

INFO 4602/5602

Information Visualization

Individual Project Presentation
Understanding Mental Health Challenges in the Tech Workplace

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Context & Environment

Why (Purpose) ?

To understand mental health patterns in the tech industry and identify how treatment, workplace comfort, and mental health interference affect employees.

Who (Audience and Impact) ?

Tech employers, HR teams, mental-health advocates, and stakeholders who need insights to improve workplace support and employee wellbeing.

What (Data) ?

Survey data from tech employees (OSMI dataset), including demographics, treatment status, company factors, comfort levels, and work-interference responses.

How (Method) ?

Data cleaning in Python (Jupyter), transformation of variables and visual analysis through Tableau dashboards.

Motivation

- To highlight mental health trends in the tech industry and understand how many employees seek treatment and why.
- To identify workplace factors such as company size and comfort levels that influence mental health-related behaviors.
- To provide actionable insights for employers to improve support systems, reduce stigma, and enhance employee wellbeing.

Key Research Questions

RQ1: How many employees in the tech industry seek mental health treatment, and how does this vary across groups (age, company size)?

RQ2: How often does mental health interfere with employees' work, and which groups are most affected?

RQ3: How comfortable are employees discussing mental health with coworkers and supervisors?

Data Source & Discussion

Dataset: [OSMI Mental Health in Tech Survey](#) (public dataset from Kaggle)

- 735 responses from tech industry employees.
- Contains demographics, workplace factors, treatment status, and mental-health perceptions.

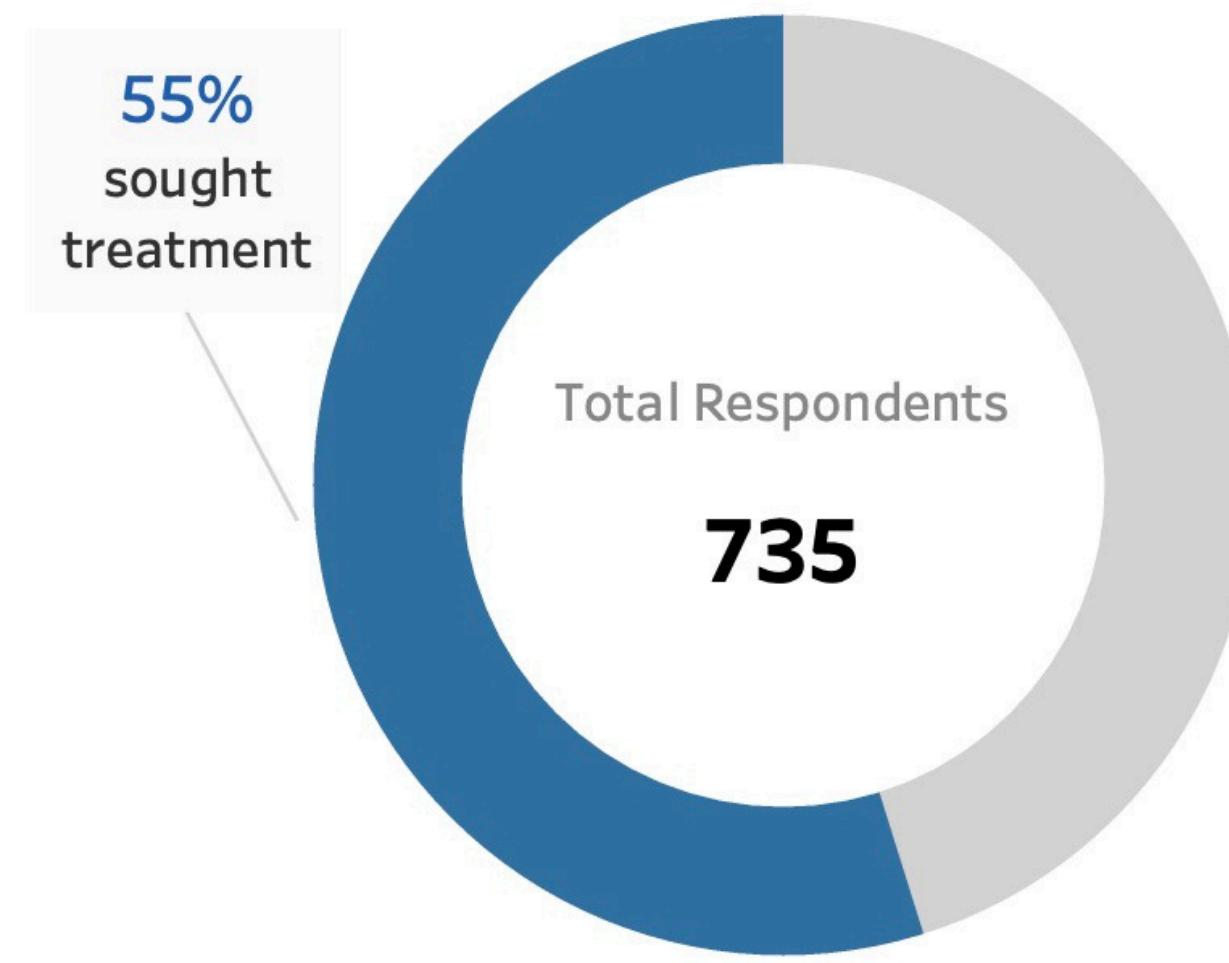
Data Cleaning & Preparation:

- Standardized inconsistent entries (e.g., gender, country, state, company size).
- Removed irrelevant or incomplete rows and filtered to U.S. respondents only.
- Grouped ages into meaningful decade ranges (20–29, 30–39, etc.).
- Simplified categories (Yes/No, Small/Medium/Large companies, etc.).
- Handled missing values in work_interfere and comfort fields.

Exported the cleaned dataset for Tableau dashboard creation.

Chart 1:

Mental Health Treatment Rate



Mental Health Treatment Rate by Age Group

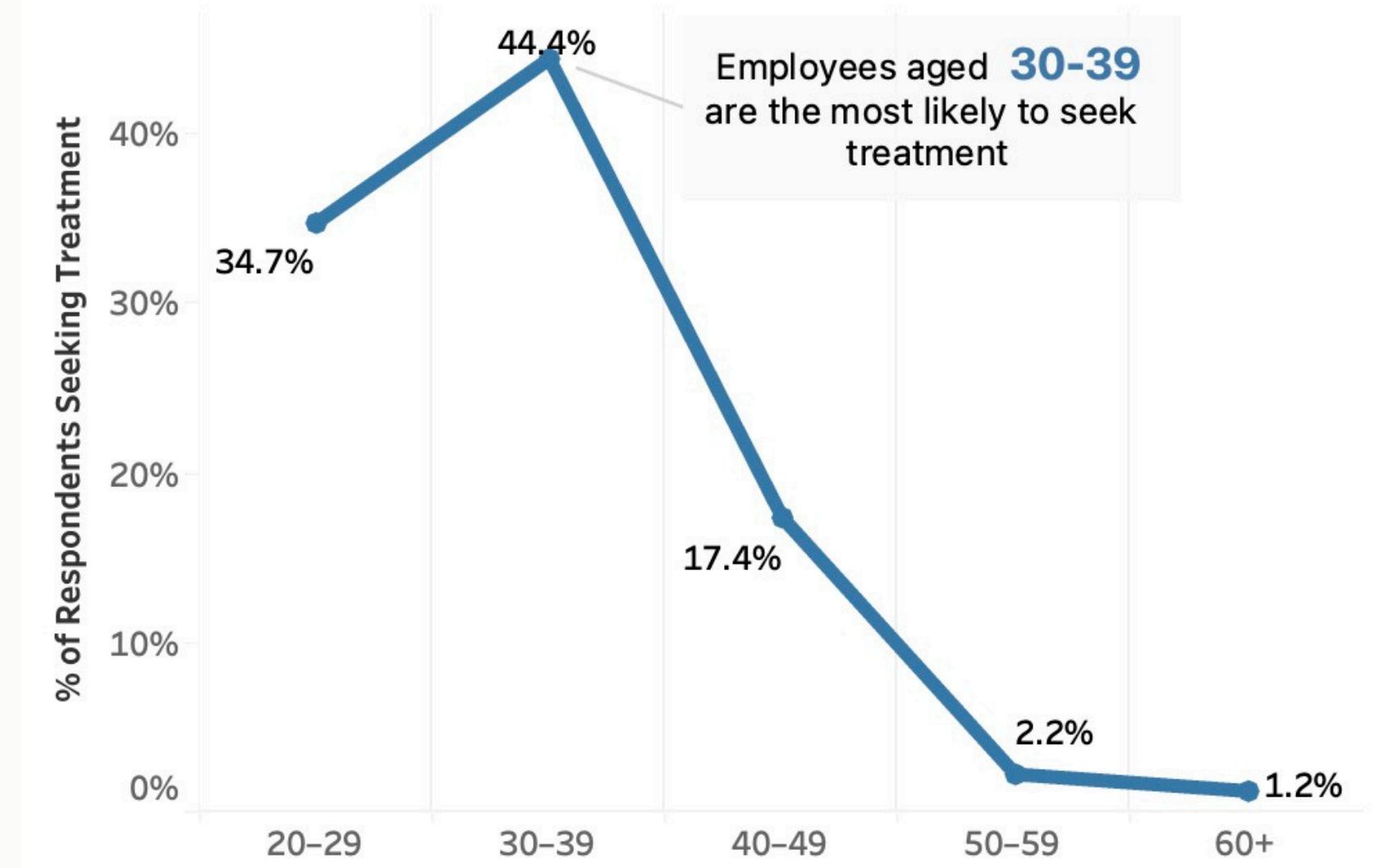


Chart 2:

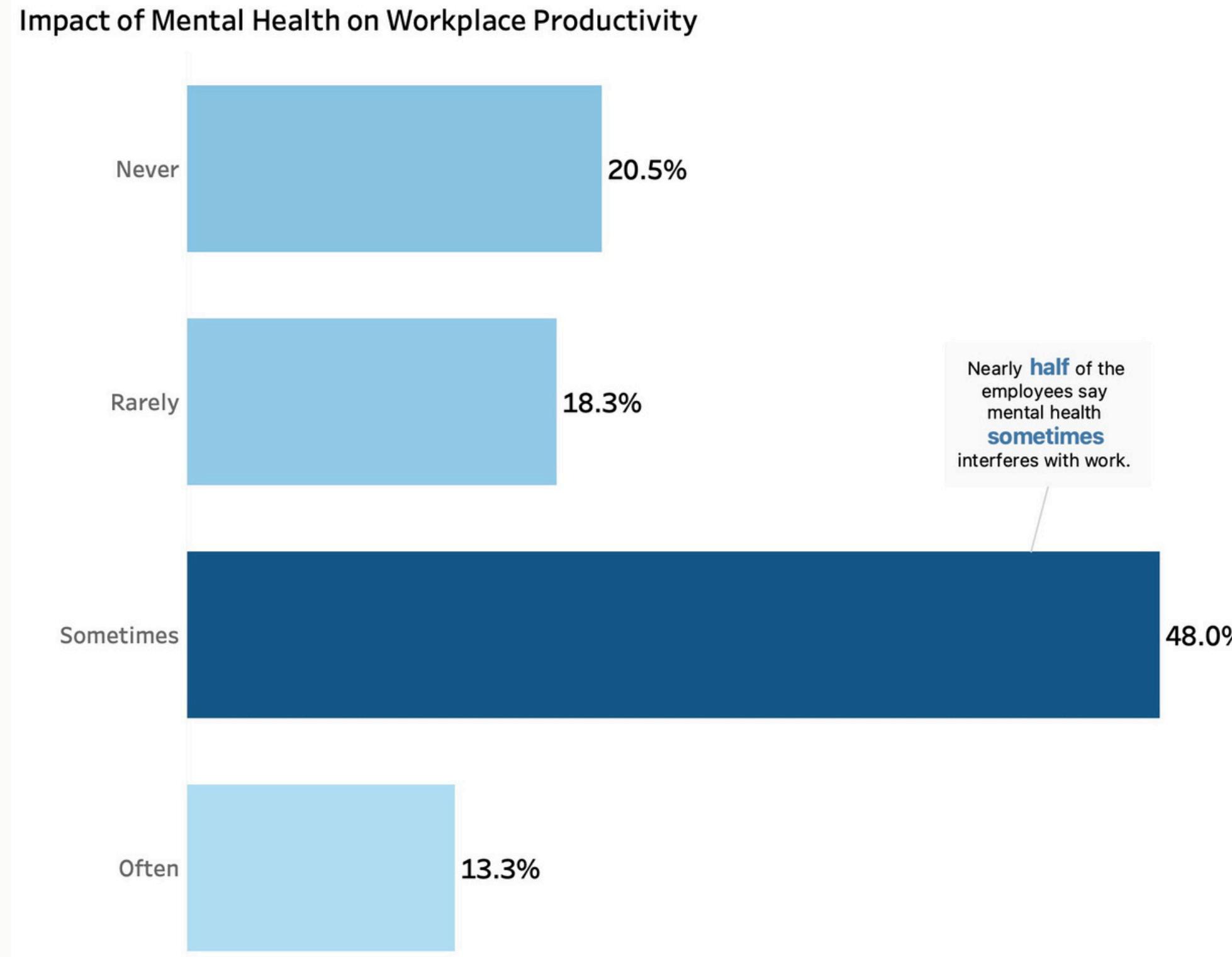


Chart 3:

Comfort Levels Discussing Mental Health at Work

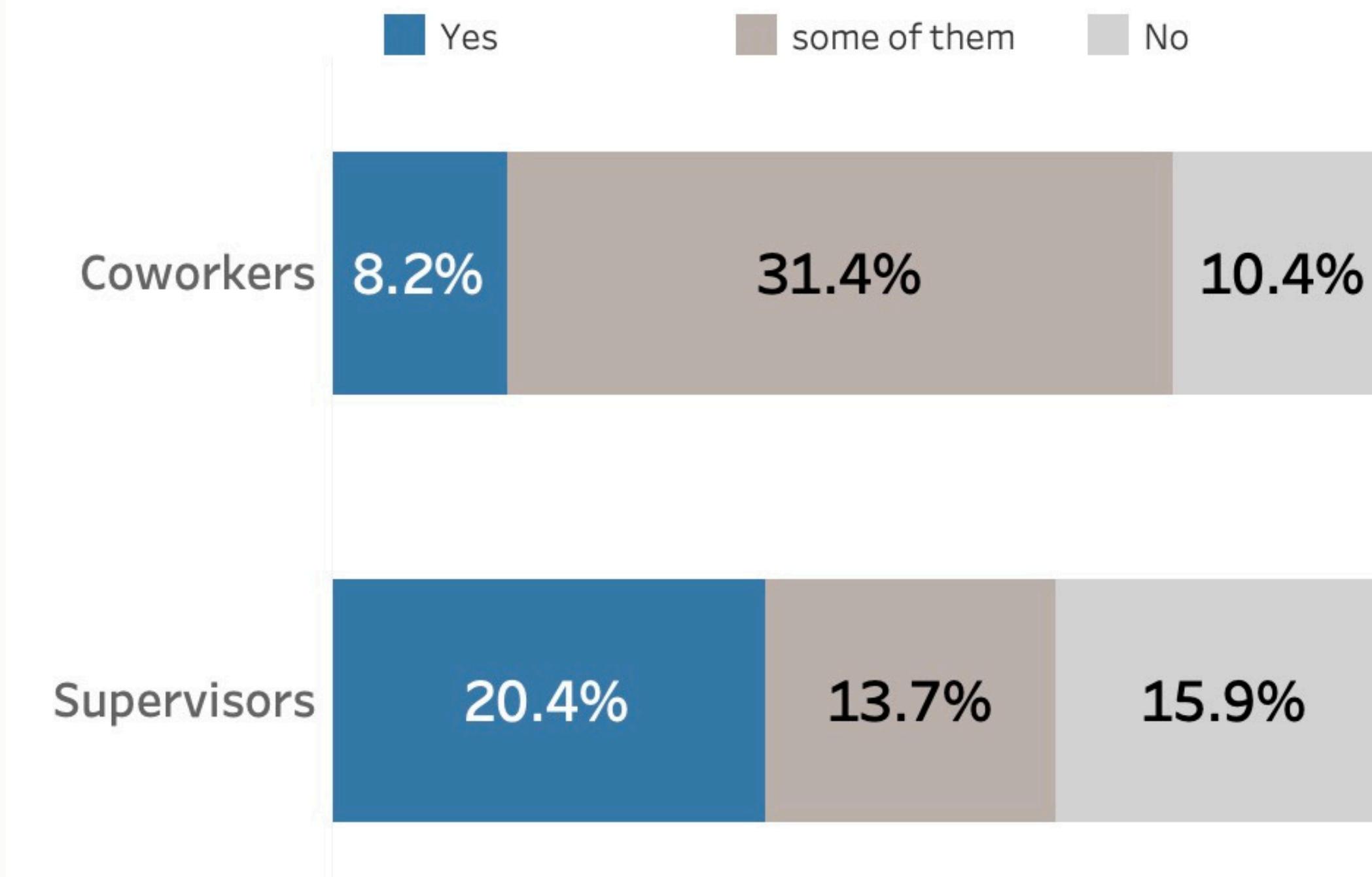
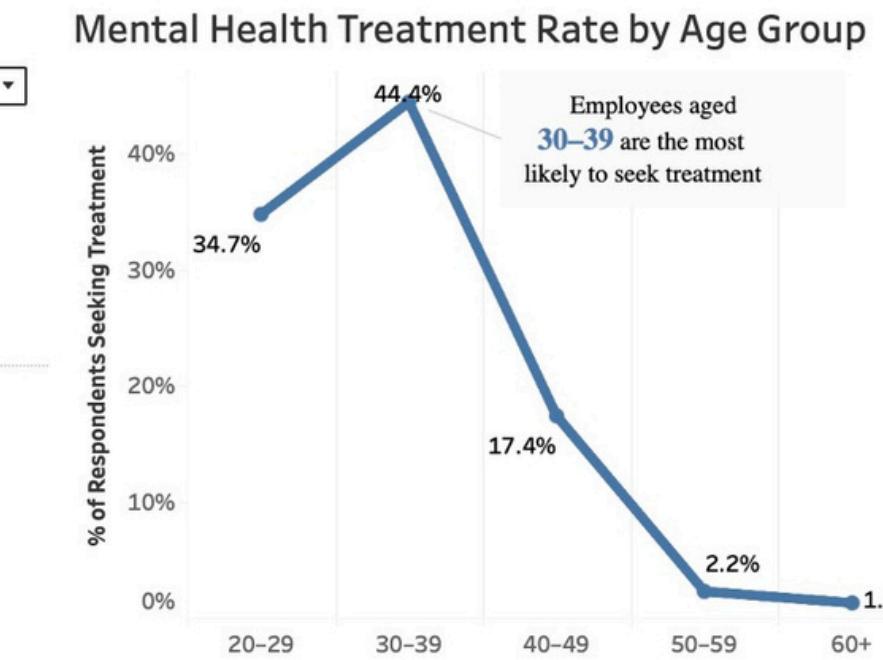
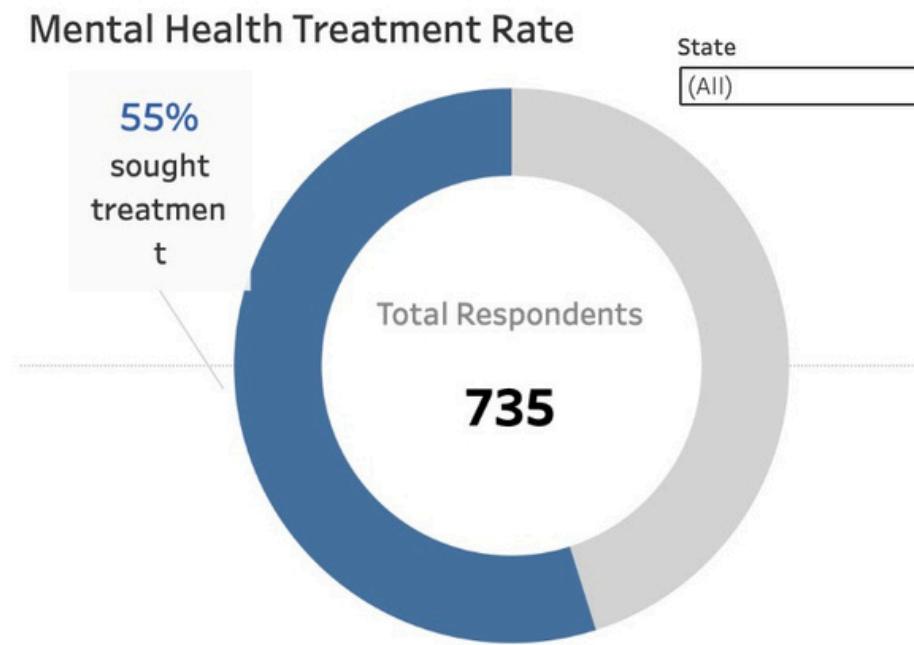


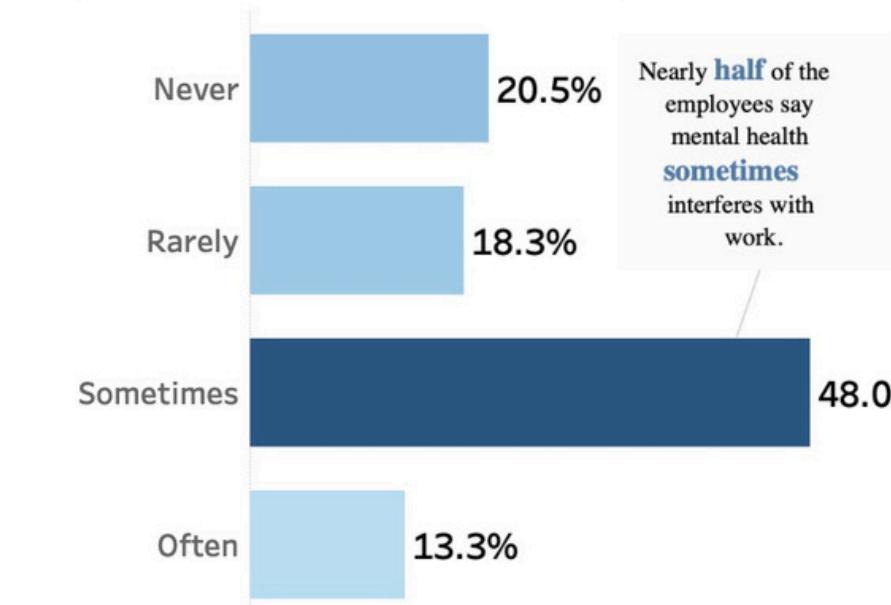
Tableau Dashboard

Understanding Workplace Mental Health: Treatment, Comfort, and Impact

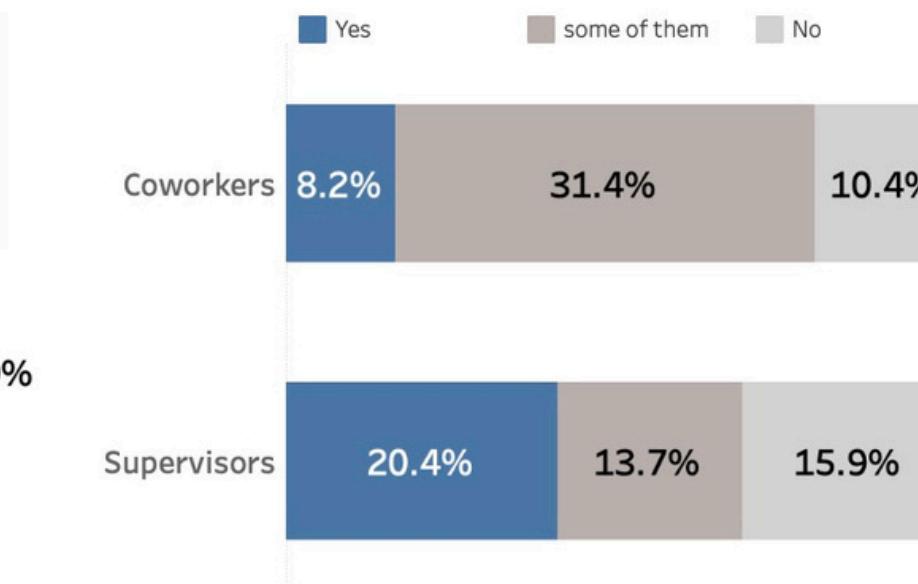
Insights from 735 employees working in US Tech Companies



Impact of Mental Health on Workplace Productivity



Comfort Levels Discussing Mental Health at Work



Answers to Research Questions + Recommendations

RQ1: 55% of tech employees have sought mental-health treatment; highest among ages 30-39.

RQ2: Nearly half (48%) report mental health sometimes interferes with productivity.

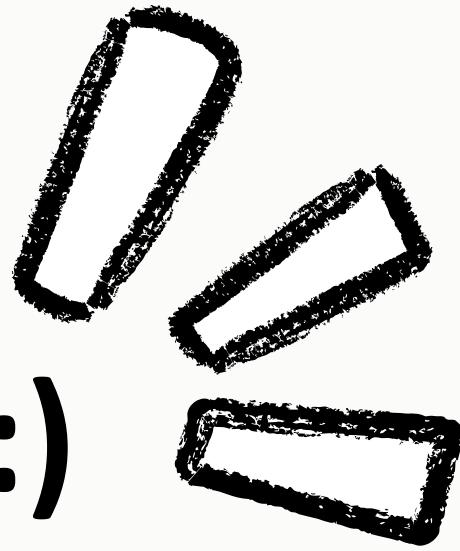
RQ3: Employees are more comfortable with coworkers than supervisors when discussing mental health.

Recommendations:

- Enhance Support: Provide accessible counseling/EAP resources and promote them clearly.
- Manager Training: Improve supervisor awareness and communication to reduce stigma.
- Strengthen Culture: Normalize mental-health conversations through workshops and peer support.
- Focus on High-Risk Groups: Prioritize younger employees (20–39) who show higher impact levels.

URL: Tableau Dashboard Link

THANK YOU :)



Questions ?