**Data Professional Survey Breakdown**

This analysis aimed to address four key inquiries: determining the average salary within specific data-related roles, identifying the tools commonly utilized by data professionals, how easy to break into the data field, and evaluating job satisfaction and work-life balance among respondents. The visualizations were constructed using Power BI.

DATA CLEANSING AND PREPROCESSING

The data used in this analysis were collected via an online survey conducted among data professionals worldwide. The primary roles covered in the survey included data analysts, data engineers, data scientists, data architects, and others. Skills were categorized, with options such as Python, R, Javascript, and a section designated for other skills. To assess the level of difficulty in entering the data field, a five-tiered scale was employed. Respondents' job satisfaction was measured on a scale from 1 to 10.

One challenge encountered in the data involved numerous skills and countries falling under the "other" category. To simplify this, Power Query was employed for data cleaning. Additionally, a new column was generated to group salary ranges for improved analysis using the average salary as a reference point.

For dynamic analysis, a treemap visualization was utilized to display the countries of survey participants. Average salaries across different data-related roles were presented in a clustered bar chart, sorted from highest to lowest. A clustered column chart was employed to depict the tools used, segmented by data professional roles. The ease of entry into the data field was visualized using a donut chart to represent percentages relative to difficulty levels. As the respondents provided ratings for job satisfaction and work-life balance, a gauge chart was chosen to illustrate the overall sentiment of data professionals in the survey.

TRENDS AND INSIGHTS

The analysis revealed the following key findings:

1. Data scientists tend to earn the highest salaries globally.
2. Python emerged as the most commonly used skill among data professionals.
3. Approximately 25% of respondents found it challenging to break into the data field.
4. Overall, most data professionals expressed dissatisfaction with their jobs, with an average rating of 4.27. Work-life balance ratings averaged at 5.74.