to WFH significantly varies due to industrial and occupational characteristics as well socio-economic characteristics. Compared to the employees in the 'agricultural and industrial sector', those in the 'service sector' have a



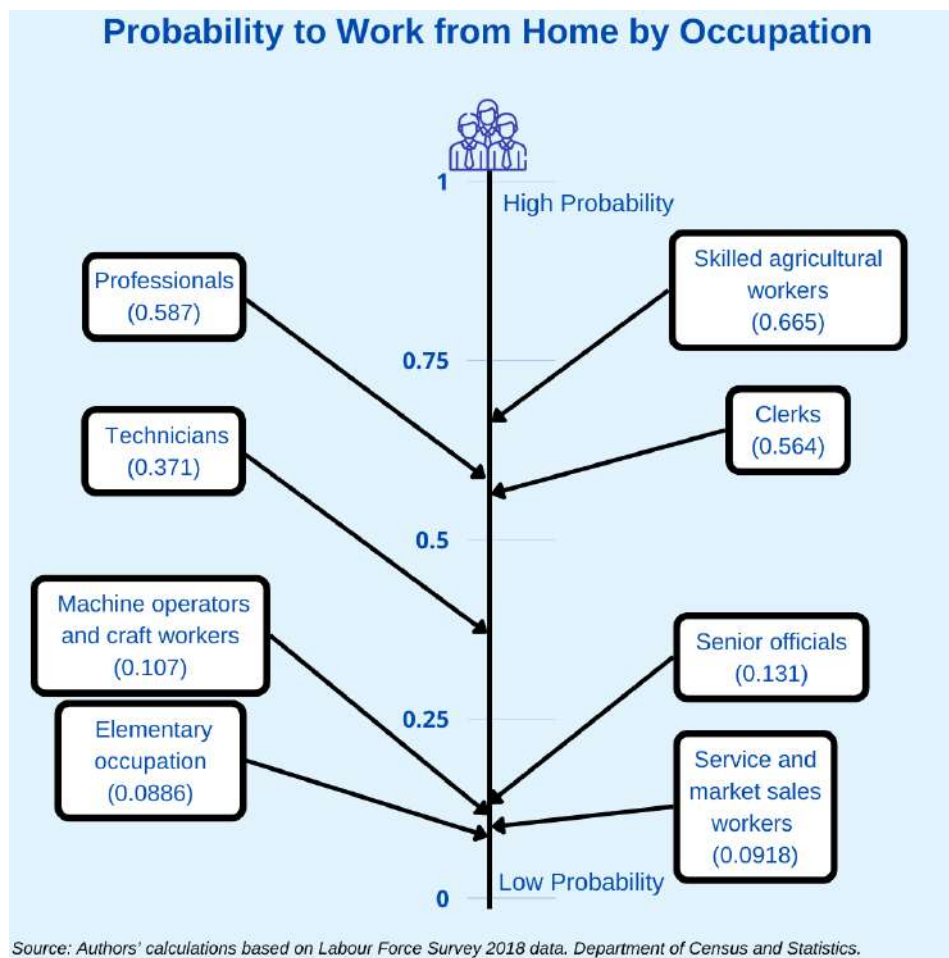
relatively high feasibility of WFH and this industry as a whole is less affected by physical lockdowns and social distancing measures. However, few sub-industries of the service sector such as 'accommodation and food service industry', 'transportation and storage industry', etc., were severely affected by these precautionary measures. In contrast, within the service sector, employees in 'education', 'professional services', 'finance and insurance', have a relatively high feasibility to WFH.

At the occupational level, WFH is more appropriate for 'professionals', 'ICT technicians' etc but for employees occupied as 'service and sales workers', 'craft workers', 'machine operators', the predicted probability of WFH has a low value (See Appendix Table 10).

Moreover, as explained by the ordered-probit analysis, compared to the employees in micro industries, employees occupied in medium and large enterprises have low feasibility to WFH. This

is because most of the medium and large enterprises in Sri Lanka are in manufacturing, agricultural, and construction sectors where the usage of labour-intensive technology is high. Also, these manufacturing, agricultural and construction occupations require a high level of physical proximity and interactive involvement. Therefore, task content of each occupation is one of the major driving factors that determine the employees' feasibility of WFH. Socio-economic characteristics disclosed that the most affected employees have a comparatively low level of education and reside in rural and estate sectors. In comparison, the least-affected occupational groups who can adapt to the WFH practice have a relatively high level of education and mostly reside in the urban sector.

The results depict that employees' feasibility to WFH slightly diminishes with age. English literacy is also a major factor that determines the ability to WFH. The results provide evidence for a positive relationship between employees'



feasibility to WFH and English literacy. The employees' feasibility of WFH varies based on geographical location as well with high feasibility to WFH reported in the Western province and low plausibility to WFH in the Southern, Northern and Eastern provinces.

6.2 SWOT Analysis of WFH in Sri Lanka

In Sri Lanka, WFH is a novel practice to those of the conventional labour market where a majority of employees used to work inside an office in the pre-COVID-19 era. However, as one of the most important contemporary policy tools, the WFH policy facilitated day-to-day economic activities despite the pandemic. As depicted by the results of this study, plausibility to WFH is limited to some specific jobs in the context of Sri Lanka. For instance, feasibility to WFH in Sri Lanka, is generally balanced by age but significantly

unbalanced by gender, educational attainment, income level, occupation, firm size, sector and geographical location. Experiences of many developing as well as developed countries implied that, severe recession can have negative impacts on future earnings and job security. Hence, WFH can be used as a long-term policy tool to enhance the available employment opportunities and safeguard employment. Therefore, it is essential to identify the potentials and pitfalls of WFH policy in Sri Lanka to facilitate the development of WFH within the labour market context of Sri Lanka.

The results illustrated by this study and the prevailing labour market conditions in Sri Lanka reflect the importance of taking steps forward to introduce necessary changes to facilitate WFH. One of the major barriers to WFH in Sri Lanka is the lack of a supportive legal and built environment. For instance, main legislations that

Table 2: SWOT Analysis of WFH in Sri Lanka

Strengths	Weaknessess
• Flexibility • Improve the gender diversity (e.g.: women and) careers • Work-life balance • No office distractions • Independent work environment • Lack of absenteeism • Time and money saving • Higher talent retention, job satisfaction and better productivity • Reduction in traffic congestion and environmental pollution • Ability to apply on majority of the service sector occupations	• Inability to balance both professional life and personal life • Social isolation • Distractions (e.g.: Household duties) • Communication barriers • Costs associate with WFH (e.g.: electricity bills, internet cost) • Unfavourable WFH environment (e.g.: living in small space) • Lack of supervision and institutional support • Unhealthy lifestyle • Lack of ICT infrastructure in Sri Lanka • Not favourable to all employees (less educated, low wage earners, employees in rural areas, small and medium enterprises (SMEs) are negatively affected) • Inability to adapt for a majority of the agricultural occupations and other occupations requiring high physical proximity
Opportunities	Threats
• Hybrid model that combines the WFH and work in office • Ability to introduce new businesses without physical location (e.g.: Buffer software company)	• Lack of labour regulations and labour insurance policies regarding WFH • Cybersecurity problems • Offshorability (e.g.: outsourcing cheap labour from outside the country will reduce the available employment opportunities for local employees.

Source: Authors' compilation based on literature.

provide a legal framework for work and remuneration such as the Shop and Office Act No. 19 of 1954 and the Wages Boards Ordinance No. 27 of 1941 do not provide any facilitation for WFH. Thus, it is vital to reform existing laws to facilitate the WFH practice.

“One of the major barriers to WFH in Sri Lanka is the lack of a supportive legal and built environment.”

The international standards on WFH included in Home Work Convention 1996 adopted by the ILO can be used as a basis to reform domestic law in such a way to provide solutions for contemporary practical problems that ought to be answered by the law. Therefore, based on this convention, the rights and benefits of workers who WFH can be strengthened to avoid discrimination. As shown by the results of this study, the ability to WFH significantly varies across different industry groups, occupations based on the task content of each occupation. Therefore, it is important to introduce diverse regulations and facilities based on inherent characteristics of occupations/sectors because WFH practice cannot be applied consistently and similarly to each and every occupation.

Also, WFH can be used as a policy tool to address problems relating to female employment. Many legal loopholes do not cover the major problems faced by female employees. For instance, according to the Maternity Benefit Ordinance No

32 of the, female workers are entitled to maternity leave in the event of a viable foetus 28 weeks old. Before 28 weeks of a viable foetus is not covered under any contemporary legislation in Sri Lanka. Any complications in the first three months of a pregnant mother would not be covered under the ordinance. Furthermore, day-to-day travelling from/to the office and home, is also a burden and a health concern faced by pregnant female workers. In this scenario, WFH practice can be used to facilitate pregnant female workers through including WFH policy in existing legislation. In addition to that, when employers design flexible work arrangements/WFH facilities, it is important to demonstrate support to female employees with care responsibilities. To facilitate female employees to WFH, it is also vital that employers continue to promote family-friendly policies and measures which focus on encouraging men to equally share the responsibilities of household activities.

Some sectors are unable to adapt to WFH due to capacity and skill issues and a majority of businesses are unable to summon all employees back to the office full time due to the ongoing pandemic. Hence, as a solution, companies/firms can adopt a hybrid-WFH model that allows some employees to work remotely while others work on-site. However, there is no clear definition for this model since it involves various combinations of working remotely and work from office. Therefore, a hybrid-WFH model can be adapted based on the organisational structure, occupational characteristics, tasks content of occupations etc. Generally, a few variations of hybrid-WFH model can be noted such as remote-first model, office-occasional model, office first-remote allowed model, fully flexible-WFH model, remote-ish hybrid model' etc. (Griffis, 2021).

These models are slightly different to each other. In the remote-first model, employees are allowed to WFH but those workers whose jobs require more physical proximity are required to come to office premises to perform their occupational

activities. In the office-occasional model, employees are required to come to office premises only on a limited number of days per week and the rest of the days, they have to WFH. In the office first-remote allowed model, companies allow a small percentage of their workforce to work remotely while the rest of the workforce have to work from the main office space. In contrast, fully flexible-WFH model enables employees to choose when they would like to WFH and work from office. In the remote-ish hybrid model, employees are allowed to schedule WFH days but not on specific days like Monday and Friday (Griffis, 2021). Therefore, a hybrid-WFH model is a suitable solution to address the varying degrees of the feasibility of WFH in different occupations.

In addition to various types of hybrid-WFH models, WFH arrangements can be implemented to meet various level objectives. For instance, a need-based work from home model can be availed by the employees on a need basis. Through the need-based work from home model, in the event of health problem of employees' family member, where the employee has to attend needs of his family member at home and simultaneously they can perform their tasks at home. Another approach is the prolonged work from home model. Under this facility, employees can WFH for an extended period of time under the approval of the employer.

However, the WFH approach should be implemented in such a way that ensures employees' well-being and continued productivity. Therefore, considerable attention should be given on employees' working time, performance management, digitalisation, communication, occupational safety and health and work-life balance. Effective management of working time is essential to maintain a work-life balance. Therefore, a defined and consistent WFH schedule should be implemented by the employer. Further, employees with children or other dependents at home need to find additional time

to complete their duties either starting their work early in the morning or working much later in the evening. Employers also can support employees with care responsibilities by providing flexible working arrangements. Performance management is also vital for effective WFH. Therefore, delivering an explanation on expected results, continued engagement with the employees, ensuring timely, regular and descriptive feedback to employees is needed.

Digitalisation is vital for WFH, especially for those who are engaged in the service sector. Adoption of digital technologies by various sectors/industries assist employees to carryout working from home. For instance, In Cameroon, both the public sector and private sector were recommended WFH due to the COVID-19 pandemic and along with that, they have implemented a public sector digitalisation process (ILO, 2020). Communication and employee engagement are also major critical aspects to be considered while formulating policies for WFH because effective communication and employee engagement facilitate maintaining productivity and efficiency. Therefore, active use of official communication channels, conducting periodical virtual meetings, implementing mentorship programmes to engage employees, conducting periodic surveys on employees' feedback are a few measures that any organisation/business can take to enhance communication and employee engagement.

When considering the occupational safety and health of the employees, employers have a responsibility to ensure these are in place. Even though employees are not at the office premises under the WFH arrangement, the responsibility of providing health facilities is important. Therefore, policies should be implemented to ensure the essential health needs of employees who are WFH as an extension for current social protections schemes for employees.

For instance, an internet technological enterprise in China introduced a 24-hour hotline for all WFH employees and their family members, staffed by medical officers and psychologists (ILO, 2020). Therefore, promoting mental and physical health, encouraging workers to maintain healthy eating habits, etc., would help to mitigate negative health outcomes caused by WFH. Facilitating training programmes is also crucial for employees to perform effectively when WFH. Consequently, offering training sessions that focus on the use of digital equipment, software, time management and soft skills would enhance the productivity of employees. In addition to that, other policy options are available to support employees in relation to the WFH such as supporting WFH employees by reimbursing (fully or partially) the costs of electricity and communication etc., providing additional flexibility around working hours etc.

As shown by this study, a low level of ICT infrastructure and lack of knowledge about digital tools and equipment also reduce the feasibility to WFH. Therefore, the government can facilitate to increase the ICT infrastructure, ICT knowledge of the community and capacity of the businesses as well as workers. According to the Census of

Public and Semi Government Employment Report 2016, approximately 44% of public sector and semi government employees are not using internet facility and the computer literacy of these employees is around 67% (see Appendix Table 12). Therefore, the government has a major role in facilitating the public sector and semi government employees to WFH. For instance, the government can extend support to the public sector employees by providing interest-free loan facilities to buy necessary WFH equipment such as mobile phones, computers for public sector workers. Private sector firms or businesses should provide additional payments to employees to cover the additional cost of WFH as a way of encouraging the WFH. In addition to that, government need to take several measures to encourage WFH such as changes in labour laws to redefine working hours and shift timing, reconsidering the employer's role regarding safety and health measures at the workplace.

Meanwhile, it is also important that adversely affected occupations which require high physical proximity, are supported with alternative and viable mechanism to sustain livelihoods.

7. Conclusion

The COVID-19 pandemic and associated lockdowns along with social distancing policies as well as economic stagnation, have deteriorated labour market conditions across the globe. Sri Lanka is also experiencing job losses/retrenchments, reduced work hours and increased unemployment. The government advised a WFH practice to encourage firms to continue business activities. However, not all firms can adapt to such a system and neither can all occupations. First, the nature of work performed by workers/task content of each occupation affects the firm's ability to adapt to the WFH practice. Second, the availability of ICT infrastructure and computer literacy of the workers and the ability of the firm's management to move to a WFH practice, affect the success of this approach.

In this study, by adopting the methodology used by Dingel & Neiman (2020) and the LFS data, an attempt has been made to examine the WFH of employees using ordered-probit analysis. The results show that the ability to adapt to WFH practice varies widely across occupational groups and industry groups, income levels, sectors and provinces. Occupational groups such as professionals, teaching professionals, ICT professionals, and general and keyboard clerks will benefit the most from a WFH approach. Generally, these occupations require less physical proximity and have a high reliance on digital tools and technologies.

Employees in the agricultural and industrial sectors have a low feasibility to WFH compared to employees in the services sector such as education, professional services, finance and insurance. Employees who are less educated and reside in the estate sector have low feasibility to WFH. The study has found that the ability to WFH also increases with the level of English literacy but slightly deteriorates with age. Moreover,

employees' WFH ability is high in the Western province. In comparison, the Southern, Northern and Eastern provinces have low plausibility to WFH. Notably, a larger number of employees fall within the low WFH occupations indicating that the majority of employees belong to occupations for which the feasibility to WFH is relatively low.

“The WFH approach should ensure employees' well-being and continued productivity. Therefore, considerable attention should be focussed on employees' working time, performance management, digitalisation, communication, occupational safety and health and work-life balance.”

However, with varying degrees of the feasibility to WFH in different occupations, given infrastructure and management limitations, some of these firms may be unable to adopt the full WFH approach. Therefore, these firms can adopt a hybrid WFH model according to the nature of the business and occupational characteristics. However, the WFH approach should ensure employees' well-being and continued productivity. Therefore, considerable attention should be focused on employees' working time, performance management, digitalisation, communication, occupational safety and health and work-life balance.

In the Sri Lankan context, to restore and improve economic activities, the government should support these firms to adapt to WFH practices by providing necessary legal frameworks and guidelines to facilitate the WFH practice, increasing the investment in ICT infrastructure, and providing necessary training and financial support for public sector workers to WFH. Meanwhile, given the nature of employment, workers in some occupations will find it challenging to WFH. Therefore, it is also the government's responsibility to explore alternative means of supporting these workers.

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Appendices

Appendix Table 1: Average Plausibility to WFH by Sub-Occupation Groups

One Digit Code	Two Digit Code*	Occupation	Average Plausibility to WFH
1	11	Chief Executives, Senior Officials and Legislators	1.00
1	12	Administrative and Commercial Managers	1.00
1	13	Production and Specialised Services Managers	0.33
1	14	Hospitality, Retail and Other Services Managers	0.00
2	21	Science and Engineering Professionals	0.87
2	22	Health Professionals	0.05
2	23	Teaching Professionals	1.00
2	24	Business and Administration Professionals	1.00
2	25	Information and Communication Technology Professionals	1.00
2	26	Legal, Social and Cultural Professionals	0.86
3	31	Science and Engineering related Professionals	0.12
3	32	Health related Professionals	0.05
3	33	Commercial Sales Representatives, Government Social Benefits Officials	0.84
3	34	Legal, Social, Cultural and Related Associate Professionals	0.94
3	35	Information and Communications Technology Operations Technicians, Broadcasting and Audiovisual Technicians	1.00
4	41	General and Keyboard Clerks	1.00
4	42	Customer Services Clerks	0.30
4	43	Numerical and Material Recording Clerks	0.60
4	44	Other Clerical Support Workers	0.82
5	51	Personal Services Workers	0.21
5	52	Sales Workers	0.00
5	53	Personal Care Workers	0.37
5	54	Security Guards, Police Officers	0.01
6	61	Market-oriented Skilled Agricultural Workers	0.10
6	62	Market-oriented Trained Forestry, Fishery and Hunting Workers	0.00
6	63	Agricultural, Forestry, Fishery and Livestock Supervisors	0.00
7	71	Building and Industry-related Workers	0.00
7	72	Metal, Machinery and Related Trades Workers	0.00

One Digit Code	Two Digit Code*	Occupation	Average Plausibility to WFH
7	73	Handicraft and Printing Workers	0.34
7	74	Electrical and Electronic Industry Workers	0.00
7	75	Food Processing, Woodworking, Garment & Other Craft and Related Trades Workers	0.04
8	81	Stationary Plant and Machine Operators	0.00
8	82	Assemblers	0.00
8	83	Mobile Plant Operators and Drivers	0.00
9	91	Cleaners and Helpers	0.00
9	92	Agricultural, Forestry and Fishery Labourers	0.00
9	93	Labourers in Mining, Construction, Manufacturing and Transport	0.00
9	94	Food Preparation Assistants	0.00
9	95	Street and Related Sales and Services Workers	0.00
9	96	Refuse Workers and Other Elementary Workers	0.84

Note: Two-digit occupation codes are according to the SLSCO 2008.

Source: Authors' estimations based on Dingel and Neiman (2020) WFH data for detailed mapping of Labour Force (2018) data, Department of Census and Statistics.

Appendix Table 2: Summary Statistics of Variables

Variables	Observation	Mean	Std. Deviation	Minimum	Maximum
WFH	15,230	1.947	1.922	1	5
Age	15,230	40.296	12.892	15	98
Female	15,230	0.359	0.480	0	1
Education Level	15,214	1.847	1.037	1	4
Income Level	15,230	1.329	0.537	1	4
Industry Group	15,230	2.401	0.725	1	3
Industries	15,230	8.397	6.038	1	21
Occupation	15,230	6.076	2.697	1	9
Sector	15,230	1.457	0.791	1	3
Firm Size	11,190	4.075	2.456	1	8
Province	15,230	3.889	2.708	1	9
English Literacy	15,230	0.294	0.455	0	1

Note: Sample is working age population (which is 15 and above population) according to the Department of Census and Statistics.

Source: Authors' calculations based on Labour Force Survey (2018) data, Department of Census and Statistics.

Appendix Table 3: Summary Statistics of Categories of Variables

Dependent Variable		Observations	Mean	Std. Deviation	Minimum	Maximum
WFH	Q2	15,230	0.007	0.083	0	1
	Q3	15,230	0.004	0.062	0	1
	Q4	15,230	0.014	0.118	0	1
	Q5	15,230	0.267	0.442	0	1
Age	Age	15,230	40.296	12.892	15	98
Gender	Female	15,230	0.359	0.480	0	1
Education Level	O/L Passed	15,214	0.171	0.377	0	1
	A/L Passed	15,214	0.203	0.402	0	1
	Degree and above	15,214	0.090	0.286	0	1
Income Level (LKR)	35,000=<85,000	15,230	0.284	0.451	0	1
	85,000=<135,000	15,230	0.012	0.107	0	1
	135,000 and above	15,230	0.007	0.085	0	1
Industry Group	Industry	15,230	0.313	0.464	0	1
	Service	15,230	0.544	0.498	0	1
Industries	Mining	15,230	0.011	0.104	0	1
	Manufacturing	15,230	0.194	0.396	0	1
	Public utilities-1	15,230	0.004	0.066	0	1
	Public utilities-2	15,230	0.006	0.077	0	1
	Construction	15,230	0.097	0.296	0	1
	Wholesale and retail trade	15,230	0.107	0.308	0	1
	Transports and storage	15,230	0.051	0.219	0	1
	Accommodation and food service	15,230	0.025	0.156	0	1
	Information and communication	15,230	0.009	0.096	0	1
	Financial and insurance	15,230	0.040	0.197	0	1
	Real estate	15,230	0.001	0.036	0	1
	Professional services	15,230	0.014	0.118	0	1
	Administrative and supportive activities	15,230	0.033	0.178	0	1
	Public administration and defense	15,230	0.084	0.278	0	1
	Education	15,230	0.095	0.293	0	1

Dependent Variable		Observations	Mean	Std. Deviation	Minimum	Maximum
Industries	Arts and entertainment	15,230	0.033	0.178	0	1
	Other service activities	15,230	0.006	0.075	0	1
	Activities of households as employers	15,230	0.012	0.107	0	1
	Activities of extra territorial	15,230	0.035	0.184	0	1
Occupation	Senior Officials	15,230	0.043	0.202	0	1
	Professionals	15,230	0.120	0.325	0	1
	Technicians	15,230	0.113	0.317	0	1
	Market Sales Workers	15,230	0.111	0.315	0	1
	Skilled Agricultural	15,230	0.009	0.092	0	1
	Craft Workers	15,230	0.133	0.340	0	1
	Machine Operators	15,230	0.090	0.286	0	1
	Elementary Occupations	15,230	0.317	0.465	0	1
Sector	Estate	15,230	0.080	0.271	0	1
	Urban	15,230	0.188	0.391	0	1
Firm Size	Small	11,190	0.081	0.272	0	1
	Medium	11,190	0.206	0.404	0	1
	Large	11,190	0.210	0.407	0	1
	No Institution	11,190	0.233	0.423	0	1
	No Regular Employees	11,190	0.020	0.139	0	1
Province	Central	15,230	0.138	0.344	0	1
	Southern	15,230	0.129	0.336	0	1
	Northern	15,230	0.095	0.293	0	1
	Eastern	15,230	0.077	0.266	0	1
	North-Western	15,230	0.099	0.298	0	1
	North-Central	15,230	0.043	0.202	0	1
	Uva	15,230	0.040	0.196	0	1
	Sabaragamuva	15,230	0.109	0.312	0	1

Note: Sample is working age population (which is 15 and above population) according to the Department of Census and Statistics.

Source: Authors' calculations based on Labour Force Survey (2018) data, Department of Census and Statistics.

Appendix Table 4: Descriptive Statistics of the Sample

Variables	Mean	Linearised Std. Err.	95% Conf. Interval		Std. Dev.	Variance
WFH	1.979	0.025	1.930	2.027	1.926	3.711
Age	40.473	0.126	40.226	40.719	12.917	166.854
Female	0.359	0.004	0.351	0.368	0.480	0.230
Education Level	1.873	0.016	1.842	1.904	1.040	1.082
Income Level	1.349	0.007	1.335	1.363	0.551	0.304
Industry Group	2.420	0.011	2.398	2.443	0.712	0.508
Industries	8.454	0.082	8.293	8.615	6.030	36.356
Occupation	6.017	0.039	5.940	6.094	2.706	7.323
Sector	1.477	0.020	1.437	1.517	0.809	0.654
Province	3.696	0.068	3.563	3.830	2.796	7.815
English Literacy	0.308	0.007	0.295	0.322	0.462	0.213

Source: Authors' calculations based on Labour Force Survey (2018) data, Department of Census and Statistics.

Appendix Table 5: Plausibility to WFH (Ordered-Probit Model)⁵

Independent Variable		Model 1	Model 2	Model 3	Model 4
Gender	Female	-0.174*** (0.031)	-0.199*** (0.025)	-0.221*** (0.033)	-0.222*** (0.027)
Age	Age	-0.003** (0.001)	-0.001 (0.001)	-0.004*** (0.001)	-0.003*** (0.001)
Income Level (LKR) (Ref. category: below 35,000)	35,000=<85,000	-0.003 (0.038)	-0.007 (0.028)	0.012 (0.039)	0.023 (0.029)
	85,000=<135,000	-0.418** (0.199)	-0.570*** (0.139)	-0.409** (0.198)	-0.400*** (0.138)
	135,000 and above	-0.350 (0.257)	-0.523*** (0.173)	-0.333 (0.264)	-0.385** (0.170)
Education Level (Ref. category: Below O/L)	O/L Passed	-0.016 (0.033)	0.016 (0.029)	-0.019 (0.033)	0.017 (0.029)
	A/L Passed	0.141*** (0.048)	0.145*** (0.037)	0.104** (0.048)	0.109*** (0.038)
	Degree and above	0.282** (0.118)	0.555*** (0.066)	0.231* (0.120)	0.420*** (0.069)
Sector Ref. category: (Rural)	Estate	-0.579*** (0.111)	-0.579*** (0.105)	-0.577*** (0.106)	-0.566*** (0.099)
	Urban	-0.011 (0.039)	0.034 (0.034)	0.005 (0.039)	0.034 (0.034)
Province (Ref. category: Western)	Central	-0.002 (0.056)	-0.016 (0.046)	0.011 (0.056)	0.022- (0.047)
	Southern	-0.148*** (0.046)	-0.089** (0.039)	-0.095** (0.046)	-0.082** (0.039)
	Northern	-0.265*** (0.056)	-0.132*** (0.047)	-0.255*** (0.057)	-0.175*** (0.048)
	Eastern	-0.148*** (0.053)	-0.0617 (0.044)	-0.131** (0.052)	-0.098** (0.044)
	North-Western	-0.0306 (0.054)	0.033 (0.047)	-0.020 (0.057)	0.001 (0.049)

⁵ The models with the firm size variable (Models 1 and 3) are only applicable to the non-public sector.

Independent Variable		Model 1	Model 2	Model 3	Model 4
	North-Central	0.074 (0.086)	0.118* (0.067)	0.101 (0.089)	0.086 (0.072)
	Uva	-0.046 (0.128)	0.001 (0.091)	0.000 (0.122)	-0.022 (0.090)
	Sabaragamuwa	-0.068 (0.050)	-0.069 (0.043)	-0.068 (0.051)	-0.075* (0.043)
Occupation (Ref. category: clerks)	Senior Officials	-0.976*** (0.112)	-1.157*** (0.087)	-1.014*** (0.115)	1.281***- (0.091)
	Professionals	0.722*** (0.094)	0.346*** (0.060)	0.642*** (0.098)	0.060 (0.071)
	Technicians	-0.043 (0.070)	-0.490*** (0.053)	-0.066 (0.072)	-0.491*** (0.056)
	Market Sales Workers	-1.333*** (0.063)	-1.541*** (0.051)	-1.240*** (0.066)	-1.490*** (0.054)
	Skilled Agricultural	0.634*** (0.216)	0.374* (0.209)	0.544** (0.217)	0.266 (0.210)
	Craft Workers	-1.118*** (0.064)	-1.363*** (0.054)	-1.121*** (0.066)	-1.405*** (0.057)
	Machine Operators	-1.168*** (0.059)	-1.415*** (0.049)	-1.107*** (0.064)	-1.404*** (0.053)
	Elementary Occup.	-1.165*** (0.070)	-1.331*** (0.058)	-1.287*** (0.078)	-1.510*** (0.064)
English Literacy	English Literacy	0.069* (0.037)	0.015 (0.030)	0.070* (0.037)	0.038 (0.030)
Firm Size (Ref. category: micro)	Small	-0.149*** (0.047)		-0.106** (0.048)	
	Medium	-0.128*** (0.040)		-0.082* (0.042)	
	Large	-0.197*** (0.049)		-0.140*** (0.049)	
	No Institution	-0.006 (0.049)		-0.068 (0.050)	
	No Regular Employees	0.258* (0.142)		-0.248 (0.186)	

Independent Variable		Model 1	Model 2	Model 3	Model 4
Industry Group (Ref. category: Agriculture)	Industry	1.565*** (0.092)	1.560*** (0.090)		
	Service	1.833*** (0.100)	1.805*** (0.088)		
Industries (Ref. category: Agriculture, fishing, etc.)	Mining			1.596*** (0.098)	1.598*** (0.092)
	Manufacturing			1.424*** (0.103)	1.415*** (0.100)
	Public utilities-1			1.477*** (0.251)	1.741*** (0.187)
	Public utilities-2			1.831*** (0.252)	2.211*** (0.209)
	Construction			1.527*** (0.090)	1.545*** (0.084)
	Wholesale and retail trade			1.527*** (0.111)	1.526*** (0.100)
	Transportation and storage			1.442*** (0.103)	1.480*** (0.093)
	Accommodation and food service			1.552*** (0.104)	1.545*** (0.098)
	Information and communication			1.503*** (0.214)	1.585*** (0.203)
	Financial and Insurance			2.009*** (0.131)	1.826*** (0.113)
	Real estate			2.142*** (0.344)	2.163*** (0.330)
	Professional services			2.222*** (0.171)	2.017*** (0.132)
	Administrative and supportive activities			1.491*** (0.116)	1.496*** (0.103)
	Public administration and defense			1.849*** (0.338)	1.612*** (0.096)

Independent Variable		Model 1	Model 2	Model 3	Model 4
	Education			2.568*** (0.152)	2.832*** (0.111)
	Arts and entertainment			1.155*** (0.163)	0.934*** (0.102)
	Other service activities			1.152*** (0.205)	1.532*** (0.175)
	Activities of households as emp.			2.130*** (0.162)	2.157*** (0.149)
	Activities of extra territorial			2.489*** (0.150)	2.396*** (0.121)
	Constant cut1	-0.899*** (0.123)	-0.954*** (0.104)	-1.073*** (0.128)	-1.238*** (0.111)
	Constant cut2	1.295*** (0.136)	1.204*** (0.116)	1.159*** (0.140)	0.979*** (0.121)
	Constant cut3	1.332*** (0.136)	1.233*** (0.116)	1.198*** (0.140)	1.010*** (0.121)
	Constant cut4	1.346*** (0.136)	1.251*** (0.116)	1.212*** (0.140)	1.030*** (0.121)
	Constant cut5	1.428*** (0.137)	1.319*** (0.117)	1.299*** (0.141)	1.104*** (0.122)
	Observations	11,184	15,214	11,184	15,214

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Note: First category of each variable have been taken as the base category.

Source: Authors' estimations based on Sri Lanka Labour Force Survey - Annual Report, 2018, Department of Census and Statistics.

Appendix Table 6: Tests of Hypothesis Relating to the Ordered-Probit Model

		FTest	Probability
Income Level	(1) (WFH) 2. 35,000=<85,000 = 0 (2) (WFH) 3. 85,000=<135,000 = 0 (3) (WFH) 4. 135,000 and above = 0	F(3,2486) = 4.99	Prob>F =0.0019
Education Level	(1) (WFH) 2. O/L Passed = 0 (2) (WFH) 3. A/L Passed = 0 (3) (WFH) 4. Degree and above = 0	F(3,2486) =12.85	Prob>F = 0.0000
Sector	(1) (WFH) 2. Estate = 0 (2) (WFH) 3. Urban = 0	F(2,2487) =16.91	Prob>F =0.0000
Province	(1) (WFH) 2. Central = 0 (2) (WFH) 3. Southern = 0 (3) (WFH) 4. Northern = 0 (4) (WFH) 5. Eastern = 0 (5) (WFH) 6. North-Western = 0 (6) (WFH) 7. North-Central = 0 (7) (WFH) 8. Uva = 0 (8) (WFH) 9. Sabaragamuwa = 0	F(8,2481) =2.80	Prob>F =0.0043
Occupation	(1) (WFH) 2. Senior officials = 0 (2) (WFH) 3. Professionals = 0 (3) (WFH) 4. Technicians = 0 (4) (WFH) 5. Service & mar. = 0 (5) (WFH) 6. Skilled agri. = 0 (6) (WFH) 7. Craft workers = 0 (7) (WFH) 8. Machine opera. = 0 (8) (WFH) 9. Elementary occ.= 0	F(8,2481) =160.42	Prob> F =0.0000
Industry Group	(1) (WFH) 2. Industry = 0 (2) (WFH) 3. Service = 0	F(2,2487) =216.94	Prob>F =0.0000
Industries	(1) (WFH) 2. Mining = 0 (2) (WFH) 3. Manufacturing = 0 (3) (WFH) 4. Public utilities-1 = 0 (4) (WFH) 5. Public utilities-2 = 0 (5) (WFH) 6. Construction = 0 (6) (WFH) 7. Wholesale = 0	F(19,2470) =56.22	Prob> F =0.0000

		F Test	Probability
	(7) (WFH) 8. Transports = 0 (8) (WFH) 9. Accommodation = 0 (9) (WFH) 10. Information = 0 (10) (WFH) 11. Financial. = 0 (11) (WFH) 12. Real estate = 0 (12) (WFH) 13. Professional = 0 (13) (WFH) 14. Administrative = 0 (14) (WFH) 15. Public admin. = 0 (15) (WFH) 16. Education = 0 (16) (WFH) 17. Arts & ent = 0 (17) (WFH) 18. Other serv. = 0 (18) (WFH) 19. Acti. House. = 0 (19) (WFH) 20. Acti. of extra. = 0		
Firm Size	(1) (WFH) 2. Small = 0 (2) (WFH) 3. Medium = 0 (3) (WFH) 4. Large = 0 (4) (WFH) 5. No Institution = 0 (5) (WFH) 6. No regular emp. = 0	F(5,2393) =6.04	Prob>F =0.0000

Note: First category of each variable have been taken as the base category.

Source: Authors' Calculations based on Labour Force Survey (2018) data, Department of Census and Statistics.

Appendix Table 7: Predicted Probabilities (WFH and Education Level)

Variables	Predicted Probability
WFH#Education Level	
Q1._predict#1. Below O/L	0.708*** (0.008)
Q1._predict#2. O/L Passed	0.707*** (0.008)
Q1._predict#3. A/L Passed	0.689*** (0.009)
Q1._predict#4. Degree and above	0.589*** (0.019)
Q2._predict#1. Below O/L	0.008*** (0.001)
Q2._predict#2. O/L Passed	0.008*** (0.001)
Q2._predict#3. A/L Passed	0.009*** (0.001)
Q2._predict#4. Degree and above	0.011*** (0.002)
Q3._predict#1. Below O/L	0.005*** (0.001)
Q3._predict#2. O/L Passed	0.005*** (0.001)
Q3._predict#3. A/L Passed	0.005*** (0.001)
Q3._predict#4. Degree and above	0.007*** (0.001)
Q4._predict#1. Below O/L	0.017*** (0.001)
Q4._predict#2. O/L Passed	0.018*** (0.001)
Q4._predict#3. A/L Passed	0.020*** (0.001)
Q4._predict#4. Degree and above	0.025*** (0.002)
Q5._predict#1. Below O/L	0.164*** (0.006)
Q5._predict#2. O/L Passed	0.168*** (0.008)
Q5._predict#3. A/L Passed	0.202*** (0.009)
Q5._predict#4. Degree and above	0.336*** (0.022)

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Note: Occupational groups are combined as quintiles based on probabilities which indicate the share of WFH occupations. Quintiles – Q1: 0.00-0.20, Q2: 0.21-0.40, Q3: 0.41-0.60, Q4: 0.61-0.80, Q5: 0.81-1.00

Source: Authors' calculations based on Labour Force Survey (2018) data, Department of Census and Statistics.

Appendix Table 8: Predicted Probabilities (WFH and Income Level)

Variables	Predicted Probability
WFH#Income Level (LKR)	
Q1._predict#1. Below 35,000	0.727*** (0.008)
Q1._predict#2. 35,000=<85,000	0.727*** (0.008)
Q1._predict#3. 85,000=<135,000	0.689*** (0.037)
Q1._predict#4. 135,000 and above	0.701*** (0.040)
Q2._predict#1. Below 35,000	0.008*** (0.001)
Q2._predict#2. 35,000=<85,000	0.008*** (0.001)
Q2._predict#3. 85,000=<135,000	0.005*** (0.002)
Q2._predict#4. 135,000 and above	0.005** (0.002)
Q3._predict#1. Below 35,000	0.003*** (0.001)
Q3._predict#2. 35,000=<85,000	0.003*** (0.001)
Q3._predict#3. 85,000=<135,000	0.002*** (0.001)
Q3._predict#4. 135,000 and above	0.002** (0.001)
Q4._predict#1. Below 35,000	0.016*** (0.001)
Q4._predict#2. 35,000=<85,000	0.016*** (0.001)
Q4._predict#3. 85,000=<135,000	0.009*** (0.003)
Q4._predict#4. 135,000 and above	0.010** (0.004)
Q5._predict#1. Below 35,000	0.112*** (0.005)
Q5._predict#2. 35,000=<85,000	0.111*** (0.008)
Q5._predict#3. 85,000=<135,000	0.051** (0.021)
Q5._predict#4. 135,000 and above	0.059* (0.030)

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Note: Occupational groups are combined as quintiles based on probabilities which indicate the share of WFH occupations. Quintiles – Q1: 0.00-0.20, Q2: 0.21-0.40, Q3: 0.41-0.60, Q4: 0.61-0.80, Q5: 0.81-1.00

Source: Authors' calculations based on Labour Force Survey (2018) data, Department of Census and Statistics.

Appendix Table 9: Predicted Probabilities (WFH and Industry Group)

Variables	Predicted Probability
WFH#Industry Group	
Q1._predict#1. Agriculture	0.771*** (0.008)
Q1._predict#2. Industry	0.722*** (0.008)
Q1._predict#3. Service	0.686*** (0.008)
Q2._predict#1. Agriculture	0.001*** (0.000)
Q2._predict#2. Industry	0.009*** (0.002)
Q2._predict#3. Service	0.012*** (0.002)
Q3._predict#1. Agriculture	0.000*** (0.000)
Q3._predict#2. Industry	0.003*** (0.001)
Q3._predict#3. Service	0.004*** (0.001)
Q4._predict#1. Agriculture	0.001*** (0.000)
Q4._predict#2. Industry	0.019*** (0.002)
Q4._predict#3. Service	0.024*** (0.002)
Q5._predict#1. Agriculture	0.004*** (0.001)
Q5._predict#2. Industry	0.141*** (0.007)
Q5._predict#3. Service	0.209*** (0.009)

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Note: Occupational groups are combined as quintiles based on probabilities which indicate the share of WFH occupations. Quintiles - Q1: 0.00-0.20, Q2: 0.21-0.40, Q3: 0.41-0.60, Q4: 0.61-0.80, Q5: 0.81-1.00

Source: Authors' calculations based on Labour Force Survey (2018) data, Department of Census and Statistics.

Appendix Table 10: Predicted Probabilities (WFH and Occupations)

Variables	Predicted Probability
WFH#Occupation	
Q1._predict#1. Clerks	0.381*** -0.0173
Q1._predict#2. Senior officials	0.729*** -0.00839
Q1._predict#3. Professionals	0.360*** -0.0199
Q1._predict#4. Technicians	0.559*** -0.0146
Q1._predict#5. Services, sales workers	0.730*** -0.00737
Q1._predict#6. Skilled agriculture	0.288*** -0.0672
Q1._predict#7. Craft workers	0.732*** -0.00738
Q1._predict#8. Machine operators	0.732*** -0.00739
Q1._predict#9. Elementary occupations	0.729*** -0.00764
Q2._predict#1. Clerks	0.0122*** -0.00184
Q2._predict#2. Senior officials	0.00760*** -0.00133
Q2._predict#3. Professionals	0.0120*** -0.00182
Q2._predict#4. Technicians	0.0124*** -0.00188
Q2._predict#5. Services, sales workers	0.00602*** -0.000945
Q2._predict#6. Skilled agriculture	0.0110*** -0.00148
Q2._predict#7. Craft workers	0.00665*** -0.00108
Q2._predict#8. Machine operators	0.00666*** -0.00103
Q2._predict#9. Elementary occupations	0.00587*** -0.000907
Q3._predict#1. Clerks	0.00761*** -0.00109
Q3._predict#2. Senior officials	0.00458*** -0.00075

Variables	Predicted Probability
WFH#Occupation	
Q3._predict#3. Professionals	0.00749*** -0.00108
Q3._predict#4. Technicians	0.00761*** -0.00109
Q3._predict#5. Services, sales workers	0.00361*** -0.000531
Q3._predict#6. Skilled agriculture	0.00689*** -0.0012
Q3._predict#7. Craft workers	0.00400*** -0.000585
Q3._predict#8. Machine operators	0.00400*** -0.000579
Q3._predict#9. Elementary occupations	0.00352*** -0.000521
Q4._predict#1. Clerks	0.0289*** -0.0022
Q4._predict#2. Senior officials	0.0164*** -0.00189
Q4._predict#3. Professionals	0.0285*** -0.00211
Q4._predict#4. Technicians	0.0283*** -0.0021
Q4._predict#5. Services, sales workers	0.0128*** -0.00103
Q4._predict#6. Skilled agriculture	0.0265*** -0.0031
Q4._predict#7. Craft workers	0.0142*** -0.00113
Q4._predict#8. Machine operators	0.0142*** -0.00108
Q4._predict#9. Elementary occupations	0.0125*** -0.00105
Q5._predict#1. Clerks	0.564*** -0.0188
Q5._predict#2. Senior officials	0.131*** -0.0177
Q5._predict#3. Professionals	0.587*** -0.0212
Q5._predict#4. Technicians	0.371*** -0.0159
Q5._predict#5. Services, sales workers	0.0918*** -0.00626

Variables	Predicted Probability
WFH#Occupation	
Q5._predict#6. Skilled agriculture	0.665*** -0.0725
Q5._predict#7. Craft workers	0.107*** -0.00734
Q5._predict#8. Machine operators	0.107*** -0.00626
Q5._predict#9. Elementary occupations	0.0886*** -0.00677
Observations	15,214

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Note: Occupational groups are combined as quintiles based on probabilities which indicate the share of WFH occupations. Quintiles - Q1: 0.00-0.20, Q2: 0.21-0.40, Q3: 0.41-0.60, Q4: 0.61-0.80, Q5: 0.81-1.00

Source: Authors' calculations based on Labour Force Survey (2018) data, Department of Census and Statistics.

Appendix Table 11: Percentage of Total Employees by Occupation

Occupation	% of Total Employees
Clerks	6.84
Senior Officials	4.44
Professionals	11.86
Technicians	11.62
Service and Market Sales Workers	11.23
Skilled Agricultural Workers	0.75
Craft Workers	13.29
Machine Operators	9.45
Elementary Occupation	30.50

Source: Authors'estimations based on Labour Force Survey (2018) data, Department of Census and Statistics.

Appendix Table 12: Computer Literacy and Internet Use of Public Sector and Semi-Government Employees

Sector	Total Employees	Computer Literate		Using Internet	
		Number	%	Number	%
Total	1,109,475	741,460	66.8	624,693	56.3
State	485,471	309,390	63.7	262,833	54.1
Provincial Public	380,198	272,124	71.6	218,218	57.4
Semi Government	243,806	159,946	65.6	143,642	58.9

Source: Census of Public and Semi Government Sector Employment 2016, Department of Census and Statistics.

Appendix Table 13: Summary Statistics of Variables (WFH of Employees between 15-60 Age)

Variables	Observations	Mean	Std. Deviation	Minimum	Maximum
WFH	14,229	1.982	1.928	1	5
Age	14,229	38.536	11.371	15	60
Female	14,229	0.363	0.481	0	1
Education Level	14,213	1.890	1.047	1	4
Income Level	14,229	1.345	0.543	1	4
Industry Group	14,229	2.419	0.712	1	3
Industries	14,229	8.463	5.960	1	21
Occupation	14,229	5.983	2.703	1	9
Sector	14,229	1.455	0.789	1	3
Firm Size	10,239	4.057	2.433	1	8
Province	14,229	3.883	2.694	1	9
English Literacy	14,229	0.306	0.460	0	1

Source: Authors' calculations based on Labour Force Survey (2018) data, Department of Census and Statistics.

Appendix Table 14: Descriptive Statistics of the Sample (Age 15-60)

Variables	Mean	Linearised Std. Err.	95% Conf. Interval		Std. Dev.	Variance
WFH	2.013	0.025	1.963	2.063	1.932	3.731
Age	38.679	0.114	38.456	38.902	11.382	129.551
Female	0.364	0.004	0.355	0.372	0.481	0.231
Education Level	1.917	0.016	1.885	1.949	1.049	1.101
Income Level	1.365	0.008	1.351	1.380	0.558	0.311
Industry Group	2.437	0.011	2.415	2.459	0.699	0.489
Industries	8.504	0.083	8.341	8.666	5.945	35.349
Occupation	5.921	0.040	5.842	6.000	2.710	7.346
Sector	1.474	0.020	1.435	1.514	0.807	0.652
Province	3.687	0.067	3.555	3.819	2.784	7.749
English Literacy	0.321	0.007	0.307	0.335	0.467	0.218

Source: Authors' calculations based on Labour Force Survey (2018) data, Department of Census and Statistics.

Appendix Table 15: WFH of Employees between Age 15-60 (Ordered-Probit Model)⁶

Dependent Variable		Model 1	Model 2	Model 3	Model 4
Gender	Female	-0.128***	-0.171***	-0.170***	-0.188***
		-0.032	-0.026	-0.034	-0.028
Age	Age	-0.006***	-0.003***	-0.006***	-0.005***
		-0.001	-0.001	-0.001	-0.001
Income Level (LKR) (Ref. category: below 35,000)	35,000=<85,000	0.025	0.012	0.038	0.040
		-0.040	-0.029	-0.041	-0.030
	5,000=<135,000	-0.414**	-0.599***	-0.411**	-0.428***
		-0.202	-0.140	-0.200	-0.139
	135,000 and above	-0.359	-0.552***	-0.353	-0.412**
		-0.265	-0.176	-0.273	-0.172
Education Level (Ref. category: Below O/L)	O/L Passed	-0.008	0.022	-0.011	0.017
		0.034	-0.03	-0.035	-0.030
	A/L Passed	0.135***	0.147***	0.103**	0.107***
		-0.050	-0.038	-0.050	-0.039
	Degree and above	0.282**	0.554***	0.235*	0.410***
		-0.123	-0.0668	-0.125	-0.071
Sector (Ref. category: Rural)	Estate	-0.564***	-0.574***	-0.562***	-0.560***
		-0.109	-0.103	-0.107	-0.010
	Urban	-0.0261	0.0242	-0.0084	0.0289
		-0.042	-0.036	-0.042	-0.036
Province (Ref. category: Western)	Central	-0.016	-0.032	0.000	-0.040
		-0.058	-0.047	-0.058	-0.048
	Southern	-0.170***	-0.104***	-0.117**	-0.099**
		-0.048	-0.040	-0.048	-0.040
	Northern	-0.263***	-0.118**	-0.254***	-0.163***
		-0.059	-0.049	-0.060	-0.050
	Eastern	-0.134**	-0.049	-0.122**	-0.090**
		-0.055	-0.045	-0.054	-0.045
	North-Western	-0.053	0.020	-0.041	-0.016
		-0.054	-0.047	-0.055	-0.048

⁶ The models with the firm size variable (Models 1 and 3) are only applicable to the non-public sector.

Dependent Variable		Model 1	Model 2	Model 3	Model 4
	North-Central	0.095	0.135*	0.119	0.099
		-0.089	-0.069	-0.092	-0.075
	Uva	0.034	0.051	0.076	0.030
		-0.121	-0.086	-0.120	-0.087
	Sabaragamuva	-0.057	-0.061	-0.054	-0.069
		-0.053	-0.045	-0.054	-0.045
Occupation (Ref. category: clerks)	Senior Officials	-0.949***	-1.137***	-0.979***	-1.256***
		-0.118	-0.090	-0.121	-0.094
	Professionals	0.731***	0.345***	0.662***	0.060
		-0.098	-0.061	-0.102	-0.072
	Technicians	-0.021	-0.497***	-0.038	-0.495***
		-0.073	-0.054	-0.075	-0.057
	Market Sales Workers	-1.329***	-1.548***	-1.232***	-1.493***
		-0.065	-0.052	-0.069	-0.056
	Skilled Agricultural	0.703***	0.419**	0.629***	0.320
		-0.206	-0.201	-0.206	-0.201
	Craft Workers	-1.111***	-1.367***	-1.110***	-1.410***
		-0.067	-0.056	-0.070	-0.059
	Machine Operators	-1.147***	-1.412***	-1.082***	-1.402***
		-0.062	-0.051	-0.067	-0.055
	Elementary Occupations	-1.176***	-1.344***	-1.283***	-1.518***
		-0.074	-0.060	-0.082	-0.067
English Literacy	English Literacy	0.076**	0.020	0.076*	0.043
		-0.039	-0.031	-0.039	-0.031
Firm Size (Ref. category: micro)	Small	-0.142***		-0.102**	
		-0.048		-0.049	
	Medium	-0.139***		-0.098**	
		-0.042		-0.043	
	Large	-0.214***		-0.160***	
		-0.051		-0.052	
	No Institution	0.006		-0.052	
		-0.051		-0.052	

Dependent Variable		Model 1	Model 2	Model 3	Model 4
	No Regular Employees	0.315** -0.160		-0.210 -0.194	
Industry Group (Ref. category: Agriculture)	Industry	1.569*** -0.097	1.561*** -0.095		
	Service	1.831*** -0.101	1.804*** -0.091		
Industries (Ref. category: Agriculture, fishing, etc.)	Mining			1.604*** -0.105	1.606*** -0.098
	Manufacturing			1.442*** -0.108	1.423*** -0.105
	Public utilities-1			1.528*** -0.257	1.780*** -0.192
	Public utilities-2			1.902*** -0.246	2.280*** -0.211
	Construction			1.542*** -0.094	1.556*** -0.088
	Wholesale and retail trade			1.549*** -0.108	1.539*** -0.099
	Transports and storage			1.453*** -0.108	1.495*** -0.097
	Accommodation and food service			1.585*** -0.105	1.548*** -0.099
	Information and communication			1.528*** -0.219	1.586*** -0.206
	Financial and Insurance			2.020*** -0.134	1.835*** -0.117
	Real estate			2.211*** -0.395	2.233*** -0.375
	Professional services			2.242*** -0.174	2.005*** -0.134
	Administrative and supportive activities			1.505*** -0.125	1.506*** -0.111

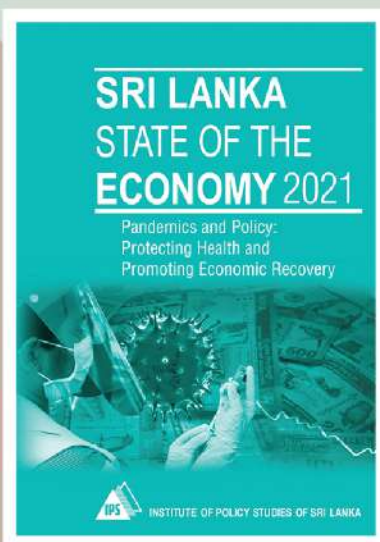
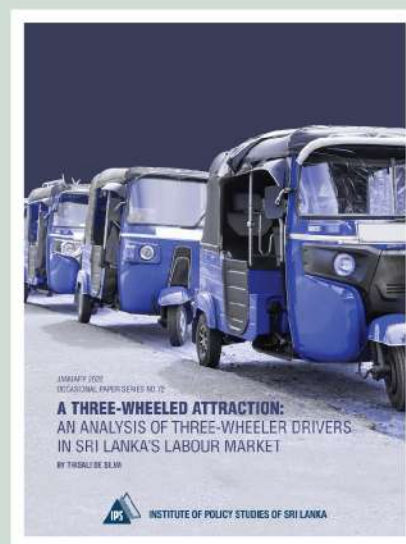
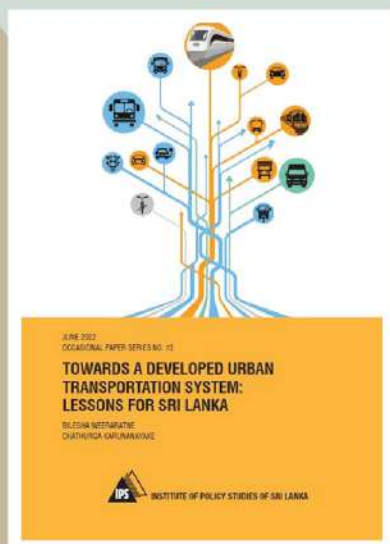
Dependent Variable	Model 1	Model 2	Model 3	Model 4
Public administration and defense			1.762***	1.638***
			-0.388	-0.099
Education			2.602***	2.864***
			-0.155	-0.116
Arts and entertainment			1.115***	0.925***
			-0.168	-0.106
Other service activities			1.200***	1.588***
			-0.213	-0.181
Activities of households as employers			2.121***	2.154***
			-0.170	-0.157
Activities of extra territorial			2.519***	2.439***
			-0.162	-0.134
Constant cut1	-0.993***	-1.029***	-1.141***	-1.306***
	-0.121	-0.105	-0.127	-0.111
Constant cut2	1.249***	1.169***	1.138***	0.953***
	-0.134	-0.116	-0.138	-0.120
Constant cut3	1.285***	1.197***	1.175***	0.984***
	-0.134	-0.116	-0.138	-0.120
Constant cut4	1.298***	1.215***	1.189***	1.003***
	-0.134	-0.116	-0.138	-0.121
Constant cut5	1.386***	1.285***	1.281***	1.081***
	-0.135	-0.117	-0.139	-0.122
Observations	10,233	14,213	10,233	14,213

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Note: First category of each variable have been taken as the base category.

Source: Authors' estimations based on Sri Lanka Labour Force Survey - Annual Report, 2018, Department of Census and Statistics.

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INSTITUTE OF POLICY STUDIES OF SRI LANKA

100/20, Independence Avenue
Colombo 7
Sri Lanka

Tel: +94 11 2143100 Fax: +94 11 2665065

Email: ips@ips.lk, Website: www.ips.lk

Blog: 'Talking Economics' - <http://www.ips.lk/talkingeconomics>

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