

Faculty Survey

2024-25

Table of Contents

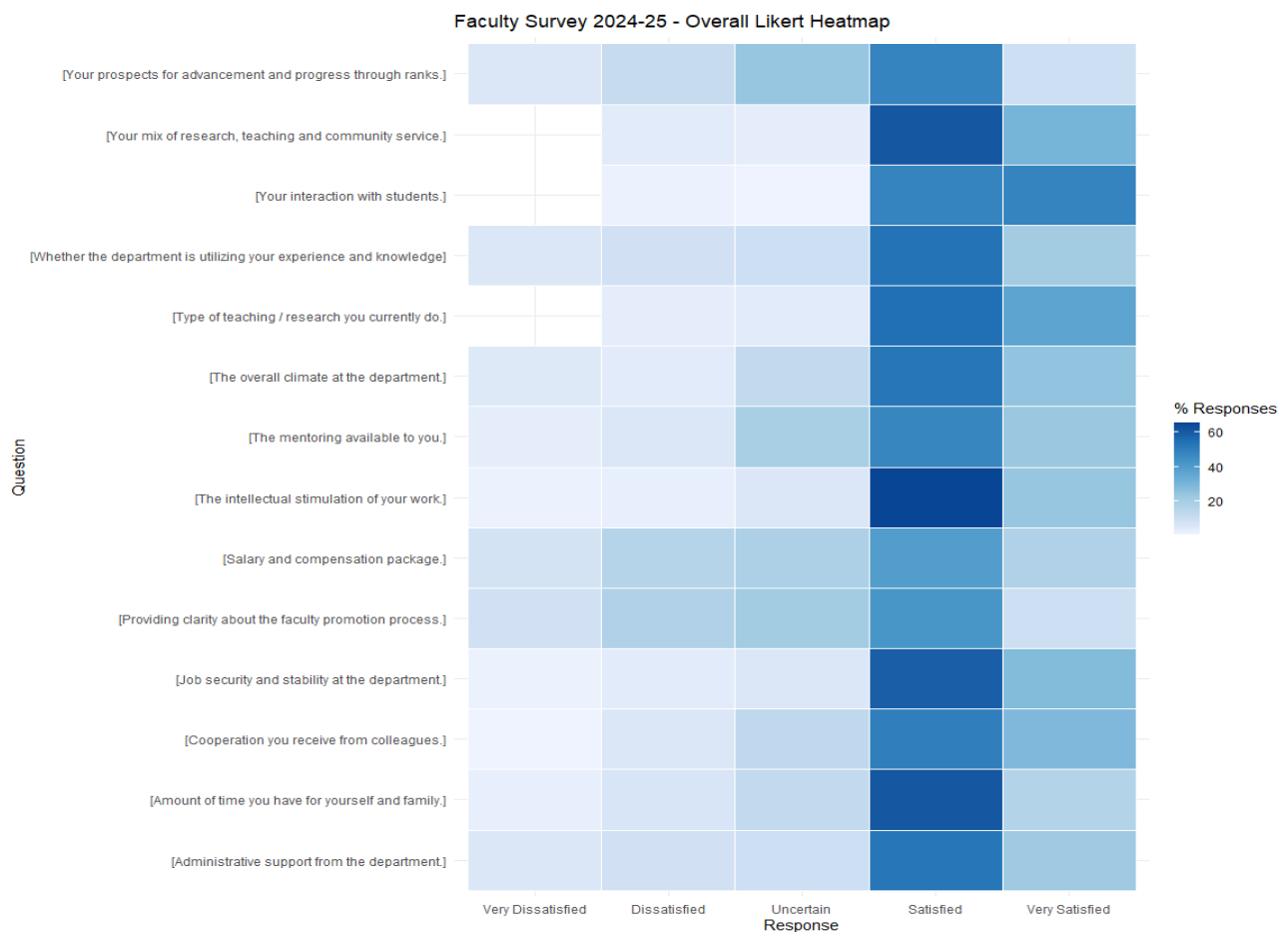
1	Heatmap Visualization.....	2
2	Diverging Likert Summary	2
3	Rank-wise Response Distribution	3
4	Cross-tabulation of Academic Rank and Response.....	6
4.1	Interpretation:.....	7

1 Heat map Visualization

During the fiscal year 2024–25, QEC Faculty Survey Forms were circulated among all faculty members via Google Forms, resulting in a total of 113 responses. The data was analyzed using standard Likert-scale survey analysis techniques.

The heatmap below illustrates the overall response trends in faculty satisfaction. Notably, the column representing the “Satisfied” rating shows the darkest shading, indicating a high concentration of responses. The “Very Satisfied” column also reflects a substantial number of positive responses, though slightly less prominent.

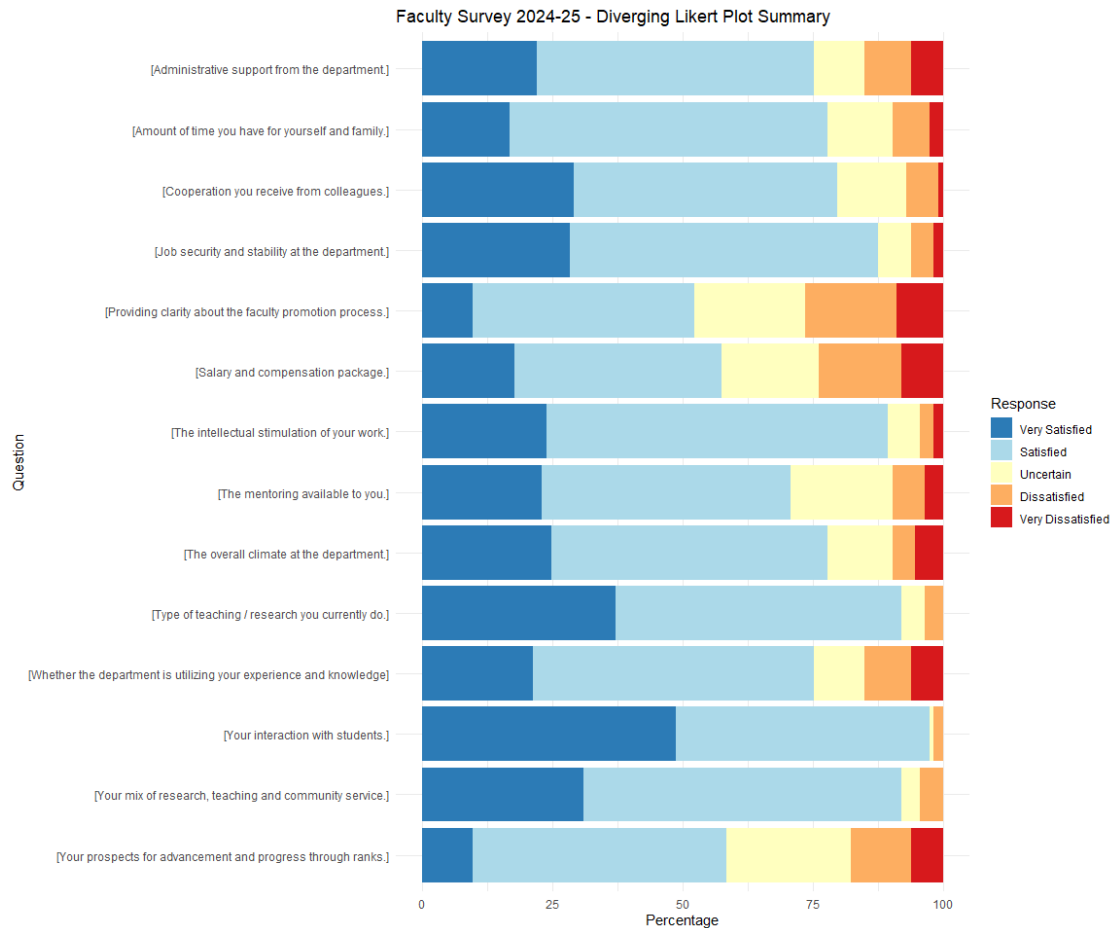
A comparative view of these two columns reveals varying levels of satisfaction across different questionnaire items. This contrast highlights how faculty perceptions differ depending on the nature of each question.



2 Diverging Likert Summary

The following chart provides a summary of the faculty satisfaction responses collected through the QEC Faculty Survey for the fiscal year 2024–25. Each bar shows the percentage distribution of Likert-scale responses across various questions.

Higher concentrations of positive responses (e.g., “Very Satisfied” and “Satisfied”) are shaded in darker blue tones and appear to the left of each bar, whereas more negative responses are shaded in warmer tones and appear to the right. This visualization helps identify which areas received higher satisfaction and where concerns may be present.



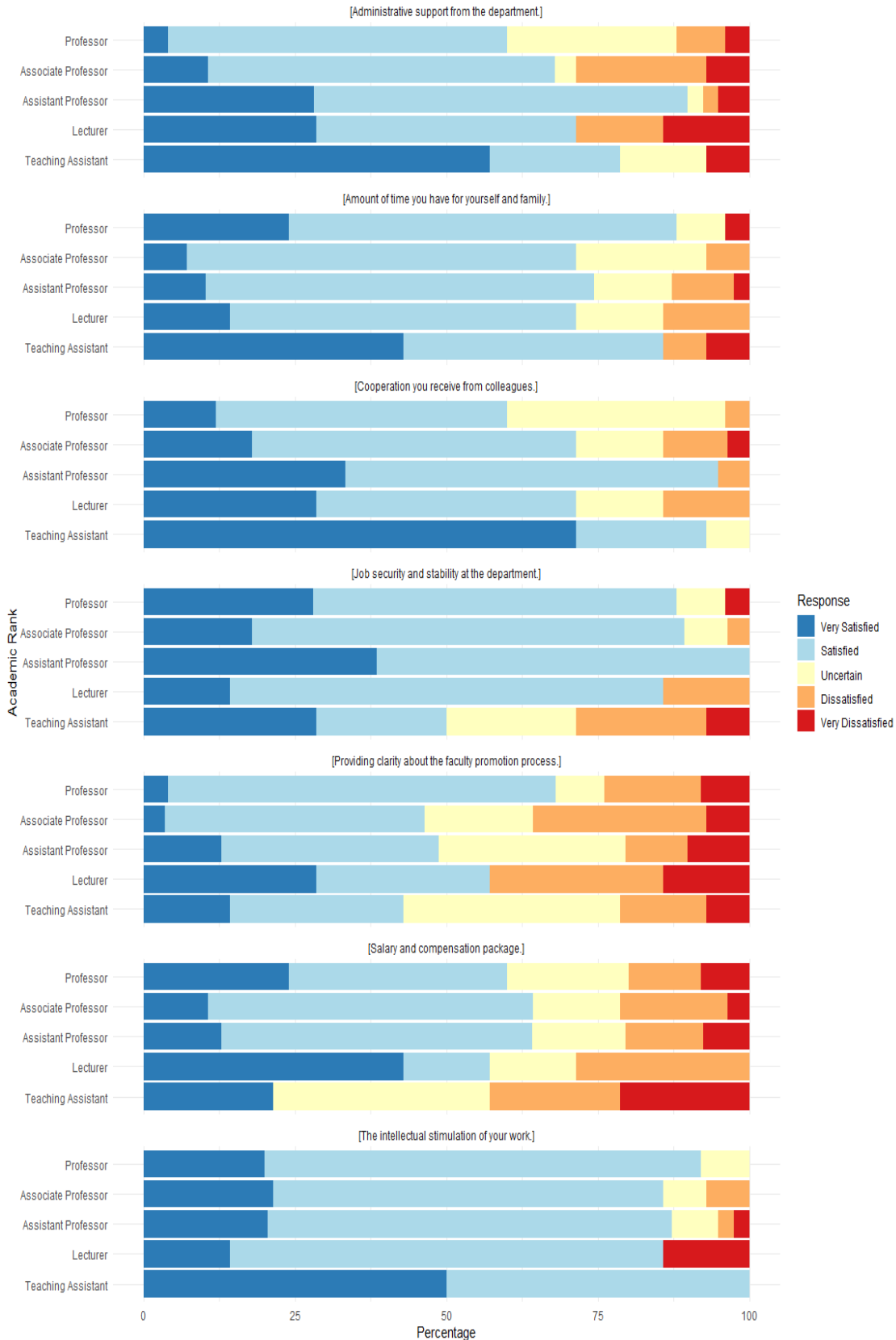
3 Rank-wise Response Distribution

The following charts break down the faculty survey responses (2024–25) by **Academic Rank** across all Likert-scale questions. This visualization helps identify patterns in satisfaction levels reported by Professors, Associate Professors, Assistant Professors, Lecturers, and Teaching Assistants.

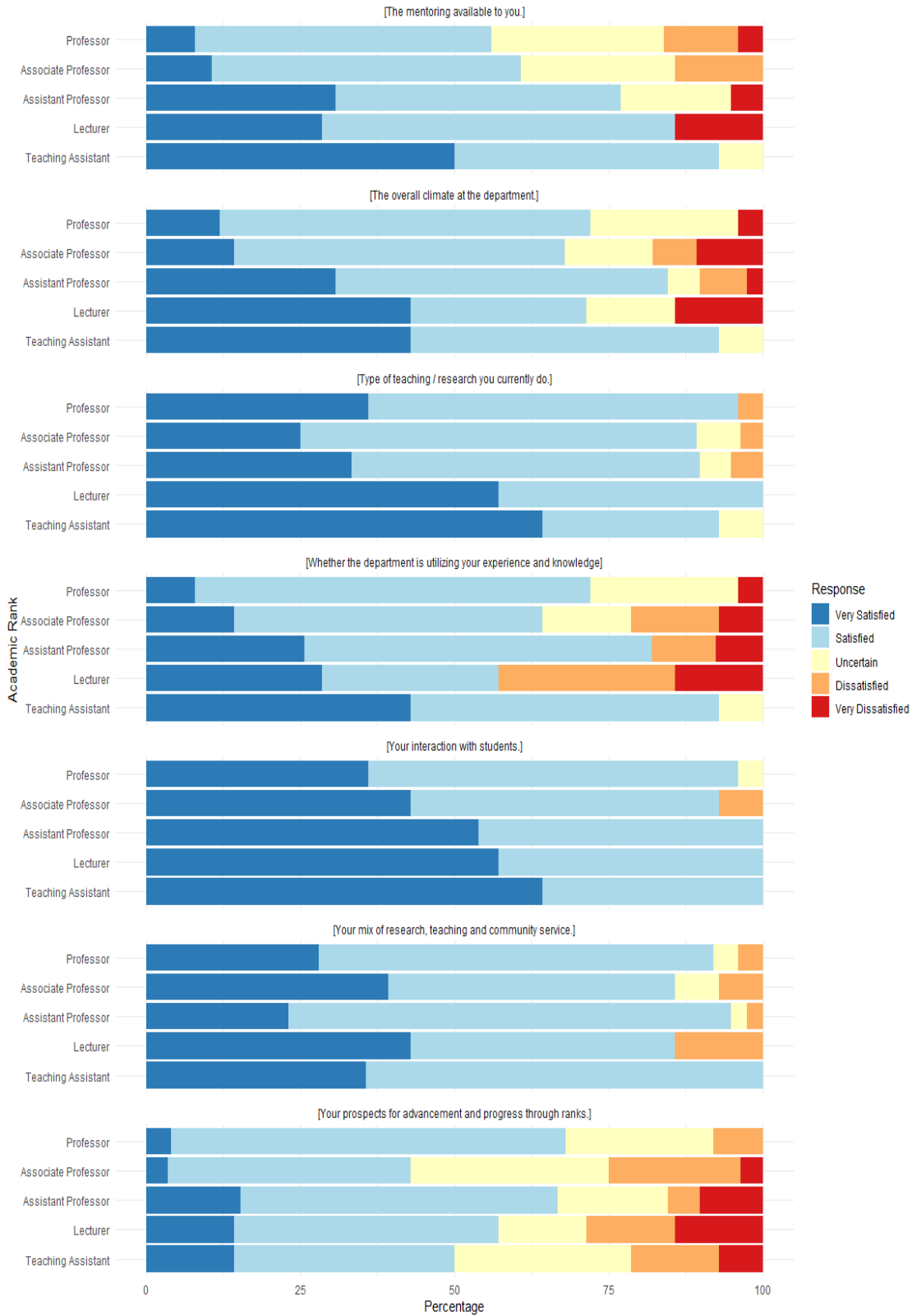
Each horizontal stacked bar represents one academic rank, while each panel corresponds to a survey question. The bars are color-coded from negative to positive responses, with darker blue indicating higher satisfaction. This format makes it easier to observe trends and compare how different academic ranks responded to each individual question.

To enhance readability, the questions have been split into two groups: - **Questions 1–7** are shown in the first plot - **Questions 8–14** are shown in the second plot

Faculty Survey 2024-25 - Questions 1-7



Faculty Survey 2024-25 - Questions 8-14



4 Cross-tabulation of Academic Rank and Response

To assess whether faculty satisfaction levels vary significantly across different academic ranks, a cross-tabulation was generated between Academic Rank (rows) and Survey Response (columns). Each cell in the table reports:

- The observed count of responses, and
- Its Chi-square contribution, indicating how much each cell deviates from what would be expected under independence.

This analysis helps identify specific response patterns — for example, whether certain ranks reported higher dissatisfaction or satisfaction more frequently than others.

A Chi-square test of independence was conducted to evaluate whether the observed distribution of responses is statistically independent of academic rank. The test results are as follows:

- **Chi-squared statistic:** 103.78
- **Degrees of freedom:** 16
- **p-value:** < 0.000001

```
##
##
## Cell Contents
## |-----|
## |                      N |
## | Chi-square contribution |
## |-----|
##
##
## Total Observations in Table: 1582
##
##
##
## Response
## df_long_rank AcademicRank Very Dissatisfied | Dissatisfied | Uncertain | Satisfied | Very Satisfied | Row Total |
## -----|-----|-----|-----|-----|-----|
## Assistant Professor | 21 | 29 | 46 | 306 | 144 | 546 |
## | 0.048 | 3.207 | 4.662 | 1.058 | 0.760 |
## -----|-----|-----|-----|-----|
## Associate Professor | 12 | 48 | 52 | 213 | 67 | 392 |
## | 0.391 | 12.464 | 0.977 | 0.165 | 8.833 |
## -----|-----|-----|-----|-----|
## Lecturer | 7 | 12 | 5 | 43 | 31 | 98 |
## | 3.231 | 3.116 | 3.542 | 1.491 | 2.018 |
## -----|-----|-----|-----|-----|
## Professor | 10 | 17 | 56 | 205 | 62 | 350 |
## | 0.625 | 3.050 | 5.944 | 2.172 | 6.621 |
## -----|-----|-----|-----|-----|
## Teaching Assistant | 8 | 11 | 24 | 69 | 84 | 196 |
## | 0.092 | 0.843 | 0.078 | 11.542 | 26.854 |
## -----|-----|-----|-----|-----|
## Column Total | 58 | 117 | 183 | 836 | 388 | 1582 |
## -----|-----|-----|-----|-----|
```

```
##
##
## Statistics for All Table Factors
##
##
## Pearson's Chi-squared test
## -----
## Chi^2 = 103.7844    d.f. = 16    p = 6.734308e-15
##
##
##
```

4.1 Interpretation:

Since the p-value is extremely small (< 0.001), we reject the null hypothesis of independence. This suggests that there is a statistically significant association between Academic Rank and Response, meaning that satisfaction levels do differ across faculty ranks in a meaningful way.

Analyzed by

Abid Ali Shaikh

Senior Data Processing Officer, QEC

University of Sindh Jamshoro