Ministry of Data and Statistics

# The Power of Data Linkage : Advancing Gender Statistics in Korea

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# From Statistics Korea to the Ministry Of Data and Statistics

Ministry of Data and Statistics

➢ Reorganized in Oct. 2025

- ✓ Stronger data governance
- ✓ Expanded use of administrative data
- ✓ Supporting evidence-based policymaking

## Why Gender Statistics Matter in Korea

- Gender equality is a national policy priority
- Korea has established a legal framework for gender statistics
- Administrative data provide timely and reliable evidence
- Data linkage enables richer gender analysis

**“The combination of a strong legal mandate and a well-established administrative data network creates an ideal environment for compiling, analyzing, and utilizing gender-disaggregated data”**

# (Ref) Legal Framework for Gender Statistics

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## ➢ Framework Act on Gender Equality(1995,2014)

✓ Enacted the Framework Act on Women's Development(1995)
✓ Revised and renamed as **the Framework Act on Gender Equality (2014)**

→ Mandatory production of gender-disaggregated statistics in surveys (Article 17)

## ➢ Statistics Act(2007)

✓ The provision (Article 18) requiring a gender-responsive perspective—such as sex-disaggregation—when reviewing and approving national statistics was officially integrated

# High-Quality & Diversified Statistical Data

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**Administrative Data**

↓

Population(Domestic, Foreigners)
Employment
Housing
Business
Health
Social Benefit
Tax(Income, public transfer expenditure, etc.)
……

↓

**Official Statistics**

# High-Quality & Diversified Statistical Data

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| Statistical System | Main Purpose |
|---|---|
| Register-based census | Population, Household, Housing |
| Population dynamics system | Life events(birth, marriage, death, migration) |
| Population dynamics panel DB | Life-course analysis using other data |
| Statistical registers | The very foundation of integrating different data |

**“Administrative Hurdles in Inter-Agency Data Sharing”**

**Connecting micro-data across ministries (Interior, Justice, Labor, Tax) presents significant non-technical challenges due to strict personal data protection frameworks and security requirements.**

# Administrative Data Integration – (1) Register-based Census

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➢ Since 2015, the MODS has produced the register-based census for the short-form questionnaire items every year

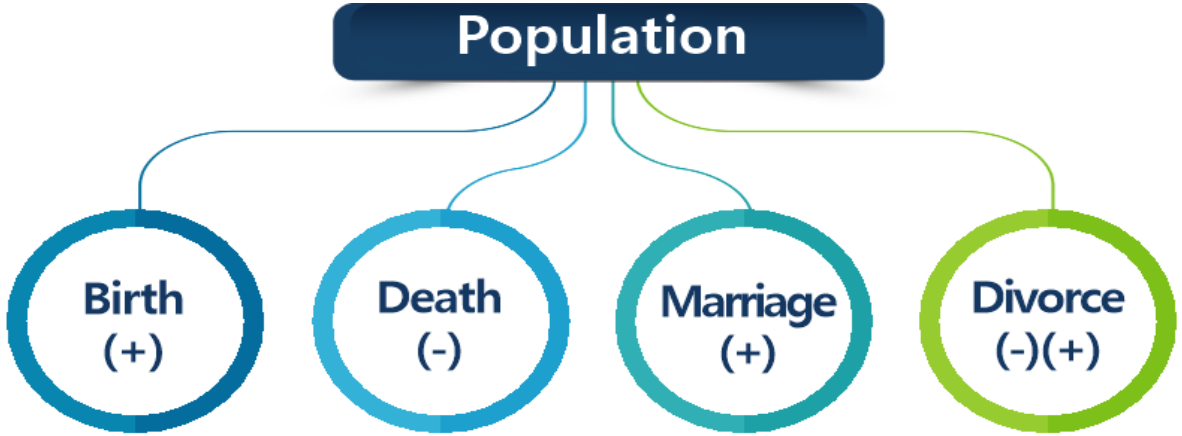
✓ Compiles data on population, households, and housing while integrating administrative records on foreign residents, disabled individuals, and immigrant women etc.

✓ Utilized 26 types of administrative data obtained from 12 organizations, and 400 universities,

**including Resident registration register, foreign register, family relation register, building register as key datasets**

## Vital Statistics

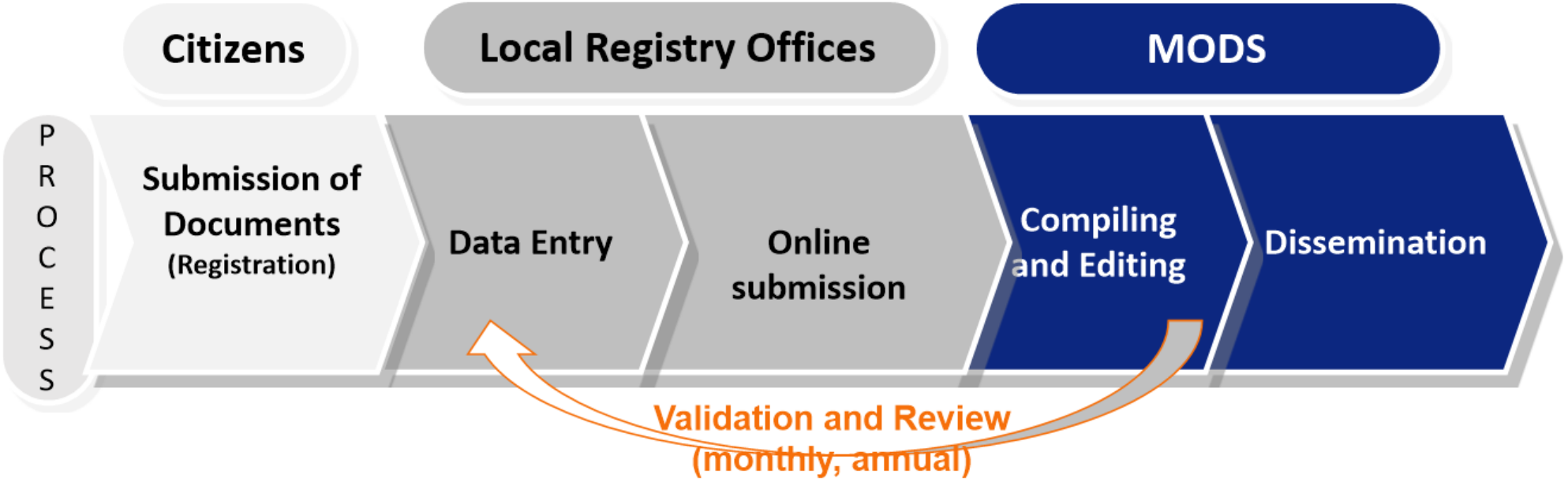
- To understand trends in births, deaths, marriages, and divorces, the key determinants of population size and structure
- Compiles data by linking individual life-event data with the Family Relations Register System, jointly managed by the Ministry of the Interior and Safety and the Ministry of Justice.




| Registration | Birth | Death | Marriage/Divorce | Migration |
|---|---|---|---|---|
| Responsible Person | Parents | Relatives | Individuals | Migrants |
| Period | 30 days | 30 days | No time limit | 14 days |

## Integrated Civil Registration and Vital Statistics System

- Each vital event is registered at a local registry offices and recorded in both the resident register and the family relations register.
- Vital statistics are then compiled using the computerized data from the family relations register system.



# Administrative Data Integration-(3) Demographic Panel

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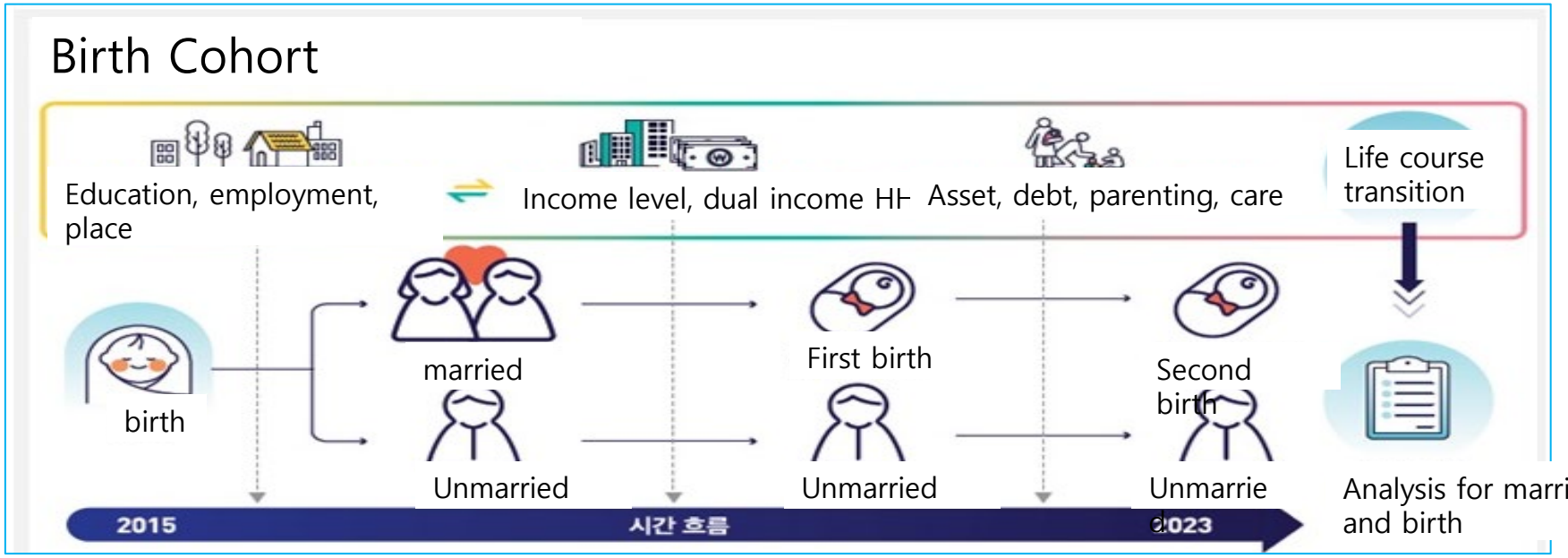
- Constructs data by linking longitudinal life-event cohorts (derived from vital statistics) with external administrative databases, such as Housing Ownership Statistics and tax records.
- Facilitates precise, **long-term tracking of individuals' trajectories before and after major life events**.
  - ✓ Targeted Korean citizens born between 1983 and 1995 whose births have been registered.



# Administrative Data Integration - Statistical Registers

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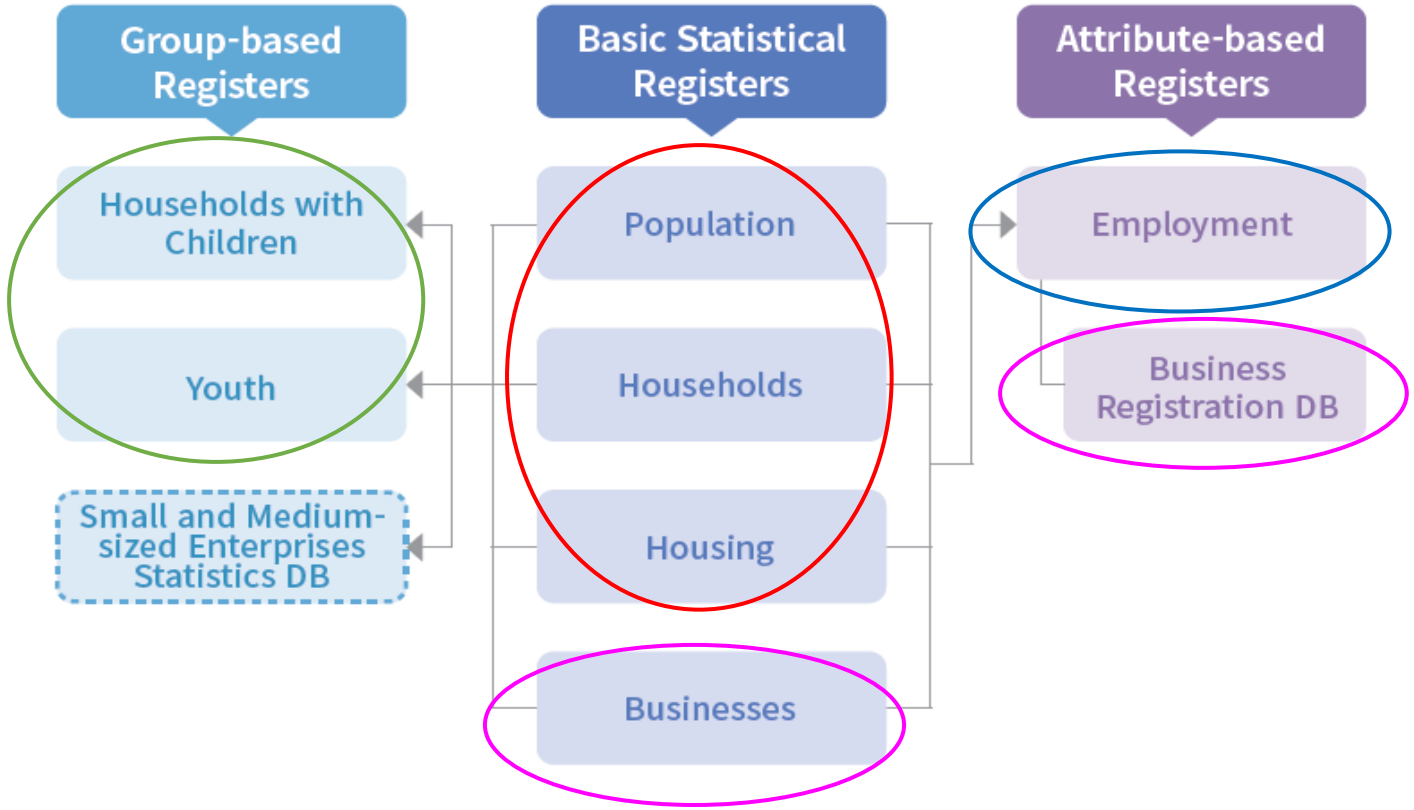
- A dataset containing basic information on target populations, such as people, businesses, or other entities

- Derived from statistical and administrative data and compiled and managed by the MODS to support statistical production by statistical agencies.



# How multiple data sources are linked

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- **Primary Rule: Requires an exact matching key as a baseline**
  - ✓ Encrypting unique keys to protect personal information
- **Alternative Approach: If missing, alternative linkage methods are applied**
  - ✓ Using pseudonymized personal attributes(e.g., name, gender, DOB, address and so

**“Success depends heavily on institutional cooperation, demanding significant time and dedicated effort”**

# Examples of Gender Statistics Using Linked Data

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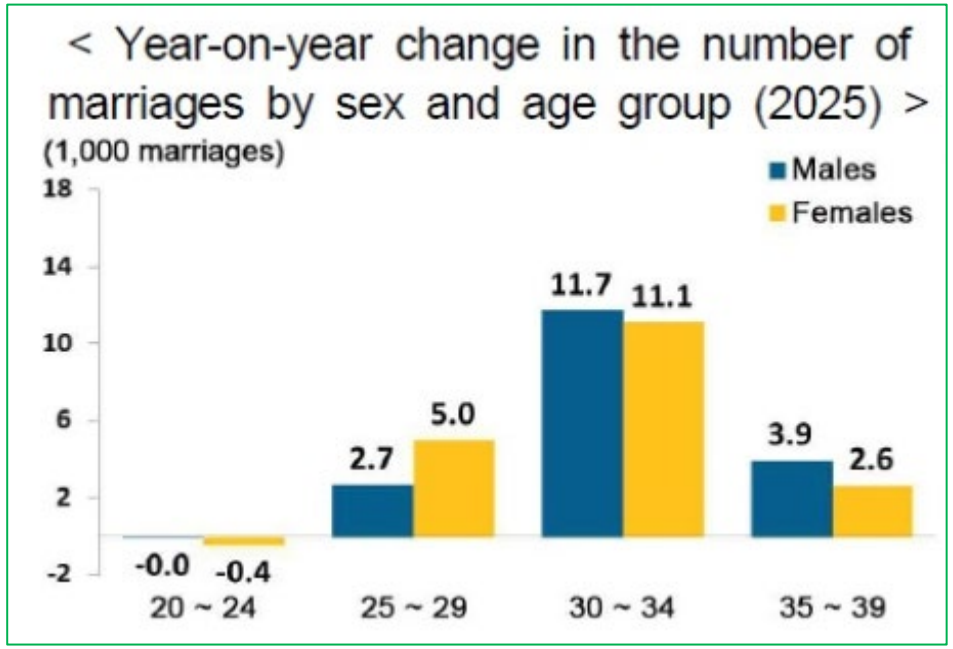
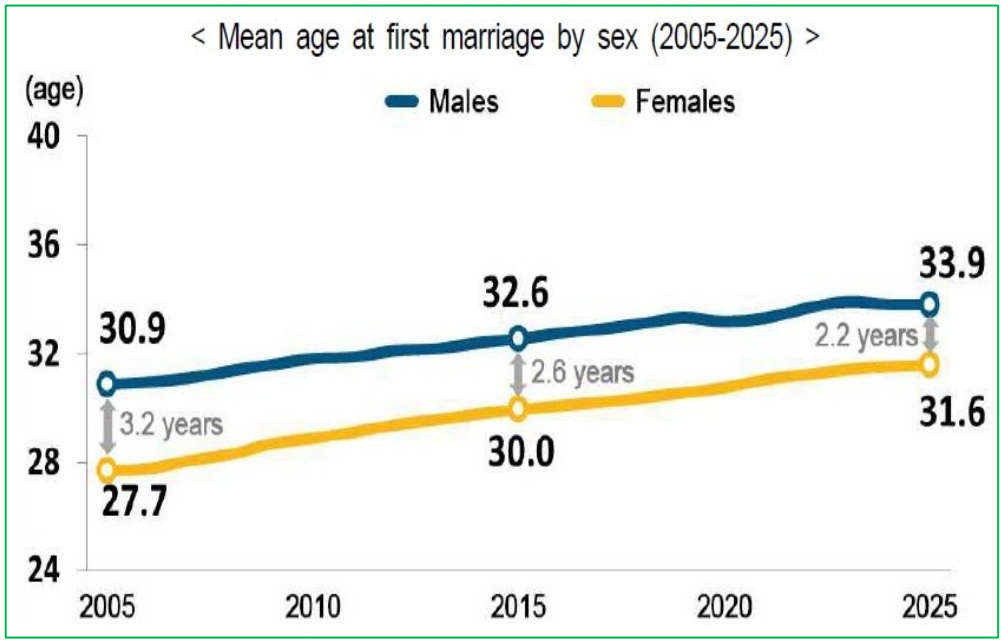
< From vital statistics >




➔ the number of marriages were highest among those in their early 30s,

➔ while the gender gap in the average age at first marriage continued to narrow

# Examples of Gender Statistics Using Linked Data

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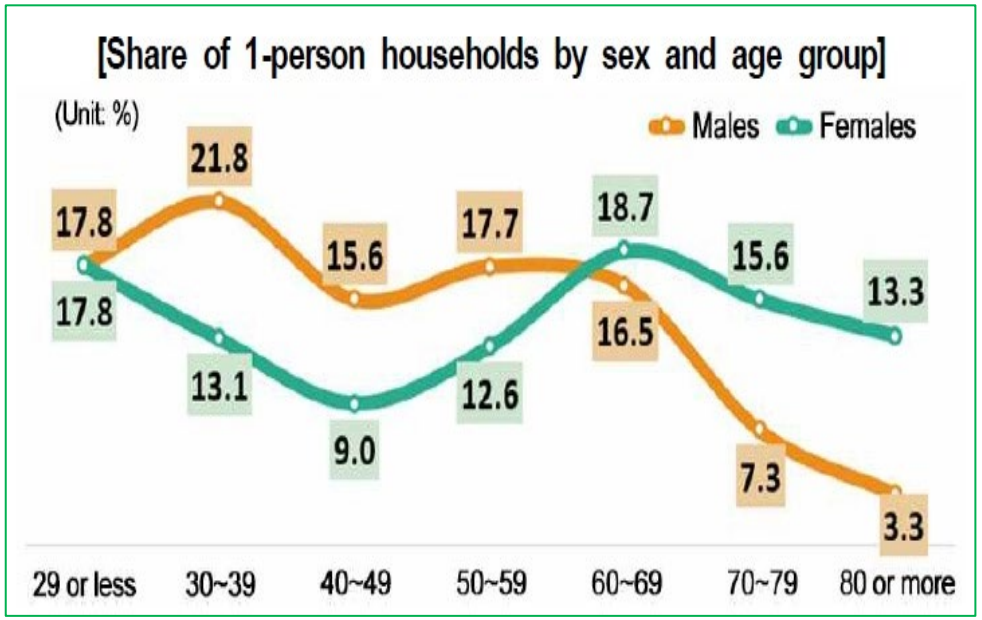
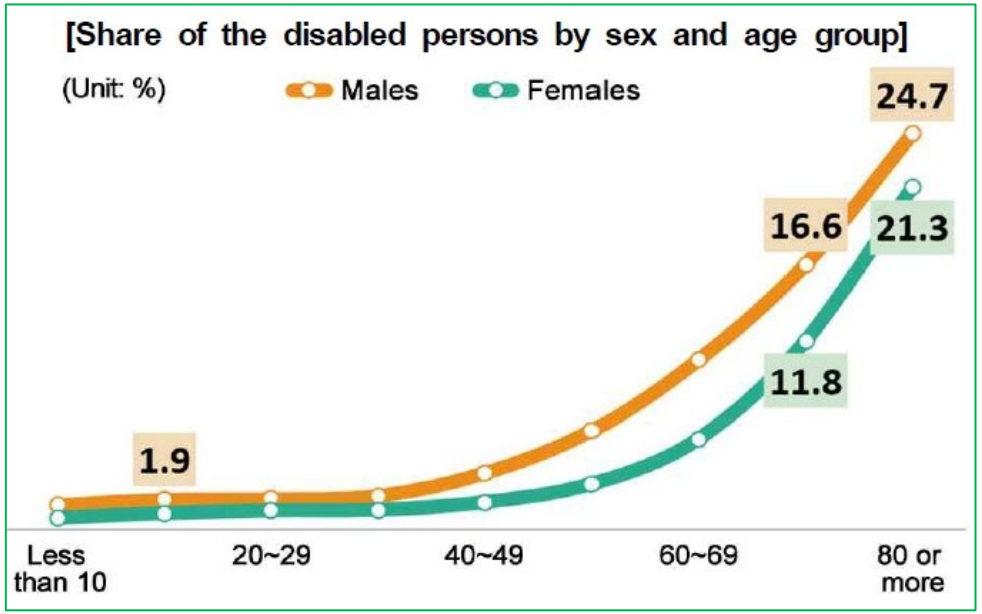
< From register based census >




➔ **Single-person households** were most common among **men in their 30s and women in their 60s**

➔ The proportion of persons with disabilities was higher among men than women

# Examples of Gender Statistics Using Linked Data

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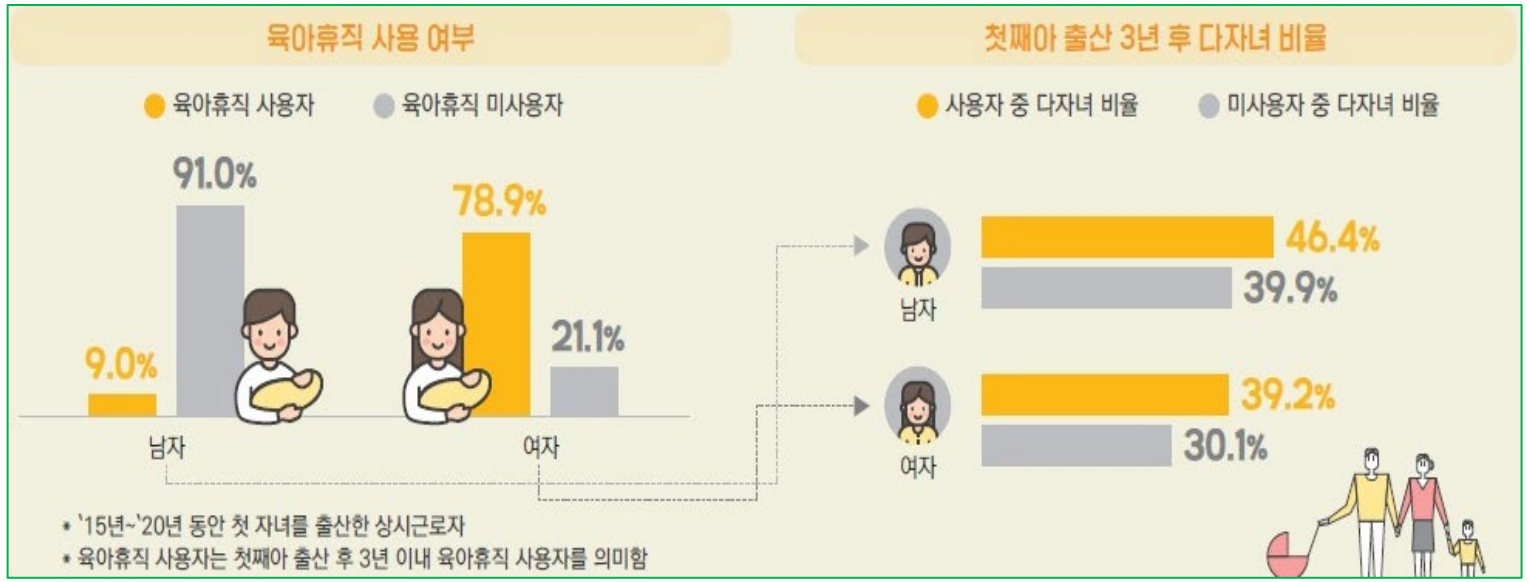
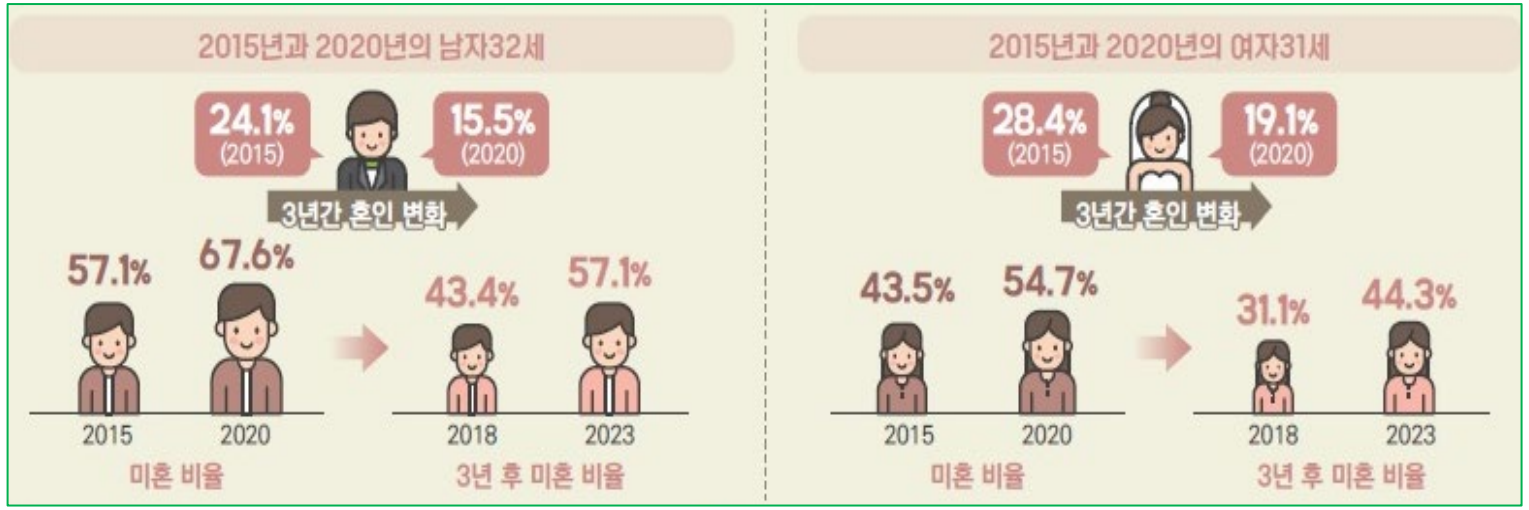
< From dynamic panel statistics>




→ Parental leave use was higher among women than men, and among families with multiple children than those with one child.




→ The transition to marriage has declined over time for both men and women.

# Efforts to Mainstream Gender Statistics

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https://gsis.kwdi.re.kr

GSIS · KLoWF · KWMP

ENG

Korean Women's Development Institute
Gender Statistics

Enter the information you search.

#Youth Group #Employed Persons

#Emergency telephone number for women

2024
Percentage of elected female lawmakers
14.2 %

2023
Proportion of females among university faculty members
29.1 %

2022
Share of men among workers on child care leave
28.9 %

2022
Share of career interrupted women among marred women aged 15 to 54
17.2 %

KGEI Korean Gender Equality Index 2019 73.9 pt

RGEI Regional Gender Equality Index High

GII 2022 Gender Inequality Index 0.06 pt

Statistical DB | Major statistics | Publications | Notices & News | Introduction | SITEMAP

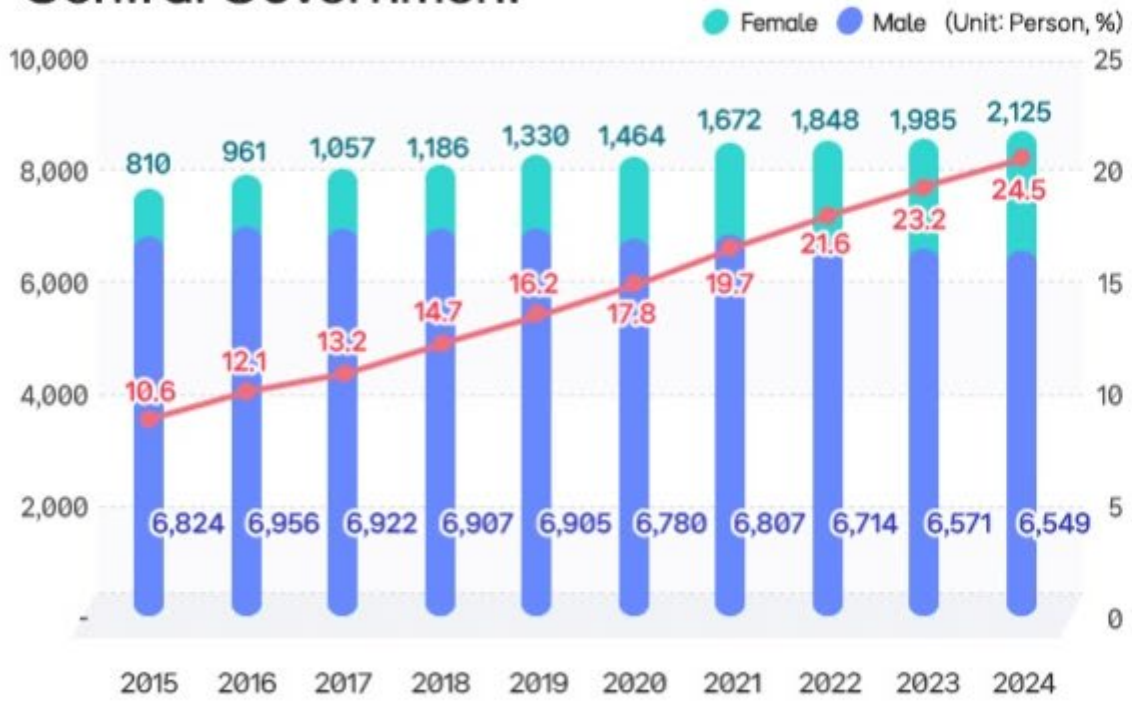
## Website renewal of the Gender Statistics Information System

The website of the Gender Statistics Information System is reorganized.

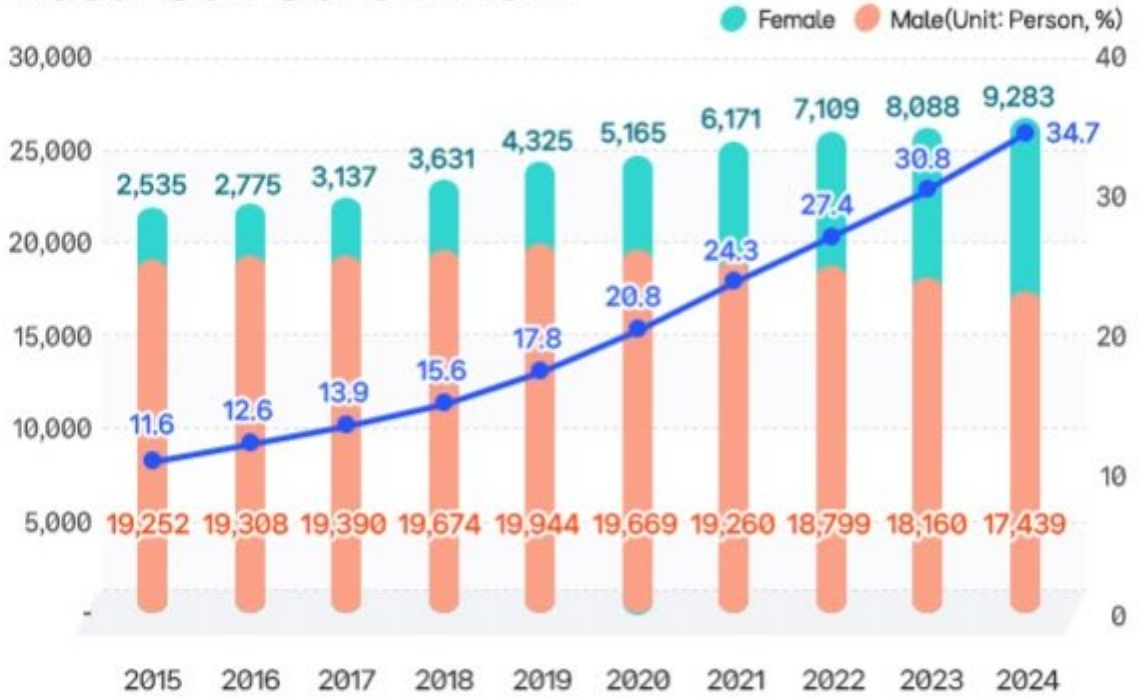
## Women Public Officers in Administrative Positions

Statistical table view

### Central Government




### Local Self Government




Ministry of Personnel Management, ANNUAL STATISTICS, Women civil servants in local government statistics

# Efforts to Mainstream Gender Statistics

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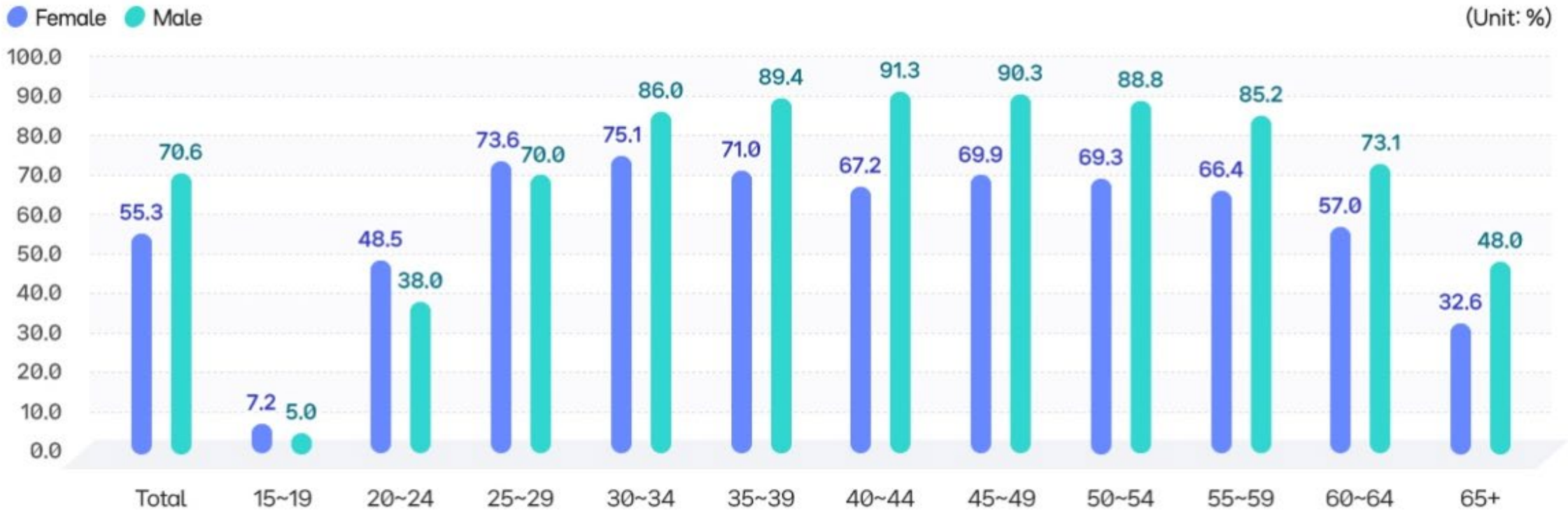
## Employment rate by gender and age

Statistical table view




Note : Employment rate = Employed people / population 15 years old and over * 100.

Source : Ministry of Data and Statistics, Economically Active Population Survey(2025)

# Conclusion & The Way Forward

## Strategic Value & Practical Application

- **More linked administrative data**
- **High Data Accuracy & Reliability**:
  - ✓ Utilizing verified administrative registers minimizes measurement errors and provides reliable longitudinal insights
- **Better evidence for Policymaking**:
  - ✓ The seamless data infrastructure allows policymakers to quickly identify gender gaps in areas such as employment, healthcare, and social safety nets

**“Need for data governance that balances privacy and public interest while enabling gender-sensitive analysis.”**

# Key Message

**“Data linkage is not the destination. It is the foundation for better gender statistics and better policies”**

Q. How can official statistic better capture women’s and men’s life experience?

A. By making better use of administrative data and data linkage.

# Thank you