

The UNIVARIATE Procedure
Variable: FVC_father

Moments			
N	150	Sum Weights	150
Mean	495.233333	Sum Observations	74285
Std Deviation	79.3669937	Variance	6299.11969
Skewness	0.05547745	Kurtosis	-0.5196152
Uncorrected SS	37726977	Corrected SS	938568.833
Coeff Variation	16.0261817	Std Error Mean	6.4802879

Basic Statistical Measures			
Location		Variability	
Mean	495.2333	Std Deviation	79.36699
Median	495.5000	Variance	6299
Mode	391.0000	Range	364.00000
		Interquartile Range	109.00000

Note: The mode displayed is the smallest of 7 modes with a count of 3.

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	76.4215	Pr > t 	<.0001
Sign	M	75	Pr >= M 	<.0001
Signed Rank	S	5662.5	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.990154	Pr < W	0.3789
Kolmogorov-Smirnov	D	0.050979	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.044678	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.321616	Pr > A-Sq	>0.2500

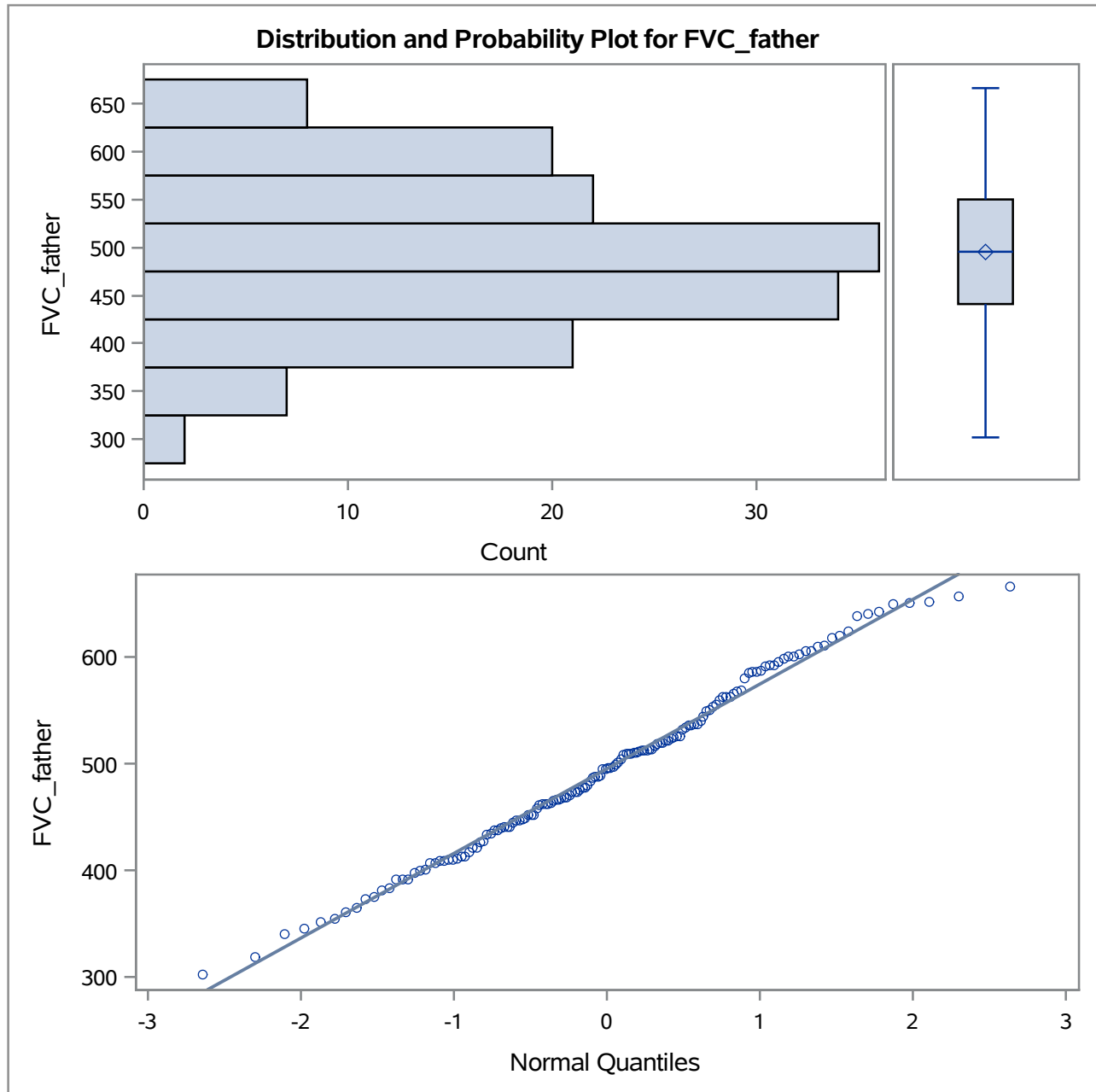
Quantiles (Definition 5)	
Level	Quantile
100% Max	666.0
99%	657.0
95%	638.0
90%	604.0
75% Q3	550.0
50% Median	495.5

The UNIVARIATE Procedure
Variable: FVC_father

Quantiles (Definition 5)	
Level	Quantile
25% Q1	441.0
10%	394.5
5%	365.0
1%	319.0
0% Min	302.0

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
302	40	650	110
319	80	651	21
340	75	652	102
345	7	657	74
351	150	666	50

The UNIVARIATE Procedure



The UNIVARIATE Procedure
Variable: Age_father

Moments			
N	150	Sum Weights	150
Mean	40.1333333	Sum Observations	6020
Std Deviation	6.88999534	Variance	47.4720358
Skewness	0.29431599	Kurtosis	-0.4385605
Uncorrected SS	248676	Corrected SS	7073.33333
Coeff Variation	17.1677625	Std Error Mean	0.56256576

Basic Statistical Measures			
Location		Variability	
Mean	40.13333	Std Deviation	6.89000
Median	40.00000	Variance	47.47204
Mode	40.00000	Range	33.00000
		Interquartile Range	10.00000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	71.33981	Pr > t 	<.0001
Sign	M	75	Pr >= M 	<.0001
Signed Rank	S	5662.5	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.982733	Pr < W	0.0569
Kolmogorov-Smirnov	D	0.06772	Pr > D	0.0905
Cramer-von Mises	W-Sq	0.094665	Pr > W-Sq	0.1347
Anderson-Darling	A-Sq	0.692127	Pr > A-Sq	0.0733

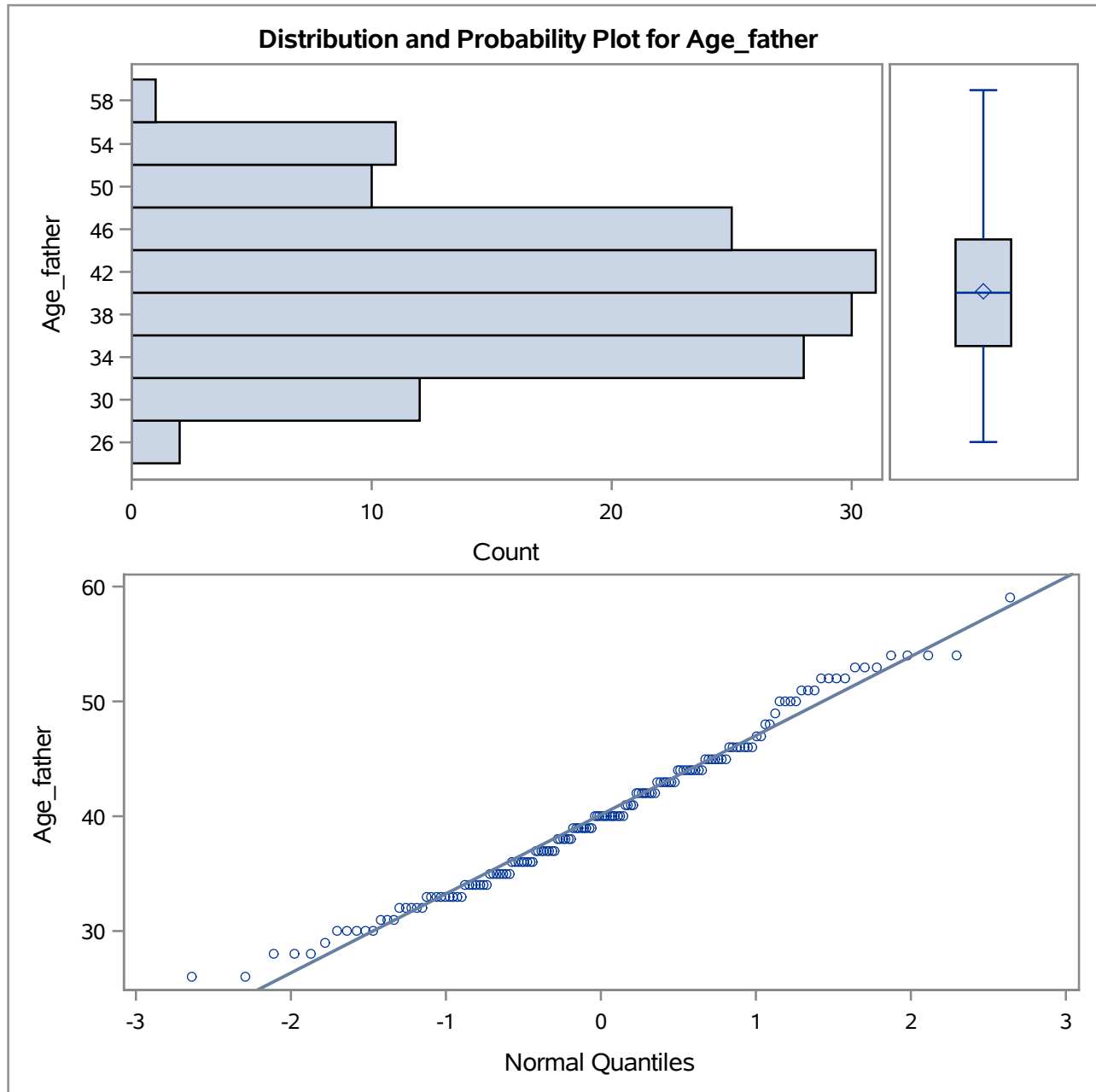
Quantiles (Definition 5)	
Level	Quantile
100% Max	59.0
99%	54.0
95%	53.0
90%	50.5
75% Q3	45.0
50% Median	40.0
25% Q1	35.0

The UNIVARIATE Procedure
Variable: Age_father

Quantiles (Definition 5)	
Level	Quantile
10%	32.0
5%	30.0
1%	26.0
0% Min	26.0

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
26	37	54	18
26	3	54	44
28	141	54	69
28	79	54	75
28	77	59	56

The UNIVARIATE Procedure



The UNIVARIATE Procedure
Variable: Height_father

Moments			
N	150	Sum Weights	150
Mean	69.26	Sum Observations	10389
Std Deviation	2.7791892	Variance	7.72389262
Skewness	-0.1873709	Kurtosis	0.14871474
Uncorrected SS	720693	Corrected SS	1150.86
Coeff Variation	4.01269016	Std Error Mean	0.22691985

Basic Statistical Measures			
Location		Variability	
Mean	69.26000	Std Deviation	2.77919
Median	69.00000	Variance	7.72389
Mode	69.00000	Range	15.00000
		Interquartile Range	4.00000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	305.2179	Pr > t 	<.0001
Sign	M	75	Pr >= M 	<.0001
Signed Rank	S	5662.5	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.983003	Pr < W	0.0611
Kolmogorov-Smirnov	D	0.077268	Pr > D	0.0267
Cramer-von Mises	W-Sq	0.160096	Pr > W-Sq	0.0187
Anderson-Darling	A-Sq	0.906506	Pr > A-Sq	0.0215

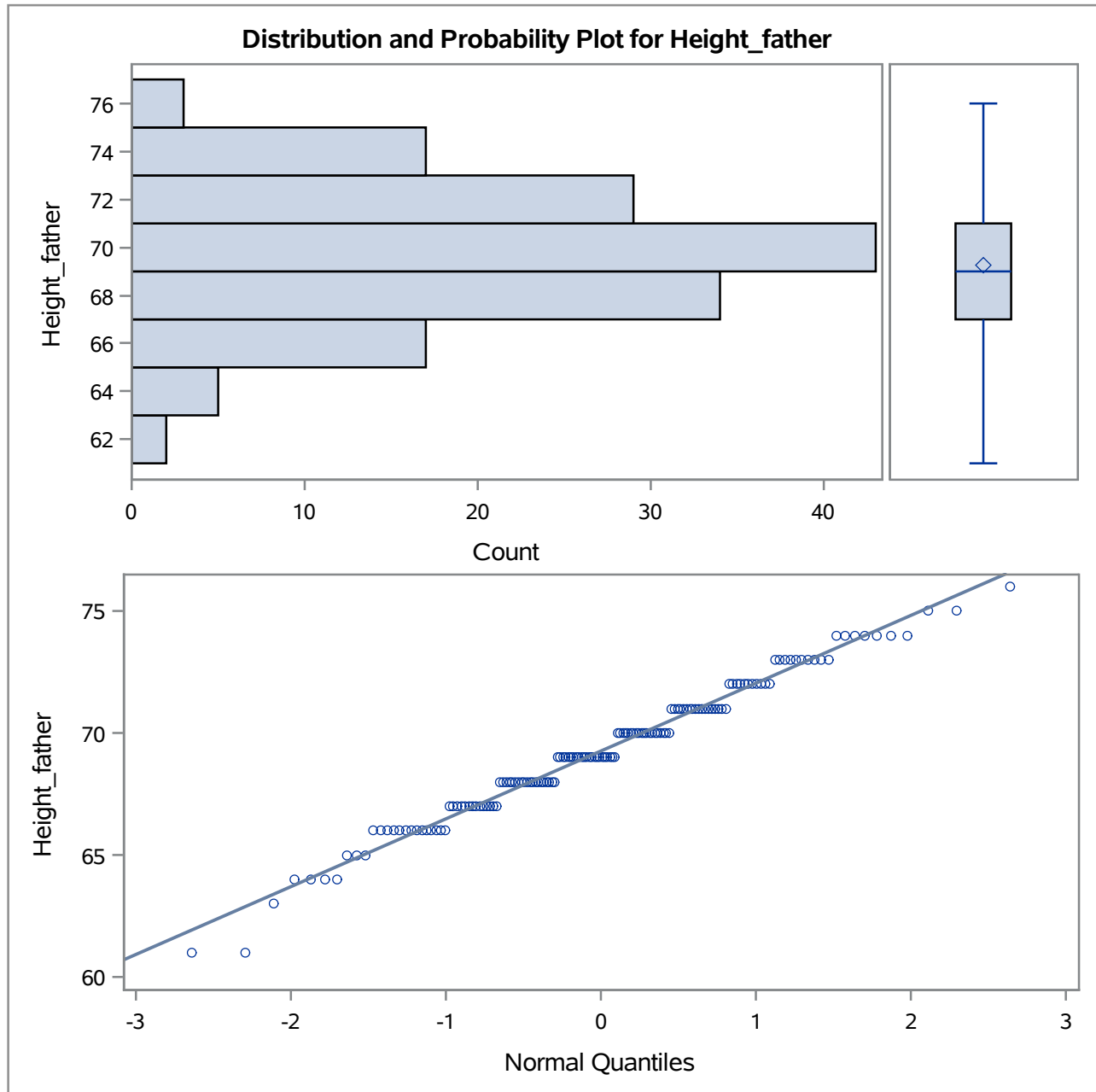
Quantiles (Definition 5)	
Level	Quantile
100% Max	76
99%	75
95%	74
90%	73
75% Q3	71
50% Median	69
25% Q1	67

The UNIVARIATE Procedure
Variable: Height_father

Quantiles (Definition 5)	
Level	Quantile
10%	66
5%	65
1%	61
0% Min	61

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
61	5	74	101
61	1	74	140
63	97	75	50
64	150	75	130
64	132	76	105

The UNIVARIATE Procedure



Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset

The REG Procedure
 Model: MODEL1
 Dependent Variable: FVC_father

Number of Observations Read	150
Number of Observations Used	150

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	338165	169083	41.40	<.0001
Error	147	600404	4084.37907		
Corrected Total	149	938569			

Root MSE	63.90915	R-Square	0.3603
Dependent Mean	495.23333	Adj R-Sq	0.3516
Coeff Var	12.90486		

Parameter Estimates							
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Standardized Estimate	Variance Inflation
Intercept	1	-453.92042	135.96546	-3.34	0.0011	0	0
Age_father	1	-2.77879	0.76109	-3.65	0.0004	-0.24123	1.00316
Height_father	1	15.31441	1.88685	8.12	<.0001	0.53626	1.00316

Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset

The REG Procedure
Model: MODEL1
Dependent Variable: FVC_father

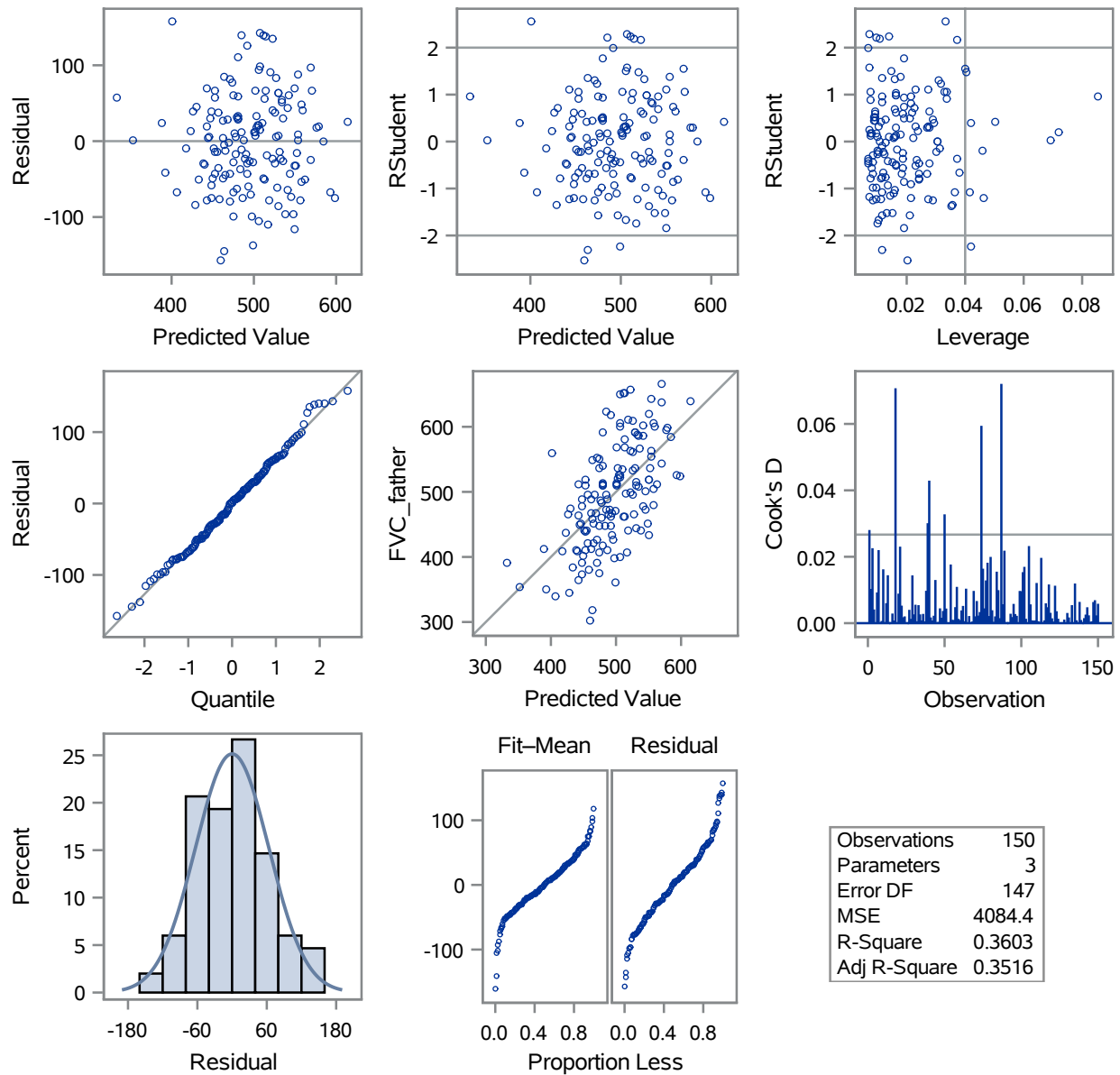
Durbin-Watson D	2.056
Pr < DW	0.6373
Pr > DW	0.3627
Number of Observations	150
1st Order Autocorrelation	-0.032

Note: Pr<DW is the p-value for testing positive autocorrelation, and Pr>DW is the p-value for testing negative autocorrelation.

Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset

The REG Procedure
Model: MODEL1
Dependent Variable: FVC_father

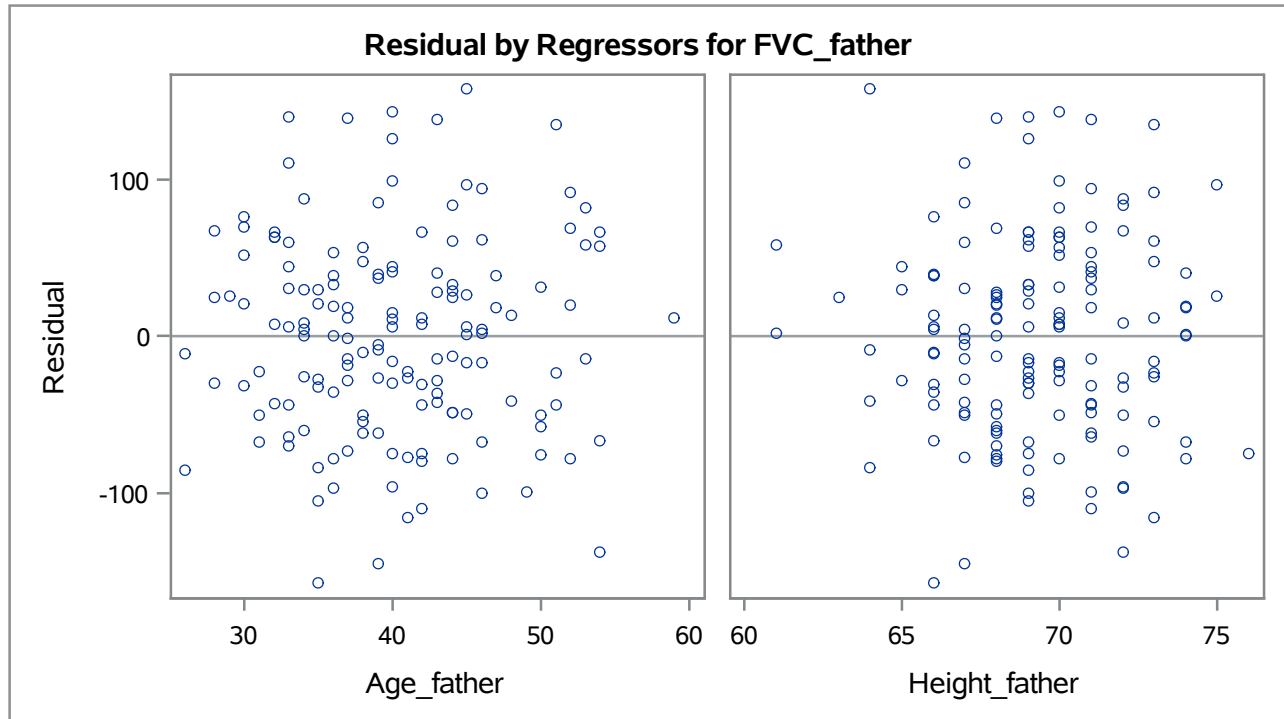
Fit Diagnostics for FVC_father



Observations	150
Parameters	3
Error DF	147
MSE	4084.4
R-Square	0.3603
Adj R-Square	0.3516

Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset

The REG Procedure
Model: MODEL1
Dependent Variable: FVC_father



Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset

The UNIVARIATE Procedure
Variable: Res (Residual)

Moments			
N	150	Sum Weights	150
Mean	0	Sum Observations	0
Std Deviation	63.4787775	Variance	4029.55519
Skewness	0.13456441	Kurtosis	-0.2055406
Uncorrected SS	600403.723	Corrected SS	600403.723
Coeff Variation	.	Std Error Mean	5.18302048

Basic Statistical Measures			
Location		Variability	
Mean	0.00000	Std Deviation	63.47878
Median	1.13286	Variance	4030
Mode	62.83319	Range	315.41670
		Interquartile Range	84.27263

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	0	Pr > t 	1.0000
Sign	M	3	Pr >= M 	0.6832
Signed Rank	S	-95.5	Pr >= S 	0.8585

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.993373	Pr < W	0.7222
Kolmogorov-Smirnov	D	0.033856	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.024238	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.204971	Pr > A-Sq	>0.2500

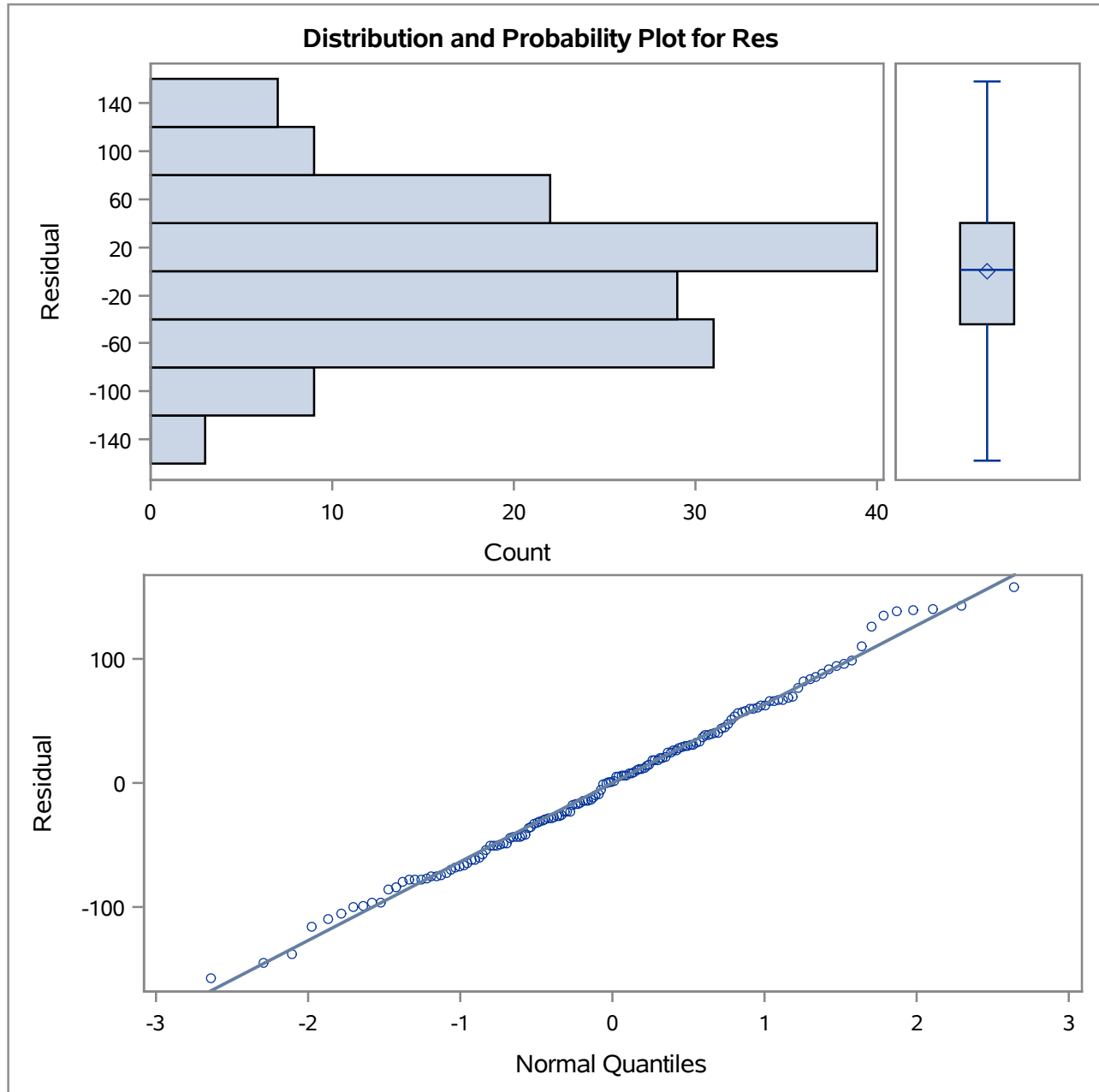
Quantiles (Definition 5)	
Level	Quantile
100% Max	157.84388
99%	143.06350
95%	110.55520
90%	82.86880
75% Q3	40.14224
50% Median	1.13286

Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset

The UNIVARIATE Procedure Variable: Res (Residual)

Quantiles (Definition 5)	
Level	Quantile
25% Q1	-44.13039
10%	-78.00694
5%	-99.24181
1%	-144.77207
0% Min	-157.57282

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-157.573	40	138.085	102
-144.772	80	139.356	84
-137.662	18	139.926	21
-116.101	89	143.064	110
-109.693	85	157.844	87

Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset**The UNIVARIATE Procedure**

Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset

The UNIVARIATE Procedure
Variable: rstudent (Studentized Residual without Current Obs)

Moments			
N	150	Sum Weights	150
Mean	0.00083137	Sum Observations	0.12470478
Std Deviation	1.00959217	Variance	1.01927635
Skewness	0.13709039	Kurtosis	-0.1547453
Uncorrected SS	151.872279	Corrected SS	151.872176
Coeff Variation	121437.867	Std Error Mean	0.08243286

Basic Statistical Measures			
Location		Variability	
Mean	0.000831	Std Deviation	1.00959
Median	0.018196	Variance	1.01928
Mode	0.991211	Range	5.09538
		Interquartile Range	1.33355

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	0.010085	Pr > t 	0.9920
Sign	M	3	Pr >= M 	0.6832
Signed Rank	S	-92.5	Pr >= S 	0.8629

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.993575	Pr < W	0.7452
Kolmogorov-Smirnov	D	0.032158	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.023397	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.203789	Pr > A-Sq	>0.2500

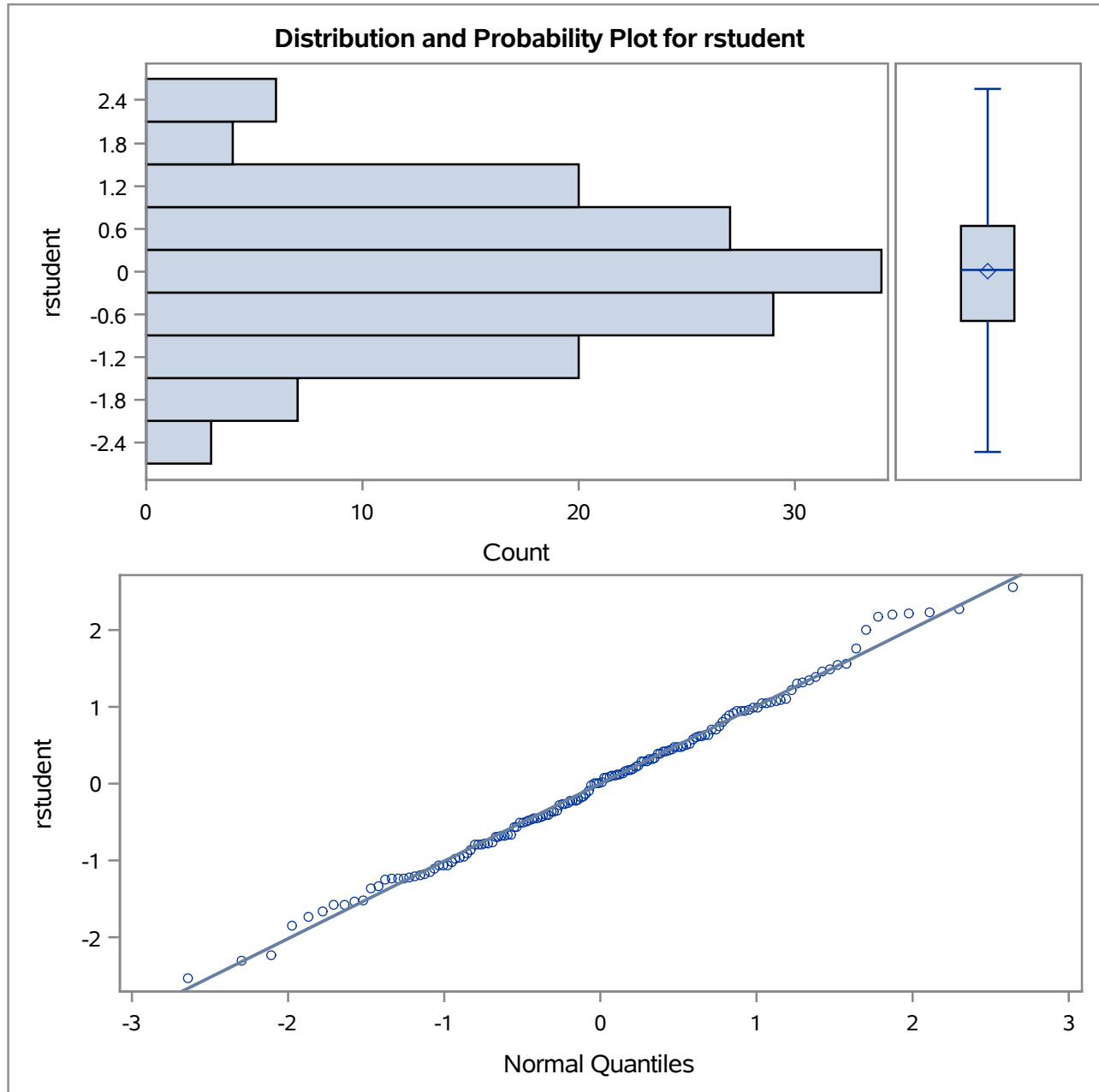
Quantiles (Definition 5)	
Level	Quantile
100% Max	2.558730
99%	2.278383
95%	1.758922
90%	1.315334
75% Q3	0.635789
50% Median	0.018196

Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset

The UNIVARIATE Procedure
Variable: rstudent (Studentized Residual without Current Obs)

Quantiles (Definition 5)	
Level	Quantile
25% Q1	-0.697758
10%	-1.234229
5%	-1.577400
1%	-2.311724
0% Min	-2.536653

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
-2.53665	40	2.20048	102
-2.31172	80	2.22016	84
-2.23027	18	2.23472	21
-1.84929	89	2.27838	110
-1.73677	85	2.55873	87

Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset**The UNIVARIATE Procedure**

Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset

The REG Procedure
 Model: MODEL1
 Dependent Variable: FEV1_father

Number of Observations Read	150
Number of Observations Used	150

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	175231	87615	28.26	<.0001
Error	147	455752	3100.35477		
Corrected Total	149	630983			

Root MSE	55.68083	R-Square	0.2777
Dependent Mean	409.32667	Adj R-Sq	0.2679
Coeff Var	13.60303		

Parameter Estimates							
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t	Standardized Estimate	Variance Inflation
Intercept	1	-471.35636	117.35507	-4.02	<.0001	0	0
Weight_father	1	-0.48584	0.22313	-2.18	0.0310	-0.17884	1.37290
Height_father	1	13.99289	1.92315	7.28	<.0001	0.59760	1.37290

Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset

The REG Procedure
Model: MODEL1
Dependent Variable: FEV1_father

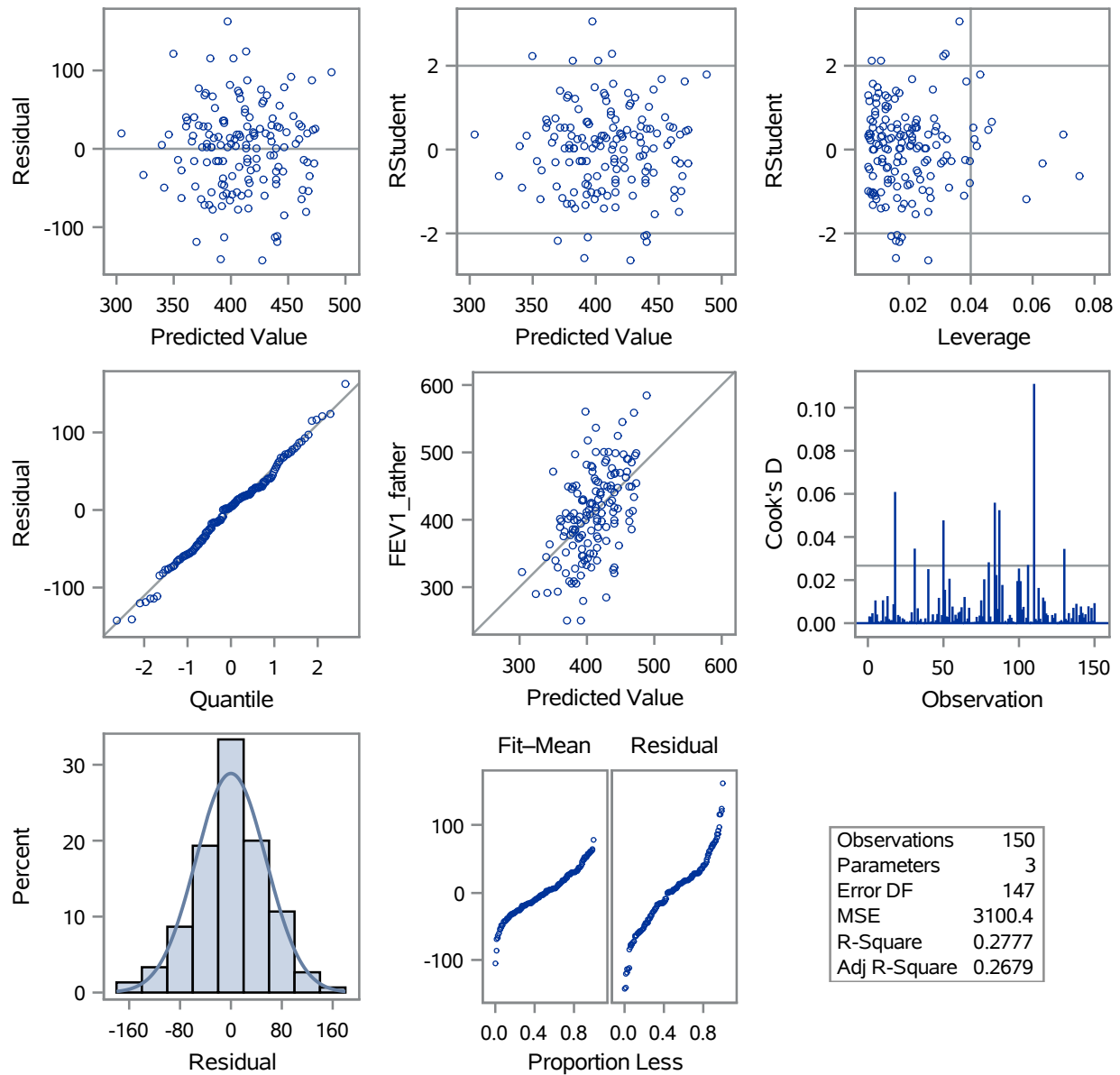
Durbin-Watson D	1.915
Pr < DW	0.3007
Pr > DW	0.6993
Number of Observations	150
1st Order Autocorrelation	0.039

Note: Pr<DW is the p-value for testing positive autocorrelation, and Pr>DW is the p-value for testing negative autocorrelation.

Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset

The REG Procedure
Model: MODEL1
Dependent Variable: FEV1_father

Fit Diagnostics for FEV1_father



Multiple Regression FVC_father vs. Age_Father Height_father : Lung dataset

The REG Procedure
Model: MODEL1
Dependent Variable: FEV1_father

