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Job quality in the Republic of Korea: Progress or decline?

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Abstract. *To investigate whether, along with economic growth, the Republic of Korea has become a better place for workers, we examine trends in seven job quality dimensions between 2006 and 2020 and find that the relevant mean values changed in opposite directions. The largest rise was in Working Time Quality, associated with ongoing reductions in working hours against a background of working time regulation. The indices for Earnings and Social Environment also improved, but those for Prospects, Skills and Discretion, Work Intensity and Physical Environment all worsened. We also examine two key axes of inequality and find a gradually diminishing job quality premium in six dimensions for graduates as opposed to non-graduates, and better job quality for men as opposed to women in three dimensions. Given the mounting evidence that job quality affects health and well-being, these findings call into question the presumption that social progress goes hand in hand with sustained economic growth.*

Keywords: *job quality, Republic of Korea, university premium, gender gap, wages.*

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1. Introduction: The growing importance of job quality and contextual background in the Republic of Korea

Recent decades have witnessed increased policy discussions on the objective of "more and better jobs" (as articulated by the Organisation for Economic Co-operation and Development (OECD)), and in 2015 the ILO vision of "decent work" for all was enshrined in the United Nations Sustainable Development Goals (UN 2015). The same substantial increase has occurred with regard to scholarly research and policy discussions on job quality – those characteristics of jobs that tend to be beneficial for workers' health and well-being (e.g. Green 2006; Kalleberg 2011; Knox, Warhurst and Pocock 2011). While job quality is at the heart of the concept of decent work, the latter also incorporates broader issues, such as fairness, productiveness, social insurance, use of child labour and the quality of labour markets (Anker et al. 2003; ILO 2013). The policy interest in job quality continues unabated, as illustrated in the European Union's development of a new directive, issued in 2022, aimed at promoting adequate minimum wages and enhancing effective worker access to minimum wage protection (OECD 2022a).

Collectively, all dimensions of job quality are found to have a comparatively strong relationship to general well-being and health (Drobnič, Beham and Präg 2010; Clark et al. 2018; Eurofound 2019; Green et al. 2024; Green, forthcoming), and there is a substantive literature connecting job quality to work-related well-being (e.g. Warr 1999; Wang et al. 2022). Trends in job quality, whether positive or negative, can therefore be regarded as a significant component of the developmental progress – or decline – of societies. Moreover, debate over the future of work in a digital society has expanded beyond estimates of job losses from automation (see Brynjolfsson and McAfee 2011; Arntz, Gregory and Zierahn 2016) to consideration of the job quality implications (Berg et al. 2023).

This article focuses on trends in job quality in a recently developed country, the Republic of Korea, which has experienced continued relatively high GDP per capita growth, notably between 2000 and 2020 (63 per cent). The country's Human Development Index has risen at an average annual rate of 0.74 per cent since 1990, much faster than in many major economies (United Kingdom: 0.47 per cent; United States: 0.18 per cent).[1] This is in part because of the population's level of education, which has outpaced that of other OECD countries. By 2021, the Republic of Korea had an exceptionally highly educated workforce, with 69 per cent of the population in 2021 aged 25 to 34 having obtained a tertiary degree (OECD 2022b). From a labour perspective, however, the Republic of Korea also features several negative aspects, with a gender pay gap and working hours that have by far outstripped those of wealthier countries.[2] As its GDP catches up with that of other rich countries, and as it goes through the same global economic and financial crises as all others but becoming significantly richer and more developed in economic terms, has the Republic of Korea become a better place for workers? Have the inequalities linked to gender and education diminished?

The pertinence of these questions is established by a substantial body of evidence worldwide – from several social science disciplines, including economics, psychology, sociology, ergonomics and medicine – on the relationship between job quality and various dimensions of individual health and well-being (e.g. Karasek and Theorell 1992; Caroli and Godard 2016; Goh, Pfeffer and Zenios 2016; Eurofound 2019; Lorente, Tordera and Peiró 2018; Wang et al. 2022). In the Republic of Korea, studies have focused on the effects of specific aspects of job quality (such as shift work, working hours, exposure to risks and employment type) on various life dimensions, including self-rated physical and mental health (e.g. Kim 2007; Song et al. 2014; Kim et al. 2010; Kim et al. 2018; Cho et al. 2018). Working hours have attracted the most attention. For example, Jung et al. (2017) find that

[1] For comparative figures, see United Nations Development Programme, "Human Development Index (HDI)". https://hdr.undp.org/data-center/human-development-index#/indicies/HDI (accessed 6 June 2025).

[2] See OECD, "Gender Wage Gap (Indicator)" – https://www.oecd.org/en/data/indicators/gender-wage-gap.html – and "Hours Worked (Indicator)" – https://www.oecd.org/en/data/indicators/hours-worked.html (accessed 9 June 2025).

working at night, in the evening, on Sundays or more than 10 hours per day has a negative impact on self-rated health in the Republic of Korea, as has been found in other countries (e.g. Pallesen et al. 2010; Caruso 2014). There is also an interaction between longer working hours and various job stressors, leading to a synergetic detrimental effect on physical and mental health (Park, Yi and Kim 2010; Kim et al. 2013; Cho et al. 2018). Diverse job quality dimensions also have a significant impact on overall life satisfaction (Ahn 2016; Park et al. 2019; Rivera et al. 2020; Yi and Kim 2020).

These links imply that the answer to our overall question – whether economic growth in the Republic of Korea has translated into improved job quality – is key when it comes to evaluating the broader developmental progress of the country, which constitutes a particularly interesting example because of the availability of comprehensive data on all dimensions of job quality starting in 2006. In that year, the country's Occupational Safety and Health Research Institute undertook the first Korean Working Conditions Survey, modelled closely on the European Working Conditions Survey, thereby putting the Republic of Korea ahead of the game, outside Europe, in recognizing the value of such data.

This article deploys the Korean Working Conditions Survey to compile composite indicators of job quality in seven dimensions over time, the same dimensions as those utilized by the European Foundation for the Improvement of Living and Working Conditions (Eurofound). These are *Earnings* (monthly income from work), *Prospects* (incorporating both insecurity and career progression), *Skills and Discretion*, *Social Environment*, *Physical Environment*, *Working Time Quality* and, lastly, a negative indicator – *Work Intensity* (Eurofound 2012). We use these to document job quality changes between 2006 and 2020, and to examine trends in job quality gaps between men and women, and between university graduates and non-graduates.

The remainder of this article is structured as follows: section 2 outlines a range of theories used to assess trends in job quality dimensions, considered in the specific context of the Republic of Korea. These theories point to the key empirical questions that we investigate using data from the Korean Working Conditions Survey. Section 3 describes the data and analytical approach, and section 4 sets out the findings. Section 5 considers the trends in the Republic of Korea in the context of trends elsewhere, noting the limitations and suggesting directions for ongoing job quality research.

2. Contrasting perspectives on trends in job quality

2.1. Theoretical framework

Trends in job quality in the Republic of Korea can be considered in the light of competing theories. For one group of theories, the expectation is that all dimensions of job quality will either improve or decline simultaneously. For another group, the expectation is that some dimensions will rise while others fall. A third group focuses on polarization, with some social groups gaining or declining relative to others in respect of some or all job quality dimensions.

In the first group, a widely held optimistic perspective is that all dimensions of job quality will improve as a country becomes more affluent. This perspective assumes that working conditions are normal goods (in the economic sense) and that the trade-off between wages and other dimensions is reasonably stable. In macroeconomic terms, this implies that employers offer higher wages and better working conditions across all dimensions in times of positive economic growth (as in the Republic of Korea), and lower wages and poorer conditions in times of economic recession. This economic argument is in line with the sociological proposition dating from the "industrialism" perspective of the 1960s and renewed in the "post-industrialism" perspective, which emphasized the knowledge economy. The latter held that firms and countries would increasingly compete on the basis of innovation and knowledge, and that the complexity, skill requirements and level of autonomy afforded in jobs would gradually rise accordingly (Gallie 2007; Knox, Warhurst and Pocock 2011). From this perspective, then, the Republic of Korea's rapidly

growing economy would be expected to translate over time into improved job quality without the need for social regulation and, accordingly, to engender better health and well-being.

That expectation is qualified, however, in that regulation may be necessary to generalize job quality improvements among all workers, especially where the drivers of improvement are inhibited by constraints on labour mobility and labour market competition. Moreover, a contrasting, power-resources perspective suggests that job quality could be adversely affected in the absence of constraining regulation. If, over time, rents are redistributed to capital from labour (Howell and Kalleberg 2019; Henley 2022), job quality could diminish in all dimensions. The declining power of labour is said to be manifested in falling union density, less collective bargaining and a reduced voice for labour representatives in national politics, which together limit the regulatory control of labour markets and are currently all common features in several Western countries. Until the disruptions of the COVID-19 pandemic, the spread of domestic and global outsourcing, plus expanded competition through trade, may have further tipped the balance of power away from workers across US and European workplaces (Howell and Kalleberg 2019).

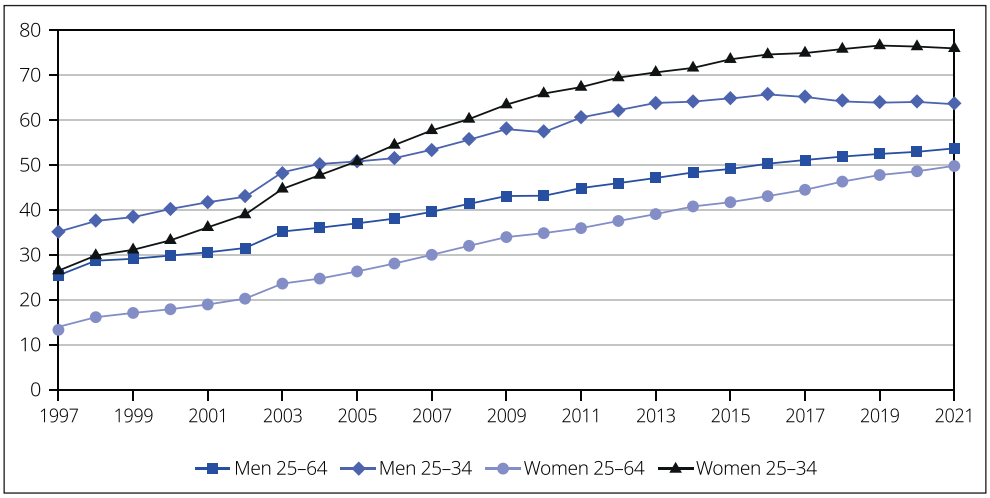
In the Republic of Korea, trade union density has remained low for most of the twenty-first century, at only around one in ten workers, although the unions gained some ground among younger workers after 2017, when the government regularized non-standard workers in the public sector. Moreover, unions are prohibited from having direct links to political parties and have been able to exert relatively little pressure on policymaking. Workplace regulation has been limited, focusing primarily on working hours, minimum wages and employment equality. Regulation of working hours was first introduced in 1953. It was tightened in 2023 to allow a maximum of 40 hours a week, with an additional 12 hours of overtime work permitted by agreement, plus 16 hours of holiday (weekend) work, bringing the maximum working hours per week to 68. In 2018, the maximum work week was further restricted to 52 hours, comprising 40 regular hours and 12 overtime hours permitted by agreement, which now also include holiday (weekend) hours. Minimum wages, first introduced in 1988, are uprated annually based on the economic situation. Workplace sexual harassment was proscribed by the 1988 Equal Employment Opportunity Act.

If such regulations are in practice significant drivers of change in job quality, they are likely to have a varying impact on the different dimensions of job quality and therefore bear out the second group of theories, according to which job quality dimensions can change in opposite directions. Workers' changing attitudes may also lead to differentiation (Gallie, Felstead and Green 2012). For example, as more and more women enter the labour force, and as gender norms and the associated preferences change among new generations of workers, workers' preferred trade-offs between dimensions may become different, with greater importance being attached to working time. If employers respond, even partially, to workers' preferences in order to remain competitive in the labour market, working time may improve even while other working conditions deteriorate. Alternatively, differentiation could stem from technological or organizational trends. For example, the theory of effort-biased technical change implies increasing work intensification, but this can be accompanied by rising wages for those accepting to work more intensively (Green et al. 2022).

The third group of ideas anticipates the polarization of working conditions across the workforce (Kalleberg 2011). The theory of task-biased technical change predicts rises in job quality for those with the education and skills needed to perform the proportionately increasing non-routine tasks that remain after digitalization (Autor, Katz and Kearney 2006). The digitalization of work also brings new risks in terms of job quality for some groups of workers, especially those who are marginalized and do not have the opportunity to participate significantly in work organization and design (Berg et al. 2023). The rise of platform work is reigniting and intensifying workforce segmentation into a secure, formal primary sector versus an increasingly insecure secondary sector (Hassel and Sieker 2022).

In this article, we focus on polarizations associated with two above-mentioned striking characteristics of the Republic of Korea: education and gender. The job quality gap between better- and less-well-educated workers would likely be driven by the relative demand for and supply of better-educated workers, and the OECD (2017, 67) documents the existence of a job quality premium for intrinsic working conditions in Europe that complements the conventional university wage premium. In the Republic of Korea, the proportion of the university-educated population in the labour force has increased dramatically, particularly for the young female population (see figure 1). This rapidly growing relative supply of university-educated workers leads to the expectation of a positive but declining job quality premium and increasing differentiation among tertiary-educated workers (Green and Zhu 2010).

Figure 1. Tertiary-educated population (percentages)



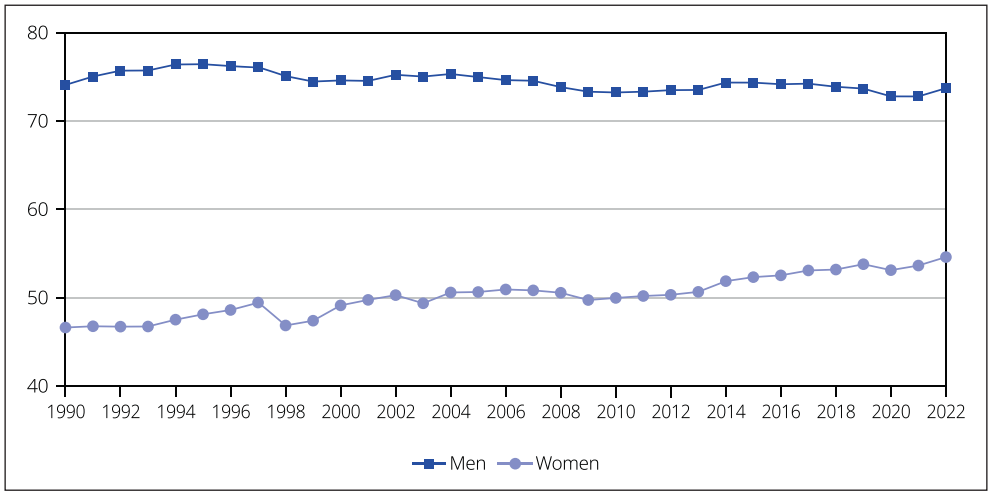
Source: OECD tertiary education database.

Reflecting sharply defined gender roles in traditional Korean society, women have long experienced substantial occupational and industrial segregation, lower earnings than men even when doing similar jobs, and fewer opportunities for promotion (Patterson and Benuyenah 2021). Given the implied high levels of gender disparity, a gender perspective might anticipate that the wage gap will be reinforced by similar differentials in favour of men with respect to all or most dimensions of job quality. Stier and Yaish (2014), for example, find that most men do better than women in respect of five out of six aspects of job quality across 27 countries,[3] although Green (2021) finds a more mixed picture in Europe. To the extent that traditional views of gender roles and attitudes have continued to decline as the economy has grown, the introduction of anti-discriminatory legislation (beginning with the 1988 Equal Employment Opportunity Act) promotes the participation of women in the labour force to levels comparable to those in many Western countries (see figure 2). Gender job quality gaps could therefore be expected to narrow over time, as long as there is adequate regulatory compliance.

Lastly, given that job quality varies significantly across industries (Eurofound and ILO 2019), the aggregate changes anticipated within each of the above perspectives may derive from changes not only within each industry but within the industrial structure. The Republic of Korea was already a developed country at the start of the period under consideration, and the pace of industrialization has slowed since 2000 (Lee 2016). Despite the decelerated changes in industrial composition, however, it remains possible that aggregate job quality trends stem in part from a structural industrial change.

[3] The six dimensions are material rewards, job content, job security, time autonomy, physical conditions and emotional conditions.

Figure 2. Labour force participation rate (percentages)



Source: ILOSTAT Labour Force Statistics database.

2.2. Existing evidence on job quality trends in the Republic of Korea

Eurofound and the ILO (2019) have compared the levels of job quality dimensions in the Republic of Korea, Europe, the United States and several other countries. In addition to the long working hours previously noted, the working hours of an especially high proportion of Korean workers are fixed by the employer. Overall, both the Working Time Quality and the Skills and Discretion indices are found to be distinctly worse in the Republic of Korea than in either Europe or the United States. For example, Korean workers have relatively little latitude in terms of decision-making. By contrast, Work Intensity is reported to be lower in the Republic of Korea, while for other dimensions (e.g. Prospects and the Physical Environment), the comparison is mixed (Lee 2018).

Studies of job quality trends in the Republic of Korea, and of how the country might fit into any of the above perspectives, are, however, piecemeal and relatively scarce. Annual working hours have been decreasing quite rapidly for more than three decades, consistent with the affluence perspective. However, the few studies that have looked at changes in other job quality variables are less encouraging. Lee (2018), for example, finds that Work Intensity indicators worsened between 2010 and 2017, while those for both job security and short-term flexibility during working hours declined. Increased exposure to vibrations, low temperatures, chemicals and infectious materials were also observed between 2006 and 2010 (Kim et al. 2015). Further, a recent study reports a significant decline in the share of well-resourced employees with good working conditions from 2010 to 2015 (Murtin et al. 2024). That said, less than seven years may be too short a period in which to assess secular changes. Moreover, all job quality dimensions must be comprehensively covered over a period of at least a decade, preferably more, in order to obtain an adequate understanding of whether there has been secular progress in job quality in the Republic of Korea as it continues to converge to the level of material affluence of Western countries.

2.3. Wage premium for university graduates

Studies of the wage premium associated with higher levels of education in the Republic of Korea show a substantial fall from very high levels in the 1980s through to the mid-1990s, followed by a slow rise between 2000 and 2011 (Park 2014). Furthermore, there is increasing heterogeneity in graduates' earnings depending on the type of university education (two- or four-year) and the university's prestige (Yi and Kim 2016; S. Lee 2022; Lee and Vignoles 2022; Han, Bae and Sohn 2012; Jung and Lee 2016; Lee, Jeong and Hong 2018). Taken together, this prior evidence suggests that the mean gap in earnings between graduates of two- and four-year university programmes may have shrunk or become even zero for graduates

from many universities, bar those from a few top four-year university programmes. To our knowledge, however, no studies examine the changing premium for Korean graduates in respect of working conditions other than wages.

2.4. Gender discrimination

While the gender pay gap remains large by international standards, it has gradually improved since the introduction of anti-discrimination legislation. Whereas women earned only 40 per cent of what men earned during the 1980s, by 2021 the ratio had improved to 69 per cent.[4] Notwithstanding the extensive literature on this gap (e.g. Monk-Turner and Turner 2004; K. Lee 2022), no studies have been conducted to date of how male–female job quality gaps, other than for wages, have been changing in the Republic of Korea.

To document secular trends in job quality for Korean workers, and to better understand whether these trends conform to any of the competing theoretical perspectives outlined above, we investigated trends and changing job quality gaps by gender and level of education over the period 2006–20. Using the Korean Working Conditions Survey, we constructed seven job quality indices, using the same protocols described in detail in Eurofound (2012), and addressed the following questions:

(1) How do the seven job quality indices change over time between 2006 and 2020?
(2) Do university graduates benefit from a "job quality premium" compared with those without a degree? How does that premium change over time?
(3) Does gender disparity exist in wider aspects of the labour market, besides earnings? If so, has any change in this disparity reinforced or counterbalanced improvements in the gender wage balance?

3. Data, indicators and empirical approach

3.1. Dataset

We used the Korean Working Conditions Survey, conducted by the Occupational Safety and Health Research Institute, which has benchmarked and adopted questions similar to those of the European Working Conditions Survey. We took into account the first six repeated cross-sectional surveys (2006, 2010, 2011, 2014, 2017 and 2020), which target employed people aged 15 and over. Trained interviewers visited each household and conducted the questionnaire using computer-assisted personal interviewing; online survey methods were also partially used in 2020, during the COVID-19 pandemic. The target sample size was 10,000 individuals in 2006 and 2010, and 50,000 in the subsequent surveys. Clustered random sampling methods were used, and survey weights are included in all our analyses, yielding nationally representative estimates.

3.2. Job quality indicators

Along with most job quality scholars, we used an objective definition of job quality that considers the job attributes that help workers meet their needs through their work. Those attributes are distinct from, though expected to be related to, subjective feelings such as job satisfaction. They can be grouped in multiple ways covering both extrinsic aspects of jobs, which are often detailed in labour contracts, and intrinsic aspects related to tasks, relationships and the physical setting (Muñoz de Bustillo et al. 2011; Eurofound 2012; Felstead et al. 2019). While the detailed list of job quality dimensions and associated indicators varies substantially between studies (Stefana et al. 2021), most lists are variations, subsets or intersections of the seven dimensions adopted by Eurofound and the European Parliament (Eurofound 2012; Berg et al. 2023): Earnings, Prospects, Skills and Discretion,

[4] See OECD, "Gender Wage Gap (Indicator)". https://www.oecd.org/en/data/indicators/gender-wage-gap.html (accessed 9 June 2025).

Social Environment, Physical Environment, Work Intensity and Working Time Quality. Each dimension, in turn, is measured using composite indicators. Because of the generality of this approach, and because of the close similarity between the European and the Korean Working Conditions Surveys, we used the Eurofound (2012) approach here. We constructed the same composite indicators for each of the seven job quality dimensions, or indices, using the Korean Working Conditions Survey (see table 1 for a brief description).

Table 1. Structure and description of the job quality indices

	Index	Questions and description
1	*Earnings*	EF5 (net monthly earnings)
2	*Prospects*	Q6 (contract type), Q78B (career progression), Q78F (job security)
	Prospects [TC]	Q78B, Q78F
3	*Skills and Discretion*	Q49A (order of task), Q49B (methods of work), Q49C (rate of work), Q54E (choice of colleagues), Q54I (your own ideas), Q54M (important decisions), Q31A (computer use), Q60A (training by employer), Q60B (training by yourself), Q60C (on-the-job training), EF6 (the average educational level in the occupation)
	Skills and Discretion [TC]	Q49A, Q49B, Q49C, Q54E, Q54I, Q54M, Q60A, EF6
4	*Social Environment*	Q54A (peer support), Q54B (manager support), Q61A (appreciation), Q61B (management trust), Q61C (fairness), Q61E (good cooperation), Q61F (employee trust), Q72 (no abuse)
	Social Environment [TC]	Q54A, Q54B, Q72
5	*Physical Environment*	Q28A (vibrations), Q28B (noise), Q28C (high temperatures), Q28D (low temperatures), Q28E (smoke and dust), Q28F (vapours), Q28G (chemical substances), Q28H (tobacco smoke), Q28I (infectious materials), Q29A (painful positions), Q29B (lifting people), Q29C (carrying heavy loads), Q29D (standing), Q29F (repetitive hand movements)
6	*Work Intensity*	Q45A (high speed), Q45B (tight deadlines), Q46A (colleagues' work), Q46B (direct demands from people), Q46C (performance targets), Q46D (automatic speed of a machine), Q46E (direct control of boss), Q54G (enough time to get job done), Q54L (stress), Q54N (hiding feelings)
	Work Intensity [TC]	Q45A, Q45B, Q46A, Q46B, Q46C, Q46D, Q46E, Q54G
7	*Working Time Quality*	Q16 (working hours), Q34A (night work), Q34B (Sunday work), Q34C (Saturday work), Q38 (time arrangements), Q43 (short-term flexibility)
	Working Time Quality [TC]	Q16, Q34A, Q34B, Q34C

Notes: [TC] indicates the "time-consistent" variable. The time-consistent indices are used for the analyses.
Source: Korean Working Conditions Survey.

"Earnings" is net monthly earnings (in Korean won at 2010 prices), since this most directly captures how earnings, whether from wages or self-employment, serve to cover living costs. In common with other surveys, the Earnings index had a number of missing values; these missing values were imputed with predicted earnings from regression analysis using the respondents' gender, age, age squared, level of education and industry.

The Prospects index includes one negative component (job insecurity, that is, the probability of job loss) and one positive component (the probability of career progression).

The Skills and Discretion index was constructed based on the skills used for the job and the worker's degree of discretion or autonomy at work, as measured by the replies to the following questions: Are you able to choose or change the order in which you perform your tasks, your methods of work, and your speed or rate of work? Are you able to apply your own ideas in your work? Can you influence decisions that are important for your work?

The Social Environment index has two components: social support and the absence of abuse. Social support was measured by asking the following question: Do your managers (colleagues) help and support you? The absence of abuse was measured by asking questions such as: During the course of your work, have you been subjected to verbal abuse, unwanted sexual attention, threats or humiliating behaviour? Some questions (for instance, those about support from colleagues and managers) were not asked of self-employed respondents, leading to many missing values for the Social Environment index. We therefore assigned the value of 0 (zero) to self-employed workers who did not have employees.

The Physical Environment index also has two subdimensions: the absence of chemical/physical hazards and ergonomic risks. Chemical or physical hazards were investigated by measuring exposure to severe vibration from tools and machinery, noise, high or low temperatures, smoke or vapours, and chemical products or substances. Ergonomic risks were examined by measuring the extent to which jobs involved tiring or painful positions, carrying or moving heavy loads, and repetitive movements.

The Work Intensity index encompasses the pace of work, emotional demands and performance pressure from various sources, including colleagues and managers.

Lastly, the Working Time Quality index includes working hours and how frequently employees work non-standard hours, such as night work. Apart from Earnings, all job quality dimensions were normalized to a range of 0 to 100.

Although the dimensions and indices refer to objective qualities, we relied on workers' reports of their job characteristics, as opposed to reports by employers or third parties, in the surveys. This allows the researcher to hear directly from the worker doing the job, who is best informed about it. However, when examining trends or making cross-cultural comparisons, some of the reports may need to be interpreted with care, owing to the possibility that any reporting biases – for example, social esteem bias – may change over time or between cultures.

3.3. Empirical approach

To address our research questions, we started with a descriptive analysis of job quality means in each survey year. We then regressed each job quality index against the survey year to estimate the average trend growth, expressed as:

$$JQ_i = \alpha + \beta year_i + \varepsilon_i \tag{1}$$

We then shifted the focus to the job quality premium for graduates, the gender job quality gap, and the associated trends. To that end, we ran a conventional Mincer-type model comprising sex (0 = female; 1 = male), level of education (0 = high school or below; 1 = university educated) and age squared. We also included the interaction terms of gender and level of education with year to estimate the trend in job quality gaps over time, expressed as:

$$\begin{aligned} JQ_i = \alpha' + \beta_1 year_i + \beta_2 edu_i + \beta_3 edu_i \cdot year_i + \beta_4 male_i + \\ \beta_5 male_i \cdot year_i + \beta_6 age_i + \beta_7 age_i^2 + \varepsilon_i' \end{aligned} \tag{2}$$

In equations (1) and (2), JQ_i indicates one of the seven job quality indices, $year_i$ indicates the year in which the survey was conducted, and ε_i and ε_i' are normally distributed error terms. In the case of Earnings, following standard conventions, the variable entered is the log of monthly earnings. For examining trends, the main parameters of interest are the regression coefficients β in equation (1) and both β_3 and β_5 in equation (2).

4. Estimation and results

4.1. Job quality trends

Table 2 shows the mean values by year and the estimated trend (β) for each job quality dimension. Three of the seven job quality indices (Prospects, Skills and Discretion, and

Physical Environment) trend downwards between 2006 and 2020; the remaining four (Earnings, Social Environment, Work Intensity and Working Time Quality) trend upwards over the same period. As Work Intensity is a negative indicator, this means that four of the seven job quality indices worsen between 2006 and 2020. These changes are statistically significant at the 5 per cent level. Among the deteriorating dimensions, Prospects worsens most rapidly, falling at the rate of a 26 per cent standard deviation decrease per decade. By comparison, the ten-year rates of decline for the other dimensions are 23 per cent for Work Intensity, 15 per cent for Skills and Discretion, and just 7 per cent for Physical Environment.

A closer look at the decline in Prospects reveals that a downward trend in job security ($\beta = -1.43$) outweighs a smaller improvement in career progression ($\beta = 0.39$).[5] The Skills and Discretion index moves downward largely owing to declining levels of workplace autonomy. While ergonomic hazards decrease, the magnitude of worsening physical and chemical hazards outweighs the magnitude of the improved level of ergonomic hazards, leading Physical Environment to decline, although only by a small amount.

In contrast, Working Time Quality improves swiftly, equivalent to a 76 per cent standard deviation increase over ten years. All components of this index improve, with long working hours, night work and weekend work in particular showing a downward trend. For example, in 2006, 45 per cent of individuals reported working long hours, defined as more than 48 hours per week, whereas in 2020, only 20 per cent did so. Similarly, the proportion of individuals engaged in night work is 23 per cent for 2006 but only 8 per cent for 2020.

Table 2. Mean values of job quality dimensions from 2006 to 2020

	Log of Earnings	Prospects	Skills and Discretion	Social Environment	Physical Environment	Work Intensity	Working Time Quality
2006	5.18	71.4	45.3	–	80.9	25.3	54.2
2010	5.04	–	44.2	11.7	80.4	21.9	56.8
2011	5.15	–	43.1	11.9	80.4	25.2	54.9
2014	4.91	71.4	42.6	11.7	79.4	24.7	57.7
2017	5.31	69.8	43.7	12.7	77.0	29.0	66.1
2020	5.28	66.0	42.6	12.3	81.3	26.0	68.5
Pooled (Standard deviation)	5.15 (0.72)	69.5 (12.87)	43.54 (10.14)	12.1 (10.95)	79.9 (11.26)	25.4 (10.35)	60.0 (14.93)
Δ 2006 to 2020[a]	0.01*	–0.34*	–0.15*	0.07*	–0.08*	0.24*	1.13*
Δ with industry dummies[b]	0.01*	–0.40*	–0.16*	0.04*	–0.07*	0.23*	1.13*

* indicates statistical significance at the 5 per cent level.

Note: Work Intensity is a negative indicator, whereby higher values indicate heightened job intensity. [a] For the changes from 2006 to 2020, the regression coefficients (β) are provided and the regression calculated using equation 1. Observations from 2010 and 2011 for Prospects and from 2006 for Social Environment were excluded because the response categories and questions used in those specific years were inconsistent. [b] The regression coefficients provided (β') are derived from the following equation: $Y_i = \alpha + \beta' year_i + \gamma industry\ dummies_i + \varepsilon_i$ where $industry\ dummies_i$ represents 21 different industrial sectors. Survey weight is applied to all results.

Source: Our own calculations based on Korean Working Conditions Survey data.

[5] Detailed results are available from the authors upon request.

Earnings also rise at a ten-year rate of 14 per cent of a standard deviation. Lastly, the Social Environment index exhibits only a very modest improvement, with a ten-year rate of 6 per cent of a standard deviation. This is mainly due to improved support from managers and colleagues; no significant changes are observed in terms of the absence of abuse at work. Socially driven bias may be a concern when it comes to interpreting this index, because the public discourse on sexual harassment at work, stimulated by the #MeToo movement's prominence in the Republic of Korea as of 2018, might well have heightened awareness and prompted survey respondents to recall and report incidents. To assess the movement's potential impact on the Social Environment index, trends were compared before and after the inclusion of the sexual harassment variable. The results show that the modest upward movement in the Social Environment index remains significant.

To assess how far these changes in job quality are associated with the changes in industrial composition, we ran separate regression models that included industry dummies. The differences in the regression coefficients (β) before and after controlling for the industrial composition are all small, implying that the trend changes in each job quality index are not accounted for by industrial structural change (see table 2).

4.2. Trends in the university premium and the gender gap

To address our second and third research questions, we shifted the focus to the job quality premium for university-educated workers (compared with high school and below) and gender job quality gaps. Tables 3A and 3B show the differences in the seven job quality dimensions between men and women and between graduates and non-graduates.

First, men experience better job quality than women in only three out of the seven dimensions: Earnings, Prospects, and Skills and Discretion. The gender gap for Earnings shows the largest gap in favour of men, with a mean log earnings gap of 0.46 (equivalent to 64 per cent of the standard deviation), followed by Skills and Discretion (20 per cent),

Table 3A. Gender job quality gap and job quality premium for graduates (Earnings, Prospects, Skills and Discretion)

Year	Log of Earnings		Prospects		Skills and Discretion	
	Gender gap	Gap by level of education	Gender gap	Gap by level of education	Gender gap	Gap by level of education
2006	0.55*	0.59*	1.11*	6.07*	2.10*	5.80*
2010	0.51*	0.61*	–	–	2.20*	7.29*
2011	0.43*	0.53*	–	–	1.10*	5.76*
2014	0.37*	0.46*	0.64*	6.60*	1.97*	5.28*
2017	0.47*	0.44*	0.90*	5.19*	2.35*	5.01*
2020	0.46*	0.50*	1.18*	5.26*	2.09*	7.09*
Pooled	0.46*	0.53*	1.07*	5.34*	2.02*	5.78*
Δ 2006 to 2020[a]	–0.005*	–0.02*	0.06*	–0.20*	0.04*	–0.02
Δ with industry dummies[b]	–0.006*	–0.02*	0.06*	–0.21*	0.04*	–0.04*

* indicates statistical significance at the 5 per cent level.

Note: The gender gap is between men and women, the gap in level of education between those with a degree and those without a degree. [a] For the changes from 2006 to 2020, the regression coefficients (β) are provided and the regression calculated using equation 1. Observations from 2010 and 2011 for Prospects and from 2006 for Social Environment were excluded because the response categories and questions used in those specific years were inconsistent. [b] The regression coefficients provided (β') are derived from the following equation: $Y_i = \alpha + \beta' year_i + \gamma industry\ dummies_i + \varepsilon_i$, where *industry dummies*$_i$ represents 21 different industrial sectors. Survey weight is applied to all results.

Source: Our own calculations based on Korean Working Conditions Survey data.

Table 3B. Gender job quality gap and job quality premium for graduates (Social Environment, Physical Environment, Work Intensity, Working Time)

Year	Social Environment		Physical Environment		Work Intensity		Working Time Quality	
	Gender gap	Gap by level of education	Gender gap	Gap by level of education	Gender gap	Gap by level of education	Gender gap	Gap by level of education
2006	–	–	–2.44*	7.69*	0.16	–1.47*	–2.35*	5.31*
2010	0.15	2.31*	–3.26*	6.43*	1.18*	0.04*	–3.51*	4.26*
2011	–0.05	2.35*	–2.87*	6.35*	0.84*	0.03*	–2.76*	3.81*
2014	–0.28*	2.31*	–2.94*	6.20*	1.00*	0.17*	–3.71*	4.23*
2017	–0.41*	2.19*	–3.79*	5.60*	0.93*	–0.19*	–2.26*	4.93*
2020	–0.35*	2.07*	–3.66*	5.14*	1.06*	0.51*	–2.72*	2.83*
Pooled	–0.19*	2.28*	–3.14*	5.95*	0.93*	0.28*	–3.10*	5.28*
Δ 2006 to 2020[a]	–0.04*	–0.05*	–0.05*	–0.13*	0.00	0.01	0.00	0.04*
Δ with industry dummies[b]	–0.01	–0.02*	–0.05*	–0.12*	0.01	0.03*	0.01	0.09*

* indicates statistical significance at the 5 per cent level.

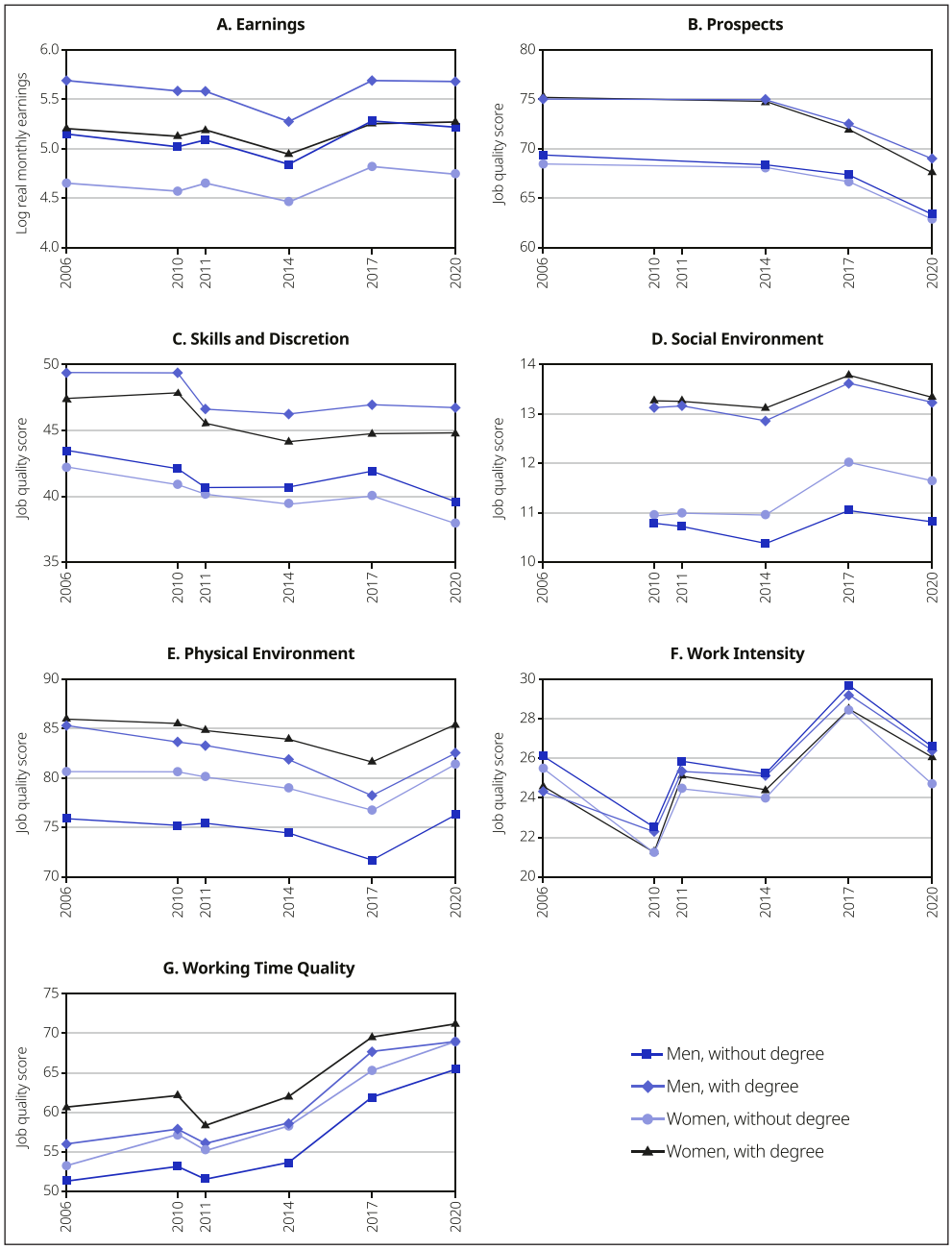
Note: The gender gap is between men and women, the gap in level of education between those with a degree and those without a degree. [a] Changes in the gap by group were calculated using equation 2. The trend over time is the coefficient of $edu_i \cdot year_i$ (β_3) and $male_i \cdot year_i$ (β_5). Trend diagrams for job quality indices by gender and level of education are shown in figure 3. [b] The regression coefficients provided (β'_3 and β'_5) are derived from the following equation: $JQ_i = \alpha' + \beta'_1 year_i + \beta'_2 edu_i + \beta'_3 edu_i \cdot year_i + \beta'_4 male_i + \beta'_5 male_i \cdot year_i + \beta'_6 age_i + \beta'_7 age_i^2 + \gamma' industry\ dummies_i + \varepsilon'_i$, where $industry\ dummies_i$ represents 21 different industrial sectors.

Source: Our own calculations based on Korean Working Conditions Survey data.

and Prospects (8 per cent). By contrast, women experience better Social and Physical Environments, lower Work Intensity and higher Working Time Quality. The gender gap for the Physical Environment index shows the largest pooled gap in favour of women, equivalent to 28 per cent of the standard deviation, followed by Working Time Quality (21 per cent), Work Intensity (9 per cent) and Social Environment (4 per cent). Two job quality indices show an upward trend in the gender gap: Prospects (5 per cent of the standard deviation increase for a decade) and Skills and Discretion (4 per cent). Thus, while the gender pay gap declines, the gender gap in Prospects and Skills and Discretion, which favours men from the start, grows even larger over the period.

Second, in all years there is a positive job quality premium for graduates compared with non-graduates in six of the seven job quality dimensions. Graduates have the largest premium in Earnings, with 0.53 higher log monthly earnings on average than non-graduates, equivalent to 74 per cent of the standard deviation of the index. Among non-pecuniary indices, the Skills and Discretion index shows the largest premium for graduates – over the whole period, the pooled gap is 5.78, equivalent to 57 per cent of the standard deviation of the index – followed by Physical Environment (53 per cent), Prospects (41 per cent), Working Time Quality (35 per cent) and Social Environment (21 per cent). The exception is Work Intensity, for which university-educated workers do not have consistently better results over time than those without a degree. From the point of view of the job quality premium for graduates, four of the seven job quality dimensions (i.e. Earnings, Prospects, Social Environment and Physical Environment) trend downwards. Only in respect of Working Time Quality does the graduate premium show a small upward trend, amounting to a 3 per cent of standard deviation increase per decade.

Figure 3. Trend diagrams for job quality indices (by gender and level of education)



Note: All job quality indicators, with the exception of Earnings, have been normalized to a scale from 0 to 100. Work Intensity is a negative indicator, implying that higher values signify worse conditions.
Source: Our own calculations based on Korean Working Conditions Survey data.

5. Discussion and conclusion

This article contributes to the existing literature by documenting, for the first time, a 14-year trend in seven dimensions of job quality in the Republic of Korea and reporting original estimates of both the gender job quality gap and the job quality premium for graduates. There are three key sets of findings.

First, despite the rapid economic growth and greater macroeconomic prosperity experienced by the Republic of Korea in the past few decades, we find that only three of the seven job quality dimensions – Earnings, Social Environment and Working Time

Quality – improved concomitantly; the remaining four – Prospects, Skills and Discretion, Physical Environment and Work Intensity – all worsened between 2006 and 2020. Prospects worsened most rapidly, while Working Time Quality improved most swiftly, mainly because of reductions in working hours. This conclusion is assuredly not consistent with the optimistic theory that a country's growing affluence will automatically be reflected in improved job quality across all dimensions. Given the mounting evidence of how much job quality affects health and well-being, these findings bring into question the presumption of economic and social progress that might normally be drawn from the Republic of Korea's sustained GDP growth and improved ranking on the Human Development Index. They align with, and expand on, earlier studies that identified worsening trends for Work Intensity and Physical Environment, albeit for shorter time intervals (Kim et al. 2015; Lee 2018; Murtin et al. 2024).

However, the findings also do not fit with an entirely pessimistic perspective, according to which changes in the balance of power between employers and workers – in part due to the financial crisis, global trade expansion and the disruptions of the COVID-19 pandemic (e.g. see, Kim and Kim 2003) – enabled employers to reduce the rewards and conditions of workers in all respects. Rather, the more mixed picture fits with the second group of theories described above, which allow for some dimensions of job quality to decline while others improve. While a full explanation of these trends is beyond the scope of this article, it is useful to set them in the context of what is known from elsewhere. Beginning with the improvements, the change in Earnings is positive, at an annual rate of 1 per cent, but falls well short of real GDP growth, which is more than 3 per cent over the same period. This gap – the decoupling of wage rates from national productivity – parallels the experiences of many OECD countries in recent decades and has been attributed to labour market slack, the weakening of pro-labour institutions and globalization (Meloni and Stirati 2023). It suggests that, despite the protection given to workers at the lowest end of the spectrum through minimum wage regulation, the relatively non-unionized Korean workforce received a declining share of income over the period considered.

The largest rise, in relation to standard deviation, is in Working Time Quality, mainly from 2010 onwards. The proximate factor underpinning this improvement is that, after nearly a decade with little change, weekly working hours declined sharply in Korean workplaces from around 2004 (Lee 2020). This decline may stem in part from a combination of the regulations on maximum hours introduced in 2003, which required worker agreement for more than 40 hours per week, and, from 2010 on, the steady resurgence in employees' bargaining power, as evidenced by the rise in union density from less than 10 per cent in the 2000s to approximately 14 per cent in 2020.[6] This observation supports the view that, at least for certain dimensions, a regulatory framework is important to ensure that economic growth translates into improved working conditions. An alternative explanation of the improvement in Working Time Quality might be that it stems from employers responding to the changing worker preferences that might be expected as more women enter the labour market. However, the rise in female labour force participation is limited to around 2 percentage points over the period of this study. There being no other independent evidence to test this alternative, the first explanation, foregrounding the importance of the 2003 regulations, remains the most plausible.

The largest decline in job quality, in relation to standard deviation, is for the Prospects index. That decline stems not from lowered expectations of career enhancement (in fact, these improved slightly), but from a substantial increase in job insecurity after 2014.

[6] See OECD, "Trade Union Density", OECD Data Explorer. https://data-explorer.oecd.org/vis?df[ds]=DisseminateFinalDMZ&df[id]=DSD_TUD_CBC%40DF_TUD&df[ag]=OECD.ELS.SAE&dq=..&pd=2000%2C&to[TIME_PERIOD]=false (accessed 9 June 2025). Direct statistics on the percentage of workers agreeing to work overtime are not available. However, with the Republic of Korea's unemployment rate at approximately 3 per cent – relatively low compared to other developed countries – employees benefit from increased bargaining power. The low unemployment rate suggests that employees are less likely to feel pressured to accept overtime work in the current economic conditions.

Reports of insecurity in other countries have, with exceptions, tended to track the national unemployment rate (Green 2009; Brochu and Zhou 2009; Manning and Mazeine 2024). Since the unemployment rate in the Republic of Korea remained low after 2014, the rise in insecurity appears to be an exception. Moreover, since the proportion of workers with non-standard employment contracts remained largely stable over the period, at around 35 per cent, the rising insecurity cannot be ascribed to contractual changes. It must be borne in mind, however, that this change took place over a brief interval of only a few years that included the COVID-19 lockdowns; whether the decline in Prospects persists through the 2020s will be revealed in future surveys.

In contrast, the rise in the Work Intensity index in the Republic of Korea is consistent with similar trends elsewhere, where significant work intensification has been attributed in part to effort-biased technical or organizational change and in part to mounting job demands that workers have not had the bargaining power to resist (Green et al. 2022). The fall in Skills and Discretion is proximately attributable to a decline in worker autonomy, a trend found in some, but by no means all, other countries studied (Gallie, Felstead and Green 2004; Gallie 2007; Inanc et al. 2013). Explanations for this decline revolve around changing forms of managerial control of the labour process and the use of digital technologies. Lastly, behind the small decline in the Physical Environment index is a modest rise in the proportion of workers reporting exposure to dangerous physical and chemical hazards, a shift that cannot be accounted for by changes in industrial composition. The rise highlights the ongoing need for enforcement of health and safety regulations.

Our second and third sets of findings concern trends in job quality inequalities, focusing on two of the main axes of socio-economic differentiation – the level of education and gender. Looking beyond the wage premium, which has been well documented in the literature, we find that, consistent with European graduates (OECD 2017, 67), Korean university graduates also benefit from a job quality premium in intrinsic job quality. In fact, graduates fare significantly better than non-graduates in six of the seven intrinsic and extrinsic dimensions. The exception is Work Intensity, which is consistent with a widespread trend towards declining job quality in the form of work intensification in a range of occupations for both graduates and non-graduates. We also find a narrowing gap between graduates and non-graduates in four dimensions – Earnings, Prospects, Social and Physical Environments – and, when industrial composition shifts are taken into account, in Skills and Discretion. This could be interpreted as consistent with the overeducation theory, whereby a rapidly growing supply of university-educated workers outpaces the demand for university-educated labour and leads to a declining job quality premium. While a falling wage premium is commonly found in studies from around the world (e.g. Green and Henseke 2021), this study is the first to identify a broader falling job quality premium.

Lastly, the gender gap in job quality varies across dimensions. Alongside the well-documented large gender pay gap, the jobs done by women show higher scores for Social Environment, Physical Environment and Working Time Quality, and a lower score for Work Intensity. Thus, intense gender disparities in wages may coexist alongside the development of "female-friendly" jobs (Pettit and Hook 2009). This contrasts with the findings of Stier and Yaish (2014) but is similar to the mixed findings from Europe (Eurofound 2021; Green 2021; Antón et al. 2023). The gender earnings gap has been falling, but in four dimensions the job quality difference has been widening, suggesting a less optimistic path of gender divergence.

These findings have to be considered in the light of some of the data limitations. We assumed that workers were consistent in their reporting of job characteristics over the years but noted that the propensity to report some characteristics may be influenced by changing public attitudes. Moreover, the Korean Working Conditions Survey, like most surveys, looks only at the main job that the respondents are engaged in. As the number of breadwinners holding two or more jobs reached a peak in 2022 in the Republic of Korea, owing to the high inflation rate and pandemic-related disruptions (KOSTAT 2022), data on the working

conditions of individuals' second or third jobs would be useful. Another data limitation is the relatively short period covered – just 14 years. While this is adequate for our purposes, and indeed longer than many previous studies (in both the Republic of Korea and elsewhere), changes in job quality can arise from the business cycle or other temporary disruptions. We were interested in long-term secular shifts, however, and accordingly our analyses focused on average trends across the whole period (although it can be seen from figure 3 that some short-term movements are also in evidence). Lastly, the methods used to conduct the survey diversified in 2020 owing to the COVID-19 pandemic, with the incorporation of online surveys. Unfortunately, the dataset does not distinguish observations collected face-to-face from those collected online, which may have introduced biases. We nevertheless included the 2020 data in the analysis to provide longer-term trends, since our additional regression results for robustness checks revealed that the direction of the trend remained unchanged without the 2020 data. This suggests that the 2020 observations are part of a longer-term trend rather than an exception.

Future surveys will be important for uncovering the lasting effects that the pandemic lockdowns may be having on job quality in the Republic of Korea, and to assess the impact of using different survey methods. By remaining consistent over time, the Korean Working Conditions Survey can continue to lead the way in comprehensive data collection on job quality outside Europe. Future research could also usefully focus on other socio-economic gaps and forms of polarization, including those that reflect the labour market dualism between standard and non-standard employment. The more comprehensive information about job quality and its trends thus collected could pave the way for rational policy formation in the coming years.

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Competing interests

The authors declare that they have no competing interests.

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