

The SAS System

Obs	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	X20	X21	X22
1	2	0	1	1	1	8.5	3.9	2.5	5.9	4.8	4.9	6.0	6.8	4.7	4.3	5.0	5.1	3.7	8.2	8.0	8.4	65.1
2	3	1	0	0	0	8.2	2.7	5.1	7.2	3.4	7.9	3.1	5.3	5.5	4.0	3.9	4.3	4.9	5.7	6.5	7.5	67.1
3	3	0	1	1	1	9.2	3.4	5.6	5.6	5.4	7.4	5.8	4.5	6.2	4.6	5.4	4.0	4.5	8.9	8.4	9.0	72.1
4	1	1	1	1	0	6.4	3.3	7.0	3.7	4.7	4.7	4.5	8.8	7.0	3.6	4.3	4.1	3.0	4.8	6.0	7.2	40.1
5	2	0	1	0	1	9.0	3.4	5.2	4.6	2.2	6.0	4.5	6.8	6.1	4.5	4.5	3.5	3.5	7.1	6.6	9.0	57.1
6	1	1	0	1	0	6.5	2.8	3.1	4.1	4.0	4.3	3.7	8.5	5.1	9.5	3.6	4.7	3.3	4.7	6.3	6.1	50.1
7	1	1	1	1	0	6.9	3.7	5.0	2.6	2.1	2.3	5.4	8.9	4.8	2.5	2.1	4.2	2.0	5.7	7.8	7.2	41.1
8	2	0	1	1	0	6.2	3.3	3.9	4.8	4.6	3.6	5.1	6.9	5.4	4.8	4.3	6.3	3.7	6.3	5.8	7.7	56.1
9	2	1	1	1	0	5.8	3.6	5.1	6.7	3.7	5.9	5.8	9.3	5.9	4.4	4.4	6.1	4.6	7.0	7.5	8.2	56.1
10	1	0	1	1	0	6.4	4.5	5.1	6.1	4.7	5.7	5.7	8.4	5.4	5.3	4.1	5.8	4.4	5.5	5.9	6.7	59.1
11	3	0	1	0	1	8.7	3.2	4.6	4.8	2.7	6.8	4.6	6.8	5.8	7.5	3.8	3.7	4.0	7.4	7.0	8.4	68.1
12	1	0	1	1	0	6.1	4.9	6.3	3.9	4.4	3.9	6.4	8.2	5.8	5.9	3.0	4.9	3.2	6.0	6.3	6.6	53.1
13	1	1	0	0	1	9.5	5.6	4.6	6.9	5.0	6.9	6.6	7.6	6.5	5.3	5.1	4.5	4.4	8.4	8.4	7.9	58.1
14	3	1	0	0	1	9.2	3.9	5.7	5.5	2.4	8.4	4.8	7.1	6.7	3.0	4.5	2.6	4.2	7.6	6.9	8.2	72.1
15	2	0	1	1	1	6.3	4.5	4.7	6.9	4.5	6.8	5.9	8.8	6.0	5.4	4.8	6.2	5.2	8.0	7.0	7.6	62.1
16	3	0	0	0	0	8.7	3.2	4.0	6.8	3.2	7.8	3.8	4.9	6.1	5.0	4.3	3.9	4.5	6.6	6.4	7.1	71.1
17	2	1	0	1	1	5.7	4.0	6.7	6.0	3.3	5.5	5.1	6.2	6.7	5.4	4.2	6.2	4.5	6.4	7.5	7.2	50.1
18	2	0	1	1	0	5.9	4.1	5.5	7.2	3.5	6.4	5.5	8.4	6.2	6.3	5.7	5.8	4.8	7.4	6.9	8.2	58.1
19	2	1	1	1	0	5.6	3.4	5.1	6.4	3.7	5.7	5.6	9.1	5.4	6.1	5.0	6.0	4.5	6.8	7.5	7.9	55.1
20	3	0	1	1	0	9.1	4.5	3.6	6.4	5.3	5.3	7.1	8.4	5.8	6.7	4.5	6.1	4.4	7.6	8.5	8.8	67.1
21	1	0	0	1	0	5.2	3.8	7.1	5.2	3.9	4.3	5.0	8.4	7.1	4.6	3.3	4.9	3.3	5.4	5.5	7.0	50.1
22	3	1	1	1	1	9.6	5.7	6.8	5.9	5.4	8.3	7.8	4.5	6.4	6.5	4.3	3.0	4.3	9.9	9.6	9.9	70.1
23	2	0	0	0	1	8.6	3.6	7.4	5.1	3.5	7.3	4.7	3.7	6.7	6.0	4.8	3.4	4.0	7.0	7.1	8.1	60.1
24	3	0	1	1	1	9.3	2.4	2.6	7.2	2.2	7.2	4.5	6.2	6.4	4.2	6.7	4.4	4.5	8.6	8.1	8.0	65.1
25	1	0	0	1	0	6.0	4.1	5.3	4.7	3.5	5.3	5.3	8.0	6.5	3.9	4.7	5.3	4.0	4.8	4.9	5.5	55.1
26	2	0	1	1	0	6.4	3.6	6.6	6.1	4.0	3.9	5.3	7.1	6.1	3.7	5.6	6.6	3.9	6.6	6.8	7.0	58.1
27	3	0	0	0	0	8.5	3.0	7.2	5.8	4.1	7.6	3.7	4.8	6.9	6.7	5.3	3.8	4.4	6.3	7.1	7.0	70.1
28	1	1	0	1	0	7.0	3.3	5.4	5.5	2.6	4.8	4.2	9.0	6.5	5.9	4.3	5.2	3.7	5.4	5.5	5.6	55.1
29	3	0	0	0	0	8.5	3.0	5.7	6.0	2.3	7.6	3.7	4.8	5.8	6.0	5.7	3.8	4.4	6.3	6.9	7.2	70.1
30	1	1	1	1	0	7.6	3.6	3.0	4.0	5.1	4.2	4.6	7.7	4.9	7.2	4.7	5.5	3.5	5.4	5.5	6.2	52.1
31	1	1	0	0	1	6.9	3.4	8.5	4.3	4.5	6.4	4.7	5.2	7.7	3.3	3.7	2.7	3.3	6.1	6.8	7.1	44.1
32	1	0	1	1	0	8.1	2.5	7.2	4.5	2.3	5.1	3.8	6.6	6.8	6.1	3.0	3.5	3.0	6.4	5.8	6.2	51.1
33	1	1	1	1	0	6.7	3.7	6.5	5.3	5.3	5.1	4.9	9.2	5.7	4.2	3.5	4.5	3.4	5.4	6.5	7.6	44.1
34	2	1	1	1	0	8.0	3.3	6.1	5.7	5.5	4.6	4.7	8.7	5.9	3.8	4.7	6.6	4.2	7.3	7.5	9.0	62.1
35	1	0	1	1	0	6.7	4.0	5.2	3.9	3.0	5.4	6.8	8.4	6.2	6.0	2.5	4.3	3.5	6.3	6.6	6.7	54.1
36	1	0	0	0	0	8.7	3.2	6.1	4.3	3.5	6.1	2.9	5.6	6.1	6.5	3.1	2.9	2.5	5.4	4.6	7.1	51.1
37	2	0	0	0	1	9.0	3.4	5.9	4.6	3.9	6.0	4.5	6.8	6.4	4.3	3.9	3.5	3.5	7.1	8.0	7.2	57.1
38	3	0	1	1	1	9.6	4.1	6.2	7.3	2.9	7.7	5.5	7.7	6.1	4.4	5.2	4.6	4.9	8.7	9.9	9.9	77.1

39	2	1	1	1	0	8.2	3.6	3.9	6.2	5.8	4.9	5.0	9.0	5.2	7.1	4.7	6.9	4.5	7.6	6.9	7.6	65.1
40	1	0	0	1	0	6.1	4.9	3.0	4.8	5.1	3.9	6.4	8.2	5.1	6.8	4.5	4.9	3.2	6.0	5.5	5.8	53.1
41	2	1	1	1	0	8.3	3.4	3.3	5.5	3.1	4.6	5.2	9.1	4.1	1.7	4.6	5.8	3.9	7.0	7.5	8.4	61.1
42	2	1	0	0	1	9.4	3.8	4.7	5.4	3.8	6.5	4.9	8.5	4.9	6.2	4.1	4.5	4.1	7.6	8.0	7.9	61.1
43	3	0	1	0	1	9.3	5.1	4.6	6.8	5.8	6.6	6.3	7.4	5.1	4.1	4.6	4.6	4.3	8.9	7.8	7.6	72.1
44	2	1	1	1	1	5.1	5.1	6.6	6.9	4.4	5.4	7.8	5.9	7.2	5.2	4.9	6.3	4.5	7.6	7.9	8.4	55.1
45	3	1	0	0	0	8.0	2.5	4.7	7.1	3.6	7.7	3.0	5.2	5.1	3.9	4.3	4.2	4.7	5.5	5.6	6.5	65.1
46	2	0	1	1	0	5.9	4.1	5.7	5.9	5.8	6.4	5.5	8.4	6.4	5.1	5.2	5.8	4.8	7.4	8.6	7.7	58.1
47	3	1	0	0	1	10.0	4.3	7.1	6.3	2.9	5.4	4.5	3.8	6.7	3.7	5.0	4.0	3.5	7.1	8.8	8.0	67.1
48	2	1	1	1	0	5.7	3.8	6.8	7.5	5.7	5.7	6.0	8.2	6.6	4.8	6.5	7.3	5.2	7.6	7.6	7.1	60.1
49	3	0	0	1	1	9.9	3.7	3.7	6.1	4.2	7.0	6.7	6.8	5.9	7.2	4.5	3.4	3.9	8.7	8.1	8.5	67.1
50	3	1	1	0	1	7.9	3.9	4.3	5.8	4.4	6.9	5.8	4.7	5.2	3.6	4.1	4.2	4.3	8.6	7.8	7.6	61.1
51	1	0	1	1	0	6.7	3.6	5.9	4.2	3.4	4.7	4.8	7.2	5.7	5.3	4.0	3.6	2.8	5.4	7.5	7.2	48.1
52	3	1	0	0	0	8.2	2.7	3.7	7.4	2.7	7.9	3.1	5.3	5.3	5.0	4.5	4.3	4.9	5.7	7.1	8.2	67.1
53	3	0	1	1	1	9.4	2.5	4.8	6.1	3.2	7.3	4.6	6.3	6.3	9.2	4.7	4.6	4.6	8.7	9.0	9.0	66.1
54	1	1	0	0	1	6.9	3.4	5.7	4.4	3.3	6.4	4.7	5.2	6.4	4.4	3.2	2.7	3.3	6.1	7.0	7.2	44.1
55	2	1	1	1	0	8.0	3.3	3.8	5.8	3.2	4.6	4.7	8.7	5.3	4.2	4.9	6.6	4.2	7.3	8.1	8.1	62.1
56	3	1	0	0	0	9.3	3.8	7.3	5.7	3.7	6.4	5.5	7.4	6.6	5.9	4.1	3.2	3.4	7.7	7.6	8.9	59.1
57	2	0	1	1	1	7.4	5.1	4.8	7.7	4.5	7.2	6.9	9.6	6.4	7.4	5.7	6.5	5.5	9.0	7.9	8.8	74.1
58	3	1	0	0	0	7.6	3.6	5.2	5.8	5.6	6.6	5.4	4.4	6.7	6.4	4.6	3.9	4.0	8.2	7.5	7.5	58.1
59	3	1	0	0	0	10.0	4.3	5.3	3.7	4.2	5.4	4.5	3.8	6.7	4.5	3.7	4.0	3.5	7.1	6.5	7.0	67.1
60	3	1	1	1	0	9.9	2.8	7.2	6.9	2.6	5.8	3.5	5.4	6.2	7.0	5.6	4.9	4.0	7.9	8.5	8.5	61.1
61	3	0	0	0	0	8.7	3.2	8.4	6.1	2.8	7.8	3.8	4.9	7.2	4.5	5.4	3.9	4.5	6.6	6.9	7.2	71.1
62	2	0	1	1	1	8.4	3.8	6.7	5.0	4.5	4.7	5.9	6.7	5.1	4.2	2.7	5.0	3.6	8.0	7.6	8.8	63.1
63	1	0	0	0	1	8.8	3.9	3.8	5.1	4.3	4.7	4.8	5.8	5.0	7.2	4.4	3.7	2.9	6.3	5.5	8.0	44.1
64	1	0	1	1	0	7.7	2.2	6.3	4.5	2.4	4.7	3.4	6.2	6.0	4.7	3.3	3.1	2.6	6.0	6.0	8.1	47.1
65	1	0	1	1	0	6.6	3.6	5.8	4.1	4.9	4.7	4.8	7.2	6.5	3.9	3.5	3.6	2.8	5.4	6.9	7.1	48.1
66	2	1	1	1	0	5.7	3.8	3.5	6.7	5.4	5.7	6.0	8.2	5.4	5.0	4.7	7.3	5.2	7.6	6.9	9.0	60.1
67	2	1	0	1	0	5.7	4.0	7.9	6.4	2.7	5.5	5.1	6.2	7.5	6.4	5.0	6.2	4.5	6.4	5.6	6.2	50.1
68	2	1	0	1	1	5.5	3.7	4.7	5.4	4.3	5.3	4.9	6.0	5.6	2.5	4.5	5.9	4.3	6.1	6.3	8.2	48.1
69	1	1	1	1	0	7.5	3.5	3.8	3.5	2.9	4.1	4.5	7.6	5.1	5.2	4.0	5.4	3.4	5.2	5.8	5.8	51.1
70	2	0	1	1	0	6.4	3.6	2.7	5.3	3.9	3.9	5.3	7.1	5.2	5.5	4.7	6.6	3.9	6.6	6.6	8.0	58.1
71	3	0	0	1	0	9.1	4.5	6.1	5.9	6.3	5.3	7.1	8.4	7.1	5.7	5.4	6.1	4.4	7.6	7.5	7.7	67.1
72	1	1	0	0	1	6.7	3.2	3.0	3.7	4.8	6.3	4.5	5.0	5.2	2.5	2.9	2.6	3.1	5.8	6.0	7.0	43.1
73	2	0	1	1	0	6.5	4.3	2.7	6.6	6.5	6.3	6.0	8.7	4.7	6.3	4.6	5.6	4.6	7.9	6.6	7.9	66.1
74	3	0	1	1	1	9.9	3.7	7.5	4.7	5.6	7.0	6.7	6.8	7.2	4.6	4.1	3.4	3.9	8.6	8.8	9.8	66.1
75	2	0	1	1	1	8.5	3.9	5.3	5.5	5.0	4.9	6.0	6.8	5.7	3.6	4.4	5.1	3.7	8.2	7.0	8.4	65.1
76	3	0	0	0	0	9.9	3.0	6.8	5.0	5.4	5.9	4.8	4.9	7.3	7.6	3.1	4.3	3.8	7.1	6.6	8.9	63.1
77	1	0	0	1	1	7.6	3.6	7.6	4.6	4.7	4.6	5.0	7.4	8.1	6.6	4.5	5.8	3.9	6.4	6.9	7.5	49.1
78	2	1	0	0	1	9.4	3.8	7.0	6.2	4.7	6.5	4.9	8.5	7.3	2.4	4.3	4.5	4.1	7.6	7.3	8.0	61.1
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	3	0	0	0	1	9.3	3.5	6.3	7.6	5.5	7.5	5.9	4.6	6.6	3.1	5.2	4.1	4.6	8.9	7.3	8.1	72.1
80	1	1	1	1	0	7.1	3.4	4.9	4.1	4.0	5.0	5.9	7.8	6.1	3.5	2.6	3.1	2.7	5.7	5.8	7.6	44.1
81	3	0	1	0	0	9.9	3.0	7.4	4.8	4.0	5.9	4.8	4.9	5.9	6.9	3.2	4.3	3.8	7.1	7.9	8.8	63.1
82	3	0	0	0	0	8.7	3.2	6.4	4.9	2.4	6.8	4.6	6.8	6.3	5.1	4.3	3.7	4.0	7.4	7.3	8.0	68.1
83	2	0	0	0	1	8.6	2.9	5.8	3.9	2.9	5.6	4.0	6.3	6.1	4.0	2.7	3.0	3.0	6.6	6.1	8.5	53.1
84	1	1	0	1	0	6.4	3.2	6.7	3.6	2.2	2.9	5.0	8.4	7.3	6.5	2.0	3.7	1.6	5.0	5.1	6.5	37.1
85	2	0	0	0	1	7.7	2.6	6.7	6.6	1.9	7.2	4.3	5.9	6.5	4.1	4.7	3.9	4.3	8.2	7.5	7.7	52.1
86	1	1	1	1	0	7.5	3.5	4.1	4.5	3.5	4.1	4.5	7.6	4.9	2.8	3.4	5.4	3.4	5.2	6.0	7.2	51.1
87	1	0	0	1	0	5.0	3.6	1.3	3.0	3.5	4.2	4.9	8.2	4.3	7.6	2.4	4.8	3.1	5.2	5.5	6.0	48.1
88	2	0	0	0	1	7.7	2.6	8.0	6.7	3.5	7.2	4.3	5.9	6.9	7.7	5.1	3.9	4.3	8.2	7.6	8.2	52.1
89	2	1	0	0	1	9.1	3.6	5.5	5.4	4.2	6.2	4.6	8.3	6.5	4.1	4.6	4.3	3.9	7.3	6.5	7.4	59.1
90	2	1	0	1	1	5.5	5.5	7.7	7.0	5.6	5.7	8.2	6.3	7.4	4.9	5.5	6.7	4.9	8.2	7.6	9.3	59.1
91	3	1	0	0	0	9.1	3.7	7.0	4.1	4.4	6.3	5.4	7.3	7.5	4.6	4.4	3.0	3.3	7.4	7.9	7.9	58.1
92	1	1	0	1	0	7.1	4.2	4.1	2.6	2.1	3.3	4.5	9.9	5.5	3.5	2.0	4.0	2.4	4.8	5.0	6.5	51.1
93	3	1	1	0	1	9.2	3.9	4.6	5.3	4.2	8.4	4.8	7.1	6.2	6.6	4.4	2.6	4.2	7.6	7.5	8.6	72.1
94	3	0	1	1	1	9.3	3.5	5.4	7.8	4.6	7.5	5.9	4.6	6.4	4.9	4.8	4.1	4.6	8.9	7.6	8.9	72.1
95	3	1	1	0	0	9.3	3.8	4.0	4.6	4.7	6.4	5.5	7.4	5.3	4.8	3.6	3.2	3.4	7.7	7.3	8.4	59.1
96	1	1	0	0	1	8.6	4.8	5.6	5.3	2.3	6.0	5.7	6.7	5.8	3.6	4.9	3.6	3.6	7.3	8.1	8.1	50.1
97	1	0	0	1	1	7.4	3.4	2.6	5.0	4.1	4.4	4.8	7.2	4.5	6.4	4.2	5.6	3.7	6.3	5.5	7.2	48.1
98	1	0	0	0	1	8.7	3.2	3.3	3.2	3.1	6.1	2.9	5.6	5.0	4.3	3.1	2.9	2.5	5.4	7.0	7.7	51.1
99	2	1	0	1	1	7.8	4.9	5.8	5.3	5.2	5.3	7.1	7.9	6.0	5.7	4.3	4.9	3.9	6.4	7.1	7.4	61.1
100	2	1	1	1	0	7.9	3.0	4.4	5.1	5.9	4.2	4.8	9.7	5.7	5.8	3.4	5.4	3.5	6.4	7.3	7.0	57.1

The SAS System

The UNIVARIATE Procedure
Variable: X8 (X8 - Technical Support)

Moments			
N	100	Sum Weights	100
Mean	5.365	Sum Observations	536.5
Std Deviation	1.53045679	Variance	2.34229798
Skewness	-0.2032586	Kurtosis	-0.5482262
Uncorrected SS	3110.21	Corrected SS	231.8875
Coeff Variation	28.5266876	Std Error Mean	0.15304568

Basic Statistical Measures			
Location		Variability	
Mean	5.365000	Std Deviation	1.53046
Median	5.400000	Variance	2.34230
Mode	4.600000	Range	7.20000
		Interquartile Range	2.45000

Note: The mode displayed is the smallest of 5 modes with a count of 4.

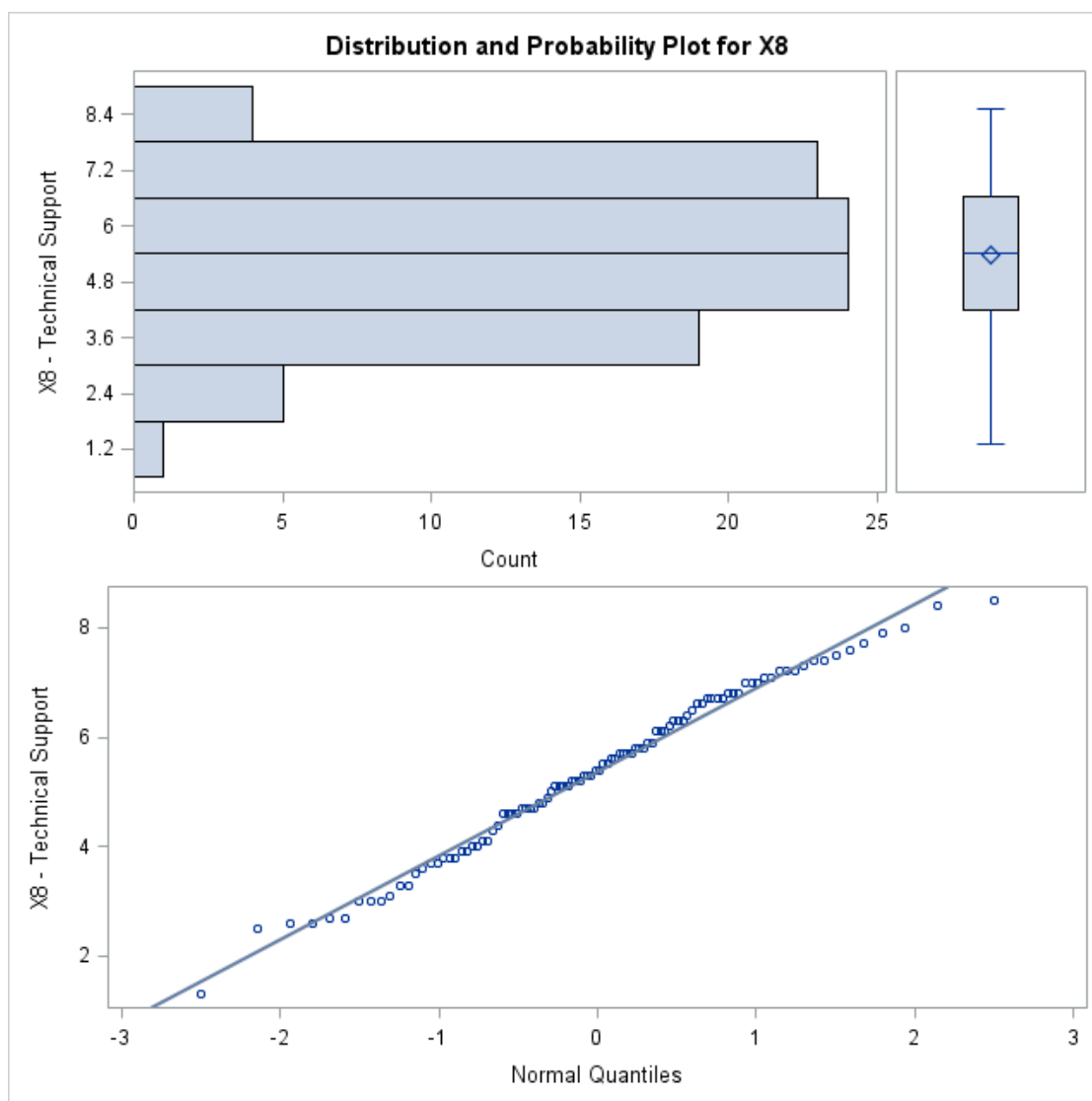
Tests for Location: Mu0=0				
Test		Statistic		p Value
Student's t	t	35.05489	Pr > t 	<.0001
Sign	M	50	Pr >= M 	<.0001
Signed Rank	S	2525	Pr >= S 	<.0001

Tests for Normality				
Test		Statistic		p Value
Shapiro-Wilk	W	0.986264	Pr < W	0.3900
Kolmogorov-Smirnov	D	0.060152	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.051364	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.370975	Pr > A-Sq	>0.2500

Quantiles (Definition 5)	
Level	Quantile
100% Max	8.50
99%	8.45
95%	7.65
90%	7.25
75% Q3	6.65

50% Median	5.40
25% Q1	4.20
10%	3.20
5%	2.70
1%	1.90
0% Min	1.30

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1.3	87	7.7	90
2.5	1	7.9	67
2.6	97	8.0	88
2.6	24	8.4	61
2.7	73	8.5	31



The SAS System

The UNIVARIATE Procedure
Variable: X9 (X9 - Complaint Resolution)

Moments			
N	100	Sum Weights	100
Mean	5.442	Sum Observations	544.2
Std Deviation	1.20840324	Variance	1.46023838
Skewness	-0.1358107	Kurtosis	-0.5858665
Uncorrected SS	3106.1	Corrected SS	144.5636
Coeff Variation	22.2051312	Std Error Mean	0.12084032

Basic Statistical Measures			
Location		Variability	
Mean	5.442000	Std Deviation	1.20840
Median	5.450000	Variance	1.46024
Mode	5.300000	Range	5.20000
		Interquartile Range	1.75000

Note: The mode displayed is the smallest of 2 modes with a count of 5.

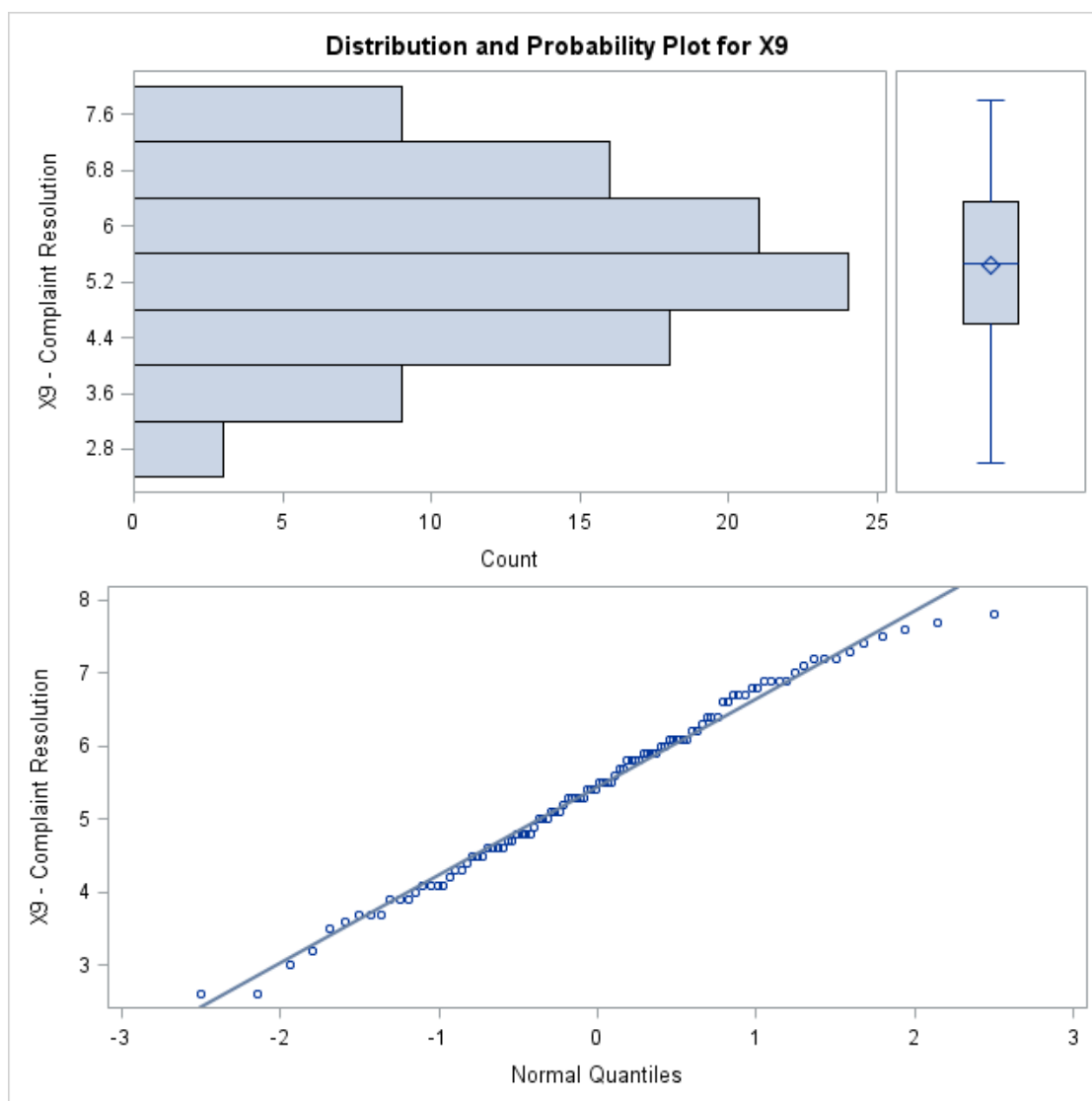
Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	45.03464	Pr > t 	<.0001
Sign	M	50	Pr >= M 	<.0001
Signed Rank	S	2525	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.986459	Pr < W	0.4023
Kolmogorov-Smirnov	D	0.051072	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.035887	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.269584	Pr > A-Sq	>0.2500

Quantiles (Definition 5)	
Level	Quantile
100% Max	7.80
99%	7.75
95%	7.35
90%	7.05
75% Q3	6.35

50% Median	5.45
25% Q1	4.60
10%	3.90
5%	3.55
1%	2.60
0% Min	2.60

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
2.6	92	7.4	52
2.6	7	7.5	48
3.0	87	7.6	79
3.2	98	7.7	57
3.5	69	7.8	94



The SAS System

The UNIVARIATE Procedure
Variable: X8 (X8 - Technical Support)

X1 - Customer Type=1

Moments			
N	32	Sum Weights	32
Mean	5.090625	Sum Observations	162.9
Std Deviation	1.67473818	Variance	2.80474798
Skewness	-0.1803315	Kurtosis	-0.4428982
Uncorrected SS	916.21	Corrected SS	86.9471875
Coeff Variation	32.8984787	Std Error Mean	0.29605468

Basic Statistical Measures			
Location		Variability	
Mean	5.090625	Std Deviation	1.67474
Median	5.250000	Variance	2.80475
Mode	3.000000	Range	7.20000
		Interquartile Range	2.50000

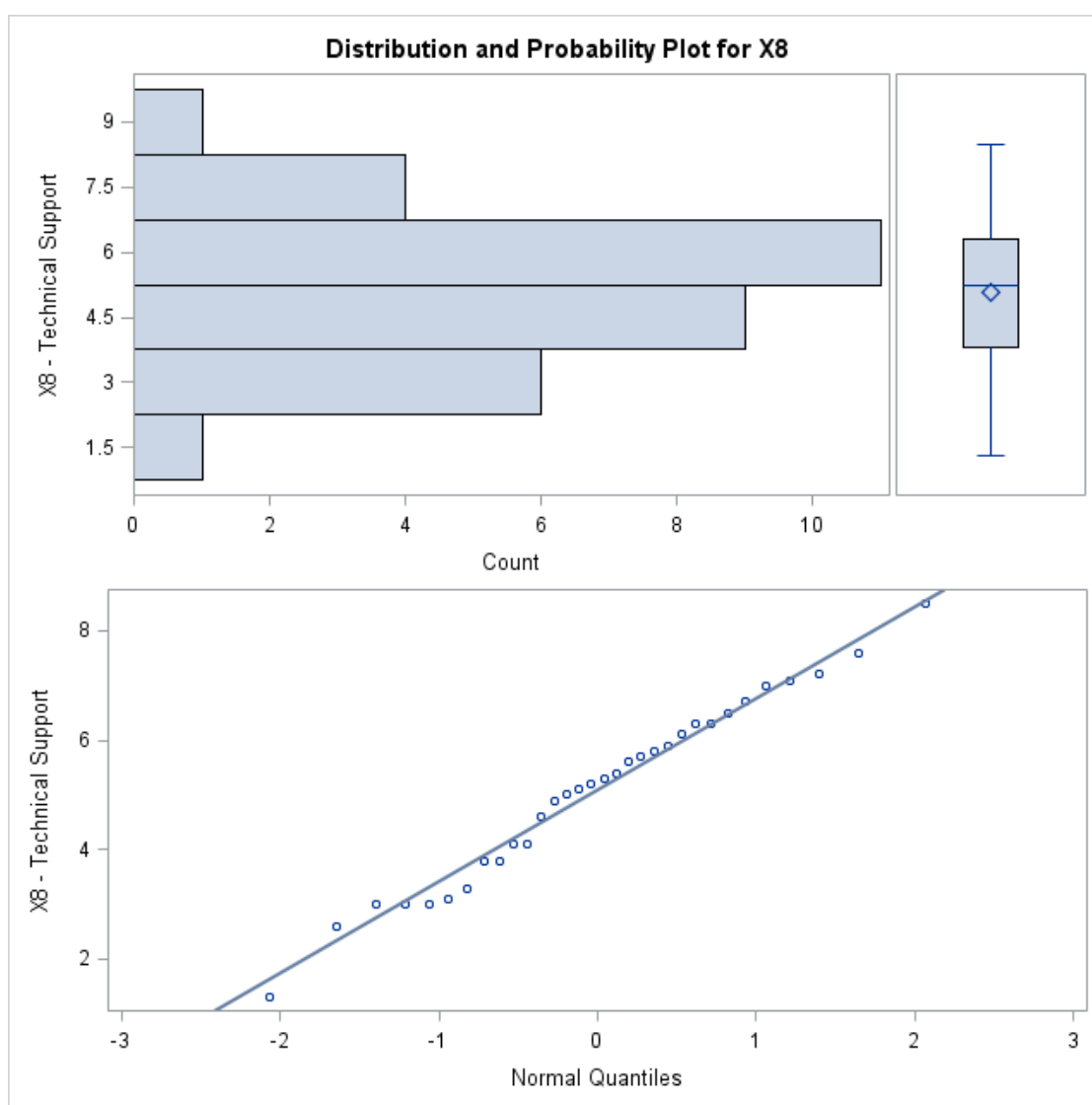
Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	17.19488	Pr > t 	<.0001
Sign	M	16	Pr >= M 	<.0001
Signed Rank	S	264	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.98379	Pr < W	0.8991
Kolmogorov-Smirnov	D	0.079689	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.03725	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.237519	Pr > A-Sq	>0.2500

Quantiles (Definition 5)	
Level	Quantile
100% Max	8.50
99%	8.50
95%	7.60
90%	7.10
75% Q3	6.30
50% Median	5.25

25% Q1	3.80
10%	3.00
5%	2.60
1%	1.30
0% Min	1.30

Extreme Observations					
Lowest			Highest		
Value	X1	Obs	Value	X1	Obs
1.3	1	28	7.0	1	1
2.6	1	31	7.1	1	7
3.0	1	23	7.2	1	12
3.0	1	16	7.6	1	24
3.0	1	10	8.5	1	11



The SAS System

The UNIVARIATE Procedure
Variable: X8 (X8 - Technical Support)

X1 - Customer Type=2

Moments			
N	35	Sum Weights	35
Mean	5.39142857	Sum Observations	188.7
Std Deviation	1.50555275	Variance	2.26668908
Skewness	-0.184346	Kurtosis	-0.6917325
Uncorrected SS	1094.43	Corrected SS	77.0674286
Coeff Variation	27.9249317	Std Error Mean	0.25448486

Basic Statistical Measures			
Location		Variability	
Mean	5.391429	Std Deviation	1.50555
Median	5.500000	Variance	2.26669
Mode	4.700000	Range	5.50000
		Interquartile Range	2.30000

Note: The mode displayed is the smallest of 2 modes with a count of 3.

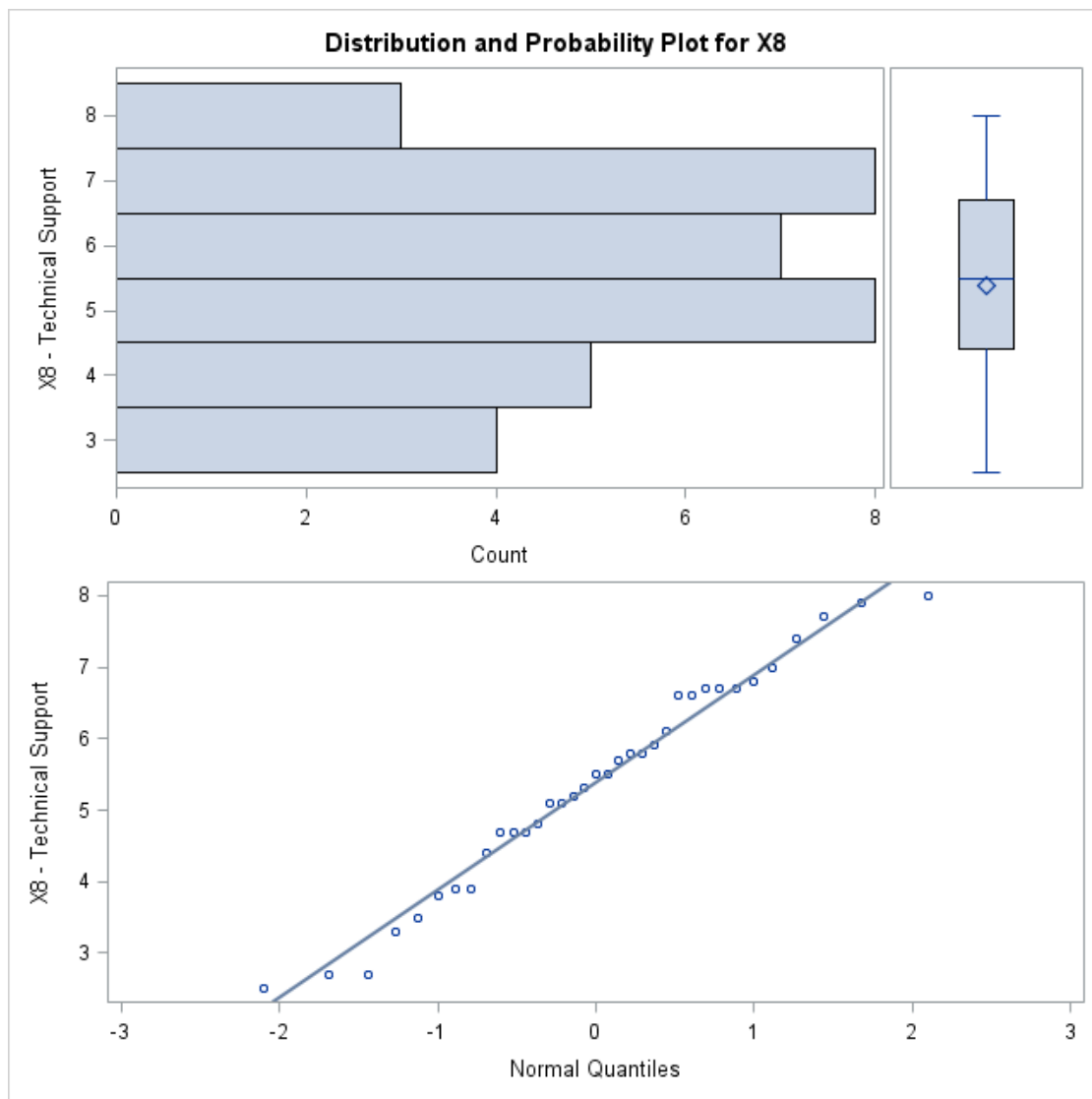
Tests for Location: Mu0=0				
Test		Statistic		p Value
Student's t	t	21.18566	Pr > t 	<.0001
Sign	M	17.5	Pr >= M 	<.0001
Signed Rank	S	315	Pr >= S 	<.0001

Tests for Normality				
Test		Statistic		p Value
Shapiro-Wilk	W	0.972136	Pr < W	0.5046
Kolmogorov-Smirnov	D	0.103224	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.031471	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.243525	Pr > A-Sq	>0.2500

Quantiles (Definition 5)	
Level	Quantile
100% Max	8.0
99%	8.0
95%	7.9
90%	7.4

75% Q3	6.7
50% Median	5.5
25% Q1	4.4
10%	3.3
5%	2.7
1%	2.5
0% Min	2.5

Extreme Observations					
Lowest			Highest		
Value	X1	Obs	Value	X1	Obs
2.5	2	33	7.0	2	60
2.7	2	58	7.4	2	41
2.7	2	57	7.7	2	65
3.3	2	46	7.9	2	55
3.5	2	54	8.0	2	63



The SAS System

The UNIVARIATE Procedure
Variable: X8 (X8 - Technical Support)

X1 - Customer Type=3

Moments			
N	33	Sum Weights	33
Mean	5.6030303	Sum Observations	184.9
Std Deviation	1.40945132	Variance	1.98655303
Skewness	-0.0668769	Kurtosis	-0.7849054
Uncorrected SS	1099.57	Corrected SS	63.569697
Coeff Variation	25.1551615	Std Error Mean	0.24535398

Basic Statistical Measures			
Location		Variability	
Mean	5.603030	Std Deviation	1.40945
Median	5.600000	Variance	1.98655
Mode	4.600000	Range	5.80000
		Interquartile Range	2.20000

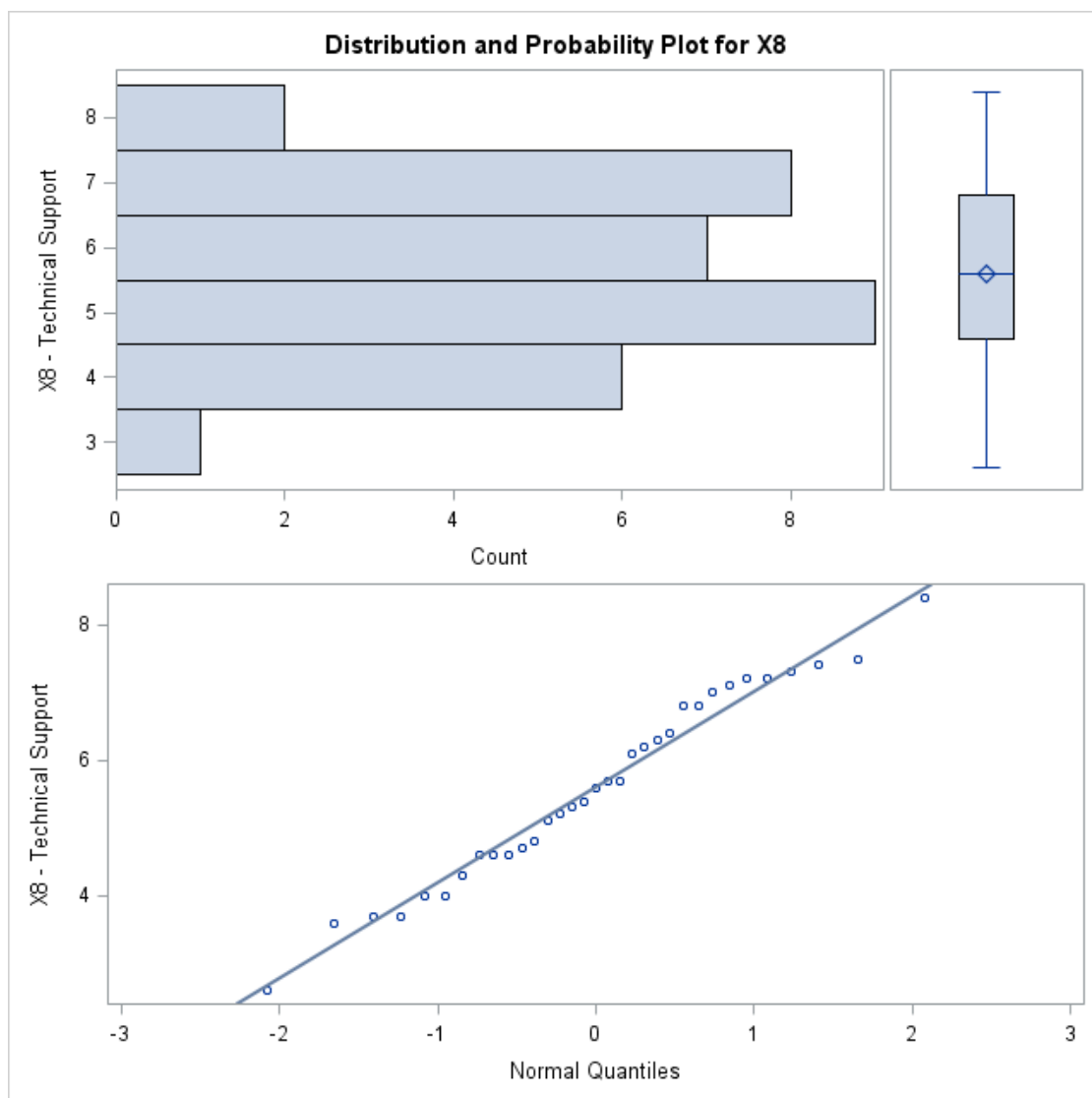
Tests for Location: Mu0=0				
Test		Statistic		p Value
Student's t	t	22.83652	Pr > t 	<.0001
Sign	M	16.5	Pr >= M 	<.0001
Signed Rank	S	280.5	Pr >= S 	<.0001

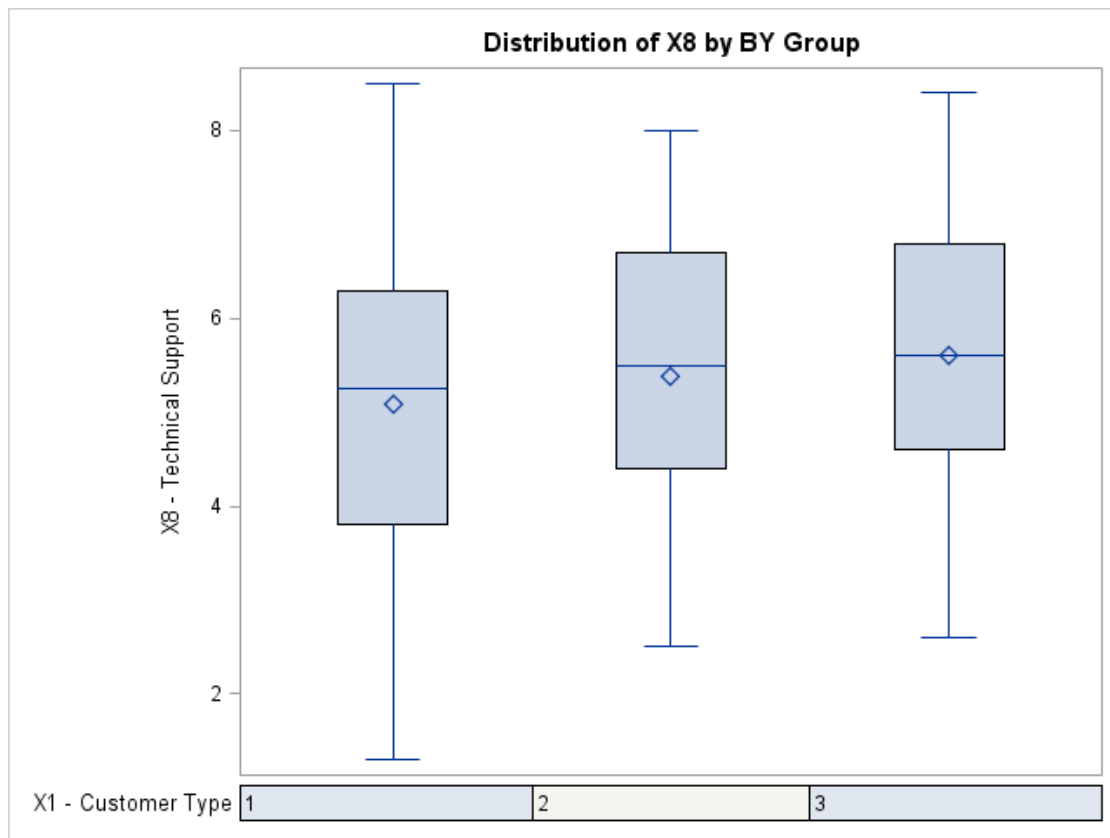
Tests for Normality				
Test		Statistic		p Value
Shapiro-Wilk	W	0.974738	Pr < W	0.6209
Kolmogorov-Smirnov	D	0.105158	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.049182	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.331745	Pr > A-Sq	>0.2500

Quantiles (Definition 5)	
Level	Quantile
100% Max	8.4
99%	8.4
95%	7.5
90%	7.3
75% Q3	6.8
50% Median	5.6

25% Q1	4.6
10%	3.7
5%	3.6
1%	2.6
0% Min	2.6

Extreme Observations					
Lowest			Highest		
Value	X1	Obs	Value	X1	Obs
2.6	3	75	7.2	3	89
3.6	3	73	7.3	3	86
3.7	3	84	7.4	3	95
3.7	3	82	7.5	3	92
4.0	3	100	8.4	3	90





The SAS System

The UNIVARIATE Procedure
Variable: X9 (X9 - Complaint Resolution)

X1 - Customer Type=1

Moments			
N	32	Sum Weights	32
Mean	4.35	Sum Observations	139.2
Std Deviation	0.93325653	Variance	0.87096774
Skewness	0.42695577	Kurtosis	0.87999494
Uncorrected SS	632.52	Corrected SS	27
Coeff Variation	21.454173	Std Error Mean	0.164978

Basic Statistical Measures			
Location		Variability	
Mean	4.350000	Std Deviation	0.93326
Median	4.300000	Variance	0.87097
Mode	4.100000	Range	4.30000
		Interquartile Range	1.10000

Note: The mode displayed is the smallest of 2 modes with a count of 3.

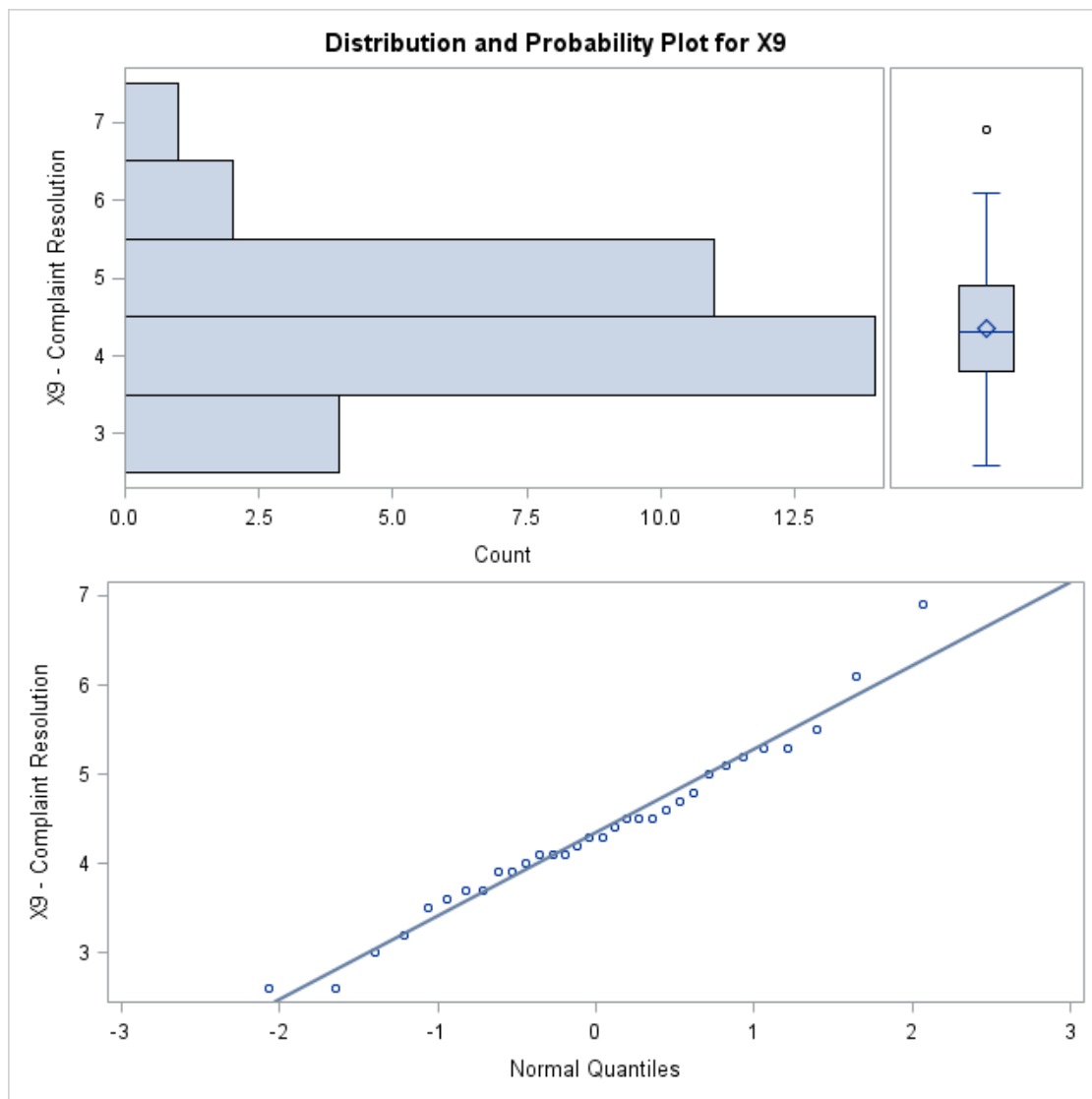
Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	26.36715	Pr > t 	<.0001
Sign	M	16	Pr >= M 	<.0001
Signed Rank	S	264	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.97566	Pr < W	0.6673
Kolmogorov-Smirnov	D	0.092404	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.037722	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.254257	Pr > A-Sq	>0.2500

Quantiles (Definition 5)	
Level	Quantile
100% Max	6.9
99%	6.9
95%	6.1
90%	5.3

75% Q3	4.9
50% Median	4.3
25% Q1	3.8
10%	3.2
5%	2.6
1%	2.6
0% Min	2.6

Extreme Observations					
Lowest			Highest		
Value	X1	Obs	Value	X1	Obs
2.6	1	29	5.3	1	13
2.6	1	3	5.3	1	30
3.0	1	28	5.5	1	9
3.2	1	32	6.1	1	4
3.5	1	22	6.9	1	6



The SAS System

The UNIVARIATE Procedure
Variable: X9 (X9 - Complaint Resolution)

X1 - Customer Type=2

Moments			
N	35	Sum Weights	35
Mean	5.94285714	Sum Observations	208
Std Deviation	0.8875895	Variance	0.78781513
Skewness	-0.0837624	Kurtosis	-0.4342616
Uncorrected SS	1262.9	Corrected SS	26.7857143
Coeff Variation	14.9354003	Std Error Mean	0.15003001

Basic Statistical Measures			
Location		Variability	
Mean	5.942857	Std Deviation	0.88759
Median	5.900000	Variance	0.78782
Mode	5.400000	Range	3.80000
		Interquartile Range	1.40000

Note: The mode displayed is the smallest of 2 modes with a count of 3.

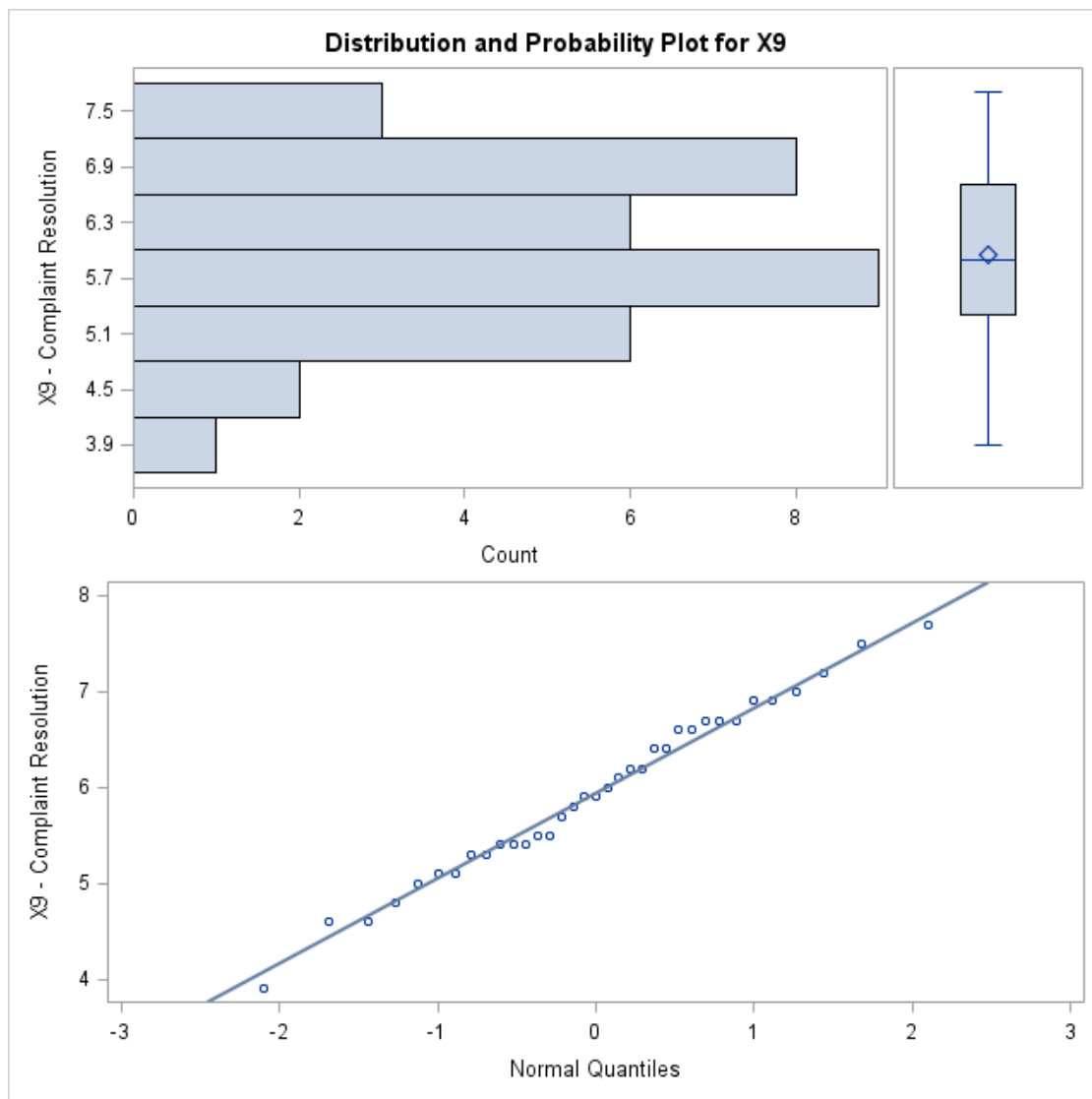
Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	39.61112	Pr > t 	<.0001
Sign	M	17.5	Pr >= M 	<.0001
Signed Rank	S	315	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.987353	Pr < W	0.9516
Kolmogorov-Smirnov	D	0.09109	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.032179	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.19195	Pr > A-Sq	>0.2500

Quantiles (Definition 5)	
Level	Quantile
100% Max	7.7
99%	7.7
95%	7.5
90%	7.0

75% Q3	6.7
50% Median	5.9
25% Q1	5.3
10%	4.8
5%	4.6
1%	3.9
0% Min	3.9

Extreme Observations					
Lowest			Highest		
Value	X1	Obs	Value	X1	Obs
3.9	2	61	6.9	2	48
4.6	2	44	7.0	2	65
4.6	2	34	7.2	2	39
4.8	2	35	7.5	2	50
5.0	2	53	7.7	2	52



The SAS System

The UNIVARIATE Procedure
Variable: X9 (X9 - Complaint Resolution)

X1 - Customer Type=3

Moments			
N	33	Sum Weights	33
Mean	5.96969697	Sum Observations	197
Std Deviation	1.04057822	Variance	1.08280303
Skewness	-0.1678483	Kurtosis	-0.5810351
Uncorrected SS	1210.68	Corrected SS	34.649697
Coeff Variation	17.4310057	Std Error Mean	0.18114142

Basic Statistical Measures			
Location		Variability	
Mean	5.969697	Std Deviation	1.04058
Median	5.900000	Variance	1.08280
Mode	5.800000	Range	4.10000
		Interquartile Range	1.50000

Note: The mode displayed is the smallest of 2 modes with a count of 3.

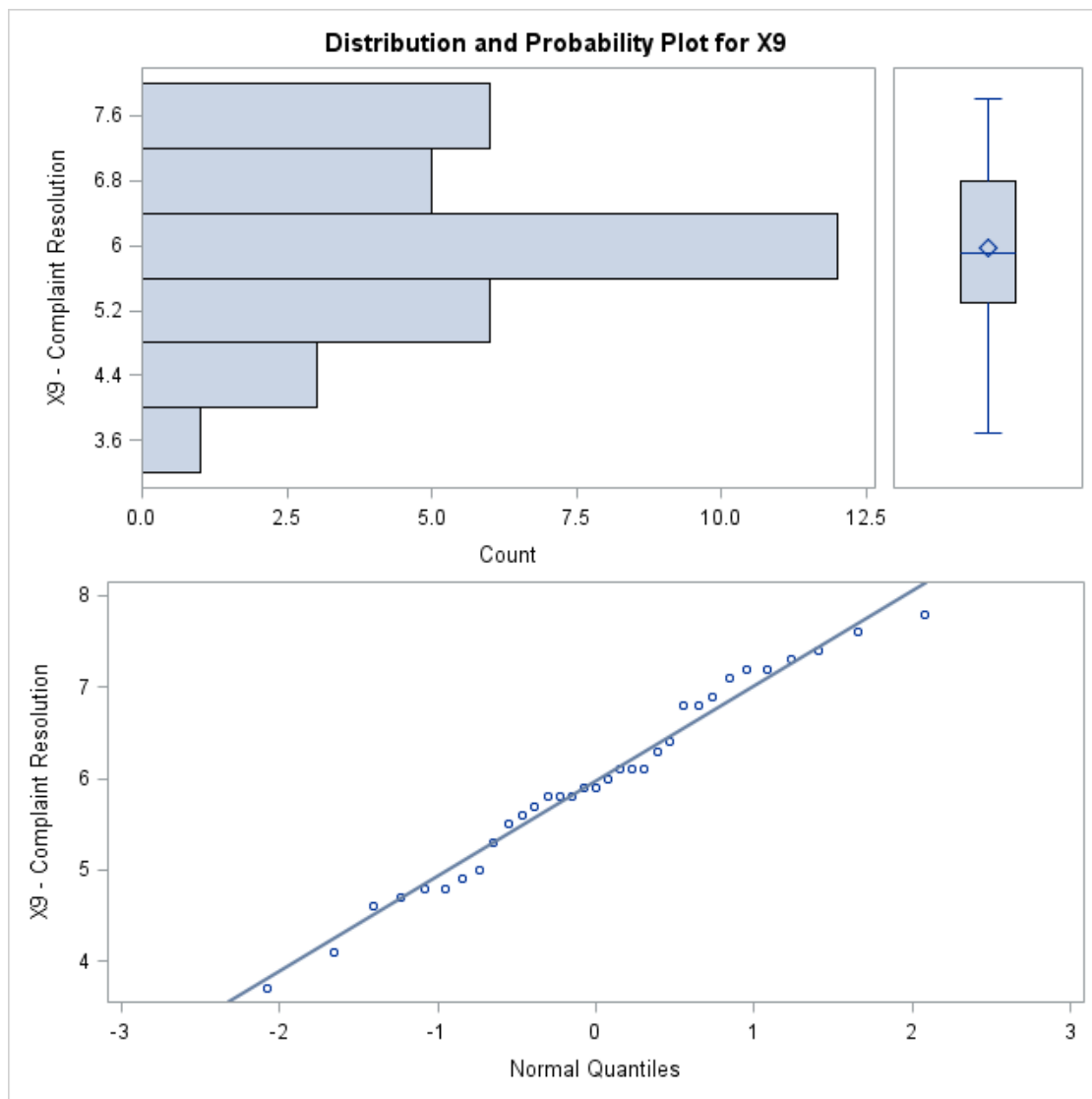
Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	32.956	Pr > t 	<.0001
Sign	M	16.5	Pr >= M 	<.0001
Signed Rank	S	280.5	Pr >= S 	<.0001

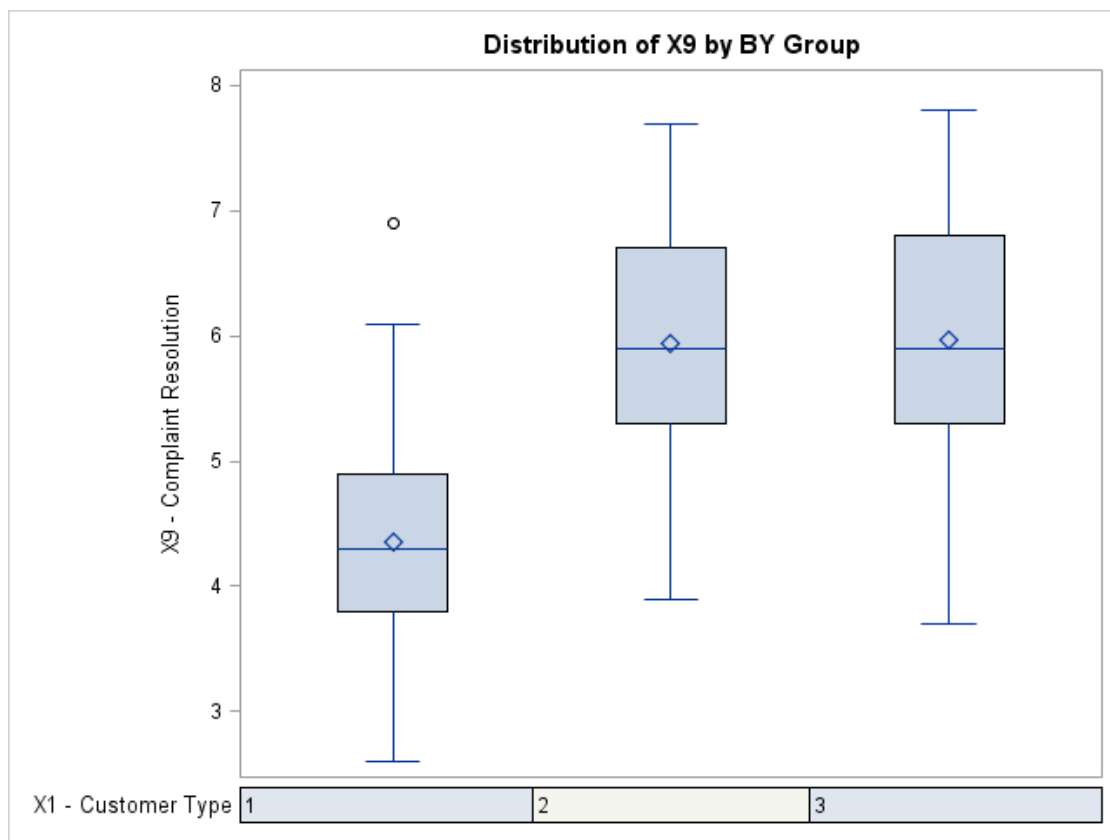
Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.975512	Pr < W	0.6453
Kolmogorov-Smirnov	D	0.090573	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.044124	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.285036	Pr > A-Sq	>0.2500

Quantiles (Definition 5)	
Level	Quantile
100% Max	7.8
99%	7.8
95%	7.6
90%	7.3

75% Q3	6.8
50% Median	5.9
25% Q1	5.3
10%	4.7
5%	4.1
1%	3.7
0% Min	3.7

Extreme Observations					
Lowest			Highest		
Value	X1	Obs	Value	X1	Obs
3.7	3	88	7.2	3	75
4.1	3	97	7.3	3	78
4.6	3	100	7.4	3	84
4.7	3	92	7.6	3	94
4.8	3	95	7.8	3	99





The SAS System**The GLM Procedure**

Class Level Information		
Class	Levels	Values
X1	3	1 2 3

Number of Observations Read	100
Number of Observations Used	100

The SAS System

The GLM Procedure

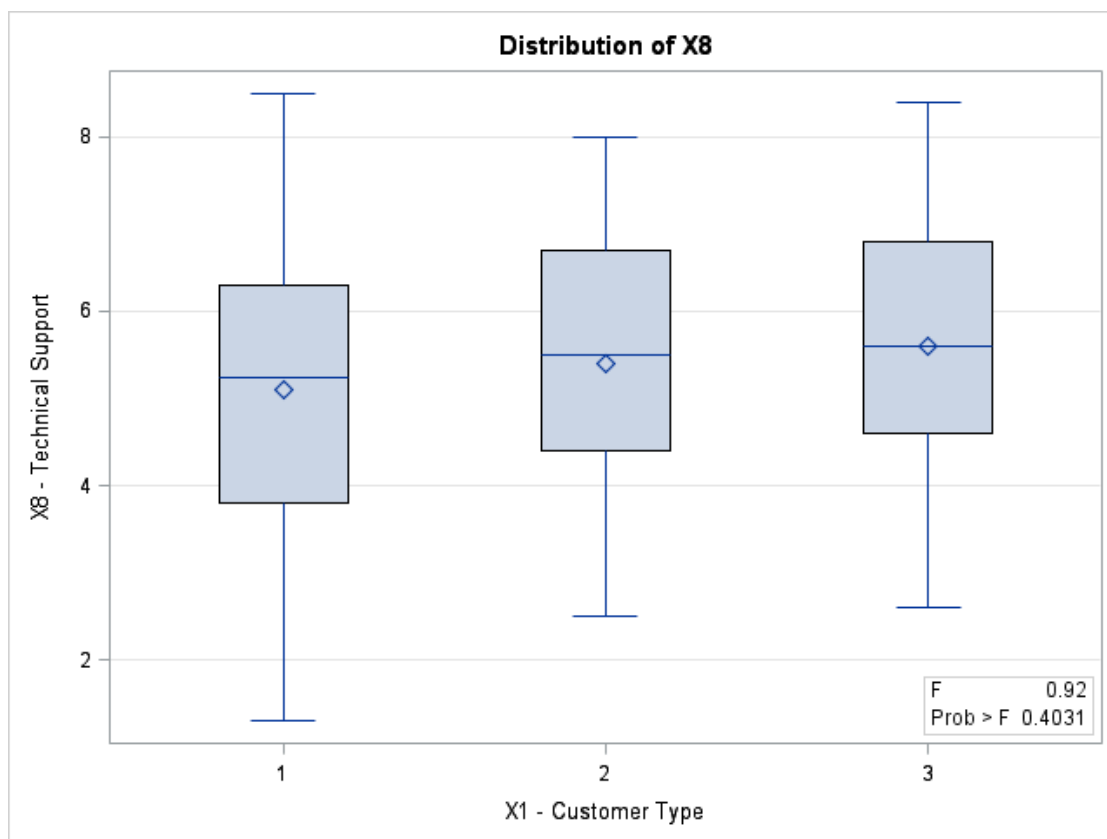
Dependent Variable: X8 X8 - Technical Support

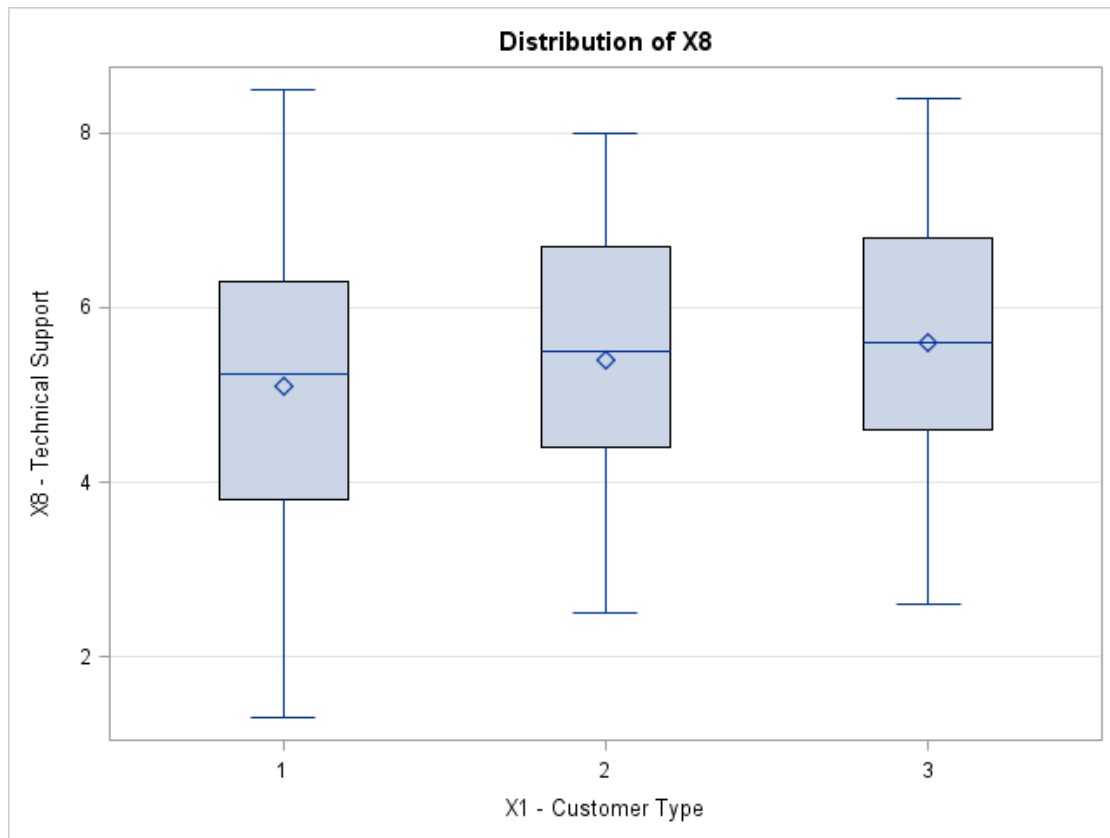
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	4.3031870	2.1515935	0.92	0.4031
Error	97	227.5843130	2.3462300		
Corrected Total	99	231.8875000			

R-Square	Coeff Var	Root MSE	X8 Mean
0.018557	28.55062	1.531741	5.365000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
X1	2	4.30318696	2.15159348	0.92	0.4031

Source	DF	Type III SS	Mean Square	F Value	Pr > F
X1	2	4.30318696	2.15159348	0.92	0.4031



The SAS System**The GLM Procedure**

Level of X1	N	X8	
		Mean	Std Dev
1	32	5.09062500	1.67473818
2	35	5.39142857	1.50555275
3	33	5.60303030	1.40945132

The SAS System**The GLM Procedure****Levene's Test for Homogeneity of X8 Variance
ANOVA of Squared Deviations from Group Means**

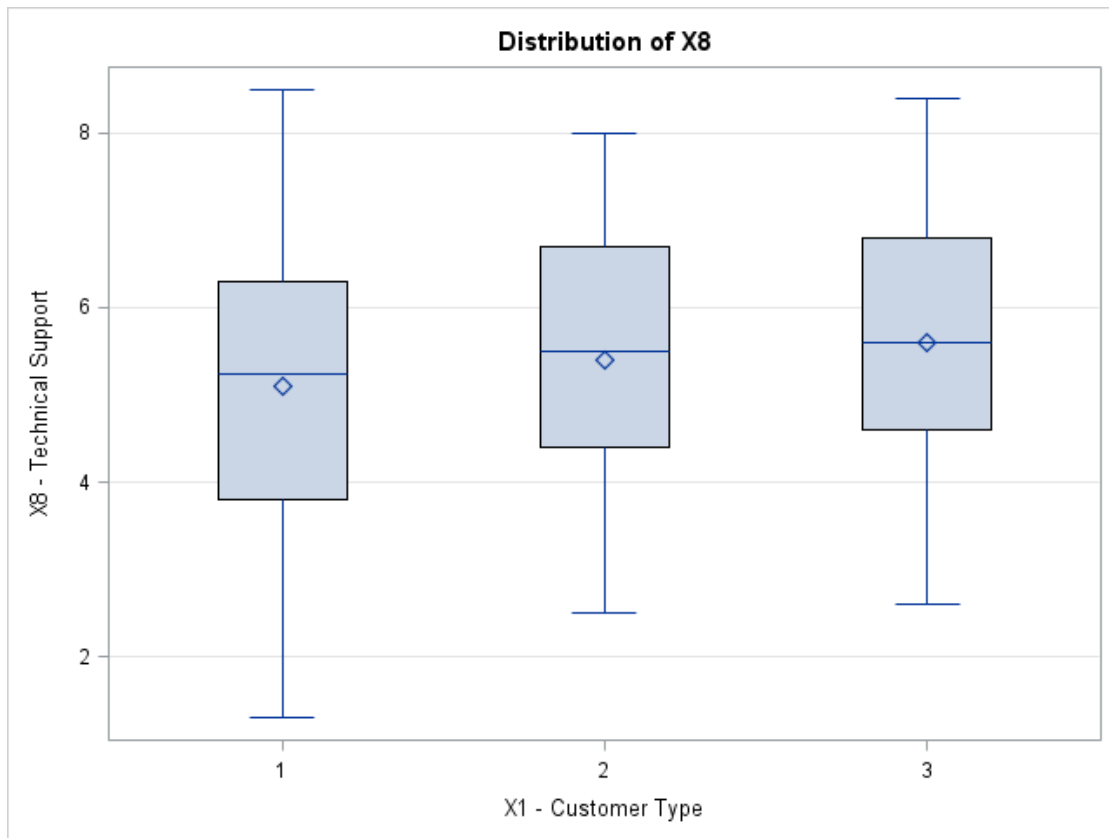
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
X1	2	10.4526	5.2263	0.73	0.4831
Error	97	691.5	7.1292		

**Brown and Forsythe's Test for Homogeneity of X8 Variance
ANOVA of Absolute Deviations from Group Medians**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
X1	2	0.5038	0.2519	0.33	0.7165
Error	97	73.0546	0.7531		

**Bartlett's Test for Homogeneity
of X8 Variance**

Source	DF	Chi-Square	Pr > ChiSq
X1	2	0.9510	0.6216

The SAS System**The GLM Procedure**

Level of X1	N	X8	
		Mean	Std Dev
1	32	5.09062500	1.67473818
2	35	5.39142857	1.50555275
3	33	5.60303030	1.40945132

The SAS System**The GLM Procedure**

Class Level Information		
Class	Levels	Values
X1	3	1 2 3

Number of Observations Read	100
Number of Observations Used	100

The SAS System

The GLM Procedure

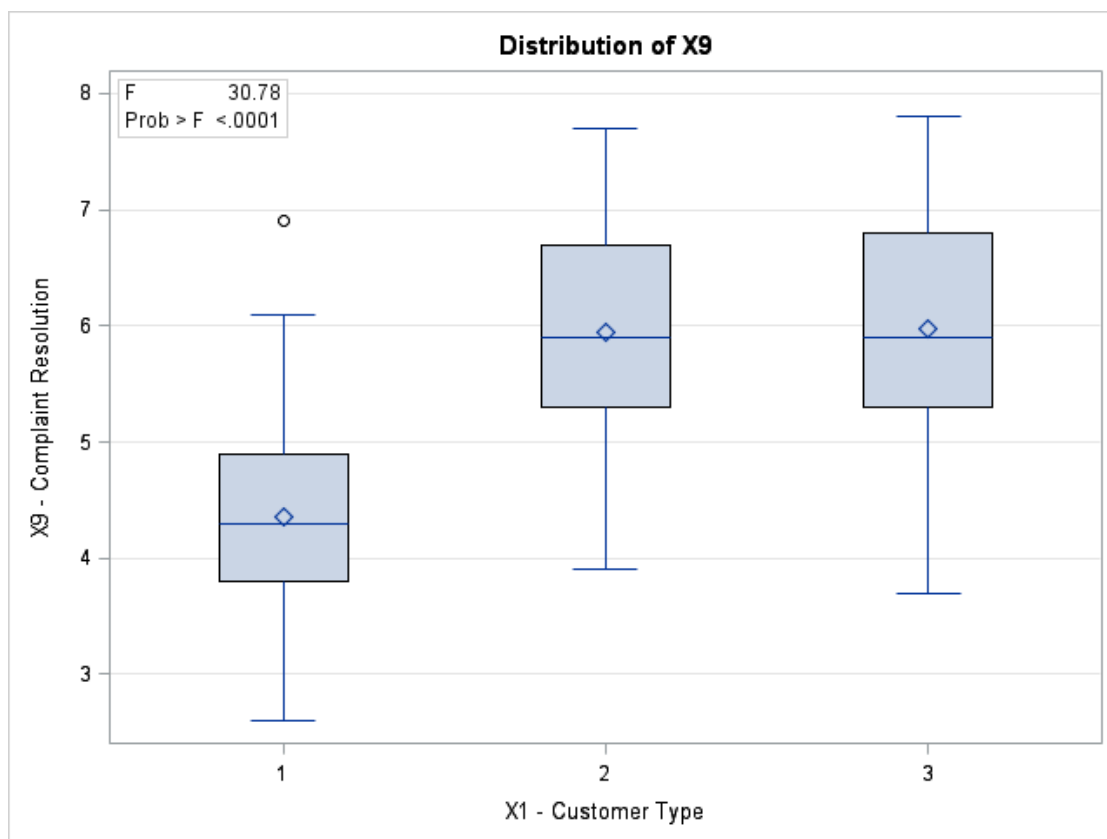
Dependent Variable: X9 X9 - Complaint Resolution

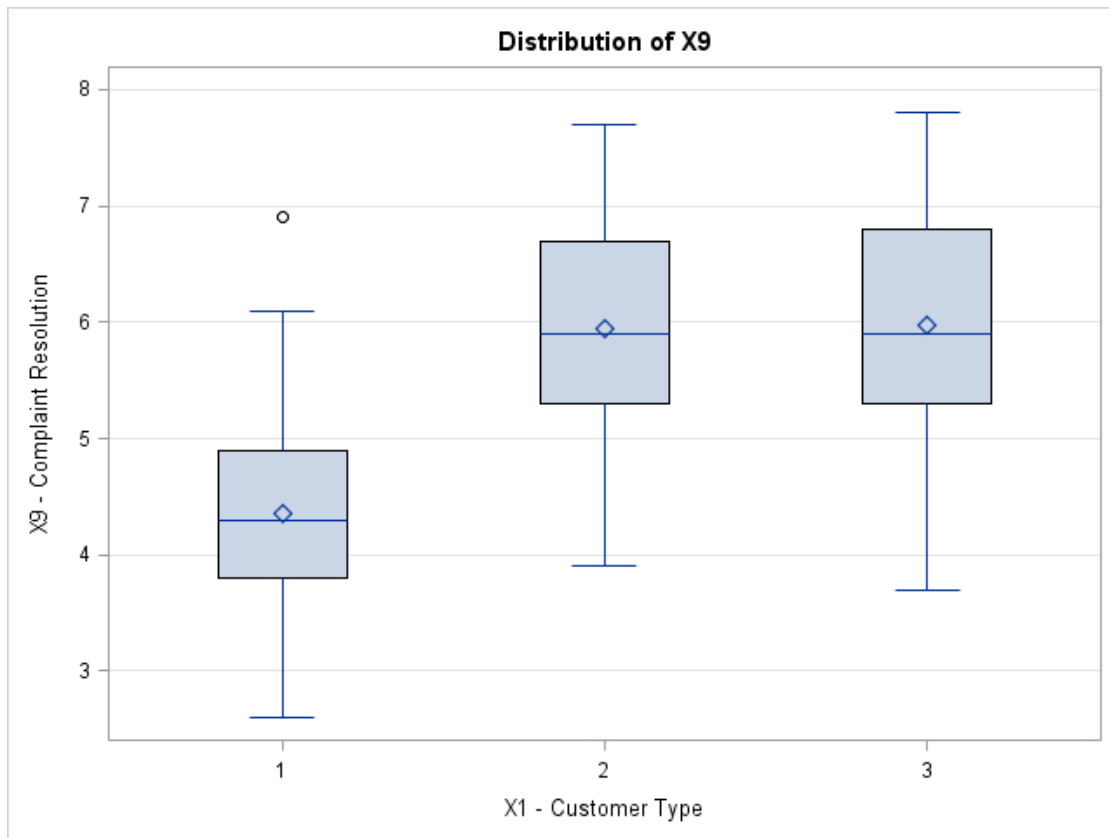
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	56.1281887	28.0640944	30.78	<.0001
Error	97	88.4354113	0.9117053		
Corrected Total	99	144.5636000			

R-Square	Coeff Var	Root MSE	X9 Mean
0.388259	17.54562	0.954833	5.442000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
X1	2	56.12818874	28.06409437	30.78	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
X1	2	56.12818874	28.06409437	30.78	<.0001



The SAS System**The GLM Procedure**

Level of X1	N	X9	
		Mean	Std Dev
1	32	4.35000000	0.93325653
2	35	5.94285714	0.88758950
3	33	5.96969697	1.04057822

The SAS System**The GLM Procedure****Levene's Test for Homogeneity of X9 Variance
ANOVA of Squared Deviations from Group Means**

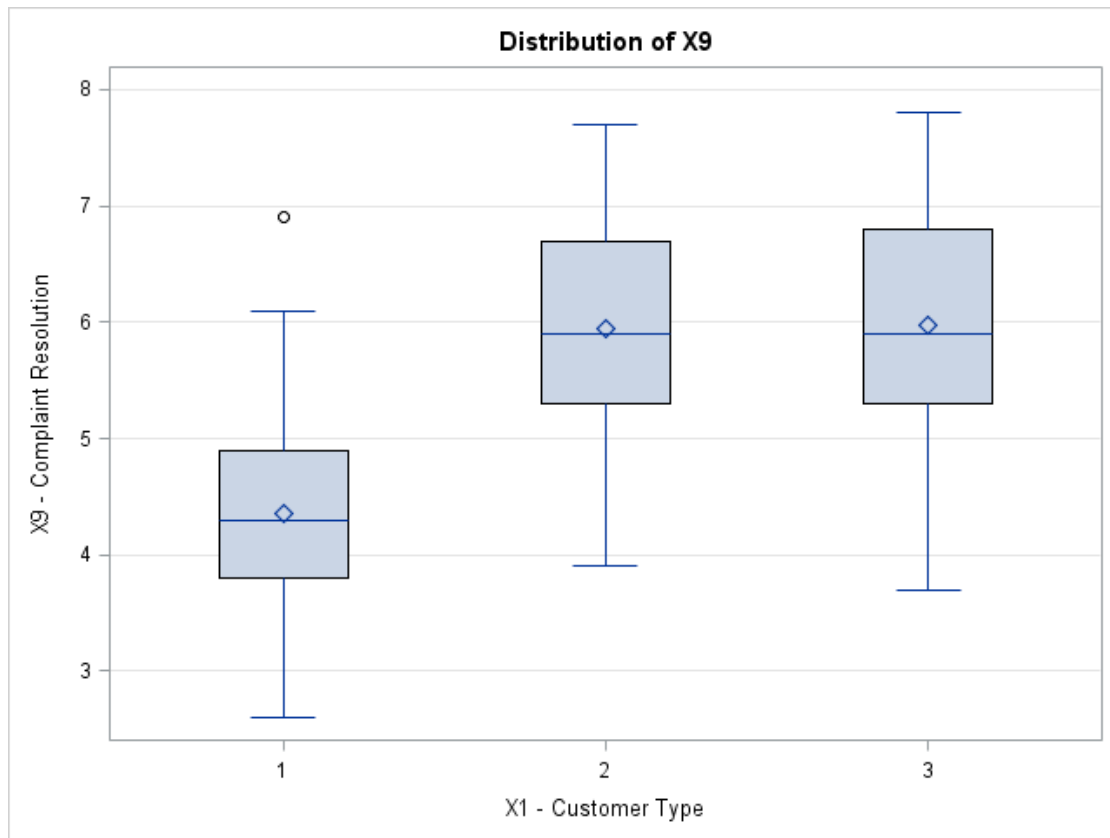
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
X1	2	1.4542	0.7271	0.52	0.5985
Error	97	136.6	1.4087		

**Brown and Forsythe's Test for Homogeneity of X9 Variance
ANOVA of Absolute Deviations from Group Medians**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
X1	2	0.2843	0.1421	0.42	0.6555
Error	97	32.5053	0.3351		

**Bartlett's Test for Homogeneity
of X9 Variance**

Source	DF	Chi-Square	Pr > ChiSq
X1	2	0.8672	0.6482

The SAS System**The GLM Procedure**

Level of X1	N	X9	
		Mean	Std Dev
1	32	4.35000000	0.93325653
2	35	5.94285714	0.88758950
3	33	5.96969697	1.04057822