# The SAS System

Obs	<b>X1</b>	X2	Х3	X4	X5	X6	<b>X7</b>	<b>X8</b>	Х9	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

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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		3.8	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		3.0	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		2.7		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		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		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	
76	3	0	0	0	0	9.9		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		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
70			- 1				I		ı 1	I	ı	I	I	I		ı	ı	I		I		, I

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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

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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					

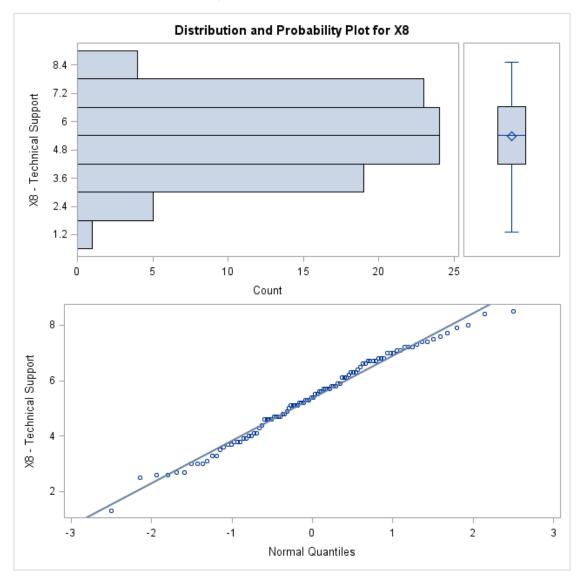
Tests for Normality									
Test	St	atistic	p Value						
Shapiro-Wilk	w	0.986264	Pr < W	0.3900					
Kolmogorov-Smirnov	D	0.060152	Pr > D	>0.1500					
Cramer-von Mises	W-Sq	0.051364	Pr > W-Sq	>0.2500					
Anderson-Darling	A-Sq	0.370975	Pr > A-Sq	>0.2500					

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

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

Extreme Observations								
Low	est	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					



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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	<b>M</b> 50		Pr >=  M	<.0001		
Signed Rank	S	2525	Pr >=  S	<.0001		

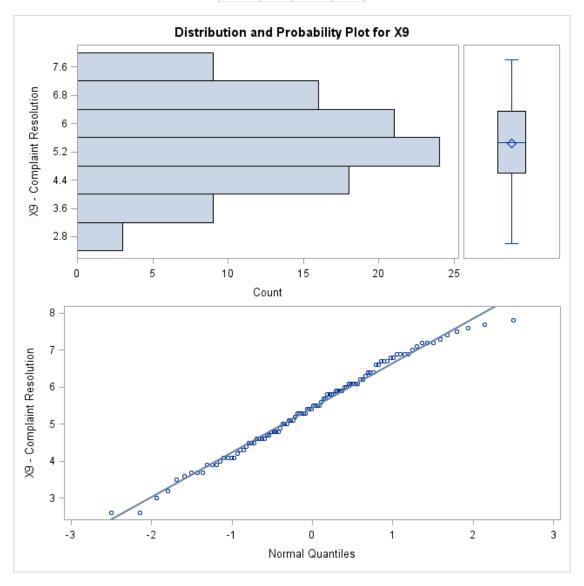
Tests for Normality					
Test	Statistic p Value				
Shapiro-Wilk	w	0.986459	Pr < W	0.4023	
Kolmogorov-Smirnov	D	0.051072	Pr > D	>0.1500	
Cramer-von Mises	W-Sq	0.035887	Pr > W-Sq	>0.2500	
Anderson-Darling	A-Sq	0.269584	Pr > A-Sq	>0.2500	

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

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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	



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# The SAS System

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

#### X1 - Customer Type=1

Moments					
N 32 Sum Weights					
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		

<b>Basic Statistical Measures</b>					
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	М	16	Pr >=  M	<.0001		
Signed Rank	S	264	Pr >=  S	<.0001		

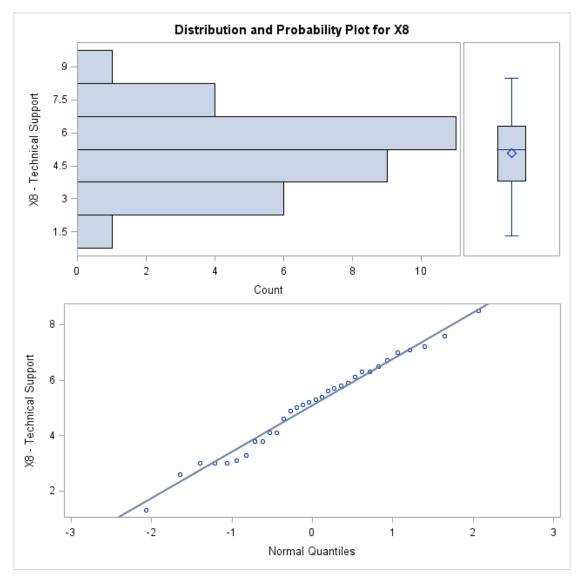
Tests for Normality					
Test Statistic p Value					
Shapiro-Wilk	w	0.98379	Pr < W	0.8991	
Kolmogorov-Smirnov	D	0.079689	Pr > D	>0.1500	
Cramer-von Mises	W-Sq	0.03725	Pr > W-Sq	>0.2500	
Anderson-Darling	A-Sq	0.237519	Pr > A-Sq	>0.2500	

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	

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

Extreme Observations					
Lowest		Highest			
Value	Value X1 Obs			<b>X1</b>	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



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#### The SAS System

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

X1 - Customer Type=2

Moments						
N 35 Sum Weights						
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 Val	ue
Student's t	t 21.18566		Pr >  t	<.0001
Sign	М	17.5	Pr >=  M	<.0001
Signed Rank	S	315	Pr >=  S	<.0001

<b>Tests for Normality</b>				
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

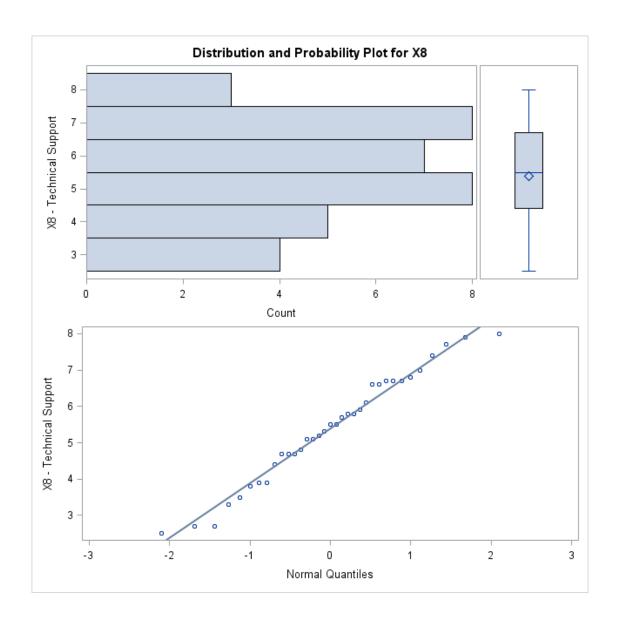
Quantiles (Definition 5)			
Level Quant			
100% Max	8.0		
99%	8.0		
95%	7.9		
90%	7.4		

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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

<b>Extreme Observations</b>						
Lowest			Hig	ghes	t	
Value	<b>X1</b>	Obs	Value	<b>X1</b>	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	

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# 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 Va	ue
Student's t	t 22.83652		Pr >  t	<.0001
Sign	М	16.5	Pr >=  M	<.0001
Signed Rank	s	280.5	Pr >=  S	<.0001

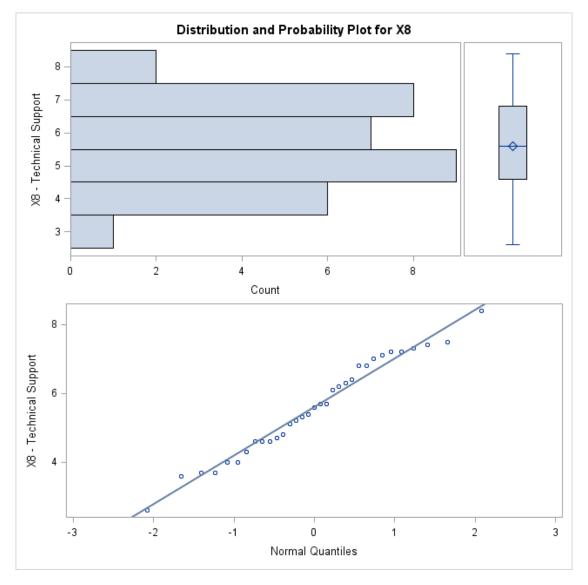
Tests for Normality				
Test	Statistic p Value			lue
Shapiro-Wilk	<b>W</b> 0.974738		Pr < W	0.6209
Kolmogorov-Smirnov	D	0.105158	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.049182	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.331745	Pr > A-Sq	>0.2500

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			

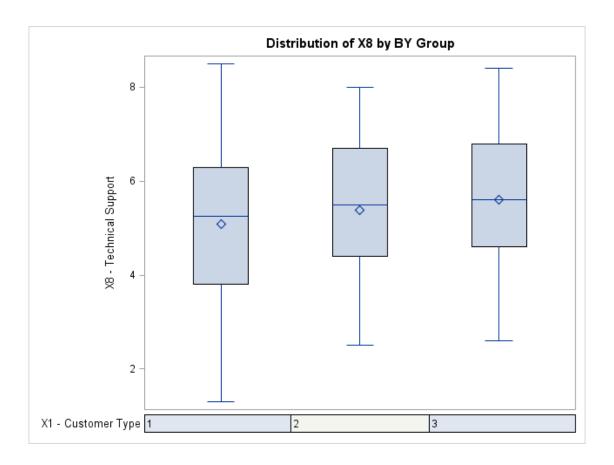
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25% Q1	4.6
10%	3.7
5%	3.6
1%	2.6
0% Min	2.6

Extreme Observations						
Lowest			Hig	ghes	t	
Value	Value X1 Obs			<b>X1</b>	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	



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# The SAS System

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

X1 - Customer Type=1

Moments						
N 32 Sum Weights 3						
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	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	М	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	

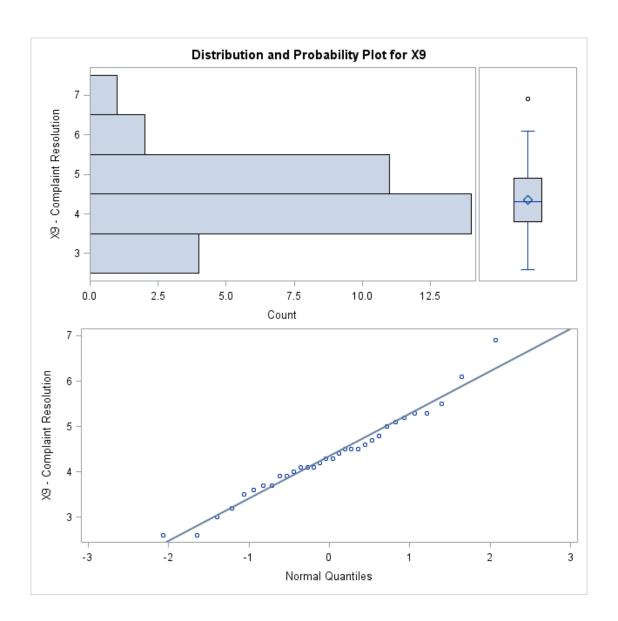
Quantiles (Definition 5)			
Level	Quantile		
100% Max	6.9		
99%	6.9		
95%	6.1		
90%	5.3		

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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			Hig	ghes	t
Value	<b>X1</b>	Obs	Value	<b>X1</b>	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

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# The SAS System

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

X1 - Customer Type=2

Moments						
N 35 Sum Weights						
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 0.887		0.88759			
Median	5.900000	Variance	0.78782		
<b>Mode</b> 5.400000 <b>Range</b>		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	М	17.5	Pr >=  M	<.0001	
Signed Rank	S	315	Pr >=  S	<.0001	

Tests for Normality					
Test	Statistic p Value				
Shapiro-Wilk	<b>W</b> 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	

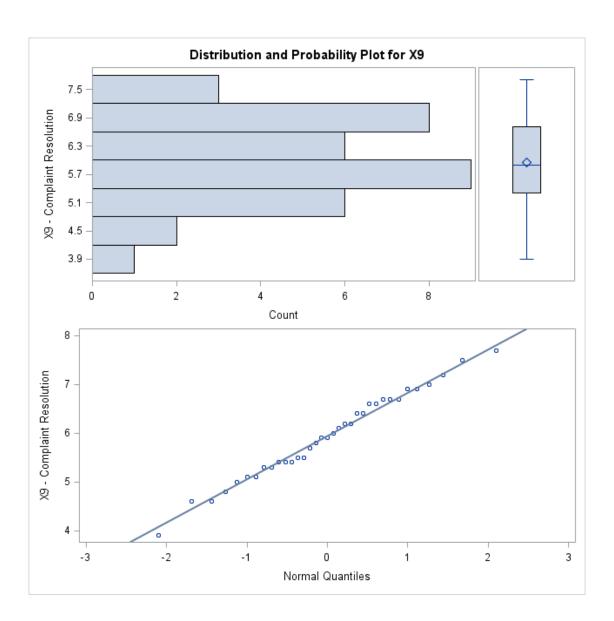
Quantiles (Definition 5)		
Level Quantil		
100% Max	7.7	
99%	7.7	
95%	7.5	
90%	7.0	

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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

<b>Extreme Observations</b>					
Lowest		Highest		t	
Value	<b>X1</b>	Obs	Value	<b>X1</b>	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

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# 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	<b>Mode</b> 5.800000 <b>Range</b> 4.100		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	Test Statistic p Value				
Student's t	t	32.956	Pr >  t	<.0001	
Sign	М	16.5	Pr >=  M	<.0001	
Signed Rank	S	280.5	Pr >=  S	<.0001	

Tests for Normality					
Test	Statistic p Value			lue	
Shapiro-Wilk	<b>W</b> 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	

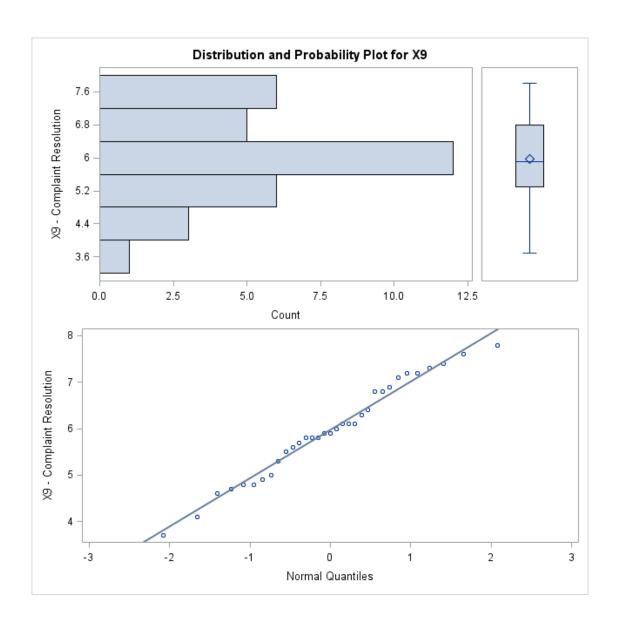
Quantiles (Definition 5)		
Level Quantil		
100% Max	7.8	
99%	7.8	
95%	7.6	
90%	7.3	

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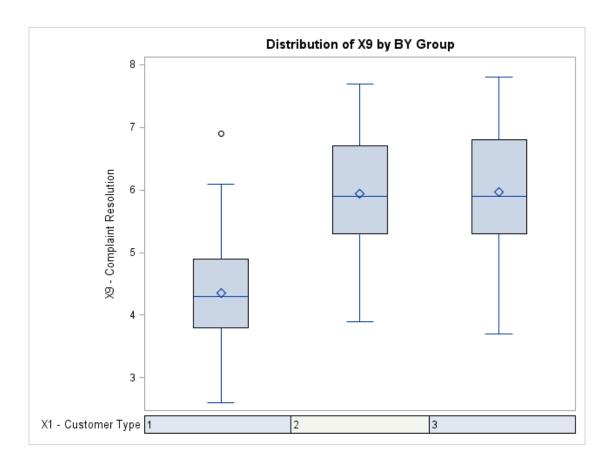
75% Q3	6.8
50% Median	5.9
25% Q1	5.3
10%	4.7
5%	4.1
1%	3.7
0% Min	3.7

Extreme Observations					
Lo	Lowest		Highest		
Value	<b>X1</b>	Obs	Value	<b>X1</b>	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

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# The SAS System

Class Level Information				
Class	Levels Values			
X1	3	123		

Number of Observations Read	100	
Number of Observations Used	100	

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# The SAS System

The GLM Procedure

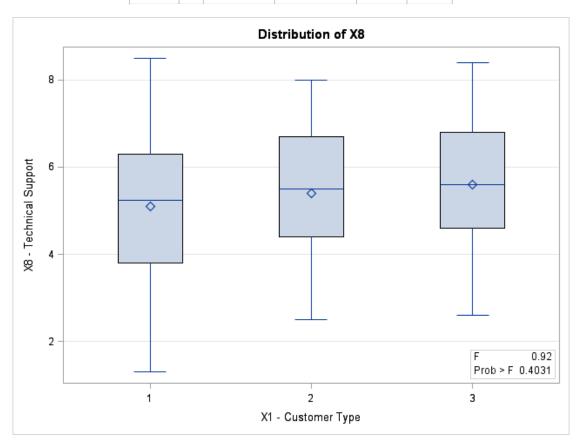
#### Dependent Variable: X8 X8 - Technical Support

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
ſ	0.018557	28.55062	1.531741	5.365000

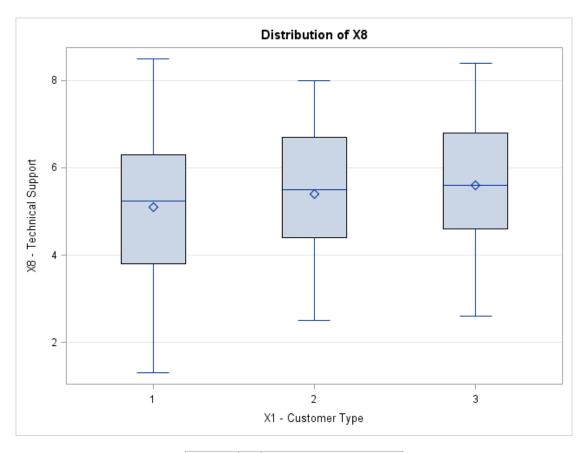
Source	DF	Type I SS	Mean Square	F Value	Pr > F
X1	2	4.30318696	2.15159348	0.92	0.4031

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



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The SAS System



Level of		X	8
X1	N	Mean	Std Dev
1	32	5.09062500	1.67473818
2	35	5.39142857	1.50555275
3	33	5.60303030	1.40945132

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# The SAS System

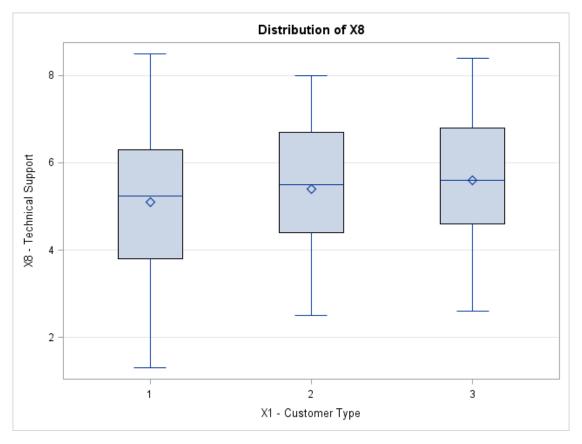
Levene's Test for Homogeneity of X8 Variance ANOVA of Squared Deviations from Group Means							
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F		
X1	2	10.4526	5.2263	0.73	0.4831		
Error	97	691.5	7.1292				

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

Bartle	Bartlett's Test for Homogeneity of X8 Variance				
Source	DF	Chi-Square	Pr > ChiSq		
X1	2	0.9510	0.6216		

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The SAS System



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

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# The SAS System

Class Level Information				
Class	Levels	Values		
<b>X1</b>	3	123		

Number of Observations Read	100	
Number of Observations Used	100	

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# The SAS System

The GLM Procedure

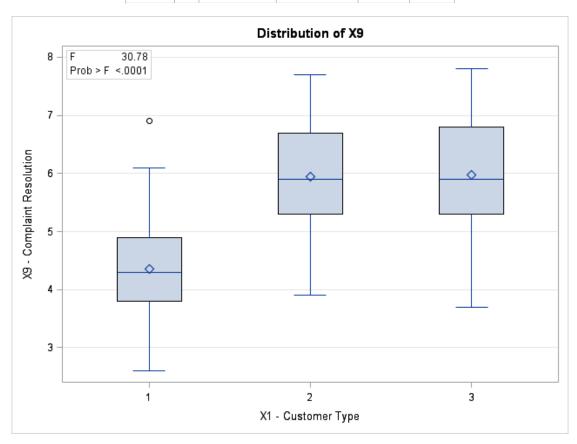
#### **Dependent Variable: X9 X9 - Complaint Resolution**

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		
<b>Corrected Total</b>	99	144.5636000			

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

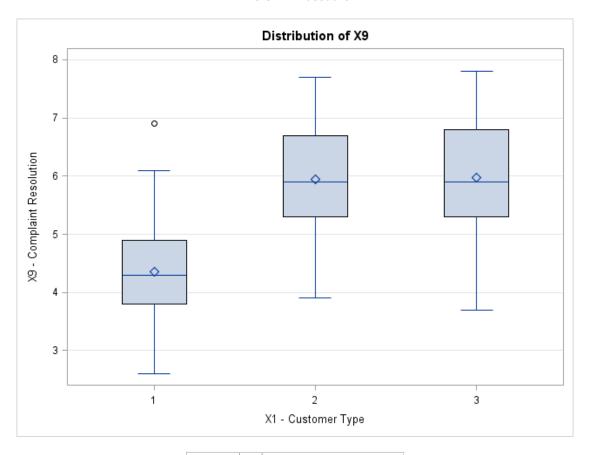
Source	DF	Type I SS	Mean Square	F Value	Pr > F	
X1	2	56.12818874	28.06409437	30.78	<.0001	

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



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The SAS System



Level of		Х9			
X1	N	Mean	Std Dev		
1	32	4.35000000	0.93325653		
2	35	5.94285714	0.88758950		
3	33	5.96969697	1.04057822		

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# The SAS System

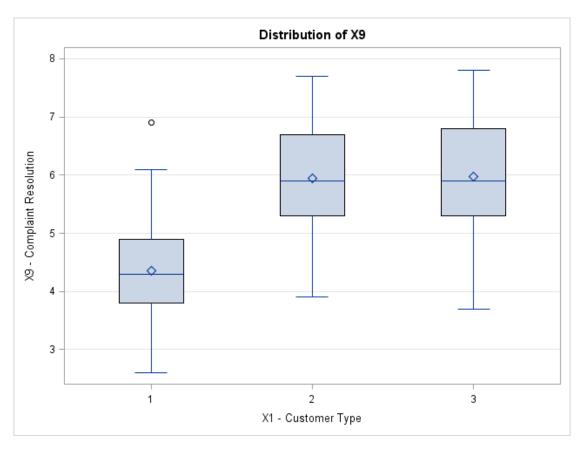
Levene's Test for Homogeneity of X9 Variance ANOVA of Squared Deviations from Group Means						
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F	
<b>X1</b>	2	1.4542	0.7271	0.52	0.5985	
Error	97	136.6	1.4087			

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			

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The SAS System



Level of		Х9		
X1	N	Mean	Std Dev	
1	32	4.35000000	0.93325653	
2	35	5.94285714	0.88758950	
3	33	5.96969697	1.04057822	