

# Texas Salary Analysis & Prediction

## Executive Summary

This report analyzes salary data from Texas to understand key drivers of compensation and provide data-driven insights for workforce planning and salary benchmarking. Experience level, job role, and location emerge as the strongest determinants of salary variation. Predictive modeling demonstrates that salary levels can be reasonably estimated using these attributes, supporting informed hiring and budgeting decisions.

## Business Problem Statement

Compensation plays a critical role in attracting and retaining talent. Organizations must balance competitiveness with cost control while ensuring consistency and fairness. This analysis addresses these challenges by identifying factors that influence salary levels and enabling data-driven compensation decisions.

## Data Overview

The dataset represents workforce and salary-related attributes across Texas. The target variable is salary, influenced by factors such as role, experience, and location.

## Analytical Approach & Methodology

The project involved data cleaning, exploratory data analysis, feature-level examination, and predictive modeling. The emphasis was placed on interpretability and business usefulness rather than model complexity.

## Key Insights

Experience level is a primary driver of salary growth. Job roles exhibit clear salary stratification reflecting market demand and responsibility. Geographic factors contribute to compensation differences across locations.

## Business Use Cases

The insights support compensation benchmarking, workforce planning, hiring strategy development, and salary budgeting.

## Business Recommendations

Define experience-based salary bands. Implement role-specific compensation frameworks. Leverage predictive insights during offer planning and budgeting.

## Limitations & Future Scope

The analysis does not include performance or productivity metrics and relies on historical data. Future enhancements could integrate market benchmarks, performance indicators, and real-time dashboards.

## Conclusion

This project demonstrates how analytical insights and predictive techniques can support effective compensation strategy. By aligning salary decisions with data-driven insights, organizations can achieve fairness, competitiveness, and cost efficiency.