Range Chart
Weight of 30-Milligram Parts

UCL is .206
\( \bar{R} \) is .08
LCL is 0

Sample Number

Analysis: The last 3 samples were beyond the control limit and the trend seems to be increasing. Most of the data is above the center line which is not a good sign. Deciding to shut down a line that is trending out of control requires knowledge and experience concerning the manufacturing process, an analysis of the cost of shutting down, and information concerning the nonmanufacturing costs associated with poor quality. Measuring the nonmanufacturing costs associated with poor quality is a very subjective process.

Proportion of Defects - The P Chart
Defective 30-Milligram Parts

UCL is .221
\( \bar{p} \) is .096
LCL is 0

Sample Number

Analysis: Data that is trending out of control often is cyclical in nature. This data appears to be cyclical.