

The Role of **Employment Position Statistics** using Administrative Data in Work Statistics

2025. 9. 24.

Statistics Korea
Register-based Statistics Division
JAEHYUK CHOI



Statistics Korea

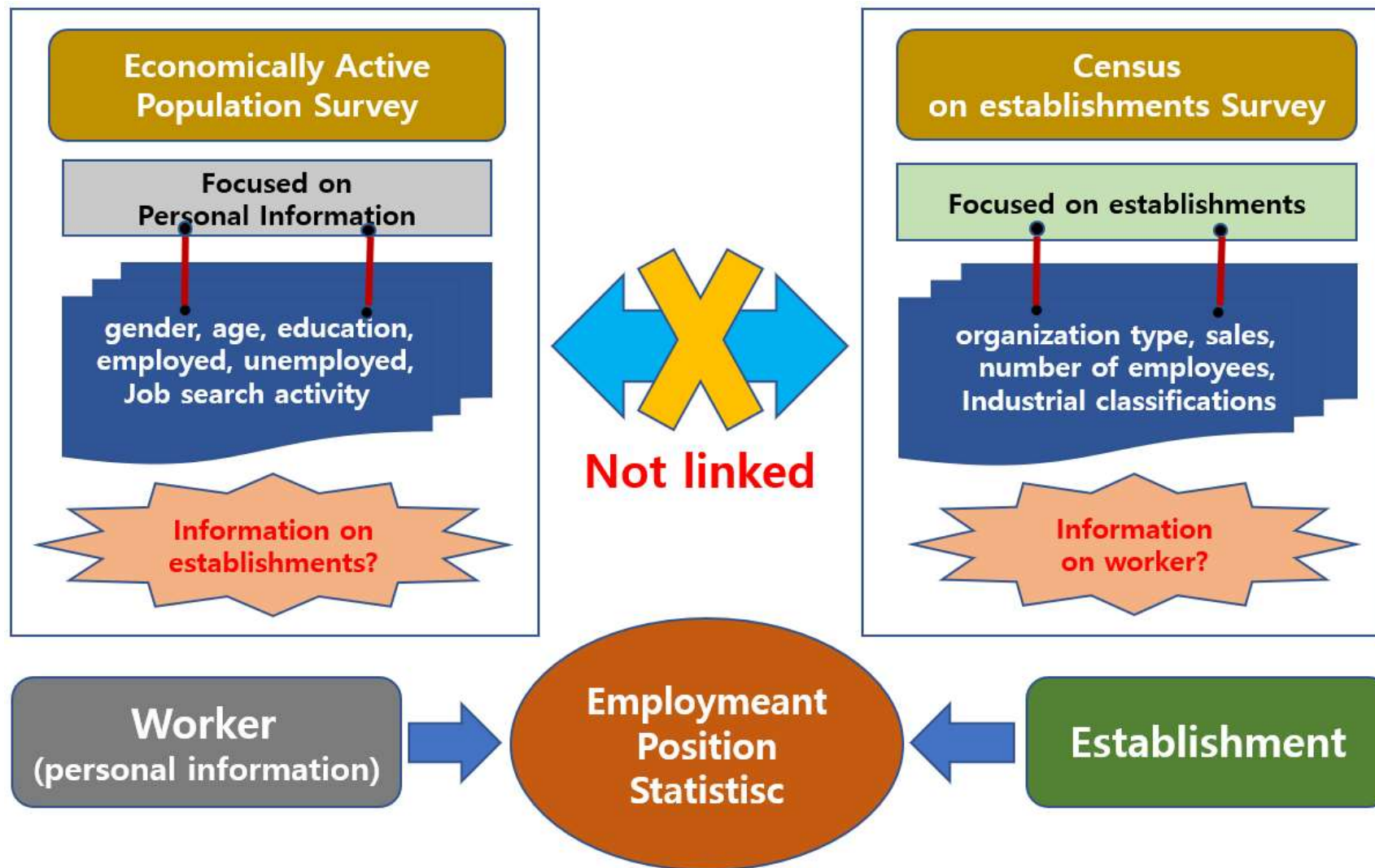
CONTENTS



- ➔ **Work Statistics Structure**
- ➔ **Using Administrative Data**
- ➔ **Employment Position Statistics**
- ➔ **Implication**



Work Statistics Structure





➔ The need for employment statistics

- Building ties between workers(supply) and enterprises(demand)
or establishment
- Development of employment position statistics
 - Sector : Overall, public sector, employment position transitions, quarterly trends of wage employment, earned income(remuneration) and debt of wage earners
 - Method : using administrative data
 - ➡ Include characteristics both workers and enterprises



➔ Advantages of Using Administrative Data

- Cost-saving effects such as reduced survey costs
- Reduced response burden for statistical survey subjects
- Easy access to population lists



➔ Advantages of Using Administrative Data

- Enables production of small-area and lower-level statistics
 - This enables the production of small-area information or small-size multi-dimensional statistics that are difficult to produce through survey statistics
- Facilitates production of longitudinal (panel) statistics
 - Allows retrospective data collection from the time of statistical planning



➔ Disadvantages of Using Administrative Data

- Differences in compilation standards
 - Classification standards, unit of analysis, reference time, and scope, among others
- Restrictions on data acquisition and utilization
 - Difficulty acquiring administrative data due to strengthened personal information protection laws
 - Need for mutual trust and cooperation among administrative data-holding institutions



➔ Disadvantages of Using Administrative Data

- Difficulty in controlling data quality and variables (items)
 - Missing values due to omissions in administrative data
 - Accuracy issues with non-essential items in administrative duties
 - Difficulty adjusting variables for statistical purposes



➔ Governance Using Administrative Data

- Legal Access : The right to access all administrative data held by public institutions is guaranteed by law
- Identification key : The same identification key is used for all administrative data for the same unit
- Data transfer procedure : Strict security regulations require practical and technical methods



➔ Checking Available Administrative Data

◦ Coverage

- How comprehensively the administrative data cover the target population

◦ Timeliness & Continuity

- Whether administrative data are collected in time prior to statistical release and whether continued, stable acquisition is possible

◦ Usability

- Whether there are missing or erroneous values in the administrative data



➔ Employment Position Statistics

- Definition : Position of employment filled by workers

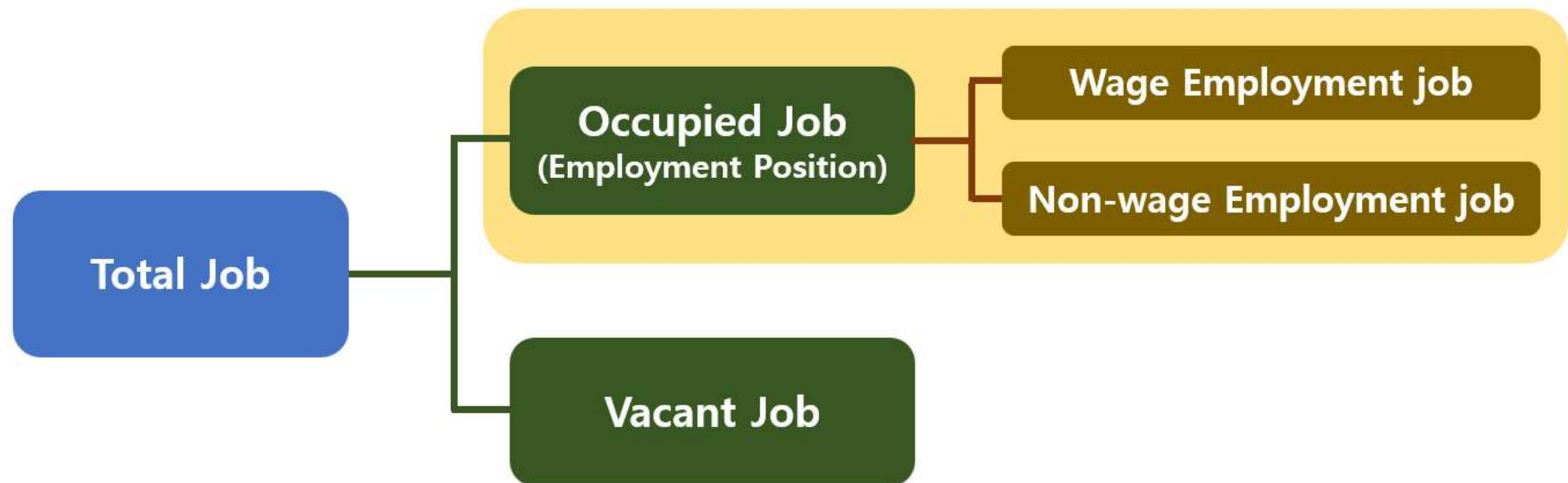
 - ⇒ one worker can occupy more than two position of employment

- Coverage of Subjects

 - Jobs held by persons engaged in productive activities during the year and who reported at least one of the social insurance contributions, income tax, or value-added tax



➡ Coverage of Employment Position





➔ Coverage of Employment Position

- Position of employment filled by workers
 - Wage Employment Job : Jobs held by workers (individuals) who engage in the production of goods or services in an enterprise in exchange for cash or in-kind payments
 - Non-Wage Employment Job : Jobs held by individuals who directly operate their own business or engage in professional work on their own



➔ Special Note

- Jobs held by unpaid family workers or operators in agricultural, forestry, or fishery production activities are excluded.
- Real estate rental operators with no employees concurrently engaged in wage work are also excluded.

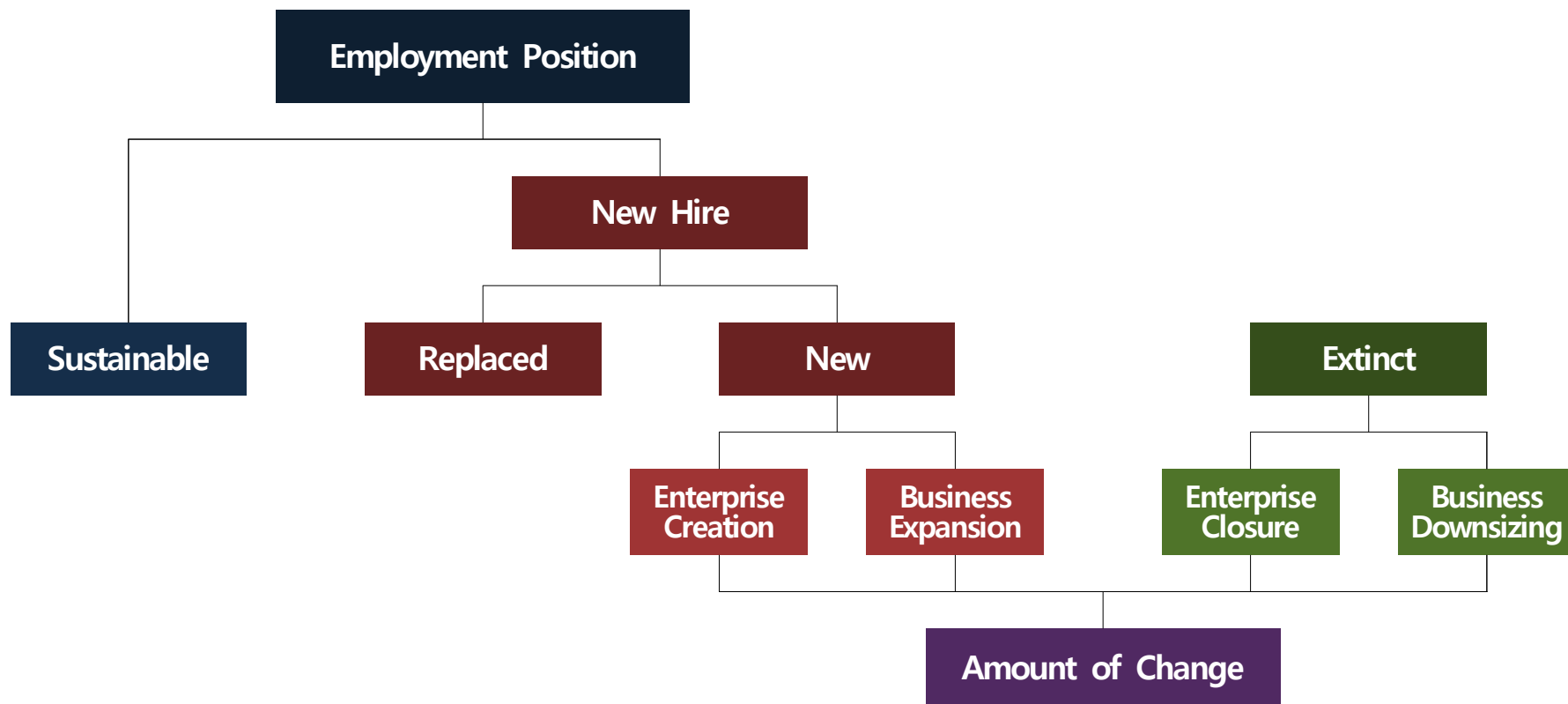


➔ Description

- Employment position (annual statistics)
 - measures jobs over the entire year as one
- Wage employment position Trends (quarterly statistics)
 - measures jobs as of the 30 days of the middle month of each quarter



➔ Classification of Employment Position Statistics





➔ Administrative data used ①

Social Insurance	▶ National Health Insurance Data ▶ National Pension Data ▶ Employment Insurance Data ▶ Industrial Accident Compensation Insurance Data
Occupational Pension	▶ Public Officials Pension Data ▶ Pension for Private School Teachers and Staff Data ▶ Specific Post Office Pension Data ▶ Military Pension Data



➔ Administrative data used ②

Business Information	▶ Business Registration Data ▶ Corporate Registration Data
Tax Data	▶ Wage and Salary Payment Statement ▶ Daily Worker Income Payment Statement ▶ Business Income Payment Statement ▶ Business Income Tax Filing Data ▶ Business Status Report ▶ Corporate Income Tax Data ▶ Value Added Tax Data



Employment Position Statistics

→ Release

- The number of employment positions

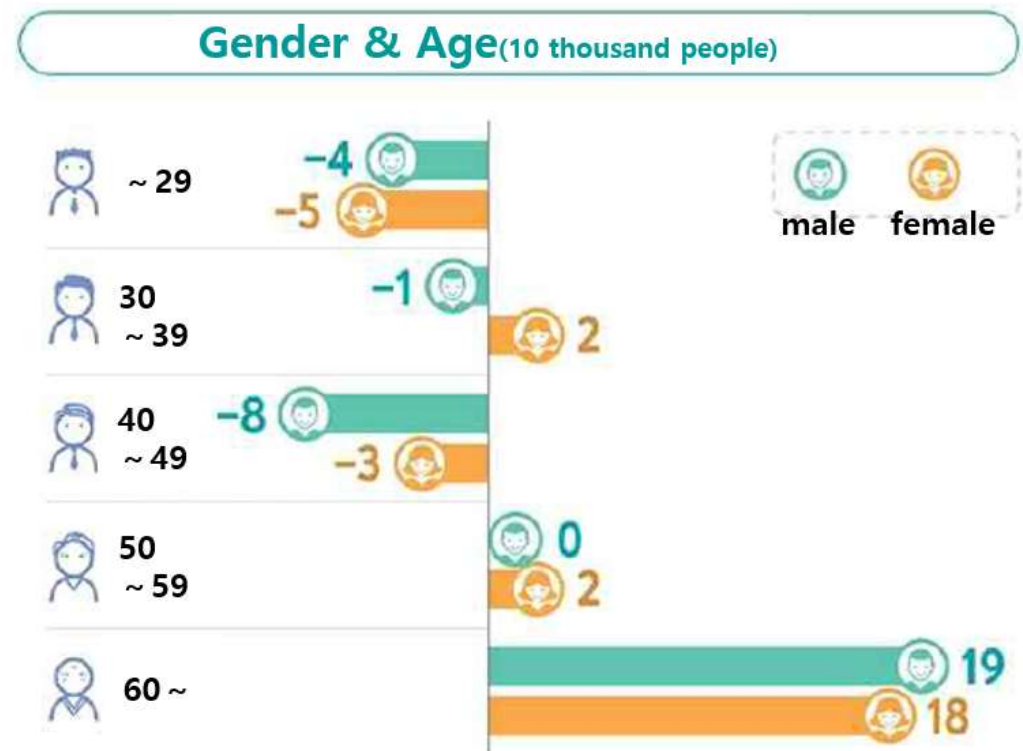
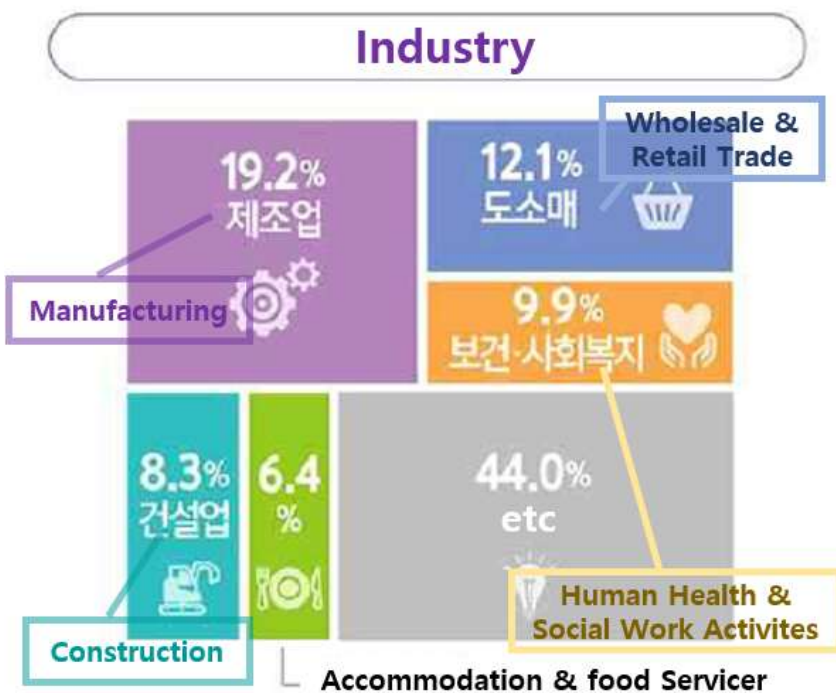




Employment Position Statistics

→ Release

○ Characteristics of employment positions

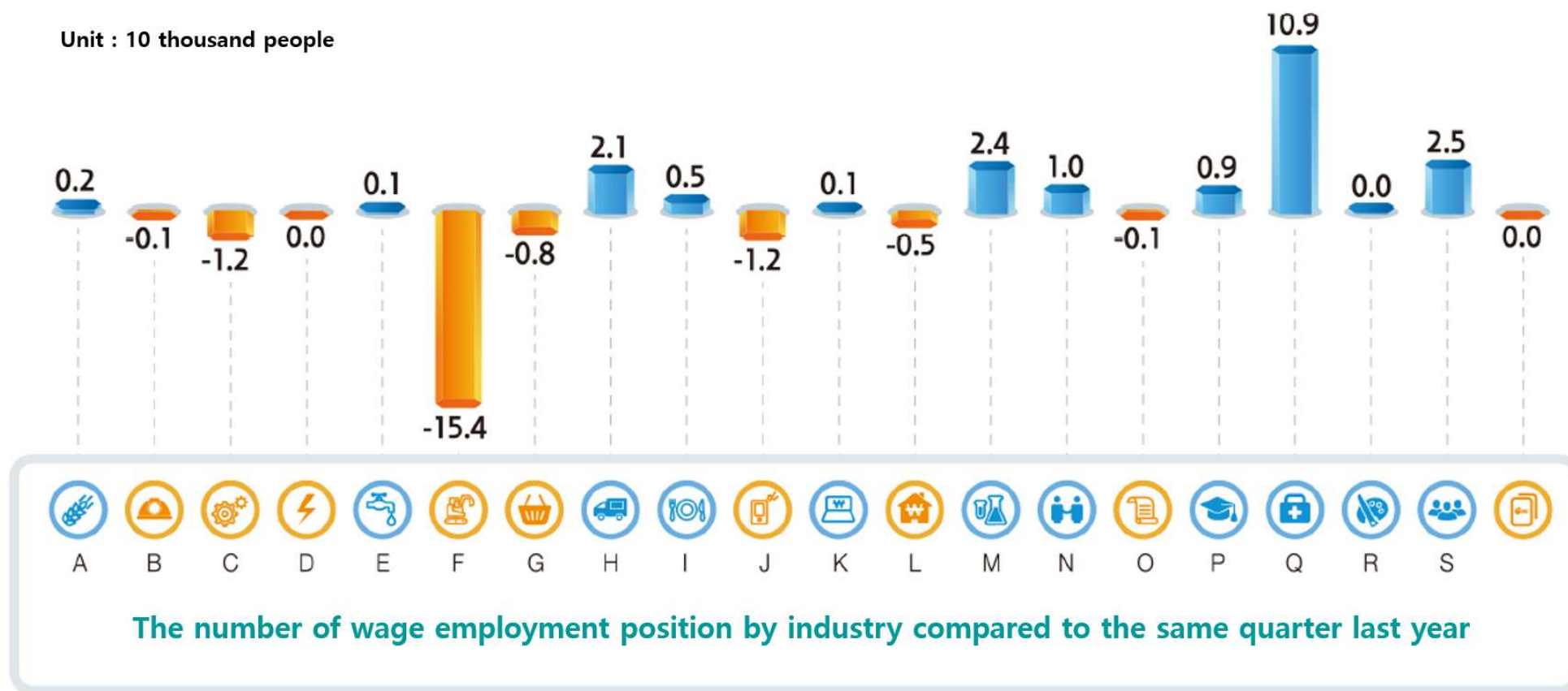




→ Release

○ Wage employment position Trends

Unit : 10 thousand people





➔ Employment position statistics using administrative data

- No sampling error
- Various analyses possible among company employees
 - Characteristics of workers employed by companies
 - Characteristics of worker by company characteristics
- Analysis possible in conjunction with other administrative data
 - Wage-earning job compensation
 - Job mobility for graduates of higher education institutions



➔ Employment position statistics using administrative data

- Limited dynamic analysis of the labor market
 - Sustainable employment position : Labor market stability
 - Replaced employment position : Dynamics of workers by job type
 - New employment position : Dynamics by company characteristics, such as changes in industrial structure
- Linkage analysis between individuals and businesses is possible.
 - Analysis of cases where multiple jobs are held, including side jobs
- ※ Limitation : Qualitative analysis of job status, working hours, etc. is not possible



➔ Employment position statistics using administrative data

- Used and Linked as an auxiliary indicator for other statistics
 - Pension Statistics : Pensioner Statistics, Pension Subscriber Statistics, Retirement Pension Statistics
 - Life Cycle-based Statistics : Youth Statistics, Middle-aged Statistics, Elderly Statistics
 - Statistics on Newly Married Couples : within 5 and 7 years
 - Home Ownership Statistics : Individuals and Household