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## **Competencies of Korean Women and Its Implications: Comparative Analysis Based on OECD PIAAC**

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### **I . INTRODUCTION**

In this knowledge-based era, competencies of adults affect not only individual earnings but the level of national earnings as well. Despite such importance of competencies, the competencies of Korean adults are not in much higher level than those of rival countries in comparison. With the conspicuous tendency among Korean women to stop economic activities and chip off of the labor market with marriage, childbirth, and rearing, even though they learned to attain high-level competencies through school education, it is difficult for them to maintain the competencies they have earned or further develop them throughout their lifetime due to lack of experience in labor market. In reality, in the 2013

Skills Outlook of the OECD, Korea showed the highest gender difference in literacy among countries included in the assessment. In this context, this research analyzed the level of skill proficiencies and skill uses of Korean women using OECD PIAAC (Programme for the International Assessment of Adult Competencies) released in 2013, and compared them between genders and with those of the countries included in the assessment. Through such diagnosis of competencies of Korean women on an international level, this research tried to discover the point of intervention for the maintenance and development of competencies of Korean women.

## II. MAIN FINDINGS

### 1. Competencies of employed/unemployed/not in-labor force

The level of competencies and skill uses of Korean women is found to be lower compared to rival countries. Of the 22 countries covered in the PIAAC PUF (public user files), which this research analyzed, competencies of Korean women ranked 16th in literacy, 15th in numeracy, 14th in problem solving — all of which failed to be under the average of OECD countries. The level of their skill uses also fell short of the average of all participating countries in terms of reading, writing, ICT, with just only the ranking of numeracy at 8th place exceeding the average of countries covered.

Weaknesses in the competencies of Korean women are revealed more conspicuously among employed women. Their literacy, numeracy and problem solving ability are revealed to be in the lowest level among 22 countries included in the assessment program, ranking 19th, 18th, and 18th, respectively. In terms of skill uses, also, with the exceptions of unprecedented high ranking (1st) in writing activity and slightly above-average ranking in ICT activity, the rest six competency variables fall short of averages of participating countries. In terms of such non-cognitive generic skills as task discretion, learning at work,

influencing skills, and planning skills, in particular, the competencies of Korean women are found to be in the lowest level.

What is notable, on the other hand, is that rankings of women who are not in labor force are remarkably higher than those of employed women. Their rankings in literacy, numeracy and problem solving ability are 5th, 8th, 10th, respectively, which are relatively higher than those of employed women. This shows that a larger portion of women of high competencies compared to the numbers of those in other OECD countries are not participating in labor force in Korea. When viewed from a national perspective, this means a serious leakage of high-competency manpower.

Korean women also display a serious gender gap in competencies and their use. This research categorized Korean women into total women, employed women, unemployed women, and women not labor force. As a result, Korean women showed no superiority over men in any of competencies and skill uses. With regard to ICT activity, in particular, Korean women displayed a large gender gap and the lowest level in comparison with other countries. Even among women, polarization in competency concerning ICT activity was observed. Several fields were found where no gender gap significantly was observed, most of which were revealed in the group of unemployed women. This shows the fact that there are relatively equal competencies at least among unemployed men and women.

## 2. Women's competencies by occupation and industry

According to the results of analyzing Korean women's competencies by type of occupation, women showed significantly lower competencies than men in most types of occupation, and the same applies to skill uses in workplace. Notably, while women in administrative position showed considerably low competencies, the level of their skill uses exceeds the average of the countries covered in PIAAC, showing a large gap between the level of competencies and the level

of using them. However, amid this inferiority in women's competencies, women in lower occupational status, being engaged in operating or assembling plants and machines, and in elementary occupations, are revealed to be relatively satisfactory. As to the characteristics of women's competencies by industry, in all industries, except for O·P·Q (public administration and defense; compulsory social security·education·human health and social work activities), competencies of Korean women are lower than the average of the countries included in this assessment; when compared to men, theirs are confirmed to be lower than those of men in all industries except F (construction). What is unique is that while the overall level of generic skill use (task discretion, learning at work, influencing skills, planning skills) is in poor condition, the use of cognitive skills (reading, writing, mathematical activity, and ICT activity) are relatively higher than average of the countries covered.

As to skill mismatch of Korean women by type of occupation, while the number of the over-skilled are bigger compared to those of women of the countries included in the assessment, the ratio of the well matched and under-skilled is higher compared to that of Korean men. Analysis of mismatches by type of occupation shows that the ratio of the well-matched workers are higher among those in administrative positions and elementary occupations, clerks, and professionals; and that of the mismatched is higher among craft and related trades workers and plant and machine operators and assemblers. Particularly, the ratio of good matches among plant and machine operators and assemblers stands at 65.6%, revealing a significant level of mismatches. 24% of the mismatched workers are found to be over-skilled. The results of analyzing skill mismatches show that skill mismatches are high among the following industries of G·H·I (wholesale and retail trade·transportation and storage·accommodation and food service activities), B·C·D·E (mining·manufacturing·electricity, gas, steam and air conditioning supply·water supply, sewerage, waste management, and remediation activities),

and R·S·T·U (arts, entertainment and recreation·other service activities·activities of households as employers, undifferentiated goods- and services-producing activities of households for own use·activities of extraterritorial organizations and bodies). Of the mismatched female workers, the rate of the over-skilled is much higher than that of the under-skilled; however, the rate is lower than the rate of over-skilled male workers in Korea.

### 3. Characteristics of competencies of Korean women and affecting factors

Characteristics of competencies of Korean women and the factors affecting them were analyzed. Among the 22 countries included in PIAAC, Korea shows the highest gaps between different age groups of women. It is also confirmed that gender gap gets bigger among elder groups. A considerable portion of gaps are resolved if education level, occupation, and background of movement are controlled. Nevertheless, the gaps between age groups are confirmed to be the highest among the countries included in PIAAC. Besides, Korea is different from all the other countries in that it is the only country where competencies of (unemployed and not-in-labor-force women) are higher than those of employed women. Although competencies of employed women are higher than those of non-employed women if students in school education are excluded, still the gap in competencies between employed women and non-employed women is the lowest among the countries included in the PIAAC. As a result of analyzing factors affecting women's competencies, participation in lifelong learning is confirmed to be significantly important. However, the rate of participation of Korean women in lifelong learning is comparatively low, and the rate of participation in job-related learning is in the lowest level among OECD countries. This points to the necessity to strengthen their participation in job-related learning. According to the results of identifying the factors that affect women's participation in labor market in Korea, whereas Korean women displays negative(-) effects in terms of literacy, positive (+) effects are observed

among them with regard to numeracy and problem solving in the context of technology-rich environment. In addition, when compared to the three countries (Japan, Finland, the U.K.), Korea is the only country where the more educated women tend to be less employed, which reveals the reality that women of high level of education and high competencies have not entered the labor market.

### III. POLICY IMPLICATIONS

According to the results of this research, both the rankings and scores of skill proficiency of employed female workers in Korea are revealed to be lower than out-of-the-labor-force women and unemployed women. This reflects two implications: one is that the level of competencies of Korean women currently participating in labor market is low; the other is that there are plenty of women of high competencies outside the labor market. They point to the fact that competencies of women within labor market need to be improved whereas women outside labor market need to be induced to enter the labor market. Analysis made in this research confirmed that the rate of female participation in economic activity in Korea shows an M curve, the most problematic type among OECD countries. That is, the rate of working women inside labor market who abruptly leave due to marriage, childbirth, rearing, family care, etc., is the highest among the assessed countries. And the results of this research show that the competencies of those women who leave the labor market for above-mentioned reasons are high, which constitutes a proof that female manpower is used inefficiently on a national level. Therefore, to prevent further breaking away of women of high-competencies who are still left in labor market, policies concerning work-family balance must be strengthened. Companies need to be urged to let women freely enjoy their child care leave. And for the purpose of relieving difficulties of simultaneously managing work and family, such system as offering child caregivers, which is provided by the

Ministry of Gender Equality and Family, needs to be expanded. On the other hand, a continuous inflow of women into the labor market who are outside of it is required. Of which one good example would be the New Occupation Center for Women currently promoted by the government. However, main roles of new New Occupation Center are limited to train low-skilled women and arrange jobs for them. Since this research has empirically shown that a large number of highly competent women are located outside the labor market, it is recommended, taking such reality into consideration, that the New Occupation Center, henceforth, provides opportunities for re-employment to women who are professionals or fit for administrative positions.