

MoonDash Data Exercise

People Analytics

Prompt

MoonDash Inc. is a fictitious company that specializes in delivery logistics for shuttling goods and services to and from the Moon. The company is about to finalize its mid-year performance rating and promotion decisions. Before doing so, the company leadership has requested an analysis to determine if performance ratings and promotions are equitably distributed by gender. Please use the data provided to run this analysis in Python/R and develop a one page exec summary of your insights. The audience for your report is composed of both nontechnical leaders and technical subject-matter experts. See below for more details on the data and deliverables.

Data

You have been provided with the following data file to conduct your analysis: [moondash_data.xlsx](#). Below is a description of the data that is included in each sheet of the file.

- 1. Employee Roster
 - *employee_id*: Unique employee identifier
 - *hire_date*: Date when employee was hired
 - *job_level*: Employee's level within the company
 - I = Individual contributor track, 4 levels of increasing seniority from I4 - I7
 - T = People management track, 4 levels of increasing seniority from T6-T9
 - Note: I6 & T6 and I7 & T7 are equivalent job levels, but on different tracks (IC vs. management)
 - *job_function*: General description of employee functional role
 - *region*: Employee's regional location in the US
 - *gender*: Employee's self-identified gender
 - *age*: Employee's age
- 2. Mid-Year Outcomes
 - *perf_rating*: Employee's mid-year performance rating effective dated 2023-09-30. Employees must have a hire date on or before 2023-03-31 to be eligible to receive a performance rating.
 - *promo_decision*: Decision of whether an employee is ready for promotion this cycle effective dated 2023-09-30. Note that employees must have a tenure of at least 1.50 years by the 2023-09-30 effective date to be eligible for promotion.

Key Deliverables

Please prepare a PDF report that includes the following.

- 1. One-page exec summary with the following sections:
 - TL;DR summary: At the top of your report, include a tl;dr (too long; didn't read) 3-5 bullet summary of your analysis, results, and recommendations.
 - Hypothesis / problem statement: Brief description of the hypothesis / problem.
 - Data description: Brief description of the data. Please include any assumptions you made about the data.
 - Methods: Brief description of the methods you used to conduct your analysis.
 - Results: Present the results of your analysis as well as your interpretation and takeaways. Please include at least one visualization (table / chart) to communicate your results.
 - Recommendations: Provide recommendations to leadership based on your results, including any next steps
- 2. Appendix that includes the following
 - Code: Please attach the Python/R code, as well as any ancillary files or tools you used to process the data and conduct your analysis. Please add comments to your code so that it is easy to follow along.