

The REG Procedure
 Model: MODEL1
 Dependent Variable: Crew

Number of Observations Read	158
Number of Observations Used	158

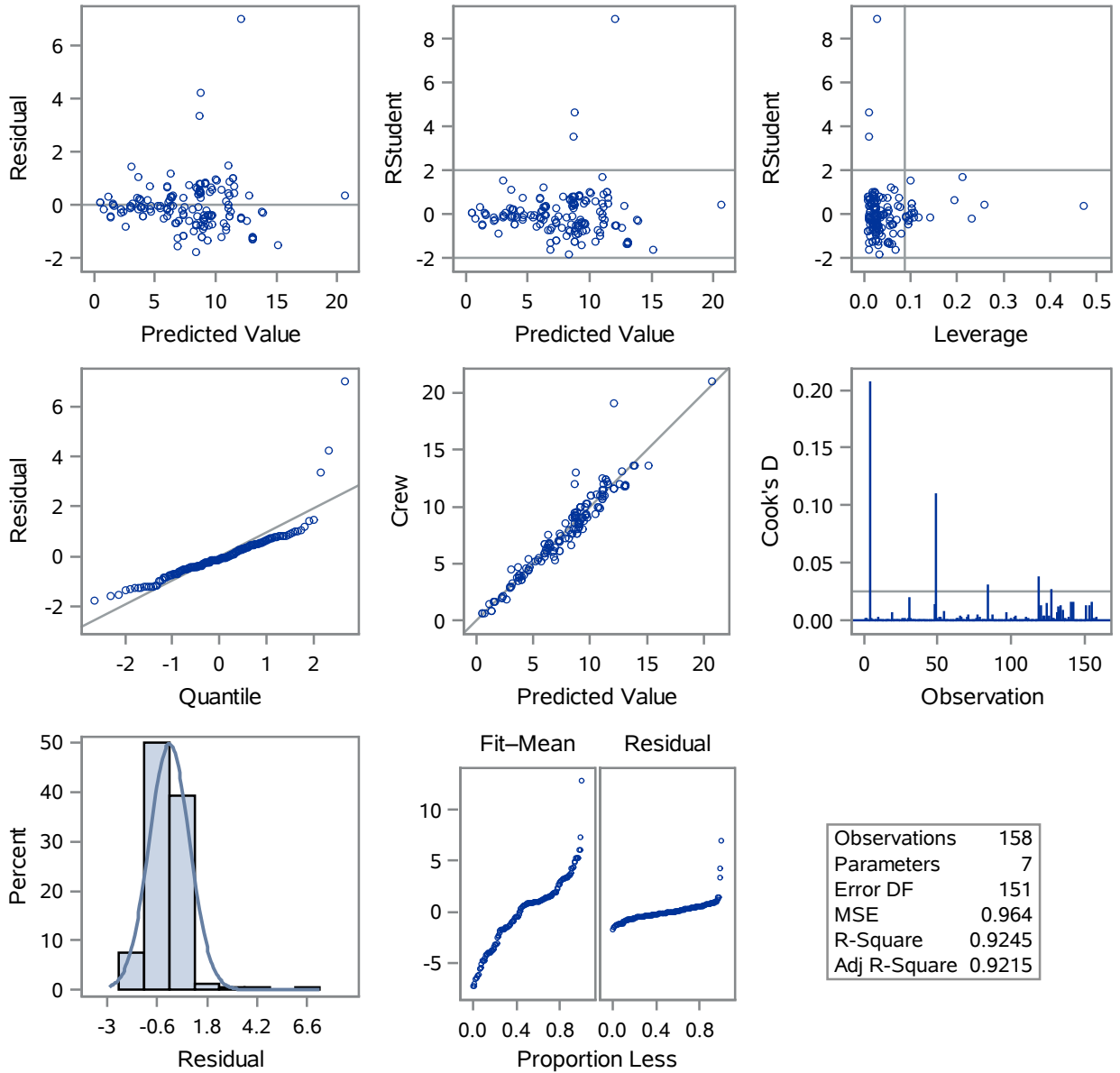
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	1781.51273	296.91879	307.99	<.0001
Error	151	145.57091	0.96405		
Corrected Total	157	1927.08364			

Root MSE	0.98186	R-Square	0.9245
Dependent Mean	7.79418	Adj R-Sq	0.9215
Coeff Var	12.59733		

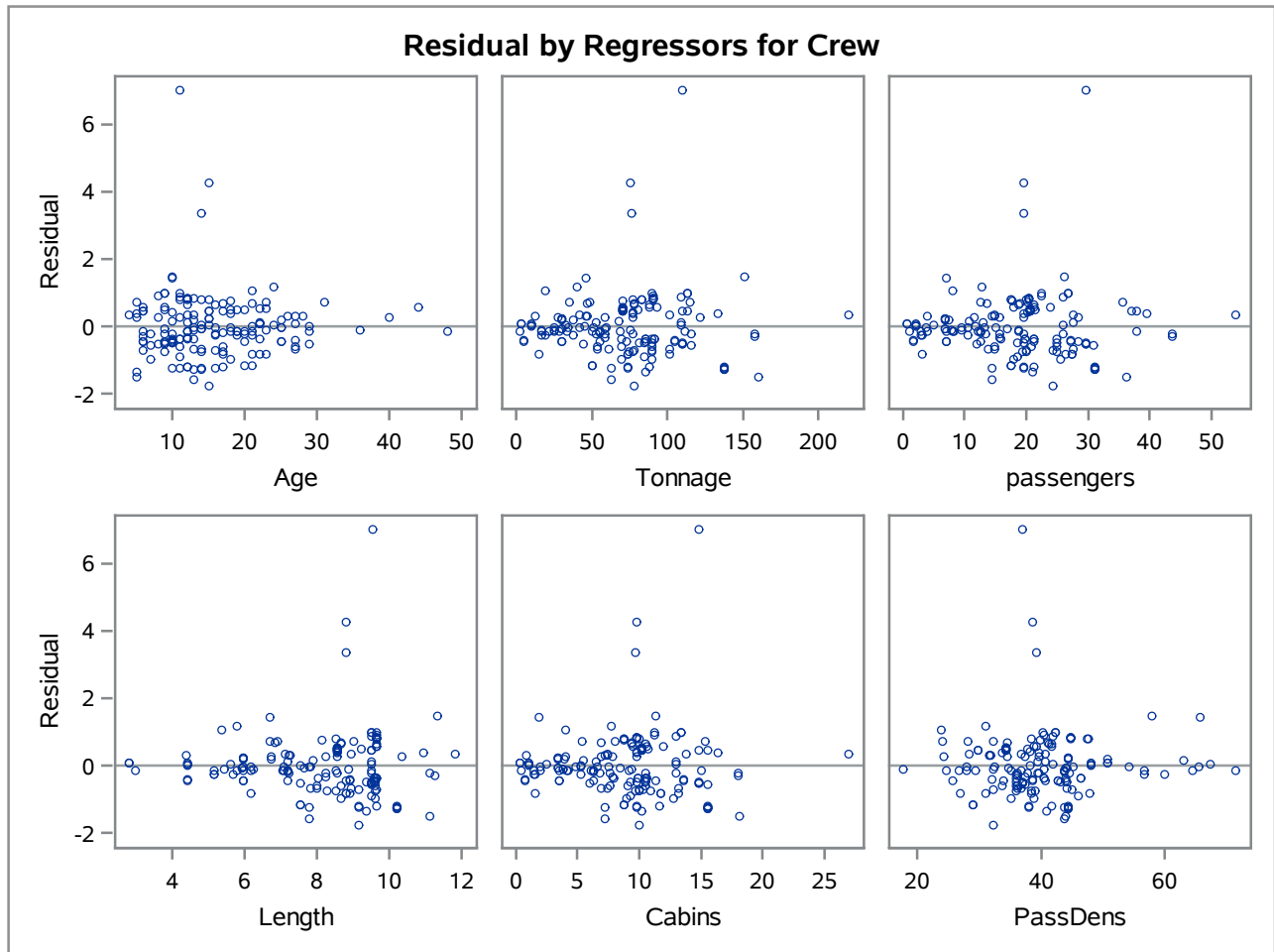
Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > t
Intercept	1	-0.52134	1.05703	-0.49	0.6226
Age	1	-0.01254	0.01420	-0.88	0.3783
Tonnage	1	0.01324	0.01189	1.11	0.2673
passengers	1	-0.14976	0.04759	-3.15	0.0020
Length	1	0.40348	0.11445	3.53	0.0006
Cabins	1	0.80163	0.08922	8.98	<.0001
PassDens	1	-0.00065774	0.01581	-0.04	0.9669

The REG Procedure
Model: MODEL1
Dependent Variable: Crew

Fit Diagnostics for Crew



The REG Procedure
Model: MODEL1
Dependent Variable: Crew



The REG Procedure
 Model: MODEL2
 Dependent Variable: Crew

Number of Observations Read	158
Number of Observations Used	158

Forward Selection: Step 1

Variable Cabins Entered: R-Square = 0.9041 and C(p) = 37.7724

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	1742.20623	1742.20623	1470.08	<.0001
Error	156	184.87741	1.18511		
Corrected Total	157	1927.08364			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	1.21585	0.19219	47.42985	40.02	<.0001
Cabins	0.74500	0.01943	1742.20623	1470.08	<.0001

Bounds on condition number: 1, 1

Forward Selection: Step 2

Variable Length Entered: R-Square = 0.9160 and C(p) = 15.9524

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	1765.16987	882.58494	844.90	<.0001
Error	155	161.91377	1.04460		
Corrected Total	157	1927.08364			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-1.11083	0.52803	4.62312	4.43	0.0370
Length	0.46728	0.09966	22.96364	21.98	<.0001
Cabins	0.57823	0.03997	218.57136	209.24	<.0001

Bounds on condition number: 4.8017, 19.207

The REG Procedure
Model: MODEL2
Dependent Variable: Crew

Forward Selection: Step 3

Variable passengers Entered: R-Square = 0.9220 and C(p) = 5.8566

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1776.83077	592.27692	607.05	<.0001
Error	154	150.25287	0.97567		
Corrected Total	157	1927.08364			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-1.38854	0.51659	7.04897	7.22	0.0080
passengers	-0.13173	0.03810	11.66090	11.95	0.0007
Length	0.51775	0.09742	27.55895	28.25	<.0001
Cabins	0.83856	0.08463	95.78071	98.17	<.0001

Bounds on condition number: 23.045, 149.51

Forward Selection: Step 4

Variable Tonnage Entered: R-Square = 0.9240 and C(p) = 3.8468

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	1780.69639	445.17410	465.28	<.0001
Error	153	146.38725	0.95678		
Corrected Total	157	1927.08364			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-0.81871	0.58487	1.87482	1.96	0.1636
Tonnage	0.01632	0.00812	3.86562	4.04	0.0462
passengers	-0.14985	0.03879	14.27515	14.92	0.0002
Length	0.39755	0.11350	11.73877	12.27	0.0006
Cabins	0.79084	0.08711	78.86111	82.42	<.0001

Bounds on condition number: 24.894, 279.25

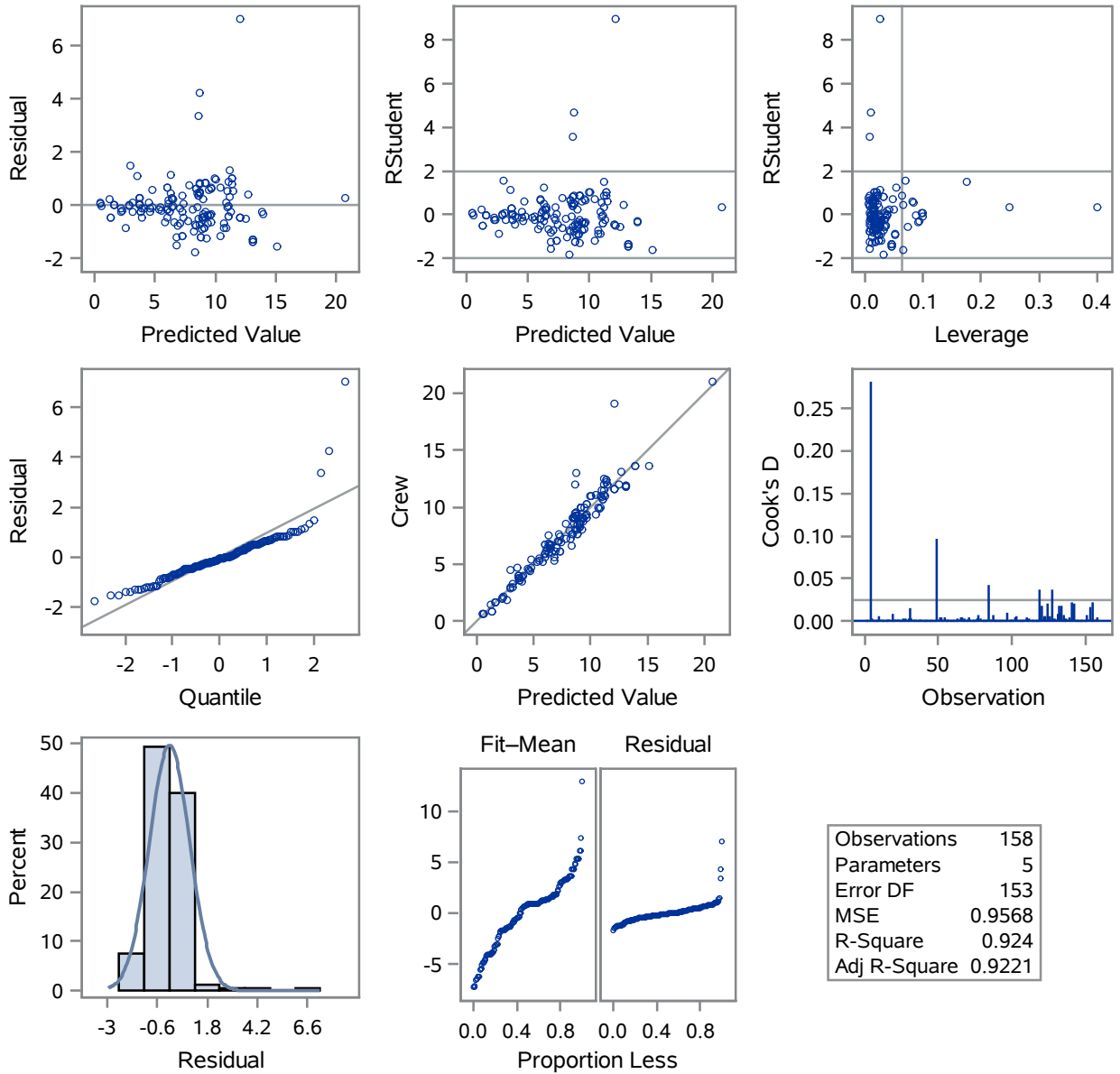
No other variable met the 0.1500 significance level for entry into the model.

The REG Procedure
Model: MODEL2
Dependent Variable: Crew

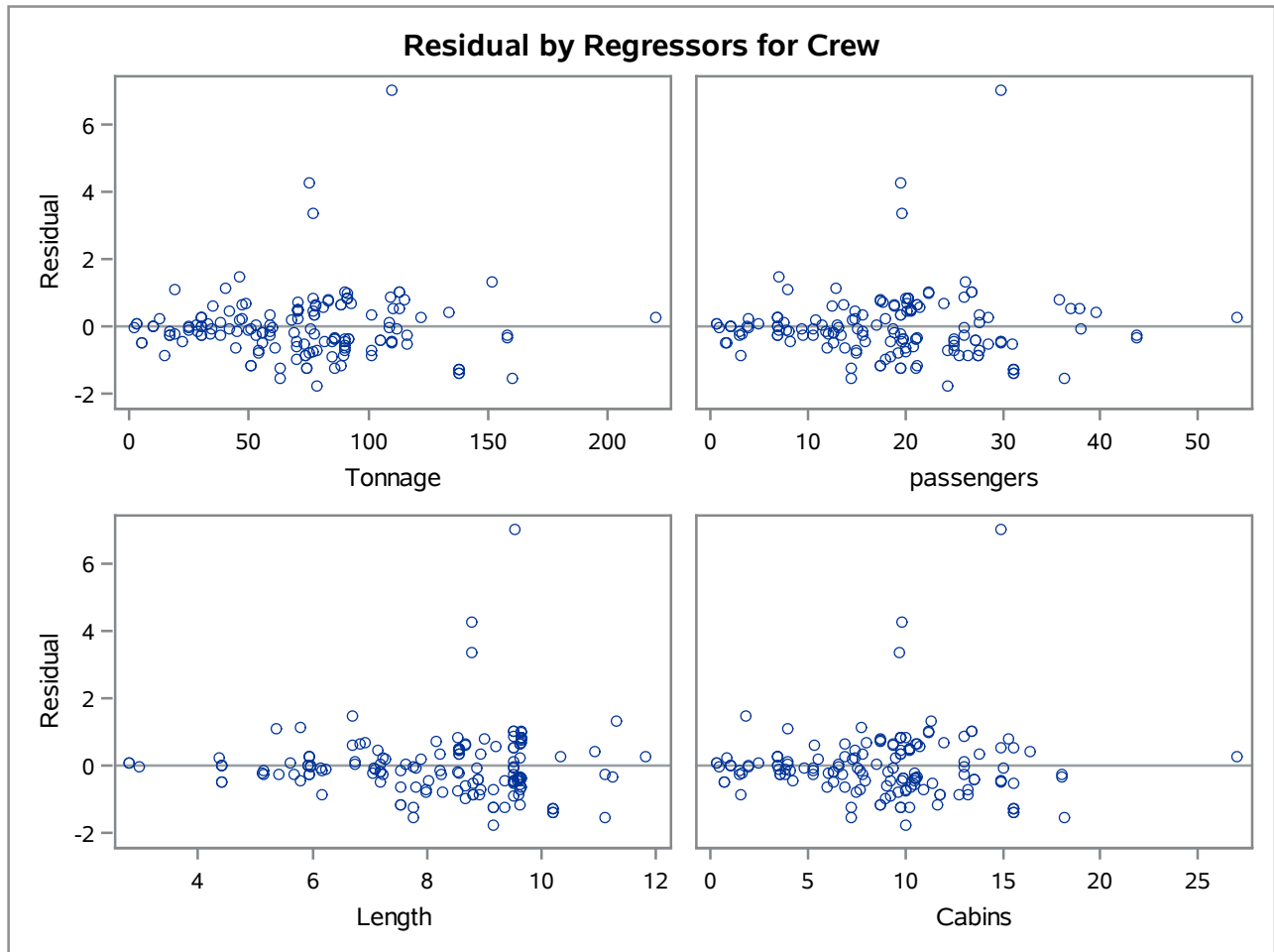
Summary of Forward Selection							
Step	Variable Entered	Number Vars In	Partial R-Square	Model R-Square	C(p)	F Value	Pr > F
1	Cabins	1	0.9041	0.9041	37.7724	1470.08	<.0001
2	Length	2	0.0119	0.9160	15.9524	21.98	<.0001
3	passengers	3	0.0061	0.9220	5.8566	11.95	0.0007
4	Tonnage	4	0.0020	0.9240	3.8468	4.04	0.0462

The REG Procedure
Model: MODEL2
Dependent Variable: Crew

Fit Diagnostics for Crew



The REG Procedure
Model: MODEL2
Dependent Variable: Crew



The REG Procedure
 Model: MODEL3
 Dependent Variable: Crew

Number of Observations Read	158
Number of Observations Used	158

Backward Elimination: Step 0

All Variables Entered: R-Square = 0.9245 and C(p) = 7.0000

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	1781.51273	296.91879	307.99	<.0001
Error	151	145.57091	0.96405		
Corrected Total	157	1927.08364			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-0.52134	1.05703	0.23451	0.24	0.6226
Age	-0.01254	0.01420	0.75267	0.78	0.3783
Tonnage	0.01324	0.01189	1.19502	1.24	0.2673
passengers	-0.14976	0.04759	9.54788	9.90	0.0020
Length	0.40348	0.11445	11.98038	12.43	0.0006
Cabins	0.80163	0.08922	77.82131	80.72	<.0001
PassDens	-0.00065774	0.01581	0.00167	0.00	0.9669

Bounds on condition number: 34.538, 625.13

Backward Elimination: Step 1

Variable PassDens Removed: R-Square = 0.9245 and C(p) = 5.0017

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	1781.51106	356.30221	372.03	<.0001
Error	152	145.57258	0.95771		
Corrected Total	157	1927.08364			

The REG Procedure
 Model: MODEL3
 Dependent Variable: Crew

Backward Elimination: Step 1

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-0.55592	0.65083	0.69875	0.73	0.3944
Age	-0.01235	0.01340	0.81467	0.85	0.3578
Tonnage	0.01292	0.00892	2.00698	2.10	0.1498
passengers	-0.14863	0.03884	14.02657	14.65	0.0002
Length	0.40384	0.11376	12.06921	12.60	0.0005
Cabins	0.80217	0.08801	79.55636	83.07	<.0001

Bounds on condition number: 25.389, 375.79

Backward Elimination: Step 2

Variable Age Removed: R-Square = 0.9240 and C(p) = 3.8468

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	1780.69639	445.17410	465.28	<.0001
Error	153	146.38725	0.95678		
Corrected Total	157	1927.08364			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-0.81871	0.58487	1.87482	1.96	0.1636
Tonnage	0.01632	0.00812	3.86562	4.04	0.0462
passengers	-0.14985	0.03879	14.27515	14.92	0.0002
Length	0.39755	0.11350	11.73877	12.27	0.0006
Cabins	0.79084	0.08711	78.86111	82.42	<.0001

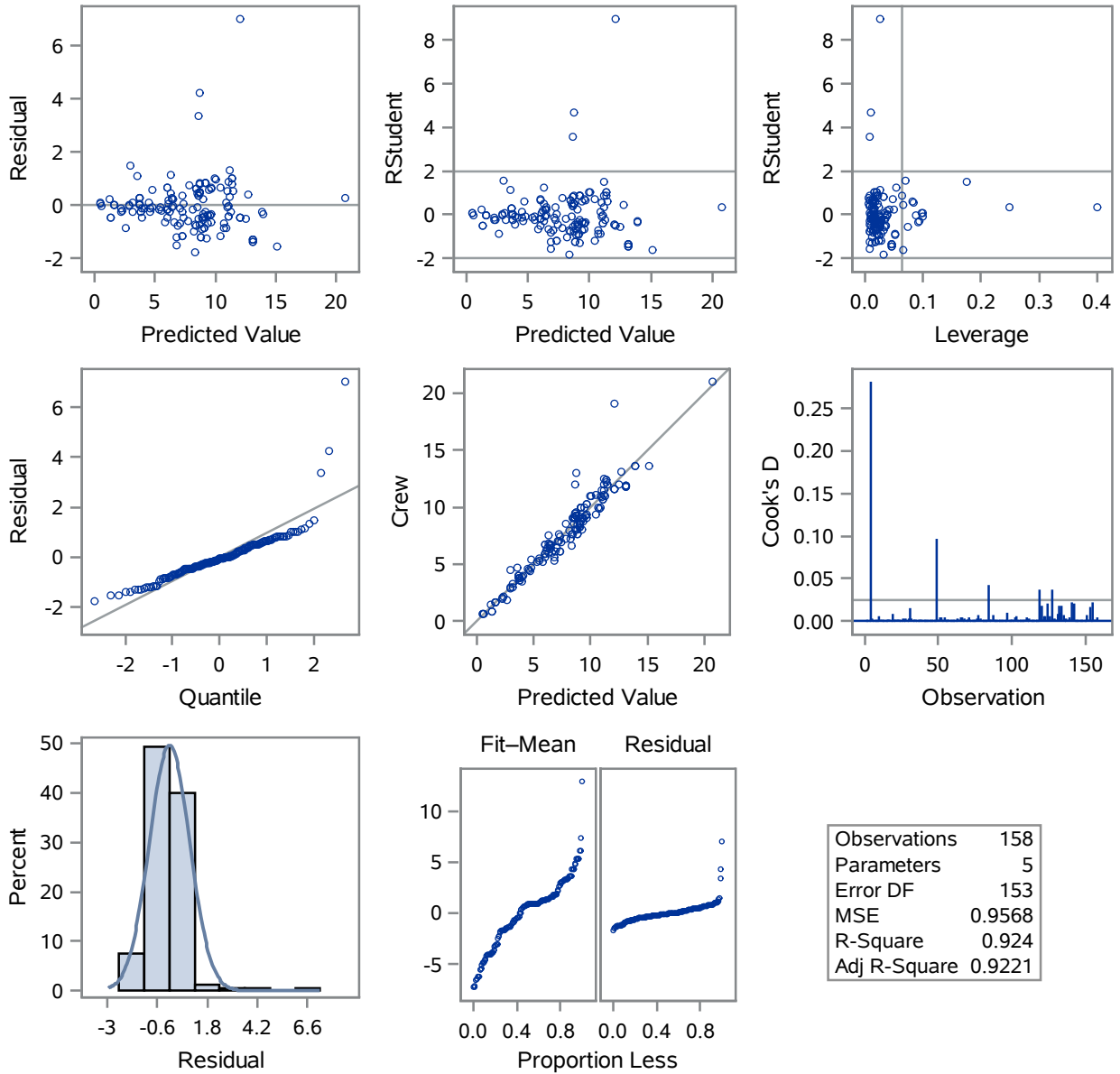
Bounds on condition number: 24.894, 279.25

All variables left in the model are significant at the 0.1500 level.

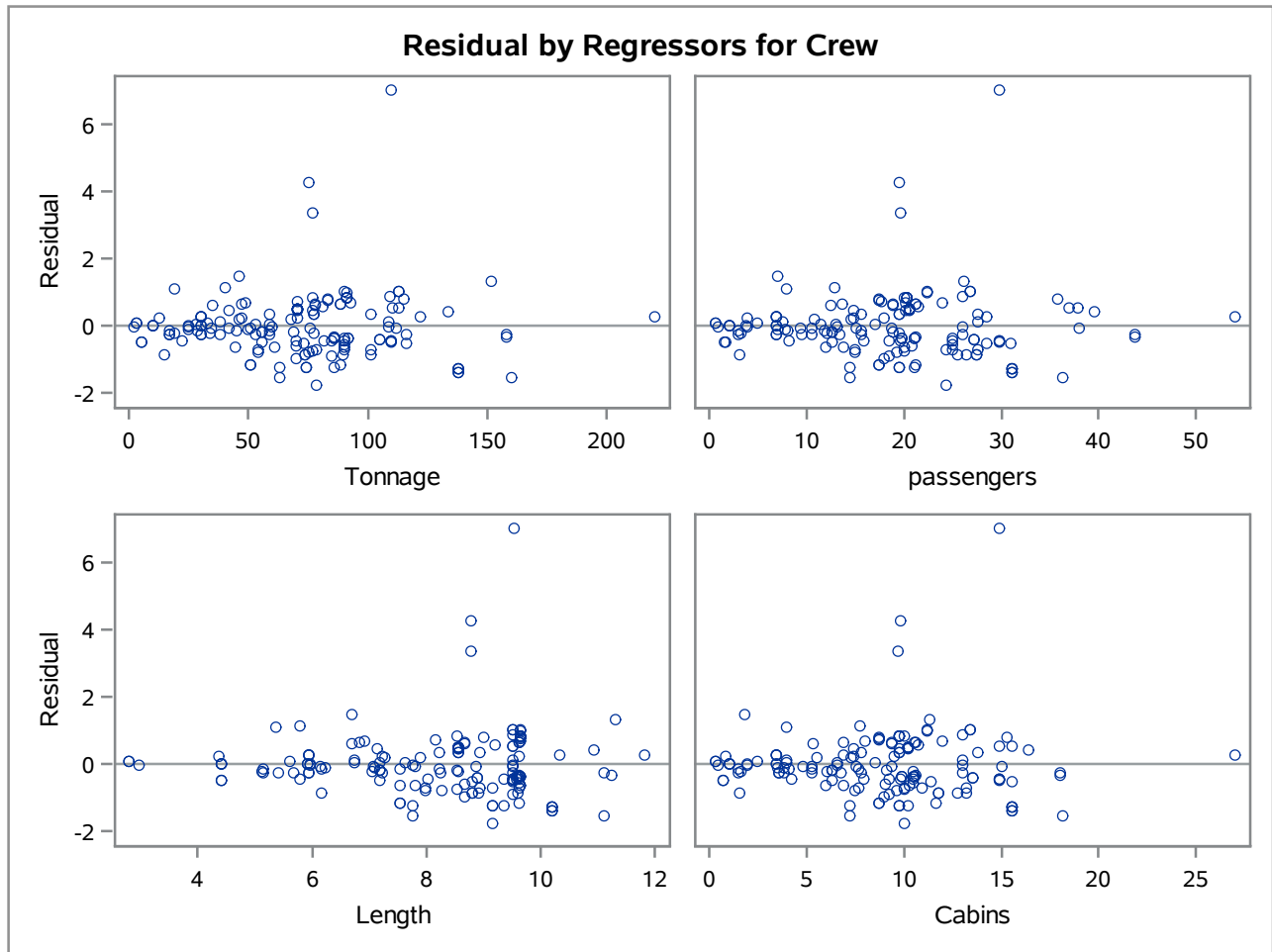
Summary of Backward Elimination							
Step	Variable Removed	Number Vars In	Partial R-Square	Model R-Square	C(p)	F Value	Pr > F
1	PassDens	5	0.0000	0.9245	5.0017	0.00	0.9669
2	Age	4	0.0004	0.9240	3.8468	0.85	0.3578

The REG Procedure
Model: MODEL3
Dependent Variable: Crew

Fit Diagnostics for Crew



The REG Procedure
Model: MODEL3
Dependent Variable: Crew



The REG Procedure
 Model: MODEL4
 Dependent Variable: Crew

Number of Observations Read	158
Number of Observations Used	158

Stepwise Selection: Step 1

Variable Cabins Entered: R-Square = 0.9041 and C(p) = 37.7724

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	1742.20623	1742.20623	1470.08	<.0001
Error	156	184.87741	1.18511		
Corrected Total	157	1927.08364			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	1.21585	0.19219	47.42985	40.02	<.0001
Cabins	0.74500	0.01943	1742.20623	1470.08	<.0001

Bounds on condition number: 1, 1

Stepwise Selection: Step 2

Variable Length Entered: R-Square = 0.9160 and C(p) = 15.9524

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	1765.16987	882.58494	844.90	<.0001
Error	155	161.91377	1.04460		
Corrected Total	157	1927.08364			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-1.11083	0.52803	4.62312	4.43	0.0370
Length	0.46728	0.09966	22.96364	21.98	<.0001
Cabins	0.57823	0.03997	218.57136	209.24	<.0001

Bounds on condition number: 4.8017, 19.207

The REG Procedure
Model: MODEL4
Dependent Variable: Crew

Stepwise Selection: Step 3

Variable passengers Entered: R-Square = 0.9220 and C(p) = 5.8566

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1776.83077	592.27692	607.05	<.0001
Error	154	150.25287	0.97567		
Corrected Total	157	1927.08364			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-1.38854	0.51659	7.04897	7.22	0.0080
passengers	-0.13173	0.03810	11.66090	11.95	0.0007
Length	0.51775	0.09742	27.55895	28.25	<.0001
Cabins	0.83856	0.08463	95.78071	98.17	<.0001

Bounds on condition number: 23.045, 149.51

Stepwise Selection: Step 4

Variable Tonnage Entered: R-Square = 0.9240 and C(p) = 3.8468

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	1780.69639	445.17410	465.28	<.0001
Error	153	146.38725	0.95678		
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Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	-0.81871	0.58487	1.87482	1.96	0.1636
Tonnage	0.01632	0.00812	3.86562	4.04	0.0462
passengers	-0.14985	0.03879	14.27515	14.92	0.0002
Length	0.39755	0.11350	11.73877	12.27	0.0006
Cabins	0.79084	0.08711	78.86111	82.42	<.0001

Bounds on condition number: 24.894, 279.25

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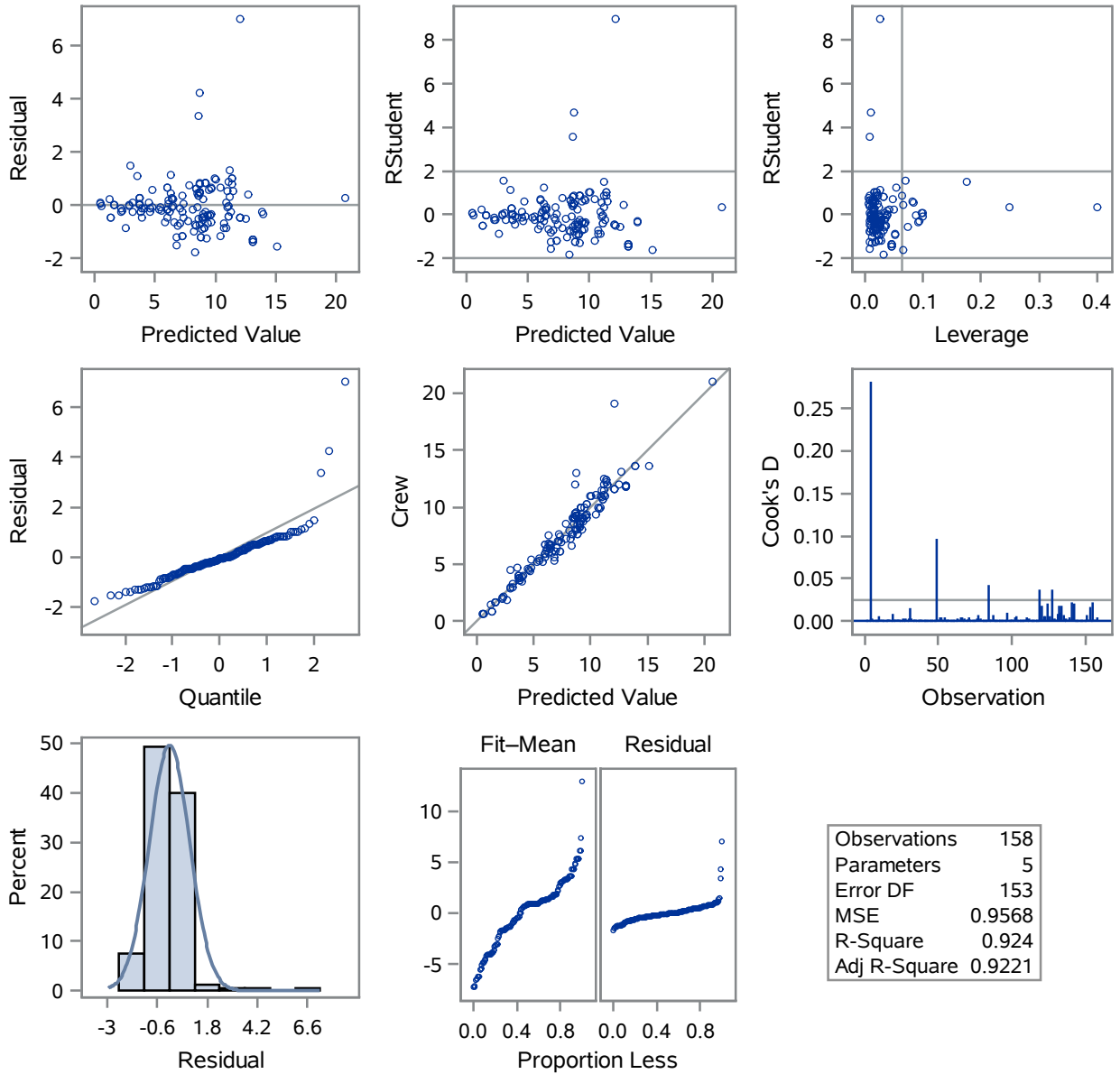
No other variable met the 0.1500 significance level for entry into the model.

The REG Procedure
Model: MODEL4
Dependent Variable: Crew

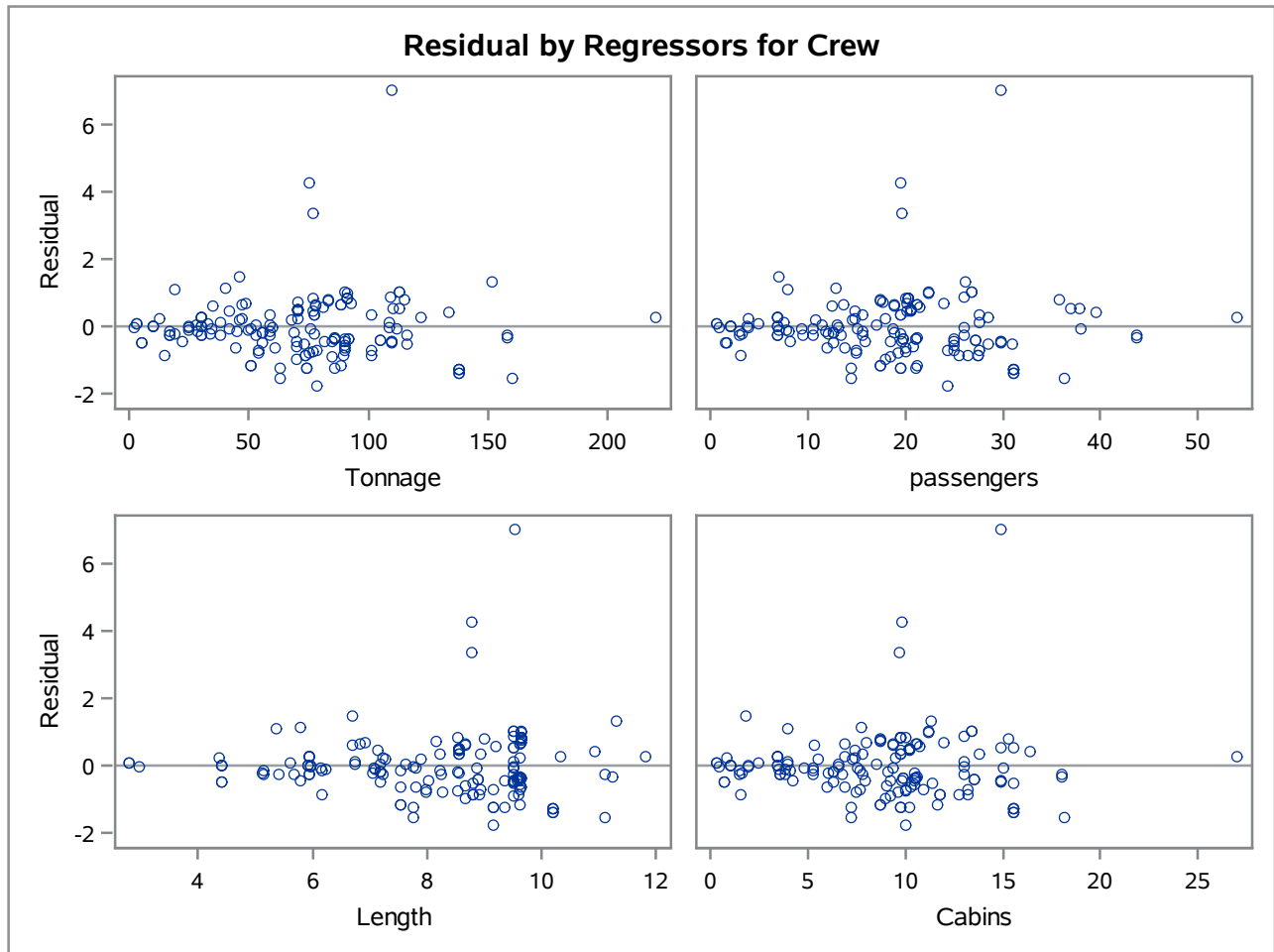
Summary of Stepwise Selection								
Step	Variable Entered	Variable Removed	Number Vars In	Partial R-Square	Model R-Square	C(p)	F Value	Pr > F
1	Cabins		1	0.9041	0.9041	37.7724	1470.08	<.0001
2	Length		2	0.0119	0.9160	15.9524	21.98	<.0001
3	passengers		3	0.0061	0.9220	5.8566	11.95	0.0007
4	Tonnage		4	0.0020	0.9240	3.8468	4.04	0.0462

The REG Procedure
Model: MODEL4
Dependent Variable: Crew

Fit Diagnostics for Crew



The REG Procedure
Model: MODEL4
Dependent Variable: Crew



The REG Procedure
 Model: MODEL5
 Dependent Variable: Crew

Adjusted R-Square Selection Method

Number of Observations Read	158
Number of Observations Used	158

Number in Model	Adjusted R-Square	R-Square	C(p)	AIC	BIC	Variables in Model
4	0.9221	0.9240	3.8468	-2.0616	0.3403	Tonnage passengers Length Cabins
5	0.9220	0.9245	5.0017	-0.9434	1.6085	Age Tonnage passengers Length Cabins
5	0.9216	0.9241	5.7807	-0.1304	2.3580	Tonnage passengers Length Cabins PassDens
6	0.9215	0.9245	7.0000	1.0548	3.6995	Age Tonnage passengers Length Cabins PassDens
4	0.9214	0.9234	5.0836	-0.7800	1.5391	Age passengers Length Cabins
4	0.9214	0.9234	5.1975	-0.6624	1.6491	passengers Length Cabins PassDens
5	0.9213	0.9238	6.2396	0.3466	2.7977	Age passengers Length Cabins PassDens
3	0.9205	0.9220	5.8566	0.0565	2.1661	passengers Length Cabins
3	0.9177	0.9193	11.3414	5.5212	7.3546	Length Cabins PassDens
4	0.9173	0.9194	13.0556	7.2410	9.0506	Tonnage Length Cabins PassDens
4	0.9172	0.9193	13.2642	7.4455	9.2423	Age Length Cabins PassDens
5	0.9169	0.9195	14.9040	9.0922	10.8750	Age Tonnage Length Cabins PassDens
3	0.9163	0.9179	14.0233	8.1260	9.8295	Tonnage passengers Cabins
4	0.9161	0.9182	15.5211	9.6414	11.3015	Age Tonnage passengers Cabins
4	0.9158	0.9179	16.0199	10.1227	11.7529	Tonnage passengers Cabins PassDens
5	0.9156	0.9182	17.4272	11.5507	13.1499	Age Tonnage passengers Cabins PassDens
3	0.9154	0.9170	15.9087	9.9317	11.5458	Age Length Cabins
4	0.9150	0.9172	17.5514	11.5911	13.1308	Age Tonnage Length Cabins
3	0.9150	0.9166	16.6543	10.6402	12.2194	Tonnage Length Cabins
2	0.9149	0.9160	15.9524	9.8661	11.5035	Length Cabins
3	0.9119	0.9136	22.8065	16.3678	17.6677	passengers Cabins PassDens
4	0.9118	0.9140	23.8209	17.4641	18.6468	Age passengers Cabins PassDens
3	0.9111	0.9128	24.3993	17.8175	19.0475	Tonnage Cabins PassDens
2	0.9107	0.9118	24.2606	17.4948	18.8517	Cabins PassDens
4	0.9105	0.9128	26.3399	19.7637	20.8089	Age Tonnage Cabins PassDens
3	0.9102	0.9120	25.9993	19.2604	20.4213	Age Cabins PassDens
3	0.9095	0.9112	27.4513	20.5586	21.6576	Age passengers Cabins
2	0.9094	0.9106	26.7922	19.7480	21.0232	Tonnage Cabins
3	0.9092	0.9109	28.0871	21.1237	22.1959	Age Tonnage Cabins
2	0.9065	0.9077	32.4433	24.6647	25.7633	passengers Cabins
2	0.9057	0.9069	34.1252	26.0989	27.1466	Age Cabins

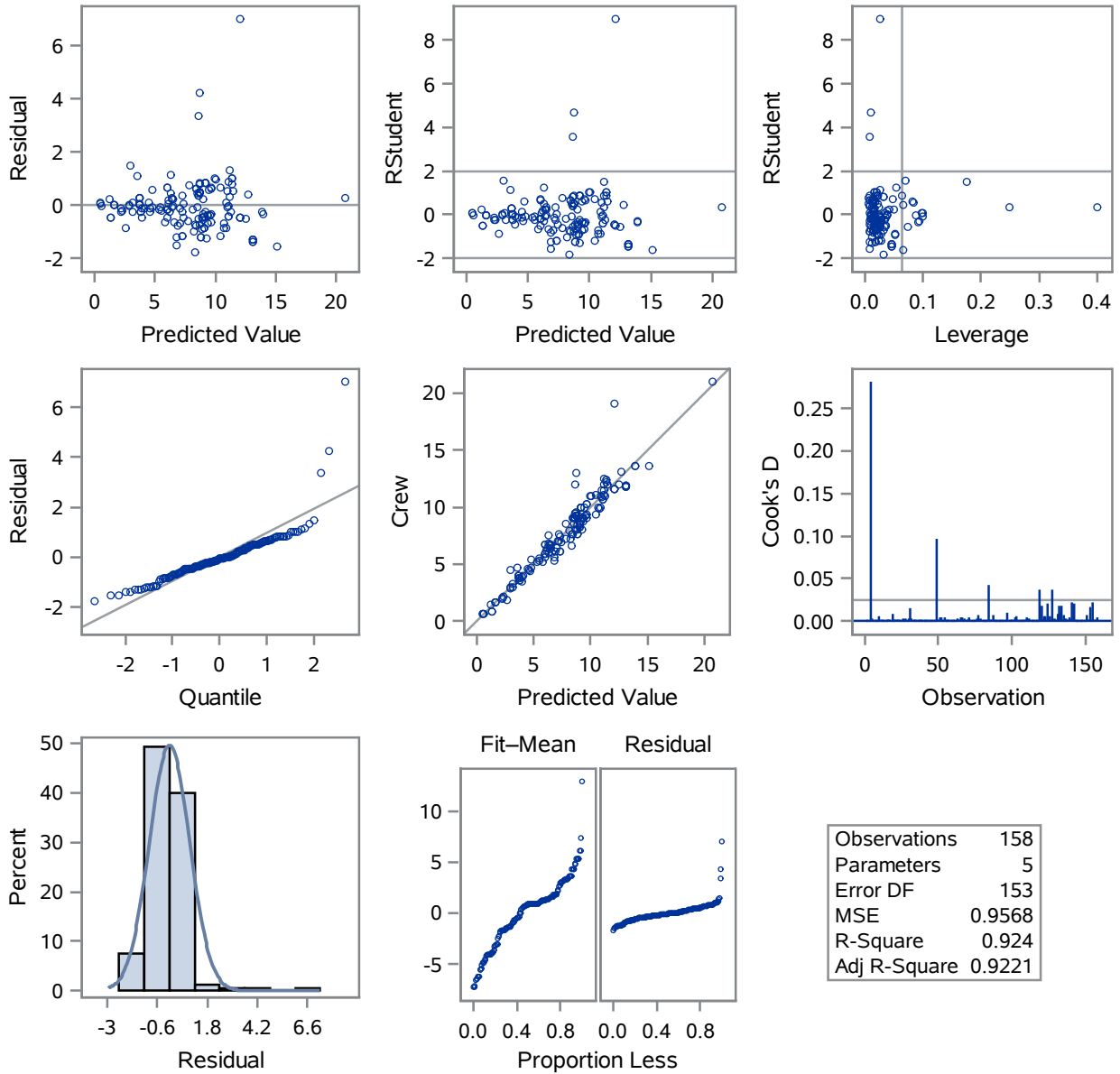
The REG Procedure
Model: MODEL5
Dependent Variable: Crew

Adjusted R-Square Selection Method

Number in Model	Adjusted R-Square	R-Square	C(p)	AIC	BIC	Variables in Model
1	0.9034	0.9041	37.7724	28.8215	30.0550	Cabins
4	0.8810	0.8841	83.7391	64.7313	63.3468	Tonnage passengers Length PassDens
3	0.8808	0.8831	83.6490	64.0282	63.2283	Tonnage passengers Length
5	0.8803	0.8841	85.7237	66.7208	64.7005	Age Tonnage passengers Length PassDens
4	0.8801	0.8832	85.5252	65.9444	64.5010	Age Tonnage passengers Length
3	0.8799	0.8822	85.5364	65.2993	64.4491	Tonnage Length PassDens
4	0.8792	0.8822	87.3878	67.1996	65.6958	Age Tonnage Length PassDens
3	0.8736	0.8760	97.9249	73.3985	72.2337	Tonnage passengers PassDens
4	0.8727	0.8760	99.9243	75.3981	73.5079	Age Tonnage passengers PassDens
2	0.8727	0.8743	99.1787	73.4586	72.9576	Tonnage passengers
3	0.8727	0.8751	99.6149	74.4719	73.2662	passengers Length PassDens
2	0.8726	0.8742	99.3848	73.5882	73.0833	Tonnage PassDens
3	0.8721	0.8746	100.7638	75.1974	73.9643	Age Tonnage passengers
4	0.8719	0.8752	101.4766	76.3843	74.4486	Age passengers Length PassDens
3	0.8718	0.8743	101.3335	75.5559	74.3093	Age Tonnage PassDens
3	0.8710	0.8735	102.9483	76.5679	75.2831	Age passengers Length
2	0.8707	0.8723	103.2094	75.9739	75.3984	passengers Length
3	0.8697	0.8722	105.3930	78.0875	76.7459	Age Tonnage Length
2	0.8696	0.8713	105.3360	77.2851	76.6709	Tonnage Length
2	0.8602	0.8620	123.8373	88.2547	87.3266	Age Tonnage
1	0.8595	0.8604	125.0862	88.1049	87.9929	Tonnage
2	0.8501	0.8520	143.8894	99.3424	98.1119	passengers PassDens
3	0.8491	0.8520	145.8009	101.2951	99.1342	Age passengers PassDens
2	0.8403	0.8424	163.1054	109.2839	107.7953	Age passengers
1	0.8366	0.8377	170.5232	111.9370	111.3579	passengers
3	0.8147	0.8182	213.3524	133.7935	130.6334	Age Length PassDens
2	0.8057	0.8081	231.5057	140.3226	138.1030	Length PassDens
2	0.8041	0.8066	234.6007	141.5926	139.3454	Age Length
1	0.8013	0.8026	240.6754	142.8586	141.7407	Length
2	0.3735	0.3815	1084.442	325.2835	320.5288	Age PassDens
1	0.2770	0.2816	1282.056	346.9302	343.7862	Age
1	0.0179	0.0242	1796.613	395.3167	391.9515	PassDens

The REG Procedure
 Model: MODEL5
 Dependent Variable: Crew

Fit Diagnostics for Crew



Observations	158
Parameters	5
Error DF	153
MSE	0.9568
R-Square	0.924
Adj R-Square	0.9221

The REG Procedure
Model: MODEL5
Dependent Variable: Crew

