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Article

Gender, Race, and Migrant Worker Wage Inequality in South Korea*

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Abstract

The decreasing Korean population and shrinking workforce have resulted in a surge of foreigners entering the country to address shortages in the labor and marriage markets. This has led to an increasing demand for laws and regulations governing migrant workers in Korea as well as a growing need for research on various aspects of immigration. Using data from the 2018 National Multicultural Family Survey, this study examined the determinants of immigrant workers' wages in Korea, focusing on married and naturalized immigrants who are long-term settlers. This study employs multivariate regression, gender-stratified analysis, and an Oaxaca-Blinder decomposition of the wage gap between female and male migrants. The findings indicate that individual characteristics, such as gender and country of origin, strongly influence immigrants' wages. Regarding gender effects, factors such as education, marital status, and child-rearing status play significant roles, showing that migrants face issues similar to those of Korean workers, with women being notably disadvantaged in the labor market. These findings suggest the need to address immigration-related issues by considering the structural challenges in the Korean labor market such as high gender wage gaps and gendered labor market segregation.

Keywords : migrant workers, human capital, gender roles, gender wage gap, labor, Korea

* This paper has been revised based on Minjae Lee's Master's dissertation at Korea university in 2023.

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Introduction

The decreasing Korean population and shrinking workforce have resulted in a surge in foreign workers entering the country to address labor shortages. This has led to an increasing demand for laws and regulations governing foreign workers in Korea as well as a growing need for research on various aspects of immigration to address this complex issue. It is important to note that Korea has been an ethnically homogeneous society for 5,000 years, with economic growth driven primarily by its resources. Consequently, the nation is not fully accustomed to dealing with challenges associated with foreigners.

According to data from the Ministry of the Interior and Safety (2023), the number of foreigners residing in Korea has increased annually since 2011. Overall foreign residents were currently 2.2 million consisting of foreign workers (17.9%), marriage immigrants (7.8%), international students (8.4%), overseas Koreans (17.6%), other foreigners (26%), and naturalized immigrants (9.9%) in 2022. However, they often find themselves working in vulnerable and precarious environments. K. Kim (2021) highlighted that the primary reasons foreign workers change jobs are harsh working conditions and low wages, which make it difficult for them to support themselves and their families overseas. More specifically, immigrants, mostly married and naturalized immigrants, often want to settle in Korea for a long time; therefore, the importance of wages sufficient to make a living will inevitably increase in the future.

Indeed, external factors such as governmental regulations, administrative policies, and economic uncertainty exert substantial influence on immigrant wages (Campolmi & Faia, 2011; Y. Kim, 2012; Noh & Ko, 2014). These areas are beyond the direct control of individual immigrants, making it difficult to ascertain how these factors directly influence wages. By contrast, human capital, an internal factor developed independently, can potentially minimize the impact of these uncontrollable external factors. For instance, education and work experience increase productivity and affect wages in various forms of human capital (Becker, 1993; Mincer, 1958; Mincer & Polichek, 1974). It is crucial to recognize that immigrants often do not have

control over legal procedures and should not rely on external influences to improve their situation. For multicultural families who immigrate to Korea and plan to live there in the long term, it may be more beneficial to build a life that relies on individual influence and abilities.

This study seeks to empirically analyze the economic activities of immigrants who would live in Korea for a long time. Specifically, this study focuses on exploring the influence of human capital and other status variables as significant determinants of immigrants' wages. Moreover, it examines how these internal factors affect wages for male and female immigrant workers and investigates the differences in the results. Since not all immigrants come to Korea for the same reason, it is impossible to represent every unique motivation. This study examines the gender gaps in the Korean labor market that may influence male and female immigrants using the Oaxaca-Blinder decomposition method. By focusing on this issue, this study aims to provide further insight into how immigrants can enhance their economic standing in their host country.

Research questions

- Q1. What are the determinants of immigrant workers' wages in Korea?
- Q2. Do the relationships between wages and these variables differ significantly by gender?

Literature Review

Unlike Western countries that have a wealth of immigration experience, Korea has long been characterized as an ethnically homogeneous society. Especially since the 2000s, issues related to foreign workers and international marriages have arisen in Korean society. Despite the growth of studies in this area, compared to other fields, research in this area is still insufficient. In particular, the cultural and social exclusion experienced by immigrants due to economic hardship cannot be overlooked. According to Silver (1994), social exclusion, which comes to the fore when an individual suffers from economic deprivation, poses a wide range of challenges in education, culture,

healthcare, and social participation. Income is a critical factor in sustaining an immigrant's life amid these challenges (Shim, 2001, 2004). Therefore, research on the influencing factors on individual wages, excluding these external factors, is essential to aid immigrants' economic adaptation.

Human capital

The first element to consider is immigrants' human capital. Previous research (Becker, 1993; Mincer, 1958; Mincer & Polichkek, 1974) has shown that the accumulation of human capital and labor market experience enhances productivity and, thus, workers' wages. Notably, education is a significant determinant of wages and an essential part of human capital, as discussed in previous studies (Cho & Byoun, 2015; Jo & Min, 2017). The view of human capital varies by the host country, and its application in the labor market also differs (Ferrer & Riddell, 2008). Therefore, it is necessary to consider cultural and societal factors in each country. Traditionally, Koreans have valued education highly (I. Jang, 2015). As shown in domestic studies (Cho & Byoun, 2015; Jo & Min, 2017), an increase in the years of education is positively correlated with higher income levels among married immigrants in Korea. Unlike educational attainment, labor market experience within the human capital framework should be viewed differently. Skill proficiency in the host country, as discussed primarily in 'Mincer's studies (1958; Mincer & Polichkek, 1974), influences immigrant employment and income. Migrants with unique skills can contribute to their companies' profits, and higher skill proficiency is thus beneficial. From a company's perspective, it is not preferable to replace native workers with foreign ones. A domestic study (Song, 2021) analyzed the impact of employing foreign workers on business performance and found that the effect was negative. It is crucial to consider that most foreign workers in the manufacturing sector are concentrated in low-skilled jobs. Fluent communication is possible for Korean natives who have already adapted to various aspects of Korea. However, for immigrants, both Korean language and applicable job skills should be considered. If immigrants possess abilities and skills that exceed those of the natives, companies choose to employ them from a profit-generating perspective.

Moreover, skill proficiency significantly affects immigrant status. Borjas

(2012) states that foreign workers are seldom randomly selected from the population. They tend to be highly motivated, which likely influences their decision to leave their family and friends and start anew. In such cases, considerable preparation is necessary before moving to another country. When they enter the host country already equipped with human capital, such as professional experience or high education, they can start in better conditions than the average native (Hunt, 2011). Foreign workers face many legal restrictions such as visa regulations. However, for example, the E-1–E-7 visas are only granted to foreign workers with certain experience and skills, making it nearly impossible for those who fail to meet the conditions to enter the country (Ministry of Justice, 2023).

Family status and child-rearing

The second element relates to studies on family status and child-rearing. Compared with other foreign workers, immigrants who have settled and married may experience a sense of stability provided by their families. One study observed a strong correlation between employment and income among immigrants married to natives (Dribe & Lundh, 2008). While single individuals only need to manage their living and needs, those living with others inevitably engage in economic activities to sustain their shared life. Consequently, they may need to earn more.

Most immigrant brides come from developing countries such as China, the Philippines, and Vietnam. They mostly marry and migrate to Korea for a better quality of life and to meet their self-fulfillment and economic needs by participating in the labor market (Jun, Pae, & Kwak, 2008; Kang & Lee, 2012). Since they come to Korea primarily to marry, there is a higher possibility than for other workers that they may not meet the necessary work qualifications (Gu, 2007; Jun et al., 2008; Kim, Yoo, Lee, & Chung, 2006). However, married women from developed regions like Europe and North America are likely already to possess higher skills. Most of them come from countries more advanced than Korea and they come to Korea for marriage. In particular, immigrants from English-speaking countries are likely to receive higher wages (Bratsberg & Ragan, 2002; Friedberg, 2000; Holbrow, 2020; Kaushal, 2011; Zeng & Xie, 2004) in jobs that require international

activities, such as English teaching, international companies, and financial institutions (Akresh, 2006; Kanas & van Tubergen, 2009).

The same applies to male marriage immigrants. Men from most developing countries, especially Asian countries, are likely to enjoy a better life than those from their country of origin. However, unlike female marriage immigrants, these men are likely to have entered Korea not initially for marriage but to follow a Korean spouse and work first. Therefore, compared with other immigrants, most of them are likely to have already completed high school or university education and possess the ability to support their families. Considering the better education systems and national stature of developed countries, such as European and English-speaking countries, their human capital may be quite high. As previous studies (Burt, 1993; Cha & Ryu, 2018; Kim, Lee, & Choi, 2014; Portes & Sensenbrenner, 1993) have discussed, the more prestigious the social resources recognized in the host country, the easier the social adaptation in Korea, and the easier it will be for them to enter the labor market through their qualifications.

Another reason for this gender division is child-rearing. Most men support their families through their income. As previous studies have shown, child-rearing motivates male immigrants to earn more income and work longer hours to support their families (Ahituv & Lerman, 2007; Hill, 1979). Consequently, Korean and foreign women are likely to take care of household chores (Chin, Cho, & Baek, 2011) regardless of where they come from. Furthermore, men are generally freer from restrictions on economic activities than women (Yukongdi & Benson, 2005). Most jobs performed by immigrants are in relatively minority occupations, which may offer more opportunities to men, who tend to do heavier labor.

Discrimination

The third element relates to discrimination between men and women in economic activities. Becker (1971, 1985) argued that discrimination stems from differences in human capital and productivity. However, the range of jobs men and women can have may differ, especially because of their marital and child-rearing statuses. Employers may have different hiring preferences based on these factors (Petersen & Saporta, 2004; Reimer & Schröder, 2006).

In this case, a stable family environment and childbirth/childcare will be the most important factors for foreigners. Especially for immigrants, as they leave their families abroad to settle in Korea, they immerse themselves in Korean culture. Generally, naturalized immigrants decide to immigrate to Korea for its culture or a better standard of living so that their economic activities will be secured. However, most will be married immigrants who, unless they like Korea and naturalize after living in the country for a certain amount of time, will largely depend on their families or children for their living environments (Cha & Ryu, 2018). Men may receive higher wages due to their high human capital and economic freedom, but women will inevitably have to blend into Korean culture due to such factors as marital status, child-rearing, and gender wage differences in the Korean labor market. Especially in Korea, the discrimination they face changes depending on how well they adapt to the cultural environment and the Korean language (C. Lee, 2012). As N. Lee (2015) suggests, foreigners who have lived in Korea for a long time or who have better language proficiency have little difficulty adapting to Korean society and culture. This shows the extent to which Korean cultural elements influence immigrants, especially female immigrants, who would be exposed to more discriminatory factors because of marital status, child-rearing, and gender wage differences.

From another perspective, there is discrimination against immigrants through racism, the study of which initially emerged in the United States to explain the wage gap between black and white people. After the passage of the Civil Rights Act in 1964, many high-paying jobs were opened up to black people in the USA. However, it is evident that a wage gap still exists in the labor market (Bayer & Charles, 2016; Richey & Tromp, 2021). Similarly, Korea tends to show a receptive attitude toward white immigrants from the West, mainly those from Europe or North America, but an exclusive attitude toward those from Asia or other non-Western countries (M. Kim 2013; Ha, 2012). A survey on social distance among Korean university students showed that Koreans feel a greater sense of social distance toward Americans and Westerners than toward Korean Chinese, who are of the same ethnicity and understand Korean sentiments (Hwang, Kim, Lee, Choi, & Lee, 2007). Korea considers English important for employment, and there is a

difference in the jobs one can obtain based on one's English skills (I. Jang, 2015). Recently, both public and private companies have required English proficiency certificates (Jo, 2015). The seven countries recognized by the Ministry of Foreign Affairs (2015) as capable of teaching English conversation (E-2 visa)—the USA, Canada, Ireland, Australia, New Zealand, the UK, and South Africa—are all advanced countries. This category excludes English-speaking developing countries, showing a favorable view toward white immigrants from the West who can teach English.

Gender gaps in the Korean labor market

Finally, we examine gender gaps in the workplace in the Korean labor market. Wage gaps by gender exist anywhere in the world, and many scholars have studied gender income inequality for a long time (Cohen & Huffman, 2003; Cotter, DeFiore, Hermsen, Kowalewski, & Vanneman, 1997; Hartmann, 1987; Petersen & Morgan, 1995). Since 1988, South Korea has achieved remarkable economic success. However, considering the rapidly increasing economic growth rate, the level of gender equality is significantly lower than in other countries. In 2021, Korea had the largest gender wage gap among OECD countries (OECD 2021).

One reason for this appears to be the significant influence of Neo-Confucianist ideals. These ideals explain why the patriarchal social and family gender roles mentioned above are prevalent across all age groups in Korea (Jang, Kawachi, Chang, Boo, Shin, Lee, & Cho, 2009; Yang, 2003). Therefore, these ideals have been applied in the Korean labor market and continue to influence women's economic participation, low wages, and promotions (Bethmann & Rudolf, 2018). This problem becomes more significant when a married woman has a child (Yoo, 2003). Generally, men do not experience restrictions on economic activities and are recognized for their high human capital value in the workplace, whereas women who need to take care of child-rearing not only lack time but also have to manage their jobs. Consequently, most choose part-time work or quit their jobs, which is a major factor leading to career breaks (Y.-M. Kim, 2015). Indeed, the M-curve representing women's economic activity participation rate shows that it is the worst in Korea among OECD countries (C. Kim, 2014).

Second, the structural aspects of the labor market can significantly contribute to the wage gap, particularly in terms of job segregation by gender. The Korean gender gap often stems from a high gender pay gap (Bethmann & Rudolf, 2018; S. Jang et al., 2009; Yoo, 2003), which can be described as inequality arising from the barriers and discrimination that men and women face in specific occupations, often called the “glass ceiling effect”, which hinders women’s promotion at a certain level. Many studies have analyzed the structural perspectives of the labor market (Heo, 2003; Keum, 2004; Ihm, 2010; Tromp & Kwak, 2022). Heo (2003), Keum (2004), and Ihm (2010) have shown that, on average, men earn more than women with the same level of education. Tromp and Kwak (2022), using OB (Oaxaca-Blinder) Decomposition, found that the “explained” effects are similar across the distribution while the “unexplained” effects, which are called “discrimination”, are larger the further up the distribution that is associated with driving wider gaps in high-wage positions. This means that the higher the position of women, the more likely they are to face discrimination in the workplace.

Thus, in the case of immigrants, many cultural factors, such as individual characteristics and family status, should be considered. As women are educated and earn more money, their decision-making power increases, leading to a more equal division of household labor (Davis & Greenstein, 2004; Forste & Fox, 2012; Lewin-Epstein, Stier, & Braun, 2006). However, in these studies, the Korean labor market showed disadvantages for female workers, so they might take on household chores because of low wages to support a family. In addition, if a woman migrant worker comes from a developing country, she might face more challenges due to the intersectionality of gender and race, which results in weighted discrimination in the vertically double- and triple-structured labor market system. In this case, immigrants might have already been influenced by Korean culture in the labor market. Korea has less experience with immigration than Western European countries, as it does not even have an immigration ministry compared with countries with foreign immigration policies that have been built over a long period. Therefore, we need to conduct further research on the gender gap in the Korean labor market because these cultural factors can

influence the immigrant gender gap.

Data and Methodology

Data

This study used data from the 2018 National Multicultural Family Survey conducted by the Ministry of Gender Equality and Family. The data were provided by MDIS (Microdata Integrated Service), and the survey was conducted through interviews between August 9 and August 30, 2018. The survey included different types of questionnaires for family members such as household questionnaires and questionnaires for respondents, spouses, and children. Specifically, the surveyed questions included general characteristics of immigrants and naturalized persons, family formations and marital relationships, spousal relationships and decision-making, child-rearing, parental roles, relationships with parents, Korean language proficiency and social relationships, economic activities, experiences using support services, and requirements. Survey data from all family members and individual immigrants were used to obtain data on immigrant workers. We then combined all the necessary variables for analysis using the “merge” command in Stata. The primary subjects were marriage immigrants as specified under Article 2 of the Multicultural Family Support Law. However, since the 2018 survey, married or naturalized single persons have been included to investigate a more diverse range of immigrants. This survey does not encompass all foreign workers in Korea but represents long-settled immigrants. In total, 17,550 individuals were included in the survey. Among all the individuals, only 11,018 reported that they were paid. The final sample size for this analysis was reduced to 8,639 observations after excluding certain variables (detailed in Variables).

Variables

Table A1 in the Appendix describes all the variables used in the analysis. First, in this study, the dependent variable, which is the wage, was extracted from the question “What was your average gross income for the past three months (From May 1, 2018, to July 31, 2018)?” With

the responses in wage brackets. Values ranging from “No income” to over 5 million won were then converted to the midpoint of each wage bracket. For example, values less than 500,000 won were converted to 250,000 won, those between 500,000 and 1 million won were taken as 750,000 won, and incomes over 5 million won were top-coded as 5 million won. However, the average monthly income does not consider working hours. As the data were elicited from both male and female respondents and there is wage inequality based on working hours, this study analyzes both average monthly wages and hourly wages. The average monthly working hours were calculated by multiplying the average working hours of the past week (July 26–August 1, 2018) by 4.2.

For the independent variables, this study considers human capital attributes, such as education, work experience, proficiency in Korean, and other control variables. “Education” is defined both by the years of education completed abroad and the highest level of education achieved in Korea. However, in this context, we focus on the return to schooling rather than individual educational levels. To achieve this, we treated it as a continuous variable ranging from “no education” to “graduate school or higher.” Previous studies (Chiswick, 1979; Friedberg, 2000; Sanromá, Ramos, & Simón, 2009) have already differentiated between human capital acquired abroad and capital gained in the host country. In such cases, we subtract the years of education received abroad from the highest education level, because most individuals are likely to have completed their education in their home country, making it possible for them to pursue further studies in Korea to better integrate into their work and life. In the case of human capital, “Education (Home)” and “Education (Host)” represent the years of education abroad and in Korea, respectively. Continuous variables were used to accurately calculate the total number of years of education.

Second, experience denotes potential work experience as defined by Cho and Byoun (2015). The formula for potential work experience (Home) is the individual’s age at migration minus the years of education in the home country (return to schooling) minus 5. Additionally, this study controls for years in Korea, suggesting that the formula for potential work experience (Host) is years in Korea minus years of education in the host country (Korea).

This allowed us to compute the work experience accumulated in both the home and host countries. As for Korean ability, language proficiency in the host country is a crucial factor in job seeking and employment (Chiswick & Miller, 2009; Shields & Wheatley-Price, 2002). We used self-assessments of speaking, listening, reading, and writing skills as rated on a scale from 1 to 5. However, even if an individual excels at listening but struggles with speaking, evaluating their language skills might lead to an overestimation of their overall communication capability. Therefore, we determined their proficiency in Korean by averaging their scores across all skills.

Next, for the control variables, the country of origin can be divided based on the continents of each country. It is assumed that people born outside Korea did not initially live in Korea, even though some of them are multicultural individuals with Korean backgrounds. However, they were still born outside of Korea. Korea tends to show more favor toward Americans than Korean Chinese, who are familiar with Korean culture and can easily adapt (Ha, 2012; M. Kim, 2013). In addition, English is a necessary skill for obtaining a job in South Korea. Native English speakers who already possess this skill are likely to find work more easily. The seven countries recognized by the Ministry of Foreign Affairs (2015) as qualified to teach English (USA, Canada, Ireland, Australia, New Zealand, the UK, and South Africa) reflect Korea's preferential treatment toward some foreigners; hence, there is a need to treat them separately.

Finally, owing to the large proportion of certain countries, we separated countries of origin with more than 200 observations from each continent. For the Child-rearing variable, as there is no direct data available, we have converted the questions "Child Education: Please answer only if you have children 5 years or under (born after August 1, 2012): What is the biggest challenge you face as a parent of a child 5 years or under?" and "Child Education: Answer if you have children aged between 6 and below 24 years (August 1, 1993–July 31, 2012): What are the biggest difficulties you feel as a parent in child-rearing? Please choose two or fewer dummy variables in order of difficulty" to ascertain child-rearing status. In this case, we changed the dummy for those with children under 5 years of age, children between 6 and 24 years of age, and children of both age

groups. The remainder were presumed to have no children. Once a child starts school, parents have more free time to work, so we could examine the differences between the groups. Regarding the visa, the sub-question to “Please answer only if you do not have a Korean nationality. If you do, please go to number 45” is “Which qualification do you have for the stay?” Those who did not answer this question were converted into naturalized citizens. Finally, concerning the cleaned variables, because this study deals with hourly wages, we excluded self-employed and unpaid family workers. Occupations exclusively for males and other visa types were excluded. Finally, we cleaned up the remaining countries and inserted average wages for missing values.

Descriptive statistics

Table 1 presents the descriptive statistics of the regression sample. There is a substantial gender wage gap: Across the sample, the monthly gender wage gap accounts for 1.23 million Korean Won, while the hourly gender wage gap accounts for 6890 Won. Working hours differ between genders; females work 39.580 hours, while males work 42.737 hours on average per week. However, it is important to check whether the wage gap results from differences in human capital or from gender-based discrimination. The human capital variables in this study include education and work experience, differentiated between the home and host countries (Korea). This difference is crucial, because many immigrants complete their education in their home countries and seek additional education to adapt to Korean society. No significant gender differences were found in work experience (Home) or Korean language abilities. However, male migrants have significant advantages in terms of their years of education and work experience in the host country.

The study also includes dummy variables to consider cultural factors and explore individual characteristics like gender and country of origin. The pooled model indicated a higher percentage of female workers, underscoring the need to separate the gender variables for a detailed analysis. Additionally, as marital and child-rearing status significantly influences women’s labor supply decisions, this may introduce selection Occupational status was cate-

gorized into employment status and the specific occupation of each individual. This difference is particularly important among immigrants. For those employed by companies, there is a need to differentiate between those in regular positions and those in part-time roles because their wages can vary considerably. It can be observed that women are more likely to take on temporary jobs than men, possibly because women's part-time roles, as mentioned earlier, can provide them flexibility in undertaking other responsibilities, such as those reflecting gender roles. Regarding the type of visa, many immigrants either obtain working visas or become naturalized Korean citizens to secure stable employment. Without local connections, immigrants often find it challenging to maintain stable positions. Although working visas are available, qualification can be difficult without staying in South Korea.

Consequently, many immigrants enter Korea through marriage and later seek naturalization to ensure a more stable life. Even though there are few observations in the variables for certain visas, these data allow us to analyze the importance of human capital or possibly ethnicity in earnings by professional employment (E-1, E-7) and working visits (H-2). As most immigrants need to meet specific criteria or conditions to qualify for these visas, it is important to consider whether there are differences by the type of visa. Men are more likely to possess marriage immigrant visas than women. One possibility is that they did not notice the importance of naturalization since they have higher human capital. Finally, our pooled model showed differences between rural and urban areas and by gender.

Table 1.
Descriptive Statistics by Gender

Variable	Mean (Female)	Mean (Male)	Diff' (F-M)
<i>Individual Worker's Wage</i>			
Monthly wage	1486653	2715932	-1229279***
Log monthly wage	14.078	14.720	-0.642***
Hourly wage	10261	17151	-6890***
Log hourly wage	9.053	9.554	-0.501***
Working hours	39.580	42.737	-3.158***
<i>Human Capital</i>			
Education (Home)	10.889	12.107	-1.218***
Education (Host)	0.493	1.122	-0.629***
Work experience (Home)	11.278	11.572	-0.294
Work experience (Host)	11.916	14.073	-2.157***
Korean ability	3.866	3.908	-0.043*
<i>Control Variables</i>			
Country of origin			
Korean Chinese	0.226	0.349	-0.123***
Chinese	0.138	0.082	0.055***
Vietnam	0.238	0.019	0.219***
Philippines	0.096	0.011	0.085***
Cambodia	0.051	0.001	0.050***
Japan	0.052	0.038	0.014**
Mongolia	0.032	0.007	0.025***
Thailand	0.032	0.002	0.030***
Other Asian	0.090	0.207	0.117***
Americas	0.008	0.012	-0.004*
Europe	0.017	0.063	-0.045***
Africa	0.002	0.024	-0.022***
United States	0.013	0.100	-0.087***
English countries	0.006	0.086	-0.080***
Marital Status			
Unmarried	0.021	0.059	-0.038***
Married	0.849	0.871	-0.022**
Widowed	0.037	0.006	0.03***
Divorced	0.093	0.064	0.03***

Table 1. (Continued)

Variable	Mean (Female)	Mean (Male)	Diff (F–M)
Child status			
No child	0.310	0.487	-0.176***
Child aged 5 or below	0.146	0.198	-0.052***
Child aged 6–24	0.444	0.239	0.205***
Child aged 6–24	0.100	0.076	0.024***
Employment status			
Regular worker	0.531	0.652	-0.121***
Temporary worker	0.304	0.132	0.173***
Daily worker	0.165	0.216	-0.052***
Occupation			
Unskilled labor	0.346	0.174	0.172***
Manager	0.003	0.028	-0.024***
Professional and related worker	0.114	0.263	-0.149***
Office worker	0.058	0.075	-0.017***
Service worker	0.169	0.046	0.123***
Sales worker	0.061	0.028	0.033***
Skilled agricultural worker	0.006	0.004	0.002
Technician and related worker	0.074	0.211	-0.137***
Machine operator and assembler	0.168	0.172	-0.005
Type of visa			
Korean nationality	0.610	0.462	0.148***
Permanent residency (F-5)	0.066	0.075	-0.009
Marriage immigrant (F-6, F-2-1)	0.311	0.412	-0.102***
Residential (F-2, except F-2-1)	0.005	0.009	-0.004**
Family visitation (F-1)	0.001	0.002	-0.001
Overseas Koreans (F-4)	0.006	0.022	-0.015***
Professional employment (E-1 to E-7)	0.000	0.017	-0.018***
Working visit (H-2)	0.002	0.002	0
Region			
Urban	0.621	0.789	-0.168***
Rural	0.379	0.211	0.168***
Overall sample size	6,687 (77%)	1,952 (23%)	8639 (100%)

Note: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ (two-tailed t-test)

Methodology

First, we begin with a multivariate OLS regression model. Referring to Mincer and Polichek (1974) and Chiswick (1979), the determinants of a migrant worker’s wage can be written as shown in Equation (1); in Stata, it is easy to estimate such an OLS regression model and find the significance level through direct computation by using the `reg depvar [indepvars]` command:

$$\ln W_i = \alpha + \beta_1 Edu_i + \beta_2 Ex_i + \beta_3 Ex_i^2 + \beta_6 Ko_i + \gamma X_i + \varepsilon_i \quad (1)$$

where “ln W” denotes log wage, “Edu” refers to education (home and host), “Ex” indicates work experience (home and host), and “Ko” represents Korean ability. Subsequently, we add a vector X of control variables, such as individual characteristics, family status, occupational status, and other factors influencing wages.

Given our particular interest in gender differences, we derived results for both genders using a stratified sampling model. This equation is expressed as (2). In Stata, we can use `reg depvar [indepvars] if (groupvar==)`, and to consider heteroskedasticity, we can add “Robust” to both models. This is because most ordinary least squares (OLS) regression commands assume that observations show homoscedasticity.

$$\ln W_{F,i} = \alpha + \sum_{f=1}^n \beta_f \cdot X_{f,i} + \varepsilon \quad \text{and} \quad \ln W_{M,i} = \alpha + \sum_{m=1}^n \beta_m \cdot X_{m,i} + \varepsilon \quad (2)$$

$\ln W_F$, $\ln W_M$ indicate the wages of female and male immigrants, respectively. Using $\beta_f \cdot X_{f,i}$ and $\beta_m \cdot X_{m,i}$, we can investigate variables between different gender groups. However, it is difficult to directly compare the two groups because the regression model does not represent the entire female and male populations. Instead, it illustrates how the parameter estimation changes when a unit increases individually.

In this context, we apply Oaxaca-Blinder decomposition (Blinder, 1973; Oaxaca, 1973).

$$E(Y_F) - E(Y_M) = \frac{[E(X_F) - E(X_M)] \cdot \beta_F}{\text{Explained}} + \frac{E(X_F) \cdot [\beta_F - \beta_M]}{\text{Unexplained}} \tag{3}$$

We apply this model because the OB decomposition helps quantify the contribution of each independent variable to the wage gap between the two groups. However, Cotton (1988) points out that the basic OB decomposition underestimates the coefficients of one of the groups, resulting in overvaluation. In this case, extended methods could be considered. Several studies have proposed extended OB decompositions, among which we apply the decompositions proposed by Neumark (2004).

$$E(Y_F) - E(Y_M) = \frac{[E(X_F) - E(X_M)] \cdot \beta^*}{\text{Explained}} + \frac{(\beta_F - \beta^*) \cdot E(X_F) + (\beta^* - \beta_M) \cdot E(X_M)}{\text{Unexplained}} \tag{4}$$

and

$$\ln \overline{W_F} - \ln \overline{W_M} = \frac{(\overline{X_F} - \overline{X_M}) \cdot \beta^*}{\text{Explained}} + \frac{(\beta_F - \beta^*) \cdot \overline{X_F} + (\beta^* - \beta_M) \cdot \overline{X_M}}{\text{Unexplained}} \tag{5}$$

This two-fold model, as described by Jann (2008), allows for the observation of both the explained and unexplained parts. (4) shows that by using a pooled regression model, we can mitigate the issue of ignoring the coefficients of one other group. In Stata, we can simply use the `oaxaca depvar [indepvars], by(groupvar) pooled[(model_opts)] relax[(model_opts)]` command. Here, “*depvar*” denotes the dependent variable, “*indepvars*” refers to the independent variables, and “*groupvar*” could be gender in this study. For the two-fold model described by Jann (2008), the “pooled” option can be added. To ignore zero coefficients, the “relax ” option can also be included.

By using $\ln \overline{W_F} - \ln \overline{W_M}$, we obtain the mean value difference between the genders. The “Explained” part refers to the differences in observed characteristics. $\overline{X_F}$ and $\overline{X_M}$ refer to the average value of a variable for men and women, respectively, and the β^* coefficient refers to the X variable in the pooled regression model. In this case, we can observe a difference in wages due to the different characteristics of women and men. However, “Unexplained” refers to the differences in returns to the characteristics, which is called discrimination. By subtracting the men’s coefficient from the wom-

en's, we can determine how much the wage gap differs from the average value. If this value is negative, it indicates wage inequality against women in certain variables, as the first group comprises women. β_F and β_M represent the coefficients for female and male variables, respectively.

In addition, selecting omitted groups for categorical variables can present identification issues when using Oaxaca-Blinder decomposition. To address this, normalization can be applied, enabling the determination of how the average value of each categorical variable level contributes to the gender gap. In this context, we can use the normalization method termed the "averaging approach," as proposed by Yun (2005). Thus, we can simplify the process and solve the identification problem of categorical variables for decomposition. In Stata, we can apply `normalize(dumvar)` to the `oaxaca` command. For example, if there is a dummy variable, we can type `normalize(Con1 Con2 Con3 Con4) normalize(Emp1, Emp2, Emp3 Emp4)` to each independent dummy variable, including the reference group. However, because we do not present the full results of the decompositions, it is not necessary to use normalization.

Results

Determinants of immigrant workers' wages

Table 2 shows the results of the OLS estimations that examined the variables influencing immigrant workers' wages in Korea. The first column shows the monthly wage and the second column the hourly wage. Having both wages in the table allows a comparison to determine the independent variable that is more likely to influence the dependent variable using the t-value. In this case, we highlight the statistical significance with an asterisk t-value indicating the credibility of the result depending on the significance.

Examining the results, this study first observes the impact of human capital factors such as education, work experience, and Korean language skills. Therefore, it is essential to consider the cultural and societal dynamics of each country. Koreans traditionally value education (I. Jang, 2015). Previous studies have reported coefficients of 5.7 %, 7.6 %, and 1.8 %, respectively (Chiswick, 1979; Friedberg, 2000; Sanromá et al., 2009). In

our study, we found a contribution of 0.6%–1.4% from education in the home and host countries, which aligns with Sanromá’s findings. However, our findings indicate Korea’s emphasis on education regardless of where it was obtained and suggests that foreign education is recognized in Korea. Second, our research distinguishes between potential work experiences in the home and host countries. While Friedberg (2000) and Sanromá et al. (2009) found a positive wage effect from work experience, our study indicates that experience in one’s home country does not significantly affect wages in Korea. However, work experience in the host country was significant. This pattern suggests that Korean on-the-job training outweighs foreign work experience in determining wages. As for gender effects, the estimates suggest that holding everything else constant, men earn roughly 47.3 percent more than women do in terms of monthly wages. When we delve deeper into hourly wages to account for potential differences in working hours, the gap narrows, but men still earn 28.9 percent more per hour than women.

Table 2.
OLS Regression Model (Log Monthly and Hourly Wage)

VARIABLES	(1) Monthly wage	(2) Hourly wage
<i>Human Capital</i>		
Education (Home)	0.006*** (0.002)	0.012*** (0.002)
Education (Host)	0.013*** (0.005)	0.014*** (0.003)
Work Experience (Home)	−0.001 (0.002)	−0.003 (0.002)
Work Experience ² /100	−0.004 (0.006)	0.003 (0.006)
Work Experience (Host)	0.007** (0.003)	0.004* (0.002)
Work Experience ² /100	−0.012* (0.007)	−0.004 (0.006)
Korean ability	0.008 (0.006)	0.005 (0.006)

Table 2. (Continued)

VARIABLES	(1) Monthly wage	(2) Hourly wage
Control variables (8)		
Gender		
Women	Ref.	Ref.
Men	0.473*** (0.019)	0.289*** (0.016)
Country of origin		
Korean Chinese	Ref.	Ref.
Chinese	-0.038** (0.018)	-0.023 (0.017)
Vietnam	-0.119*** (0.021)	-0.098*** (0.020)
Philippines	-0.144*** (0.022)	-0.079*** (0.021)
Cambodia	-0.186*** (0.032)	-0.077** (0.030)
Japan	-0.314*** (0.034)	0.030 (0.034)
Mongolia	-0.118*** (0.034)	-0.087*** (0.034)
Thailand	-0.121*** (0.034)	-0.093*** (0.032)
Other Asias	-0.143*** (0.025)	-0.072*** (0.020)
Americas	-0.233*** (0.065)	0.004 (0.074)
Europe	0.082* (0.043)	0.125*** (0.042)
Africa	-0.068 (0.064)	-0.051 (0.062)
United States	0.102* (0.055)	0.183*** (0.044)
English countries	0.186*** (0.037)	0.264*** (0.046)

Table 2. (Continued)

VARIABLES	(1) Monthly wage	(2) Hourly wage
Marital Status		
Unmarried	Ref.	Ref.
Married	0.016 (0.041)	0.103*** (0.037)
Widowed	-0.011 (0.048)	0.051 (0.044)
Divorced	0.119*** (0.041)	0.098** (0.038)
Child Status		
No child	Ref.	Ref.
Child aged 5 or below	-0.129*** (0.023)	-0.033* (0.018)
Child aged 6-24	-0.060*** (0.015)	-0.017 (0.013)
Children in both age groups	-0.153*** (0.022)	-0.032 (0.021)
Employment Status		
Regular worker	Ref.	Ref.
Temporary worker	-0.354*** (0.013)	-0.103*** (0.013)
Daily worker	-0.549*** (0.018)	-0.134*** (0.018)
Occupation		
Unskilled labor	Ref.	Ref.
Manager	0.363*** (0.056)	0.497*** (0.060)
Professional and related worker	0.021 (0.029)	0.501*** (0.026)
Office worker	0.111*** (0.040)	0.262*** (0.023)
Service worker	0.019 (0.017)	-0.012 (0.016)
Sales worker	0.073*** (0.025)	0.088*** (0.027)

Table 2. (Continued)

VARIABLES	(1) Monthly Wage	(2) Hourly Wage
Skilled agricultural worker	0.103 (0.073)	-0.067 (0.082)
Technician and related worker	0.177*** (0.017)	0.118*** (0.016)
Machine Operator and assembler	0.079*** (0.013)	0.058*** (0.014)
Type of visa		
Korean nationality	Ref.	Ref.
Permanent resident (F-5)	0.014 (0.032)	0.054** (0.025)
Marriage immigrant (F-6, F-2-1)	0.041*** (0.015)	0.007 (0.013)
Residence (F-2, except F-2-1)	0.030 (0.067)	-0.052 (0.060)
Family visitation (F-1)	-0.237 (0.208)	-0.302 (0.244)
Overseas Korean (F-4)	-0.023 (0.183)	0.119* (0.069)
Professional employment (E-1 to E-7)	0.404*** (0.060)	0.213*** (0.069)
Working visit (H-2)	0.300*** (0.104)	0.185** (0.084)
Region		
Urban	Ref.	Ref.
Rural	0.011 (0.011)	0.004 (0.011)
Constant	14.19*** (0.065)	8.791*** (0.057)
Observations	8,639	8,434
R ²	0.359	0.341

Note: Both coefficients and standard errors are rounded to three decimal places. Robust standard errors appear in parentheses.*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The country-of-origin variable offers insights into Koreans' perceptions toward foreigners. As indicated earlier, Korea seems more receptive to immigrants from the West than those from Asia or other non-Western regions (Ha, 2012; M. Kim, 2013). Notably, English-speaking countries, including the United States, have the highest coefficients, even surpassing those of Korean-Chinese, who are familiar with Korean culture. Immigrants from other developing countries of origin such as other Asian, American, and African countries still earn lower wages than those from Western countries. However, those from Japan, which is one of the most developed countries, also earn lower wages than the Korean Chinese, suggesting that their ethnicity can influence the level of wages and that racism might exist in the Korean labor market. Regarding marital status, we observed that married individuals generally earned higher hourly wages than unmarried individuals. In addition, wages tended to increase after divorce. This suggests potential financial responsibilities associated with marriage and newfound financial freedom post-divorce. However, when individuals have children, particularly those under five years, wages appear to decline. This may be due to the reduced working hours available to immigrant parents with young children. In terms of occupation, there is a large wage difference between regular and temporary or daily workers, which likely reflects job stability. Specifically, stable and higher-skilled jobs (managers, professionals, related workers, and office workers) have higher wages. Although jobs requiring manufacturing skills are paid more than unskilled labor, they are generally considered lower-skilled. Regarding visa type, legal protection does not appear to have a significant impact on immigrant wages. Skills appear to play a crucial role in this process. For instance, those with professional employment visas, which are often linked to high-quality jobs, earn more than naturalized immigrants. This underscores the idea that with the right skills and experience, immigrant workers might earn more than naturalized workers in Korea. Finally, the region variable did not have any significant impact on our analysis.

Determinants of immigrant workers' wages by gender

Table 3 presents the OLS regression results by gender. While previous domestic studies (Cho & Byoun, 2015; Cho, Oh, & Min, 2017) focused on female immigrants, this research included both male and female immigrants and utilized the stratified sampling model to identify differences. In particular, Cho and Byoun (2015) indicated that years of education influenced wages by 1–1.7%, which can be considered very similar to our findings, ranging from 1.1–1.7% for hourly wages. When differentiating between overseas and domestic educational years, it is evident that education plays an important role for both genders. Interestingly, work experience and Korean language ability matter only for male wages and not for female wages. Moreover, only host country work experience is correlated with wages, while home country work experience is insignificant, *ceteris paribus*.

The country-of-origin variable showed a trend similar to that of the pooled regression model. Immigrants from English-speaking countries, including the United States and Europe, display positive coefficients and significant results. In contrast, immigrants from Asia, the Americas, and Africa, when compared to Korean-Chinese, showed a negative relationship. In this case, we can assume that wage differences based on country of origin are not due to gender but rather to the cultural perspectives of Korea toward foreigners (Ha, 2012; M. Kim, 2013), and racism possibly exists in the Korean labor market. Another hypothesis regarding the male group from developing countries that earns lower wages is that Korean language proficiency influences male migrant workers more negatively. In contrast, for the female group, Korean language proficiency did not show statistically significant associations. With regard to marital status, married immigrant males earn approximately 12–13% higher hourly wages than their unmarried counterparts. This suggests that married men, likely because of their responsibility to support their families, either work harder or seek better-paying jobs. Conversely, for the child-status variable, female immigrants having children tend to earn considerably less.

Table 3.

OLS Regression Model by Gender (Log Monthly and Hourly Wage)

VARIABLES	(1)	(2)	(3)	(4)
	Monthly wage (Female)	Monthly wage (Male)	Hourly wage (Female)	Hourly wage (Male)
<i>Human Capital</i>				
Education (Home)	0.003 (0.002)	0.014*** (0.004)	0.011*** (0.002)	0.017*** (0.004)
Education (Host)	0.012** (0.006)	0.014*** (0.005)	0.015*** (0.004)	0.012** (0.006)
Work Experience (Home)	-0.003 (0.003)	0.001 (0.003)	-0.004* (0.002)	-0.002 (0.004)
Work Experience ² /100	-0.001 (0.007)	-0.007 (0.009)	0.007 (0.007)	-0.001 (0.009)
Work Experience (Host)	0.007* (0.004)	0.008** (0.004)	0.002 (0.003)	0.009** (0.004)
Work Experience ² /100	-0.016* (0.009)	-0.010 (0.009)	0.001 (0.008)	-0.010 (0.008)
Korean ability	0.000 (0.008)	0.032*** (0.010)	-0.002 (0.008)	0.019 (0.012)
<i>Control variables (7)</i>				
<i>Country of origin</i>				
Korean Chinese	Ref.	Ref.	Ref.	Ref.
Chinese	-0.032 (0.021)	-0.046 (0.032)	-0.018 (0.019)	0.000 (0.039)
Vietnam	-0.118*** (0.026)	-0.202*** (0.056)	-0.087*** (0.023)	-0.136* (0.071)
Philippines	-0.131*** (0.026)	-0.251** (0.123)	-0.070*** (0.023)	0.001 (0.080)
Cambodia	-0.186*** (0.035)	-0.248** (0.106)	-0.068** (0.032)	-0.238** (0.103)
Japan	-0.317*** (0.039)	-0.133** (0.065)	0.068* (0.038)	-0.028 (0.078)
Mongolia	-0.098*** (0.036)	0.016 (0.132)	-0.064* (0.036)	-0.027 (0.121)
Thailand	-0.116*** (0.035)	-0.259*** (0.099)	-0.079** (0.033)	-0.294* (0.175)
Other Asias	-0.101*** (0.034)	-0.135*** (0.030)	-0.046* (0.026)	-0.086** (0.036)
Americas	-0.278*** (0.074)	-0.180 (0.125)	0.030 (0.074)	0.029 (0.171)
Europe	-0.001 (0.061)	0.115* (0.063)	0.056 (0.058)	0.247*** (0.067)
Africa	-0.110 (0.202)	-0.110** (0.056)	0.113 (0.115)	-0.089 (0.074)
United States	0.130 (0.130)	0.005 (0.059)	0.241*** (0.084)	0.212*** (0.063)
English countries	0.333*** (0.094)	0.062 (0.053)	0.304*** (0.083)	0.319*** (0.065)

Table 3. (Continued)

VARIABLES	(1) Monthly wage (Female)	(2) Monthly wage (Male)	(3) Hourly wage (Female)	(4) Hourly wage (Male)
Marital Status				
Unmarried	Ref.	Ref.	Ref.	Ref.
Married	-0.082 (0.062)	0.120** (0.056)	0.083* (0.045)	0.133** (0.062)
Widowed	-0.103 (0.066)	-0.014 (0.090)	0.037 (0.051)	-0.020 (0.097)
Divorced	0.046 (0.061)	0.097 (0.062)	0.101** (0.046)	0.039 (0.066)
Child Status				
No child	Ref.	Ref.	Ref.	Ref.
Child aged 5 or below	-0.205*** (0.031)	0.035 (0.028)	-0.046** (0.021)	-0.013 (0.034)
Child aged 6-24	-0.114*** (0.019)	0.058** (0.023)	-0.032** (0.016)	0.024 (0.028)
Children in both age groups	-0.230*** (0.027)	0.069** (0.030)	-0.051** (0.025)	0.016 (0.038)
Employment Status				
Regular worker	Ref.	Ref.	Ref.	Ref.
Temporary worker	-0.364*** (0.015)	-0.270*** (0.032)	-0.114*** (0.013)	-0.071* (0.040)
Daily worker	-0.619*** (0.022)	-0.241*** (0.036)	-0.178*** (0.021)	0.001 (0.041)
Occupation				
Unskilled labor	Ref.	Ref.	Ref.	Ref.
Manager	0.459*** (0.106)	0.477*** (0.064)	0.584*** (0.124)	0.482*** (0.077)
Professional and related worker	-0.0396 (0.035)	0.300*** (0.049)	0.517*** (0.030)	0.478*** (0.055)
Office worker	0.073 (0.055)	0.301*** (0.051)	0.241*** (0.026)	0.342*** (0.057)
Service worker	0.013 (0.018)	0.181*** (0.063)	-0.010 (0.017)	0.045 (0.060)
Sales worker	0.076*** (0.027)	0.137* (0.081)	0.083*** (0.027)	0.198 (0.120)
Skilled agricultural worker	0.101 (0.084)	0.202* (0.114)	-0.064 (0.095)	0.000 (0.135)
Technician and related worker	0.124*** (0.021)	0.305*** (0.030)	0.048** (0.019)	0.215*** (0.036)
Machine operator and assembler	0.080*** (0.015)	0.209*** (0.031)	0.049*** (0.014)	0.141*** (0.042)

Table 3. (Continued)

VARIABLES	(1)	(2)	(3)	(4)
	Monthly wage (Female)	Monthly wage (Male)	Hourly wage (Female)	Hourly wage (Male)
Type of visa				
Korean nationality	Ref.	Ref.	Ref.	Ref.
Permanent resident (F-5)	0.005 (0.040)	0.027 (0.040)	0.040 (0.029)	0.092* (0.055)
Marriage immigrant (F-6, F-2-1)	0.029 (0.018)	0.059** (0.025)	-0.008 (0.015)	0.040 (0.027)
Residence (F-2, except F-2-1)	0.005 (0.087)	0.033 (0.116)	-0.050 (0.070)	-0.027 (0.110)
Family visitation (F-1)	-0.275 (0.270)	-0.150 (0.127)	-0.411 (0.359)	-0.151 (0.187)
Overseas Korean (F-4)	-0.177 (0.361)	0.145* (0.075)	0.190 (0.127)	0.072 (0.057)
Professional employment (E-1 to E-7)	1.244*** (0.081)	0.373*** (0.054)	0.687*** (0.063)	0.255*** (0.076)
Working visit (H-2)	0.226* (0.119)	0.623*** (0.124)	0.179* (0.094)	0.298** (0.144)
Region				
Urban	Ref.	Ref.	Ref.	Ref.
Rural	0.027** (0.013)	-0.031 (0.022)	0.010 (0.012)	-0.004 (0.026)
Constant	14.44*** (0.093)	14.05*** (0.090)	8.900*** (0.069)	8.779*** (0.104)
Observations	6,687	1,952	6,551	1,883
R ²	0.239	0.306	0.216	0.340

Note: Both coefficients and standard errors are rounded to three decimal places (0.000). Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

This wage gap is even more pronounced in monthly wages than in hourly wages, indicating the role of women in family care at home. For men, significant results were apparent when they had children aged 6–24 years, and children in both age groups, which aligned with the aforementioned points. The results for employment status highlight labor market segregation into regular and nonregular jobs. Temporary and daily workers earn significantly lower wages than regular workers; however, this gap is particularly strong and entails a much higher wage penalty for female workers. As mentioned previously, the difference between high- and low-skilled occupations shows that these distinctions are still relevant for both genders. Highly skilled workers, such as managers and professionals, show similar wage premiums for both genders. However, gender pay gaps exist for positions such as technicians and machine operators. Regarding visa types, as in the earlier pooled model, individuals with working visas or professional employment visas earned the highest wages. This might indicate a wage increase owing to the specific human capital of these migrants. Finally, the region variable did not show significant results.

In summary, the gender-stratified regression analysis suggests that what matters for wages differ between male and female immigrants. While the education coefficients were very similar, work experience mattered only for men. However, when considering the mean value of the education variable, returns on education from the home country are much lower for migrant women than for migrant men, even though everything is held constant (e.g., same education, type of job, industry, etc.). This suggests that by providing higher wages to male migrant workers, the Korean labor market does not appreciate female overseas education as much as that of males. In addition, our findings suggest that the “Child status” variables have a negative effect for women, but not for men. Similarly, marital status has a more positive coefficient for men. To further understand the underlying factors contributing to these differential effects, the following section employs the Oaxaca-Blinder decomposition to disentangle gender wage gaps.

Oaxaca-Blinder decomposition by gender

Table 4 presents the aggregate Oaxaca-Blinder decomposition results.

The mean logs of monthly wages for women and men are 14.08 and 14.72, respectively, and 9.053 and 9.554 for hourly wages. Hence, the total differences in monthly and hourly wages are -0.642 and -0.501 , respectively, indicating that women are paid less than men. These gender wage gaps can be broken down into an “Explained” part due to male-female differences in endowments, such as education or experience, and an “Unexplained” part. The Explained factors in the Oaxaca-Blinder Decomposition include human capital, such as education (home or host), work experience (home or host), and Korean ability, and categorical variables, such as country of origin, marital status, child status, employment status, occupation, type of visa, and region. As for monthly wages, the “Explained” part is -0.169 , while the “Unexplained” part, which represents wage inequality due to discrimination and other unobserved factors, contributes -0.473 to the gender wage gap in monthly wages.

Table 4.

Aggregate Oaxaca-Blinder Decomposition (Log Monthly and Hourly Wage)

VARIABLES	(1)	(2)
	Overall (Monthly wage)	Overall (Hourly wage)
Female	14.08 (0.007)	9.053 (0.006)
Male	14.72 (0.011)	9.554 (0.013)
Difference	-0.642 (0.013)	-0.501 (0.015)
Explained	-0.169 (0.014)	-0.212 (0.013)
Unexplained	-0.473 (0.019)	-0.289 (0.016)
Observations	8,639	8,434

Note : “Female” and “Male” represent the means of wages. The numbers are available in the descriptive statistics and section (4) in Methodology.



Figure 1. Gender wage gap in monthly and hourly wages,
Source: Author (2023)

By contrast, for hourly wages, the unexplained part is still larger than the explained part, but the difference is smaller. The unexplained part is larger for monthly wages because, on average, migrant women work fewer hours per month because of childcare and household duties. Overall, large unexplained portions of the gender wage gap suggest significant discrimination against migrant women in the Korean labor market. Figure 1 illustrates the difference between the explained and unexplained parts of the gender wage gaps in monthly and hourly wages with two bars, each divided into two segments. The lower and upper parts of each bar represent the unexplained and explained portions of the wage gap, respectively. In this case, we can distinguish between the gaps by measuring the explained and unexplained parts and the extent to which they decrease. Doing so shows a relative decrease in the unexplained wage gap when transitioning from monthly to hourly wages.

Discussion and Conclusion

This study uses data from the 2018 Nationwide Multicultural Family Survey to examine the determinants of immigrant workers' wages, specifically focusing on long-term immigrants in Korea and wage differences between women and men. First, we employed a multiple regression model accounting for human capital factors, such as education, work experience, and Korean language ability, along with various control variables that have cultural influences. Unlike previous studies (Cho & Byoun, 2015; Cho et al., 2017) using the same dataset series, education was divided into two categories, education in the home country and education in the host country. For potential work experience, we also distinguish between the home and host countries. Then, considering the biased gender ratio toward female workers in the data, a stratified sampling model was applied to identify significant variables. In human capital, educational effects are significantly positive, implying that home and host education are both important factors. However, the results for work experience show that only the host country's experience matters. Among the control variables, the country-of-origin variable shows that most European or English-speaking countries are statistically significant, implying that immigrants from developed countries earn higher wages than those from developing countries, more specifically English-speaking countries. Also, those from Japan, which is one of the most developed countries, earn lower wages than the Korean Chinese, suggesting that their ethnicity can influence the level of wages and that racism might exist in the Korean labor market. For the marital and child status variables, married men earned more than unmarried immigrants, whereas women with children earned less than those without. This reflects the traditional division of family roles in South Korea, which also applies to immigrants. Almost all the variables were significant in terms of employment status. However, women in manufacturing roles earned less than males. This suggests that the productivity of female workers is less recognized than that of males in the Korean labor market, possibly because the tasks often involve

heavy work. Most visa types that require specific skills, jobs, or ethnicities showed higher wages for immigrants equipped with these criteria, whereas regional characteristics were not statistically significant.

To estimate the gender gap, this study applied the Oaxaca-Blinder decomposition to explain the wage difference between women and men, which was not addressed by the stratified sampling model. Notably, when monthly and hourly wages were compared, we observed a reduction in wage inequality. In this case, the unexplained part, often called discrimination or the effect of other unobserved factors, implies that female workers are discriminated against in the Korean labor market in terms of the monthly wage compared to the hourly wage. It is possible for married women to quit their jobs or shift to part-time jobs, assuming that most women need to take care of housework or childcare. Another possibility is that unobserved factors can influence the discrimination value because the Oaxaca-Blinder decomposition includes a constant value, which suggests that the inclusion of more variables could change the unexplained part. However, we need to look more at the discrimination values.

Overall, the results for the wage differences appear reasonable. Some variables such as marital and child status suggest different wage estimates for men and women. Specifically, the Oaxaca-Blinder decomposition implies that women have lower wages than men, not only because of the explained part, but also the unexplained part, often called discrimination or the effect of unobserved factors. While immigrants have assimilated into Korean culture and society, the wage difference shows a pattern similar to that of Korean workers, as mentioned in the literature review, highlighting ongoing issues in the Korean labor market, with women being notably disadvantaged. Thus, it would be interesting to compare the gap between immigrants and Korean workers using these variables. The author wishes to leave this topic for future research.

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Appendix

Table A1.

Variable Descriptions

Variable	Description
<i>Individual income</i>	Average gross income for the past three months (May 1–July 31, 2018) “0” = No income, “1” ≤ 500,000, “2” = 500,000–1,000,000, “3” = 1,000,000–1,500,000, “4” = 1,500,000–2,000,000, “5” = 2,000,000–2,500,000, “6” = 2,500,000–3,000,000, “7” = 3,000,000–3,500,000, “8” = 3,500,000–4,000,000, “9” = 4,000,000–4,500,000, “10” = 4,500,000–5,000,000, “11” > 5,000,000
<i>Working hours</i>	Working hours
<i>Education</i>	Highest level of education in Korea; we can assume that there are people who chose education that overlapped abroad and in Korea. “0” = no degree, “1” = elementary school, “2” = middle school, “3” = high school, “4” = technical college, “5” = university, “6” = graduate school
<i>Years of education abroad</i>	Years of education abroad
<i>Years in Korea</i>	Year of first entry: The time when someone whose current nationality was foreign or who had a foreign nationality at birth first entered the Republic of Korea for purposes such as residence or employment. Visits for travel and the like are excluded.
<i>Korean ability</i>	Korean language ability (Self-estimation) Speaking (“1” = Excellent, “2” = Good, “3” = Average, “4” = Not good, “5” = Very bad), Listening (“1” = Excellent, “2” = Good, “3” = Average, “4” = Not good, “5” = Very bad), Reading (“1” = Excellent, “2” = Good, “3” = Average, “4” = Not good, “5” = Very bad), Writing (“1” = Excellent, “2” = Good, “3” = Average, “4” = Not good, “5” = Very bad)
<i>Age</i>	International age
<i>Gender</i>	Sex of an individual (“1” = Female, “2” = Male)
<i>Country of origin</i>	Appendix Table A2

Table A1. (Continued)

Variable	Description
<i>Marital status</i>	Marital status “1” = <i>Unmarried</i> , “2” = <i>Married</i> (including common-law marriage), “3” = <i>Death of Spouse</i> , “4” = <i>Divorced, Live Separately</i>
<i>Child-rearing</i>	After extracting values from the questions below, they are converted into Child-rearing variables. Child Education: Please answer only if you have children 5 years or under (born after August 1, 2012), If not, go to number 16 (14. What is the biggest challenge you face as a parent of a child 5 years or under) Child Education: Answer if you have children aged between 6 and below 24 years (August 1, 1993–July 31, 2012). If not, go to number 17 (16. What are the biggest difficulties you feel as a parent in child-rearing? Please choose two or fewer in order of difficulty)
<i>Employment status</i>	Employment status “1” = <i>Regular employee</i> , “2” = <i>Temporary employee</i> , “3” = <i>Daily employed worker</i> , “4” = <i>Self-employed with (an) employee(s)</i> , “5” = <i>Self-employed without (an) employee(s)</i> , “6” = <i>Unpaid family worker for the family business</i>
<i>Occupation</i>	Wrote main job (work) last week (July 26–August 1, 2018) and entered by KOSTAT (categorized according to jobs) “1” = Management, “2” = Experts and related personnel, “3” = Office worker, “4” = Service worker, “5” = Salesperson, “6” = Only capitalize all the word after the first if this is an official category with a specific legal definition. Agriculture, Forestry, and Fisheries Skilled Worker, “7” = Skilled personnel and related functional personnel, “8” = Equipment, mechanical operation, and assembly personnel, “9” = Unskilled labor, “10” = Soldier
<i>Type of visa</i>	Qualification for the stay “1” = <i>Preferment residency (F-5)</i> , “2” = <i>Marriage immigrant (F-6)</i> , <i>spouse of Korean national (F-2-1)</i> , “3” = <i>Residential (F-2, but except F-2-1)</i> , “4” = <i>Family visitation (F-1)</i> , “5” = <i>Overseas Korean (F-4)</i> , “6” = <i>Professional employment (E-1 to E-7)</i> , “7” = <i>Working visit (H-2)</i> , “8” = <i>Other</i>
<i>Region</i>	Region “1” = <i>Urban</i> , “2” = <i>Rural</i>

Table A2.

Variable description (Country of origin)

Variable	Description
<i>Country of origin (Born outside of Korea)</i>	<p>Asia</p> <p>101 = Afghanistan, 105 = Bangladesh, 108 = Myanmar 110 = Cambodia, 111 = Sri Lanka, 112 = China, 113 = Taiwan, 120 = Hong Kong, 122 = Korean Chinese, 124 = India, 125 = Indonesia, 126 = Iran, 127 = Iraq, 128 = Israel, 130 = Japan, 131 = Jordan, 133 = Kazakhstan, 134 = Kyrgyzstan, 135 = Kuwait, 138 = Laos, 142 = Macao, 143 = Malaysia, 145 = Mongolia, 148 = Nepal, 153 = Pakistan, 154 = Palestine, 155 = Philippines, 156 = Timor-Leste, 162 = Saudi Arabia, 164 = Singapore, 165 = Syria, 169 = Tajikistan, 170 = Thailand, 171 = Turkey, 172 = Turkmenistan, 180 = United Arab Emirates, 181 = Uzbekistan, 185 = Vietnam, 191 = Yemen, 304 = Armenia, 305 = Azerbaijan, 323 = Georgia</p> <p>Americas</p> <p>201 = Antigua and Barbuda, 202 = Argentina, 208 = Bolivia, 209 = Brazil, 214 = Chile, 215 = Colombia, 216 = Costa Rica, 217 = Cuba, 221 = Dominican Republic, 224 = Ecuador, 225 = El Salvador, 231 = Guatemala, 236 = Honduras, 240 = Jamaica, 248 = Mexico, 252 = Nicaragua, 255 = Panama, 256 = Paraguay, 257 = Peru, 262 = Saint Kitts and Nevis, 268 = Trinidad and Tobago, 274 = Uruguay, 280 = Venezuela</p> <p>Europe</p> <p>301 = Albania, 303 = Austria, 306 = Belgium, 307 = Bulgaria, 308 = Belarus, 310 = Czech Republic, 313 = Denmark, 320 = Finland, 321 = France, 322 = Russian Korean, 324 = Germany, 326 = Greece, 329 = Hungary, 335 = Italy, 339 = Latvia, 343 = Macedonia, 346 = Moldova, 350 = Netherlands, 352 = Norway, 360 = Poland, 361 = Portugal, 365 = Romania, 366 = Russia, 367 = Serbia, 368 = Slovakia, 370 = Slovenia, 372 = Spain, 373 = Sweden, 374 = Switzerland, 378 = Ukraine, 391 = Croatia</p> <p>Oceania</p> <p>418 = Fiji</p> <p>Africa</p> <p>502 = Algeria, 503 = Angola, 510 = Cameroon, 517 = Democratic Republic of the Congo, 525 = Egypt, 527 = Ethiopia, 532 = Ghana, 537 = Ivory Coast, 540 = Kenya, 555 = Morocco, 562 = Nigeria, 572 = Senegal, 583 = Tanzania, 585 = Tunisia, 588 = Uganda</p> <p>English Countries</p> <p>213 = Canada, 275 = United States, 316 = United Kingdom, 334 = Ireland, 404 = Australia, 446 = New Zealand, 576 = South Africa</p>

Source: UNSD

Biographical Note

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