Reproducible Reporting

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Graph showing IQ levels by location

IQ Levels by Location Status

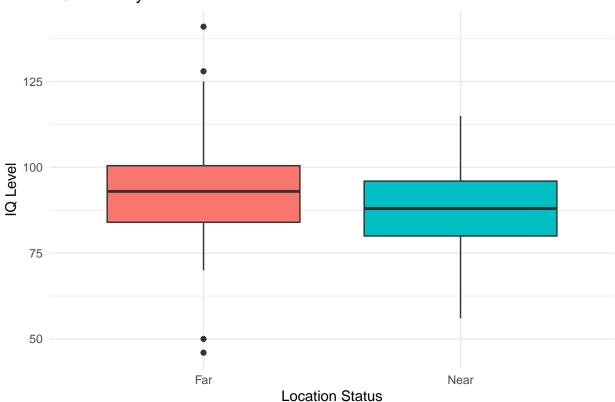


Figure 1 presents a box plot of IQ levels categorized by location status, specifically distance from the smelter. The graph indicates that the median IQ value for individuals living far from the smelter is higher than that of those living closer. However, there is considerable overlap between the IQR of the two groups, suggesting that there may not be a significant difference in IQ levels between them.

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Table 1: Summary of IQ Levels by Location Status

Location	Mean_IQ	SD_IQ	Median_IQ	Q1_IQ	Q3_IQ
Far	92.69	15.97	93	84	100.5
Near	89.19	12.17	88	80	96.0

Table 1 indicates that individuals living farther from the smelter tend to have a higher mean IQ compared to those residing closer. However, the difference is minimal, and the standard deviation shows considerable overlap between the two groups.

When examining the median and IQR, we find similar results as compared to looking at the mean and standard deviation. We observe that the group living farther still has a higher median IQ when compared to the computations found when the outlier was still included, but the difference is likely not significant due to the substantial overlap between the groups.