Student Performance & Salary Data (Frequency-Outliers)

| | sl_no | ssc_p | hsc_p | degree_p | etest_p | mba_p | salary |
|-----------|--------|-----------|-----------|-----------|-----------|-----------|---------------|
| Mean | 108.0 | 67.303395 | 66.333163 | 66.370186 | 72.100558 | 62.278186 | 288655.405405 |
| Median | 108.0 | 67.0 | 65.0 | 66.0 | 71.0 | 62.0 | 265000.0 |
| Mode | 1.0 | 62.0 | 63.0 | 65.0 | 60.0 | 56.7 | 300000.0 |
| Q1-25% | 54.5 | 60.6 | 60.9 | 61.0 | 60.0 | 57.945 | 240000.0 |
| Q2-50% | 108.0 | 67.0 | 65.0 | 66.0 | 71.0 | 62.0 | 265000.0 |
| Q3-75% | 161.5 | 75.7 | 73.0 | 72.0 | 83.5 | 66.255 | 300000.0 |
| Q4-100% | 215.0 | 89.4 | 97.7 | 91.0 | 98.0 | 77.89 | 940000.0 |
| IQR | 107.0 | 15.1 | 12.1 | 11.0 | 23.5 | 8.31 | 60000.0 |
| 1.5-Value | 160.5 | 22.65 | 18.15 | 16.5 | 35.25 | 12.465 | 90000.0 |
| Lesser | -106.0 | 37.95 | 42.75 | 44.5 | 24.75 | 45.48 | 150000.0 |
| Greater | 322.0 | 98.35 | 91.15 | 88.5 | 118.75 | 78.72 | 390000.0 |
| Min | -106.0 | 15.1 | 12.1 | 11.0 | 23.5 | 8.31 | 60000.0 |
| Max | 322.0 | 98.35 | 97.7 | 91.0 | 118.75 | 78.72 | 940000.0 |

Outliers are the data points that lie far away from the majority of values.

- Lesser = Q1 $(1.5 \times IQR)$ \rightarrow unusually *low* values
- **Greater** = Q3 + $(1.5 \times IQR)$ \rightarrow unusually *high* values
- Min and Max represent the actual lowest and highest data points

| Feature | IQR | Lesser | Greater | Min | Max | Outlier Observation |
|----------|--------|----------|----------|--------|----------|---|
| ssc_p | 15.1 | 37.95 | 98.35 | 15.1 | 98.35 | A few students scored extremely low (below 38%) and some very high (≈98%). |
| hsc_p | 12.1 | 42.75 | 91.15 | 12.1 | 97.7 | Strong variation — a few outliers with very poor or exceptional performance. |
| degree_p | 11 | 44.5 | 88.5 | 11 | 91 | A few outliers exist; marks spread widely in degree exams. |
| etest_p | 23.5 | 24.75 | 118.75 | 23.5 | 118.75 | Some students scored too low (<25%) and some exceeded the normal high range (>100). |
| mba_p | 12.3 | 45.48 | 78.72 | 31.8 | 78.72 | A few students performed very low in MBA, though most scores are within range. |
| salary | 60,000 | 1,50,000 | 3,90,000 | 60,000 | 9,40,000 | Clear outliers — a few low salaries (<1.5L) and some very high (>9L). |