## Brief Communication

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## Abbreviations

COVID-19: coronavirus disease 2019; ILO: International Labour Organization; LSA: Labor Standards Act; NGO: nongovernmental organization; OECD: Organization for Economic Development Co-operation and Development; WHO: World Health Organization.

# Working hours and the regulations in Korea 

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#### Abstract

South Korea has the highest policy priority for working hour regulations because it has longer annual working hours than other Organization for Economic Development Co-operation and Development countries and has fewer holidays. According to the results of the Working Conditions Surveys between 2006 and 2020, in 2020, $6 \%$ of wage earners worked for > 52 hours weekly. The percentage of workers exceeding 52 hours weekly has decreased over time; however, disparities exist based on age, industry, occupation, company type, and company size, particularly in service-, arts-, and culture-related occupations and workplaces with fewer than 5 employees. South Korea's working hours system is greatly influenced by the 52-hour weekly maximum; sometimes, a maximum of 64-69 hours, including overtime, is theoretically possible. To ensure healthy working hours, it is important to actively protect workers who fall through the cracks, such as those in businesses with fewer than 5 employees.


Keywords: Working hours; Regulations; Working conditions

Working hours are an important predictor of workers' health. In 2016, the World Health Organization (WHO) and International Labour Organization (ILO) reported that long working hours accounted for 745,000 stroke- and ischemic heart disease-related deaths worldwide. ${ }^{1}$ In addition to stroke, cardiovascular disease, and depression, workplace accidents are associated with long working hours. ${ }^{2-4}$ Notably, changes in the labor market and industrial structure have raised issues regarding the arrangement of working hours, leading to discussions on "Decent working time". 5,6

However, South Korea has the highest policy priority for the number of working hours. This priority is due to its long annual working hours and fewer holidays than other Organization for Economic Development Co-operation and Development (OECD) countries. ${ }^{7}$ In South Korea, cerebro-cardiovascular disease is recognized as occupational disease related with long working hour. ${ }^{8}$

The government recently proposed an amendment to the Labor Standards Act (LSA) to deregulate the current 1-week maximum working hour limit by introducing an annual

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Competing interests
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## Author Contributions

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averaging system for the 1 -week limit on overtime hours. ${ }^{9}$ The annual averaging scheme is a method of working time flexibility that averages working hours weekly over a period, such that the average does not exceed the maximum weekly working hours, usually < 48 hours weekly. The ILO recognizes that it undermines the stability and predictability of working time arrangements, adversely affecting workers' health and quality of life. Therefore, it is considered in exceptional companies with clear seasonal characteristics; however, being the most complex working time arrangement policy, it should be adopted cautiously. ${ }^{10}$

Therefore, the present study examined the status of weekly working hours and holidays that affect the length of annual working hours and also summarized the regulations on working hours.

We analyzed 6 rounds of the Working Condition Surveys conducted between 2006 and 2020. We estimated the proportion of wage earners according to weighting, and all statistical analyses were performed using the R program (R version 4.2.2; R Foundation for Statistical Computing, Vienna, Austria). The R package, "survey," was used. The survey model used "svydesign." We calculated the percentage of employees whose actual weekly working hours, excluding commuting and lunch times, exceeded 52 hours according to sex, age, industry, occupation, type of business, and company size.

Industrial and occupational classifications differ from other surveys in the first Working Condition survey; therefore, the first survey classification criteria were applied. However, the groups were classified by considering the distribution and standard classification.

Industries were categorized into 4 groups: agriculture, forestry, fisheries, and mining; manufacturing; construction; and services. Occupations were also divided into 4 groups. The first group comprised the following: management, administrative, and accounting occupations; finance and insurance occupations; education and researchers in natural or social sciences; legal, police, and correction occupations; healthcare workers; social work and religious occupations; and military occupations. The second group included culture, arts, design, driving and transportation, sales and merchandising, security and cleaning, beauty, hospitality, travel, entertainment, sports, and food services. The third group included construction, mechanical, material, chemical, textile and apparel, electrical and electronic, information and communication, food processing, environmental, printing, wood, furniture, and simple manual workers. The fourth group comprised agriculture, forestry, and fisheries. The types of businesses were categorized as private, public, and non-governmental organizations (NGOs). Company size was categorized as fewer than 5 employees, 5-50 employees, 50-300 employees, or > 300 employees.

Fig. 1 shows the percentage of wage workers with weekly work hours exceeding 52 hours according to sex, age, industry, occupation, company type, and company size. From 2006, when the survey was first conducted, to 2020, the percentage of workers working > 52 h / week declined. There were a few differences according to age; however, the prevalence of long working hours was higher among workers aged $>60$ years. In addition, the prevalence of long working hours was higher in services and construction than in manufacturing; however, this difference decreased. The difference according to occupation was relatively large, with manual and service workers working longer hours than professionals and agriculture, forestry, and fishery workers. The private sector was more likely to work for longer hours than the public sector. There were also large differences in the company size, with employees in workplaces with fewer than 5 employees working > 52 hours. Furthermore, $11.6 \%$ of the


Fig. 1. Percentage of wage earners working > 52 hours weekly (\%).
In the Industry graph, each line are as follows: $\mathrm{A} / \mathrm{F} / \mathrm{M}$ : agriculture, forestry, and fisheries, mining; M: manufacturing; C: construction; S , etc.: service or others. In the Occupation graph, each line are as follows: 1: managers, professionals, researchers, clerks, police officers, firefighters, healthcare workers, social workers, and military workers; 2: culture, arts and design, transportation, sales, and other service workers; 3: manual workers; 4: agriculture, forestry, and fisheries. NGO: non-governmental organization.
wage earners in companies with fewer than 5 employees worked > 52 hours; the larger the company, the less likely it was to work > 52 hours.

The number of hours worked in 2020 may have been underestimated due to the impact of the coronavirus disease 2019 (COVID-19) pandemic; however, $6 \%$ of wage earners worked > 52 hours weekly, whereas $20 \%$ worked $>48$ hours weekly. ${ }^{11}$ This percentage is still approximately $10 \%-15 \%$ higher than that in developed countries in Europe or America. ${ }^{12}$ The companies with fewer than 5 employees experienced particularly long working hours, to which the LSA articles concerning the statutory working hours, regulations setting the maximum working hours at 52 h weekly, including overtime, or the annual leave regulations do not apply.

There are few sources of data on vacation usage among Korean wage earners. There is a difference between surveys of employers and individual workers. The present study presents the results of the 2 surveys of individual workers.

According to the results of the "Workers' Vacation Survey," conducted for workers in businesses with 5 or more employees, the annual leave exhaustion rate in 2021 was $76.1 \%$. Regular workers took 12.6 days of vacation in 2021; however, the number of days varied depending on the company size, with an average of 9.7 days in workplaces with 5-9 employees and 13.4 days in workplaces with $\geq 100$ employees. ${ }^{13}$

A 2022 study by the Korea Institute of Health and Social Affairs ${ }^{14}$ focused on annual leave for wage earners and found that the average number of vacation days granted was 17.03; however, the actual number of days taken was 11.63, and the utilization rate for annual leave was approximately $68 \%$. The study also included wage earners in establishments with fewer than 5 employees, who had an average of 10.83 days of vacation with annual leave and an average of 2.05 days of vacation without annual leave. The study also found that those with regular jobs and those in larger companies had more vacation days. In addition, the study examined the workers' reasons for not using all their annual leave, with the most common reason being 'to receive annual leave allowance' (20.1\%), followed by 'lack of substitutes' ( $18.3 \%$ ), and 'excessive workload' (17.6\%). ${ }^{14}$

In particular, the actual number of days off would be even larger if public holidays were included, considering that regulations on public holidays do not apply to businesses with fewer than 5 employees. Therefore, a lack of substitutes and an excessive workload can lead to a vicious cycle of being unable to take vacations and working longer hours.

Chapter 4 of LSA governs the working hours and holidays of wage earners in South Korea, except those in companies with fewer than 5 employees or the supervisory industry. ${ }^{15}$ The statutory weekly work hours in South Korea is 40 hours, with a maximum of 12 hours of overtime weekly. However, some industries, such as healthcare and transportation, allow employees to work for more than this maximum and give an 11-hour rest period between workdays. The law indicates 1 day of paid vacation weekly, 15 public holidays, and an additional 15 days of annual leave for those who work for > 80\% of the year. Flexible working hours, selective work hours, and special overtime are available.

The maximum number of working hours in South Korea varies depending on the company size and the chosen working hour system. For companies with fewer than 5 employees, there is virtually no limit to the maximum working hours and no regulations on breaks or holidays. Workplaces with < 30 employees can work up to 60 hours weekly, including overtime, by the end of 2023. With the approval of the Minister of Employment and Labor, an individual can work up to 64 hours weekly, including overtime, if given a minimum of 11 hours of rest after a workday or guaranteed 1 consecutive day of rest weekly.

Regarding flexible working hours, the maximum limit, including overtime, is 64 hours if an individual averages at most 52 hours in the calculated period. If a 3-month period of selective working hours is implemented, employees must be given an 11-hour break after a workday. It is theoretically possible to work up to 69 hours weekly if there are 11 consecutive hours of rest on a working day. Regarding selective work hours within 1 month, there is no provision for consecutive rest; therefore, there is practically no limit on the maximum weekly working hours.

In summary, despite statutory working hours, South Korea's working hours system is greatly influenced by the 52 -hour weekly maximum. If a short-term weekly average is adopted, a maximum of 64-69 hours, including overtime, is theoretically possible. Table 1 lists the main components of each working-time system.

Healthy working hours are associated with decent working hours. ${ }^{5,6} \mathrm{~A}$ recent review of the effects of different forms of work arrangements on health recommended that the maximum working week should not exceed 48 hours and that flexibility and worker choice in work arrangements are important. This indicates the need for adjusting commuting times or working hours according to workers' choices for work-life balance, reducing working hours, and improving the quality of part-time work. It also indicates the need for providing a 'menu' of different working time arrangements from which workers can choose and establishing a system that allows them to try these out to choose the length and arrangement that is right for them. ${ }^{16}$ However, the irregularity and unpredictability of working hours flexibility could be risk factors for workers' health. Furthermore, its positive effects are still unproven and can vary greatly depending on the job requirements. Therefore, it should be considered carefully, reflecting individual preferences based on standard working hours.

Accordingly, countries have adopted various working time regulations. Notably, most OECD countries have a legal limit on the maximum number of weekly work hours, including overtime, set at 48 hours, whereas some have a limit of 60 hours (Austria) or 66 hours (Turkey). ${ }^{17}$ The ILO established work-time regulations in 1919 under Convention 1. This convention limits working hours to 8 hours daily, with a maximum of 48 hours weekly. However, 56 hours can only be applied under exceptional circumstances. South Korea has not yet ratified the convention. ${ }^{18}$

In conclusion, the number of long working hours in South Korea is decreasing; however, many workers continue to work long hours. There is a disparity in working hours based on workplace size. Regardless of discussions on decent working hours and the international regulatory situation, the maximum weekly working hours in Korea remain long. It is also possible to operate a flexible work schedule with fewer restrictions on working hours. However, South Korea's flexible working hours system has fundamental limitations in terms of work-life balance because it lacks measures to prevent ultralong working hours in

Table 1. Working hours' regulations in South Korea

| System | Terms | Regulations | Continuous rest |
| :---: | :---: | :---: | :---: |
| Standard working hours |  |  |  |
| Statutory | Standard | 40 hours/week. 8 hours/day | Not applicable |
|  | High risk job | 34 hours/week, 6 hours/day | Not applicable |
| Overtime limits | Standard | 12 hours/week | Not applicable |
|  | Company with under 30 employees | 20 hours/week | Not applicable |
|  | Exceptional industry | No limits | 11 hours of rest after workday |
| Special overtime limits | Standard | 24 hours/week | 11 hours of rest after workday (an equal |
|  | During less than two weeks | No limits | number of hours or more than 24 hours off during or after overtime) |
| Flexible working hours |  |  |  |
| Flexible work hour | Standard | Averaging 52 hours/week | Not applicable |
|  | During less than 2 weeks | 60 hours/week | Not applicable |
|  | During 2 weeks-3 months | 64 hours/week, 12 hours/day | Not applicable |
|  | During 3-6 months | 64 hours/week, 12 hours/day | 11 hours of rest after workday |
| Selective work hour | During less than 1 month | Averaging 52 hours/week | Not applicable |
|  | During 1-3 months | Averaging 52 hours/week | 11 hours of rest after workday |

Except for workers in companies with fewer than 5 employees.
certain weeks or protect workers' health. Given the low unionization rate, which reduces bargaining power, and the lack of regulation of working hours for businesses with fewer than 5 employees, a more active policy is required to regulate working hours.

## SUPPLEMENTARY MATERIAL

Supplementary Data 1<br>Korean version paper<br>\section*{click here to view}

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