Strategic Workforce Retention Report

Prepared For: Senior Management & HR Leadership

Date: December 6, 2025

Focus: Attrition Analysis & Predictive Risk Modeling

1. Executive Summary:

Current Status: The organization is currently operating with a 16.1% attrition rate.

Business Impact: High turnover is disrupting operational continuity. With the cost of replacement estimated at 6-9 months of an employee's salary, reducing attrition by just 5% yields significant capital savings.

Top-Level Diagnosis:

Our data indicates that attrition is not random; it is highly predictable. The primary drivers are Burnout (Overtime without satisfaction), Role-Specific Stress (Sales & Lab roles), and an Onboarding Cliff (failure to retain talent past Year 2).

Immediate Opportunity:

We have identified 127 specific employees (approx. 8% of the workforce) who currently fit the "High-Risk" profile. Immediate intervention with this group is the highest ROI activity available.

2. Key Findings: Why Are People Leaving?

Insight A: The "Burnout" Factor

There is a direct correlation between workload and departure.

- **The Statistic:** Employees working Overtime combined with Low Job Satisfaction scores are 3x more likely to leave than their peers.
- **Observation:** Overtime is currently the single strongest predictor of turnover. It is driving talent out faster than salary dissatisfaction.

Insight B: The "Year 2" Cliff

We are losing talent before they reach peak productivity.

- **The Trend:** Attrition peaks significantly between 1 to 2 years of tenure.
- **The Implication:** The "Honeymoon Phase" ends quickly. This suggests a disconnect between the recruitment promise and the actual employee experience, or a lack of clear career mapping during onboarding.

Insight C: Role Vulnerability

Two specific departments account for nearly **40% of all turnover**:

1. **Sales Representatives:** High churn per capita. Likely driven by commission pressure or unachievable targets.
2. **Laboratory Technicians:** High volume of departures. correlated with salary stagnation and repetitive workload.

3. Predictive Intelligence: The "Flight Risk" Model

To move from *reactive* reporting to *proactive* management, we developed a logic-based "Flight Risk" algorithm.

How It Works:

The model scans real-time employee data to flag individuals who meet specific danger criteria:

Logic: Job Satisfaction ≤ 2 **AND** Active Overtime = 'Yes'

The Output:

- **Total High-Risk Profiles:** 127 Employees
- **Status:** These employees are technically employed but psychologically disengaged. They are in the "Danger Zone" for resignation.

4. Strategic Recommendations & Action Plan

Based on the data, we recommend the following tiered intervention strategy:

Phase 1: Immediate Retention

Target Group	Recommended Action	Owner
The "High Risk" 127	**Conduct "Stay Interviews."** Do not wait for an exit interview. Managers should proactively discuss workload and satisfaction with these specific individuals.	HR BPs

Lab Technicians	**Overtime Review.** Audit current shift schedules. If overtime is chronic, consider hiring contractors or implementing rotation shifts to lower burnout.	Ops Manager

Phase 2: Structural Changes:

Target Group	Recommended Action	Owner
Sales Dept	**Compensation Audit.** Review base pay vs. commission structure. Ensure targets are achievable to reduce the "pressure cooker" churn.	Compensation
New Hires (0-2 Yrs)	**Launch "Year 1" Mentorship.** Pair new hires with "Loyalists" (10+ years tenure) to foster belonging and navigate early career hurdles.	L&D

5. Methodology (Technical Appendix)

For reference only. Full technical documentation available in the repository.

- **Data Source:** IBM HR Analytics Dataset (1,470 Records).
- **Tools Used:** Python (Data Cleaning/Feature Engineering), Power BI (Visualization), Figma (UI Design).
- **Analysis:** Decomposed attrition drivers using AI-driven "Key Influencers" and Decision Trees.

6. Conclusion

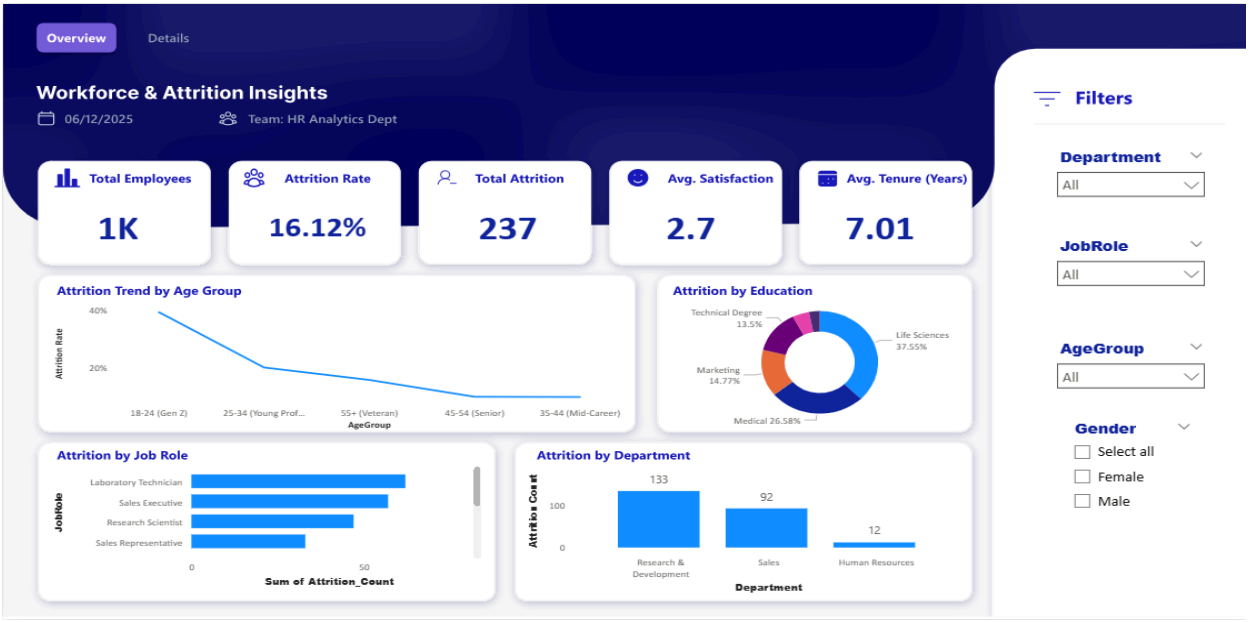
This analysis confirms that the organization's 16.1% attrition rate is not random; it is driven by identifiable factors, specifically **burnout (overtime)** and **role-specific stress**.

The "Flight Risk" model demonstrates that we have the data to predict departures before they happen. By shifting our strategy from **reactive replacement** to **proactive intervention** (starting with the 127 high-risk employees identified), the HR department can significantly reduce recruitment costs and retain critical institutional knowledge. The data suggests that immediate action on these recommendations could reduce attrition by an estimated 4–5% in the coming fiscal year.

7. Appendix: Dashboard Visualization

A. Executive Overview Dashboard

This view provides the high-level metrics on current attrition rates (16.1%), departmental breakdown, and demographic trends.



B. "Flight Risk" & Root Cause Analysis

This view details the AI-driven analysis of attrition drivers and lists the 127 employees currently flagged as "High Risk" due to the Overtime/Low-Satisfaction combination.