Chapter: **Hours of Work in the Korean Growth Miracle**

Abstract: This chapter documents the long hours in Korea, particularly among low paid workers, and the decline in hours that was concentrated in the period between democraticization and the Asian financial crisis. It argues that a mixture of supply and demand forces and institutional factors explain the pattern and change in hours worked and contrasts the patterns with those in the US. The analysis shows that long hours worked is a major reason for Korea attaining the lower rung of OECD countries and has played a role in limiting measured earnings inequality.

Working hours in Korea were among the highest in the world during Korea's growth spurt. In the early 1980s Koreans averaged 53.6 hours per week of work in non-agricultural activities. This was roughly 5 hours more per week than in Taiwan, Singapore, or Hong Kong and 10 hours more per week than in the US, Japan, and other advanced OECD countries. In the ILO's annual Yearbook of Labour Statistics Korea is the only country that regularly reports 50+ hours worked per week in manufacturing.

Table 1 shows the striking difference in hours worked in Korea and in leading market economies in terms of OECD estimates of the hours worked over the year by employees from 1980 to 2004. In 1980 Koreans put in 2,876 hours of work per year, -- 58% more than the average of hours in the other countries. Although hours worked in Korea fell markedly to 2004, even in that year Koreans worked 44% above the average. Since Korea had the largest proportion of traditionally high hours worked self-employed workers among OECD countries, who are excluded from the hours worked of employees, the estimates in the table understate the extent to which workers work more hours in Korea than in other advanced countries.

We examine three issues regarding the hours worked by Koreans. The first issue relates to the reason Koreans work so many hours and the contribution of long hours to Korea's economic success. What compensation system encourages workers to put in so

many hours and induces firms to demand so many hours from their employees? The second issue relates to the downward trend in hours. What accounts for the downward trend as the country has developed – labor supply or demand choices in markets or legal or other institutional choices? The third and most speculative issue concerns the desirability or undesirability of long hours. Should Korea try to reduce hours to "normal levels" for an advanced country or not?

This chapter uses data from the Korean Occupational Wage Survey, which covers employees in firms with 10 or more workers, and from the Economically Active Population Survey, which covers the entire work force, to examine these questions.

Section one gives an anatomy of high hours worked in Korea. It shows that the long hours in Korea consist of a six-day workweek, extensive overtime hours per day and limited vacation and holiday time. In contrast to the US, where the highly paid and highly educated work more hours than the lower paid and less educated, in Korea, hours worked drop with education and hourly earnings. It also shows that the self-employed work more hours than other workers but that day laborers work less.

Section 2 examines how Korea's mode of wage payments encourages workers to put in long hours. There is a 50% overtime premium, a 150% premium for working hours during legally mandated days off, and high pay for tenure. On the demand side, bonus pay encourages firms to increase hours as opposed to hiring more workers. It also documents the regulations by which Korea has sought to influence hours worked.

Section 3 attributes the decline in hours worked in Korea to a mixture of supply, demand and institutional forces. The trend drop in hours reflects a powerful income effect in labor supply behavior, which contrasts with the dominance of substitution

effects in US labor supply behavior over time. But institutional regulations in the form of reductions in the statutory workweek, have facilitated this drop. Hours fell coterminus with the movement to democracy and burst of unionism in the late 1980s and fell more in large unionized firms where bonuses are a larger proportion of pay and overtime is less important.

Section 4 concludes by examining the social welfare associated with long hours worked and the possible consequences of further reductions in hours worked.

1. Anatomy of Hours Worked

Our primary source of data on hours worked in Korea is the Occupational Wage Survey (OWS). The OWS is a nationwide survey of employees in establishments that hire more than 10 regular workers in non-agricultural industries. It is a large survey conducted every June that contains information on approximately half a million workers per year, including days worked per month, normal and overtime hours worked per week, and the characteristics of workers and the firms in which they worker. The survey has an overrepresentation of large establishments and of those in the manufacturing sector. To correct for this, OWS gives weights to observation that allows us to calculate statistics for a representative sample.[1] In 1980 when the OWS began, it covered about 20 percent of the Korean work force. It has covered a larger percent of the work force in ensuing years. We supplement the OWS data with information from the Economically Active Population Survey, which includes workers in smaller firms and self-employed workers.

[1] The distribution by establishment sizes in OWS roughly matches with those in other Korean surveys, such as the ELS and Establishment Census. For this reason, we use the weights in the OWS data for calculating averages.

The OWS shows that from 1980 through 1987 Koreans averaged 54.0 hours worked per week – or roughly two full days of work more than workers in advanced countries, where employees typically work 40 hours per week. This "excess" was roughly equally divided between days worked per week (an average of 5.9 days in Korea vs the standard 5 days work week in other countries) and extra hours per day (an average of 9.2 hours per day in Korea vs 8 hours per day in other countries). Much of the extra hours worked was in overtime, which averaged 34 hours per month or roughly eight hours per week. Looking at persons who work the longest hours, in 1994 the 33.5% of Korean men aged 25-24 worked 49 hours or more, which compares to 29.2% of US men who worked that many hours in 1993 (Jones, Gardner, and Ilg, MLR, April 1997)

Table 2 shows that in 1980 the workers who put in the most hours worked are those with low earnings capacity – females, young workers, those with little tenure, and, arguably most importantly, those with low earnings. The table also shows that extensive overtime hours contributed greatly to the extensive work time of these groups.

Turning to characteristics of the workplace, the table shows that hours were highest in larger establishments, in manufacturing, and among production worker, again with overtime hours contributing substantively to the difference. This concentration of long hours among workers with low earnings capacity has not been a constant in modern Korean economic history. Lee and Lindauer found little difference in hours worked by gender, education, or between blue collar and white collar workers in the 1967 Basic Wage Survey.

From the perspective of the theory of labor supply, which focuses on how incentives affect worker decisions through income and substitution effects, the most

striking aspect of the Korean hours worked story is that workers at the bottom rungs of the wage distribution put in many more hours at work than those in the higher rungs. Figure 1 displays the hours worked by workers in different deciles of the hourly wage distribution in the OWS from1980 to 2005. In 1980 workers in the lowest decile of the wage distribution worked approximately 58 hours per week compared to the 46 hours worked by those in the top decile. Hours worked in the rest of the distribution follow the same pattern, with greater hours in lower wage deciles.

The figure depicts a drop in hours worked across the distribution in the late 1980s/early 1990s followed by rough stability in hours worked. The data for the lowest wage group shows an even more dramatic change: a reversal in the decline in hours worked that nearly restores the hours worked in 1980. As a result the gap in hours worked between the lowest and highest deciles is more than twice as large in 2004 (17 hours difference) than it was in 1980 (8 hours difference). Even absent the lowest decile, however, the pattern of greater hours worked among the lower paid persists. This contrasts sharply with the changing pattern of hours worked by wage found in the US, where the historic pattern of greater hours among the lower paid reversed in the latter part of the 20th century. In the 2000s in the US higher paid workers worked more hours than lower paid workers.

It is the labor supply decisions of lower paid workers that lies at the heart of Korea's extensive hours worked.

The Downward Trend in Hours Worked

Table 3 shows total weekly hours of work, regular hours, and overtime hours and days worked per week from 1980 to 2005. Over the entire period, hours worked per

week dropped by 7 hours or nearly a full day. The drop is divided almost equally between a drop in regular hours (3.9 hours) and in overtime hours (3.1 hours), or alternatively between days worked per week and hours per working day.

The table shows a striking pattern in the timing of the change. From 1980 through 1987 hours worked per week show no trend. From 1987, when Korea attained democracy, through 1991, hours worked fell by 5.6 hours, after which they rose modestly in the aftermath of the 1992 Asian financial crisis and then drifted down modestly. The table also reports the major revisions in labor standards codes regulating working hours since 1980 when the statutory workweek was 48 hours per week. In addition, the law allowed labor and management to agree to overtime hours of up to 12 hours per week, thus creating a maximum legal working week of 60 hours.

The March 1989 revision of the labor code reduced regular working hours to 44 hours per week applied to establishment with 300+ workers and in finance/insurance industry beginning in Oct 1990 and to all firms in Oct 1991. The Sept 2003 revision introduced 40 hours per week gradually to all workplace no later than 2011. Establishments with 1,000+ workers, finance/insurance industry, and in public sector were required to introduce the 40 hour week beginning in July 2004; at establishments with 300+ workers had to do so beginning in July 2005; workplaces with 100+ workers went to the 40 hour work week in July 2006; workplaces with 50+ workers in July 2007; workplaces with 20+ workers went to the 40 hour work week in July 2008. The law excluded workplaces with fewer than 20 workers.

As the reference month for the Occupational Wage Survey is June, the reductions became legally binding in the succeeding years' data, though firms could have reduced

regular hours prior to the laws' becoming binding. The March 1989 legal changes appear to have affected regular hours worked, though hours vary due to other factors as well. Between 1989 and 1992 regular hours worked dropped by 2.1 hours; but the Sept 2003 revisions do not yet show up clearly in the data.

Going beyond the statutory working week, Korean labor codes cover other aspects of working time, and firms offer workers additional possible time off. For instance, firms are legally obligated to give workers one day off per week and many firms offer two days off. But during Korea's growth spurt, workers often turned down the opportunity for time off in favor of paid work. In 1984 workers took 35.5 days off over the year from their legally offered 52 days off; used 15.3 days of legally required 17 days of holidays; just 6 days of the legally offered 12 days of "monthly vacations"; and took only half of the 12 days of vacation that firms offered. One reason for this was that Korean firms offered relatively high premium rates, some legally mandated, for work beyond the statutory hours or days.

The distribution of working hours depicted in table 4 offers a different perspective on the downward trend in hours in the 1980s and the 1990s and the role of legal changes in the trend. It shows a marked shift in the center of distribution of normal hours worked that roughly reflects the move from a statutory workweek of 48 hours per week to 44 hours per week. At the beginning of the period the median hours worked is around 51 while the mode is above 60. By 1995 the median has fallen to 47 while the mode has dropped to 45-50 hours as the proportion working above 60 declines greatly. In 2005 the median falls to 44 while the mode remains 40-45, just barely larger than the proportion working 35-40 hours. During the 1980s working hours fell largely because workers with extra long hours of work (55+ hours) decreased, but during the 1990s the average fell as short working hours (less than 40 hours) increased, while the share of long hours did not decrease much since the mid

1990s. What is most striking is the huge increase in the proportion of workers working 35 to 40 hours between 1995 and 2005. This reflects the increasing employment of non-standard workers in Korea, particularly women workers.

Standard analysis of changes in the statutory working week does not predict this form of response to a decline in the legal workweek. It predicts that the decreased length of the working week should raise overtime hours among firms that use overtime (the vast bulk of Korean firms) so that total hours worked increases. The reason is that changes in the standard work week raises the cost of hiring workers (since the firm must pay more hours at the overtime rate) but does not change the overtime premium for asking workers to put in more hours (the 50% premium does not change). Thus firms should substitute hours for bodies. That overtime hours dropped with the fall in statutory hours rather than increased suggests that something beyond incentives was at work in altering hours worked. Perhaps the legal change reflects changing social norms regarding total hours.

Looking further at the change in employment by industry, we find that the primary force underlying the decline in hours worked are changes within industry rather than changes in the industrial distribution of employment.

Finally, we note that data from other sources, such as the monthly labor force survey, shows a similar pattern of long hours that trend downward sharply in the late 1980s-early 1990s.

The self-employed and workers in smaller firms

The OWS statistics relate to establishment with 10+ workers, but the majority of Korean workers are either self-employed or work in smaller establishments. To see the trend among the self-employed, we have examined the Economically Active Population Survey (EAPS) – a household survey that includes self-employed as well as other

workers. To see the trends in small establishments we also examine the OWS post 1999, which included establishments with 5-9 workers since 1999.

Figure 2 gives data on hours worked by employment status in the EAPS. Among the self-employed, those who are employers have the longest working hours, and own account workers (self-employed with no employees) have the next longest hours. In addition, it also shows that the workers who work the least are daily workers, who are among the lowest wage workers in Korea. Temporary workers worked longer than regular workers at the outset of the period but work about the same as regular workers toward the end of the period. Looking at the trends in figure 2 working hours by self-employed workers, either employers or own account workers, dropped steadily since the 1980s up to 2006. By contrast, non-paid family workers show no trend in their working hours.

Since the self-employed are not covered by the statutory workweek regulations, legal changes cannot explain their change in hours, though legal changes could have indirect effects if they influence the labor supply decisions of the self-employed. For instance, if the spouse of a self-employed person is employed and legal regulations change their hours worked, this could lead to the self-employed to change their hours. Alternatively if the bulk of society views a legal regulation as setting a norm for work, the legal regulation may also affect the self-employed.

Since the self-employed are both demanders and suppliers of labor, one way to examine their behavior is to consider the demand conditions they face. Working hours of regular workers, who are paid highest, dropped steadily but slowly. On the other hand, temporary workers, whose job status is less stable and who worked the longest hours

during the 1980s reduced their working hours in the late 1980s as wages rose and de-industrialization started. Daily workers faced a sharp drop in demand during the aftermath of the Asian financial crisis.

In sum, there are two phenomenon to explain in the story of hours worked in Korea: the long hours worked, particularly among low paid employees and the self-employed but not temporary and day labor; and the decline in hours worked, particularly among higher wage workers.

II. Incentives to Work Long Hours

The compensation system in Korea has some characteristics that make long hours attractive to workers. There is a sizeable legal overtime premium for extra hours – 50%, which is the same as the US rate, but which exceeds the 20% rates found in most advanced countries. The overtime rate applies not only to working hours beyond the long standard workweek but also to working during the legally mandated monthly days off and vacation and holiday time. Since workers earn the premium only for working extra hours, the premium has a substitution effect in labor supply decisions but no income effect, at least at the margin of putting in overtime hours. To be sure, a high marginal income tax rate would claw back some of the incentive to work overtime, but marginal tax rates in Korea are low – around 20% -- so that what workers earn largely shows up in their take-home pay.

But Korean workers are also paid substantial bonuses, which do not enter into overtime premium calculations. From the perspective of labor supply behavior, a bonus payment is infra-marginal income that should reduce hours worked through an income effect. But from the perspective of the firm, a bonus payment should make firms more

favorable to increasing hours of work than of increasing employment. The firm pays the bonus per employee, not per hour worked by employees.

Table 5 shows the payment scheme in establishments of different sizes in 1990 and 2005. While the rate of overtime pay did not change over the period, the overtime hours fell from 1990 to 2005, and the share of overtime decreased in small firms. The ratio of overtime pay to the sum of regular and overtime pay dropped from 6.0% to 5.0% as weekly overtime hours reduced from 3.1 hour per week to 2.6 hours. In large firms, the share of bonus pay out of total pay increased from 21.6% to 24.8% in firms with 500+ workers. Consequently, earnings became to depend more on the profit sharing than simply to the hours of work. Such changes would give more flexibility to large firms in controlling their labor cost through business cycle fluctuations. Consistent with this inference, the variance in overtime hours in large firms exceeds that in small firms. Large firms seem to gain flexibility by adjusting overtime hours and also by adjusting bonus, which is the major profit sharing scheme in Korea.

What determines the earnings and bonus pay of individual workers?

Table 6 records the results of regressions of log earnings and of the ratio of bonus to total earnings on various human capital and demographic factors for 1980 and 1994 (updated regressions for 2005 coming). There are three notable features of the earnings equations in columns 1 - 3. First, in 1980 and 1994 measured factors have a huge effect on ln earnings, explaining a far larger proportion of earnings differences among workers than would be found in comparable regressions for the US, where ln earnings equations typically explain less than 10% of the variation in earnings. There is a particularly high return to job tenure, which may give firms an instrument to pressure workers to accept

long overtime hours, since workers will want to stay with the firm. Since workers only gain overtime rates of pay if they in fact work overtime, only the substitution effect operates in the decision to work overtime, but both income and substitution effects operate on the decision about how many hours to work. A firm could offer workers an all-or-nothing overtime arrangement: you work the number of overtime hours the firm wants or get no overtime or possibly lose your job.

Second, between 1980 and 1994 the impact of the various earnings determining factors declines notably. The coefficient on years of schooling, for instance, drops from 0.12 to 0.08, the tenure coefficient and the coefficient on male gender also drops. As a result of the smaller impact of wage-determining factors, the R-squared of the regression falls. Despite this, however, the residual variation in earnings falls in this period. This is because the overall Korean wage structure narrowed considerably in the period, with unmeasured factors reducing dispersion within demographic groups.

The third notable pattern is the way the 2005 regression shows a reversal of the narrowing of the Korean wage distribution. (MORE TO FOLLOW HERE)

The regressions of the bonus share of total earnings in columns 4-6 tell a very different story about the determinants of bonuses. In 1980 and 1994 the proportion of bonuses in earnings was higher for women than for men, though the difference was declining rapidly. Tenure, by contrast, became a more important determinant of bonuses, though experience outside of tenure became less important. Years of schooling are a huge determinant of the bonus share of total earnings, but its impact fell between 1980 and 1994. Most striking, while the distribution of earnings narrowed in the 1980-1994 period the bonus share of earnings widened, perhaps as a consequence with firms making

greater use of bonuses as incentives with a narrower earnings distribution. Finally, between 1994 and 2005 (MORE TO FOLLOW).

III. Analysis of the Level and Change in Hours worked

The long hours worked by Koreans contributes greatly to the country's economic success. The easiest way to see this is to compare the level of GDP per capita in Korea with the level of GDP per hour worked. Korea has the same income per capita as the lower rung of advanced OECD countries, such as Portugal. But if Koreans worked the same hours as the Portuguese, GDP per capita in Korea would be at the level of Turkey, one-third less than it was in 2006.

The natural economic explanation for the long hours in Korea is the low level of incomes at the outset of Korea's growth miracle, which would operate through an income effect that would induce greater hours worked than in countries with higher levels of income, and the opportunity for earning money as part of the country's economic expansion, which would induce greater hours worked through the substitution effect. To estimate these effects, we have undertaken a three part analysis, summarized in table 7: (TO FOLLOW):

1) Regression of hours worked, overtime hours on earnings and bonuses
2) Regression of hours worked for self-employed
3) Sectoral analysis, looking at timing of reduction in hours.

Earlier calculations suggested that the bonus ratio is positively associated with total hours worked but negatively associated with normal hours worked, so that if it is an indicator of income effects, that shows up only in normal hours. The positive effect of bonuses on overtime hours suggests great demand by firms seeking to spread bonuses

over more hours worked. We anticipate that hours reductions will follow the pattern of the changes in labor regulations.

Finally, we note that the pattern in Korea of low wage workers working more hours than high wage workers reduces measured earnings inequality. (More on magnitude of the effect to follow)

IV. Are Long Hours Undesirable?

Contrast US with France or Germany. Contrast rat race/tournament model with view of Keynes/others about virtue of fewer hours worked.

Some evidence on Japan's reduction in hours

Discussion of hours in the context of demographic changes – hours at one period vs hours over the life cycle.

(to follow: are there any studies or data linking happiness to hours worked?)

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Table 1: average working hours-OECD data

	1980	1990	2004
Korea	2,876	2,688	2,394
Canada	1,802	1,788	1,751
France	1,844	1,702	1,543
Germany	1,742	1,569	1,440
Greece		2,075	2,060
Italy	1,974	1,925	1,803
Japan	2,121	2,031	1,789
Spain	1,912	1,740	1,632
Sweden	1,517	1,561	1,584
Switzerland	1,805	1,700	1,629
United Kingdom	1,769	1,767	1,668
United States	1,759	1,753	1,731
All non-Korea x Greece	1,825	1,754	1,657
Ratio, Korea to all x Greece	1.58	1.53	1.44

Source: OECD productivity data base, 2006.

Table 2: Anatomy of Hours Worked by Characteristics of Workers and Firms, 1980

	Total Hours	Overtime hours
Male	52.9	7.2
Female	54.8	8.7
Under 25	54.9	8.8
25-54	52.6	7.1
Over 54	50.3	3.8
Elementary school	55.8	9.6
Middle school	55.8	9.6
High school	51.6	6.1
Junior College	49.2	4.0
College	47.3	2.5
Under 5 years	53.9	8.0
5-10 years	52.6	7.0
Over 10 years	50.4	5.3
Lower third wages	57.8	10.7
Middle third wages	54.3	8.2
Highest third wages	40.0	4.5
10-29 emp establishment	51.1	4.2
30-99 emp establishment	51.5	5.7
100-299 emp establishment	54.1	8.8
300-499 emp establishment	54.2	9.1
500 or more emp establishment	55.2	9.2
Mining	46.7	5.5
Manufacturing	55.2	9.0
Utilities	45.3	4.7
Construction	51.7	5.4
Wholesale & Retail	52.0	3.5
Transport	53.3	9.1
Finance	45.1	1.5
Social & Personal service	48.1	2.5
Managers, professional, technical	47.8	2.7
Clerks	49.3	4.2
Service & Sales	53.3	5.2
Production	55.8	9.8

Figure 1 Hours Worked By workers in different wage deciles

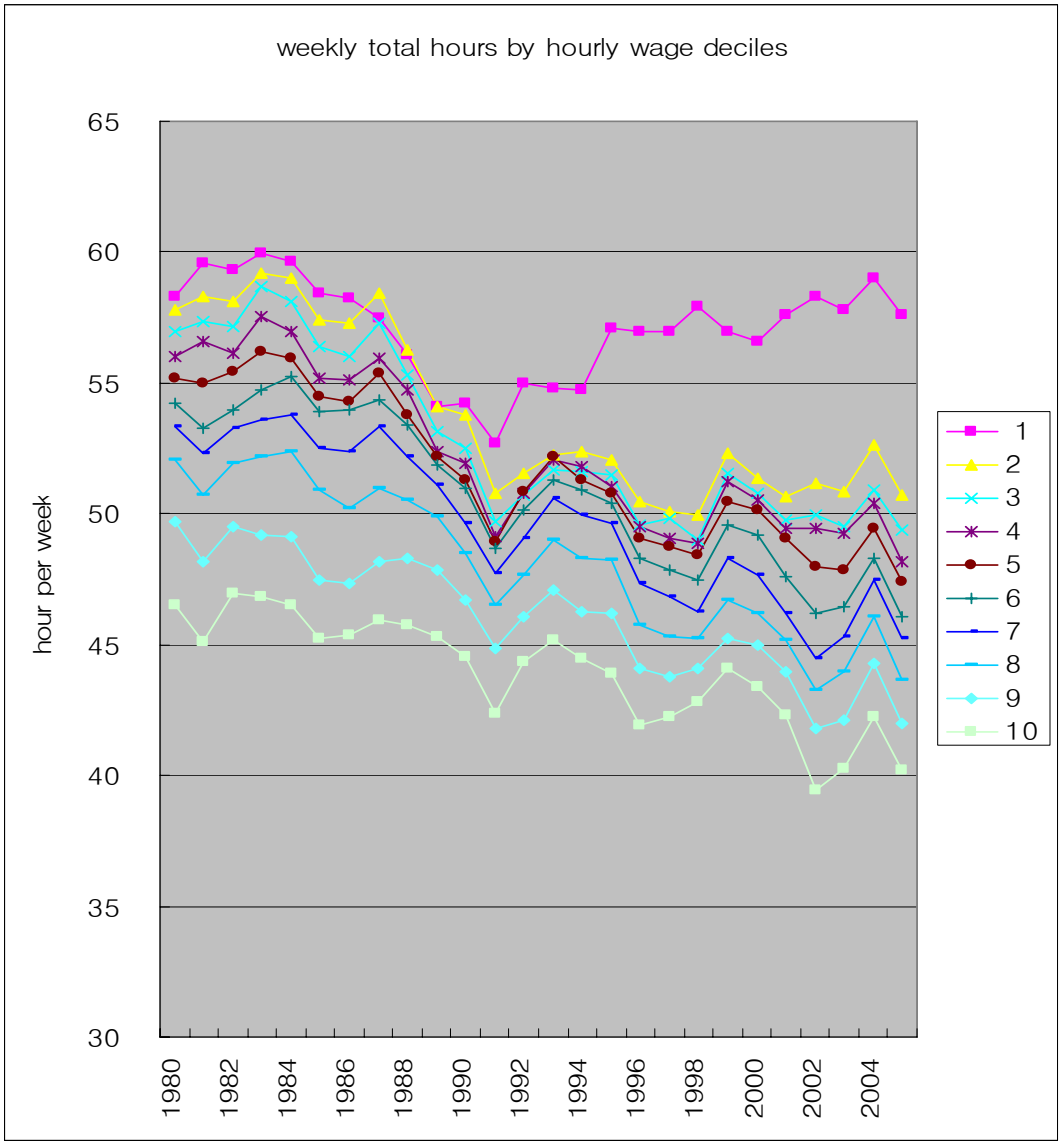


Table 3. Trend of Working Hours

	total hours weekly	regular hours (weekly)	overtime hrs monthl)	Days worked per week	hours per workin g day	Legsl regular hours
1980	54. 0	46.3	33.1	5.8	9.2	48
1981	53.6	45.5	35.0	5.8	9.3	
1982	54.2	46.3	33.8	5.9	9.2	
1983	54.8	46.4	36.0	5.9	9.3	
1984	54.7	46.1	36.8	5.9	9.3	
1985	53.2	45.4	33.6	5.8	9.1	
1986	53.0	45.3	32.9	5.8	9.1	
1987	53.7	46.1	32.6	6.0	9.0	
1988	52.6	45.8	29.4	5.9	8.9	
1989	51.2	45.2	25.9	5.9	8.6	46 in 300+ firms; others
1990	50.4	44.4	25.8	5.9	8.5	Oct 1990 44-46
1991	48.1	42.2	25.6	5.7	8.5	Oct 1991 44
1992	49.6	43.7	25.2	5.9	8.5	
1993	50.6	44.2	27.3	6.0	8.5	
1994	50.2	43.7	27.8	5.9	8.5	
1995	50.1	43.3	29.3	5.8	8.6	
1996	48.3	41.7	28.1	5.6	8.6	
1997	48.1	41.8	26.8	5.6	8.6	
1998	48.0	42.5	23.5	5.6	8.5	
1999	49.6	44.4	22.7	5.9	8.5	
2000	49.1	42.8	26.9	5.8	8.5	
2001	48.2	43.4	20.6	5.7	8.4	
2002	47.2	42.2	21.6	5.5	8.6	
2003	47.3	42.5	20.6	5.5	8.7	
2004	49.1	44.4	20.0	5.7	8.6	40 in July 2004, firms 1000+
2005	47.0	42.4	4.6 (19.7)	5.4	8.7	40 in July 2005, firms 300+
Change, 1980-2005	-7.0	-3.9	-3.1 (-13.4)	-0.4	-0.5	

Source: OWS micro data sets, Korea Ministry of Labor.
Note: Among establishments with 10+ workers.; Observations are weighted with the weights in the data sets.

Table 4: distribution of total weekly hours (%)

	1980	1995	2005
Mean (hours)	54.0	49.4.	45.4
< 35	1.3	0.9	3.6
35-40	3.2	5.1	28.5
40-45	14.6	33.5	30.3
45-50	22.4	24.3	15.5
50-55	14.2	13.6	7.8
55-60	17.4	10.2	5.9
60 +	27.1	12.6	8.5

Figure 2: Working Hours Trend by Economic Status (from EAPS data sets)

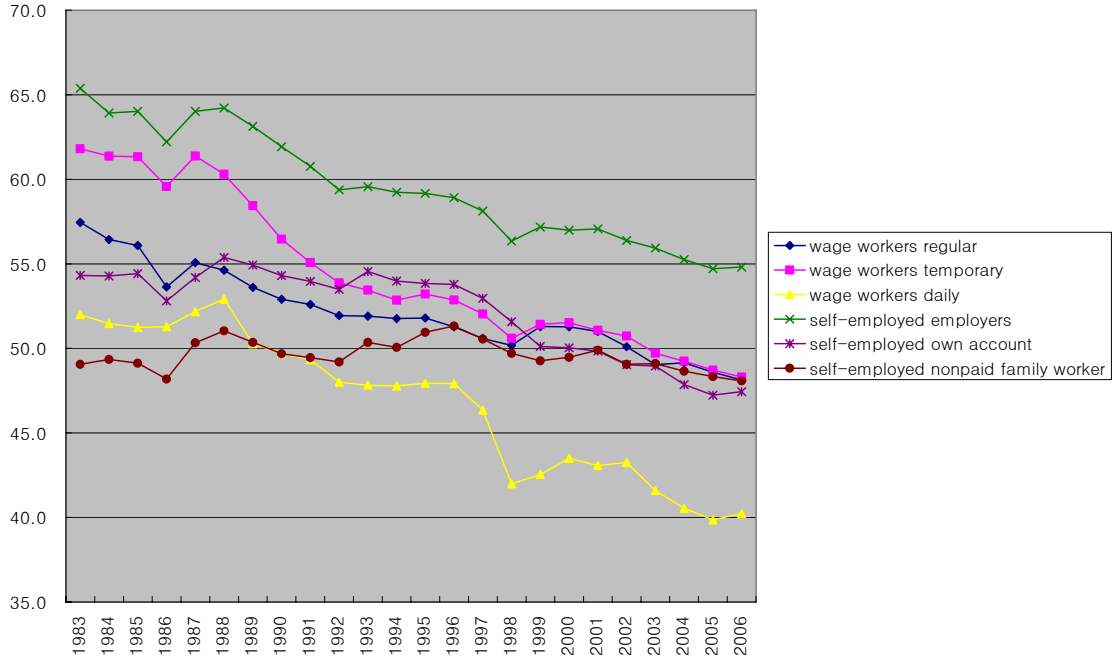
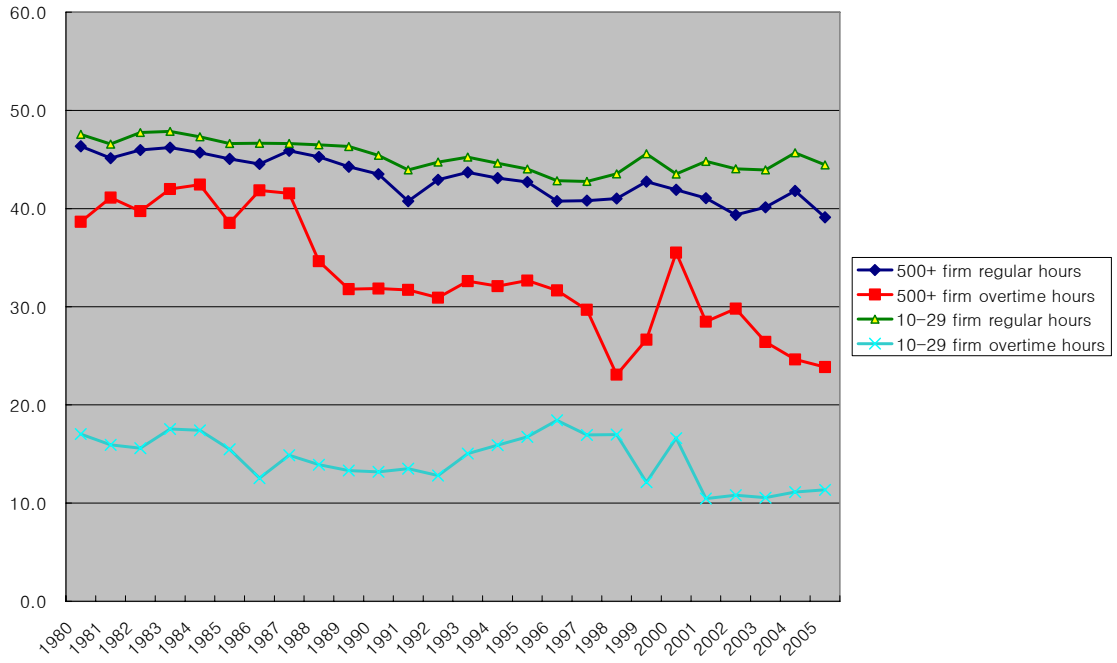


Table 5: Wages, Bonuses, Hours Worked, by establishment size

Establishment size (2005)	5-9	10-29	30-99	100-299	300-499	500+
WAGES						
Hourly wage rate*	8.2	9.2	9.7	10.2	10.9	12.4
Hourly wage rate(regular hours)**	8.2	9.2	9.6	10.0	10.6	12.3
Normal pay (incl. overtime)†	1,559	1,778	1,880	1,955	2,084	2,272
Total pay‡	1,758	2,075	2,248	2,474	2,708	3,182
HOURS (weekly)						
Total hours	46.7	47.1	48.0	48.7	46.9	44.7
Regular hours	45.5	44.4	43.1	42.1	41.0	39.1
Overtime hours	1.3	2.6	4.9	5.8	5.9	5.6
IMPORTANCE OF OVERTIME PAY / BONUS						
Overtime pay/normal pay(%)	2.5	5.0	9.4	12.1	13.6	11.8
Bonus/total pay (%)	7.5	10.3	13.0	17.0	19.8	24.8
Establishment size (1990)	--	10-29	30-99	100-299	300-499	500+
WAGES (in 2005 price)						
Hourly wage rate*		4.2	4.4	4.5	4.8	5.2
Hourly wage rate(regular hours)**		4.2	4.3	4.4	4.7	5.0
Normal pay (incl. overtime)†		864	909	952	1024	1081
Total pay‡		985	1068	1151	1291	1421
HOURS (weekly)						
Total weekly hours		48.5	50.3	51.0	51.3	50.9
Regular hours		45.4	44.8	44.4	44.3	43.5
Overtime hours		3.1	5.5	6.6	6.9	7.4
IMPORTANCE OF OVERTIME PAY / BONUS						
Overtime pay/normal pay(%)		6.0	10.8	13.9	14.0	15.6
Bonus/total pay (%)		9.6	11.9	14.5	18.3	21.6

Note: * = Normal pay/(regular + overtime hours), in KRW per won.
**= Regular hours pay / regular working hours
† KRW per month, ‡ inclusive of 1/12 of previous year's total bonus.

Figure 3: Trend of Regular and Overtime Hours in Large and Small firms



Source: MOL, OWS data sets.

Table 6: Regression Coefficients and Standard Errors for the Determinants of Log Earnings and the Bonus Share of Total Wages, 1980, 1994, 2005

Dependent Var	Ln Earnings				Bonus/Total Earnings		
	1980	1994	2005		1980	1994	2005
Male	.32	,28			-.489	-.163	
	(.01)	(.00)			(.121)	(.115)	
Yrs Schooling	.123	.083			.771	0.425	
	(.001)	(.001)			(.019)	(.021)	
Tenure	.097	.081			2.063	2.744	
	(,002)	(.001)			(.035)	(.024)	
$Tenure^2$	-.002	-.002			-.078	-.086	
	(.0001)	(.0004)			(.002)	(.001)	
Exper	.034	.011			-.110	-.376	
	(.001)	(.001)			(.021)	(.015)	
Exp^2	-.001	-.0002			.002	.006	
	(.00003)	(.00001)			(.005)	(.0003)	
Adj R^2	0.66	0.62			0.24	0.39	
Initial Var	0.52	0.30			86.02	132.71	
Residual Var	0.17	0.11			64.28	87.64	
# Observations	30,422	42,287			30,422	42,287	

Table 7: Estimates of the Determinants of Hours Worked and Decomposition into Income and Substitution Effects