**Case Study 1**

Using time of arrival and time of encounter with the NP, a wait time can be calculated. This value is interval level data, therefore a mean and standard deviation can be calculated. An x-Bar & S chart would be the appropriate control chart for this example.

**Case Study 2**

These data include count data – the number of mislabeled specimens every month, and denominator data – the number of specimens processed each month. Given that a numerator and denominator are available, a ratio value can be assigned to this data. Therefore a U-chart would be used to display this data.