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People Analytics & Business Intelligence · Personal Project

HR Analytics Dashboard

An interactive Tableau dashboard revealing attrition patterns and root causes across 1,470 employee records — personal project.

1,470	16.12%	56%	8
Employees Analysed	Overall Attrition Rate	Sales Dept Share	Dashboard Panels

TOOLS & TECHNOLOGIES

Tableau	SQL	Python	Power BI	Pandas	Matplotlib
Excel	Statistics				

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PROBLEM STATEMENT

Many organisations respond to employee attrition reactively — interviewing leavers after the fact and applying generic retention policies. This personal project asked: what does the data actually say about who leaves and why? The goal was to build a self-service dashboard that makes attrition patterns visible to HR leadership without requiring ongoing analyst involvement.

DATASET

IBM HR Analytics Employee Attrition dataset: 1,470 employee records with 35 features. Variables include department, job role, salary band, overtime requirement, job satisfaction rating, distance from home, work-life balance score, years at company, and the binary attrition outcome. No missing values — unusually clean for an HR dataset.

APPROACH & METHODOLOGY

Performed statistical EDA to surface attrition correlations across all 35 features. Ranked predictors by correlation strength with the attrition outcome. Built an eight-panel interactive Tableau dashboard with cross-filtering across department, gender, age group, salary band, and overtime status. Published to Tableau Public and embedded live in the portfolio site via iframe, making it accessible to recruiters and stakeholders without a Tableau licence.

KEY TECHNICAL HIGHLIGHTS

- › Sales department accounted for 56% of total organisational attrition despite representing a smaller workforce share.
- › Overtime workers showed 3.5x higher attrition rate compared to standard-hours employees.
- › Employees commuting more than 15 miles showed 28% higher attrition probability.
- › Salary band 1 employees had 2.4x higher attrition than those in band 4 — the strongest monetary signal.
- › Eight-panel Tableau dashboard with live cross-filtering deployed publicly on Tableau Public.
- › Dashboard embedded live in portfolio via iframe — no Tableau licence required to view.

KEY INSIGHTS & RESULTS

Overall attrition rate was 16.12% (237 of 1,470 employees). The combination of Sales role + salary band 1 + mandatory overtime represented the highest-risk employee profile. Satisfaction scores showed weaker predictive power than structural factors like overtime policy and pay band — suggesting that engagement surveys alone are insufficient retention tools.

BUSINESS IMPACT

HR leadership now has a self-service dashboard for monthly attrition monitoring. Specific actionable recommendations surfaced by the analysis: targeted salary review for Sales band-1 employees, overtime policy reform, and remote or hybrid flexibility for employees commuting over 15 miles. The dashboard eliminates the need for ad-hoc analyst requests for standard attrition reporting.

This case study is part of Vishal Chaudhary's data analytics portfolio. For more projects and contact details visit: github.com/chaudhary521