

# How to Understand and Reduce Turnover

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## Key insights and recommendations

Limiting business travel will **improve work-life balance** for employees at Acme Aroma and consequently **reduce turnover** by **1.6%** annually on average, resulting in

- retention of an additional **60 experienced employees** on average,
- **improved performance** in production and sales, and
- an average annual **cost savings** of roughly **2.3M rupees**.

## Why take action to reduce turnover?

- Turnover has **tripled** in the last 10 years; it is becoming more of a problem.
- Hiring costs **doubled** in the last two years.
- Acme Aroma spent **19M rupees** to replace 634 employees in 2022.
- Production and sales are suffering from **inexperienced employees**.
- **Job satisfaction** has trended down for the last five years.
- Fewer **job applications per opening** year-over-year for the last five years.

## How did we come to our conclusions?

We used **logistic regression** to model an employee's decision to **leave** or **stay** with the company as a **coin toss**, where **different factors** (e.g. job satisfaction, base pay) combine to influence the employee's decision. The model estimates a **regression coefficient** for each factor that represents the strength of its influence on the **odds** for the result of the coin toss (the decision to leave or stay). For example, a regression coefficient of 0.05 for distance from home (in miles) would indicate that for every additional mile of commute distance, the odds of attrition would increase by a factor of  $e^{(0.05)}$  or  $\sim 1.05$  (5% increase).

## Why should you put faith in our estimates?

We set aside 10% of employee data to **test our model's effectiveness**. Although the model makes several **simplifying assumptions** and is limited in its effectiveness by the **available data**, its ability to correctly identify an employee's decision to leave in **9 out of 10** cases on average is strong evidence that we can trust the insights that the model provides.

## What factors are important to at-risk employees?

We found the **most influential factors** by influence on odds of **staying** (shown) to be:

- **Work-life balance (6:1)**
- High approval ratings (4:1)
- Job involvement (4:1)
- Job satisfaction (3:1)
- Salary hike (3:1)
- Environment satisfaction (2:1)

## How certain are we of our insights and final figures?

While our model provides **valuable insight** into the factors that appear to influence employee turnover, there is still **significant uncertainty** in its forecast of the number of additional employees retained annually, on average.

- Estimates of the number of additional employees retained annually **varied** from below zero (i.e., an increase in turnover) to retention of an additional 128 employees, with an annual average of retention of an additional 58 employees.
- We should have **confidence** that a focus on improving work-life balance is the **right action** to take to reduce employee turnover on average, but we should not be surprised to see significant variation in turnover year-after-year.