

A vertical decorative bar on the left side of the slide, featuring a light gray gradient and several realistic water droplets of varying sizes.

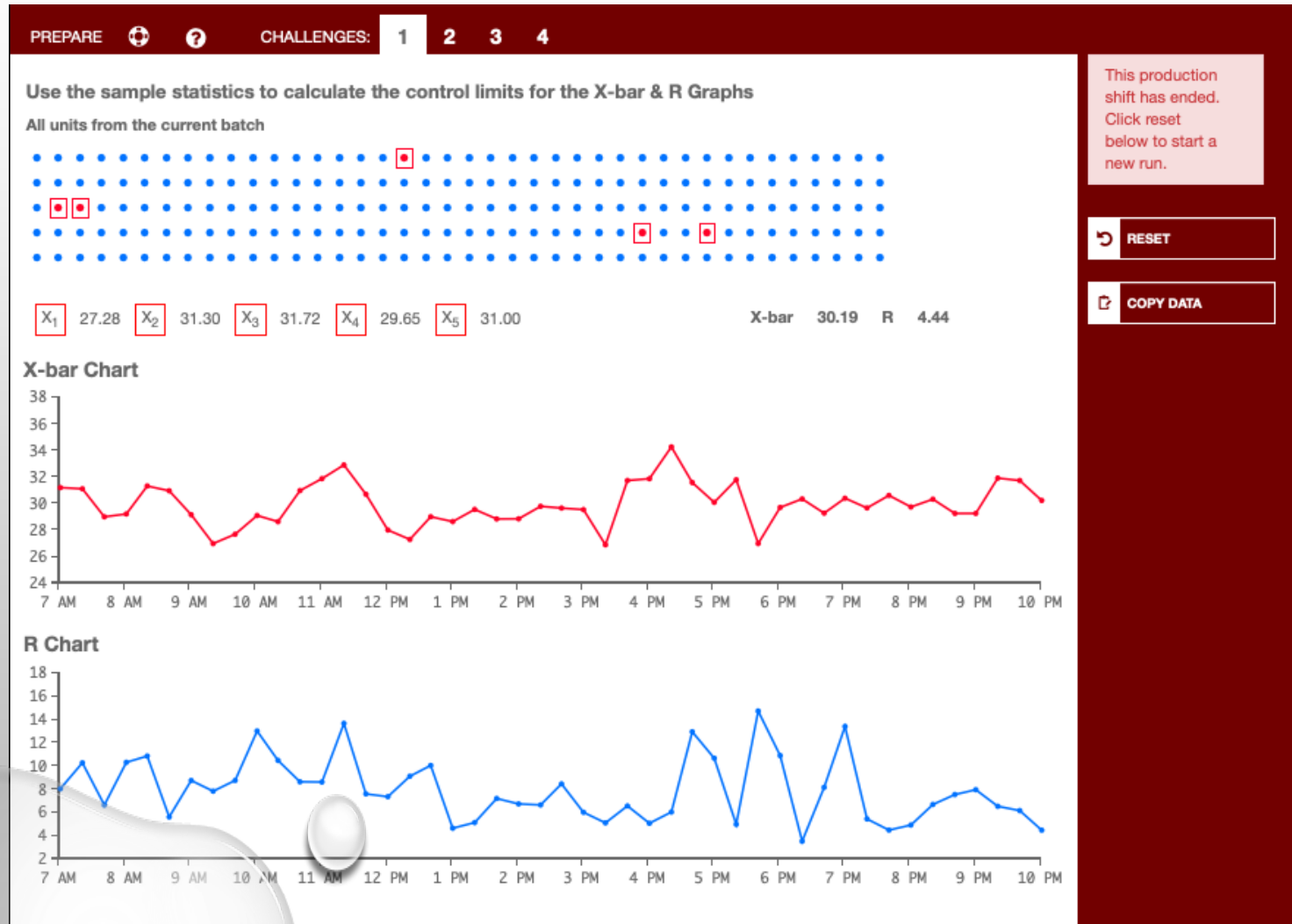
INDIVIDUAL
ASSIGNMENT 2:
GAINSBOROUGH
MANUFACTURING
COMPANY

TANVI RAJEEVKUMAR JAIN

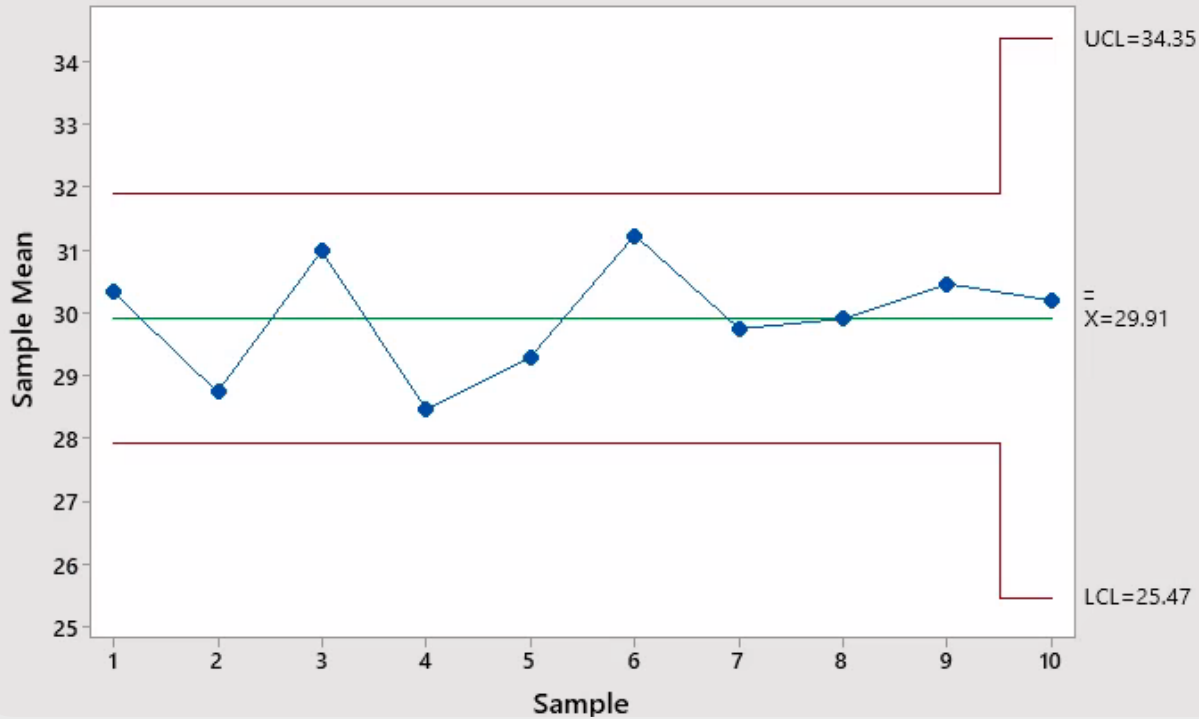
PJM 6135:PROJECT QUALITY
MANAGEMENT

PROF: KAMYAR SHAHROOZ

DATA GRAPH

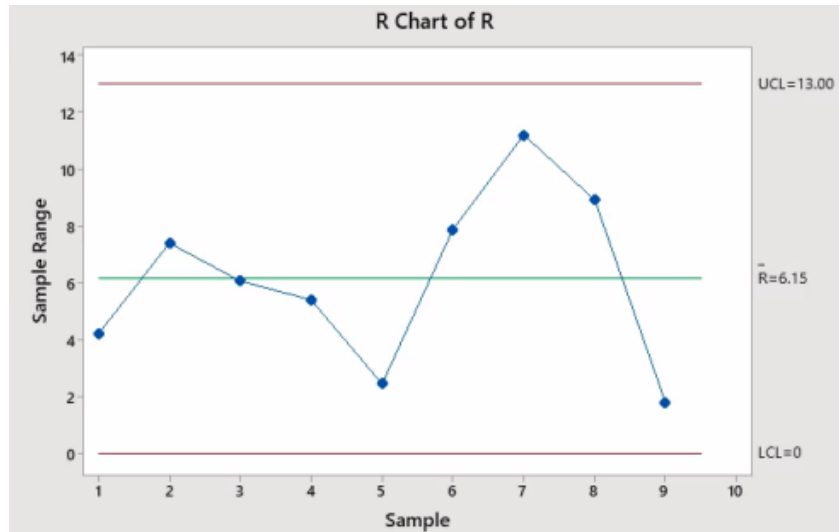


Xbar Chart of X-BAR

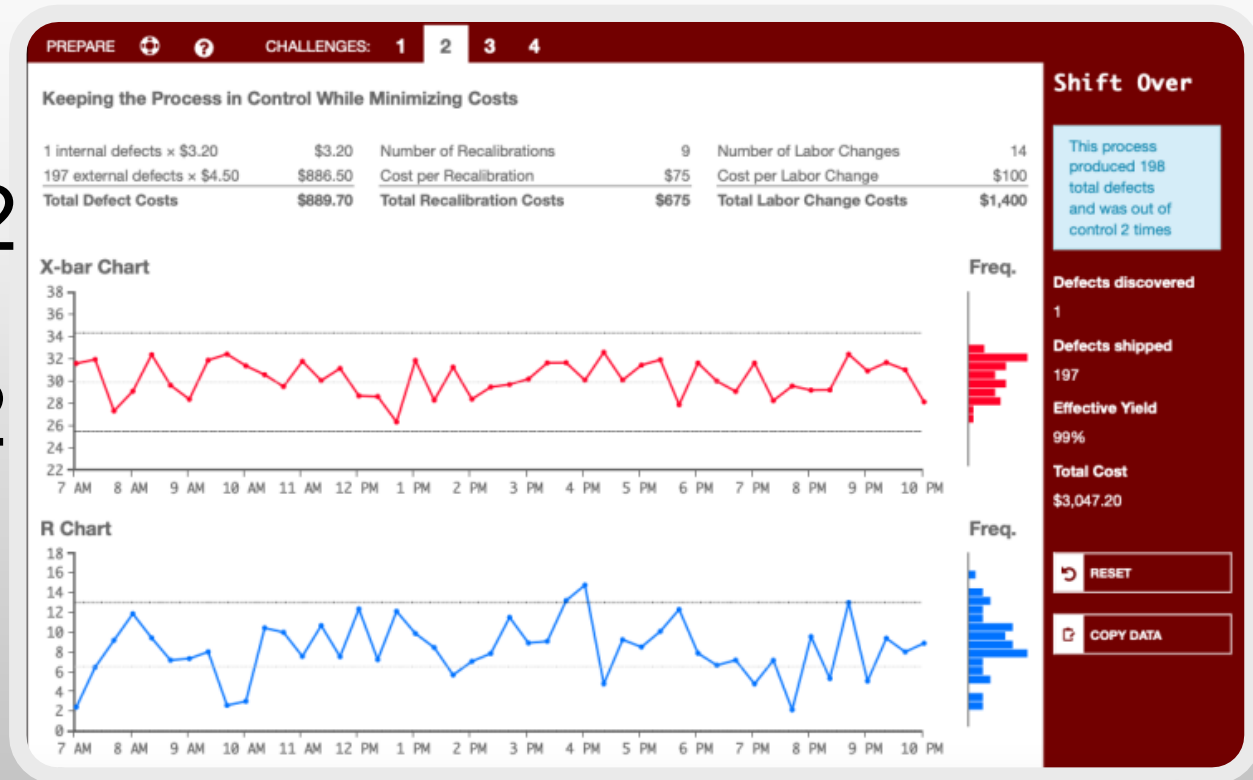


CHALLENGE
1(XBAR
CHART)
UCL=34.35
LCL=25.47

CHALLENGE 1(XBAR CHART) UCL=13.0 0 LCL=0

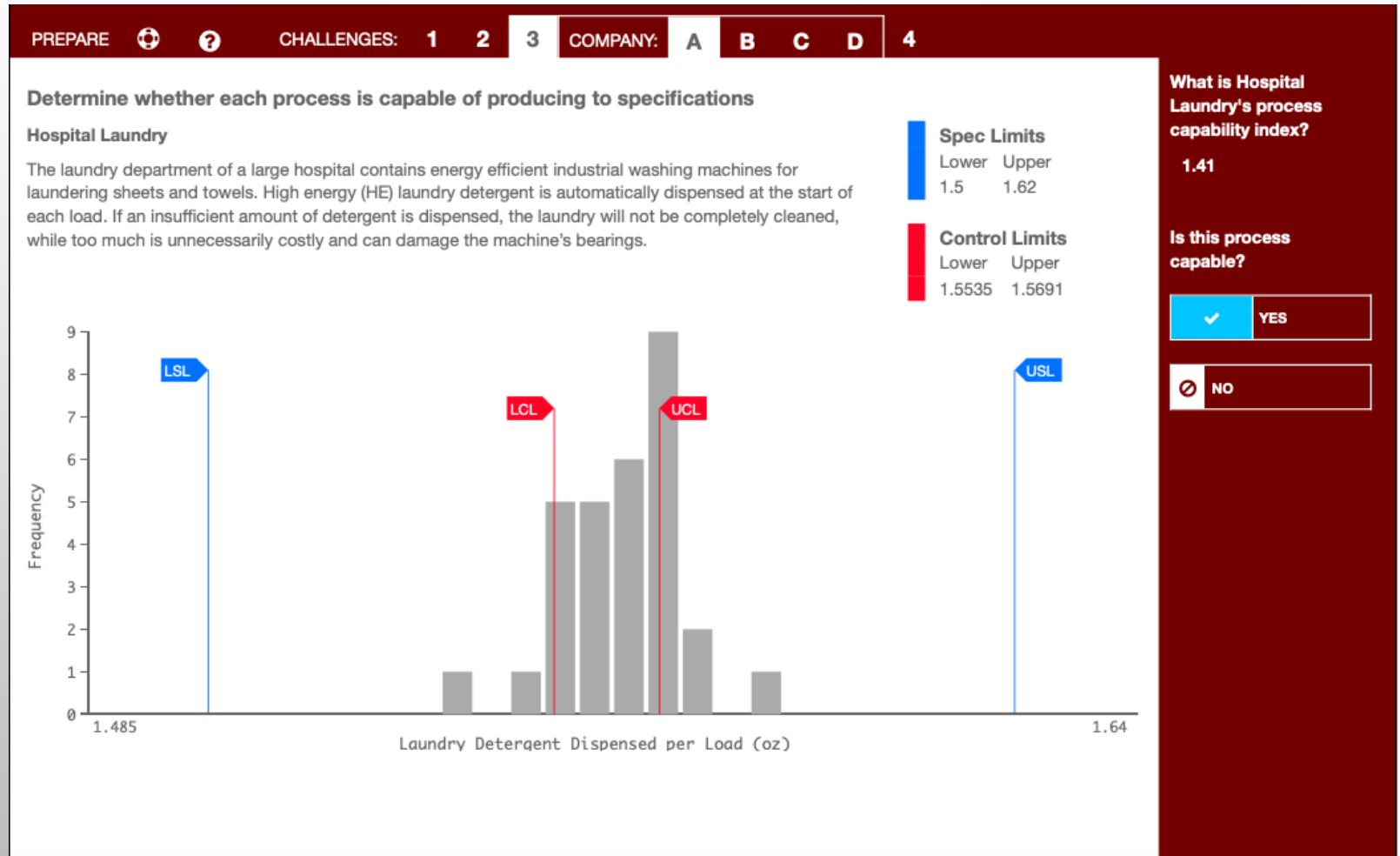


CHALLENGE 2
TOTAL
COST:\$3047.2
0



CHALLENGE 3:PART A

CI:1.41 Yes, the process is capable



CHALLENGE 3:PART B

CI:1.59 YES, THE PROCESS IS CAPABLE

PREPARE

CHALLENGES: 1 2 3 4

COMPANY: A B C D

Determine whether each process is capable of producing to specifications

Tea Shop

Herb's Tea Garden is a small tea shop specializing in blended loose leaf hot tea. Customers select from a variety of fine loose tea leaves, dried flowers and dried fruits to create their own unique tea blend. Because of the popularity of the tea shop, combined with the custom blending process, waiting times can sometimes be excessive; most customers would prefer to wait less than five minutes.

Spec Limits	
Lower	Upper
0	5

Control Limits	
Lower	Upper
2.8665	3.3051

Wait Time (minutes)	Frequency
3.0	3
3.5	2
4.0	2
4.5	4
5.0	5
5.5	7
6.0	5
6.5	2

What is Tea Shop's process capability index?

1.59

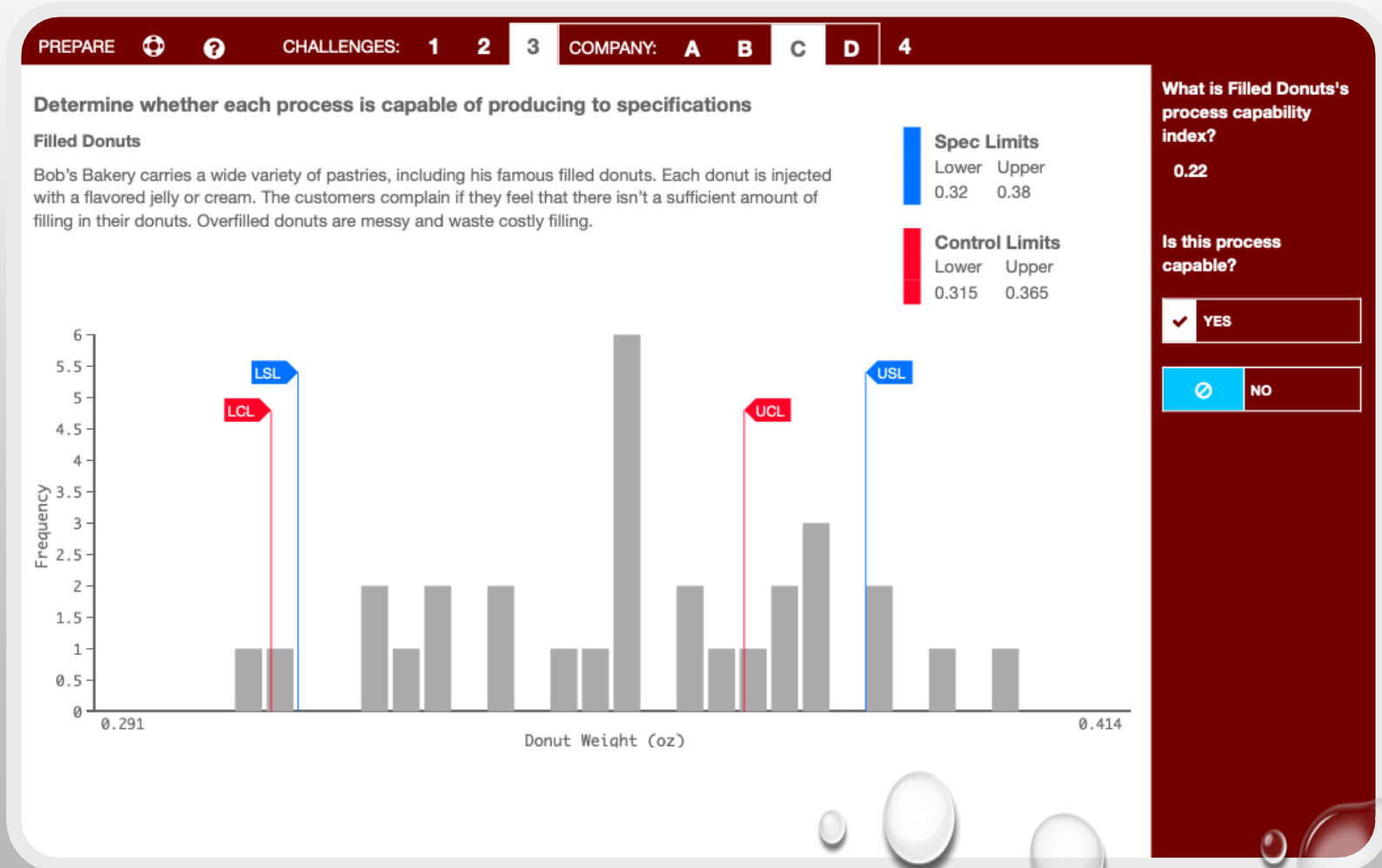
Is this process capable?

☒ YES

☐ NO

CHALLENGE 3:PART C

CI:0.22 NO, THE PROCESS IS NOT CAPABLE



PREPARE



CHALLENGES: 1 2 3

COMPANY: A B C D 4

Determine whether each process is capable of producing to specifications

Tire Pressure

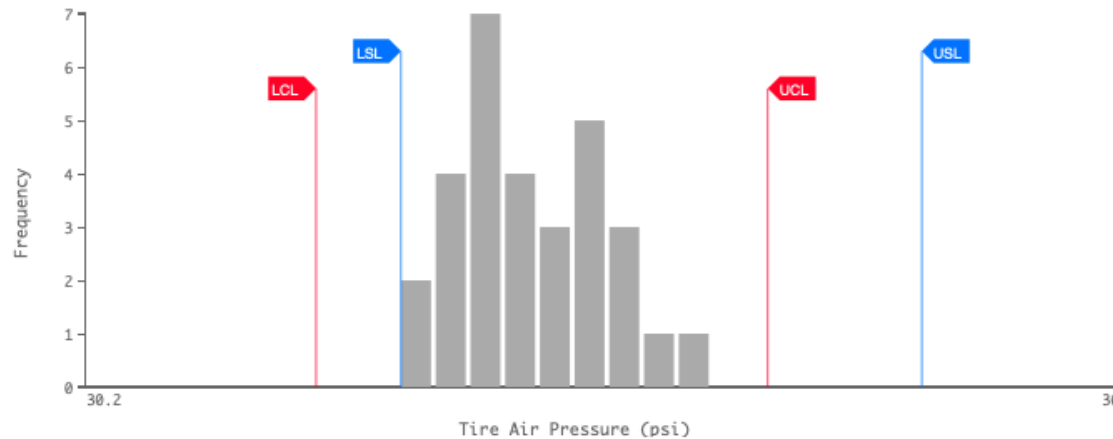
One of the tasks on the turnaround list for a rental car agency is to check and adjust tire pressure. When a tire is over-inflated, it can cause a bouncy ride and poor handling. If it is under-inflated, it can cause premature wear due to increased friction.

Spec Limits

Lower	Upper
32	35

Control Limits

Lower	Upper
31.2763	33.8737



What is Tire Pressure's process capability index?

0.08

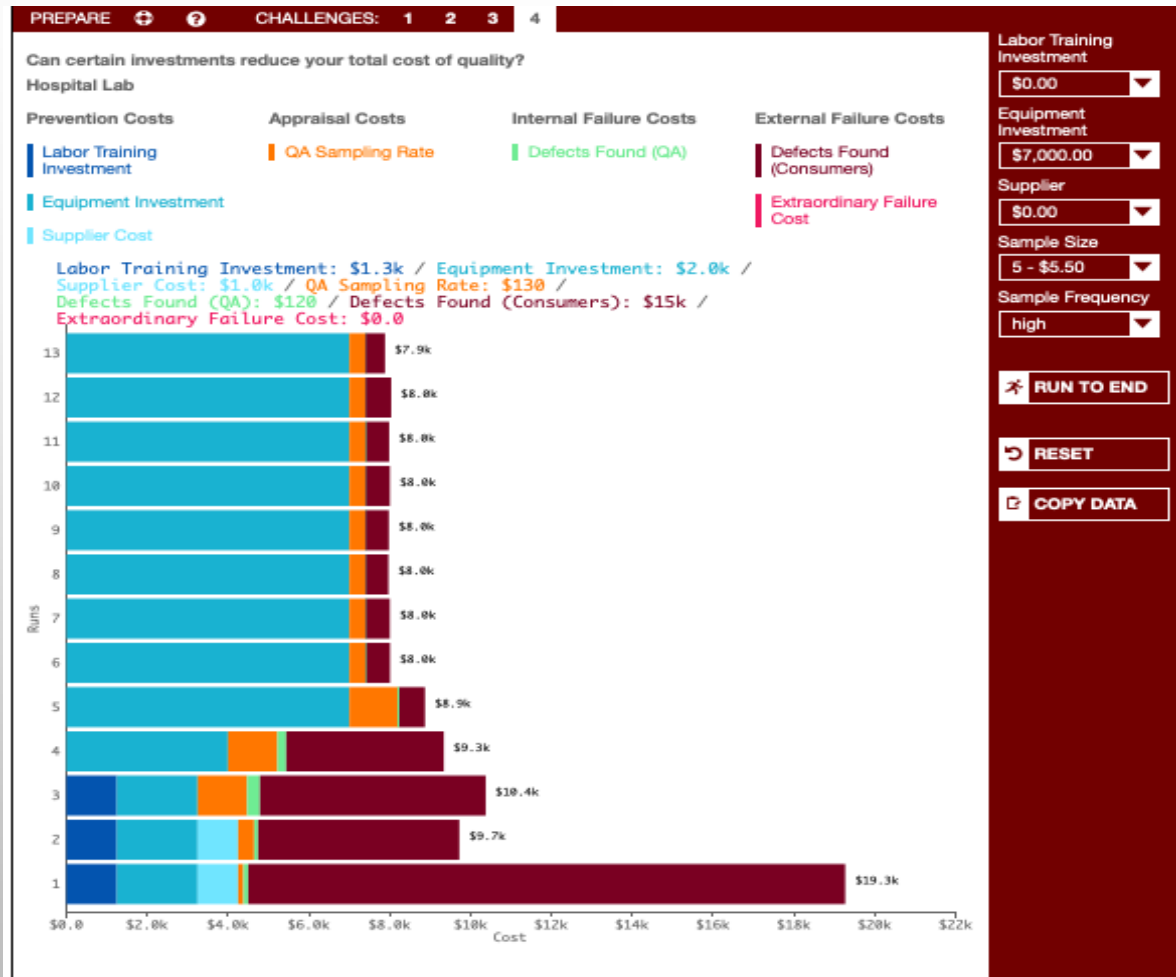
Is this process capable?

☒ YES

☐ NO

CHALLENGE 3: PART D
CI:0.08 NO, THE PROCESS IS NOT
CAPABLE

CHALLENGE 4



Minimum cost to
Quality = 7.9k