

Working Overtime in East Asia: Convergence or Divergence?

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ABSTRACT

Working long hours has become a routinised part of life in East Asia. The different patterns of overtime across this region are understudied, however. This study represents a first systematic attempt to analyse overtime and its determinants in Japan, South Korea, Taiwan and China by testing hypotheses that specify the distinctive influences of employment status and job contracts on work hours. Class exploitation, post-industrialism and flexibility theories are mobilised to identify distinctive but supplementary factors in long working hours. Using data from a recent four-country survey, a Tobit regression analysis of full-time workers' hours reveals that employers and self-employed people work longer hours than hired workers across this region. Despite this convergence, there is a contrast across occupations. In Japan, overtime is positively associated with occupational prestige, while a reverse pattern operates in China, where low-skilled workers work more overtime. Contract workers in the private sector in South Korea and China also have longer overtime when compared to public sector employees. In sum, this study highlights more divergence than convergence of working conditions within East Asia.

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Working long hours has increasingly become a routinised part of work life virtually everywhere. Global competition exerts increased pressures on corporations and top managers as well as middle-level professionals for better performance and significant outputs and this often translates into longer hours. An “overtime culture” seems to have developed. In a less regulated labour market, increased flexibility through organisational restructuring usually means more sweat rather than autonomy over job conditions, particularly for shop-floor workers (Wharton and Blair-Loy 2002; Burgoon and Raess 2009, 2011). In contrast to the corporate division of labour, wage and benefits, or work satisfaction, which researchers have regularly surveyed, the structural pattern of overtime in East Asia is understudied, despite some preliminary observations of the divergence of work patterns across the countries. In this article, we use “overtime” quite broadly to mean the amount of time someone works beyond “normal” working hours, whether paid or unpaid.

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Examining the region, labour system theory focuses on both authoritarian state repression and pre-emptive corporatist control that effectively inhibited labour movements and working-class communities when this region experienced rapid growth before the 1990s (Deyo 1989). It highlights a “factory regime” in which the overtime of workers reveals coercive management in earlier stages of labour-intensive export industrialisation (Deyo 1997; Lee 1999). China has been a research site regularly visited by scholars of this school. In contrast, ethnographic accounts of firms have noted a unique culture that demands the excessive sacrifice of personal time for the company. The idea of the company as a family represents the workplace as a collectivity, without which a worker’s personal identity and social status cannot be firmly established. However, a radical version of cultural value theory argues that the highly praised ethics of discipline, dedication and deference in fact become deadly virtues that explain many incidents of *karoshi* (death by overwork) among Japanese workers (Kato 1994; North 2011; Weathers and North 2009). While inspiring as critical points of departure, both the labour system and corporate culture perspectives predict a convergence in the patterns of working behaviours within the region, but they fail to offer systemic evidence from comparative field studies.

There exists some recent research exploring the patterns of overtime. Using aggregate statistics at the country level, Lee, McCann and Messenger (2007) suggest that a large proportion of Japanese workers who are working more than standard time do so as an outcome of lower statutory regulation. Chen and Wang (2011) document a recent trend of overtime in Taiwan and correlate it with changes in labour policy. Bae (2012) offers preliminary statistics on South Korean workers in auto factories and banking services, yet he does not investigate the variations within each industry. A number of ethnographic studies of Chinese workers also document that overtime often is mandatory, and imposed by management without advance notice (Zeng, Lu and Idris 2005; Zhang 2008; Zhu 2002). Cooke’s (2005, 161) survey of small commercial and retail businesses reports similar findings: 22% of respondents reported working over 70 hours a week. These field observations, however, are not theory driven, and are not designed to explain overtime behaviours across different groups. A recent wave of studies on “precarious work” in this region bypasses overtime while focusing on the macroeconomic and institutional settings accounting for an increase in “bad” jobs (Hsiao 2013; Kalleberg and Hewison 2013; Osawa, Kim and Kingston 2013; Shin 2013; Zhou 2013). Current empirical research appears to provide only scattered evidence on widespread overtime in East Asia.

Our study attempts to fill this gap by investigating the patterns of overtime across Japan, South Korea, Taiwan and China and by testing hypotheses derived from three major theories: class exploitation, post-industrial society and organisational flexibility theories. These theories have distinct origins from the Marxist school, social theory and organisational studies. They tend to agree in seeing overtime as reflecting a certain structuring of work toward the needs of globalisation or a transition toward a market economy, each highlighting specific factors in explanation. The class exploitation theory stresses the ownership and exploitation patterns that determine the probability of overtime (Wright 1985). The post-industrial society approach highlights the modern nature of knowledge and service workers and suggests overtime is a more common phenomenon among professionals (Bell 1973; Block 1990). Organisational restructuring

theory suggests that job contingency reflects corporate responses to global market changes and has an intimate relationship with overtime (Rubin 1995; Hirsch and De Soucey 2006).

How these arguments play out in the East Asian countries is particularly interesting, as prevailing explanations contend that particular areas of this region in fact diverge along their main configurations of economic organisation. Indeed, Japan is a vast, mature, post-industrial economy with a high level of prosperity, despite recent economic stagnation. South Korea's economy features large conglomerates that vertically integrate firms in networks and successfully advance from part suppliers for multinational corporations toward highly competitive "full-package providers" in global markets (Feenstra and Hamilton 2006). The Taiwanese economy comprises mainly small- and medium-size firms that build intensive subcontracting networks to accomplish small-batch productions as well as intermediate goods (Hamilton 2006). China currently has emerged as a world factory and global powerhouse and achieved sustained economic growth that was not observed in other transition economies. However, widespread unemployment remains a major policy challenge, as large numbers of public sector enterprises are not viable and job creation for large numbers of dislocated rural migrant workers is insufficient, leading to low wages in a context of the oversupply of labour and the lax institutional regulation of the labour market (Cai, Park and Zhao 2008). A research question follows naturally from these known variables: Do the patterns of overtime differ in such divergent economic organisations and growth strategies across the four countries?

This article seeks to make a contribution through its evaluation of determinants of overtime by comparing the patterns, similarities and points of divergence within this region. We test the derived hypotheses against data from a four-country survey of probability samples conducted in 2008. The empirical results reveal that there is indeed a remarkable convergence across the region, yet contrasts between China and Japan are particularly notable. These significant contrasts justify this study's emphasis on the distinctive social organisation of work in East Asian countries, despite their geographical closeness and their presumed similar cultural origins under Confucianism.

Theoretical Arguments: Class, Attention and Flexibility

In this section, we derive three hypotheses from readings of three literatures: one on class position, a second based on the post-industrial literature and a third derived from an analysis of flexibility theory.

Marxist theory has proposed relating overtime with one's position in productive relations. The pace and length of work is necessarily determined by the coercive powers of employers and managers over the employed. "Wage-labourers," whose income entirely depends on "surplus value," tend to work longer hours, even if only to exchange them for meager incomes. In *Wage, Labour and Capital*, Marx (1902, 56–57) describes a vicious cycle of low wages and long work hours:

The labourer seeks to maintain the total of his wage for a given time by performing more labour, either by working a great number of hours, or by accomplishing more in the same number of hours. Thus, urged by want, he himself multiplies the disastrous effects of the division of labour. The result: the more he works, the less wage he receives.

While excessive demands on workers' hours have been restricted by legal regulations in most industrial countries, in less developed countries the exploitation of labour time remains widespread as a corporate practice. Often this is because the legal protections of worker rights are insufficient or unenforced. Yet this class perspective does not imply that employers or managers necessarily work less in terms of hours; perhaps, on the contrary, they "voluntarily" perform a productive function in co-ordinating an increasingly complex organisation that involves numerous workers allocated onto differentiated tasks (Hyman 2006).

Particularly intriguing is the case of the *petit bourgeoisie*. This intermediate class, despite its various forms (small manufacturer, shopkeeper, freelancing professional, and so on), makes a living by using small amounts of personal capital together with their own and their family's labour (Wright 1986). Marx (n.d., 395) explains: "As the owner of the means of production he is a capitalist; as a labourer he is his own wage-labourer." According to Bechhofer and Elliot (1985, 186), their small enterprises, not colonised by large capital, generally mean low profits but high risks. As Marxist theorists argue, this "individualised," self-employed class cannot "live on" other wage-labourers (Durrenberger 1980; Gabriel 1990), and instead, they tend to overuse their own labour in order to secure their ever-diminishing share of the market. Thus, a thesis of self-exploitation seems to apply: the self-employed are more likely than other classes to work longer hours to avoid being recruited into the ranks of the working class, as Marx predicted they eventually would. In East Asian contexts, the self-employment sector has been flourishing, particularly because of the circulation of personal capital within kinship networks. Besides, favorable structural factors exist, such as the widespread use of outsourcing and supportive fiscal and taxation policies (Yu and Su 2004; Kim and Cho 2009). Ishida (2004, 356) observed of recent Japan that despite no clear trend of growth in the self-employment sector, its persistence over time is likely, as it both attracts highly motivated individuals who desire independence and offers critical employment opportunities for the aged population. Overtime in this group operates as an element in understanding how small businesses manage to survive and even become effective in market competition (Harrell 1985).

Overtime as a reflection of coercive management and the exploitation of workers' surplus values, rather than an outcome of organisational commitment, has been noted in this region (Deyo 1997; Weathers and North 2009). It is particularly documented in research on contemporary Chinese workers (Chan 2001; Zhang 2008), where over the past two or three decades, numerous private and joint-venture companies have attracted a huge flow of labourers migrating from rural areas to coastal cities where the export-oriented labour-intensive industries demand a massive supply of low-wage workers (Li 2011). Detached from government protections afforded by the traditional *danwei* (work unit) system, numerous off-farm workers entered into what Burawoy (1985) calls a despotic factory regime, which features the exchange of labour for wages (free to work or free to starve) and the lack of collective bargaining power against management coercion. As market competition, both domestic and international, increased, enterprises of various types advanced toward a model of lean production to further reduce wage costs and to maintain profitability. Not surprisingly, research increasingly reports that under coercive management, high overtime and intensive labouring becomes a regular part of daily life (Chan 2001; Shi 2010).

Based on this discussion of class location, we derive the first hypothesis concerning specific ownership (class) positions:

Hypothesis 1-1: the self-employed and people working for their families' businesses tend to work overtime (the self-exploitation hypothesis); a competing hypothesis of *H 1-2*: the property-less that work outside of family businesses are more likely to work overtime (the class exploitation hypothesis).

The post-industrial society conceives overtime as a byproduct of knowledge-based work, in contrast to coercion-based work, as suggested in Marxist theory. Bell (1973) proposed that knowledge-intensive technology is a central feature of post-industrial society. Scientific knowledge as a specific form of information is particularly stressed for it is a central source of innovation and efficiency in the post-industrial era. Post-industrialism features *less* dependence on machinery and natural materials, which dominated industrial and pre-industrial societies, and *more* reliance on co-operation among humans to get jobs done. "A game between persons" (Bell 1976, 148) as such necessarily calls for new skills in communication and co-operation. Knowledge and information, in a technical sense, replace conventional capital-intensive "manufacturing." Following this post-industrial argument, Block (1990) specifies that what really is typical of post-industrial work is the maintenance of high levels of attention and intellectual creativity. This is especially so in a variety of settings featuring computer-based automation. Knowledge, creativity, breakthrough and similar values stressed in post-industrial production cannot be considered merely as commodities ready to be extracted from workers (Blackler 2002). In knowledge-intensive firms, knowledge creation and application demarcate intensive involvement, mostly through teamwork over quite a long time, before new information and technologies become established and expanded. Conventional debates about post-industrial society have focused on the question of whether the number of "knowledge workers" increases or decreases along social changes (Kumar 1995). Yet to what extent they might overwork (voluntarily or involuntarily) is worth examining, as it reflects a fundamental social structuring of work in modern society.

It can hardly be disputed that attention, innovation and problem-solving generally are so time-consuming that a predefined, routinised period of work hours per day or per week may not support "knowledge work." Post-industrial theory would predict that overtime therefore is more often observed in professional workers, for reasons other than labour market competition, high compensation and non-monetary rewards (Block 1990, 112–113, 163–164). Several studies based on Western societies have reported skilled classes indeed tend to work considerably more overtime (Bauer and Zimmermann 1999; Hart 2004).

Following previous discussions on post-industrialism literature, we derive the second hypothesis:

Hypothesis 2: workers in supervisory or professional occupations are more likely to work overtime.

The third argument derives from flexibility theory, which highlights the necessity of management flexibility to adapt to ever-increasing competition in the global market.

The basic theme of flexibility theory is that competitive pressures from international markets have compelled firms to manage their organisations and resources flexibly in order to increase efficiency and gains (Rubin 1995; Hirsch and De Soucey 2006). Two dimensions of flexible restructuring are identified. First, a firm can pursue what is called “functional flexibility” with regard to task accomplishments. It refers to the ability to deploy employees and other resources around a variety of tasks and thereby to adjust the division of labour in response to ever-changing technologies, productive processes and market demands (Kalleberg 2001).

Functional flexibility is less related to overtime than is the second aspect of flexibility: “numerical flexibility.” This organisational practice indicates an ability to adjust the size of a labour force to cope with fluctuating demands for products and labour, to reduce labour costs or to avoid legal requirements on employers vis-à-vis employees (Kalleberg 2001, 443). Flexibility theory claims that an increasingly polarised division of labour in organisations becomes inevitable as contract workers or agency temporaries become greater in proportion to “permanent workers.” The former are, in reality, marginalised, disposable and likely subject to more coercive management. However, shop-floor research indicates that because managers cannot dispense with the participation of the “flexible” workers, overtly exploitative management is eschewed while inclusive, sometimes paternalistic, practices are applied intentionally to blur the line between internal and external workers. Smith’s (2001) ethnographic study in a US high-tech company documented how overtime or extra shifts were somewhat evenly distributed in order not to undermine the ethos of teamwork. Despite some plausible “deviant” cases of management, generally, overtime tends to affect nonstandard workers whose disadvantaged positions compel them to be “always on call” for emergencies, odd jobs and often menial work (Kalleberg 2000).

The widespread usage of the contingent workers has been documented across the four countries. In Japan, whereas the long-term stable employment system has not significantly eroded in recent years (Inagami 2001; Lincoln and Nakata 1997), non-regular jobs increased dramatically, drawing mainly married women and ageing people into the burgeoning markets in the service sector (Watanabe 2015). However, the latter are *not* particularly interested in working a long day, but consider contingency work to fit well with their lifestyles. In China (Cai, Park and Zhao 2008), as well as in Taiwan and South Korea (Kim and Kim 2003; Ko and Yeh 2013), use of fixed-period contract workers and temporary agency workers, particularly on the assembly lines, is a central part of a lean-production strategy. As a general rule, workers on temporary contracts are less skilled, paid significantly less for comparable jobs and deprived of bonus and welfare benefits enjoyed by formal employees. Small- and medium-size private enterprises have more “flexible” use of labourers than state-owned or large enterprises (Cooke 2005, 26). In the wake of job insecurity and a large supply of labourers in the markets, it can be predicted that temporary workers, compared to permanent workers in this region, will work longer hours. This discussion leads to our third hypothesis:

Hypothesis 3: contract workers, compared to permanent workers, tend to work more overtime, other things being equal.

The three theories discussed above highlight distinctive mechanisms explaining how overtime can be more prevalent in certain social groups or sectors. In our view, the three

theories are supplementary rather than competing perspectives. The emphasis on class effects in the Marxist school does not devalue the importance of the linkage between innovation, attention and long working hours, as suggested in post-industrialism. Note that our empirical testing of the derived hypotheses focuses on overtime of certain groups in contrast to others as the theories identify, rather than attempting to test three theories comprehensively. The contribution of this article should be assessed accordingly.

Data and Methods

Data are drawn from the 2008 wave of the East Asian Social Survey or EASS (Chang et al. 2014). This four-country survey was launched in 2006 to collect topical information from national probability samples. The 2008 iteration provides information on respondents' working hours and job characteristics and allows empirical testing of our hypotheses. The sampling techniques of the EASS teams adopted the administration procedures developed by the General Social Survey in the US (Smith et al. 2006). The surveys are directed by experienced social science institutes following scientific protocols. Two- or three-stage stratified random sampling is used to select male and female respondents aged 18 or older (aged 20–89 in Japan). Face-to-face interviews are employed except in Japan, where both interviews and self-administered questionnaires are used. The response rates vary: 60.6% in Japan, 61.0% in South Korea, 44.9% in Taiwan, and 47.8% in China. The sample size is approximately 2,000 each for Japan and Taiwan, 1,500 for South Korea and 3,000 for China. For empirical analysis we selected a sub-group of those aged between 18 and 65 who held a full-time job at the time of the survey. The analysed sample sizes and summary statistics are reported in Table 1.

Measurement

We re-group respondents into four different *employment statuses* to represent their class positions: employers, the self-employed, those working for family and wage workers. While the literature suggests more detailed breakdowns of employers by the number of persons they hired (for example, big or small business owners) (Wright 1985), the EASS does not allow this further classification. The “self-employed” group accounts for a large proportion of workers in China, many of whom are farmers (about 77%). We admit herein that this operationalisation is not entirely satisfactory, as it does not capture fully the diversity of a detailed class scheme. However, we used the available information to its fullest. *Occupational status* is classified into seven groups¹: senior officers/supervisors; professionals; semi-professionals; clericals; agricultural workers; skilled technicians; and lower-grade workers; the last category is used as a reference group in dummy variable design. With regard to *contract position*, we first differentiated those working in the public sector from those in the private sector; then, from the latter group, we separated those holding a permanent job from those on temporary contracts. These two groups in the private sector are contrasted with those working in the public sector in the dummy design.² The rationale of this is that public sector workers are less likely to work overtime.

Table 1. Descriptive statistics (%).

Variable	Japan	South Korea	Taiwan	China
Sex (male)	66.5	60.7	55.1	54.3
Age ^a	43.1 (12.3)	40.6 (10.5)	39.6 (11.4)	39.9 (11.0)
Education				
Junior high school or below	6.8	12.9	25.0	59.3
Senior high school	49.6	40.4	31.8	23.7
Junior college	13.2	13.2	16.9	9.9
University or above	30.5	33.5	26.3	7.1
Hourly wage	17.9 (11.8)	12.1 (14.7)	6.9 (5.4)	1.0 (2.1)
Relative income standing	2.7 (0.8)	3.3 (0.9)	2.9 (0.7)	2.5 (0.7)
Employment status				
Employer	9.2	7.7	10.1	2.3
Self-employed	6.0	13.6	12.0	46.6
Working for family	2.5	3.2	5.4	1.2
Employee	82.3	75.5	72.5	49.9
Occupation				
Senior official/manager	4.9	2.2	8.5	5.8
Professional	9.9	7.9	9.8	9.1
Semi-professional	15.6	25.7	19.6	5.4
Clerical	35.3	32.8	31.7	15.6
Agricultural worker	3.1	2.6	2.9	37.0
Skilled technician	26.2	18.8	21.9	13.8
Non-skilled workers	4.9	10.0	5.6	13.3
Contract/sector				
Private permanent	72.9	73.9	79.0	77.8
Private temporary	8.0	13.5	9.0	7.6
Public sector	19.1	13.6	12.0	14.6
Contract				
Permanent	89.7	85.2	88.6	83.7
temporary	10.3	14.8	11.4	16.3
	904	698	1121	1750

Note: ^aMean (SD).

Control Variables

Demographic factors are considered in estimations of overtime. Sex (male=1), age and age squared, and education (ranked by below “junior high school” (as a reference group), “senior high school,” “junior college” and “university and above”) are used as controls to capture potential influences they have on overtime.

Wage is included as another basic control. Higher wage should correlate *negatively* with overtime, as we would expect that as personal income increases, people tend to favour less overtime hours for other preferences (the so-called income effect). The EASS provides information on respective incomes from primary and secondary sources for Japan, South Korea and China, but only the already summed-up income for Taiwan. We decided to calculate the “*hourly wage*” by dividing monthly income by the reported weekly working hours and multiplying by four. The EASS data do not allow sorting out earnings from work and revenues from, say, rents.

The length of overtime might also be related to how an individual conceives of his or her income relative to the generalised others. A feeling of having relatively lower income may stimulate a motivation to work overtime. We thus include a variable of *relative income standing*, which is measured by comparing the respondent’s personal

income to the societal average (on a five-point scale: 5=far above average, 1=far below average).

Overtime might be related to how much an individual values group conformity (Hofstede 2001). We explored this possibility by incorporating the average score from responses to these two statements: “It is not desirable to oppose the idea which the majority of people accept, even if it is different from one’s own” and “One should not express one’s complaints about others, in order to have a good relationship with them.” The preliminary analysis did not detect substantial correlations across the four countries. We decided not to include this value position in the modelling.

Estimation

We apply the Tobit regression techniques to estimate overtime (McDonald and Moffitt 1980). This estimation method is suitable because overtime is a censored dependent variable – it ranges from a designated zero to a certain limit. While it is possible for full-time workers to work *fewer* hours than the fair or legal standard within a week, our operationalisation treats them as zero. That is, the overtime variable takes on zero for a non-trivial population and a negative value is not likely to happen. In other words, it cannot have a conditional normal distribution. In this situation, the conventional ordinary least squares (OLS) techniques would probably obtain negative fitted values. Moreover, a constant partial effect assumed in the OLS estimation can be inconsistent and thus misleading. A major advantage of using Tobit modelling is that it can generate nonnegative predicted values. It additionally offers a sensible partial effect (Wooldridge 2003). Technically, our application of Tobit modelling implies that we are not interested in observing the difference that may exist *within* the censored sub-population. An upper limit (50 hours) was set additionally to avoid the extreme cases’ influence, which might result from overstated work hours for certain individuals (for instance, the self-employed or those working without a contract).

Analysis of Empirical Results

Table 2 displays the work hours and the incidence of overtime (total working hours – legal standard hours) in four countries. Overtime is defined as length of working time beyond the standard work hours, which is 40 hours in this region.³ We first investigate the *total* working hours. Chinese respondents showed the highest average, which is over 55 hours per week (column 1). South Koreans registered two hours fewer. In comparison, Japan reports the lowest average among the four countries. While there exists some doubt about possible upward-bias in self-reported work hours (Owen 1989), little systemic bias exists when it comes to work hours within a week when not concerning longer periods such as seasons or year (Jacobs 1998). Moreover, work hours from the four country surveys are higher than those from statistics provided by establishment surveys.⁴ The *consistently* high overtime across the four countries we observed should reveal a high reliability of self-report information. Column 2 reports percentages of workers who work no more than a legally set “fair working hours,” which is 42 hours in Taiwan and 40 hours in the other three societies. We also calculated the statistics for Taiwanese respondents on the basis of 40 hours for comparative interests.

Table 2. Overtime in four East Asian countries (%).

	Total working hours ^a	Fair time or less ^b	1–10	11–20	21–30	31–40	41 or more
Japan	47.8 (10.7)	39.4	38.1	14.8	2.9	3.1	1.7
South Korea	53.1 (14.3)	26.4	34.1	19.3	7.7	5.9	6.6
Taiwan	50.4 (14.1)	38.1	33.8	13.7	7.3	1.7	5.4
Taiwan ^c	—	35.1	36.4	14.3	5.3	3.5	5.4
China	55.3 (14.5)	26.9	21.9	23.1	18.0	4.4	5.7

Note: ^aCountry mean (s.d.); ^bStandard work time is 40 hours per week in Japan, South Korea and China; 42 hours in Taiwan. The figures starting from this column are in percentages; ^cPercentages of overtime based on 40 hours.

Most workers tend to work longer weekly, as those below standard hours comprise 40% or less across four countries. Moving to the right on this table, for the purpose of cross-country comparison, we arrange overtimers into five different groupings on the basis of 10-hour intervals (the highest category is overtime with 41 hours or more). Paralleling ethnographic evidence (Chan 2001; Zhang 2008; Zhu 2002), our results indicate the Chinese sample reports a dramatically high incidence of very high overtime. Approximately 10% said they worked at least 70 hours per week. Surprisingly, the Korean respondents registered an even higher rate, with 12.5% working 70 hours or more weekly. Overtime in both Japan and Taiwan is modest, relatively speaking.

As noted above, while overtime patterns can vary in East Asia due to certain cultural and political norms, as in the case of Japan, or weak state protection of disadvantaged workers, as in the case of China, there is still limited research on the variation within a country and the primary factors of overwork time. The following analysis is devoted to providing further details in this light to reveal the disparities in this regard.

Regression Estimation of Overtime Hours

The four countries differ in the demographics of their working populations. For instance, among Japanese respondents, males constitute a larger proportion of workers. As for age, Taiwan and China have younger samples (see Table 1). Male workers in their prime are more likely to work overtime (Lee, McCann and Messenger 2007). These variations are likely responsible for differences in the means and distribution of overtime across the four countries. We also note the different economic organisation in the four studied societies that might influence the work patterns of our respondents, as we had discussed. At any rate, it is necessary to parse the influences of basic demographics for comparing overtime across various employment statuses or specific skill levels. In light of this consideration, Table 3 reports the outcomes of Tobit estimations for overtime as a *continuous* dependent variable for the Japanese sample, net the effects of sex, age (and its square term), education, hourly wage and relative income standing.⁵ Tables 4 through 6 are similarly arranged for South Korea, Taiwan and China.

The first entry in Table 3 shows that for the Japanese, men tend to work more overtime than women.⁶ This gender gap is particularly large in Japan, whereas for China the difference in sex is blunted. The reduced gender gap in China to some extent reflects the prolonged working hours female migrant workers experienced as well (Ngai

Table 3. Overtime in Japan: Tobit estimates.

	(1)	(2)	(3)	(4)	(5)
Male	7.28*** (0.72)	7.24*** (0.72)	7.97*** (0.76)	5.98*** (0.75)	6.94*** (0.81)
Age	0.50* (0.20)	0.53** (0.20)	0.47* (0.20)	0.51* (0.20)	0.50* (0.20)
Age squared (/100)	-0.52* (0.24)	-0.61** (0.23)	-0.49* (0.23)	-0.52* (0.23)	-0.55* (0.23)
Education (Junior high or lower=0)					
Senior high school	-2.71* (1.33)	-2.17 (1.31)	-3.48** (1.33)	-3.33* (1.34)	-3.47** (1.34)
Junior college	-0.79 (1.57)	-0.12 (1.55)	-1.96 (1.59)	-1.35 (1.58)	-1.80 (1.60)
University or above	-1.32 (1.43)	-0.74 (1.41)	-3.18* (1.51)	-1.71 (1.45)	-3.08* (1.52)
Hourly wage	-0.28*** (0.03)	-0.26*** (0.03)	-0.28*** (0.03)	-0.28*** (0.03)	-0.27*** (0.03)
Relative income standing	1.26** (0.43)	0.91* (0.42)	0.96* (0.43)	1.15** (0.43)	0.74 (0.44)
Employment status (Employee=0)					
Employer		5.26*** (1.16)			4.17*** (1.22)
Self-employed		4.25** (1.35)			1.55 (1.42)
Working for family		5.88** (2.06)			3.22 (2.11)
Occupation (Unskilled=0)					
Senior official/ manager			6.98** (2.13)		3.68 (2.19)
Professional			7.41*** (1.87)		6.34*** (1.89)
Semi-professional			6.36*** (1.66)		4.99** (1.69)
Clerical			5.28*** (1.56)		3.78* (1.58)
Agricultural worker			11.03*** (2.31)		8.46*** (2.40)
Skilled technician			3.71* (1.55)		2.11 (1.57)
Sector-contract (Public job=0)					
Private-permanent				2.97*** (0.85)	2.48** (0.89)
Private-temporary				-2.75* (1.40)	-1.83 (1.40)
Intercept	-4.61	-4.85	-7.35	-5.13	-7.10
Model χ^2	141.5	174	173.1	171.9	212.1
pseudo R ²	0.022	0.027	0.026	0.027	0.033
N	882	882	879	870	867

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

2005). Among the Japanese, overtime increases with age but decreases later in life, as we observed a significant effect for the age squared variable. This curvilinear pattern is not observable in the three other countries. Education is negatively correlated with overtime, despite Taiwan's somewhat attenuated effects (see also Chen and Wang 2010; Zeng, Lu and Idris 2005). From a cross-national perspective, education operates in opposition to what was found in the US or the United Kingdom, where those with more

Table 4. Overtime in South Korea: Tobit estimates.

	(1)	(2)	(3)	(4)	(5)
Male	3.21** (1.05)	3.40*** (1.00)	4.32*** (1.12)	2.99** (1.03)	4.18*** (1.07)
Age	0.03 (0.32)	-0.11 (0.30)	0.19 (0.33)	-0.06 (0.32)	-0.01 (0.31)
Age squared (/100)	0.03 (0.39)	0.05 (0.36)	-0.17 (0.39)	0.13 (0.38)	-0.06 (0.37)
Education(Junior high or lower=0)					
Senior high school	-6.96*** (1.73)	-6.91*** (1.63)	-7.20*** (1.75)	-7.04*** (1.70)	-7.31*** (1.64)
Junior college	-8.78*** (2.14)	-8.40*** (2.02)	-9.28*** (2.21)	-9.02*** (2.11)	-8.74*** (2.08)
University or above	-12.67*** (1.91)	-11.84*** (1.81)	-12.77*** (2.10)	-12.42*** (1.91)	-11.76*** (2.00)
Hourly wage	-0.15*** (0.04)	-0.17*** (0.04)	-0.20*** (0.04)	-0.16*** (0.04)	-0.21*** (0.04)
Relative income standing	-0.40 (0.59)	-0.17 (0.56)	-0.23 (0.60)	-0.61 (0.59)	-0.22 (0.57)
Employment status (Employee=0)					
Employer		9.53*** (1.80)			8.14*** (1.86)
Self-employed		11.97*** (1.41)			11.60*** (1.49)
Working for family		5.51 (2.86)			5.30 (3.01)
Occupation (Unskilled=0)					
Senior official/ manager			13.57** (4.33)		11.36** (4.09)
Professional			2.67 (2.69)		2.53 (2.55)
Semi-professional			2.03 (2.05)		0.15 (1.96)
Clerical			5.64** (1.85)		3.21 (1.78)
Agricultural worker			6.71 (3.49)		-0.26 (3.51)
Skilled technician			2.07 (1.96)		0.91 (1.86)
Sector-contract (Public job=0)					
Private-permanent				6.44*** (1.49)	3.39* (1.52)
Private-temporary				3.60 (1.99)	3.47 (1.92)
Intercept	20.79	22.52	14.08	18.44	16.41
Model χ^2	97.44	182.5	119.4	117.8	203.5
pseudo R ²	0.018	0.033	0.022	0.021	0.037
N	689	689	683	689	683

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

education tend to work more hours (Jacobs and Garson 2004; Virtanen 2009). For the four samples, higher hourly wage decreases overtime consistently, a robust result judging from the very small p level. Moreover, its effect is not attenuated by either class or contract backgrounds. Those conceiving their income level higher than the societal average tend to work more overtime among the Japanese and Taiwanese. This is contrary to what we expected. A speculative explanation is that the perceived higher gain leads to a greater feeling of responsibility to work longer than their colleagues. For

the Chinese, relative income level correlates negatively with overtime. It is noted that the predictive power of this factor declines somewhat when other critical factors are considered simultaneously (see last column of Table 6).

We now turn to assess the effects of employment status, occupation and contract factors in models 2–4 in the tables. As the three sets of dummies can be correlated (for instance, a dentist can be at the same time a business owner if he or she manages his or her own clinic), we enter each set in the equation with controls in order to observe their respective influences. We then estimate a “full” model (model 5) to check if their effects remain consistent when all explanatory factors are considered simultaneously. Our dummy design differentiated four different groups in terms of employment status (column 2 on each table). In Japan, overtime among employers is significantly higher than among hired “wage workers,” whereas the other two categories do not *in the end* reveal substantial differences (compare column 2 and 5 of Table 3). This class-derived difference is more remarkable when we examine the other three countries: the self-employed dummy is significant throughout South Korea, Taiwan and China. In China, those working for family also work more overtime. The notable divergences due to ownership suggest that being a boss, especially when managing a small business or working for family enterprises, both of which are frequently observed among the Chinese and South Koreans (see Table 1), is more demanding in terms of time allocated for work. This outcome appears to refute the Marxist class-exploitation hypothesis (H1-2), but bears out a theory of self-exploitation among the petit bourgeoisie (H1-1).

Comparing people across occupations, it is the Japanese unskilled who work the *least* overtime. Japanese middle-ranked professionals report more overtime compared to unskilled workers (see column 3 of Table 3). The supervisory class’ amount of overtime does not differ from the reference group (model 5). The overall pattern fits well with the post-industrialism thesis, supporting H2. Our estimation result indicates farmers in Japan working longer hours, as a large regression coefficient for this group seems to indicate. Instead, the positive signs for the whole dummies for various occupations in fact reflect the relatively *lower* overtime of the base group: the non-skilled workers. Interestingly, China contrasts sharply with Japan, as it is both supervisory and professional workers who register *fewer* overwork hours (models 2 and 5, Table 6). In reality, our test of the difference of regression coefficients between Japan and China indicates significant gaps ($p < 0.05$ for the z statistics) for *all* occupations. In South Korea and Taiwan, occupation does not predict substantial differences; only the senior manager reported longer overtime herein (model 5, Tables 4 and 5). The two countries hence constitute the intermediate cases. The significant difference between Japan and China in fact supports our second hypothesis. Among the four studied countries, China is the most distant from an ideal typical post-industrial economy, as the majority of its population still makes a living in the agricultural sector despite its massive, protracted economic upsurge.

In column 4 for each country on Tables 3–6, we add two types of jobs in the private sector in comparison with the public sector which serves as a benchmark. The contract workers register less overtime among the Japanese and Taiwanese, but this difference becomes insignificant when other explanatory variables are controlled. H3 is only supported by the findings from China, where a temporary contract apparently leads

Table 5. Overtime in Taiwan: Tobit estimates.

	(1)	(2)	(3)	(4)	(5)
Male	2.53*** (0.75)	2.30** (0.71)	3.35*** (0.78)	2.51*** (0.74)	2.86*** (0.74)
Age	-0.09 (0.24)	-0.22 (0.22)	-0.02 (0.23)	-0.09 (0.23)	-0.20 (0.22)
Age squared (/100)	0.27 (0.29)	0.32 (0.27)	0.18 (0.29)	0.27 (0.29)	0.30 (0.27)
Education(Junior high or lower=0)					
Senior high school	0.23 (1.07)	1.35 (1.02)	-0.46 (1.07)	0.04 (1.07)	0.59 (1.04)
Junior college	-1.09 (1.25)	0.84 (1.20)	-1.83 (1.33)	-1.54 (1.26)	-.21 (1.29)
University or above	-2.69* (1.23)	0.18 (1.20)	-2.68 (1.37)	-2.69* (1.27)	-0.45 (1.34)
Hourly wage	-0.62*** (0.08)	-0.64*** (0.08)	-0.61*** (0.08)	-0.63*** (0.08)	-0.67*** (0.08)
Relative income standing	3.55*** (0.62)	2.97*** (0.59)	3.18*** (0.61)	3.41*** (0.61)	2.63*** (0.59)
Employment status (Employee=0)					
Employer		10.77*** (1.21)			10.31*** (1.25)
Self-employed		9.64*** (1.15)			9.36*** (1.23)
Working for family		3.20* (1.55)			2.69 (1.60)
Occupation (Unskilled=0)					
Senior official/ manager			5.68** (2.15)		4.56* (2.10)
Professional			1.04 (2.13)		-0.03 (2.07)
Semi-professional			2.85 (1.83)		0.73 (1.79)
Clerical			6.66*** (1.66)		3.33* (1.64)
Agricultural worker			2.36 (2.57)		-3.92 (2.56)
Skilled technician			1.80 (1.70)		0.41 (1.66)
Sector-contract (Public job=0)					
Private-permanent				2.36* (1.15)	-0.35 (1.14)
Private-temporary				-2.55 (1.66)	-1.71 (1.61)
intercept	1.64	3.90	-2.62	0.59	4.09
Model χ^2	115	235.3	155.8	132.4	263.9
pseudo R ²	0.013	0.027	0.018	0.015	0.030
N	1110	1110	1109	1109	1108

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

to longer overtime. In both Japan and South Korea, it is in private-permanent jobs that more overtime is observed. Thus, not all temporary workers work more overtime.

As a Tobit coefficient is not as direct an estimate as that obtained from the OLS techniques, we report the marginal effects to show the magnitudes of influence for the variables (see Table 7). We display the marginal effects from both the unconditional and conditional expectations, which show estimates in two particularly interesting conditions, the expectations for all $y \geq 0$ (considering no less than standard hours)

Table 6. Overtime in China: Tobit estimates.

	(1)	(2)	(3)	(4)	(5)
Male	0.71 (0.65)	1.38* (0.63)	0.92 (0.66)	0.17 (0.68)	0.59 (0.67)
Age	-0.36 (0.20)	-0.37 (0.19)	-0.38* (0.20)	-0.32 (0.21)	-0.39 (0.20)
Age squared (/100)	0.40 (0.23)	0.36 (0.23)	0.39 (0.23)	0.38 (0.25)	0.43 (0.24)
Education(Junior high or lower=0)					
Senior high school	-6.21*** (0.81)	-3.49*** (0.83)	-3.83*** (0.88)	-5.21*** (0.86)	-1.44 (0.92)
Junior college	-12.14*** (1.23)	-8.03*** (1.26)	-7.80*** (1.39)	-10.53*** (1.32)	-3.90*** (1.47)
University or above	-12.68*** (1.39)	-8.61*** (1.40)	-7.58*** (1.57)	-10.04*** (1.52)	-3.89* (1.63)
Hourly wage	-0.79*** (0.16)	-0.83*** (0.17)	-0.65*** (0.17)	-0.80*** (0.16)	-0.69*** (0.17)
Relative income standing	-1.25** (0.46)	-1.35** (0.45)	-1.01* (0.46)	-0.97* (0.48)	-0.88 (0.47)
Employment status (Employee=0)					
Employer		10.53*** (2.18)			11.47*** (2.26)
Self-employed		7.09*** (0.76)			12.08*** (1.36)
Working for family		8.98** (2.76)			11.19*** (2.87)
Occupation (Unskilled=0)					
Senior official/ manager			-6.11*** (1.71)		-3.48 (1.78)
Professional			-11.03*** (1.59)		-5.92*** (1.76)
Semi-professional			-9.09*** (1.75)		-4.45* (1.89)
Clerical			-7.54*** (1.23)		-3.37* (1.42)
Agricultural worker			-2.21* (1.05)		-5.18*** (1.17)
Skilled technician			-6.76*** (1.23)		-3.64* (1.46)
Sector-contract (Public job=0)					
Private-permanent				5.16*** (1.05)	-0.95 (1.15)
Private-temporary				3.08* (1.56)	3.94* (1.58)
intercept	29.64	25.74	33.53	22.91	24.30
Model χ^2	290.6	394.2	347.8	283.2	432.8
pseudo R ²	0.023	0.031	0.028	0.024	0.038
N	1616	1616	1562	1475	1428

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

and for $y \geq 1$ (higher than standard hours only), respectively (Wooldridge 2003). For instance, men in the Japanese sample work 3.9 hours more overtime than women, when referring to all respondents that work 40 hours and more, and 5.4 hours of overtime when referring only to those that overwork for at least one hour. The magnitudes of the employer in both Taiwan and China, as well as the people in top managerial positions in South Korea are remarkable.

Table 7. Tobit marginal effects of overtime in East Asia.

	Japan		South Korea		Taiwan		China	
	Unconditional	Conditional	Unconditional	Conditional	Unconditional	Conditional	Unconditional	Conditional
Male	3.90*** (0.43)	5.36*** (0.59)	2.71*** (0.68)	3.57*** (0.90)	1.63*** (0.42)	2.25*** (0.58)	0.41 (0.47)	0.52 (0.60)
Age	0.30* (0.12)	0.40* (0.16)	-0.01 (0.20)	-0.01 (0.27)	-0.12 (0.13)	-0.16 (0.18)	-0.27 (0.14)	-0.34 (0.18)
Age squared (/100)	-0.33* (0.14)	-0.45* (0.19)	-0.04 (0.24)	-0.05 (0.32)	0.17 (0.16)	0.23 (0.22)	0.30 (0.17)	0.38 (0.21)
Education(Junior high or lower=0)								
Senior high	-2.07* (0.80)	-2.82** (1.08)	-4.69*** (1.03)	-6.19*** (1.36)	0.34 (0.60)	0.47 (0.83)	-1.00 (0.63)	-1.28 (0.81)
Junior college	-1.04 (0.89)	-1.43 (1.23)	-5.08*** (1.06)	-6.92*** (1.47)	-0.12 (0.74)	-0.17 (1.01)	-2.59** (0.91)	-3.38** (1.22)
University or above	-1.79* (0.85)	-2.45* (1.17)	-7.19*** (1.14)	-9.60*** (1.51)	-0.26 (0.76)	-0.36 (1.05)	-2.57* (1.01)	-3.36* (1.36)
Hourly wage	-0.16*** (0.02)	-0.22*** (0.03)	-0.14*** (0.03)	-0.19*** (0.04)	-0.39*** (0.05)	-0.53*** (0.06)	-0.48*** (0.12)	-0.61*** (0.15)
Relative income standing	0.44 (0.26)	0.60 (0.35)	-0.15 (0.37)	-0.19 (0.49)	1.51*** (0.34)	2.08*** (0.47)	-0.62 (0.33)	-0.79 (0.42)
Employment status(employed=0)								
Employer	2.72** (0.87)	3.58** (1.09)	6.02*** (1.52)	7.43*** (1.77)	7.03*** (0.98)	9.00*** (1.16)	9.36*** (2.05)	10.88*** (2.22)
Self-employed	0.96 (0.91)	1.29 (1.21)	8.76*** (1.26)	10.66*** (1.43)	6.25*** (0.94)	8.10*** (1.14)	8.34*** (0.93)	10.61*** (1.16)
Working for family	2.08 (1.47)	2.75 (1.88)	3.81 (2.34)	4.79 (2.81)	1.63 (1.02)	2.20 (1.35)	9.14*** (2.61)	10.63*** (2.82)
Occupation(unskilled=0)								
Senior official/manager	2.40 (1.55)	3.16 (1.96)	8.89* (3.63)	10.60** (3.99)	2.85* (1.41)	3.81* (1.82)	-2.31* (1.12)	-3.02* (1.49)
Professional	4.31** (1.44)	5.55** (1.75)	1.74 (1.82)	2.24 (2.30)	-0.02 (1.19)	-0.02 (1.64)	-3.80*** (1.03)	-5.03*** (1.4)
semi-professional	3.26** (1.19)	4.27** (1.51)	0.10 (1.30)	0.13 (1.70)	0.42 (1.05)	0.58 (1.44)	-2.91* (1.14)	-3.82* (1.55)
Clerical	2.33* (1.00)	3.14* (1.33)	2.16 (1.22)	2.80 (1.57)	1.97* (1.00)	2.69* (1.34)	-2.26* (0.91)	-2.94* (1.21)
Agricultural worker	6.12** (2.02)	7.62** (2.31)	-0.17 (2.29)	-0.22 (3.01)	-2.07 (1.23)	-2.90 (1.76)	-3.58*** (0.80)	-4.58*** (1.03)
Skilled technician	1.30	1.75	0.61	0.79	0.24	0.33	-2.43**	-3.16*

(Continued)



Table 7. (Continued).

	Japan		South Korea		Taiwan		China	
	Unconditional	Conditional	Unconditional	Conditional	Unconditional	Conditional	Unconditional	Conditional
Sector-contract(public job=0)								
Private-permanent	1.44** (0.50)	1.98** (0.69)	2.16* (0.94)	2.87* (1.26)	-0.20 (0.66)	-0.28 (0.91)	-0.68 (0.82)	-0.86 (1.04)
Private-temporary	-1.05 (0.77)	-1.45 (1.07)	2.40 (1.39)	3.07 (1.74)	-0.95 (0.87)	-1.32 (1.21)	2.92* (1.23)	3.61* (1.48)

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Discussion and Conclusion

The issue of working conditions and workers' rights has been a major concern in the public policy of the East Asian countries, as extraordinarily long work hours have severe effects on workers' health and well-being and reflect the "dark side" of the economic performance of this region. Yet there has been an ameliorative trend in which statutory normal working hours had dropped to 40 by 1995 in Japan and China, with South Korea following suit by 2005 (Lee, McCann and Messenger 2007). In contrast, other lower-income Asian countries still demand 48 hours (for instance, Malaysia, The Philippines and Thailand). Our empirical findings from East Asia show that there exists a regional convergence in the effect of employment status, which in our design reflects the status of ownership (though admittedly a crude design). Yet the divergence between Japan and China is all the more impressive. In Japan, the professional class experienced long work hours compared to lower-status workers. This divergent result lends support to post-industrialism's argument about the degree of attention to work, although the corporate culture school explains this phenomenon by stressing a "greedy corporate demand," an insight equally helpful for revealing a specific aspect of organisational life in Japan. The stagnant economy of Japan during the period our data were collected might well have compelled this group toward having long work days. China, as a reverse image of Japan, exemplifies a critical case of a transition economy, in which lower-stratum workers, mostly migrants from rural areas, can hardly earn enough to subsist, even with excessive overtime. The Chinese case reflects an ideal type of class exploitation, which highlights the "employees vs. supervisory class (and bosses)" gap (Lee 2007; Peng 2011). This contrast reflects not merely different levels of development between a mature capitalist economy and a transition economy, it likely shows the inequality of bargaining power between capital and labour in this region. Our empirical analysis also highlights the distinctive influence of working in small and medium enterprises. They are particularly highly visible in South Korea, Taiwan and China, compared to Japan. The owners of these businesses more frequently work more overtime. This outcome appears to show this class' self-exploitation as a way of realising profits in this region. Thus, both aspects of exploitation deserve attention.

Finally, caution should be used in predicting that contract workers, in contrast to their permanent counterparts, work longer hours. It is solely in China where contract workers are mostly more than "full-timers"; they appear to have to work longer to compensate for their low wages. Note that the overtime premium is relatively better (50% in principle) in China than in the other three countries (generally ranging from 25%–35%). Yet it is not decisive if the premium plays a key role, as a number of ethnographic studies have documented unpaid overtime for shop-floor Chinese workers (Chan 2001; Zhu 2002), with state default in labour law implementation (Lan, Pickles and Zhu 2015). In Japan, contract workers' overtime is not as remarkably fewer hours as popularly predicted. It is therefore not valid to argue that this is an outcome of a strong preference for alternative lifestyles in which work does not compete for time with "life beyond work." Speculatively, the divergent patterns of overtime for contract workers in East Asia might reflect as much legal and pecuniary reasons as work–life balance considerations.

The significance of our study should not be limited to the field of work and labour relations. The results reported here are highly relevant to understanding East Asia's impressive competitiveness in international markets. Krugman (1994) has argued that East Asia's growth is based more on the expansion of material and labour inputs than increases in productive efficiency. High rates of investment and labour participation, rather than upgraded technology, account to a large extent for dramatic growth in Japan, Singapore and China in their "take-off" periods. This argument is predicated on a fundamental thesis that labour input, among other things, is a necessary ingredient of economic growth. What Krugman observed some decades ago still seems a reality: China's rapid growth much depended on the massive working class' gruelling hours in low-paid "regular" work and often unpaid overtime in export-oriented manufacturing sectors. For Japan, long overtime by professional or skilled workers parallels the Chinese version but on a track of value-added production. South Korea and Taiwan seem positioned in the middle of this spectrum. Yet Krugman (1994, 78) might have overstated the case by adding that "deferred gratification" and "willingness to sacrifice" among these workers completes the story of the Asian growth miracle. Our research suggests the need for caution in this interpretation. For East Asia, overtime, more often than not, is not voluntary but instead routinised by corporate management. To use a now popular buzzword, it likely is the "bullying" of workers by tyrannical organisations that has been happening behind the scenes of these successful economies. A contrast is most interesting: behind the scenes in China can be found the corporate coercion of the unskilled and in Japan it is the corporate disciplining of professionals. The former case represents *a machinery of surplus value exploitation* and the latter reveals *a system of routinised regulation* operating to impose overtime onto employees.

Our research design, hypotheses and operationalisation can be replicated outside East Asia for observing potential convergence or divergence across countries. Despite this applicability, some limitations of this study are noted. Migrant status can be a key factor in overtime. Further consideration of the rural-to-urban migrant workers in China and foreign workers in the rest of East Asia is clearly needed. Our cross-national comparison does not capture well the possible influence of macro-level labour shortage, legal climates or business cycles overtime across countries (Blyton 1985; Chen and Wang 2011; Hart 2004). At the level of industry, information on overtime pay is not available for each respondent (likely not a constant across various sectors) and is not assessed for its potential effect. Our modelling of overtime focuses on factors at the individual level, whereas the configurations of the organisations, such as firm sizes, shifts, norms, levels of technology and innovation and management cultures are not incorporated owing to lack of information in the EASS survey. Researchers are urged to explore the influence of these "intermediating" organisational characteristics. The impact of overtime on life conditions and life quality also deserves more attention (Drobnič, Beham and Präg 2010; Gallie and Russel 2009; Hodson 2002). Future research should pay particular attention to distinguishing between paid and unpaid overtime, as this dimension constitutes one key debate both in research and public policy on the trade-off of rapid growth and workers' rights and well-being in East Asia as well as elsewhere.

Notes

1. The original coding for occupation follows the International Standard Classification of Occupation (ISCO-88) so that the groupings of occupations by skill level across the four countries are comparable.
2. The state sector includes an original design of EASS jobs in the government and those in public enterprises and non-profit organisations. We collapsed these two types of jobs due to trivial differences in our estimation. Contract jobs in the state constituted only a small percentage (ranging from 1% in South Korea to 3% in China) and did not generate distinctive patterns of overtime. We decided not to separate them from permanent government workers. For reference, the last entry on Table 1 reports the percentages of permanent and temporary workers regardless of sector.
3. Taiwan practices a legally set “fair working hours,” which is 42 hours; however, the workers in the public sector and many service jobs use 40 hours as a minimum standard.
4. For instance, Japanese workers in manufacturing jobs were reported by the International Labour Organization (2009) to work only 38.6 hours in 2008, which is 10 hours fewer than the results from the EASS survey. Official reports on Taiwanese employees had an average of 179.7 working hours and 8.2 hours of overtime per month, a significant discount compared to the results of our survey (see <http://statdb.cla.gov.tw/statis/stmain.jsp?sys=100>, accessed May 27, 2011).
5. We estimated the equations for the Taiwanese sample by using 40 hours per week as a basis of observing overtime. The outcomes were largely the same as we report in Table 3 in which the legal 42 hours are used as a benchmark. To save space, we did not display this alternative result.
6. A small number of respondents did not provide information and thus were excluded. The sample size for each model differs for this reason. We decided to use the method of pairwise deletion in order to keep as many as respondents in the analysis as possible. This approach is applied consistently throughout all regression models.

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