DEVELOPMENT AND SOCIETY
Volume 46 | Number 1 | June 2017, 131-156
DOI 10.21588/dns/2017.46.1.006

Social Acceleration vs. Slowdown: Who Became Less Busy in Korea? And Why?

Seung-Eun Cha | University of Suwon
Jooyeoun Suh | Center for Time Use Research, Oxford University

This study investigates the recent 10-year trend of "Perceived Time Pressure (PTP)" in Korean society, considered to have experienced "compressed modernity." Also this study attempts to identify the potential social factors that explain this trend. Analysis of Korean Time Use Survey (KTUS) data of 2004, 2009 and 2014 revealed that PTP rose between the years 2004 through 2009, and then fell in 2014. Results of ordered logistic regression revealed that social determinants on PTP differed by year. Having young child (10-year-old and less) in the household was not considered to be a time-pressing factor in 2004, but it seemed to affect PTP in 2014. Five-day workweek was not associated with PTP in 2004 but it was one of the main factors associated with the lowering of PTP in 2014. According to Blinder-Oaxaca decomposition analysis, between 2004 and 2009, the coefficient change was the main driver that explained the increase in time pressure. However, between 2004 and 2014 the change in coefficient (the effect of such characteristics) as well as the change in endowment contributed to a decrease in time pressure; such changes can be partly charted by differences in time use patterns. Another important finding was that those who are more educated, and with more income experienced huge drops in PTP as compared to those with less education and income. The results indicate that the benefits of five-day workweek policy or the boom of leisure activity did help to release time pressure of individuals, yet such benefits were mostly enjoyed by certain groups in the society.

Keywords: *time pressure, feeling busy, trend analysis, slowdown movement, social acceleration, decomposition analysis*

Introduction

"Timelessness," or the sense of not having enough time, is what many people in contemporary societies complain about. This experience of time shortage has been noted as one of the most significant phenomena in modern history (Gershuny 2005; Rosa 2013; Szollos 2009). If the sense of "feeling rushed" is a defining feature of modern society, the Korean case may be especially useful to consider, in light of the rapid pace at which Korean society modernized. Indeed, in recent periods, time pressure trends have been a topic of widespread concern in Korea, calling for scientific attention to be paid to Koreans' experience of time and stresses related to time pressure.

This study deals with how people feel about their time and how that feeling has changed over the last decades in Korea. We explore significant factors, such as education attainment, employment role and parental role that have been identified in social acceleration discourse (Rosa 2003; Rosa 2010a; Rosa 2010b; Rosa 2013; Roxburgh 2002). And we conduct several analyses to examine how those factors contribute to perceived time pressure (PTP) in the Korean context. The findings from this study may be useful in describing changing notions about time and the experience of time in contemporary society.

For much of history, time was considered as a phenomenon of nature, aligned with the rhythms of seasons or the cycles of human life. However, with the emergence of clock-based time, it has been separated from nature and the biological cycle (Rosa 2010b, pp. 1-29). Time is now considered as a resource, or even equivalent to currency ("time is money"); we consume time, deploy it, or exhaust it. Contemporary technology and social practices are based upon the time-saving and high-speed framework (Wajcman 2008, pp. 60-62). According to the high-speed modernity literature, the social acceleration cycle is achieved by the combination of three factors, namely technological innovation, accelerated change at the societal level, and changes in the pace of life (Rosa 2010a, p. 33).

According to Hartmut Rosa, social acceleration not only impact daily routine but also touches individual perception of time and the way people handle time (Rosa 2013, pp. 13-19). Indeed, several empirical studies have identified how technology development and societal changes (increases in work competition, rates of economic growth, automobile ownership, and use of speedy devices) affect the pace of everyday life (Roxburgh 2002; Teuchmann, Totterdell and Parker 1999; Wajcman 2008). Rosa has observed

that maintaining the pace of life is like "standing on the sliding rooftop" (Rosa 2010a, pp. 87-88). That is, people need to balance their pace of life against the demands of fast-changing society; by failing to do so, they slip off the inclined roof, risking social exclusion and alienation.

Keeping pace with social change and efforts to synchronize with disruptions that often result from change can be very stressful. Recent empirical studies report that time-related stress, described as feeling rushed, hurriedness, and feeling busy, can have direct or indirect impact on psychological as well as physical health outcomes (Roxburgh 2012; Sullivan 2007; Szollos 2009). It is therefore crucial in contemporary societies to examine the relationship between health outcomes time-related stress.

Arguments have also emerged in the literature that there are several types of resisting force that create delay or actually decelerate the speed of social change. Natural disasters (e.g., heavy snow, floods, etc.), long distances, illness, and pregnancy tend to limit the effects of speedy innovations (Rosa 2010a, p. 34). Human societies have mostly overcome those types of hurdles so far. Recent social movements, however, have intentionally resisted this "on-going" social process by introducing the idea of "time escape." This emphasizes that caring, sharing, and building memories are the essence of human nature and that they take time and energy (Urry 2010; Yee and Chang 2009). What may be described as a "slowdown movement" found support in the economic and public policy sectors, which started to recognize that individuals need "time-out" for their own sake and for the sake of future investment (Hämmig and Bauer 2009; Van der Lippe, Jager and Kops 2006). Recent public demand for the slowdown movement also emphasizes the "pause," which was applied in the public provisions of reducing long labor hours, securing individual holidays, and leisure with family (Cha 2014; Mattingly and Sayer 2006; Rudolf 2014). Mass trends of slow food and retro fashions were also in line with this intentional deceleration, and can be seen as efforts to seek oasis from the daily routine and clock-measured time (Hsu 2014; Rosa 2010b).

We assume that individual experience of time lies somewhere between those two forces of social acceleration and deceleration. And how people experience time is important because it illustrates the way an individual perceives the world and one's orientation to changes in the world. In other words, time experience can tell us how individuals direct themselves in society, namely, whether they can keep up with the pace of rapid social change and thereby remain "in the world" or slide away and become socially "alienated" (Rosa 2010a, pp. 69-73).

There are various ways to capture time experience. According to time-use literature, there are two dimensions to measure the pace of life at the individual level. One is a subjective measure which deals with psychological aspects of time, addressing whether people feel rushed or busy all the time and experience pressure to meet their daily routines (Southerton 2006; Szollos 2009; Teuchmann, Totterdell and Parker 1999). The other aspect of measuring the pace of life is by obtaining information on activities, like numbers of activity episodes per day, tempo of those episodes, or durations of activities and so on (Southerton 2003; Southerton and Tomlinson 2005). In this study, with our emphasis on clock time as a key source of chronic stressors in modern society, we focus on the psychological aspects of time experience. Specifically, we examine the subjective experience, which is denoted by perceived time pressure (PTP).

In the scholarly literature, empirical evidence that depicts how people experience time and how it changes over time is limited. And those small numbers of studies have focused primarily on Western societies or developed countries: the issue has rarely been scrutinized in Asian countries or other developing countries (semi-developing countries) where people actually experience rapid social transformation in their everyday lives. Acknowledging the gap in the literature, and the interaction of the countervailing forces of technology evolution/social acceleration and slowdown movement in recent decades, we examine time experience at the beginning of new millennium, and what social factors actually contribute to changes in that experience in the Korean context. In this article, we suggest the case of Korean society represents a good example of how time experience is constructed and is changed.

The Case of Korea in Time Pressure

Since the 1960s, Korean society has had to catch up with other more developed societies in the world. Indeed, Koreans have experienced speedy and dramatic changes for the last several decades. The aim was to achieve better lives for themselves and for future generations. Social change accelerated even more during the periods of economic growth in the 1990s (increases in GDP). At the societal level, the aging of the population, changes in the fertility rate, and changes in family life were also dramatic (Park 2006). The pace of change was so intense that the term "compressed modernity" (Chang 2010; Chang and Song 2010) was coined to allude to the accelerated

evolution of Korean society. Moreover, Korean society seems to have embraced this culture of velocity, as evidenced by the country's speedy-delivery system, high-speed internet, and even fast public services (Lee et al. 2008; Nam 2008).

In recent decades, new forms of speedy/innovative technology were introduced (e.g., mass use of internet services and smart devices). In response, Koreans have become even busier as they entered the new millennium, growing accustomed to instant information and fast decision-making. The use of smart devices and high-speed technologies has become routine as they negotiate the challenges, small and large, of everyday life. People feel pressed to keep up with the speed of change in order not to lose out on some new social value or simply to maintain social connections required to retain their standing in society. In the context of such dramatic transformation unfolding in short periods, individuals are likely to be very cautious about not slipping off "the sliding roof," according to Rosa's arguments (Rosa 2010a p. 87-88).

Technological innovation was not the only factor affecting the everyday lives of people. In education, the numbers of women who graduated from university increased significantly during late 1990s to early 2000s (Lee 2008), signaling that more women were to join the labor market. As a result, Korean society would witness a significant increase in the number of dual-earner couples in individual households. In 1999, dual-earner households composed only 25% of all households, yet only five years later, that proportion reached almost 44% (Kostat 2016).

More dual-earner couples mean that there are more households dealing with the challenges of juggling work demands against family needs. Indeed, some studies on time use have shown that women's total labor hours increased during the last decades while married men's unpaid work, both in the rate of participation and the duration of time, increased accordingly (Eun 2009; Song 2011). In previous literature on time pressure, higher education, long labor hours, and high income showed strong positive linear relationship with time pressure (Cha 2010; Mattingly and Sayer 2006; Southerton 2006). Thus, we expect that as the numbers of dual-earning households increase, people become busier than in the past. Such demographic transitions are likely to affect the ways in which people use their time.

On the other hand, focusing exclusively on the impact of education on time pressure, a recent European study showed that higher levels of tertiary education were associated with less pressure in time and greater satisfaction in work-life balance (Schöneck 2015). Therefore, it could be interesting to test

whether educational attainment is associated with time pressure in the Korean context.

In terms of activities, a person feels busy if he or she needs to fulfill and complete multiple roles and activities within 24 hours, such as paid work, traveling, care work and leisure. To speed up those daily routines, people tend to multitask, performing two or more activities simultaneously, like eating while working, caring for children while watching TV, mopping while chatting with neighbors, etc.

Generally, multitasking increases hurriedness and feeling rushed, according to the literature, because it deepens the time experience in short periods of time (Kenyon 2008; Sullivan and Gershuny 2013). Such scholars insist that as we constantly multitask using smart devices, our time experience becomes "temporalized and instant" (Rosa 2010a; Sullivan and Gershuny 2013). While we multitask, our decisions are taken from time to time according to situational and contextual needs and desires. The stability of life is threatened by the fast pace of daily activities and temporal multitasking. However, some argue that new technology is embedded in time-saving purposes (Aguiar and Hurst 2006). Therefore, the increase of leisure time has been associated with using new technology, like washing machines and dish washers. Under such notions linking the usage of technology to saving time, it is perhaps not unreasonable to assume that smart devices could have lessened people's experience of time pressure. What can be stated with more certainty is that with the dominant presence of technology in contemporary society, daily life is increasingly subject to interruption, destabilizing linkages between current lives and the past or future.

Values, norms, and preferences, rather than behavioral, economic, and demographic factors, can also contribute to time pressure. For instance, the ideology of intensive parenting (in particular, intensive mothering) has altered how women spend their free time (Hays 1996). As Korea is regarded as a Confucian familial society, mothers are expected to be the primary caregiver and devote all her time and energy to mothering (Chae 2015; Hays 1996). Such norms and ideology, therefore, may have resulted in more time pressure for women than for men.

In response to the forces of social acceleration, the need to take "time out" was felt strongly by some segments of Korean society at the dawn of new millennium. Since 1999, the government had tested social policies designed to reduce paid labor hours. Public policy responding to the goals of the slow-down movement came in two forms: one reduced daily labor hours for

workers, capping them at 9 hours (Kim 2011). Some companies and public sector institutions implemented "family day" policies, under which workers are forced to leave the office by 5 p.m. at least one day per month (or sometimes every week). The other approach was to practice 5-day workweek, as Koreans worked 5.5 days per week or a full 6 days before 2000 (Rudolf 2014). This policy was adopted as a trial in 2004, and by 2011, all public sector institutions and public schools employed the 5-working-day schedule. Although the majority of workers still overwork during weekdays and workers in service sectors are still obliged to work on Saturdays and Sundays, the message from such labor policies was unmistakable: "resting" was emphasized to maintain good and healthy life.

This recent trend of deceleration may have affected Koreans' lives very deeply, as a recently conducted 15-year time series analysis (1999-2014) on time-use data showed that people worked fewer hours than in the past, slept more, ate/drank more, and seemed to enjoy life (Eun, Cha and Jun 2016). Recently, there are some arguments suggesting that Koreans society is shifting from a work-oriented society to leisure-oriented one. While conclusive answers to those questions are not yet available, the thriving slowdown movement and the concurrent growth of leisure industries lead us to believe that the ways in which Korean experience time are undergoing change.

Time-use data can show the actual linkage between time pressure and daily routines. While a number of studies have recently been conducted dealing with time use in Korea, most of them deal with how people use specific time and changes in such time use. Moreover, previous time-use studies examining Korea depicted trends in paid work hours, child care time, and unpaid housework hours but overlooked the subjective aspects of time pressure. Very recent time-use research has extended to investigating sleep hours (Cha and Eun 2014), leisure and exercise, meal time with family (Kim 2010), and even time poverty among specific population (Cho 2016). Yet efforts to examine how people's pace of time has changed over time, which factors condition people's time experience, and who is the main actor in this time experience remains intermittent and incomplete.

In this paper, on the basis of combining three years of Korean Time Use Survey data (2004, 2009, 2014), we first describe the recent 10-year trend relating to perceived time pressure (PTP) in Korea as a measure of time experience. Then we examine the determinants of PTP in each year, highlighting how the composition of those determinants changes over time. Finally, by conducting decomposition analysis, we attempt to discover the

main driver of the PTP change: that is, whether PTP change was driven by changes in structural components (socio-demographics and time-use pattern), or by more fundamental change.

Research Methods

1) Data and Sample

We employed 2004, 2009, and 2014 Korean Time Use Survey (KTUS) data. Beginning in its first year (1999), KTUS has been conducted by Statistics Korea every five years. The survey was designed to collect daily time-use diary data from all members of participating households for two consecutive days. Weekend diary data was oversampled in order to analyze the Saturday and Sunday difference, therefore weight values are given to balance the weekdays and weekend.

All three-year data was pooled and combined into one dataset and we created year dummies. We first selected a sample with age 10-79 (n=154,078) from the original data, which contains almost every participant in all three data sets, in order to check the overall trend of perceived time pressure. However, in the analytic modeling, we narrowed our sample by limiting the age range and excluding those who were in school from the sample. The resulting analytic sample consisted of non-students between ages 20-69 (n=112,286). Demographic characteristics of sample details are presented in Table 1.

2) Measurements

Perceived Time Pressure (PTP): This was measured in 4-degree scale in all three data sets. In each year's data, the question for time pressure was identical: 'How do you feel busy in daily lives?' The original 4-point Likert scale ranged from "always rushed" to "never rushed." For the analysis we reorganized the responses into 3 categories because in the data, about 65% of people in our sample reported either "always rushed (25%)" or "often rushed (40%)". The scale was recoded and categorized as follows: 1: "not rushed", 2: "often rushed", 3: "always rushed".

Other relevant variables: While the questionnaire has evolved over the years, several important variables are comparable across the data 2004 to 2014. We retrieved variables that were available in all three dataset to capture

the changes to socio-demographic characteristics and time-use structure change. As we mentioned above, year dummy was used in the analysis. Sex, age, employment status, education level, and monthly wage characteristics were used to identify the structure characteristics. Also, marital status and the presence of young child (less than age 10) variables could tell us about family and household change across the year. Weekly work hours (summing up the weekly main work and weekly side work) and holiday type (5-day workweek practice) were used to test the effects of the social policy changes regulating labor hours and time-out movement during the 10-year period.

We used discretionary time to examine the daily time-use pattern change during the periods. Discretionary time was defined as the sum of leisure hours (exercise, going out for cultural experience, engaging in hobby, watch television, read, listen, use computer/internet, do nothing, leisure related travel, etc.), social time (meet friends, chat through phone or device, visit friends or relatives), voluntary activities (join political activities, help others, participate in public affairs, and so on), time spent on religious activity, and learning time. Basically, discretionary time results from the subtraction of obligatory time (paid and unpaid work, traveling and commuting) and necessary time (sleep, eat/drink, wash/hygiene, health treatment, etc.) from the 24 hours of the day. Discretionary time was organized into three categories: under 25% (time-poor group), 25%-74%, and 75% and over (time-rich group).

Total hours of multitasking were also considered as one of the factors of time-use structure. Multitasking means that one is doing two different activities at the same time. Therefore, in a given day, the total hours of engagement in secondary activity can be used as an indicator of the amount of multitasking engaged in that day. Recent technological innovations embodied in smart devices have encouraged multitasking. In 2004, television watching was the most prevalent secondary activity, while social time, like talking through phone, texting, or chatting through SNS, was the most frequently mentioned secondary activity in the 2014 data. It variable was made by summing up time spent for all types of secondary activity. Details of categories and variable descriptions are presented in Table 1.

3) Analysis procedures

We start our analysis by conducting an ordered logit regression to investigate the association between the year (2004, 2009, and 2014) and PTP. We first run the regression with all samples (those aged 20 to 69). Then we further

run the regression with working-age subsamples – younger cohorts (ages 20 to 45) and older cohorts (ages 46 to 60) to see the pattern of PTP compared to the all samples.

In the second part, we are interested in whether PTP is determined differently between years. In order to find the compositional differences in factors associated with PTP, we run three separate models by year and run the seemingly unrelated test to check the differences in unstandardized coefficient difference by years.

Finally, we conduct the standard Blinder-Oaxaca decomposition to analyze how much of the change in PTP is produced by one of three components: 1) individuals' attributes and skills (endowments) which is produced by the arithmetic averages of individual characteristics; 2) the regression coefficients for the model which explains the changes in PTP, estimated separately by year; and 3) an interaction between differences in endowments and differences in coefficients.

4) Sample descriptive

Table 1 depicts the variables list and sample characteristics by year of the survey. The mean age of the sample (i.e., within the age range of 20-69) increased with every survey year, nicely demonstrating the population aging over the decades. Proportion of households with young children decreased gradually by year; this pattern is consistent with Korean Census measures and recent lowering of the fertility rate (such that households with young child are becoming rarer in Korean society). Numbers of highly educated individuals and those with high income have grown during the 10-year period. We can assume that during the decade, people were very much engaged in obtaining human capital and experienced an increase in their household income. Table 1 also shows that more people are enjoying the 5-day workweek. Accordingly, weekly workhours dropped gradually in 2009 and 2014, as compared to 2004. As for the time-use structure change, the number of individuals who suffer from lack of discretionary time fluctuated over the survey years. And total hours for multitasking increased during the 10-year period.

TABLE 1
Demographic Characteristics of Sample (Non-students and Aged 20-69)

	2004 (n= 45,924)	2009 (n=28,322)	2014 (n=38,040)
Age (mean)	43.34	44.22	45.67
Gender			
men	46.52	47.84	46.96
women	53.38	52.16	53.04
Marital status			
single	23.42	22.97	25.20
have spouse	76.58	77.03	74.80
Have young child in household			
no child under age 10	71.10	75.52	76.37
have child under age 10	28.90	24.48	23.63
Education level			
middle school and below	30.87	24.23	19.05
high school	50.76	55.27	54.83
college and university	16.14	17.33	21.53
graduates	2.23	3.17	4.59
Monthly wages (1,000 won)			
no income	35.51	24.50	19.16
1-less than 100	21.61	22.60	16.43
100-less than 200	25.83	27.31	25.76
200-less than 300	10.80	14.38	18.76
400-less than 500	5.37	8.82	14.48
500 and over	0.88	2.39	5.42
Farm households			
Rural	10.67	7.03	6.57
Urban	89.33	92.97	93.43
Day of Week			
Weekdays	59.76	59.62	60.07
Saturday	20.17	20.24	19.94
Sunday	20.07	20.14	19.99
Weekly work hours			
No work[1)]	29.20	29.07	28.82
Short work (35hrs less)	10.36	10.97	10.92

TABLE 1
(Continued)

	2004 (n= 45,924)	2009 (n=28,322)	2014 (n=38,040)
Normal range (36-49 hrs)	25.80	26.82	31.91
Overwork (50 hrs or more)	34.64	33.15	28.35
Holiday			
Others	85.23	73.21	65.79
Five-day workday	14.77	26.79	34.21
Discretionary time			
Extremely few	14.64	15.98	19.08
Mid-range	38.47	66.34	65.65
Plenty	16.90	17.68	15.27
Total hours for Multitasking (mean)	82.34	63.33	102.33

Note.—1) No work includes non-employed and those who have job but did not work on diary day.

Results

1) Perceived Time Pressure Trend by Year

Figure 1 presents the proportions of PTP groups by year. It shows minimal changes in the incidence of the 'always rushed' group in each survey year. However, the proportion of the 'not rushed' group increased significantly in 2014, while those who report 'often rushed' decreased over the years. This means the large proportion of 'rushed' people may have joined the 'not rushed' group, while the 'always rushed' group has not shrunk.

To understand the overall trend of PTP, we examined how the odds ratio of time pressure changed during each of the three years, while controlling for the characteristics, like weekday, weekly working hours, holiday type, discretionary time, and total hours of multitasking. Results depict that there were up and down trends of yearly PTP (see Table 2). Compared to 2004, the proportion of feeling always rushed increased about 22% in 2009, but it dropped about 14% in 2014. Hence, we observe the rise in PTP between 2004 and 2009, yet eventually the odds of feeling rushed fell during the 2009-2014 period.

When we take a closer look at the distribution of PTP level by age groups

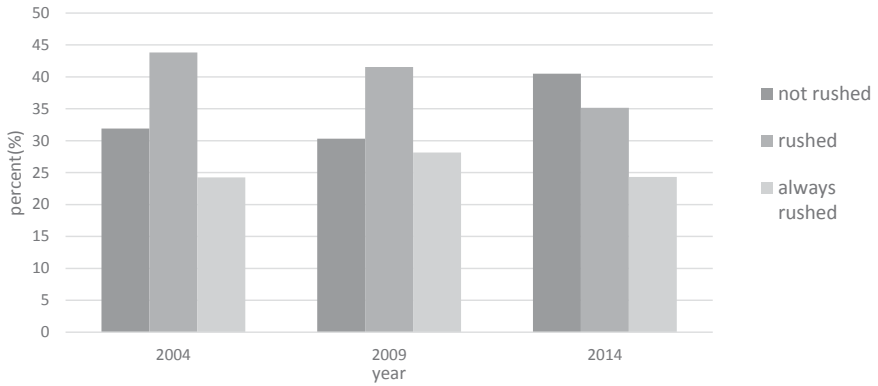


Fig. 1.—The Trend of the Proportion of PTP during 2004–2014

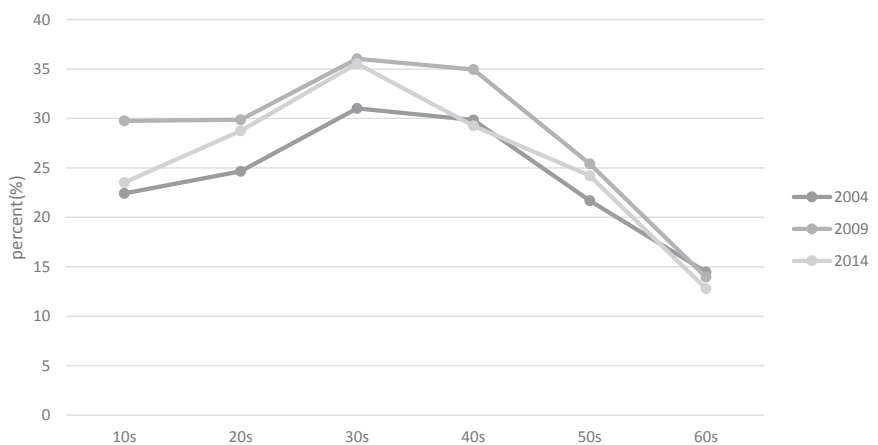


Fig. 2.—Proportion of Feeling "Always Rushed" by Age and Year

over years, the trends seem to be driven by specific age group (see Figure 2). Figure 2 shows the proportion of feeling "always rushed" disaggregated by age groups. Between 2004 and 2009, the proportion of always rushed increased for teens to those aged 50s. However, the proportion of feeling always rushed dropped in 2014 among those aged 40s and 50s, while middle age groups became less busy in 2014.

Considering such age group differences in PTP patterns, we calculated the odds ratio of yearly PTP by dividing specific life stages: young middles (age 20-44) and older middles (age 46-69) (see Table 2). Results showed the

TABLE 2
Odds Ratio of PTP by Year, Controlling Relevant Variables (2004, 2009, and 2014)

		Total		Young middle age (20-45)		Older middle age (46-60)	
		Odds Ratio	(S.E.)	Odds Ratio	(S.E.)	Odds Ratio	(S.E.)
Year	2004	1.00		1.00		1.00	
	2009	1.23	(0.02) ***	1.21	(0.02) ***	1.21	(0.03) ***
	2014	0.83	(0.01) ***	0.88	(0.02) ***	0.75	(0.02) ***

*** p<.001

degree of drop in PTP was more prominent in older middles than young group, which illustrates that during 2009-2014 especially older adults have become less busy and rushed than any other periods.

2) Comparison of determinants of PTP across the year

Next, we ran three sets of ordered logit model for each year (see Table 3). We found the general pattern of significant factors that rules across the time pressure models as well as the difference in compositions of relevant factors. The result showed that the odds ratio of age was less than 1, which means as one grows older, there is less chance of feeling busy and this association remains constant for all three years. This is consistent with the general sense that PTP can be reduced as one traverses the periods of later life. Compared to men, women feel more time pressed, when work and family conditions are controlled. Being married seem to increase PTP in daily lives, as odds ratio ranges from 1.3–1.4 compared to singles across years. Results of differences in urban and rural odds ratio reveal that living in rural areas seems to help to decrease PTP more than a metropolitan life style. Sunday diary data capture more pressure than weekdays, which is consistent with previous finings (Bittman and Wajcman 2000). This suggests that people feel pressured on Sunday as it gets closer to another week of work.

People with high socio-economic status (SES), like those with high education or high income, show higher odds of feeing rushed, compared to their counterparts. This gap in PTP by socioeconomic status has been frequently mentioned in the time-use literature (Gershuny 2005). Working long hours (in weekly bases) in the labor market with less time for resting is

TABLE 3
Results of Ordered Logit Model predicting "Always Rushed" (2004, 2009, and 2014)

	2004			2009			2014		
	Odds Ratio	(S.E.)		Odds Ratio	(S.E.)		Odds Ratio	(S.E.)	
Age	0.98	(0.00)	***	0.97	(0.00)	***	0.97	(0.00)	***
Male (female omitted)	1.80	(0.04)	***	1.89	(0.05)	***	1.65	(0.04)	***
Married (single omitted)	1.48	(0.04)	***	1.43	(0.05)	***	1.32	(0.04)	***
Child 10 and under	1.17	(0.03)	***	1.37	(0.04)	***	1.60	(0.04)	***
Edu level (middle school and under omitted)									
High school	1.20	(0.03)	***	1.21	(0.04)	***	0.98	(0.03)	***
Some college	1.59	(0.05)	***	1.62	(0.07)	***	1.15	(0.05)	***
University and more	2.20	(0.15)	***	2.26	(0.17)	***	1.27	(0.07)	***
Rural (Urban omitted)	0.60	(0.02)	***	0.55	(0.03)	***	0.87	(0.04)	***
Wage	1.18	(0.01)	***	1.14	(0.02)	***	1.05	(0.01)	***
Week (weekday omitted)									
Saturday	1.03	(0.02)		1.07	(0.03)	*	1.04	(0.03)	
Sunday	1.14	(0.03)	***	1.17	(0.04)	***	1.08	(0.03)	***
Weekly work hours (no work omitted)									
Short work	2.07	(0.08)	***	2.31	(0.10)	***	2.18	(0.09)	***
Normal work	3.45	(0.12)	***	3.82	(0.17)	***	4.23	(0.16)	***
Overwork	5.96	(0.20)	***	7.19	(0.30)	***	9.23	(0.34)	***
Five-day-workday (others omitted)	0.98	(0.03)		0.81	(0.03)	***	0.88	(0.02)	***
Discretionary time (extreme low omitted)									
Mid-range	0.58	(0.02)	***	0.64	(0.02)	***	0.62	(0.02)	***
Plenty	0.41	(0.01)	***	0.44	(0.02)	***	0.48	(0.02)	***
Total hours of multitasking	0.99	(0.01)		0.99	(0.02)		1.04	(0.01)	***
/cut1	-0.99			-1.13			-0.62		
/cut2	1.33			1.16			1.30		
Number of observations	45,924			28,322			38,040		
Log likelihood =	-43072.61			-26615.11			-35990.36		
LR chi2(18)	12399.84		***	7847.48		***	10715.64		***
Pseudo R2	0.13			0.13			0.13		

Note.—***p<.001, *p<.05

associated with higher odds of feeling rushed, while having more time for freedom of choice (discretionary time) is associated with lower odds of feeling pressed, according to all three models.

In Table 3, we show significant differences in factors across each year's PTP model as well. First, having a 5-day-workweek schedule was not associated with PTP in 2004. However, it became one of the important determinants of PTP in 2009 and in 2014. Social policy that encouraged the 5-day-work day schedule officially launched in 2004 after preparation periods in late 1990s. The policy was adopted by companies and organizations gradually and in 2011 all the public service sectors and schools adopted the 5-day-workweek schedule. Therefore, these results may show the effects of the gradual adoption of and people's adaptation to the work-day policy. Total hours of multitasking, measured by the total hours spent on secondary activities, were positively associated with PTP in 2014, but it was not significant in 2004 or in 2009.

Additionally, we examined the difference in the effects of each coefficient. Seemingly unrelated test (*suest* test) reveals whether the effect of certain factors plays its role differently in association with PTP in each year. For instance, according to Table 3, the results show that having a child aged under 10 is associated with higher odds of feeling rushed in 2014 (odds ratio = 1.60) compared to 2004 (odds ratio = 1.17) and 2009 (odds ratio = 1.37). This enlarged gap was statistically significant (2004 vs. 2009 $\chi^2 = 17.0$, $p < .001$; 2004 vs 2014 $\chi^2 = 77.81$, $p < .001$). Note that the number of households with children aged under 10 decreased between 2004 and 2014. Also, according to the national statistics, the TFR (Total fertility Rate) remained very low (e.g., TFR = 1.19 – 1.20) (Lee 2012). Therefore, one can assume that child care burdens would be decreased. However, the effect of having a young child on PTP became stronger, suggesting that having a young child in the household becomes a time pressing situation for many adults.

In terms of education gradient, *Seemingly Unrelated Estimation* (*suest*) test revealed that it became significantly smaller in 2014 (odds ratio of university and above = .23) than 2004 (odds ratio = .78) ($\chi^2 = 38.9$, $p < .001$). In accordance with education effect, the PTP gap of individual wage also became significantly smaller than in the past (odds ratio difference: .16 (2004) vs. .05(2014), $\chi^2 = 50.70$, $p < .001$). Weekly overwork is also positively associated with PTP, yet this unfavorable relationship grew much stronger in 2014 (odds ratio difference: 1.78 (2004) vs. 2.22 (2014), $\chi^2 = 72.5$, $p < .001$); workers with long weekly working hours seem to have felt more time pressed in 2014 than in the past.

To examine more closely educational and wage gradient changes, we conducted additional analysis to predict proportions of those who feel always rushed by education level and wage level, while controlling other variables in the model (see Figure 3). Overall, the higher a person's education level, the greater the likelihood he or she will be in the always feeling rushed group, indicating that those with more educated feel busier than less educated persons. However, this gap by educational gradient narrowed in 2014, with much of this decline accounted for by those who are highly educated. Among employed individuals this education gradient change is more apparent. When we examine the wage difference and PTP (see Figure 4), a similar trend is observed. To better understand the relationship between wage differentials and PTP, we have excluded the unemployed in our analysis. The result in Figure 4 shows that all wage group experienced a gradual decrease in PTP over the years. However, PTP for the high wage group was drastically reduced, as compared to other groups.

In our sample, the middle wage group worked longer hours in paid work on a weekly basis than the low wage or high wage groups. Even in terms of total labor hours, summing up paid and unpaid work, people in the middle wage and lower wage groups spend longer hours in total work than high wage group members. Therefore, we checked whether high SES is associated with receiving benefits from social policy. In the appendix, the figure shows that university graduates are more likely to practice '5-day workweek' compared to others. Also in terms of wage level, the high wage group tends to enjoy the privilege of having two-day weekends.

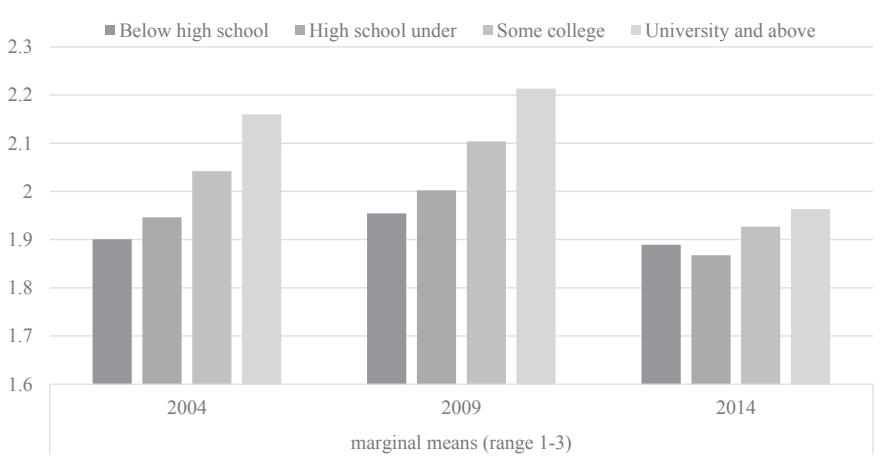


Fig. 3.—Marginal Means of PTP by Education (2004, 2009, and 2014)

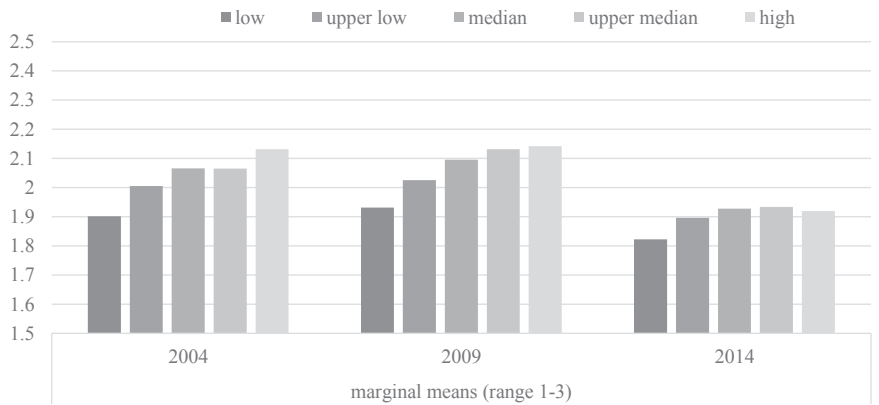


Fig. 3.—Marginal Means of PTP by Income (2004, 2009, and 2014)

3) Decomposition analysis

Lastly, we conducted the Blinder-Oaxaca decomposition method to explain how the change in PTP can be attributed to changes in socioeconomic characteristics and behavior (different endowments or abilities, for example differences in number of hours worked at different point in time) or how it can be attributed to changes in regression coefficients for the model (see Table 4). If a significant portion of the change cannot be explained by any of those factors, then we can say that PTP change is due to other factors not included in this model, such as cultural shifts or attitudinal changes.

We show that PTP increased from 2004 to 2009 in Table 2. Decomposition results in Table 4 show that the differential in PTP due to sociodemographic characteristic is positive, the percentage of those who always feel rushed will increase if all sociodemographic characteristics in 2009 were equal to the same average level of socioeconomic characteristics in 2004. However, results exhibiting this endowment factor were not much stronger than other factors. The increase of 0.012 in the first column in Table 4 for 2004–2009 indicates that differences in endowments account for about 20 percent of the gap in PTP. On the other hand, from 2009 to 2014, the PTP decreased. As Table 4 shows, the increase is mostly driven by the changes in coefficients, which quantifies the change in PTP in 2014 when applying the coefficients in 2009 to the characteristics in 2014. This means the characteristics that used to decrease PTP have become more influential or perhaps determinants that were not associated with PTP became effective in 2009 (such as 5-day

TABLE 4
Blinder-Oaxaca Decomposition Results of the Changes in Felling Rushed: 2004-2014 (Those Aged 20-69)

Dependent variable: feeling rushed	2004-2009		2009-2014		2004-2014	
	coeff.	(s.e)	coeff.	(s.e)	coeff.	(s.e)
Total differential	0.062	(0.005)***	-0.126	(0.006)***	-0.063	(0.005)***
Due to endowments	0.012	(0.003)***	0.011	(0.004)**	0.034	(0.004)***
Due to the effect of coefficient	0.067	(0.005)***	-0.120	(0.005)***	-0.035	(0.005)***
Due to simultaneous interaction	-0.017	(0.003)***	-0.017	(0.004)***	-0.062	(0.004)***
% of unexplained	19%		8%		54%	
% of explained	81%		92%		46%	

Notes.—***: $p < .001$, **: $p < .01$

workweek) in our analysis.

For the difference between 2004 and 2014, as we have examined in Table 2, the overall mean level in PTP seems unchanged; however, we identified in our earlier analysis that in 2014 the never feeling rushed group emerged while the proportion of the always feeling rushed group was similar to 2004. Such proportional change was identified in decomposition analysis, as the decade change in PTP is composed of the combination of differences on characteristics, difference in the effects of coefficients, and the interaction of both. The interaction effect, in particular, indicates that socioeconomic characteristics and behavior differences are not just given from population level change but may be driven by changes in individuals' perception of time and their attitude towards time use.

Conclusion

This study followed the trajectory of the recent 10-year trend of Perceived Time Pressure (PTP) in Korea. This study also investigated potential social factors that explain this change. This research, employing Korean Time Use Survey (KTUS) data of 2004, 2009 and 2014, yielded several interesting

findings.

There was a gradual increase in PTP from 2004 to 2009. However, the reversal in PTP was observed in year 2014, as the possibility of feeling rushed decreased compared to previous years. Descriptive analysis revealed that compared to earlier years, more people feel less pressed, while the proportion of those who experience a hectic pace of life did not change. This suggests that time experience has been polarized, dividing those who sustain themselves in the world from those who are alienated.

We were able to identify some forces that drive high levels of PTP. For instance, the childcare burden became a major predictor of PTP in 2009 and 2014, which was not the case for measuring PTP in 2004. Association between the presence of child and PTP can be explained as adults with children realize that time engagement with children is important. In the past, child rearing meant providing necessary goods and support by mostly mothers. However, turning towards millennium, child care involves concerted effort by both parents. Hours of multitasking were another significantly associated factor that caused the increase of PTP in 2014.

While there are many factors that encourage increase in PTP, the overall PTP level actually declined in 2014. This is surprising. We had assumed that in contemporary Korean society, understood in terms of high-speed society and social acceleration discourse, people's pace of life and time experience would be quite hectic and rushed. Recently, a similar report from the UK that analyzed a 30-year trend in PTP (from 1980-2014) showed a gradual downward trend in among Britons. In their study, Sullivan and Gershuny (2016) argue that, contrary to generally held notions of time pressure, the daily lives of people may not be touched by the hectic speed of social evolution – at least, not the same degree as some scholars have been anticipated.

In the Korean context, we found several important pieces of evidence that may explain this slowdown trend. Our results showed that those who were aged 40 and older and working fewer hours in 2014 were more likely to feel less busy than their counterparts in the past data. One might expect that release from high pressure and stress can lead to healthier lives, while changes in one's role in life (such as in employment status or aging) can lead to social pathology, like disruption in life balance and suffering from depression, with those changes being more devastating if they were unintended.

Five-day-working-day variable, which was an indicator of social policy responsive to the intentional slowdown movement, showed negative impact

on PTP during 2009 and 2014. Those who are able to enjoy two-day holidays every week perceived less time pressure compared to those who work more days on a certain week or have irregular resting days. The benefits of recent public policy, however, were not evenly distributed throughout the society, according to our study. Those who are more educated or those who earn more experienced a huge drop in PTP compare to people with less education or who earn less, during the last decade.

This is in sharp contrast to the conventional view that high education and high income are associated with time pressure and feeling rushed (Bittman & Wajecman, 2001; Gershuny, 2003). This result is more in line with Schöneck's argument (2015), suggesting that people with more cultural and income resources and personal agency can shape their lives in the ways they wish, and as a result they may feel less pressure and enjoy a more satisfactory work-life balance. Therefore, in the Korean context, we speculate that the benefits of 5-working-day policy or the boom of leisure activity has helped to ease PTP but it was only significant to those with high SES. Can we expect that such a trend will eventually spread throughout society? Or will this difference in time experience continue and create new types of inequality in our society? Further research is required to reach more conclusive answers to those questions.

The main limitation of our study is that the standard Oaxaca-type decomposition only explains differences in means. However, differences in other parameters are of interest; for instance, percentage of children in day care center or percentage of children receiving informal care by someone else other than household members. To address this limitation, we will consider how to decompose differences in full distributions using quantile regression in the future. While time-use data is useful in our analysis, KTUS fails to collect some important physical, psychological, and mental health variables such as fatigue, mood disorders, chronic anxiety, and depression, which may be highly correlated with our measure, "feeling rushed."

Nevertheless, our study highlights some important directions for future research. In our findings, it was not clear whether population aging or the rise of unemployment rate were associated with PTP turnover, but it could be interesting to find out such linkage in future studies. It was evident in our study that slowdown public policies can help people relieve from hectic state of time pressure. However, the main drivers of PTP turnover in Korea during 2004-2014 revealed to be more fundamental. Decomposition analysis illustrates that people's perception of time/ time use or attitude change (or possibly cultural change) was more determinative in the rise and fall of PTP.

People's needs for time have changed during the decade. People became aware of the importance of time investment; preferences relating to how and where to use time have become the main considerations in managing one's daily routine. In policy terms, this means that greater attention could be focused on time-sensitive policies like job flexibility or family-friendly working arrangements for the employed.

(*Submitted*: April 5, 2017; *Accepted*: May 15, 2017)

References

Aguiar, Mark, and Erik Hurst. 2006. "Measuring Trends in Leisure: The Allocation of Time over Five Decades." National Bureau of Economic Research.

Bittman, Michael, and Judy Wajcman. 2000. "The Rush Hour: The Character of Leisure Time and Gender Equity." *Social forces* 79(1): 165-189.

Cha, Seung-Eun. 2010. "Namnyeoui Sigan-Abbag-Insig Chaiwa Gwanlyeon-Yoin Tamsaeg [Who Is the Busiest in Korea? A Study on Gender Difference in Time Pressure]." *Hangug-inguhag [Korean Journal of Population Studies]* 33(1): 27-49.

_____. 2014. "Yugeubnodongsigan, Sigan-Abbaggam Geuligo Hyusig-Ui Hyogwa [Associations between Paid Work Hour and Time Pressure : Focused on the Role of Rest and Leisure]." *Hangug-inguhag [Korean Journal of Population Studies]* 37(3): 25-52.

Cha, Seung-Eun, and Ki-Soo Eun. 2014. "Gender Difference in Sleep Problems: Focused on Time Use in Daily Life of Korea." *Social Indicators Research* 119(3): 1447-1465.

Chae, Jiyoung. 2015. ""Am I a Better Mother Than You?" Media and 21st-Century Motherhood in the Context of the Social Comparison Theory." *Communication Research* 42(4): 503-525.

Chang, Kyung-Sup. 2010. *South Korea under Compressed Modernity: Familial Political Economy in Transition*: Routledge.

Chang, Kyung-Sup, and Min-Young Song. 2010. "The Stranded Individualizer under Compressed Modernity: South Korean Women in Individualization without Individualism." *The British journal of sociology* 61(3): 539-564.

Cho, Mira. 2016. "Yeogasigan Bulpyeongdeung Yeongu [Leisure Inequality in Korea 1999~2009 : The Trends and Cause of Leisure Time Inequality among Gender]." *Hangug-inguhag [Korean Journal of Population Studies]* 39(1): 29-57.

Eun, Kisoo. 2009. "Hangug Gihonbubuui Gasanodongbun-Eob [Household Division of Labor for Married Men and Women in Korea]." *Hangug-inguhag [Korean Journal of Population Studies]* 32(3): 145-171.

Eun, Kisoo, Seung-Eun Cha, and Jiweon Jun. 2016. "Daily Life in Korea for the First

15 Years of the 21st Century." *Paper Presented at 38th International Association for Time Use Research Conferece (New Challenges in Time Use: Wellbeing and Social Policy)*.

Gershuny, Jonathan. 2005. "Busyness as the Badge of Honor for the New Superordinate Working Class." *Social Research*: 287-314.

Hämmig, Oliver, and Georg Bauer. 2009. "Work-Life Imbalance and Mental Health among Male and Female Employees in Switzerland." *International Journal of Public Health* 54(2): 88-95.

Hays, Sharon. 1996. "The Cultural Contradictions of Motherhood." New Haven, CT: Yale University Press.

Hsu, Eric L. 2014. "The Sociology of Sleep and the Measure of Social Acceleration." *Time & Society* 23(2): 212-234.

Kenyon, Susan. 2008. "Internet Use and Time Use the Importance of Multitasking." *Time & Society* 17(2-3): 283-318.

Kim, Jung Suk. 2010. "Jungolyeongcheung Bubuui Sigsagwanlyeonhaeng-Wi [Having Meals Together: Studies of Couple of Pre Retirement]." *Hangug-inguhag [Korean Journal of Population Studies]* 33(3): 123-142.

Kim, KyungHee. 2011. "Work and Leisure and Leisure Policy in Korea." University of Liverpool.

Kostat. 2016. "Hangug-in-Ui Saenghwalsigan Byeonhwasang (1999nyeon~2014nyeon) [the Report on Changes in Dialy Lives of Korean (1999-2014)]." Sejong: Statistics Korea.

Lee, Chul Hee. 2012. "Hangug-Ui Habgyechulsan-Yul Byeonhwayoin Bunhae [a Decomposition of Decline in Total Fertility Rate in Korea: Effects of Changes in Marriage and Marital Fertility]." *Hangug-inguhag [Korean Journal of Population Studies]* 35(3): 117-144.

Lee, Jee-In. 2008. "Changes in Mothering of Korean Women: Based on Narrative Interview Data." *Development and society* 37(2): 141-167.

Lee, Sang Ho, Jung Hoon Han, Youn Taik Leem, and Tan Yigitcanlar. 2008. "Towards Ubiquitous City: Concept, Planning, and Experiences." *Igi Global*: 148-169.

Mattingly, Marybeth J, and Liana C Sayer. 2006. "Under Pressure: Gender Differences in the Relationship between Free Time and Feeling Rushed." *Journal of Marriage and Family* 68(1): 205-221.

Nam, Eun-Young. 2008. "Status Inconsistency and Lifestyle among Status Groups: Focusing on Cultural Capital and Social Capital." *Development and society* 37(2): 169-186.

Park, K. S. 2006. "Family and Work Ties of the Korean Elderly." *Population and Society* 2(1): 1-25.

Rosa, Hartmut. 2003. "Social Acceleration: Ethical and Political Consequences of a Desynchronized High–Speed Society." *Constellations* 10(1): 3-33.

_____. 2010a. *Alienation and Acceleration: Towards a Critical Theory of Late-Modern Temporality*: Aarhus Universitetsforlag.

_____. 2010b. *High-Speed Society: Social Acceleration, Power, and Modernity*: Penn State Press.

_____. 2013. *Social Acceleration: A New Theory of Modernity*: Columbia University Press.

Roxburgh, Susan. 2002. "Racing through Life: The Distribution of Time Pressures by Roles and Role Resources among Full-Time Workers." *Journal of Family and Economic Issues* 23(2): 121-145.

_____. 2012. "Parental Time Pressures and Depression among Married Dual-Earner Parents." *Journal of Family Issues* 33(8): 1027-1053.

Rudolf, Robert. 2014. "Work Shorter, Be Happier? Longitudinal Evidence from the Korean Five-Day Working Policy." *Journal of happiness studies* 15(5): 1139-1163.

Schöneck, Nadine M. 2015. "Europeans' Work and Life–out of Balance? An Empirical Test of Assumptions from the "Acceleration Debate"." *Time & Society*: 0961463X15577286.

Song, Yoo-Jean. 2011. "Hangug-in-Ui Ilsangsaenghwal Siganbyeonhwa [Changes in Parental Time Spent with Children]." *Hangug-inguhag [Korean Journal of Population Studies]* 34(2): 45-64.

Southerton, Dale. 2003. "Squeezing Time: Allocating Practices, Coordinating Networks and Scheduling Society." *Time & Society* 12(1): 5-25.

_____. 2006. "Analysing the Temporal Organization of Daily Life: Social Constraints, Practices and Their Allocation." *Sociology* 40(3): 435-454.

Southerton, Dale, and Mark Tomlinson. 2005. "Pressed for Time'–the Differential Impacts of a 'Time Squeeze." *The Sociological Review* 53(2): 215-239.

Sullivan, Oriel. 2007. "Cultural Voraciousness– a New Measure of the Pace of Leisure in a Context Of'harriedness'." *electronic International Journal of Time Use Research* 4(1): 30-46.

Sullivan, Oriel, and J Gershuny. 2016. "The Speed up Society in Uk?" in *The 38th International Association for Time Use Research*. Seoul.

Sullivan, Oriel, and Jonathan Gershuny. 2013. "Domestic Outsourcing and Multitasking: How Much Do They Really Contribute?" *Social Science Research* 42(5): 1311-1324.

Szollos, Alex. 2009. "Toward a Psychology of Chronic Time Pressure Conceptual and Methodological Review." *Time & Society* 18(2-3): 332-350.

Teuchmann, Katja, Peter Totterdell, and Sharon K Parker. 1999. "Rushed, Unhappy, and Drained: An Experience Sampling Study of Relations between Time Pressure, Perceived Control, Mood, and Emotional Exhaustion in a Group of Accountants." *Journal of Occupational Health Psychology* 4(1): 37.

Urry, John. 2010. *Speeding up and Slowing Down*: Prinston University Press.

Van der Lippe, Tanja, Annet Jager, and Yvonne Kops. 2006. "Combination Pressure the Paid Work-Family Balance of Men and Women in European Countries." *Acta Sociologica* 49(3): 303-319.

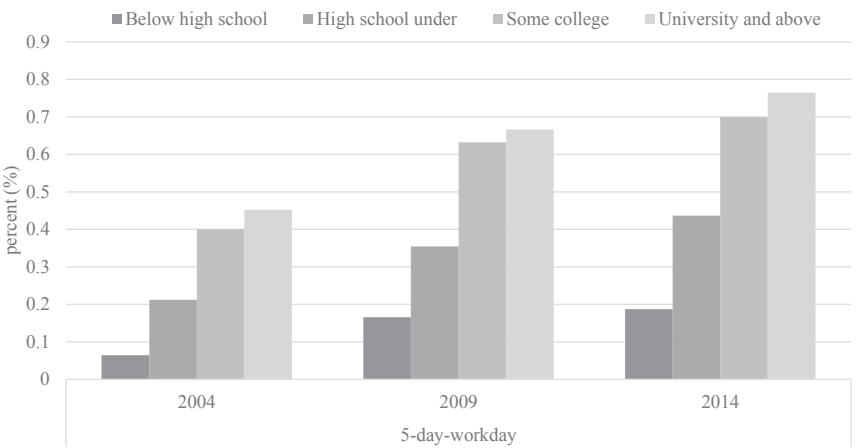
Wajcman, Judy. 2008. "Life in the Fast Lane? Towards a Sociology of Technology and

Time." *The British journal of sociology* 59(1): 59-77.
Yee, Jaeyeol, and Dukjin Chang. 2009. "Transparency, a Key Factor to Improve Social Cohesion: A Review of the Korean Experience in the Context of Social Quality Research." *Development and society* 38(2): 259-275.

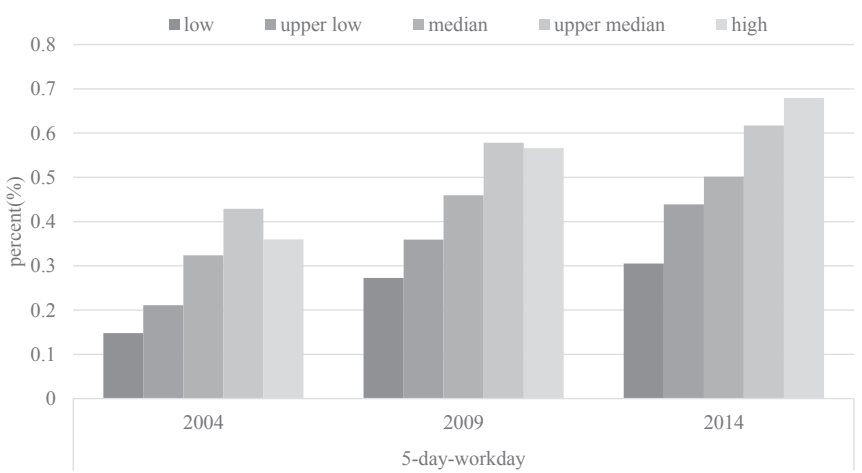
Seung-Eun Cha is professor at the Department of Child and Family Welfare, University of Suwon, Gyounggi-do, Korea. Her research interests lies in the family dynamics in middle life, time use studies, and work-life balance. She has authored a numbers of papers associated with gender issue in sleep problems, child care time among fathers, and leisure studies. *Address*: Dept. of Child and Family Welfare, University of Suwon San 22, Bongdam-Eup, Hwasung-si, Gyounggi-do, Korea (zipcode: 18323) [*Email*: secha74@gmail.com / secha@suwon.ac.kr]

Jooyeoun Suh is research fellow at Center for Time Use Research, Oxford University, Oxford, United Kingdom. Her main research areas are care economics, gender issue in economic participation. Her recent paper deals with elderly care and elderly time use. *Address*: Centre for Time Use Research, University of Oxford 74 Woodstock Road, Oxford, UK OX2 6HP [*Email*: jooyeoun.suh@sociology.ox.ac.uk]

Appendix



Appendix 1.—Proportion of Those Who Enjoy Five-day-work Policy by Education Level and Year



Appendix 2.—Proportion of Those Who Enjoy Five-day-work Policy by the Level of Personal Income and Year