

# People Analytics Portfolio Overview

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## Summary

This portfolio showcases applied people analytics work focused on workforce equity, organizational health, and retention strategy. Through two distinct projects—one on demographic and pay equity analysis, the other on termination trends—Cody leverages data to illuminate patterns, test hypotheses, and offer actionable insights. The work combines technical fluency in Python with a strategic HR lens rooted in inclusivity and development.

## Project 1: Demographics & Pay Equity Analysis

**Objective:** Analyze gender distribution, tenure, and salary data to identify equity patterns and model salary drivers.

**Tools:** Python (pandas, matplotlib, scikit-learn), Excel, Jupyter (VS Code)

### Key Deliverables:

- Cleaned employee demographic dataset with tenure and salary bands
- Stacked bar chart: Gender distribution across salary bands
- Horizontal bar chart: Gender representation by department
- Linear regression model predicting salary from gender and tenure
- Annotated regression summary and evaluation metrics

### Insights:

- Males are overrepresented in top salary bands (\$100K+)
- Gender remains a significant predictor of salary, even after controlling for tenure
- Model  $R^2$ : 0.26, Gender Coefficient: ~\$6,736

### Recommendations:

- Conduct full equity audit by role and department
- Expand leadership pipelines to address upper-band gender gaps

## Project 2: Termination Analysis (FY23–24)

**Objective:** Explore reasons for employee exits, tenure at termination, and departmental patterns to inform retention strategy.

**Tools:** Python (pandas, matplotlib), Excel, Jupyter

**Key Deliverables:**

- Cleaned termination dataset for FY23–24
- Histogram: Terminations by tenure bucket
- Top 10 departments by termination count (split by action type)
- Calculated average tenure at time of exit

**Insights:**

- Most voluntary exits occur in the 1–3 year range
- Involuntary separations concentrated in frontline-heavy departments
- Average tenure at exit: ~4.8 years

**Recommendations:**

- Reinforce early engagement and retention in years 1–3
- Audit onboarding, support, and career pathing for high-turnover roles

**Portfolio Notes**

- All raw and cleaned data files are included for transparency
- PDF and PNG versions of charts and notebooks are available
- Each project contains a dedicated README for walkthrough and reproduction

This portfolio represents my applied people analytics work across workforce development, equity, and engagement strategy.