

Korean Women's Development Institute intends to share recent national and overseas women policy issues and the results of the survey on various women's pending issues through the newly revised <KWDI Brief>.

## Decrease in gender wage gap, it has been improved mainly in low-wage jobs, but there are limitations that appear only in middle-lower class women

Source: Korean Women's Development Institute, Center for Gender-sensitive Data

### Summary

Analyzed the change in gender wage gap and the trends of wage inequality among women based on the Supplementary survey of Economically Active Population Survey (Statistics Korea) and the Survey on Labor Conditions by Employment Type (Ministry of Employment and Labor).

#### [Change in gender wage gap]

- Korea still has the largest gender wage gap among OECD member countries, but it has been decreasing since 2010 (38.0% in 2010 → 30.7% in 2017).
- In particular, since 2012, the gender wage gap in Korea has decreased due to the improvement in the wage gap in women between 35-54 years old and full-time workers. However, wage gap of vulnerable groups such as irregular workers has displayed very little improvement.

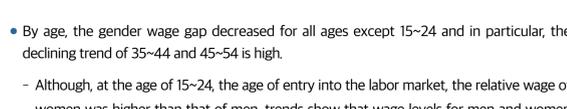
#### [Trends in change of the wage inequality among women]

- Since 2010, wage inequality in the middle-lower class has improved due to the rise in wages in the low first quartile, but the improvement in wage inequality in the middle-upper class has not been significant. This impact significantly reduced the proportion of female low-wage workers.
- However, wage inequality improvement is not a result for women in general, as there is still middle-upper class wage inequality in highly educated groups, and low-wage workers have shifted to middle-lower wage group which shows no change in the proportion of middle-upper wage groups and high wage groups.
- This suggests that there still remains a fundamental problem in our society, such as career disruption, glass ceilings, and more basic issues that must be addressed in order to improve inequality among women in general.

### Change in gender wage gap

#### 1. Change in gender wage gap

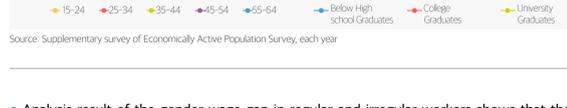
- Korea still has the largest gender wage gap among OECD member countries, but it has been decreasing recently.
- An analysis of the gender wage gap since 2004, using the Supplementary survey of Economically Active Population Survey, shows that both the hourly wage and the monthly average wage tend to decrease in gender wage gap from 2011.
- Since males have a longer working hour than females, if the gender wage gap is calculated based on the monthly average wage, the gap is greater than the hourly wage.
- Based on hourly wages, it increased from 35.4% to 37.9% from 2004 to 2010. Since the peak in 2010, it has maintained a steep decline until recently, reaching 30.7% in 2017.



Source: Supplementary survey of Economically Active Population Survey, each year

#### 2. Gender wage gap by age/ educational background

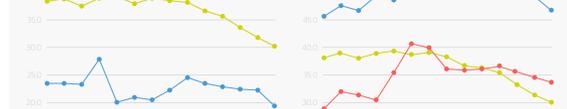
- By age, the gender wage gap decreased for all ages except 15-24 and in particular, the declining trend of 35-44 and 45-54 is high.
  - Although, at the age of 15-24, the age of entry into the labor market, the relative wage of women was higher than that of men, trends show that wage levels for men and women are about the same, and in 2017, men receive 1.5% more than women.
  - The gender wage gap between the ages of 25-34 has remained almost unchanged at around 15% from 2004 until 2012, but the gap narrowed to 8.6% in 2017, which is about half the level of 15.3% in 2004.
  - The gender wage gap between the ages of 35-44, which is mostly affected by career disruption of women, remained at around 40% until 2010, after which it sharply declined to 25.5% in 2017.
  - The gender wage gap between the ages of 45-54 and 55-64 is the largest. However, in the case of 45-54 year olds, the largest gap of 53.8% in 2007 was observed and the gap has steadily decreased to 41.8% in 2017, while the gap of the 55-64 age group has been within the 40% range.
- By educational background, the gender wage gap has been decreasing in every educational level in recent years. In particular, the gender wage gap shows rapid increase followed by sharp fall (until 2012 for university graduates and 2014 for college graduates).
  - The gap between university graduates increased about 26% in 2004 to 32.7% in 2011, then declined to 26% in 2017, and for college graduates, the gap also dropped to 25% from 2015.
  - On the other hand, high school graduates or below, maintained a high wage gap until 2004-2014 for around 35% which started to decline rapidly after 2015.



Source: Supplementary survey of Economically Active Population Survey, each year

#### 3. Gender wage gap of regular/irregular workers

- Analysis result of the gender wage gap in regular and irregular workers shows that the gender wage gap of regular workers was higher than that of irregular workers. However the gender wage gap among regular workers decreased in recent years.
  - In the case of irregular workers, women were paid about 20% less than men. After the financial crisis in 2008, the gap has narrowed, but since then it has remained flat at around 22%.
  - On the other hand, in the case of regular workers, women received about 40% less than men until 2004-2011, but the gap narrowed rapidly after 2012 which dropped to 30%.
  - As a result of analyzing the wage level compared to male regular workers (graph on the right side), the wage level of irregular female workers has remained almost unchanged but the gap has been widening and has declined slightly only in recent years. Meanwhile, the gap of the regular female workers show a steady decline since 2012.
- In particular, the wage gap of regular female workers compared to regular male workers was higher than that of irregular female workers compared to irregular male workers, which was reversed in 2014 and the gap narrowed in 2017.
  - In other words, the gap has narrowed due to the wage improvement in female regular workers, while the improvement in female irregular workers in negligible.



Source: Supplementary survey of Economically Active Population Survey, each year

- To analyze the status of the gender wage gap based on the Supplementary survey of Economically Active Population Survey, Korea is still the country with the largest gender wage gap among OECD countries, but the gap is being declining rapidly since 2012, mainly due to the wage gap improvement in women in the age group of 35-54 and regular workers.
- On the other hand, the wage gap in the vulnerable groups such as groups with low educational background and irregular workers did not show a significant improvement.
- As women's participation in economic activities continues to increase, the gender wage gap is declining with respect to the core age group and regular workers. This reflects the increasing number of women who are continuing to work due to avoidance of childbirth, late marriage and receiving work and family balance support. If this tendency continues, it can be seen that the threshold for maintaining a high gender wage gap has passed.
- In later analysis, the trends in wage inequality among women will be looked through.

### Trends in the wage inequality among women

#### 4. Women's Decile Ratios<sup>1)</sup> and Trend<sup>2)</sup>

- Looking at the wage decile ratios of women since 2006 (left in the graph), wage inequality improved in the lower and middle-lower ranges (9/1, 5/1), while it remained almost unchanged in the middle-upper range (9/5) which recently declined slightly.
- In particular, 9/1 has remained the same until 2011 and showed rapid decline from 2012, and 5/1 has been maintaining moderate decline since 2009.
- This change can be explained well with the real wage growth since 2012. Wages in the first, fifth and ninth deciles, which showed similar rate of increase until 2006, continued to rise in the first decile from 2013. On the other hand, the growth rate of the fifth and ninth deciles slowed down.

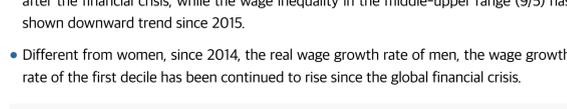


Source: Ministry of Employment and Labor, the Survey on Labor Conditions by Employment Type

1) Decile ratio: When the wages are divided into 10 sections in order of size, the wage of the person who receives the highest wage among the people belonging to the lowest section is called the first decile wage, and the wage of the person who receives the highest wage among the wage workers belonging to the ninth section is called the ninth decile wage. The decile ratio is the ratio of the deciles explained above. In the case of 9 to 1, it shows the wage ratio of the top 10% compared to the lowest 10%. In general, 9 to 5 ratio is a mean of measuring wage inequality in the middle-upper range, and 5 to 1 ratio is used to measure wage inequality in the middle-lower range. The smaller the number, the lower the inequality.

2) The following analysis used the Survey on Labor Conditions by Employment Type of the Ministry of Employment and Labor. Hourly wage is calculated by using total wage (fixed wage + overtime payment + special payment) and working hours (actual working hours + overtime working hours), and consumer price index is used as actual hourly wage. It should also be noted that this data is for the private sector wage earners excluding forestry and fishery industry.

- Unlike women, men's wage inequality has improved rapidly and steeply in 9/1 and 5/1 after the financial crisis, while the wage inequality in the middle-upper range (9/5) has shown downward trend since 2015.
- Different from women, since 2014, the real wage growth rate of men, the wage growth rate of the first decile has been continued to rise since the global financial crisis.



Source: Ministry of Employment and Labor, the Survey on Labor Conditions by Employment Type

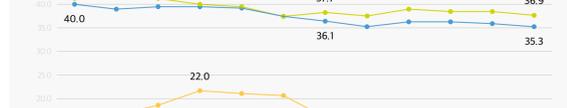
- For each decile, the first decile which has the lowest wage level had the smallest gender wage gap. The gender wage gap between 2006 and 2009 increased steadily to 22.0% in 2009, which was after the financial crisis. After gradual decline, it decreased to 12.6% in 2017.
- The gender wage gap of the fifth and ninth deciles was very large, exceeding 35%. While there was a gradual decline in the wage gap between 2006-2012, there is little change in the gap until 2017.
- To summarize, women's wage inequality in the middle-lower range has improved due to the wage improvement in the first decile since 2014. However, it is difficult to see a clear improvement in the gender wage gap or wage inequality in the middle-upper range.



Source: Ministry of Employment and Labor, the Survey on Labor Conditions by Employment Type

#### 5. Trends in decile ratios by age and educational background

- In the changing trends of the decile ratio by women's age group, since the 2008 financial crisis, wage inequality in the middle-lower range(9/1, 5/1) has improved rapidly and steadily in the age group of 15-24. Contrarily, wage inequality in the middle-upper range(9/5) has remained almost unchanged in 2006-2014, but has shown improvement since 2015.
- The age group of 25-34, which is the age group most affected by the effects of late marriage, low fertility and high educational attainment since 2000, shows similar trend to that of 15-24 year olds. However, the degree of decline of the middle-upper group showed a relatively slight decrease.
- 9/1 wage inequality in the age group of 35-54 rapidly declined after 2014 and wage inequality among 9/5 middle-upper range showed moderate decrease after 2011.
- According to the trend of decile ratio by educational background, middle-lower(9/1, 5/1) wage inequality decreased regardless of the level of education. While the wage inequalities among college graduates and university graduates or above have not improved substantially except for the low-educated group(high school graduates or below).
- Especially, the change is distinctive after 2012. The 9/1 trend in all educational backgrounds has declined sharply due to the effects of the first quarter's wage improvement. The 5/1 ratio has also decreased modestly, reducing wage inequality.



Source: Ministry of Employment and Labor, the Survey on Labor Conditions by Employment Type

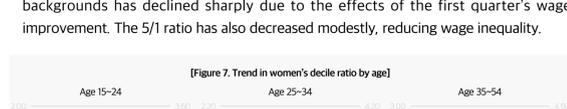


Source: Ministry of Employment and Labor, the Survey on Labor Conditions by Employment Type

#### 6. Trends in the proportion of low-wage workers<sup>3)</sup>

- The proportion of female low-wage workers has remained above 40% until 2010, and continued to decline, reaching 31.2% in 2017.
- On the other hand, the proportion of middle-low wage workers rose gradually from 26.9% in 2006 to 29.4% in 2014, which later sharply increased to 36.6% in 2017, showing a trend contrary to the trend of the proportion of low-wage workers.
- Meanwhile, the proportion of middle-high wage and high wage has remained almost the same, exceeding 15%.
- Compared to the trend of the proportion of workers by wage level among males, more than 60% of female workers were placed middle-low wage group or below, while more than 60% of male workers were at middle-high wage group.
- In particular, the proportion of male low-wage workers fell steadily from 19.0% in 2006 to 13.6% in 2017. The proportion of low-wage workers maintained moderate increase, reaching 23.7% in 2017.

3) According to relative standards, more than 2/3 of the median of hourly wage is defined low wage, more than 2/3 and less than the median wage is defined middle-low wage, more than the median wage and less than 3/2 is defined middle-high wage, and over 3/2 is defined high wage.



Source: Ministry of Employment and Labor, the Survey on Labor Conditions by Employment Type

- In summary, in the case of women, wage inequality in middle-lower group has improved due to the wage increase in the lower first decile, but the improvement in the middle-upper group was not significant. This trend was found in all ages and educational backgrounds. In particular, middle-upper wage inequality has expanded in the group with higher level of education(university graduates or above).
- Additionally, the proportion of female low-wage workers decreased significantly due to the wage improvement in the lower decile, but it was found that they have moved to middle-low wage group.
- In other words, wage inequality which has remained largely unchanged since the financial crisis 2008, seems to have improved in lower educational level and low-wage group due to the effects of wage improvement in lower decile since 2012.
- Though the wage inequality among women has been partially improved due to the effects of wage improvement in lower decile, this is not a general outcome for all women. Middle-upper wage inequality in the higher educational group still remains, and the fact that there is no change in the proportion of middle-high income and high income indicates that there is still a fundamental problem in our society, such as career disruption and glass ceilings.
- It is highly likely that inequalities across women can only be improved if these problems are resolved first.

