Survey Data Analysis: Technology Trends & Compensation

Part 1

OUTLINE

- Executive Summary
- Introduction
- Methodology
- Programming Language Trends
- Database Trends
- Dashboards
- Dashboard Insights
- Overall Findings
- Conclusion

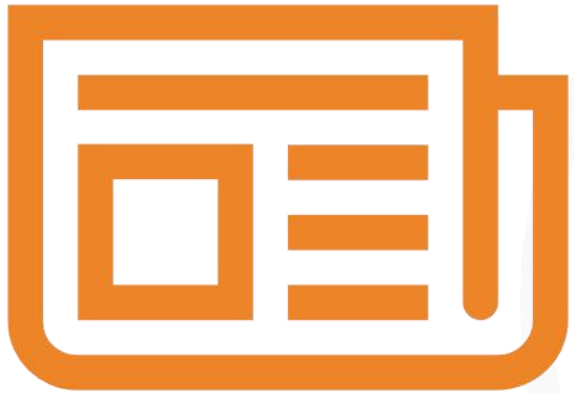
EXECUTIVE SUMMARY

- Top programming languages: Python, JavaScript most used
- Future trends: high interest in Go, Rust
- Database usage: SQL, MongoDB common; NoSQL demand increasing
- Compensation and job satisfaction vary by age and experience
- Dashboards provide detailed insights

INTRODUCTION

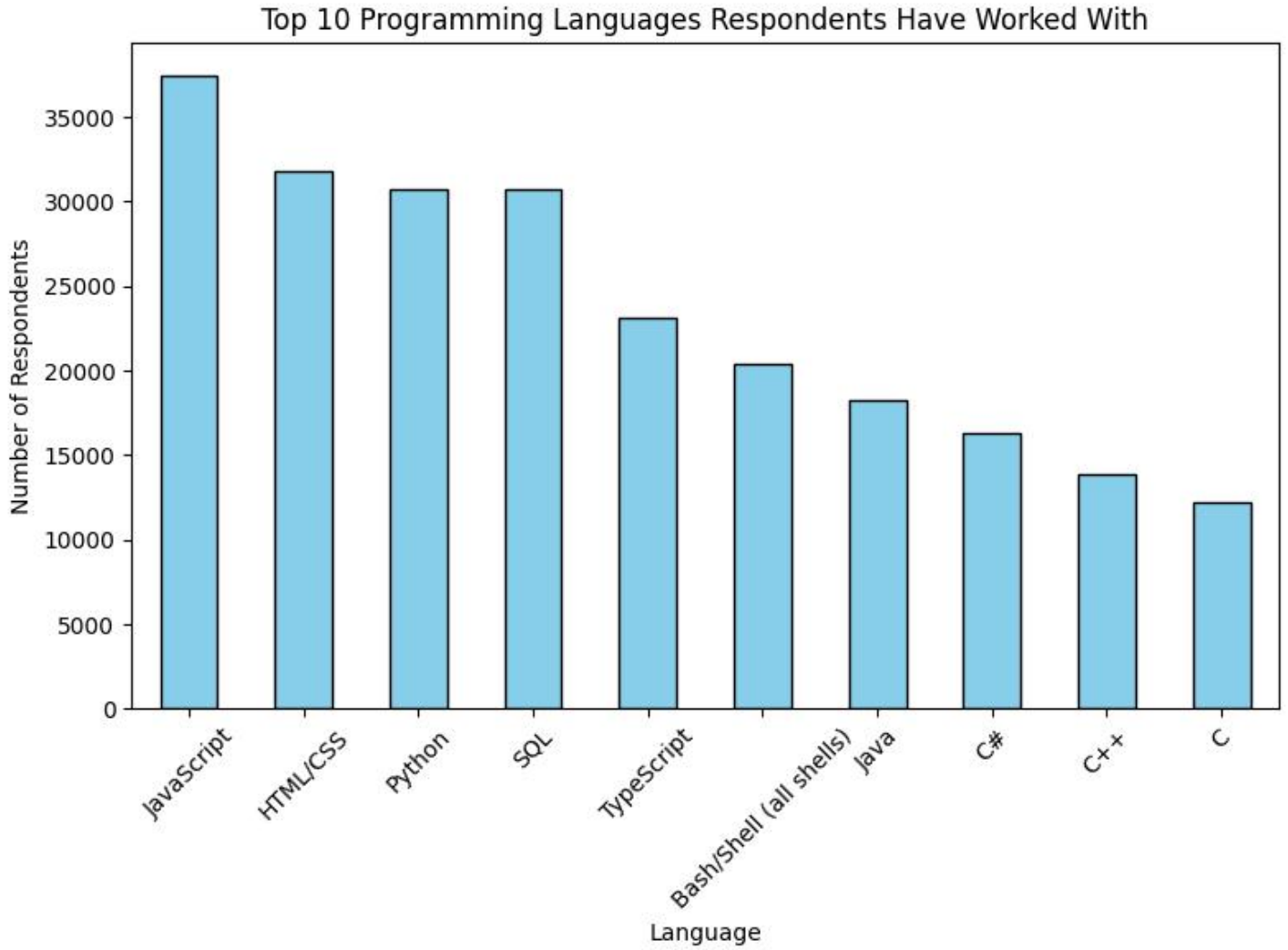
- Purpose: Analyze survey data to identify trends in tech adoption, compensation, and job satisfaction
- Audience: Developers, managers, recruiters, and analysts
- Value: Guides skill development, hiring decisions, and career planning

METHODOLOGY



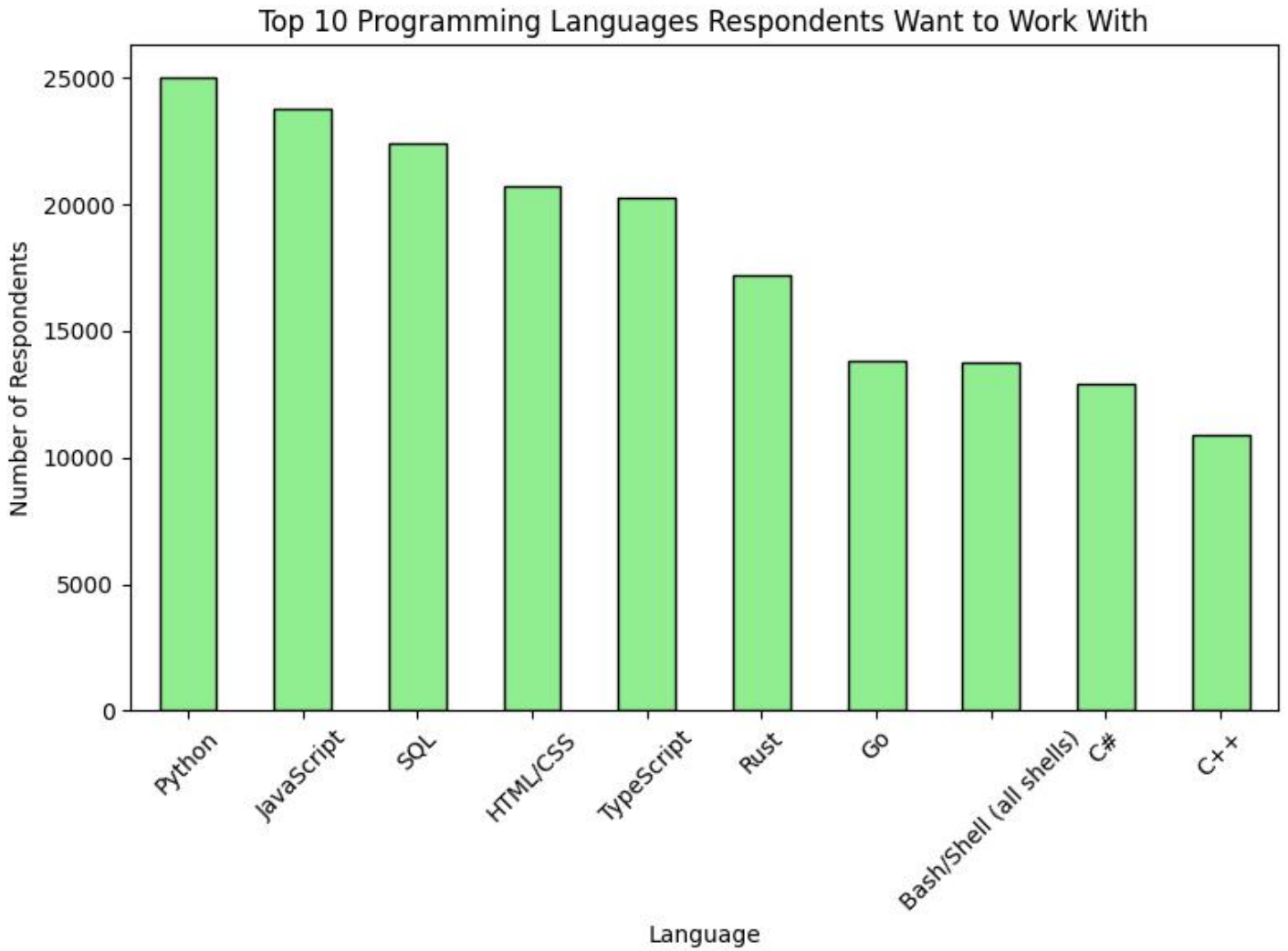
- Data Source: Stack Overflow 2023 Developer Survey CSV
- Key Steps:
  - Data cleaning and missing value handling
  - Age conversion from categories → numeric
  - Split multi-value columns (languages, databases)
  - Calculated medians, counts, and top 10 lists

PROGRAMMING LANGUAGE TRENDS

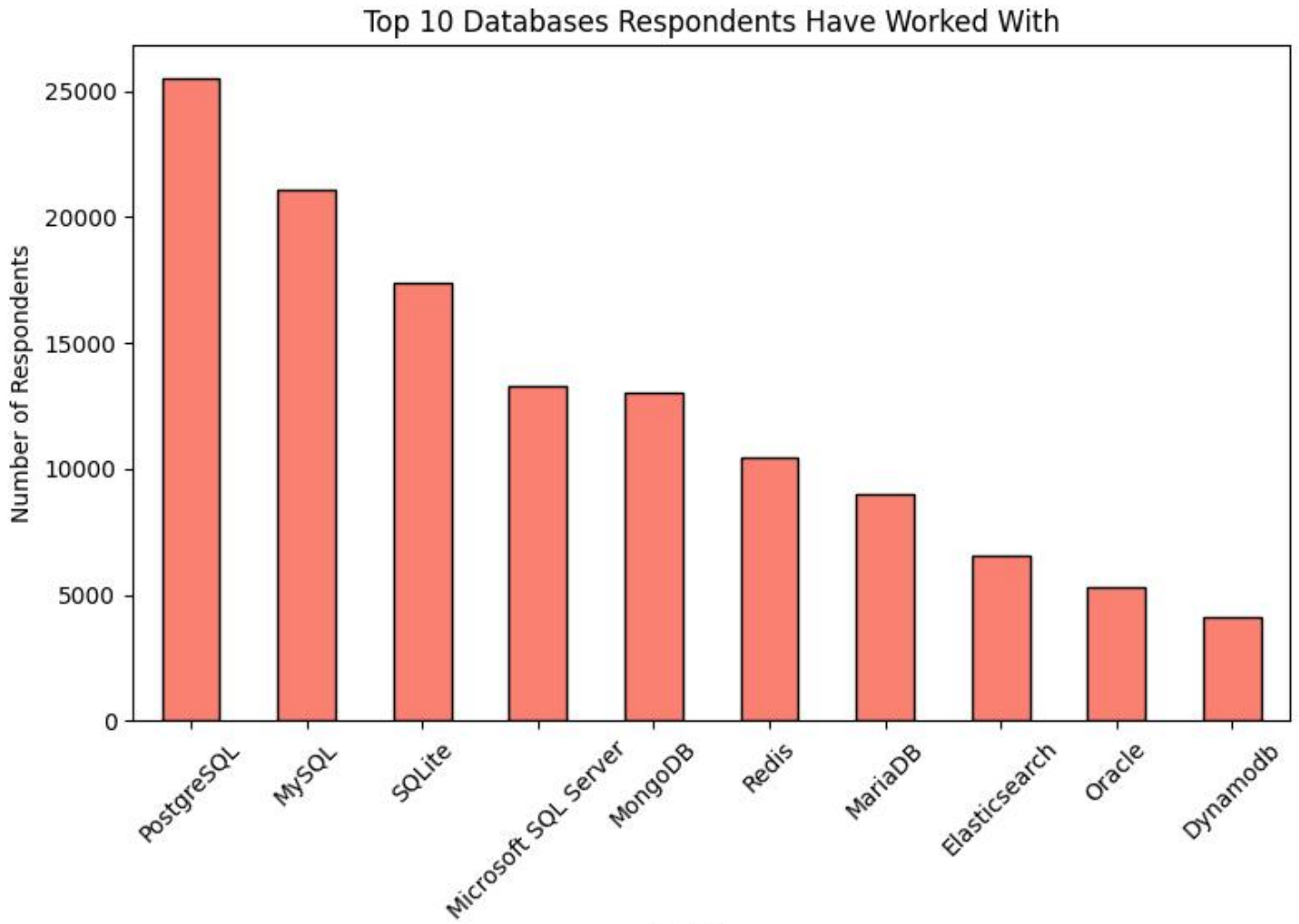


PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

- Python and JavaScript dominate current usage; Rust and Go are emerging in demand.

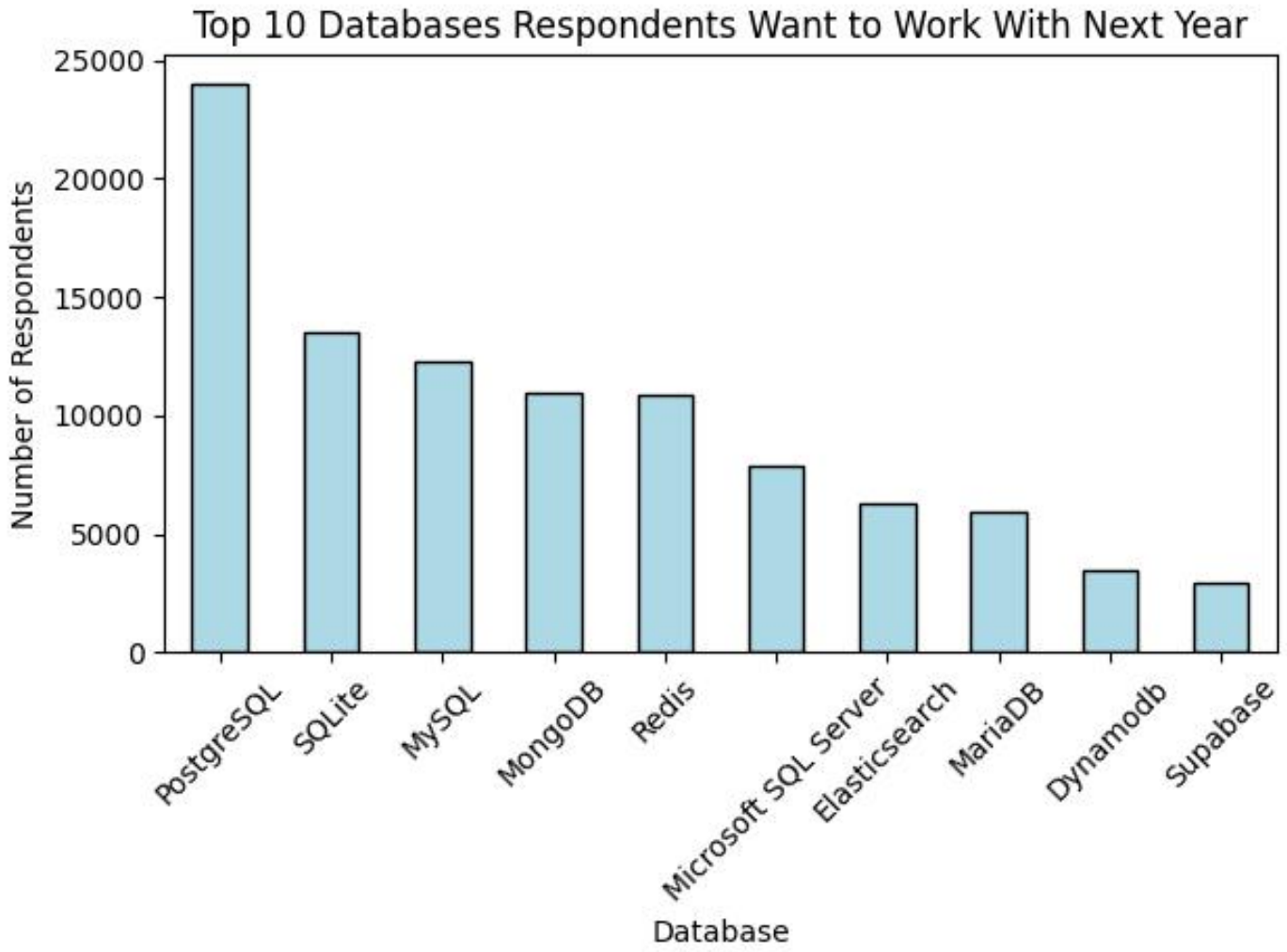


DATABASE TRENDS

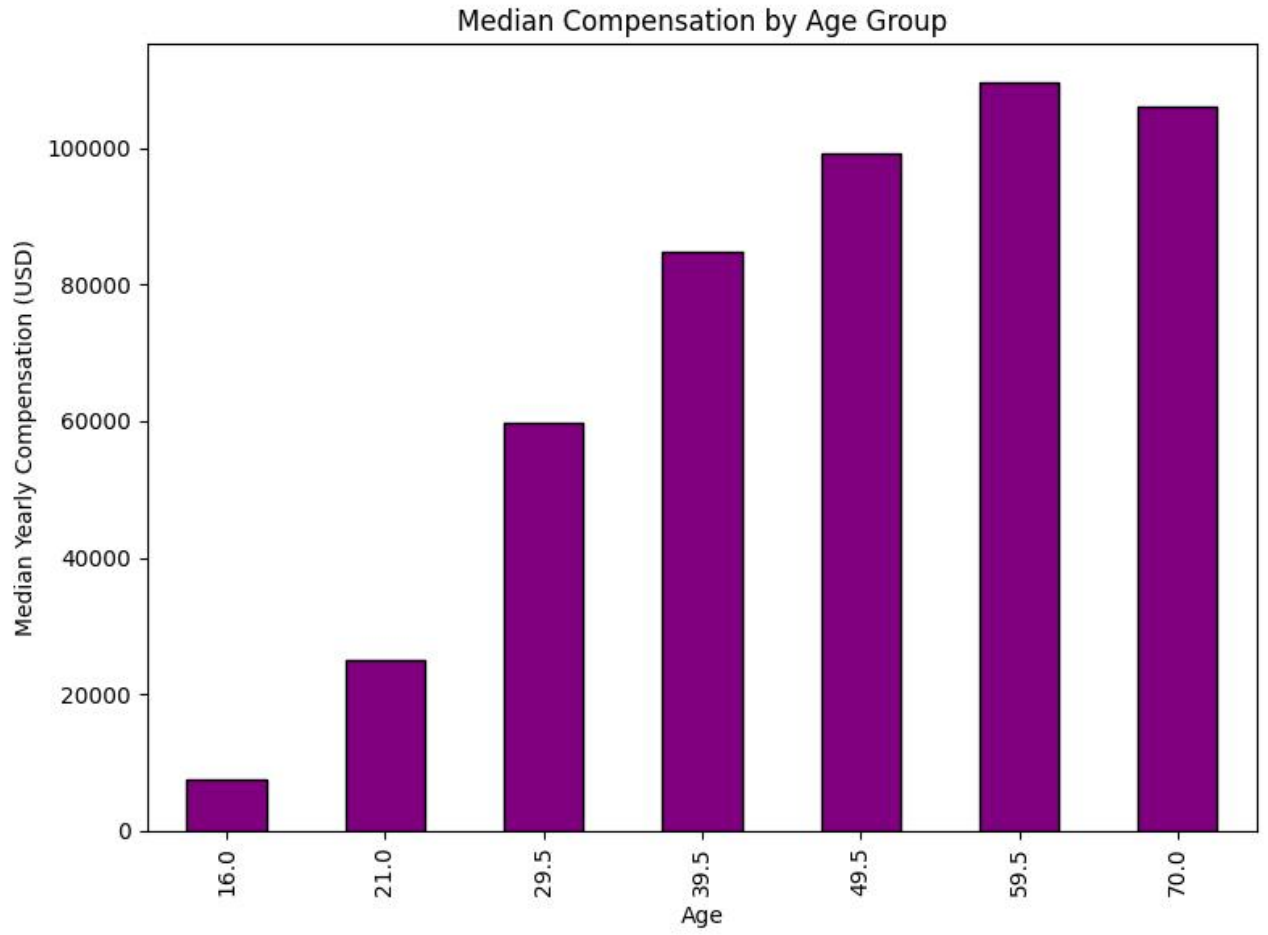


DATABASE TRENDS - FINDINGS & IMPLICATIONS

- SQL dominates current use; NoSQL (MongoDB, DynamoDB) increasing in interest.



Compensation and Job Satisfaction



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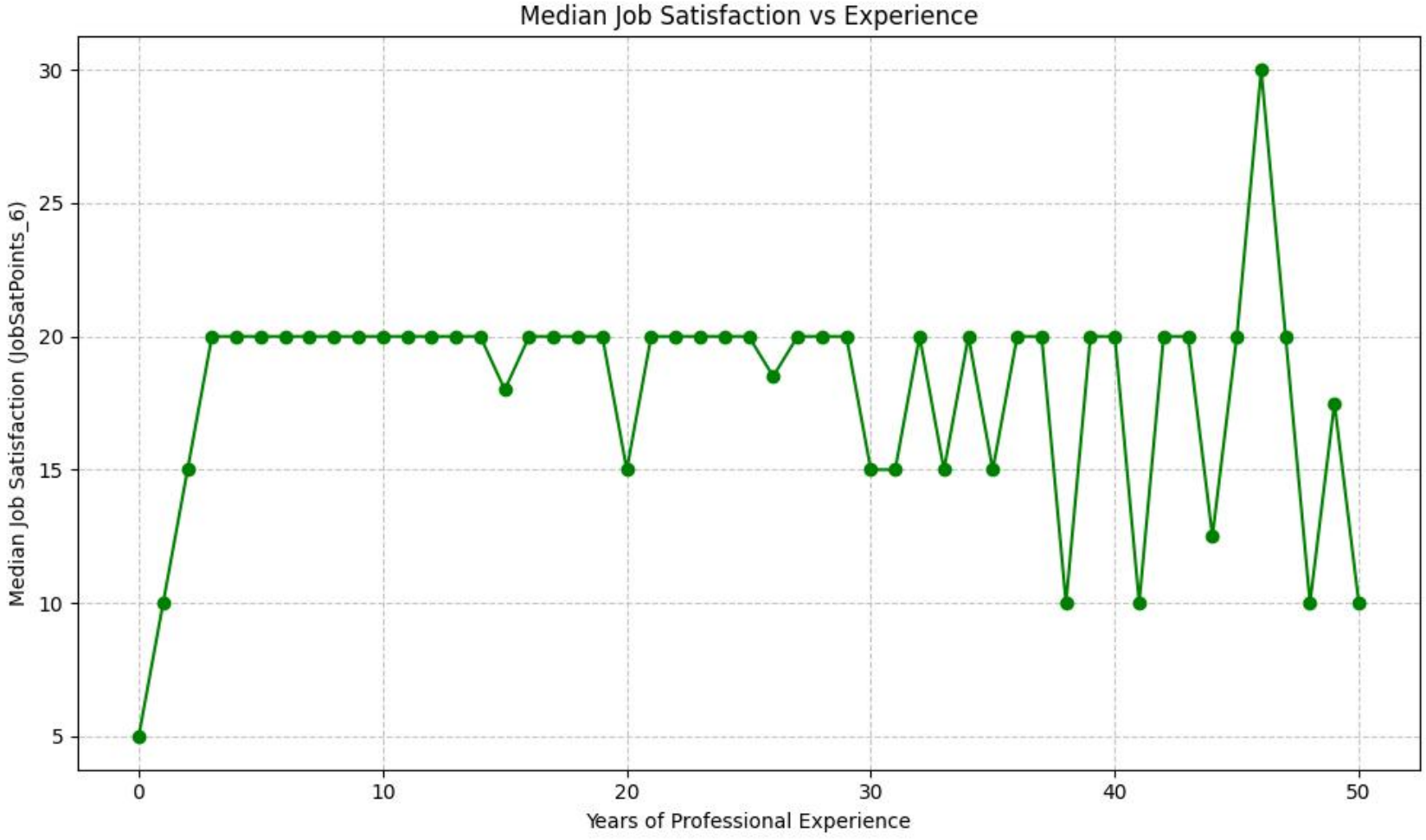
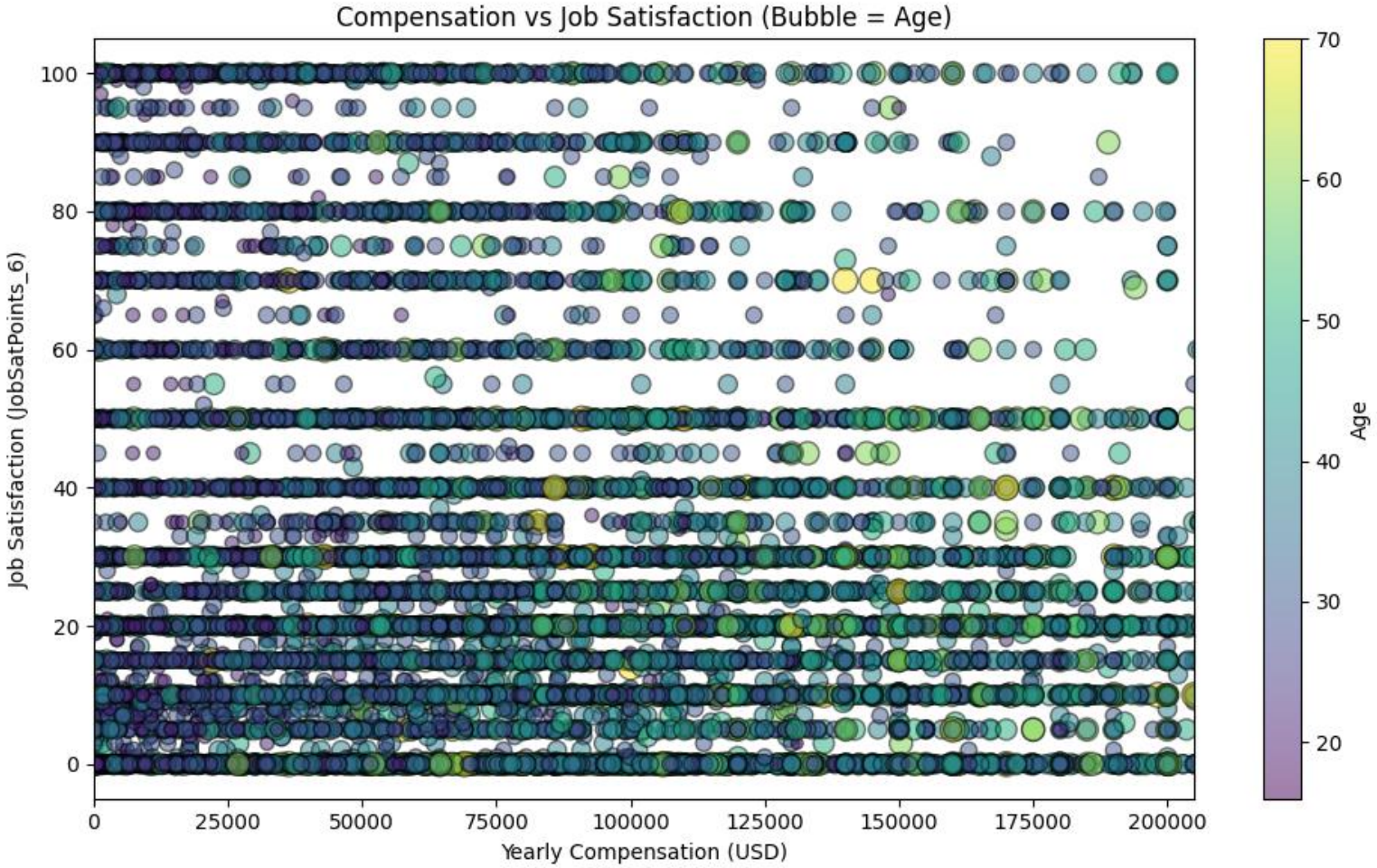


Bubble Plot: Compensation vs Job Satisfaction

Screenshot of



DISCUSSION