

The GLM Procedure

Class Level Information		
Class	Levels	Values
Technician	3	1 2 3
Make	3	1 2 3

Number of Observations Read	45
Number of Observations Used	45

The GLM Procedure

Dependent Variable: Time

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	1268.177778	158.522222	3.05	0.0101
Error	36	1872.400000	52.011111		
Corrected Total	44	3140.577778			

R-Square	Coeff Var	Root MSE	Time Mean
0.403804	12.91936	7.211873	55.82222

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Technician	2	24.577778	12.288889	0.24	0.7908
Make	2	28.311111	14.155556	0.27	0.7633
Technician*Make	4	1215.288889	303.822222	5.84	0.0010

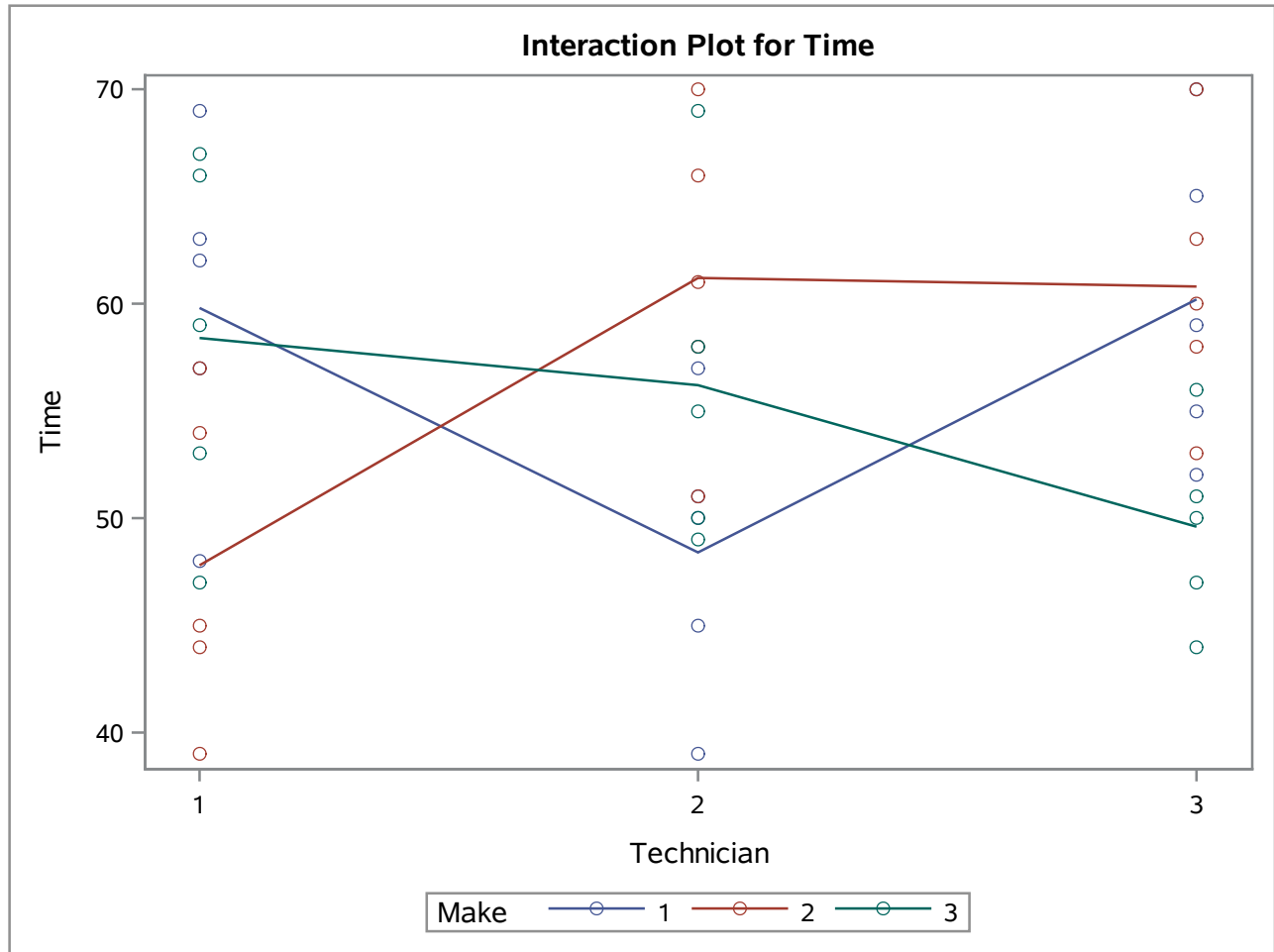
Source	DF	Type III SS	Mean Square	F Value	Pr > F
Technician	2	24.577778	12.288889	0.24	0.7908
Make	2	28.311111	14.155556	0.27	0.7633
Technician*Make	4	1215.288889	303.822222	5.84	0.0010

Parameter	Estimate		Standard Error	t Value	Pr > t
Intercept	49.60000000	B	3.22524762	15.38	<.0001
Technician 1	8.80000000	B	4.56118893	1.93	0.0616
Technician 2	6.60000000	B	4.56118893	1.45	0.1566
Technician 3	0.00000000	B	.	.	.
Make 1	10.60000000	B	4.56118893	2.32	0.0259
Make 2	11.20000000	B	4.56118893	2.46	0.0190
Make 3	0.00000000	B	.	.	.
Technician*Make 1 1	-9.20000000	B	6.45049524	-1.43	0.1624
Technician*Make 1 2	-21.80000000	B	6.45049524	-3.38	0.0018
Technician*Make 1 3	0.00000000	B	.	.	.
Technician*Make 2 1	-18.40000000	B	6.45049524	-2.85	0.0071
Technician*Make 2 2	-6.20000000	B	6.45049524	-0.96	0.3429
Technician*Make 2 3	0.00000000	B	.	.	.
Technician*Make 3 1	0.00000000	B	.	.	.
Technician*Make 3 2	0.00000000	B	.	.	.
Technician*Make 3 3	0.00000000	B	.	.	.

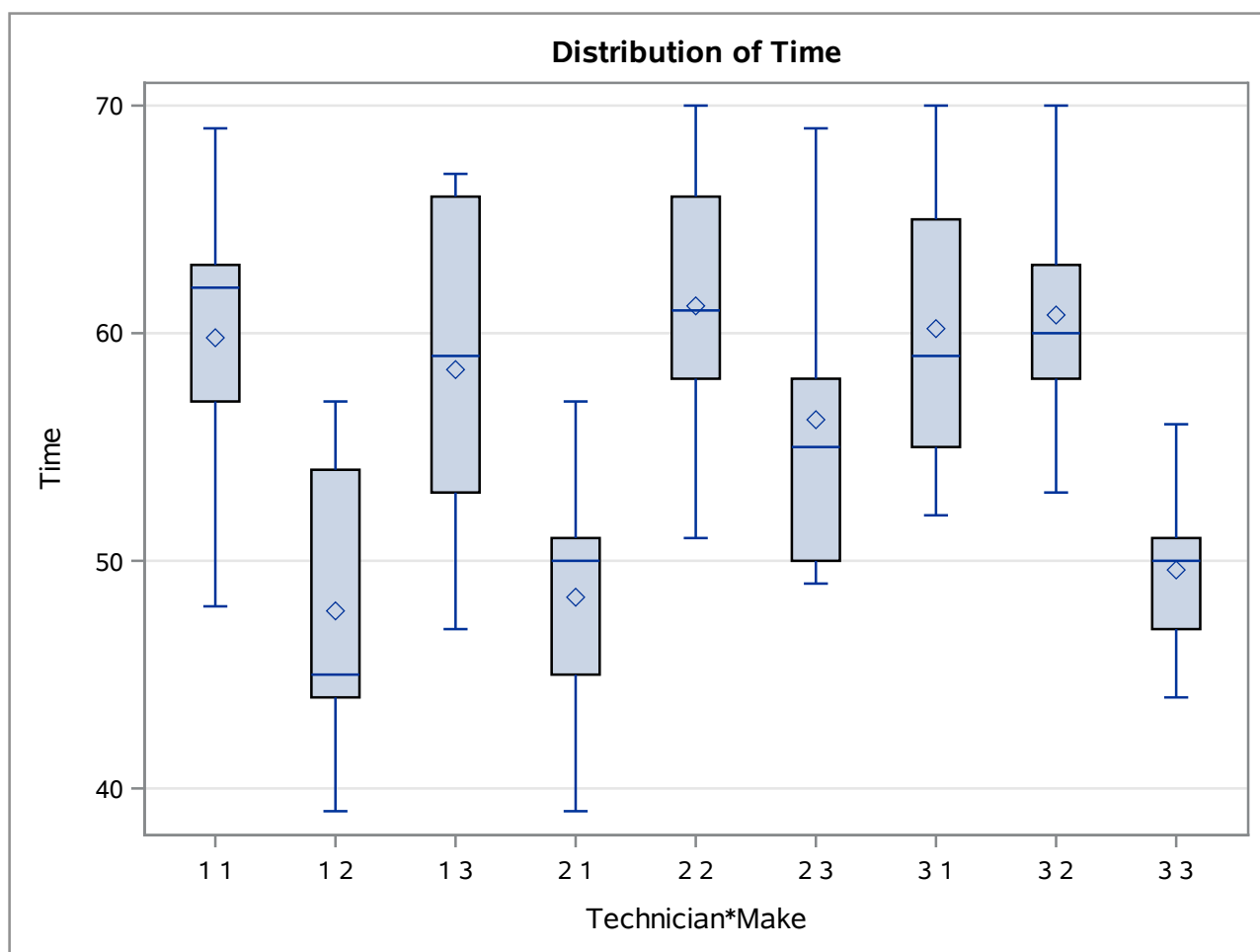
The GLM Procedure

Dependent Variable: Time

Note: The X'X matrix has been found to be singular, and a generalized inverse was used to solve the normal equations. Terms whose estimates are followed by the letter 'B' are not uniquely estimable.



The GLM Procedure

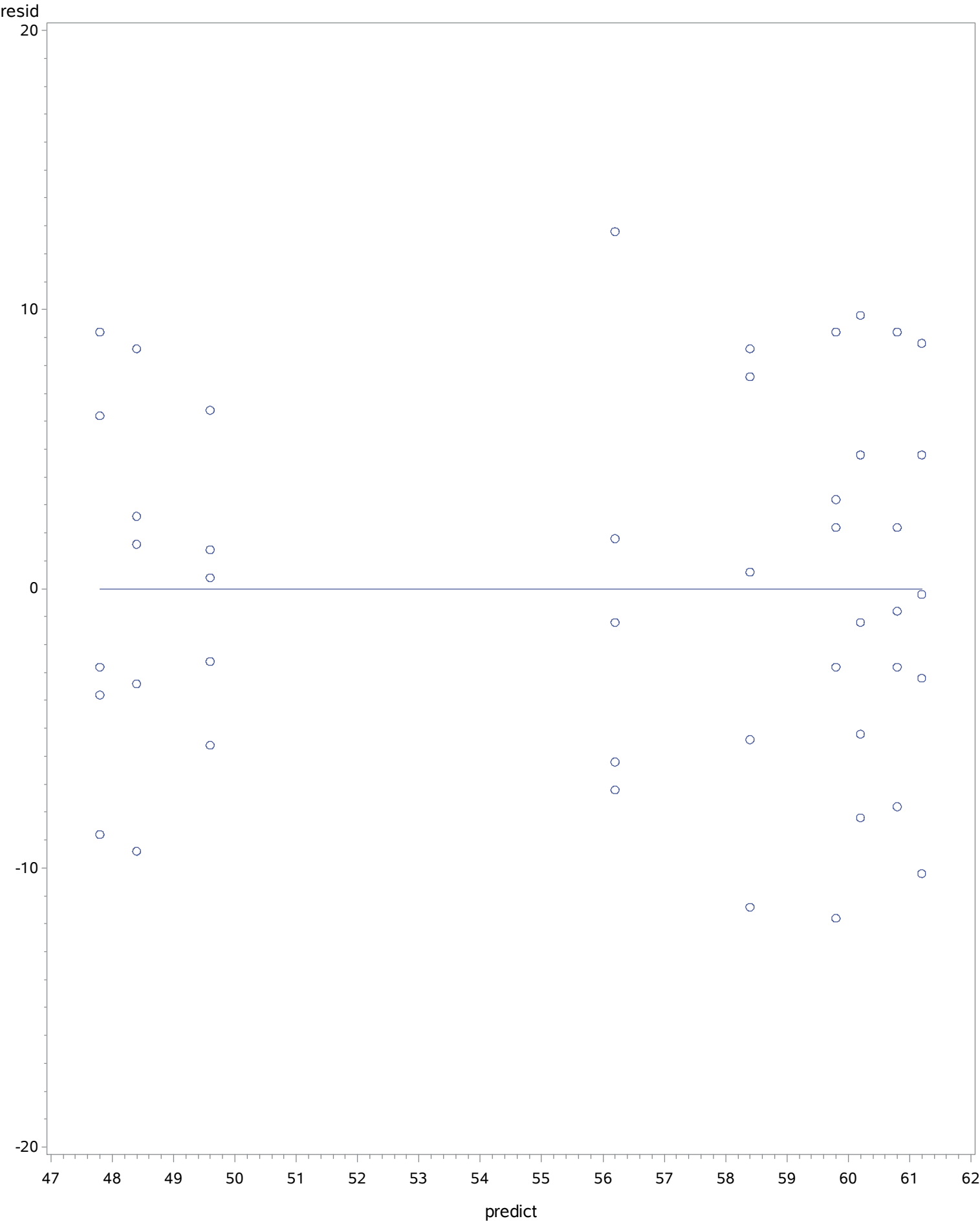


Level of Technician	Level of Make	N	Time	
			Mean	Std Dev
1	1	5	59.8000000	7.85493475
1	2	5	47.8000000	7.46324326
1	3	5	58.4000000	8.53229160
2	1	5	48.4000000	6.76756973
2	2	5	61.2000000	7.32802838
2	3	5	56.2000000	8.04363102
3	1	5	60.2000000	7.32802838
3	2	5	60.8000000	6.30079360
3	3	5	49.6000000	4.50555213

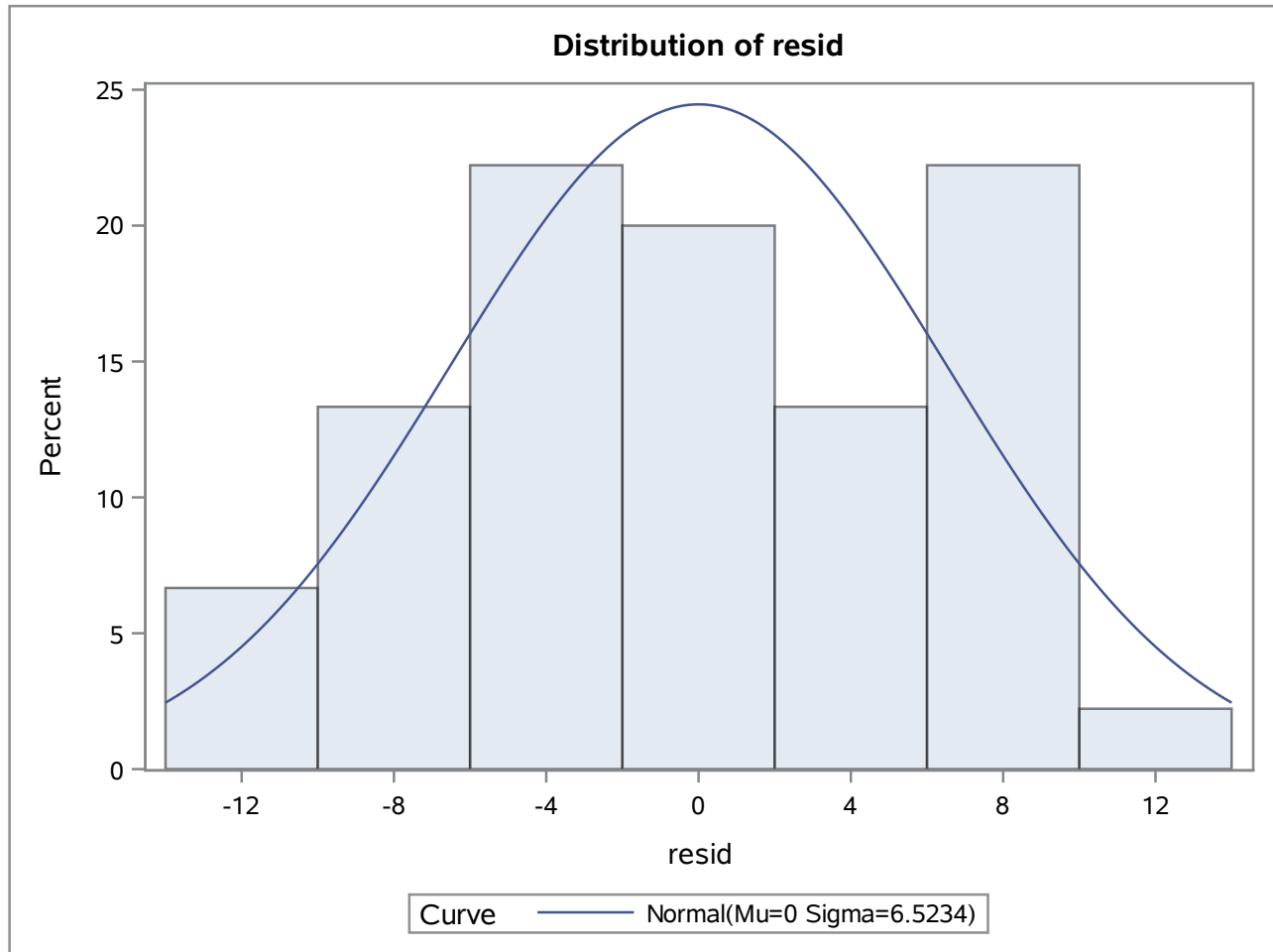
Obs	Time	Technician	Make	Job	resid	predict
1	62	1	1	1	2.2	59.8
2	48	1	1	2	-11.8	59.8
3	63	1	1	3	3.2	59.8
4	57	1	1	4	-2.8	59.8
5	69	1	1	5	9.2	59.8
6	57	1	2	1	9.2	47.8
7	45	1	2	2	-2.8	47.8
8	39	1	2	3	-8.8	47.8
9	54	1	2	4	6.2	47.8
10	44	1	2	5	-3.8	47.8
11	59	1	3	1	0.6	58.4
12	53	1	3	2	-5.4	58.4
13	67	1	3	3	8.6	58.4
14	66	1	3	4	7.6	58.4
15	47	1	3	5	-11.4	58.4
16	51	2	1	1	2.6	48.4
17	57	2	1	2	8.6	48.4
18	45	2	1	3	-3.4	48.4
19	50	2	1	4	1.6	48.4
20	39	2	1	5	-9.4	48.4
21	61	2	2	1	-0.2	61.2
22	58	2	2	2	-3.2	61.2
23	70	2	2	3	8.8	61.2
24	66	2	2	4	4.8	61.2
25	51	2	2	5	-10.2	61.2
26	55	2	3	1	-1.2	56.2
27	58	2	3	2	1.8	56.2
28	50	2	3	3	-6.2	56.2
29	69	2	3	4	12.8	56.2
30	49	2	3	5	-7.2	56.2
31	59	3	1	1	-1.2	60.2
32	65	3	1	2	4.8	60.2
33	55	3	1	3	-5.2	60.2
34	52	3	1	4	-8.2	60.2
35	70	3	1	5	9.8	60.2
36	58	3	2	1	-2.8	60.8
37	63	3	2	2	2.2	60.8
38	70	3	2	3	9.2	60.8

Obs	Time	Technician	Make	Job	resid	predict
39	53	3	2	4	-7.8	60.8
40	60	3	2	5	-0.8	60.8
41	47	3	3	1	-2.6	49.6
42	56	3	3	2	6.4	49.6
43	51	3	3	3	1.4	49.6
44	44	3	3	4	-5.6	49.6
45	50	3	3	5	0.4	49.6

Residual Plot



The UNIVARIATE Procedure



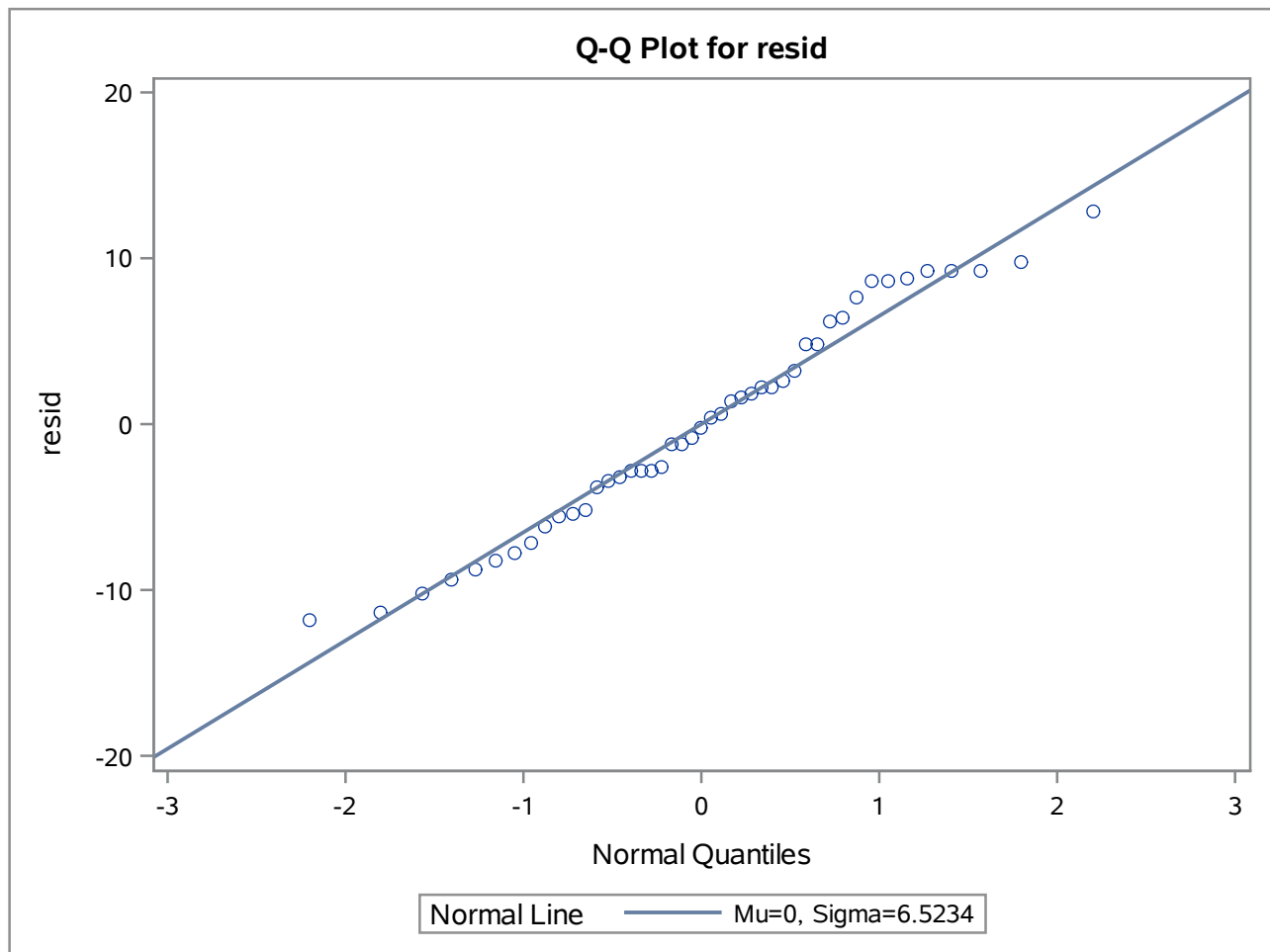
The UNIVARIATE Procedure
Fitted Normal Distribution for resid

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	0
Std Dev	Sigma	6.523385

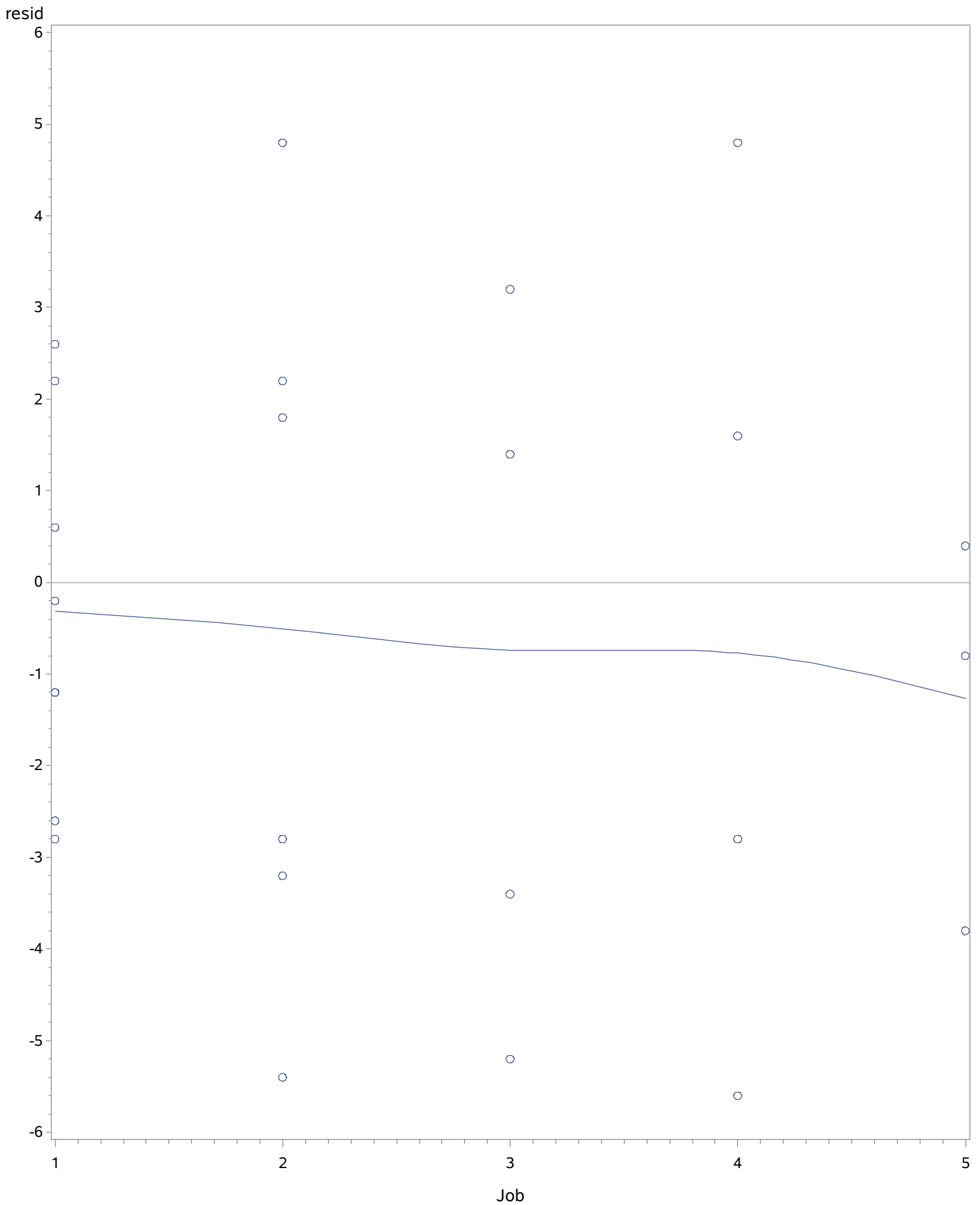
Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.08408186	Pr > D	>0.150
Cramer-von Mises	W-Sq	0.04490022	Pr > W-Sq	>0.250
Anderson-Darling	A-Sq	0.36836766	Pr > A-Sq	>0.250

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	-11.80000	-15.1757
5.0	-10.20000	-10.7300
10.0	-8.80000	-8.3601
25.0	-5.20000	-4.4000
50.0	-0.20000	0.0000
75.0	4.80000	4.4000
90.0	9.20000	8.3601
95.0	9.20000	10.7300
99.0	12.80000	15.1757

The UNIVARIATE Procedure



Plot of residuals vs oder



Plot of residuals vs oder

