**Springfield Dataset**

**Salary Distribution**

* The average midpoint salary is approximately **$82,000**, with a **median of $79,000**.
* The distribution shows moderate skewness (**1.08**) and light kurtosis (**1.35**), suggesting a mildly right-skewed but reasonably balanced distribution.
* The **minimum salaries** range from **$27,000 to $145,000**, with a mean of **$60,000** and median of **$58,000**.
* The **maximum salaries** range from **$42,000 to $255,000**, with a mean of **$103,000** and median of **$101,000**.
* No zero or missing salary values were observed.
* The relatively small difference between mean and median across salary bands implies a **consistently structured compensation plan**, with fewer extreme outliers.

**Position Classification**

* The POSITION TITLE field is **100% unique** across all 358 entries, suggesting that each record refers to a distinct role.
* This high granularity supports precise role-level analysis, though the uniqueness limits its direct use in modeling without preprocessing.
* Roles span administrative, technical, and supervisory domains.

**Organizational Structure**

* The PAY GRADE field consists of **38 distinct levels**, reflecting a formalized hierarchical structure.
* Grade distribution is spread across all records, implying that every position is mapped to a specific compensation grade.
* This structured classification supports internal equity and progression planning.

**Salary Range Analysis**

* All positions have **defined salary ranges**, comprising minimum, midpoint, and maximum figures.
* **Minimum salary**: Mean of **$60,000**, median of **$58,000**
* **Maximum salary**: Mean of **$103,000**, median of **$101,000**
* **Midpoint salary**: Mean of **$82,000**, median of **$79,000**
* Distributions are consistent, with low skew and kurtosis across bands—indicating **well-defined and stable compensation levels** across the organization.

**Indiana Dataset**

**Salary Distribution**

* The average annual midpoint salary is approximately **$76,000**, with a **median of $67,000**.
* The distribution shows **strong right skew** (**skew = 1.85**) and **high kurtosis** (**6.94**), indicating a large number of low-to-mid salaries and a few very high outliers.
* **Minimum salary** ranges from **$4,000 to $241,000**, with an average of **$58,000** and a median of **$53,000**.
* **Maximum salary** ranges from **$37,000 to $422,000**, with an average of **$94,000** and median of **$80,000**.
* Disparity between mean and median is significant, emphasizing the presence of high-salary extremes.

**Position Classification**

* Each of the **1,002 job titles** is **unique**, signifying a 1:1 mapping between job record and position name.
* Job titles include a wide spectrum, from administrative assistants to advanced managerial and technical roles.
* This design suggests the data is suitable for descriptive analysis but would require grouping or feature engineering for modeling tasks.

**Organizational Structure**

* There is no explicit classification field such as grade, schedule, or symbol in this dataset.
* However, salary bands inherently suggest an underlying structure, likely encoded within job titles or managed externally.
* The dataset’s wide range and variation imply the inclusion of **diverse role types** from multiple pay scales.

**Salary Range Analysis**

* Salary bands are implicitly defined via Annual Minimum, Annual Midpoint, and Annual Maximum columns.
* **Minimum salary**: Mean of **$58,000**, median of **$53,000**
* **Maximum salary**: Mean of **$94,000**, median of **$80,000**
* **Midpoint salary**: Mean of **$76,000**, median of **$67,000**
* Strong skew and high kurtosis in all bands suggest **salary inequality** with long right tails (i.e., some jobs with extremely high pay).
* Suitable for **outlier detection, clustering**, or **salary range normalization**.