

Interquartile Range

	sl_no	ssc_p	hsc_p	degree_p	etest_p	mba_p	salary
mean	108	67.3034	66.3332	66.3702	72.1006	62.2782	288655
median	108	67	65	66	71	62	265000
mode	1	62	63	65	60	56.7	300000
Q1:25%	54.5	60.6	60.9	61	60	57.945	240000
Q2:50%	108	67	65	66	71	62	265000
Q3:75%	161.5	75.7	73	72	83.5	66.255	300000
Q4:100%	215	89.4	97.7	91	98	77.89	940000
IQR	107	15.1	12.1	11	23.5	8.31	60000
1.5rule	160.5	22.65	18.15	16.5	35.25	12.465	90000
lesser	-106	37.95	42.75	44.5	24.75	45.48	150000
greater	322	98.35	91.15	88.5	118.75	78.72	390000
min	1	40.89	37	50	50	51.21	200000
max	215	89.4	97.7	91	98	77.89	940000

Formulas:

- $IQR = Q3 - Q1$
- $1.5 \times IQR$
- Lesser = $Q1 - 1.5 \times IQR$
- Greater = $Q3 + 1.5 \times IQR$

Calculations:

ssc_p

- $IQR = 75.7 - 60.6 = 15.1$
- $1.5 \times IQR = 1.5 \times 15.1 = 22.65$
- Lesser = $60.6 - 22.65 = 37.95$
- greater = $75.7 + 22.65 = 98.35$
- Min = 40.89 $\rightarrow 40.89 > 37.95$ **no low-end outlier.**
- Max = 89.4 $\rightarrow 89.4 < 98.35$ **no high-end outlier.**

hsc_p

- $IQR = 73 - 60.9 = 12.1$
- $1.5 \times IQR = 1.5 \times 12.1 = 18.15$
- Lesser = $60.9 - 18.15 = 42.75$
- greater = $73 + 18.15 = 91.15$
- $Min = 37 \rightarrow 37 < 42.75$ **no low-end outlier.**
- $Max = 97.7 \rightarrow 97.7 > 91.15$ **high-end outlier.**

degree_p

- $IQR = 72 - 61 = 11.0$
- $1.5 \times IQR = 1.5 \times 11.0 = 16.5$
- Lesser = $61 - 16.5 = 44.5$
- greater = $72 + 16.5 = 88.5$
- $Min = 50 \rightarrow 50 > 44.5$ **no low-end outlier.**
- $Max = 91 \rightarrow 91 > 88.5$ **high-end outlier.**

etest_p

- $IQR = 83.5 - 60 = 23.5$
- $1.5 \times IQR = 1.5 \times 23.5 = 35.25$
- Lesser = $60 - 35.25 = 24.75$
- Greater = $83.5 + 35.25 = 118.75$
- $Min = 50 \rightarrow 50 > 24.75$ **no low-end outlier.**
- $Max = 98 \rightarrow 98 < 118.75$ **no high-end outlier.**

mba_p

- $IQR = 66.255 - 57.945 = 8.31$
- $1.5 \times IQR = 1.5 \times 8.31 = 12.465$
- Lesser = $57.945 - 12.465 = 45.48$
- Greater = $66.255 + 12.465 = 78.72$

- $\text{Min} = 51.21 \rightarrow 51.21 > 45.48$ **no low-end outlier.**
- $\text{Max} = 77.89 \rightarrow 77.89 < 78.72$ **no high-end outlier.**

salary

- $\text{IQR} = 300000 - 240000 = 60000$
- $1.5 \times \text{IQR} = 1.5 \times 60000 = 90000$
- $\text{Lesser} = 240000 - 90000 = 150000$
- $\text{Greater} = 300000 + 90000 = 390000$
- $\text{Min} = 200000 \rightarrow 200000 > 150000$ **no low-end outlier.**
- $\text{Max} = 940000 \rightarrow 940000 > 390000$ **high-end outlier exists.**