



# Mastering HR Analytics: A Practical Guide for HR Professionals

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Chicago



## Mastering HR Analytics: A Practical Guide for HR Professionals

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### Overview

Workforce data sits in HRIS exports, payroll files, engagement surveys and applicant tracking systems, yet most HR teams still report headcount rather than explain it. This HR Analytics course teaches HR analysts and generalists how to run a real people analytics project: frame a business question, build a hypothesis, clean and join HR datasets in Excel, run descriptive statistics, correlation and regression, and present the answer to line managers. The five days follow one worked case, voluntary attrition in a customer service population, from the first question to an evaluated intervention. This course is delivered by Agile Leaders Training Center.

### Who Should Attend

- HR analysts and HRIS specialists who maintain and extract workforce data
- HR generalists who produce monthly workforce reports
- Compensation, talent acquisition and learning analysts who measure their programmes
- People analytics team members building evidence for HR decisions
- Business intelligence staff supporting HR reporting

### Departments and Industries

Suited to teams that hold large employee populations and need to explain turnover and performance with data.

- Human resources information systems, people analytics and workforce planning
- Reward and compensation, and business intelligence
- Contact centres and shared services
- Banking and insurance
- Retail, hospitality, hospitals and health systems

### Learning Objectives

By the end of this course, participants will be able to:

- Analyse a vague management complaint and turn it into a testable people analytics question.
- Apply consistent formulas for turnover, retention, time-to-fill, absence rate and cost-per-hire.
- Use Excel pivot tables and lookups to clean, code and merge HRIS, payroll and survey extracts.
- Evaluate t-tests, correlations and simple regression results and interpret p-values without overclaiming.
- Build a one-page attrition dashboard and a findings memo for line managers.
- Compare before-and-after and control group results to judge whether an HR intervention worked.



## Course Agenda

### Day 1: Framing People Analytics Questions

- From management complaint to analytics question: the attrition case
- The analytics maturity ladder: reporting, analysis, prediction
- Roles in an analytics project: sponsor, analyst, data owner, privacy officer
- Scoping the data request: which HRIS, payroll and survey fields are needed
- Agreeing the study question and success measure

### Day 2: Hypotheses, Metrics and Data Preparation

- Writing testable hypotheses about tenure, pay, manager and shift pattern
- Standard HR metric formulas and common calculation errors
- Cleaning HRIS extracts and coding exit reasons
- Joining employee, payroll and survey tables in Excel with lookups
- Producing a clean, documented analysis file

### Day 3: Statistical Analysis of Workforce Data

- Descriptive statistics and segmenting leavers versus stayers
- Correlation and t-tests on HR variables
- Chi-square tests for categorical data such as department and shift
- Simple and multiple regression to estimate drivers of attrition
- Reviewing which hypotheses held, and which did not

### Day 4: Communicating Findings and Designing Interventions

- Data storytelling for line managers: one chart, one message
- Building an attrition dashboard in Excel
- Choosing an intervention that matches the drivers found
- Defining how the intervention will be evaluated
- Drafting the findings memo

### Day 5: Evaluating Impact and Presenting the Study

- Before-and-after comparisons and control groups
- Avoiding false conclusions: confounders and small samples
- Data privacy, ethics and consent in employee analytics
- Team presentations of the complete attrition study
- Planning a first analytics project back at work



## Practical Exercises

Participants work in pairs on an anonymised practice dataset of employee records, exit reasons and survey scores, using these suggested activities.

- Suggested activity: calculate the core HR metrics from the practice dataset using the metric definitions sheet.
- Suggested activity: complete the hypothesis and data request template for the attrition case.
- Suggested activity: run a regression with the Excel statistics cheat sheet and record which drivers matter.
- Suggested activity: fill in the dashboard and findings memo templates for a line manager audience.

## FAQs

### Do I need a statistics background?

No. Each statistical idea is explained briefly and then practised immediately in Excel on the course dataset.

### Which software is used?

Microsoft Excel, including pivot tables, lookup functions and the built-in statistical tools; no specialist software is required.

### Is this an HR strategy course?

No. It is a numbers course for HR: most of the week is spent inside a spreadsheet with realistic HR data, running statistics and building a dashboard.

## Conclusion

Participants spend most of the week inside a spreadsheet with real-shaped HR data, running statistics and building a dashboard, and they leave with a complete worked HR analytics study, from the first question to an evaluated intervention, that they can repeat on their own organisation's data.