Summary of Insight

Data Exploration:

1-The datasets contains 148654 rows and 13 columns.

1. All columns are of type object except for `Id`, `BasePay`,

`OvertimePay`, `OtherPay`, `Benefits`, `TotalPay`, `TotalPayBenefits`, and `Year`, which are of type float.

3-There are missing values in most of the columns.

Descriptive Statistics:

1- The mean salary is $ 74768.32197169267, the median salary is $71426.60999999999 , and the mode salary is $0.00.

2- The range of salaries is $-618.13 to $319275.01.

3- The standard deviation of salaries is $50517.00527394987.

Data Cleaning:

data cleaning was necessary as there were missing values.

Data Visualization:

1-The distribution of salaries is skewed to the right, with a long tail on the high end.

2- The most common job titles are Police Officer 3 and Custodian.

3-The majority of employees work in the Police Department.

Grouped Analysis:

1- The average salary is for employees in the ANESTHETIST Department ($112265.26039999998) and for employees in the DEPUTY CHIEF III (POLICE DEPARTMENT) Department ($49015.63).

2- There is a positive correlation between salary and OverTimePay.

Simple Correlation Analysis:

There is a positive correlation between salary and overtime pay is: (r = 0.5048588704522461).

Overall, the analysis shows that there is a wide range of salaries within the datasets, with some departments paying significantly more than others. There is also a strong correlation between salary and overtime pay.