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# Labor Market Assessment in the First Half and Labor Outlook for the Second Half of 2018\*

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Center for Labor Trends Analysis\*\*

## I. Overview of 2018 Labor Market

The number of employment (average in January to June) in the first half of 2018 increased year-on-year by 142,000, which was lower than the growth of 360,000 in the first half of 2017. This is attributable to various factors such as the rapid decrease in working-age population aged 15~64; decrease in manufacturing employment, especially in blue-collar jobs; weak employment in construction industry in the wake of an excessive boom in apartment sales; falling employment in food service industry affected by the THADD dispute in addition to weakening employment since the second half of 2016 due to saturation of the market; and base effect from a significant employment growth in some service sectors such

as education, wholesale and retail service sectors during the same period last year. Although the minimum wage increase could have contributed to declining employment in some sectors, it was not found to be the main driver behind weak employment in the first half of this year. This paper will explain the factors of demographic change and base effect in the first part, followed by assessment of the labor market in the first half of the year by age group and industry. Lastly, the outlook for the second half of the year and annual outlook for adjustment will be proposed.

In 2018, there was a rapidly accelerating decrease in population aged 15~64, which fell by 80,000 year-on-year in June. In terms of the population aged 15 or above, the number of increase fell by 90,000 over the course of four years from a 420,000 increase five years ago to

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\* This paper is a summary of the August 2018 issue of Monthly Labor Review, *Evaluation of the Labor Market in the First Half of 2018 and Outlook for the Second Half* (for a more specific content, please refer to the original text).

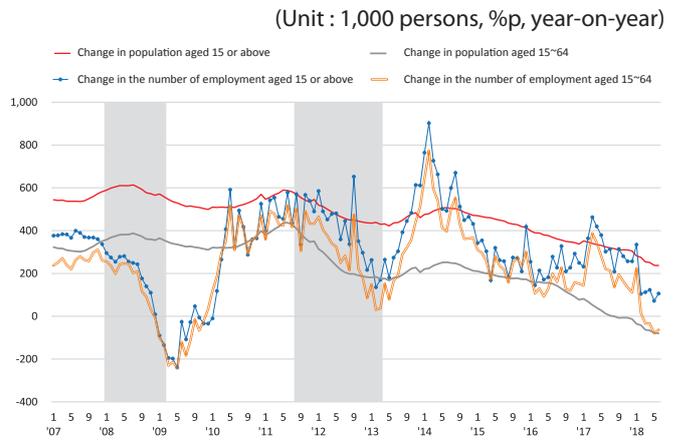
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330,000 last year. This trend is accelerating and the number increased only by 237,000 in June, 2018 indicating a decrease of approximately 100,000 in the growth rate over just one year.

Such demographic changes play a significant role in reducing the number of employment in Korea.<sup>1)</sup> A simple calculation as below can confirm the size of drop in employed population. On the premise that there is no base fluctuation, future population projection of Statistics Korea is applied and the average year-on-year change in the employment rate among those aged 15~64 is assumed to be 0.3%p, which is the average in 2001 to 2017. It is also presumed that 40% of the elderly population aged 65 or above continues to enter the labor force as the influx of 40% of elderly population growth can be considered as a desirable situation. Under these premises, the number of employment aged 15~64 will rise by 82,000 this year but decrease by 49,000 in 2020 and by 122,000 in 2024. The number of employment aged 15 or above will increase by 204,000 in 2018, by 127,000 in 2020 and by 76,000 in 2024. Since these numbers are based on the premise of having conditions of a normal year, actual performance that matches this forecast can be interpreted as the year having customary labor market conditions. When the number of employment growth is used to assess the level of activity in labor market, the numbers also mean a drastic fall in the baseline from around 200,000 in 2018 to early 100,000 in 2020 and late 10,000 in 2024.

In addition to such factors, the first half of this year was also influenced by the base fluctuation in which a significant increase in employment in the previous year makes it difficult to have another significant increase in this year unless economic conditions have marked improvements. In the first half of 2017, employment rate among those

Figure 1. Trend in the Number of Employment and Employment Rate



Source: Statistics Korea, KOSIS.

aged 15~64 rose by 0.6%p, which was twice higher than the long-term annual average increase of 0.3%p. Considering this base effect, having no year-on-year increase (in other words, 0.0%p increase) in the employment rate among those aged 15~64 does not necessarily indicate aggravated labor market conditions. In this case, when the future population projection is applied, the annual average number of employment will increase by 92,000. Considering such base effect, the early 100,000 range of increase in each month of the first half of this year can be interpreted as a usual level of increase in employment that is comparable to other years.<sup>2)</sup>

In the first half of 2018, employment growth continues to be more noticeable in female population. Female-centered employment growth has been an ongoing trend for some time and is expected to be sustained. This implies greater economic activity among women as well as higher employment growth rate in sectors with high female employees (such as healthcare and social welfare service sector) compared to others. Despite the population decrease in the first half of 2018, the number of female employees aged 15~64 increased, although it was at a slower pace

1) Future population projection by Statistics Korea forecasts an accelerated decrease in the population aged 15~64, by 46,000 in 2018, by 68,000 in 2019, by 240,000 in 2020, and by 425,000 in 2025.

2) However, even when accounting for the base effect in May and June, it is considered to be slightly below the usual level of increase (for a more detailed analysis, please refer to the August 2018 issue of Monthly Labor Review, *Evaluation of the Labor Market in the First Half of 2018 and Outlook for the Second Half*).

Table 1. Changes in the Number of Employment under Different Assumptions of Employment Rate of Aged 15~64

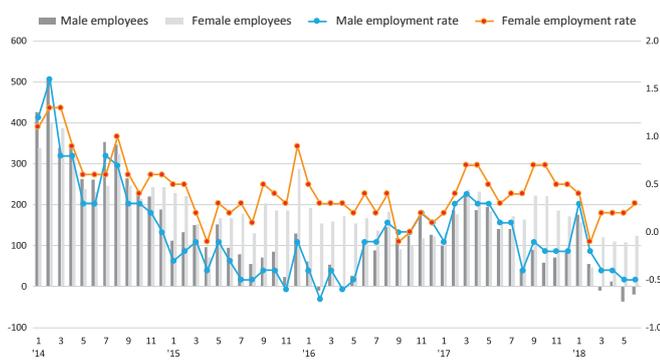
(Unit : 1,000 persons, year-on-year)

	Assumed employment rate change among those aged 15-64	2018	2019	2020	2021	2022	2023	2024	2025
Change in the number of employment aged 15~64	0%p increase in employment rate	-30	-46	-160	-154	-165	-179	-225	-283
	0.3%p	82	67	-49	-45	-58	-73	-122	-185
	0.45%p	139	123	6	10	-4	-20	-71	-136
Change in the number of employment aged 15 or above	0%p increase in employment rate	92	80	16	10	9	10	-27	-58
	0.3%p	204	192	127	119	116	115	76	41
	0.45%p	261	248	182	174	170	168	127	90

Note : The number of employment aged 65 or above assumes 40% of population change newly enters the labor force and this is added to 'change in the number of employment aged 15~64' to calculate change in the number of employment aged 15 or above.

Figure 2. Trend in the Number of Employment and Employment Rate by Gender

(Unit : 1,000 persons, %p, year-on-year)



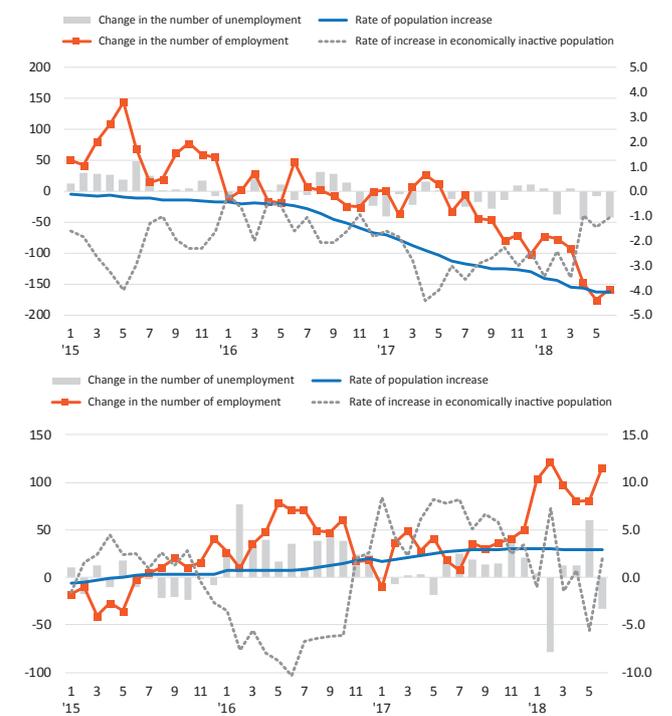
Source : Statistics Korea, raw data from the *Economically Active Population Survey*, each year

compared to the first half of last year (140,000 ↑ in the first half of 2017→56,000 ↑ in the first half of 2018, employment rate also increased by 0.4%p to 56.9%). On the other hand, the number of male employees decreased by more than 100,000 in May and June following the turnaround to negative growth in February 2018 (employment rate also dropped by 0.3%p to 75.9%).

Meanwhile, the number of unemployment rose by 25,000 year-on-year, which is not a significant increase for the first half of a year, but the total number of unemployment and unemployment rate have continued to rise since 2013, standing at 1.14 million and 4.1% respectively. Since 2013, most of the rise in unemployment and unem-

Figure 3. Trend in Major Employment Indicators for Youth Aged 15~24 (Top) and 25~29 (Bottom)

(Unit : 1,000 persons, %p, year-on-year)



Source : Statistics Korea, raw data from the *Economically Active Population Survey*, each year

ployment rate was found among youth,<sup>3)</sup> but the increase was more significant among those aged 50 or above in 2018 (increase by 47,000 among those aged 50 or above, decrease by 29,000 among those in their 30s or younger). This year's trend was also influenced by the steady increase in economic activity as well as in unemployment

3) This is mainly because of the increasing government support programs that facilitate job-seeking activities such as Youth Employment Success Package and the rising job-seeking activities in the form of sitting exams such as public service examinations amidst the sustained employment difficulties of youth.

rate of those aged 65 or above. There was also impact of slowdown of employment among those aged 45~64 in the first half of 2018, which will be elaborated in the latter part of this paper.

## II. Assessment of Labor Market in the First Half of 2018 by Sector

### 1. Improved Employment among Those in their Late 20s

The number of youth employment aged 15~29 fell by 21,000 in the first half of 2018. Whereas late 20s showed a strong upward trend in employment, the number of employment in their late 10s (high school graduates and students with a college diploma or more aged 18~19) decreased by 64,000 and those in their early 20s decreased by 96,000 (April 73,000 ↓ → May 106,000 ↓ → June 110,000 ↓).

The number of unemployment in their 20s decreased by 21,000 in the first half of the year, largely due to the decrease by more than 100,000 in February 2018. Unemployment rate fell by 0.5%p to 10.1%. The number of economically inactive population in their 20s rose by 27,000 in the first half of 2018. Moreover, the number of 'students in formal educational institutions' of them had a year-on-year increase of 39,000, while the number of people seeking for jobs rose by 20,000 among the graduates in their 20s.

The fall in employment in their early 20s is found mostly among graduates, especially graduates with a college diploma, university diploma or more. The decrease in employment among college graduates was focused on human health and social work activities (mostly women and professional jobs, 25,000 ↓ in the first half), whereas among university graduates or above, the decrease was mainly driven by professional, scientific, technological and educational service sector (33,000 ↓ in the first half).

On the other hand, the employment rate of high school graduates continued its upward trend throughout the first half of 2018 (increased by 2.3%p to 63.2% in the first half of 2018) and the growth was mainly attributable to wholesale and retail trade industry (15,000 ↑ in the first half).

Those in their late 20s showed an opposite trend where employment rate improved among those with a college or university diploma. The number of employment with a high school diploma in their late 20s did increase throughout 2018 (increased by 37,000, increased by 53,000 in June), especially in construction, transportation, and accommodation and food service activities (decreased only in March), but employment rate fell by 1.8%p (2.3%p ↑ in June) to 69.6% due to the growth in population by 71,000. The number of employment with a college diploma rose by 31,000 in the first half of the year in wholesale and retail trade, and human health and social work activities, and employment rate also increased by 1.2%p to 78.2%.

Those with a university diploma or more had a 1.0%p increase in employment rate to 74.0% in the first half of the year and the rising employment rate applied to both men and women. The number of male employees rose mostly in manufacturing and human health and social work activities whilst the number of female employees rose by around 10,000 in each of the wholesale and retail trade, finance and insurance activities, and professional, scientific and technological service industries respectively.

### 2. Improved Employment Rate among Married Women Aged 35~44

Though employment rate among single women in their early 30s fell from 80.9% to 78.5%, economic activity of married women in their early 30s continued an upward trend and their employment rate rose from 49.9% to 51.9%.

Employment rate among women in their late 30s rose regardless of marriage status. In particular, it has been on a rising trend among married women in their late 30s

for three consecutive years since the first half of 2016. The trough of the M-curve moved to the late 30s due to later marriages and childbirths, and the employment rate among married women in this age group had continued to decrease or stagnate over many years before making a turnaround to an upward trend since January 2016.

The trend of employment rate among married women in their early 40s is also noteworthy. Along with those in their late 30s, women in their early 40s also used to show a decreasing trend in employment rate after the financial crisis due to later marriages and childbirths. However, in 2017, the curve started to show improvements although the growth itself was still negative. Then, from March 2018, positive growth began. Their employment rate rose year-on-year by 0.3%p to 60.2% in June. The curve should continue to be tracked to see whether the trend continues.

### 3. Weaker Employment among Those in Their Late 40s~Early 60s

The number of employment aged 45~64 rose year-on-year by as many as 438,000 in the first half of 2017 but in the first half of 2018, it rose only by an average of 159,000 and the employment rate also fell by 0.5%p to 73.2% during this period. This is partially attributable to the base effect, but the downturn employment is apparent in the 42,000 increase in the number of unemployment and 125,000 increase in economically inactive population during the same period.

By industry, there was a slower growth or stagnation of employment mostly in construction, real estate, and wholesale and retail trade industries. This is because employment in both construction and real estate industry are experiencing a downturn after the bullish construction

Table 2. Change in the Number of Employment Aged 45~64 by Major Employment Indicator

(Unit : 1,000 persons, year-on-year)

		2016. 1~6	2017. 1~6	2018. 1~6			2016. 1~6	2017. 1~6	2018. 1~6
Major industry	Manufacturing	27	39	17	Type of job	Office worker	162	122	76
	Construction	25	108	20		Sales worker	-20	71	8
	Wholesale and retail trade	12	85	5		Technical worker	46	32	-48
	Transportation and warehouse	13	-7	8		Machinery and equipment worker	38	33	-18
	Accommodation and food service activities	7	0	-16		Simple labor worker	-12	29	-45
	ICT	27	11	44	Employment status	Regular worker	253	325	271
	Financial and insurance activities	16	15	26		Temporary worker	66	-57	-53
	Real estate activities	10	63	-28		Day worker	-31	52	-67
	Professional, Scientific and technological services	32	47	10		Self-employed with employees	-29	45	33
	Business facilities management, support, leasing	28	-7	1		Self-employed without employees	-14	80	-31
	Public administration	35	9	-1	Educational level	Below high school diploma	-210	-155	-124
	Education service	33	55	17		High school diploma	148	284	39
	Human health and social work activities	30	52	32		College diploma	55	99	63
Total among those aged 45~64	238	438	159	University diploma or higher		243	209	176	

Source : Statistics Korea, raw data from the Economically Active Population Survey, each year.

market during the boom in apartment sales. The slowdown in wholesale and retail trade is mainly due to a fall in the number of self-employed persons without employees. In terms of employment status, there was a decrease not only in self-employed persons without employees but also day workers in construction, accommodation and food service activities, manufacturing, and wholesale and retail trade, leading to weak employment compared to the same period last year. More recently, employment downturn in this age group is becoming more noticeable in manufacturing industry as well. The weak employment in manufacturing industry is mainly affecting technical, equipment and machinery workers in terms of the job type, and those with a high school diploma or less in terms of academic level, reflecting the aggravating employment conditions around blue-collar jobs in this industry.

#### **4. More Active Entrance into the Labor Market among the Elderly Aged 65 or Above**

In the first half of 2018, the number of employment aged 65 or above rose by 137,000, which is a record growth since the survey began, and their employment rate rose by 0.6%p to 30.0%. This is because there is a continuously growing economic activity in this age group due to lack of old age income and improved health as well as ongoing expansion of programs creating jobs for the elderly. For the same reasons, the unemployment rate is also showing an upward trend.

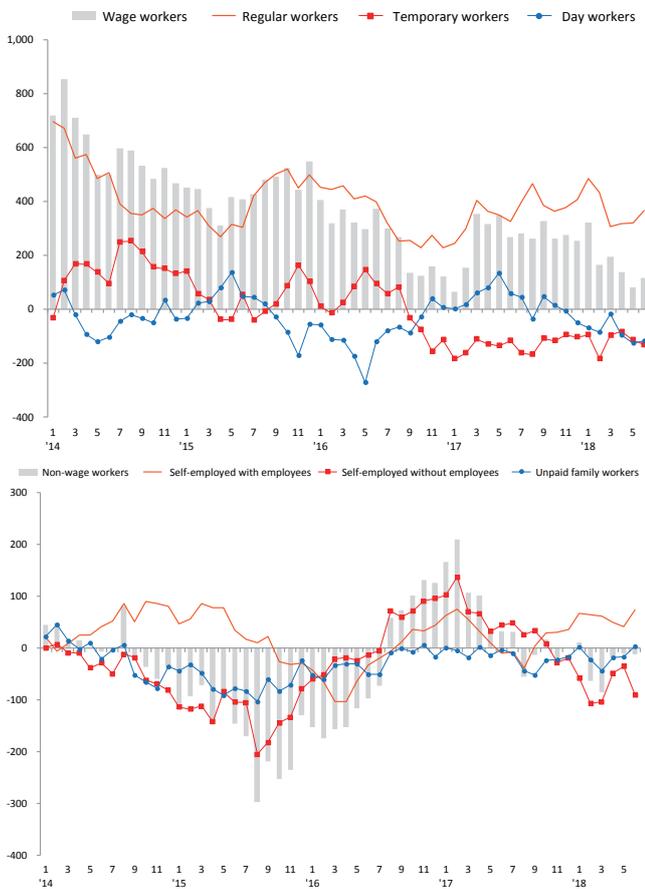
#### **5. Decrease in Temporary and Day Workers and Self-employed Persons without Employees**

The number of regular workers continued to go up, especially in wholesale and retail trade, ICT, finance and insurance, and other service industries, posting an increase of 365,000 in June. However, temporary and day workers continued to decrease. As a result, the total number of

paid workers only rose by 142,000 in the first half of the year. The number of temporary workers decreased by 116,000 and the manufacturing industry had the biggest slump of 74,000, reflecting its downturn in production. There was also a decrease by 21,000 in wholesale and retail industry as part of a downward trend that has been continuing for several years in this industry as illustrated by the fact that there was a decrease by 6,000 in the first half of 2015, by 74,000 in the first half of 2016, and by 11,000 in the first half of 2017. There was a decrease by 10,000 in accommodation and food service activities, again part of a continuing trend since the beginning of last year; the number dropped by 61,000 in the first half of 2017. There was a drop of 53,000, 28,000, and 12,000 in accommodation and food service activities, wholesale and retail trade, and construction industry respectively. The decline of day workers in wholesale and retail industry began as early as in 2015 (32,000 ↓ in the first half of 2016, 7,000 ↓ in the first half of 2017) while the number of day workers in accommodation and food service activities has been rising and falling in turn every year (20,000 ↓ in the first half of 2014, 24,000 ↓ in the first half of 2016). Considering such existing decreasing trend of temporary and day workers in accommodation and food service activities, and wholesale and retail trade, it would be reasonable to conclude that the fall during the first half of this year is not attributable to the 16.4% hike in minimum wage that was unique to this year, but rather to the shrinking operating profit, increasing cost pressure, and recurring creation and disappearance of businesses in a market that is already saturated.

The number of self-employed persons without employees decreased by 73,000 in the first half of the year. This is mainly attributable to a decrease of 60,000 in wholesale and retail trade (58,000 ↓ among those aged 30~54), transportation industry with two consecutive years of decline (16,000 ↓ in the first half of the year), and accommodation and food service activities that started to post negative

Figure 4. Trend in the Number of Employees by Employment Status  
(Unit : 1,000 persons, year-on-year)



Source : Statistics Korea, raw data from *the Economically Active Population Survey*, each year.

growth from March this year after an increase of 31,000 in the first half of last year. However, since the financial crisis, the number of self-employed persons without employees showed a trend of increasing in poor labor market environment and decreasing in improving labor market environment. Therefore, the recent decrease in the self-employed without employees can be interpreted as the result of their decisions to close the business in order to change their job or switch to self-employed business with employees.

The number of self-employed persons with employees grew by 60,000 in the first half of the year. Unlike self-employed persons without employees, those with employees tend to repeat a cycle of rise and fall regardless of labor market conditions. The increase in self-employment with

employees is mainly found among those aged 60 or above (approximately 40,000) and in their 30s (15,000), mostly concentrated in accommodation and food service activities, wholesale and retail, and human health and social work activities sectors.

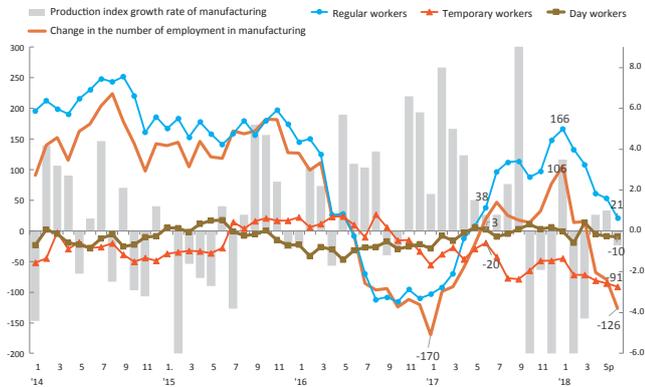
## 6. Turnaround to Decline in Employment of Manufacturing Industry

In the manufacturing industry, the number of employed persons fell by 23,000 in the first half of 2018 and the pace of decrease is accelerating with time. Production in manufacturing industry started to decrease year-on-year from the end of last year and marked a 1.3% decline in the first half of 2018. Due to such decreasing production, there was a more noticeable dip in employment among blue-collar workers (decreased by 68,000, the number of blue-collar workers already started its decrease from the second half of last year) than among white-collar workers (increased by 33,000 in the first half of the year). Regular workers are showing a slower growth recently (increased by 91,000 in the first half of the year, increased by 21,000 in June) while temporary workers who are usually hired in response to a temporary surge in production demand decreased by 74,000 (decreased by 91,000 in June). In terms of age distribution, the decrease was concentrated on blue-collar workers in their 50s or above with a high school diploma.

On the other hand, production rose by 7.0% in semiconductor-related electronic parts manufacturing industry in the first half of 2018 (semiconductor 9.4%) and the future outlook for semiconductor industry (increase in production by 17.4% in the second half of the year)<sup>4)</sup> is bright due to advances in cloud computing and other technologies related to the 4th Industrial Revolution as well as increasing specifications of electronic devices. Though this is expected to lead to a steady increase in this sector's employ-

4) Korea Institute for Industrial Economics & Trade (July 2018), *Outlook for 12 Key Industries in the Second Half of 2018*.

Figure 5. Trend in the Number of Employment (Left) and the Production Index Growth Rate (Right) in Manufacturing Industry  
(Unit : 1,000 persons, %, year-on-year)



Source : Statistics Korea, raw data from *the Economically Active Population Survey*, each year.  
\_\_\_\_\_, *Trend Survey on Mining and Manufacturing Industry*, KOSIS.

ment, the semiconductor industry, by nature, has a lower employment effect compared to other industries and its positive impact will not be sizeable enough to turn around the downward trend in manufacturing employment.

Meanwhile, there has been a decrease in the number of the insured for seven consecutive months due to the impact on employment by restructuring of automotive sector such as GM Korea as well as weaker production and sales of the entire industry (average production decrease of 7.3% in January to June, sales decrease of 5.9%<sup>5)</sup>). There was a decrease by 10,000 in June as part of an accelerating downward trend and this is also confirmed by the decrease in the total number of employed persons in this industry (average decrease of 5,000 in January to May) according to the Labor Force Survey at Establishments. However, according to the Korea Institute for Industrial Economics & Trade, export and production in automotive sector are expected to go back up by 3.1% and 2.8% respectively in the second half of the year,<sup>6)</sup> implying a potential for a positive turnaround in the employment of automotive industry.

## 7. Weaker Growth in Service Employment

Coupled with the decreasing trend of self-employed persons without employees that started in the 4th quarter of 2017 and an existing downward trend in temporary and day workers, employment in the service sector saw a significantly smaller increase in the first half of this year. More specifically, health and social work activities, public administration, and finance and insurance industries had the biggest increase in the number of employment in the respective order. On the other hand, education service, wholesale and retail trade, and accommodation and food service activities among others had a decline in employment. Real estate industry (decreased by 20,000) was impacted by the downturn in construction economy. Professional, scientific and technological service industry (decreased by 9,000) was influenced by a weak manufacturing industry, decreasing employment in research and development sector, and slumping construction industry, but there are signs of improvement recently (increased by 21,000 in June). ICT industry (increased by 30,000) had a growth in employment due to a 6.4% increase of production in development and supply of software including mobile software in the first half of the year.

Contrary to the 58,000 rise in the first half of 2017, the number of employment in wholesale and retail trade dropped by 62,000 in the first half. This is largely attributable to the downward trend of self-employed persons without employees (-60,000) that newly emerged in addition to the past several years of downward trend in temporary (-21,000) and day (-28,000) workers. On the other hand, the number of regular workers and self-employed persons with employees increased. However, the employment decrease in wholesale and retail trade in the first half of the year is approximately equivalent to base

5) Korea Automobile Manufacturers Association, *Summary Table of Automotive Industry in June* (tentative).

6) Korea Institute for Industrial Economics & Trade (July 2018), *Outlook for 12 Key Industries in the Second Half of 2018*.

Table 3. Change in the Number of Employment by Sector under Service Industry

(Unit : 1,000 persons, year-on-year)

	2015	2016	2017	2016. 1~6	2017. 1~6	2018. 1~6
Service industry	208	299	209	239	293	72
Wholesale and retail trade	-18	-63	41	-111	58	-62
Transportation and warehouse	0	-2	-22	13	-35	2
Accommodation and food service	77	96	-3	90	30	-24
ICT	55	10	-1	2	17	30
Finance and insurance	-53	4	-9	-6	-7	49
Real estate	7	21	57	13	65	-20
Profession, science and technology	21	46	-9	60	7	-9
Business facility management, support and leasing	87	60	-17	76	-21	-24
Public administration and national defense	-22	55	55	57	33	73
Education service	6	27	45	21	77	-85
Human health and social work	72	80	61	70	67	99
Art and sports	30	-21	22	-32	23	26
Association, organization and repair	-25	-8	-3	-3	-15	31

Source : Statistics Korea, raw data from *the Economically Active Population Survey*, each year.

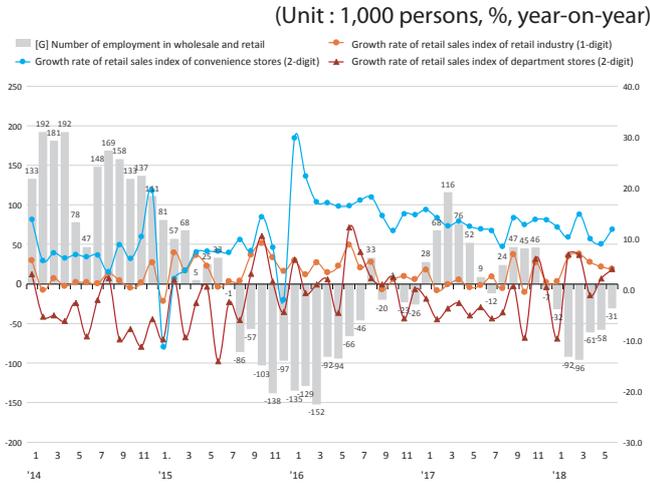
amount from last year's employment growth and private consumption is expected to continue increasing in the second half of the year, which means that the second half of the year is likely to see some degree of improvement in employment of wholesale and retail industry (the second half of 2017 also had a lower drop than the first half of the year at 24,000).

The number of employment in accommodation and food service activities (-24,000) started to show signs of weakening employment from the second half of 2016 and began to drop from the second half of 2017, but the decline appears to be slowing down recently (-1,000 in June). This weak employment is attributable to the slower production increase in non-alcohol and beverage businesses such as coffee shops that were newly opened in many number over the past few years as well as the falling production in food service industry, especially in Korean restaurants, and the remaining negative impact of THAAD dispute on the number of tourists, which served the main factor behind decreasing production in food service industry.

In education service industry, employment continued

to decrease throughout the first half of the year and the number of employment shrunk by 85,000 year-on-year. Over the past few years, employment in this industry showed a sideways rather than a downward trend despite the decreasing school-age population. This is partially thanks to policy changes such as increasing services in public education sector (extra-curricular activities, childcare, etc.) and aggressive reduction in the supply of teachers. However, the shrinking school-age population could impact the private education sector and restructuring of universities (Seonam University, etc.) could also negatively influence employment even to a small degree. At the same time, there are opportunities for increased employment in the private sector such as lifelong learning, vocational training, and other educational services. Therefore, it would be unreasonable to interpret the weakening employment in the first half of this year as the result of a decrease in school-age population. Rather, it appears to be reflecting the base effect of the 77,000 increase in employment in the first half of last year. According to the regional employment survey in the first half of 2017 that

Figure 6. Trends in the Number of Employment in Wholesale and Retail Trade Industry and Growth Rate of Retail Sales Index (Invariant Index, 2015=100)

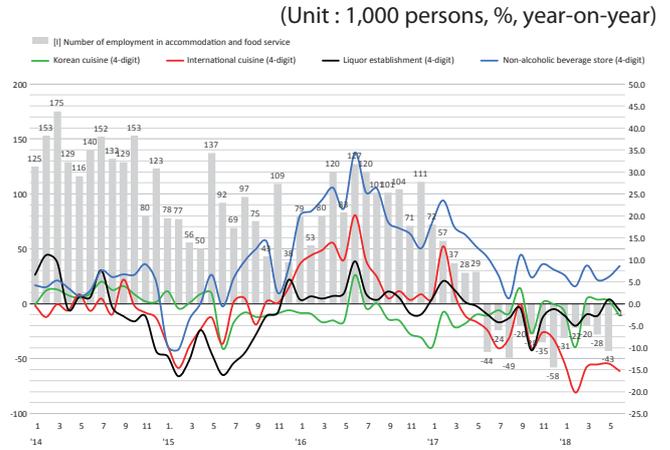


Source : Statistics Korea, raw data from the Economically Active Population Survey, each year.  
 \_\_\_\_\_, Trend Survey on Mining and Manufacturing Industry, KOSIS.

studies the size of economically active population and employed population, most of the employment growth in education service sector was found in public education sector, but the statistics on educational administration did not observe a significant increase in the number of employment in public education sector. Labor Force Survey at Establishments, which has the same size of paid workers in education service sector of the economically active population, also found a meager 15,000 increase in the number of employment in the first half of the year. Therefore, from the second half of the year with less base effect, the decrease in employment is expected to slow down compared to the first half of the year. The only remaining drivers of decrease will be the private education sector, which has continued to see falling employment due to shrinking school-age population and reduction in universities from restructuring.

In health and social work service industry, the biggest growth in the number of employment (99,000) was found. In this sector, there is an accelerating growth recently as demonstrated by the year-on-year increase of 148,000 in the number of employment in the second quarter. The number of employment aged 60 or above increased by 56,000 and

Figure 7. Trends in the Number of Employment in Accommodation and Food Service Industry and Growth Rate of Production by Each Sector (Invariant Index, 2015=100)



Source : Statistics Korea, raw data from the Economically Active Population Survey, each year.  
 \_\_\_\_\_, Trend Survey on Mining and Manufacturing Industry, KOSIS.

this appears to be attributable to the rising demand for welfare services and expansion in job creation programs for the elderly. As a result, there was an increase in the number of employment providing care and healthcare-related services (23,000) and those providing simple labor such as cleaners and janitors (23,000). There is relatively sound growth among those in their late 20s (32,000) and 30s (37,000) as well as those employed in professional jobs including healthcare-related jobs (35,000), which represents the improving employment in healthcare industry on the back of rising healthcare demand due to aging population.

### 8. Weak Employment in Construction Industry

Unlike the record growth in the number of employment in construction industry in the first half of 2017 (149,000), employment in the first half of 2018 showed a slower increase (43,000). The number of day workers (increased by 91,000 in the first half of last year and decreased by 12,000 in the first half of this year) is showing a rapid decline in employment among those in their 40s or older and this is understood as the result of a strong construction economy that began in the second half of 2015 having come to an end.

### III. Employment Outlook in the Second Half of 2018

The Bank of Korea announced the outlook for economic growth (annual) in 2018 as 3.0% in both January and April, and this was revised slightly downward to 2.9% in July. They forecasted that there will continue to be a sound increase in commodity export (4.0% in the second half of the year) due to growing investments and accommodative fiscal policies of major economies and a gentle improvement in private consumption (2.7% annually) in addition to improved domestic market conditions thanks to the government's initiatives to invigorate the economy.

By sector, human health and social work activities, and public administration industry that are already showing a significant growth today will continue the upward trend. Furthermore, if the private consumption continues to recover in line with the outlook, coupled with expanded fiscal expenditure of the government, this will have a positive influence on the recovery of employment in the food service industry that is heavily dependent on changing consumer preferences. Furthermore, the rising number of single-person households is expected to support wholesale and retail trade industry, which tends to see much consumption around one's house, so that it will not aggravate relative to the first half of the year. With regard to education service, the base effect experienced during the first half of the year will alleviate in the second half of the year, leading to a smaller drop in employment. If the existing trends continue in finance and insurance, ICT, specialized service, and interior design industries, showing a fairly good trend in production itself, and professional science service industry, showing signs of improvements in employment, the service industry is likely to show clearly improved employment trends compared to the first half of the year. In terms of manufacturing industry, the outlook published by the Korea Institute for Industrial Economics & Trade indicates that production is likely to be somewhat

higher than the first half of the year, but considering the base effect from the second half of last year, weak employment is likely to persist and construction industry is also likely to stay rather slow.

According to the economic outlook of the Bank of Korea, the number of employment in the second half of 2018 is forecasted to improve compared to the first half of the year with an increase of approximately 208,000 and an annual increase of 175,000 especially around service industry. The outlook for economic growth rate is 2.9%, which is 0.2%p lower than 2017, but it is expected to continue a fairly good trend. In contrast, the increase in employment is forecasted to be significantly lower than usual years. As explained earlier, this is attributable to a combination of various factors such as the significantly slower growth of population aged 15~64 in 2018, weak production in manufacturing, construction, and accommodation and food service industry, and slower increase in the number of employment in the service sector during the first half of the year due to the base effect from the previous year. In addition, the increase rate of employment in May and June were below the trajectory of usual years, which is also one of the reasons why the annual number of employment cannot reach 200,000. Of these various factors, demographic constraint is a structural limitation that will only grow bigger with time, which means that the growth of the number of employment is unlikely to exceed 200,000 even if there are improvements in labor market conditions. Both labor force participation rate and employment rate are forecasted to increase by 0.1%p compared to 2017 to reach 63.3% and 60.9% respectively as part of a fairly sound trend.

Population will continue its downward trend and employment rate of men is already quite high except for those in younger age groups, which means that long-term improvement in employment is possible only when labor force participation rises among demographic with high ratios of economically inactive population such as youth and married women. Moreover, there must be a policy

focus on enhancing the quality of jobs in the bottom end of labor market such as reducing the gap between large companies and SMEs since it is difficult to achieve long-term improvement of the youth labor market without addressing the issue of job disparity. As was demonstrated earlier, the employment rate among married women aged 35~44 which used to be a demographic with the greatest challenge in increasing employment, shows signs of a rebound. It is at a point with such signs of change that policy should be harmonized accordingly. Because the deep-rooted tradition of overtime work in Korean companies was one of the biggest obstacles to stemming low birth rate and career discontinuity of women, introduction of 52-hour maximum weekly working hours could be a breakthrough in promoting women's economic activities. Therefore, there must be policy efforts to ensure successful dissemination of this system. Meanwhile, both employment rate and unemployment rate rose among the elderly population aged 65 or above, which demonstrates their growing desire for labor force participation, driven mainly by better health and lack of preparation for retire-

ment. Considering Korea's economic structure with its high elderly poverty rate, the government should continue to expand its job policies targeted at this demographic in order to assist their labor force participation when they lack retirement preparation.

Employment of temporary and day workers is falling in manufacturing, wholesale and retail trade, and accommodation and food service activities. Unemployment is rising among those aged 45~64 mainly because many people in construction and related industries had to change jobs. This implies the need for income or job support measures focused on former low-income temporary or day workers and unemployed persons. Though the recently discussed EITC (Earned Income Tax Credit) is a decent system for motivating people to work while supplementing low incomes, it has limitations in addressing the immediate shortage in income for people without jobs as it compensates for this year's low income through income support in the next year. Also, when there are insufficient opportunities for employment, the amount of income support for the next year also decreases. In order to make up for

Table 4. Outlook for Employment Indicators in the Second Half of 2018

(Unit : %, 1,000 persons)

	2017			2018p		
	First half	Second half	Annual	First half	Second half p	Annual half p
Economic growth rate	2.8	3.4	3.1	2.9*	2.8	2.9
Population aged 15 or above	43,859	44,003	43,931	44,115	44,226	44,170
Economically active population	27,628	27,868	27,748	27,794	28,106	27,950
Labor force participation rate	63.0	63.3	63.2	63.0	63.6	63.3
Number of employment	26,509	26,940	26,725	26,652	27,148	26,900
(rate of increase)	1.4	1.0	1.2	0.5	0.8	0.7
(number of increase)	360	272	316	142	208	175
Number of unemployment	1,118	928	1,023	1,143	958	1,051
Unemployment rate	4.0	3.3	3.7	4.1	3.4	3.8
Employment rate	60.4	61.2	60.8	60.4	61.4	60.9
Economically inactive population	16,231	16,134	16,183	16,320	16,120	16,220

Note : \* indicates advance estimate and p indicates projection. Economic growth rate is the projection by the Bank of Korea and employment indicators are the projection by KLI.

Source : Statistics Korea, raw data from *the Economically Active Population Survey*, each year;

The Bank of Korea, *National Accounts*, each issue;

The Bank of Korea, *Economic Outlook for the Second Half of 2018*, press release.

these weaknesses in EITC, there should be accelerated efforts to introduce (Korean-style) unemployment benefits under discussion for unemployed persons, who are likely to be marginalized from social insurance coverage due to the nature of their jobs. Furthermore, short-term job measures with financial support could be considered when employment situation in the second half of the year falls below the current outlook.

The minimum wage for next year will be raised by 10.9%. The rapid hike in minimum wage can enhance the quality of jobs by improving labor market conditions for low-income workers in Korea, which is one of the worst among OECD countries. However, at the same time, it can place increased cost pressure on service industries serving the domestic market such as wholesale and retail trade and food service sectors that are already experiencing a continuous drop in sales profit due to excessive competition and increasing rent. Therefore, countermeasures against such negative impact of minimum wage hike next year should be implemented with speed to reduce uncertainties, such as job security funding and social insurance support, regulation on the level of rent, and cut in card commission among others.

In terms of the future trajectory of outlook, the U.S. Fed's decision to raise Federal Reserve Interest Rates and the subsequent hike in interest rate of Korea can lead to increased pressure on households to return the principal of debt as well as greater debt pressure on self-employed persons, which can become an obstacle to employment growth in the private service sector. Meanwhile, the U.S.-China trade dispute is not expected to have a significant impact on Korea for the time being, but any future developments should be monitored closely. The 40-hour work week system was generally found to have an effect of creating more employment in large companies and the cap on weekly working hours of 52 hours, which was put in place in July, is at least not expected to have any negative

impact on employment of the participating companies because the policy is mainly targeting large enterprises at the present stage. However, there could be some correctional phase with little predictability of future direction since subsequent changes in employment practice of businesses can have indirect impact on employment of other sectors such as reduced company dinners near the office, increased eating-out near home, and increase of employment in sectors related to self-development. These factors were not incorporated into the outlook but will remain as uncertainties in the future trajectory of outlook.

The outlook for employment increase in the second half of the year and on an annual basis is lower than usual because it takes into account the rapid slowdown in population growth of those aged 15 or above and reduction in population aged 15~64. However, such low numbers do not necessarily indicate aggravation in labor market conditions. Employment index should be examined with the premise that the employment growth will decline rapidly for the next few years, including this year, as the total population increase shrinks rapidly. Of course, in addition to such demographic factors, the base effect of service industries such as educational service and wholesale and retail trade sectors that had a significant employment growth in the first half of 2017 also contributed to the very low levels of employment growth in the first half of this year. In terms of employment rate indicators, it is becoming more difficult to promote the employment rate among those aged 15 or more because the ratio of population aged 65 or above, only about 3~4 out of 10 are participating in labor force, continues to increase. Therefore, the employment rate indicators of working-age population (aged 15~64) are more helpful for understanding the actual improvements in employment. All of the above factors must be considered comprehensively when analyzing and interpreting employment indicators.