

HR Employee Attrition Dataset — Data Metadata

Dataset Description

This dataset contains employee information from a company's HR system. It includes demographic data, job-related factors, compensation details, and employee satisfaction metrics. The main business objective is typically to analyze **employee attrition (employee turnover)** and understand factors affecting it.

Each row represents **one employee**.

Column Descriptions (Data Dictionary)

Employee Information

Age

- Employee age in years.
- Type: Numerical
- Use: Analyze age impact on attrition.

Attrition (Target Variable)

- Whether the employee left the company.
- Values:
 - Yes → Employee left
 - No → Employee stayed
- Type: Categorical
- Business Importance: Main prediction target.

EmployeeCount

- Number of employees (always 1 per row).
- Type: Numerical
- Note: Usually dropped in analysis (constant value).

EmployeeNumber

- Unique ID for each employee.
- Type: Identifier
- Note: Not useful for modeling.

Gender

- Employee gender.
- Type: Categorical

MaritalStatus

- Employee marital status.
 - Values: Single, Married, Divorced
 - Type: Categorical
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Job & Work Information

Department

- Employee department.
- Examples: Sales, Research & Development.
- Type: Categorical

JobRole

- Specific job position.
- Type: Categorical

JobLevel

- Seniority level of employee (higher = more senior).
- Type: Ordinal

BusinessTravel

- Travel frequency for work.
- Values:
 - Travel_Rarely
 - Travel_Frequently
 - Non-Travel
- Type: Categorical

DistanceFromHome

- Distance from employee's home to workplace.
- Type: Numerical

OverTime

- Whether employee works overtime.
 - Values: Yes / No
 - Type: Categorical
 - Important for work stress analysis.
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Education Information

Education

- Education level (numeric scale).
- Typically:
 - 1 = Below College
 - 2 = College
 - 3 = Bachelor
 - 4 = Master
 - 5 = Doctor
- Type: Ordinal

EducationField

- Field of study (Life Sciences, Medical, etc.).
 - Type: Categorical
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Compensation & Salary

DailyRate

- Daily salary rate.
- Type: Numerical

HourlyRate

- Hourly salary rate.
- Type: Numerical

MonthlyIncome

- Monthly salary.
- Type: Numerical

MonthlyRate

- Monthly pay rate.
- Type: Numerical

PercentSalaryHike

- Percentage increase in salary.
- Type: Numerical

StockOptionLevel

- Company stock options level.
- Type: Ordinal

Performance & Satisfaction Metrics

EnvironmentSatisfaction

- Satisfaction with work environment (1–4 scale).
- Type: Ordinal

JobSatisfaction

- Satisfaction with job role (1–4 scale).
- Type: Ordinal

RelationshipSatisfaction

- Satisfaction with workplace relationships (1–4 scale).
- Type: Ordinal

WorkLifeBalance

- Work-life balance rating (1–4 scale).
- Type: Ordinal

JobInvolvement

- Level of job engagement.
- Type: Ordinal

PerformanceRating

- Performance evaluation score.
- Type: Ordinal

Work Experience & Career History

NumCompaniesWorked

- Number of companies employee worked at previously.
- Type: Numerical

TotalWorkingYears

- Total professional experience.
- Type: Numerical

YearsAtCompany

- Years working at current company.
- Type: Numerical

YearsInCurrentRole

- Years in current position.
- Type: Numerical

YearsSinceLastPromotion

- Years since last promotion.
- Type: Numerical

YearsWithCurrManager

- Years with current manager.
 - Type: Numerical
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Training & Work Conditions

TrainingTimesLastYear

- Number of training sessions attended last year.
- Type: Numerical

StandardHours

- Standard working hours (usually constant = 80).
- Type: Numerical
- Note: Typically removed from analysis.

Over18

- Whether employee is over 18.
 - Values: Y
 - Type: Categorical
 - Note: Usually constant.
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