

# Digital Transformation and Women's Employment: The Case Study of Korea

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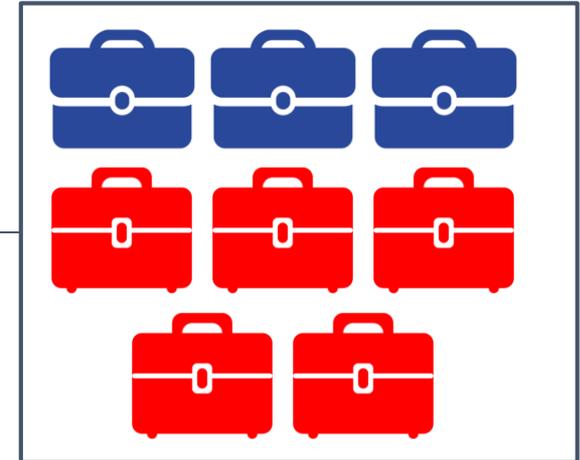
# 01 Introduction

## Background & Challenges

The potential impact of digital transformation on industry structures and labor markets has been a major topic in academic conferences and seminars over the past five years. (WEF, 2016)

The World Economic Forum(2016)

Lost Job



 **women**

 **men**

# 01 Introduction

Job replacement  
by machines  
according to  
**Frey & Osborne**

**Simple prediction**

**Difficulty of job prediction**

**“Jobs simply cannot be replaced by technology”**

**Consideration of social policy:**

social acceptance of technology (ex. Ethical)

&

potential benefits of implementation

# 01 Introduction

Regarding women's employment in relation to digital transformation, it is important to consider if the currently pervasive gender inequality in the labor market will be reduced with digital transformation, as well as how the quality and quantity of jobs will be affected.

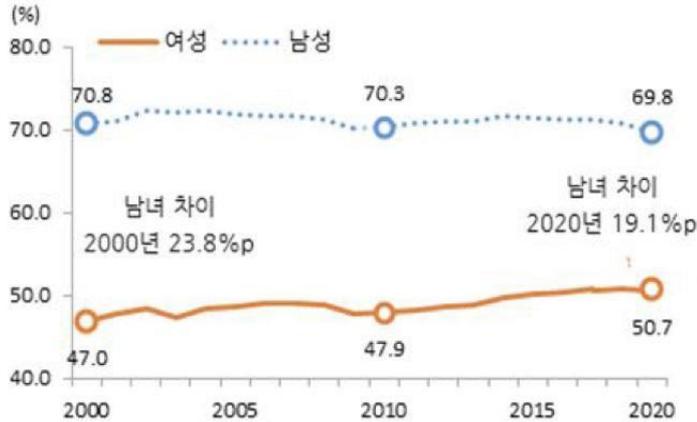
## Goal of Presentation

- ❖ to review the changes observed in gender disparity in South Korea's labor market over the past decade
- ❖ to identify the industries significantly affected by digital transformation
- ❖ to discuss the implications of our findings on gender equality.

# 02 Changes in South Korea's Labor Market

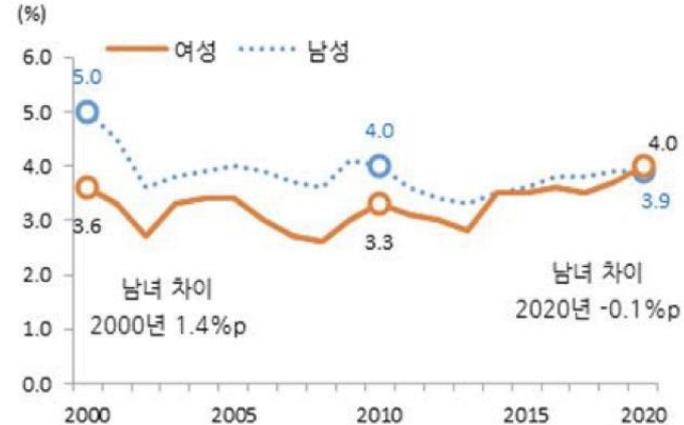
Source: Raw data from the Economically Active Population Survey, Statistics Korea (Min-jeong Gang, 2022, p.4)

Figure 1.



Women / Men / Gender gap:  
**23.8%p in 2000 / 19.1%p in 2020**

Figure 2.



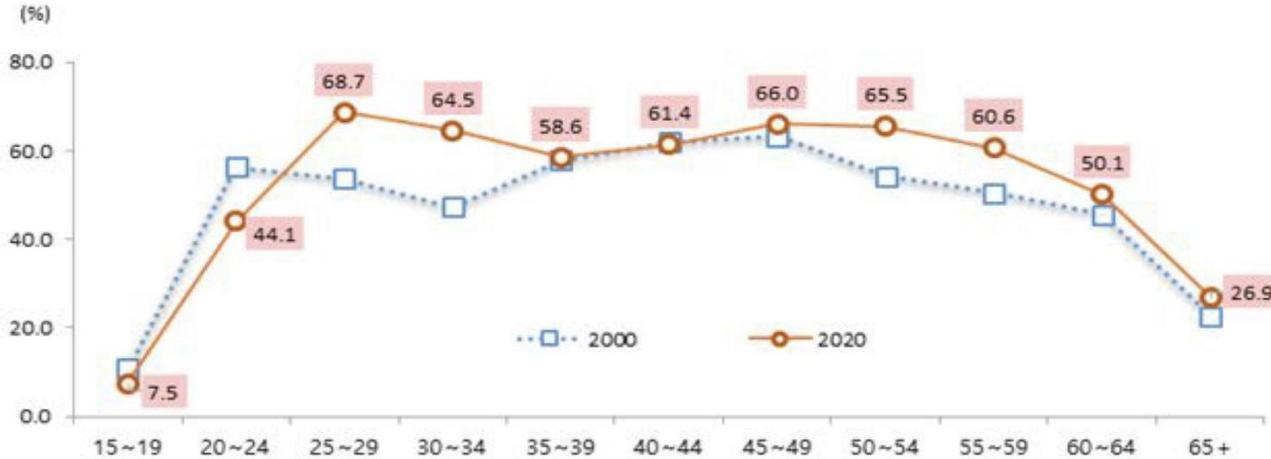
Women / Men / Gender gap:  
**1.4%p in 2000 / -0.1%p in 2020**

- ❖ Korea's gender gap narrowed, gender unemployment gap declined  
→ women are actively seeking jobs
- ❖ Still, women find it more difficult to find decent jobs compared to their male counterparts.

# 02 Changes in South Korea's Labor Market

Source: Women's Lives Viewed through the Lens of Statistics (September 2, 2021)

Figure 3



Economic participation of women:  
→ Age 20s  
**(increased)**  
→ M-Bracket from Early 30 to Late 30s  
**(increased)**  
→ M-Shape (more or less retained shape)

- ❖ The contour of South Korean women's labor market participation by age group has greatly changed over the past 20 years.
  - The altered position of the lowest point in the curve is likely to be related to women's delayed childbirth, indicating that women's departure from the labor market is closely tied to their childcare duties.
- ❖ This M curve shows that **women's disrupted career patterns continue** and serve as a **main cause of gender disparity** in the labor market.

## 02 Changes in South Korea's Labor Market

The gender wage gap starts widening around the 25-29 age group and peaks at the 50-54 age group.

Figure 4. Wage by gender and age (Unit: 1,000 won)



\* 자료: 고용노동부, 고용형태별 근로실태조사(19)

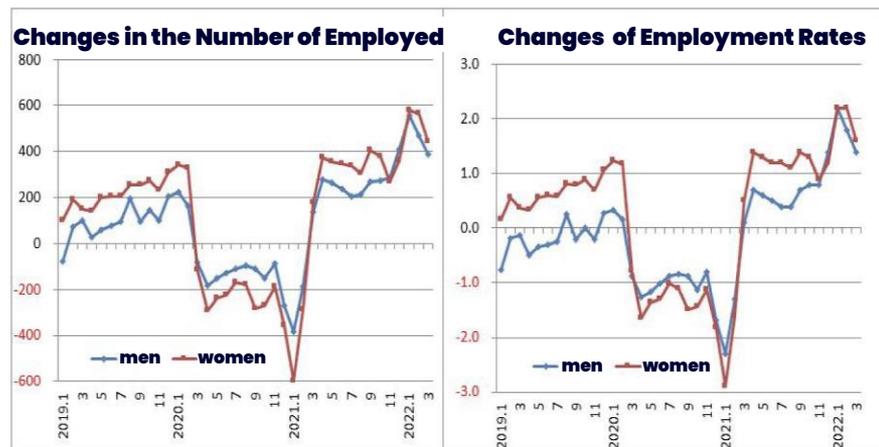
Source: The Survey of Employment Status by Employment Type, the Ministry of Employment and Labor (2019)

While reasons for women's early retirement may be various, the greatest cause identified at the national level is pregnancy and childcare. Unstable labor conditions, which is the second greatest cause following the lifecycle factor, include challenges of striking work-life balance due to long working hours and poor work conditions for irregular workers.

## 03 Changes in Industry Structures during COVID-19 & Digital Transformation

Figure 5. Changes in the number of the employed and in employment rates

(Unit: 1,000 persons; %p)



Source: Raw data from the Economically Active Population Survey, Statistics Korea (The graphs were created by the author using the data.)

While the decline in employment was greater among women during the Covid-19 pandemic (March 2020-February 2021) compared to men, women's employment recovered faster and more broadly when the pandemic started to decede in March 2021.

Employment rates started bouncing back mainly around no-contact services in March 2021.

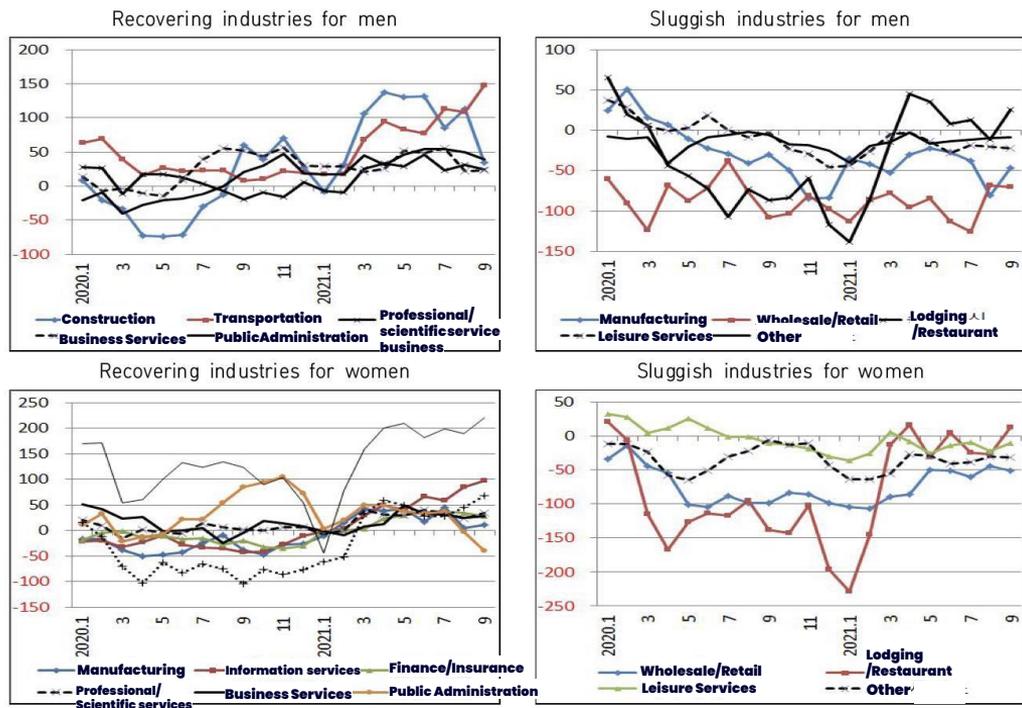
Employment rates continued a steady rise in decent jobs in construction and transportation industries for men and in social welfare, IT, and professional/scientific service industries for women.

Meanwhile, in-person service industries, including wholesale and retail services, lodging and restaurant businesses, and leisure services, remained sluggish.

# 03 Changes in Industry Structures during COVID-19 & Digital Transformation

Figure 6. Changes in employment rates among recovering industries and sluggish industries

(Unit: 1,000 persons; YOY)

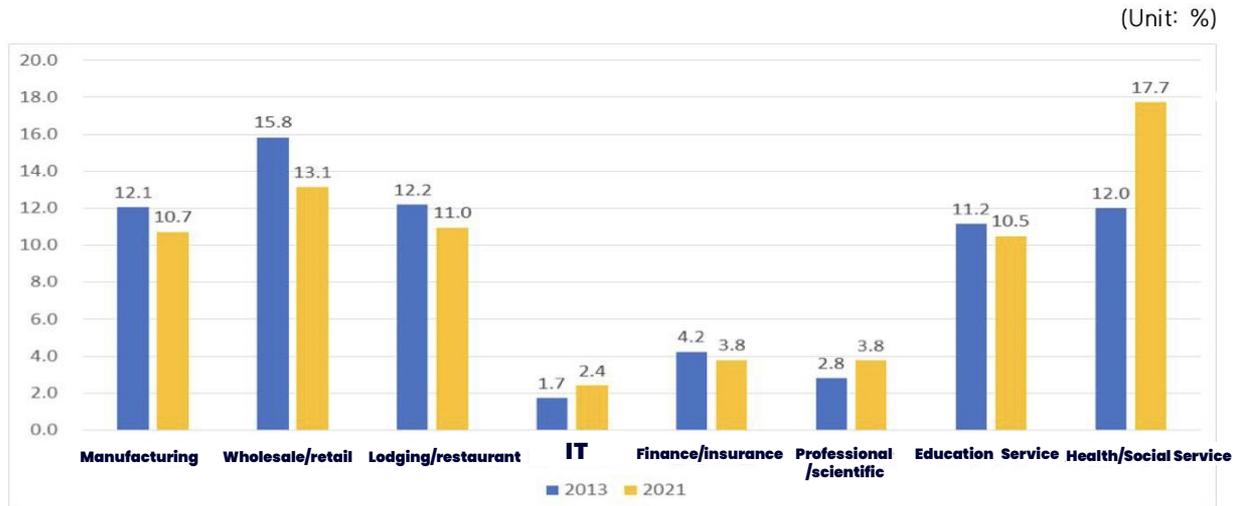


The proportion of female workers decreased in financial and insurance industries, manufacturing, wholesale and retail, lodging and restaurant businesses, and education service industries

The proportion of female workers increased in IT, professional and scientific service businesses, health, and social welfare service industries.

## 03 Changes in Industry Structures during COVID-19 & Digital Transformation

Figure 7. The proportion of female workers by industry



Source: Raw data from the Economically Active Population Survey, Statistics Korea  
(The graphs were created by the author using the data.)

From 2013 to 2021, despite the overall decline in employment during the pandemic, proportion of women between 25-54 years of age increased in skilled labor sectors in professional, scientific, and technical service industries

## 04 Digital Transformation and Women's Employment: Policies in Korea

In 2006, the South Korean government introduced the Act on the Promotion of Economic Activities of Career-interrupted Women to implement policies to facilitate the economic participation of women in the 25-54 age bracket.

### What is SAEIL Center ?

Women's Re-employment Centers installed in 2007.

158 SAEIL branches across the country.

Type	Total	Seoul	Busan	Daegu	Incheon	Gwangju	Daejeon	Ulsan	Sejong	Gyeonggi	Gangwon	Chungbuk	Chungnam	Jeonbuk	Jeonnam	Gyeongbuk	Gyeongnam	Jeju
General	130	23	9	5	8	5	1	4	1	25	5	4	7	7	8	8	8	2
Career development	6	2	1	-	-	-	1	-	-	2	-	-	-	-	-	-	-	-
Rural	9	-	-	-	-	-	-	-	-	-	3	1	3	1	-	-	-	1
Large city	13	1	1	-	1	-	1	-	-	2	1	1	1	1	1	1	1	-
Total	158	26	11	5	9	5	3	4	1	29	9	6	11	9	9	9	9	3

<Statistics on Women's Re-employment Centers>

## 04 Digital Transformation and Women's Employment: Policies in Korea

### Major Activities of SAEIL Centers

- ❖ One-stop service, which offer employment counseling, vocational training, internship opportunities, job information, and job retention support.
- ❖ Designed to meet the unique needs of women with interrupted career paths and to provide integrated services,
  - **Vocational training** customized for women with interrupted career paths
  - **Counseling** is offered in consideration of the situations of individual women. (discouragement after long-term career disruption, family obligation, etc.)

# 04 Digital Transformation and Women's Employment: Policies in Korea

## Program examples: **the Online Plus program**

- ❖ Designed to provide additional online career services in the era of Digital Transformation prior to Covid-19.
- ❖ Offline-online hybrid methods: Combining live online lectures and offline practice courses, using specially designed online content and platforms\*

Note) The e-Vocational Training Center, an online learning management platform designed for women with disrupted career paths, and Kkumnalgae is a portal service for women's career development that offers a wide range of online training courses.

- ❖ After Covid-19, the course has been well settled and the percentage of online course among the overall SAEIL training has been increased. (2020: 17% → 2021: 34% → 2022: 47.6%)

Note) The total number of vocational training courses that the centers provide is 658 in 2020, 746 in 2021, and 729 (scheduled) in 2022.

- ❖ In 2022, 115 of 158 Women's Re-employment Centers are planning to provide the Online Plus program.

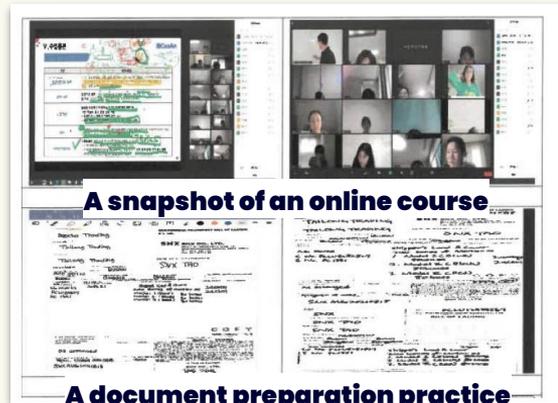
# 04 Digital Transformation and Women's Employment: Policies in Korea

## Case studies 1: Vocational training programs



### The International Freight Forwarding Specialists training Program by Seocho SAEIL Center

- ❖ The Online Plus program was offered in order to facilitate the efficiency of vocational training that the center provided.
- ❖ Due to COVID-19, offline programs were moved to a virtual space via a video conferencing platform → offline-online hybrid methods in a timely manner.
- ❖ In order to balance the limitations of online programs,
  - required trainees to electronically submit practice assignments for evaluation and adjusting the level of training.
  - Used the chat room: to communicate to the center any questions or feedback on the training anytime during online courses, shared lecture materials and announcements through the chat room.



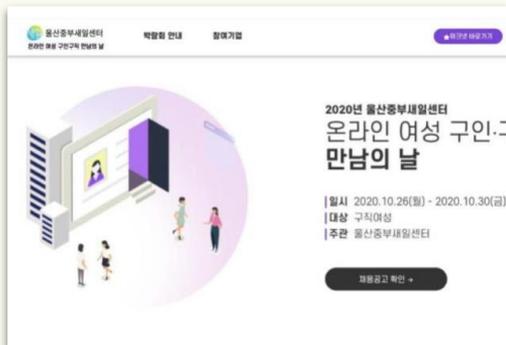
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# 04 Digital Transformation and Women's Employment: Policies in Korea

## Case studies 2: Examples of Virtual Job Interviews



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### 01

#### Offline-Online Hybrid Mini Job Fair

- ❖ SAEIL host mini job fairs on a regular basis in order to link job seekers with employers.
- ❖ During the pandemic, virtual events became a norm and more centers started offering mini job fairs on the internet.
  - employment information on the job fair website
  - made a reservation for online interviews.

# 04 Digital Transformation and Women's Employment: Policies in Korea

## Case studies 2: **Examples of Virtual Job Interviews**



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### 02

#### **AI- or VR-based interview practice and mock interview session**

- ❖ AI interviewer asks questions to assess the interviewee's vocational and personal capabilities and appropriateness for the chosen job.
- ❖ Interviewees can practice interview skills with mock interviewers and review the videos of their interviews and interview results and receive feedback.
- ❖ In addition, a VR device was installed with content customized for female job seekers that includes a range of questions by types of company and work.

## Conclusion

It is **premature to predict** the potential impact of digital transformation on jobs for women.

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Clearly, however, there are **emerging jobs** and **declining jobs**.

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Therefore, it is important to keep **predicting related trends** and **developing appropriate vocational training programs** in order to **shorten the length of career disruption** for women and **assist women** with their career transition efforts.

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# Thank You!

Q&A



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