PROC TTEST = Chrolesterol vs Weight Status

The TTEST Procedure

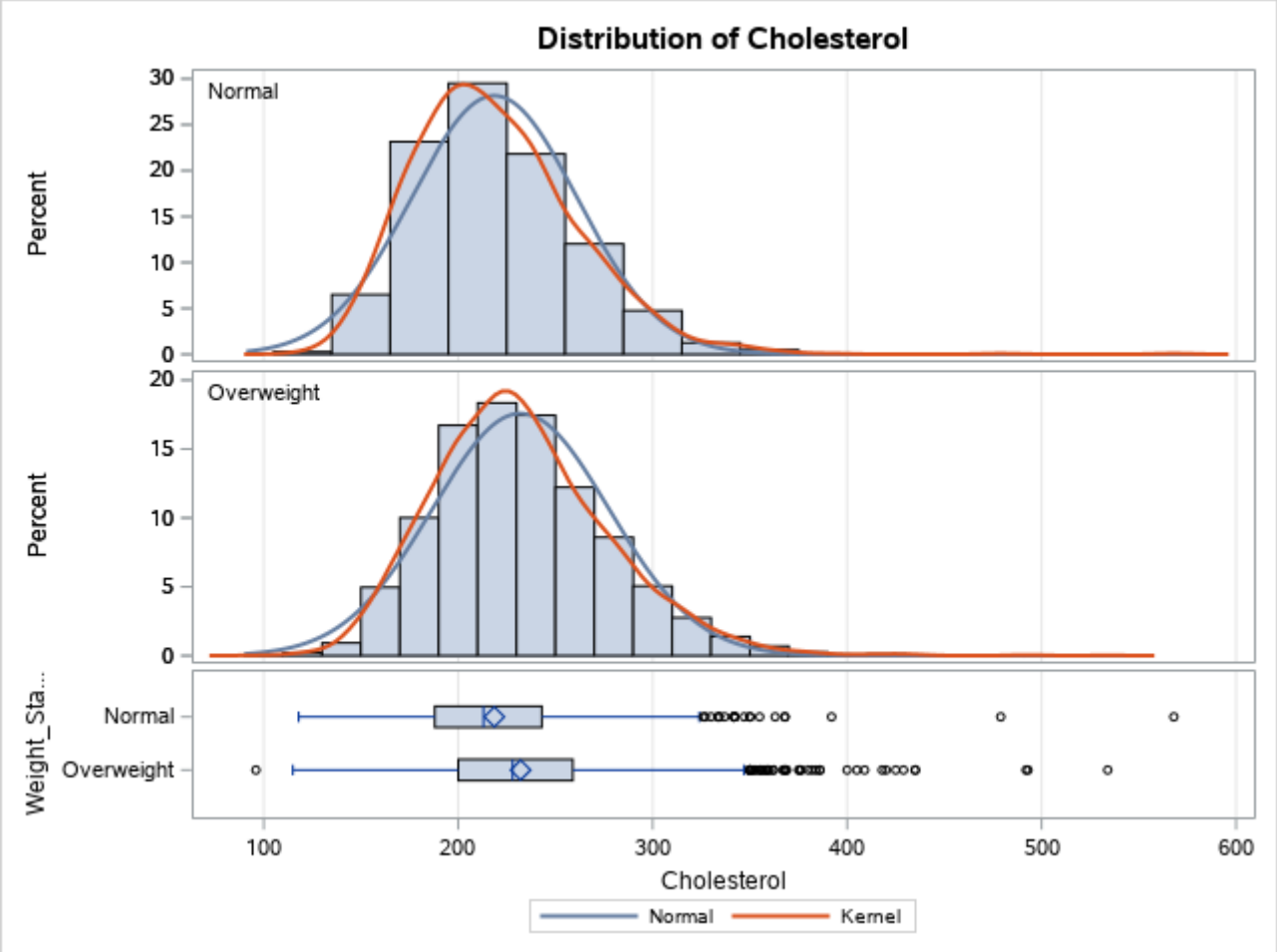
Variable: Cholesterol

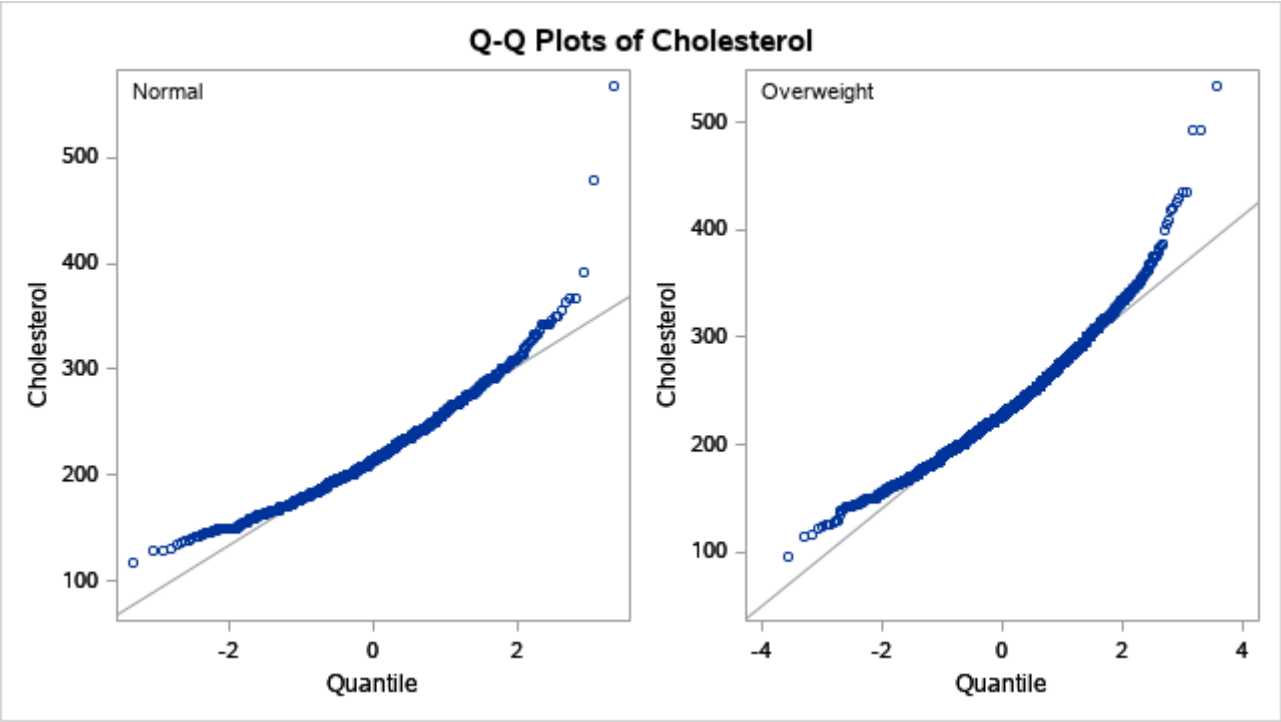
Weight_Status	Method	N	Mean	Std Dev	Std Err	Minimum	Maximum
Normal		1430	218.6	42.4990	1.1239	118.0	568.0
Overweight		3445	232.1	45.3764	0.7731	96.0000	534.0
Diff (1-2)	Pooled		-13.5483	44.5519	1.4015		
Diff (1-2)	Satterthwaite		-13.5483		1.3641		

Weight_Status	Method	Mean	95% CL Mean		Std Dev	95% CL Std Dev	
Normal		218.6	216.4	220.8	42.4990	40.9966	44.1167
Overweight		232.1	230.6	233.6	45.3764	44.3298	46.4741
Diff (1-2)	Pooled	-13.5483	-16.2959	-10.8008	44.5519	43.6848	45.4544
Diff (1-2)	Satterthwaite	-13.5483	-16.2230	-10.8736			

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	4873	-9.67	<.0001
Satterthwaite	Unequal	2837.7	-9.93	<.0001

Equality of Variances				
Method	Num DF	Den DF	F Value	Pr > F
Folded F	3444	1429	1.14	0.0036





One way anova age of death vs chol status

The GLM Procedure

Class Level Information		
Class	**Levels**	**Values**
Chol_Status	3	Borderline Desirable High

Number of Observations Read	5209
Number of Observations Used	1922

One way anova age of death vs chol status

The GLM Procedure

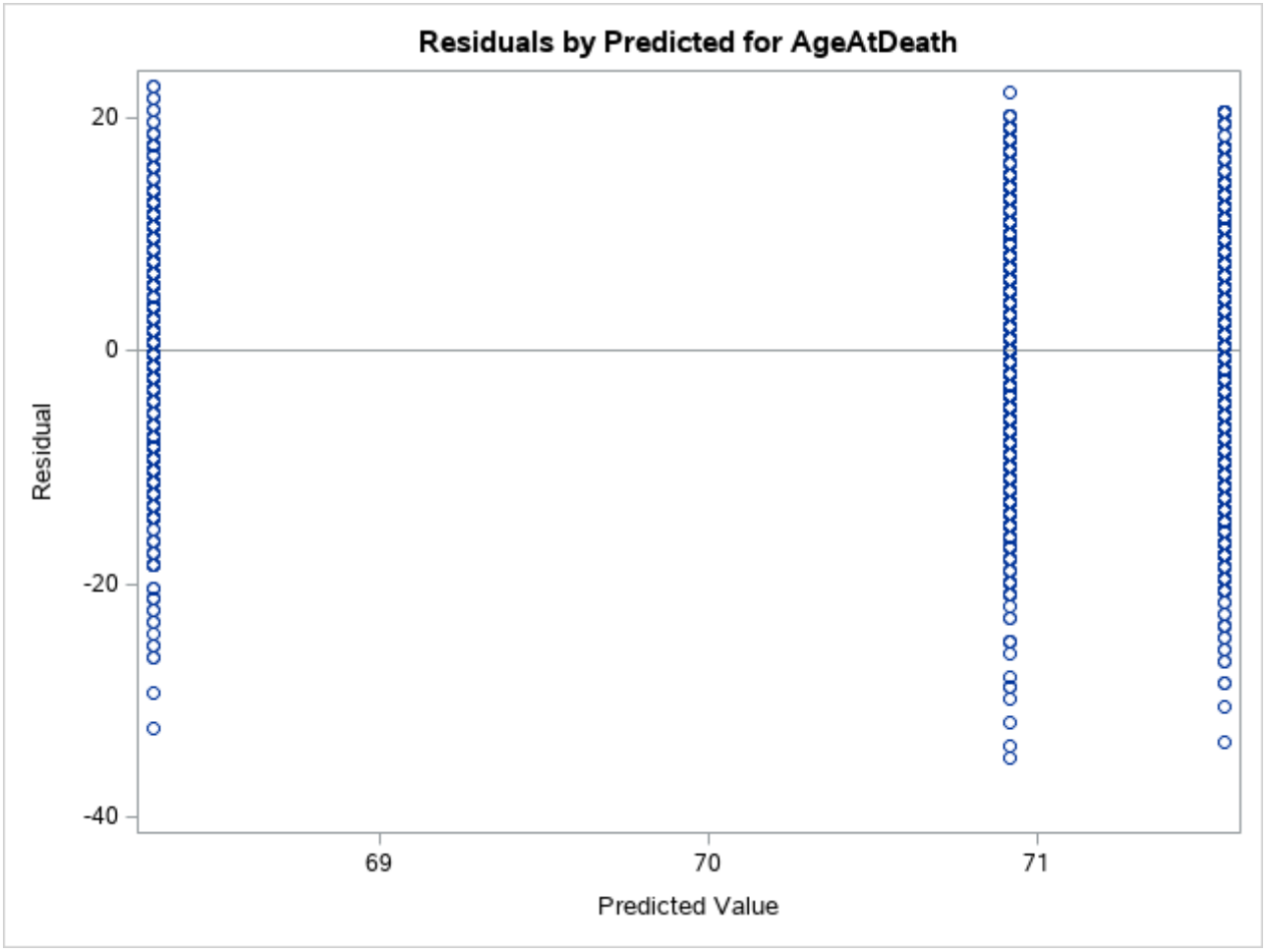
Dependent Variable: AgeAtDeath Age at Death

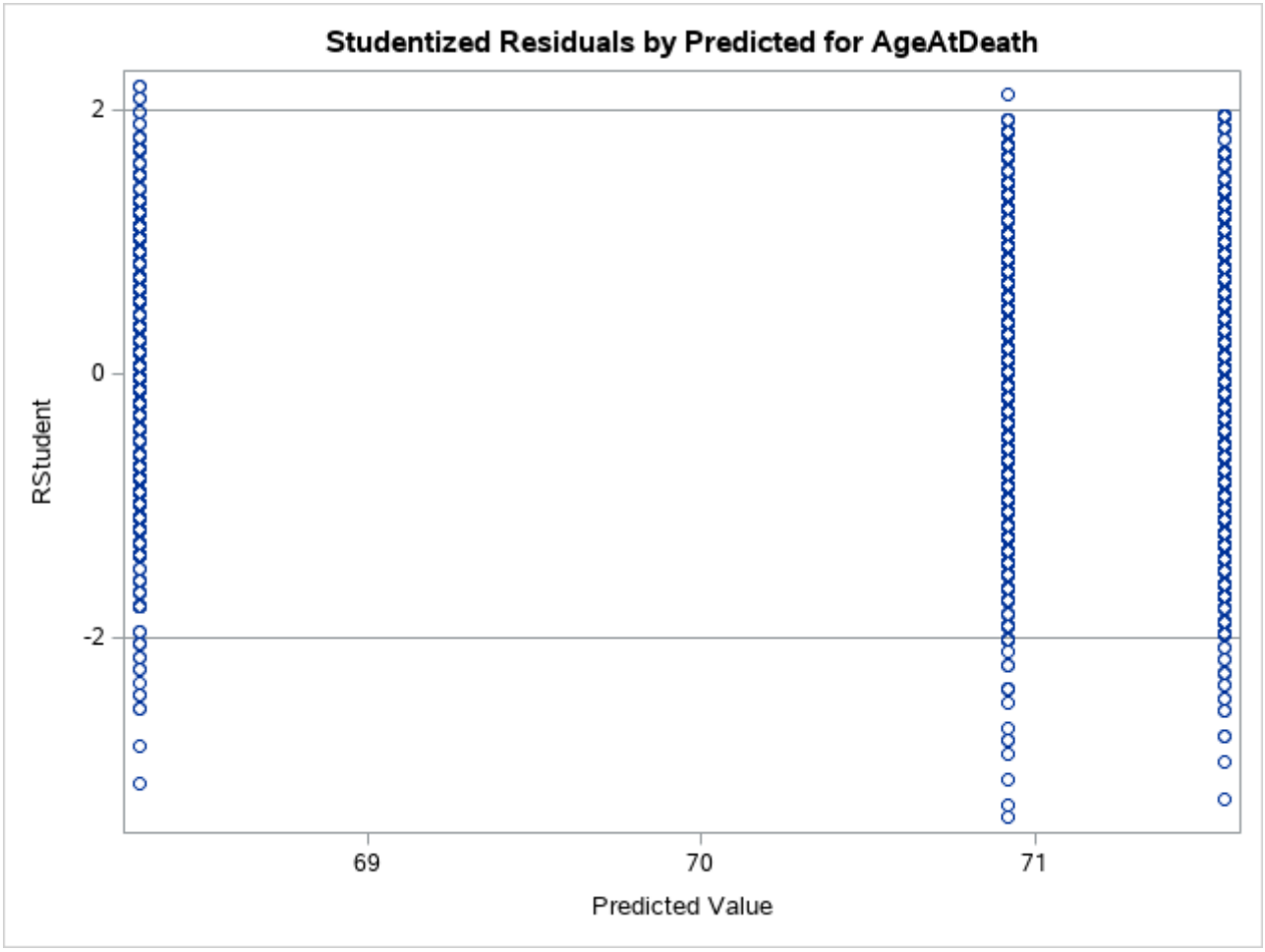
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	2975.2817	1487.6408	13.68	<.0001
Error	1919	208734.0633	108.7723		
Corrected Total	1921	211709.3450			

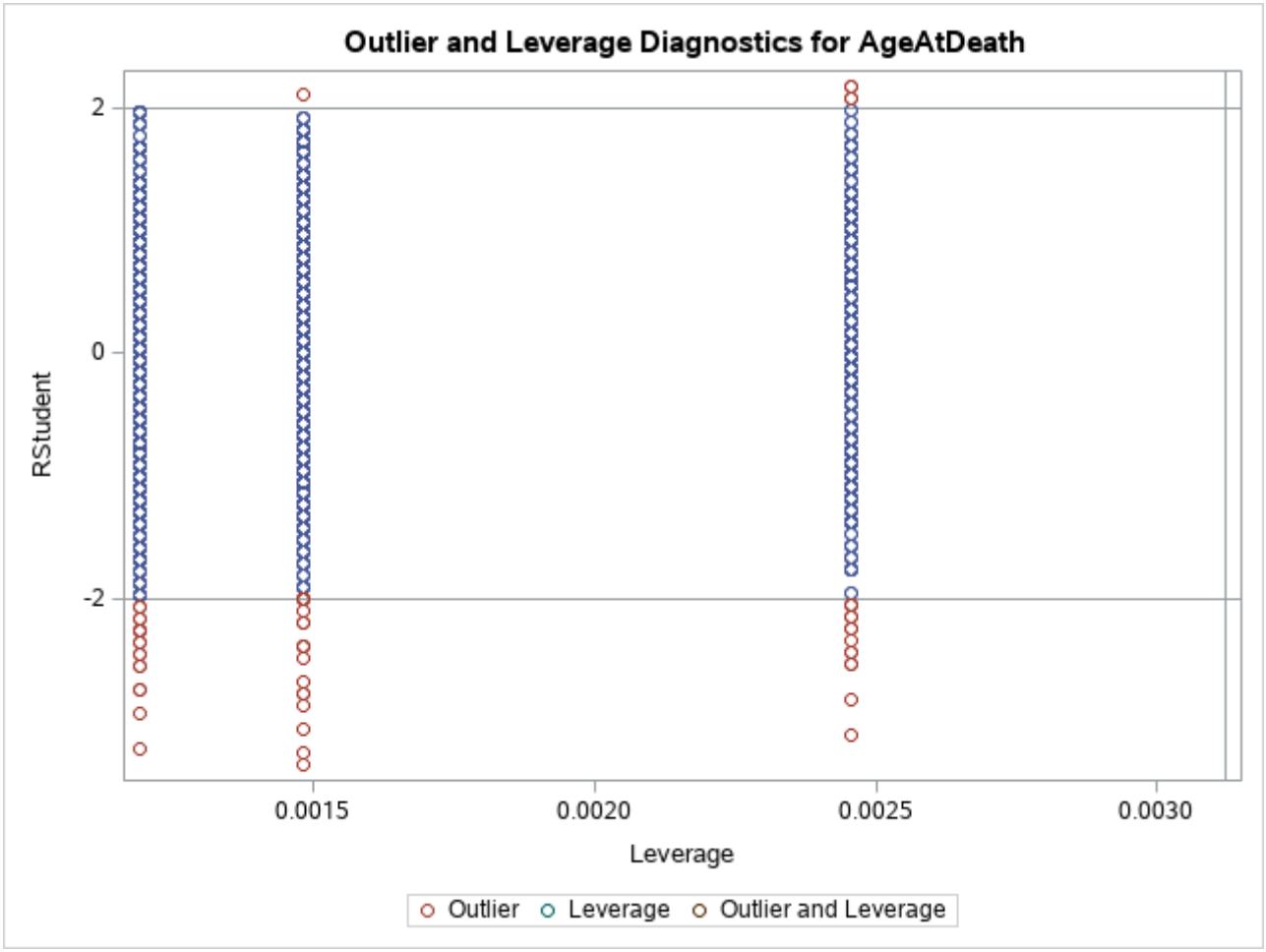
R-Square	Coeff Var	Root MSE	AgeAtDeath Mean
0.014054	14.76209	10.42940	70.64984

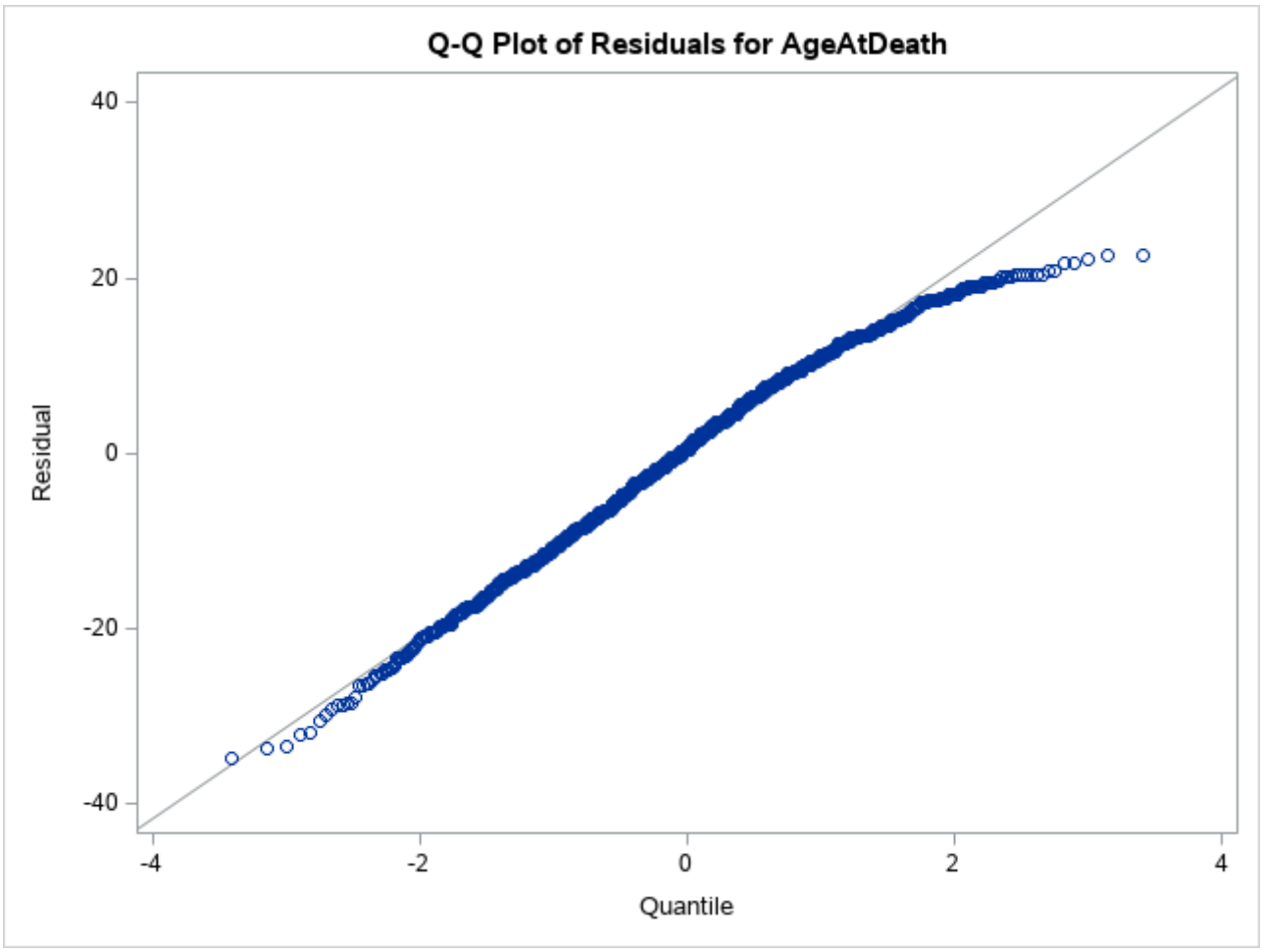
Source	DF	Type I SS	Mean Square	F Value	Pr > F
Chol_Status	2	2975.281672	1487.640836	13.68	<.0001

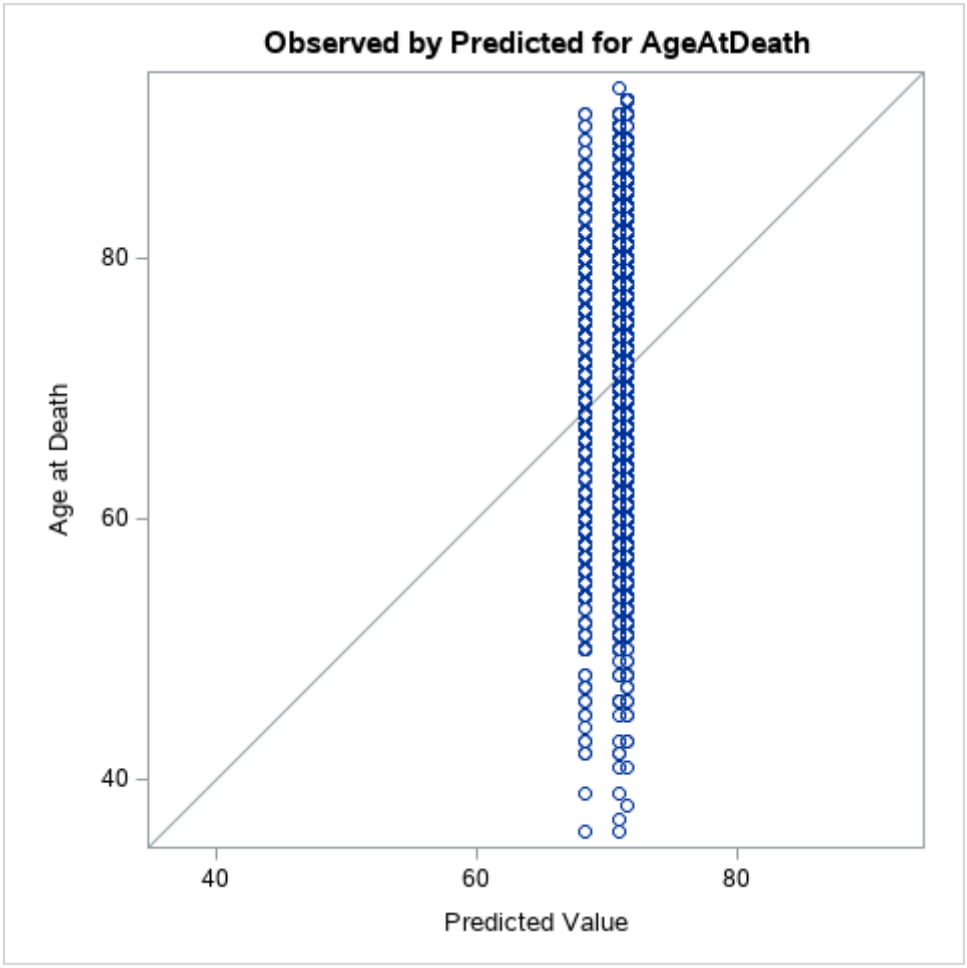
Source	DF	Type III SS	Mean Square	F Value	Pr > F
Chol_Status	2	2975.281672	1487.640836	13.68	<.0001

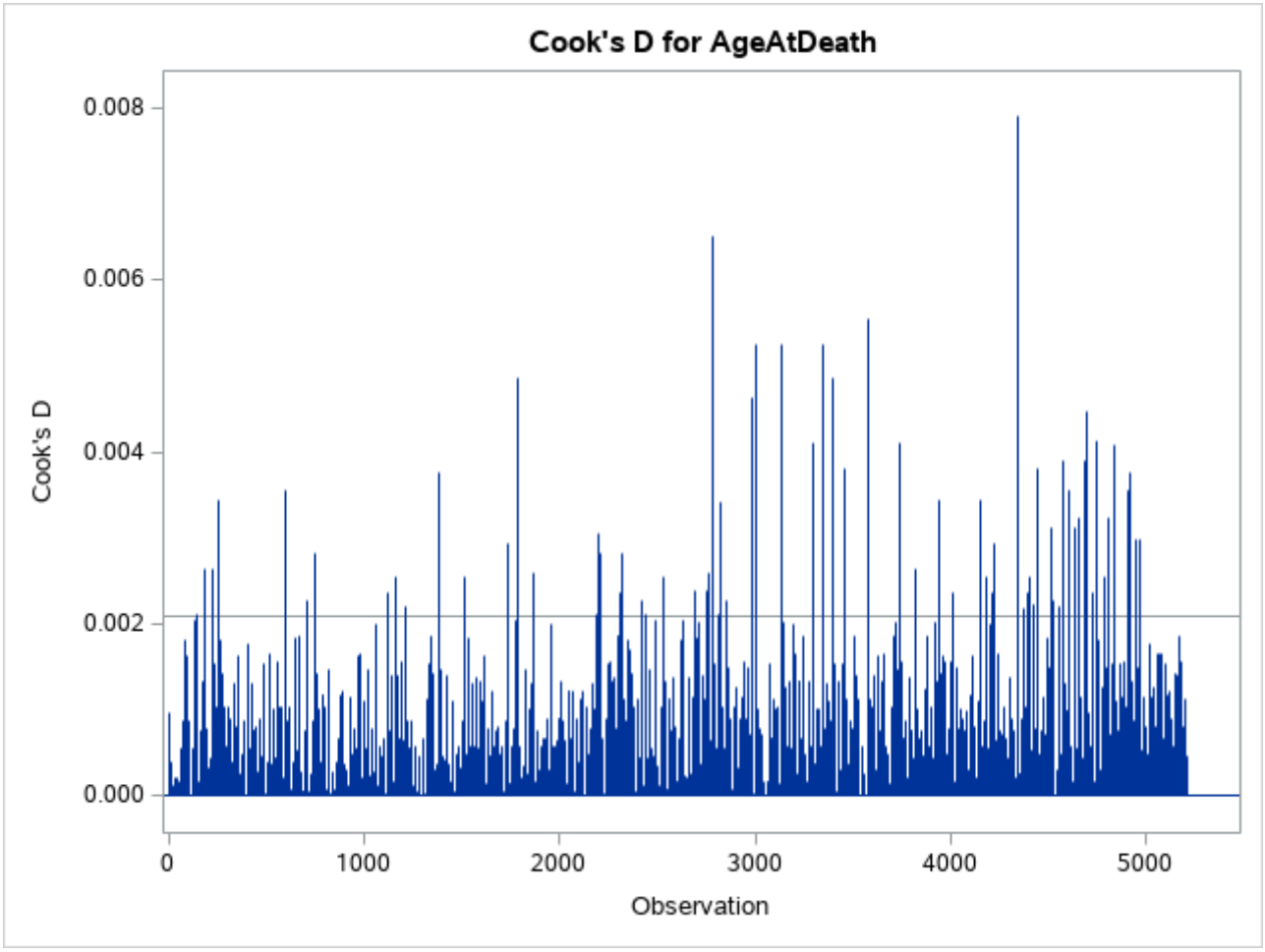

Residuals by Predicted for AgeAtDeath
Residual
20
0
-20
-40
69
70
71
Predicted Value

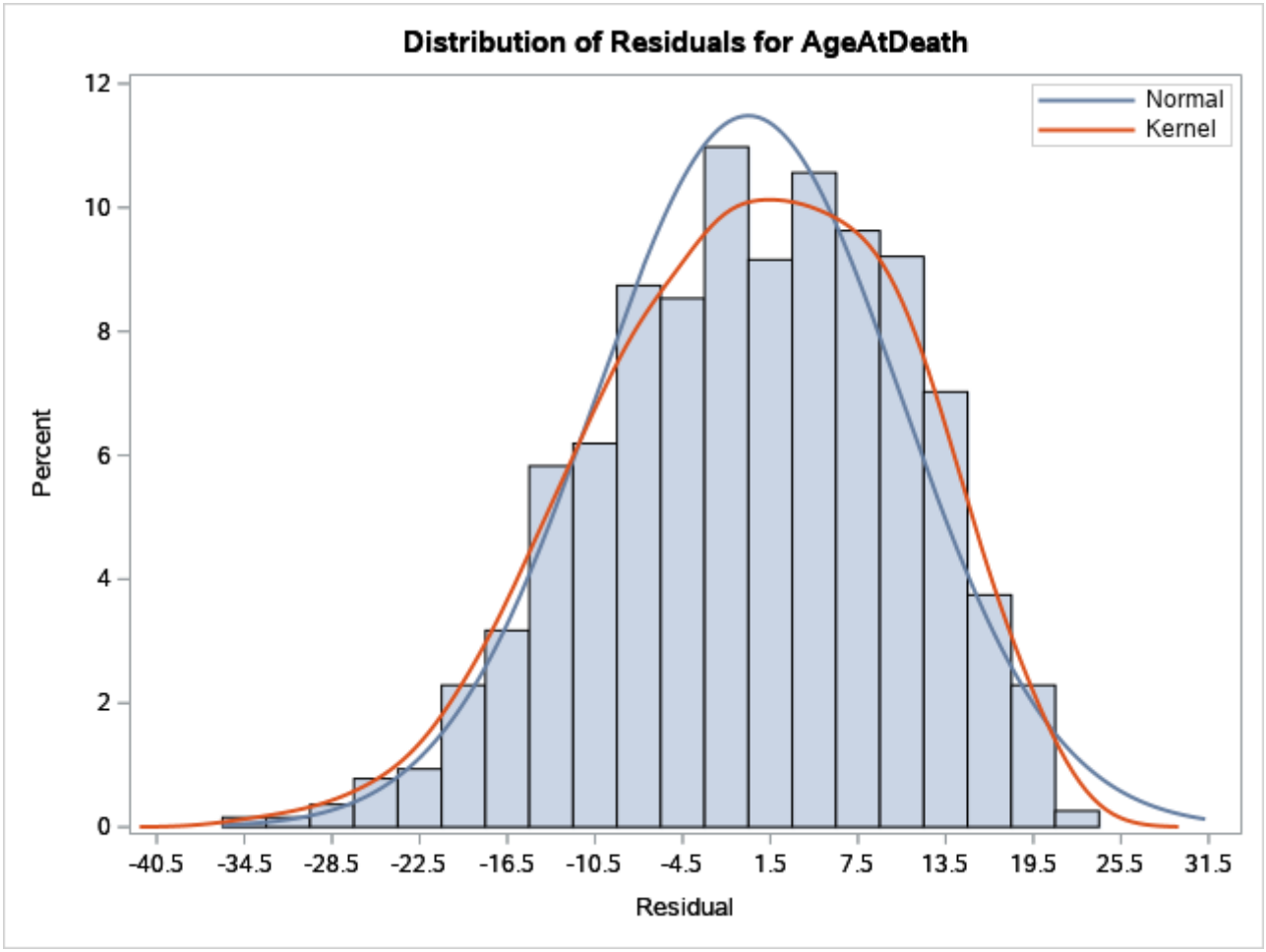

Studentized Residuals by Predicted for AgeAtDeath
RStudent
2
0
-2
69
70
71
Predicted Value

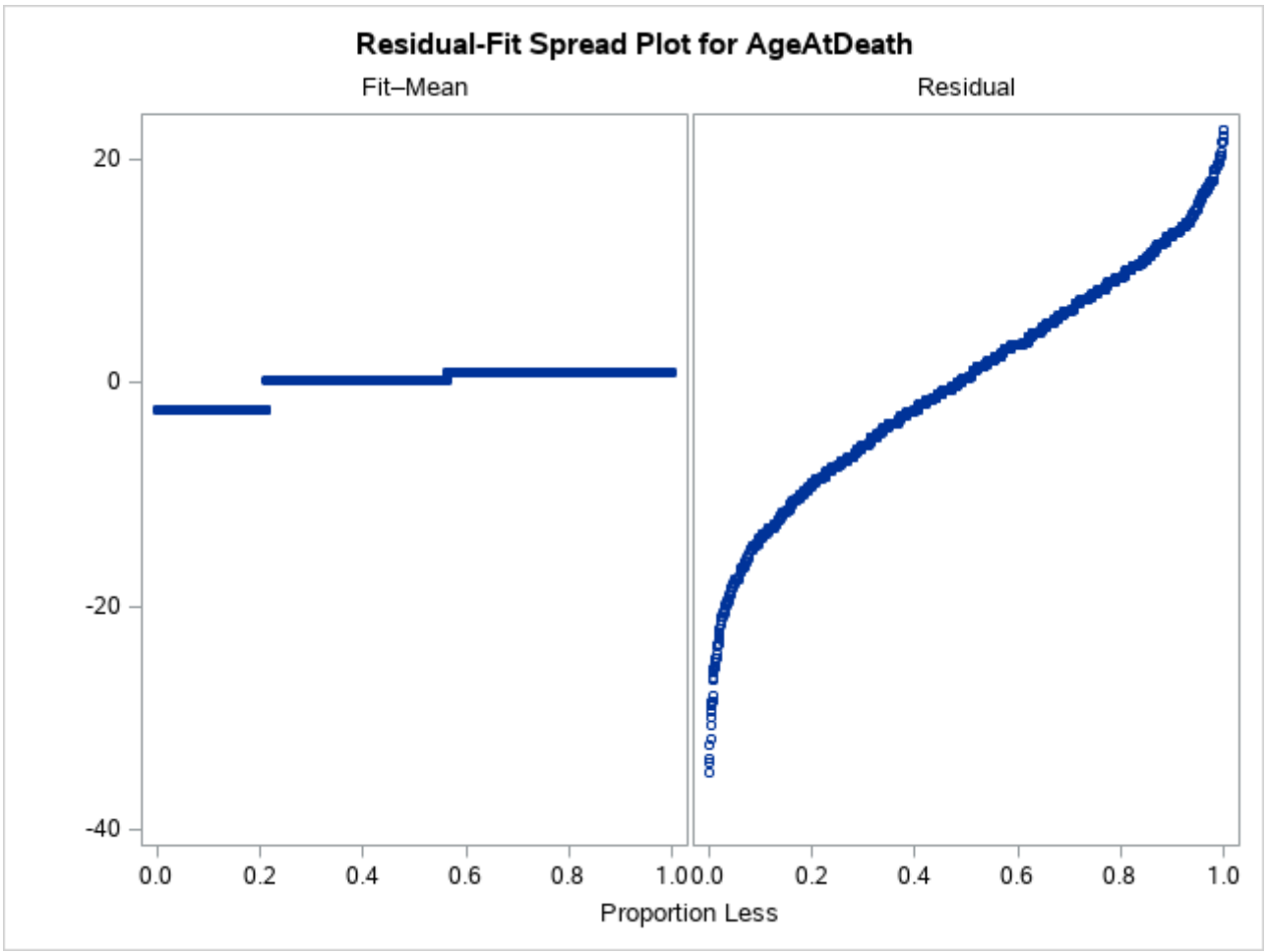

Outlier and Leverage Diagnostics for AgeAtDeath
RStudent
2
0
-2
0.0015
0.0020
0.0025
0.0030
Leverage
Outlier
Leverage
Outlier and Leverage

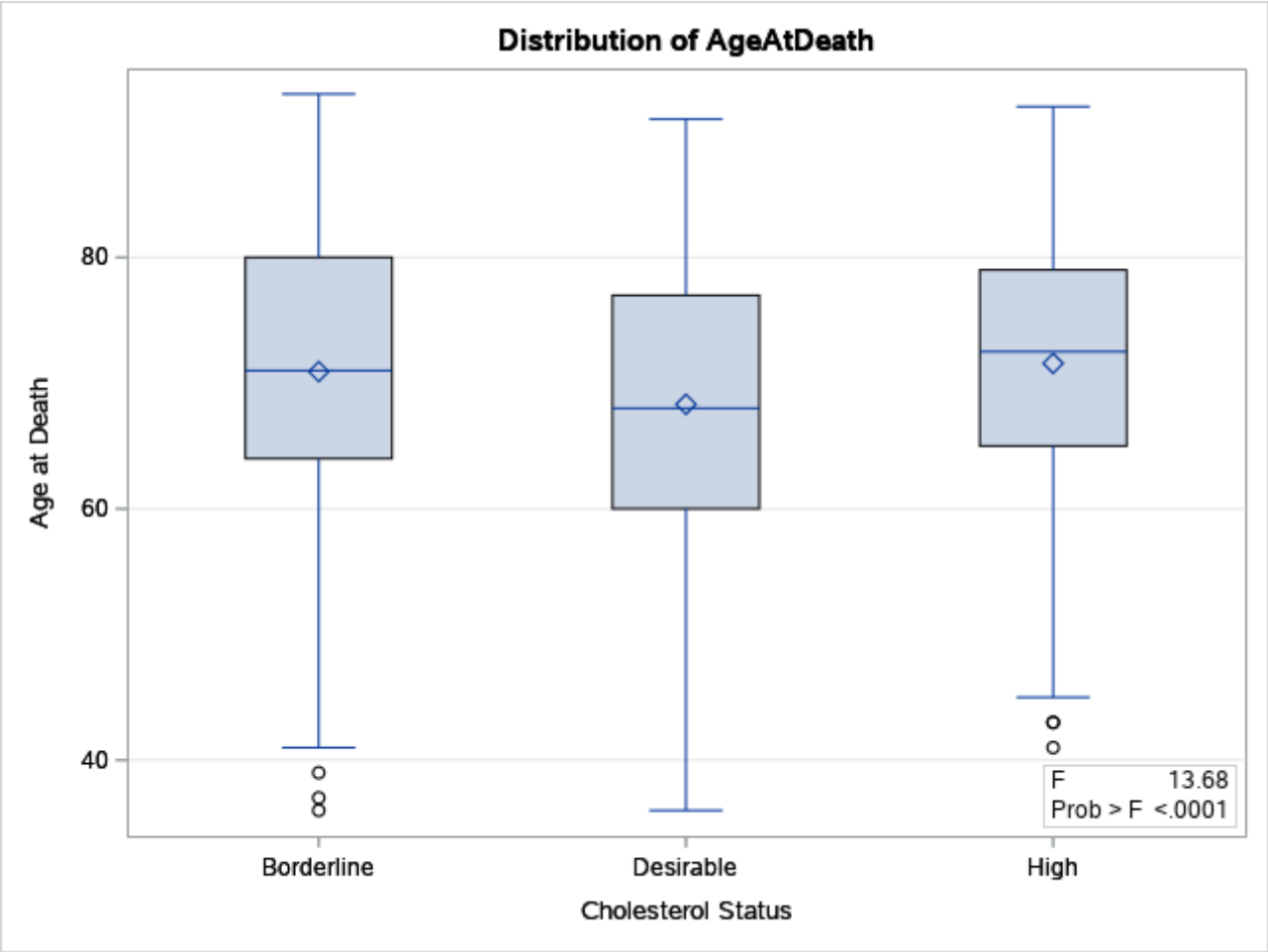

Q-Q Plot of Residuals for AgeAtDeath
Residual
40
20
0
-20
-40
-4
-2
0
2
4
Quantile


Observed by Predicted for AgeAtDeath
Age at Death
Predicted Value
40
60
80
40
60
80


Cook's D for AgeAtDeath
Cook's D
Observation
0.000
0.002
0.004
0.006
0.008
0
1000
2000
3000
4000
5000


Distribution of Residuals for AgeAtDeath
Normal
Kernel
Percent
12
10
8
6
4
2
0
-40.5
-34.5
-28.5
-22.5
-16.5
-10.5
-4.5
1.5
7.5
13.5
19.5
25.5
31.5
Residual


Residual-Fit Spread Plot for AgeAtDeath
Fit–Mean
Residual
20
0
-20
-40
0.0
0.2
0.4
0.6
0.8
1.0
0.0
0.2
0.4
0.6
0.8
1.0
Proportion Less



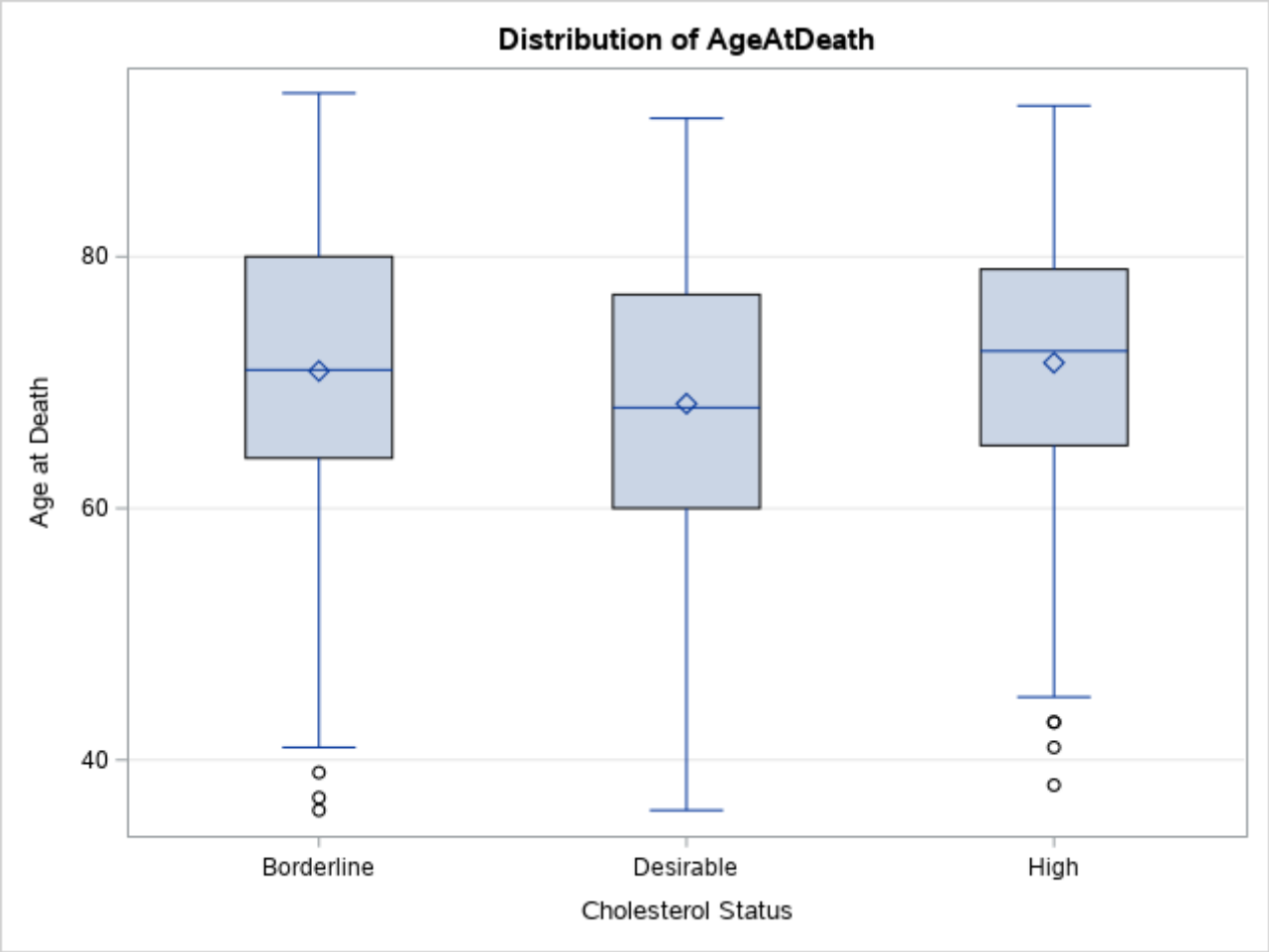
One way anova age of death vs chol status

The GLM Procedure

Levene's Test for Homogeneity of AgeAtDeath Variance ANOVA of Squared Deviations from Group Means					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Chol_Status	2	65118.3	32559.1	1.67	0.1886
Error	1919	37425891	19502.8		

One way anova age of death vs chol status

The GLM Procedure



Level of Chol_Status	N	AgeAtDeath	
		Mean	Std Dev
Borderline	675	70.9155556	10.5623897
Desirable	407	68.3144963	10.8207227
High	840	71.5678571	10.1245010

Post Hoc Pairwise Comparision

The ANOVA Procedure

Class Level Information		
Class	Levels	Values
Chol_Status	3	Borderline Desirable High

Number of Observations Read	5209
Number of Observations Used	1922

Post Hoc Pairwise Comparision

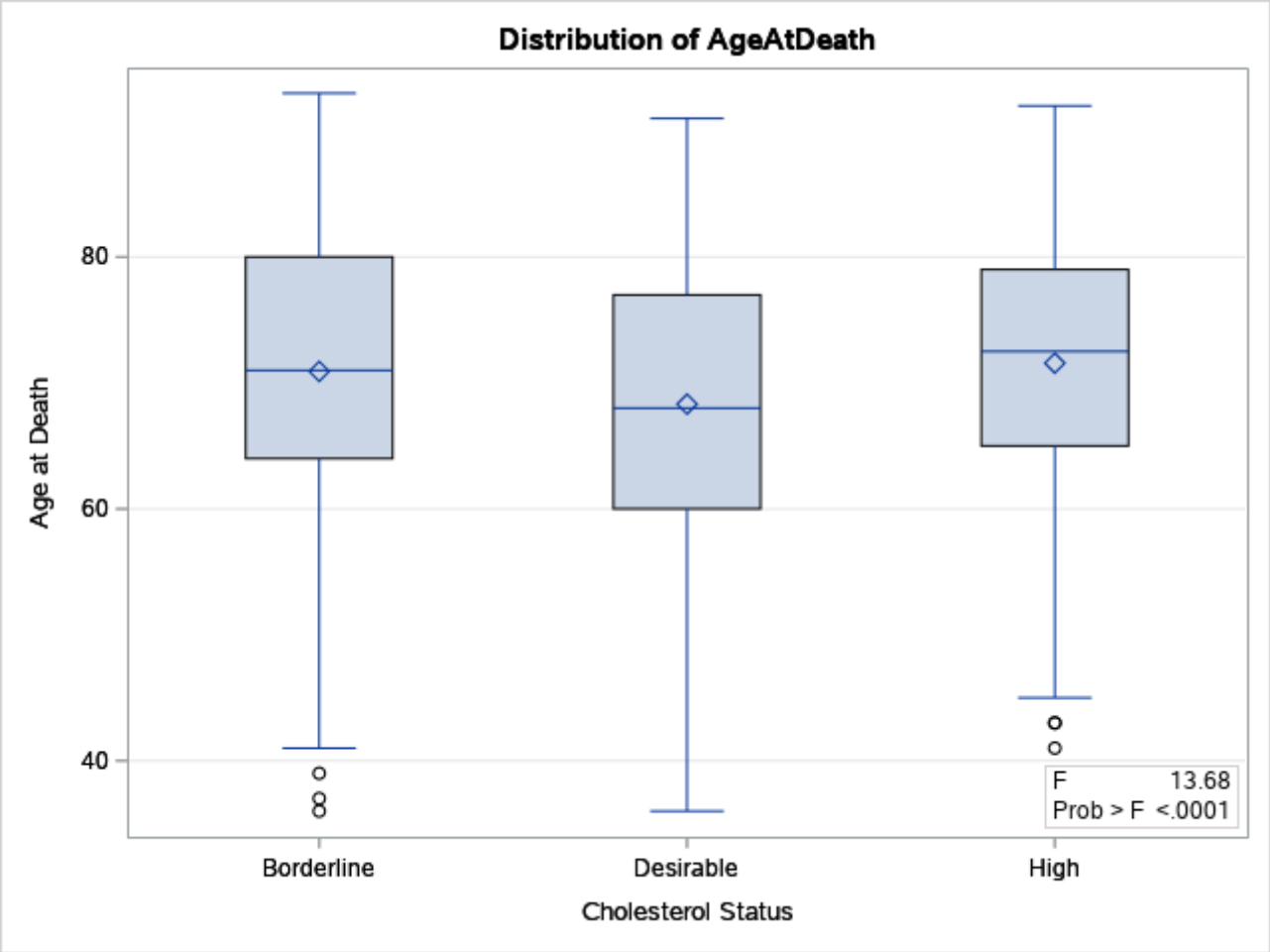
The ANOVA Procedure

Dependent Variable: AgeAtDeath Age at Death

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	2975.2817	1487.6408	13.68	<.0001
Error	1919	208734.0633	108.7723		
Corrected Total	1921	211709.3450			

R-Square	Coeff Var	Root MSE	AgeAtDeath Mean
0.014054	14.76209	10.42940	70.64984

Source	DF	Anova SS	Mean Square	F Value	Pr > F
Chol_Status	2	2975.281672	1487.640836	13.68	<.0001



Post Hoc Pairwise Comparision

The ANOVA Procedure

Class Level Information		
Class	Levels	Values
Chol_Status	3	Borderline Desirable High

Number of Observations Read	5209
Number of Observations Used	1922

Post Hoc Pairwise Comparision

The ANOVA Procedure

Dependent Variable: AgeAtDeath Age at Death

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
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Source	DF	Anova SS	Mean Square	F Value	Pr > F
Chol_Status	2	2975.281672	1487.640836	13.68	<.0001

Post Hoc Pairwise Comparision

The ANOVA Procedure

Tukey's Studentized Range (HSD) Test for AgeAtDeath

Note: This test controls the Type I experimentwise error rate, but it generally has a higher Type II error rate than REGWQ.

Alpha	0.05
Error Degrees of Freedom	1919
Error Mean Square	108.7723
Critical Value of Studentized Range	3.31707
Minimum Significant Difference	1.4304
Harmonic Mean of Cell Sizes	584.9139

Note: Cell sizes are not equal.

Means with the same letter are not significantly different.			
Tukey Grouping	Mean	N	Chol_Status
A	71.5679	840	High
A			
A	70.9156	675	Borderline
B	68.3145	407	Desirable