

SAS Program for CRF Design-HOUSE_PRICES

Obs	GRADE	FLOORS	BEDROOMS	SQFT_LIVING	PRICE
1	7	1	2	1160	468000
2	7	1	2	1200	189000
3	7	1	2	1070	252700
4	7	1	2	1980	585000
5	7	1	2	2020	355000
6	7	1	3	1180	221900
7	7	1	3	1060	291850
8	7	1	3	1780	229500
9	7	1	3	1370	400000
10	7	1	3	1250	230000
11	7	1	4	1960	604000
12	7	1	4	1620	385000
13	7	1	4	2060	322500
14	7	1	4	1220	240000
15	7	1	4	1760	380000
16	7	1.5	2	1430	455000
17	7	1.5	2	1420	592500
18	7	1.5	2	1490	625000
19	7	1.5	2	2130	730000
20	7	1.5	2	1100	450000
21	7	1.5	3	1430	310000
22	7	1.5	3	2770	317625
23	7	1.5	3	1980	555000
24	7	1.5	3	1670	460000
25	7	1.5	3	1110	560000
26	7	1.5	4	1600	485000
27	7	1.5	4	2330	687500
28	7	1.5	4	2750	571000
29	7	1.5	4	1610	535000
30	7	1.5	4	2100	445000
31	7	2	2	1610	215000
32	7	2	2	1030	335000
33	7	2	2	2420	430000
34	7	2	2	1050	163500
35	7	2	2	1450	655000
36	7	2	3	2570	538000
37	7	2	3	1715	257500

SAS Program for CRF Design-HOUSE_PRICES

Obs	GRADE	FLOORS	BEDROOMS	SQFT_LIVING	PRICE
38	7	2	3	1890	323000
39	7	2	3	1890	395000
40	7	2	3	1570	685000
41	7	2	4	2250	292500
42	7	2	4	2240	287000
43	7	2	4	1900	360000
44	7	2	4	1980	243500
45	7	2	4	2070	430000
46	8	1	2	1240	188500
47	8	1	2	3900	1072000
48	8	1	2	1320	467000
49	8	1	2	1510	479950
50	8	1	2	1420	641000
51	8	1	3	1680	510000
52	8	1	3	3560	662500
53	8	1	3	2150	650000
54	8	1	3	1680	356000
55	8	1	3	1580	430000
56	8	1	4	4220	775000
57	8	1	4	2160	260000
58	8	1	4	2010	660500
59	8	1	4	2590	452000
60	8	1	4	2030	500000
61	8	1.5	2	1410	439900
62	8	1.5	2	1600	672324
63	8	1.5	2	2700	1260000
64	8	1.5	2	1750	575000
65	8	1.5	2	1700	710000
66	8	1.5	3	1400	667000
67	8	1.5	3	1090	535000
68	8	1.5	3	2300	696000
69	8	1.5	3	1660	780000
70	8	1.5	3	1180	610000
71	8	1.5	4	2750	1450000
72	8	1.5	4	2370	834000
73	8	1.5	4	2610	1000000
74	8	1.5	4	1820	1010000

SAS Program for CRF Design-HOUSE_PRICES

Obs	GRADE	FLOORS	BEDROOMS	SQFT_LIVING	PRICE
75	8	1.5	4	2440	780000
76	8	2	2	1230	490000
77	8	2	2	1400	372500
78	8	2	2	1270	531000
79	8	2	2	1180	419000
80	8	2	2	1370	359000
81	8	2	3	2450	329000
82	8	2	3	2450	937000
83	8	2	3	2320	580500
84	8	2	3	3160	488000
85	8	2	3	2420	301000
86	8	2	4	2570	719000
87	8	2	4	2360	640000
88	8	2	4	2620	605000
89	8	2	4	1850	430000
90	8	2	4	2380	360000
91	9	1	2	2680	775000
92	9	1	2	1880	460000
93	9	1	2	3570	835000
94	9	1	2	1670	539950
95	9	1	2	1910	435000
96	9	1	3	3050	2000000
97	9	1	3	2753	1350000
98	9	1	3	2370	790000
99	9	1	3	2930	559900
100	9	1	3	2500	662000
101	9	1	4	2480	840000
102	9	1	4	2240	592500
103	9	1	4	3650	2400000
104	9	1	4	1710	749000
105	9	1	4	3140	578000
106	9	1.5	2	2360	1087500
107	9	1.5	2	2460	1370000
108	9	1.5	2	1590	850000
109	9	1.5	2	2320	1150000
110	9	1.5	2	1410	399900
111	9	1.5	3	2070	850830

SAS Program for CRF Design-HOUSE_PRICES

Obs	GRADE	FLOORS	BEDROOMS	SQFT_LIVING	PRICE
112	9	1.5	3	3950	784000
113	9	1.5	3	2170	876650
114	9	1.5	3	2730	1338750
115	9	1.5	3	2350	339000
116	9	1.5	4	2050	740000
117	9	1.5	4	5450	610000
118	9	1.5	4	3190	1249000
119	9	1.5	4	3040	870000
120	9	1.5	4	3160	1280000
121	9	2	2	1070	259950
122	9	2	2	1780	935000
123	9	2	2	1590	409900
124	9	2	2	2540	945000
125	9	2	2	1295	487028
126	9	2	3	2140	940000
127	9	2	3	2770	461000
128	9	2	3	2320	437500
129	9	2	3	2910	770000
130	9	2	3	2714	465000
131	9	2	4	2950	650000
132	9	2	4	2570	625000
133	9	2	4	2290	785000
134	9	2	4	2830	885000
135	9	2	4	3230	480000

SAS Program for CRF Design-HOUSE_PRICES**The GLM Procedure**

Class Level Information		
Class	Levels	Values
GRADE	3	7 8 9
FLOORS	3	1 2 1.5
BEDROOMS	3	2 3 4

Number of Observations Read	135
Number of Observations Used	135

SAS Program for CRF Design-HOUSE_PRICES

The GLM Procedure

Dependent Variable: PRICE PRICE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	10	5.5437922E12	554379222237	7.07	<.0001
Error	124	9.7215413E12	78399526236		
Corrected Total	134	1.5265333E13			

R-Square	Coeff Var	Root MSE	PRICE Mean
0.363162	45.47349	279999.2	615741.5

Source	DF	Type I SS	Mean Square	F Value	Pr > F
GRADE	2	3.7431265E12	1.8715633E12	23.87	<.0001
FLOORS	2	1.3429852E12	671492587159	8.57	0.0003
BEDROOMS	2	194374183732	97187091866	1.24	0.2931
FLOORS*BEDROOMS	4	263306322057	65826580514	0.84	0.5026

Source	DF	Type III SS	Mean Square	F Value	Pr > F
GRADE	2	3.7431265E12	1.8715633E12	23.87	<.0001
FLOORS	2	1.3429852E12	671492587159	8.57	0.0003
BEDROOMS	2	194374183732	97187091866	1.24	0.2931
FLOORS*BEDROOMS	4	263306322057	65826580514	0.84	0.5026

SAS Program for CRF Design-HOUSE_PRICES**The GLM Procedure**

Class Level Information		
Class	Levels	Values
GRADE	3	7 8 9
FLOORS	3	1 2 1.5
BEDROOMS	3	2 3 4

Number of Observations Read	135
Number of Observations Used	135

SAS Program for CRF Design-HOUSE_PRICES

The GLM Procedure

Dependent Variable: PRICE PRICE

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	5.2804859E12	880080983385	11.28	<.0001
Error	128	9.9848476E12	78006621682		
Corrected Total	134	1.5265333E13			

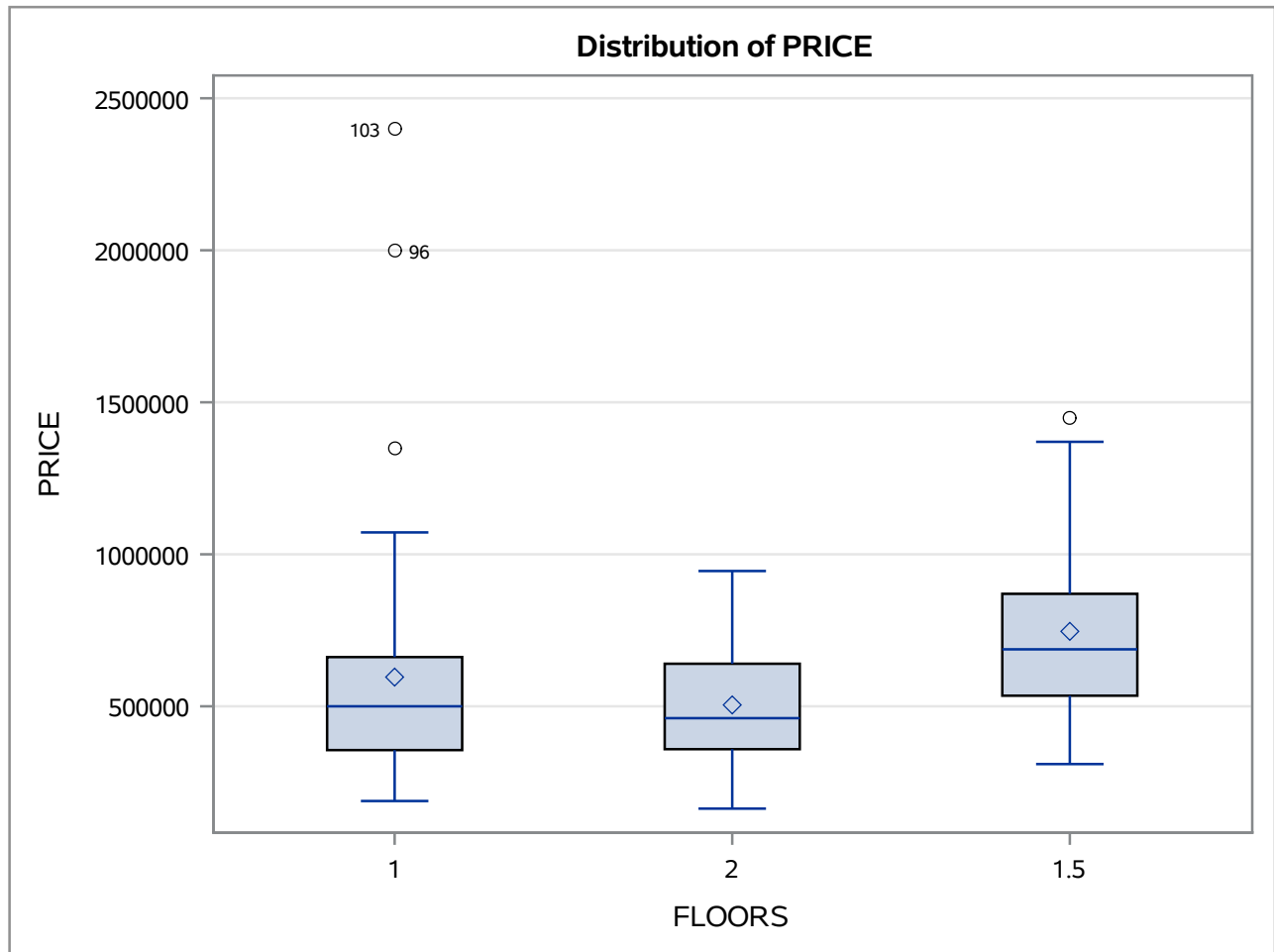
R-Square	Coeff Var	Root MSE	PRICE Mean
0.345914	45.35940	279296.7	615741.5

Source	DF	Type I SS	Mean Square	F Value	Pr > F
GRADE	2	3.7431265E12	1.8715633E12	23.99	<.0001
FLOORS	2	1.3429852E12	671492587159	8.61	0.0003
BEDROOMS	2	194374183732	97187091866	1.25	0.2912

Source	DF	Type III SS	Mean Square	F Value	Pr > F
GRADE	2	3.7431265E12	1.8715633E12	23.99	<.0001
FLOORS	2	1.3429852E12	671492587159	8.61	0.0003
BEDROOMS	2	194374183732	97187091866	1.25	0.2912

SAS Program for CRF Design-HOUSE_PRICES

The GLM Procedure



SAS Program for CRF Design-HOUSE_PRICES

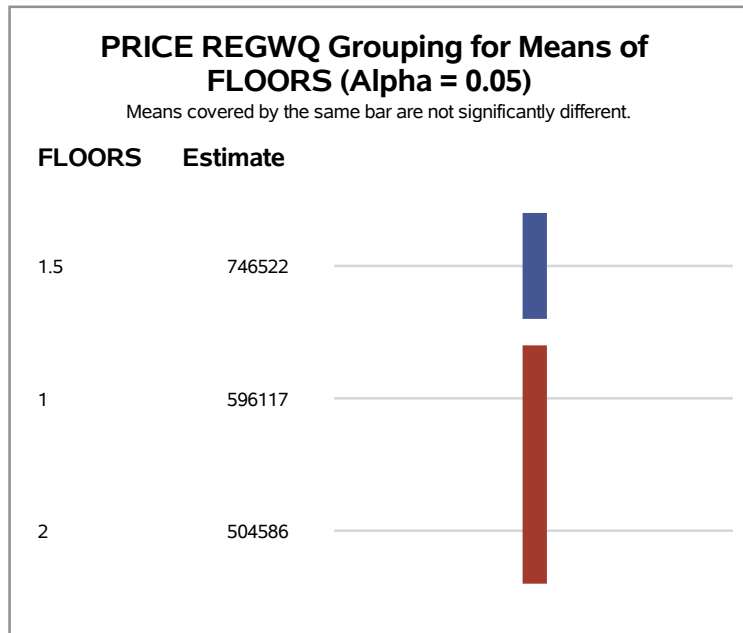
The GLM Procedure

Ryan-Einot-Gabriel-Welsch Multiple Range Test for PRICE

Note: This test controls the Type I experimentwise error rate.

Alpha	0.05
Error Degrees of Freedom	128
Error Mean Square	7.801E10

Number of Means	2	3
Critical Range	116505.94	139623.69



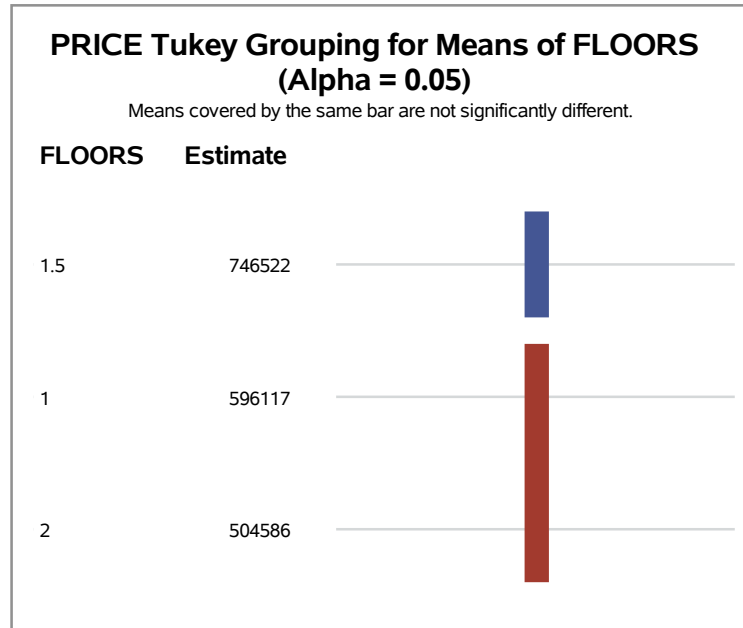
SAS Program for CRF Design-HOUSE_PRICES

The GLM Procedure

Tukey's Studentized Range (HSD) Test for PRICE

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	128
Error Mean Square	7.801E10
Critical Value of Studentized Range	3.35351
Minimum Significant Difference	139624



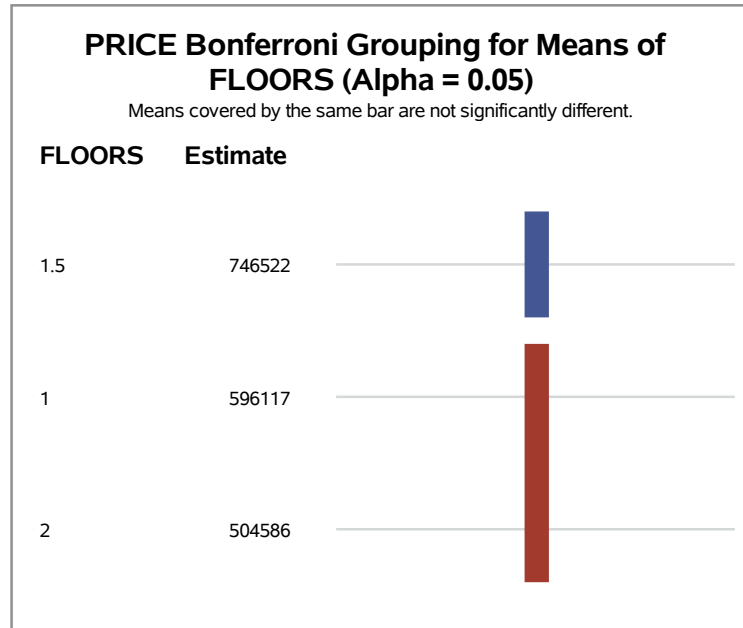
SAS Program for CRF Design-HOUSE_PRICES

The GLM Procedure

Bonferroni (Dunn) t Tests for PRICE

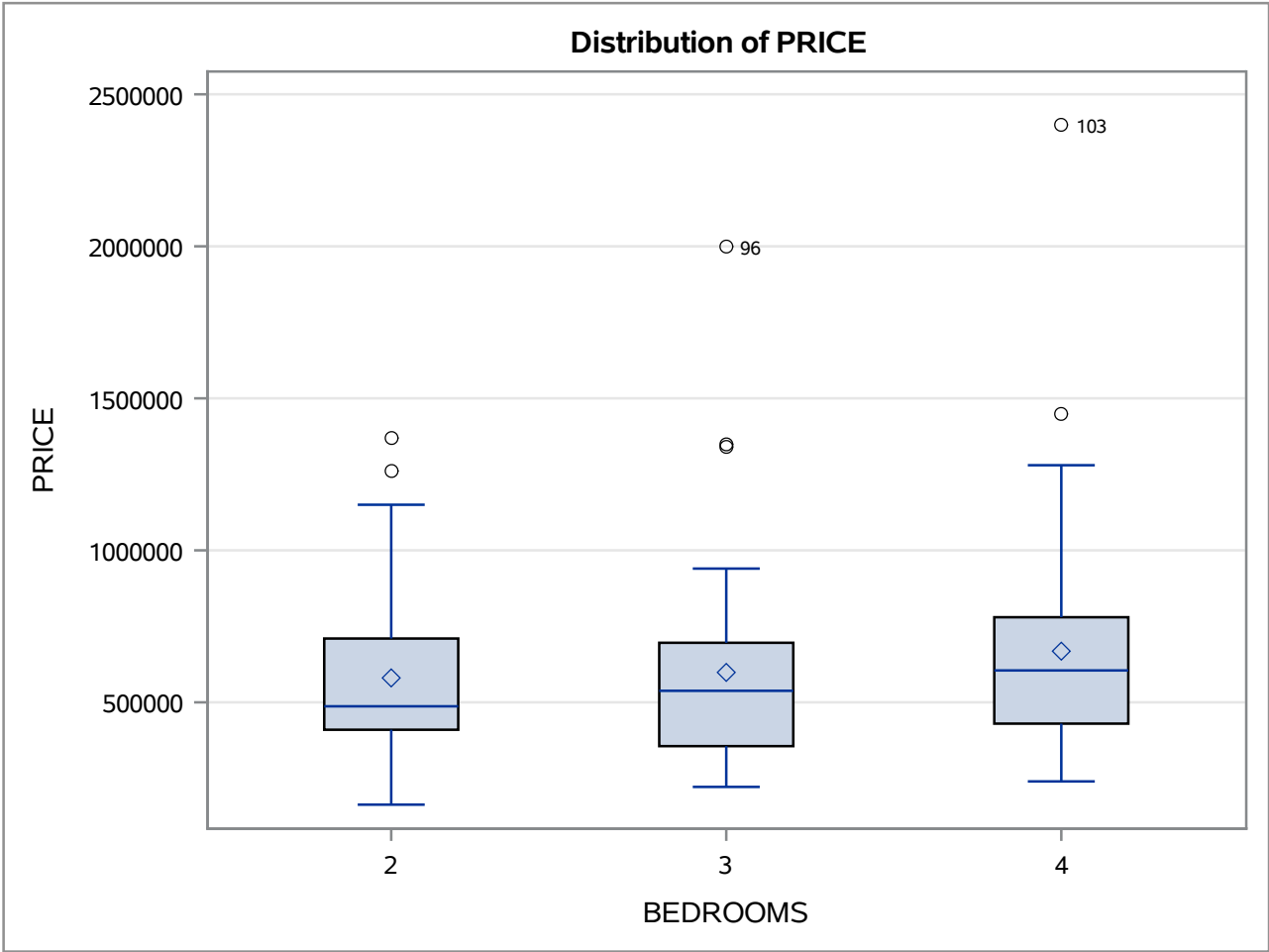
Note: This test controls the Type I experimentwise error rate, but it generally has a higher Type II error rate than REGWQ.

Alpha	0.05
Error Degrees of Freedom	128
Error Mean Square	7.801E10
Critical Value of t	2.42585
Minimum Significant Difference	142836



SAS Program for CRF Design-HOUSE_PRICES

The GLM Procedure



SAS Program for CRF Design-HOUSE_PRICES

The GLM Procedure

Ryan-Einot-Gabriel-Welsch Multiple Range Test for PRICE

Note: This test controls the Type I experimentwise error rate.

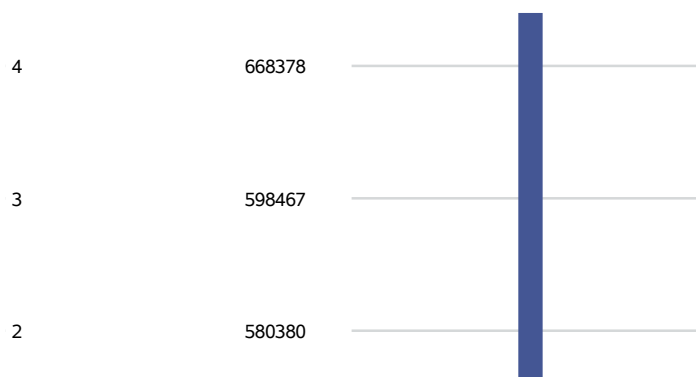
Alpha	0.05
Error Degrees of Freedom	128
Error Mean Square	7.801E10

Number of Means	2	3
Critical Range	116505.94	139623.69

**PRICE REGWQ Grouping for Means of
BEDROOMS (Alpha = 0.05)**

Means covered by the same bar are not significantly different.

BEDROOMS Estimate



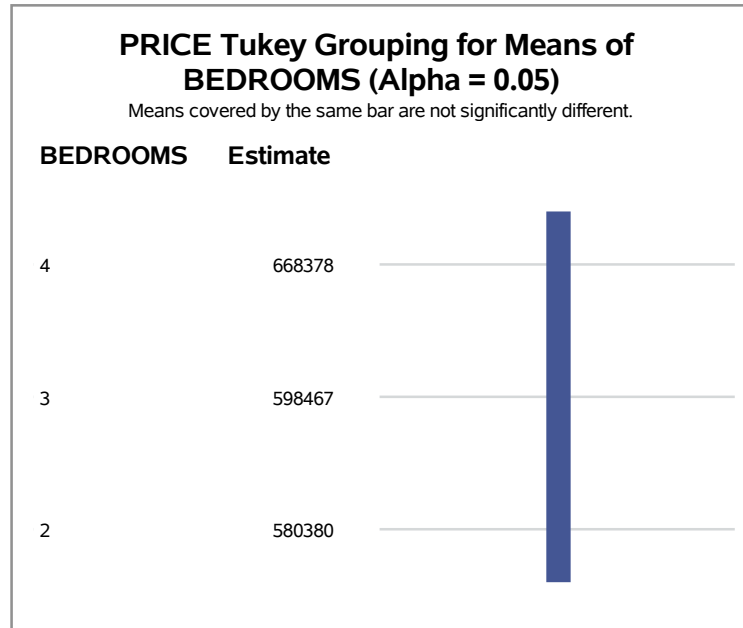
SAS Program for CRF Design-HOUSE_PRICES

The GLM Procedure

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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	128
Error Mean Square	7.801E10
Critical Value of Studentized Range	3.35351
Minimum Significant Difference	139624



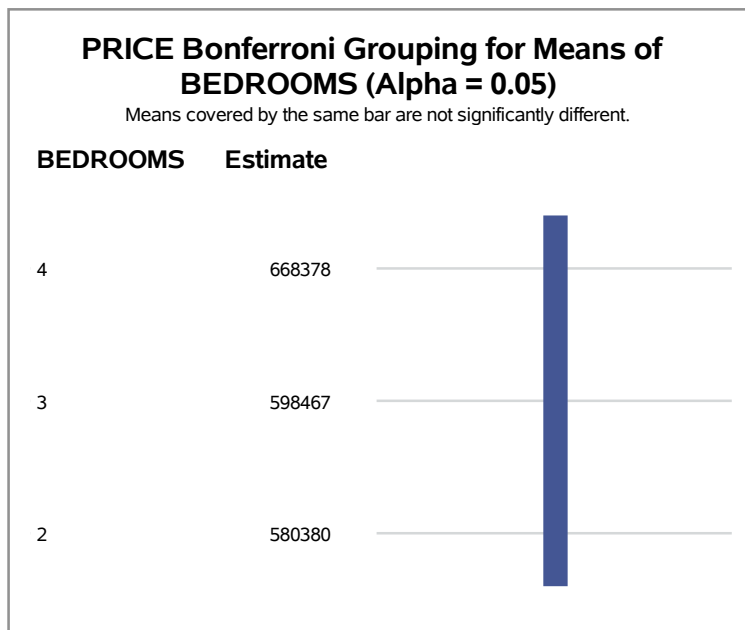
SAS Program for CRF Design-HOUSE_PRICES

The GLM Procedure

Bonferroni (Dunn) t Tests for PRICE

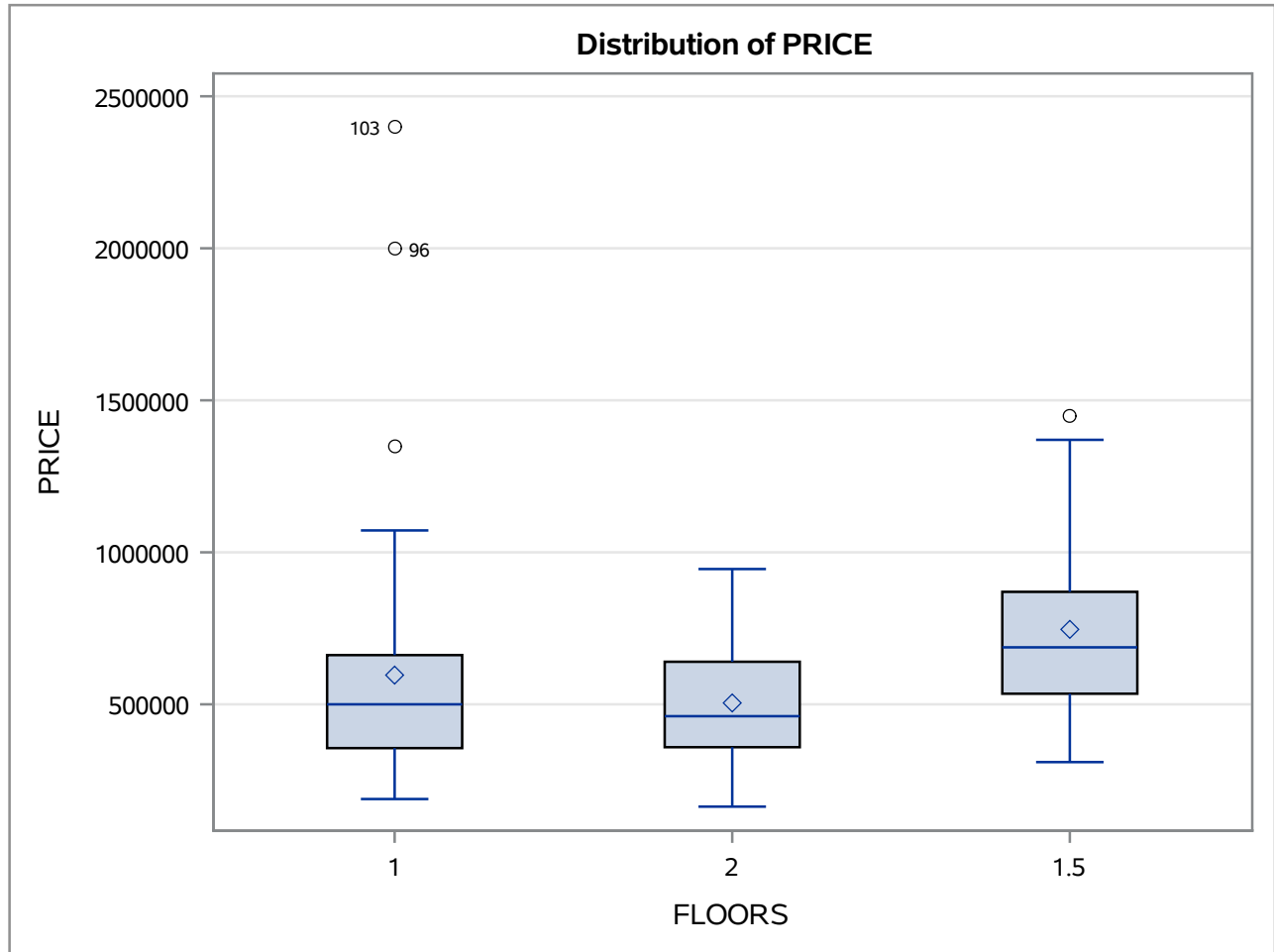
Note: This test controls the Type I experimentwise error rate, but it generally has a higher Type II error rate than REGWQ.

Alpha	0.05
Error Degrees of Freedom	128
Error Mean Square	7.801E10
Critical Value of t	2.42585
Minimum Significant Difference	142836



SAS Program for CRF Design-HOUSE_PRICES

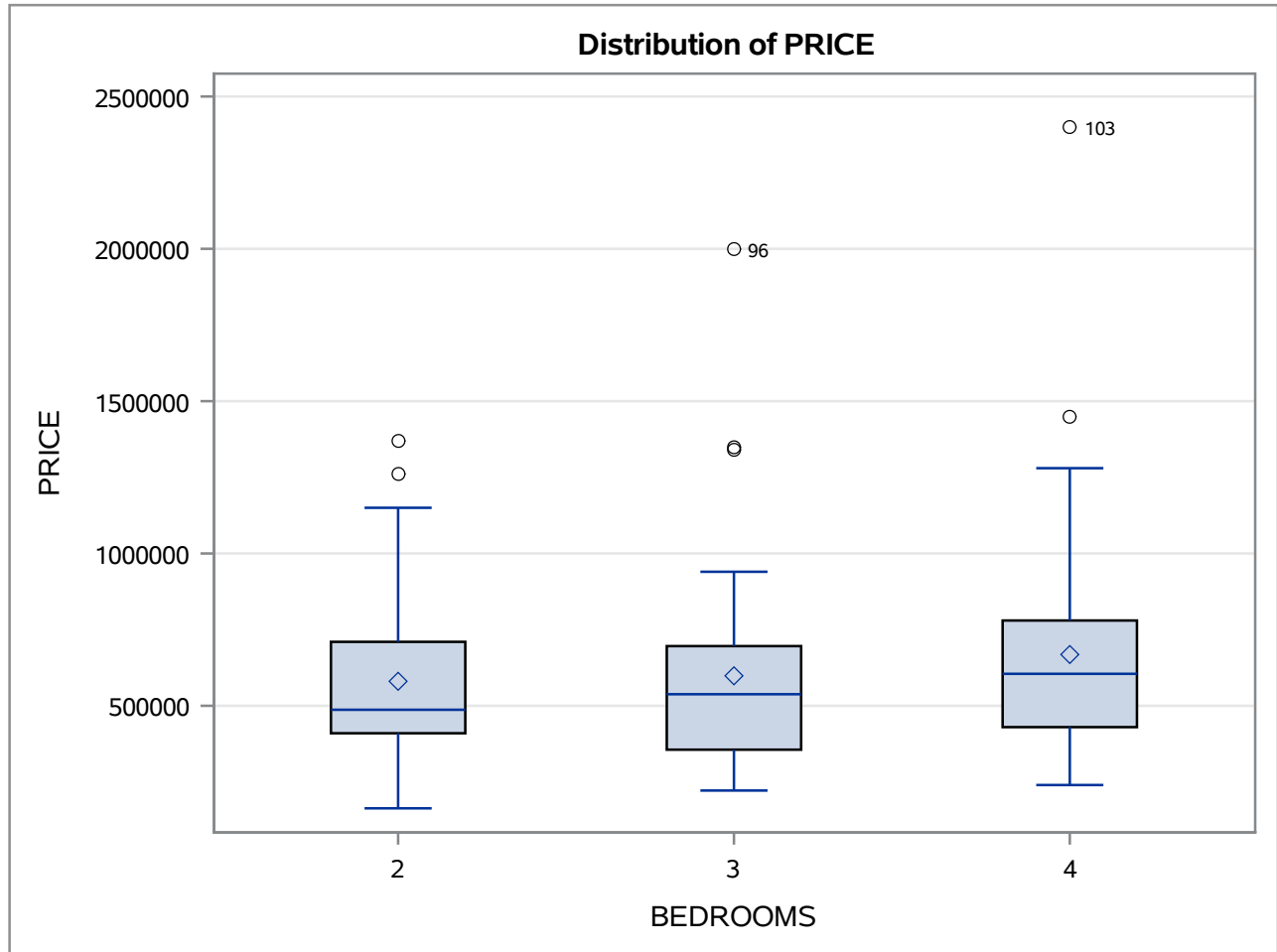
The GLM Procedure



Level of FLOORS	N	PRICE	
		Mean	Std Dev
1	45	596116.667	425098.150
2	45	504586.178	211744.676
1.5	45	746521.756	301451.094

SAS Program for CRF Design-HOUSE_PRICES

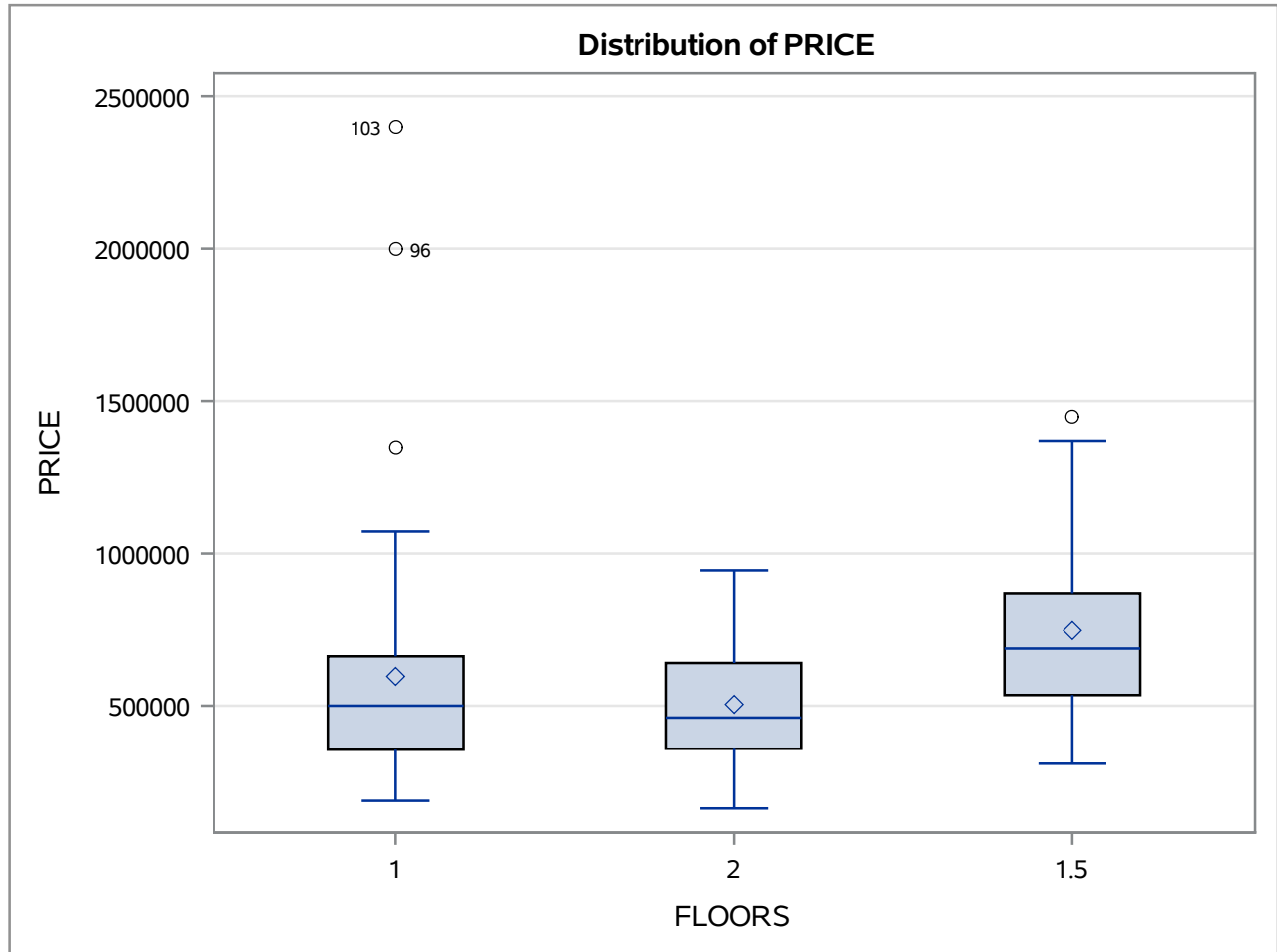
The GLM Procedure



Level of BEDROOMS	N	PRICE	
		Mean	Std Dev
2	45	580380.044	289360.996
3	45	598466.778	336714.123
4	45	668377.778	381333.995

SAS Program for CRF Design-HOUSE_PRICES

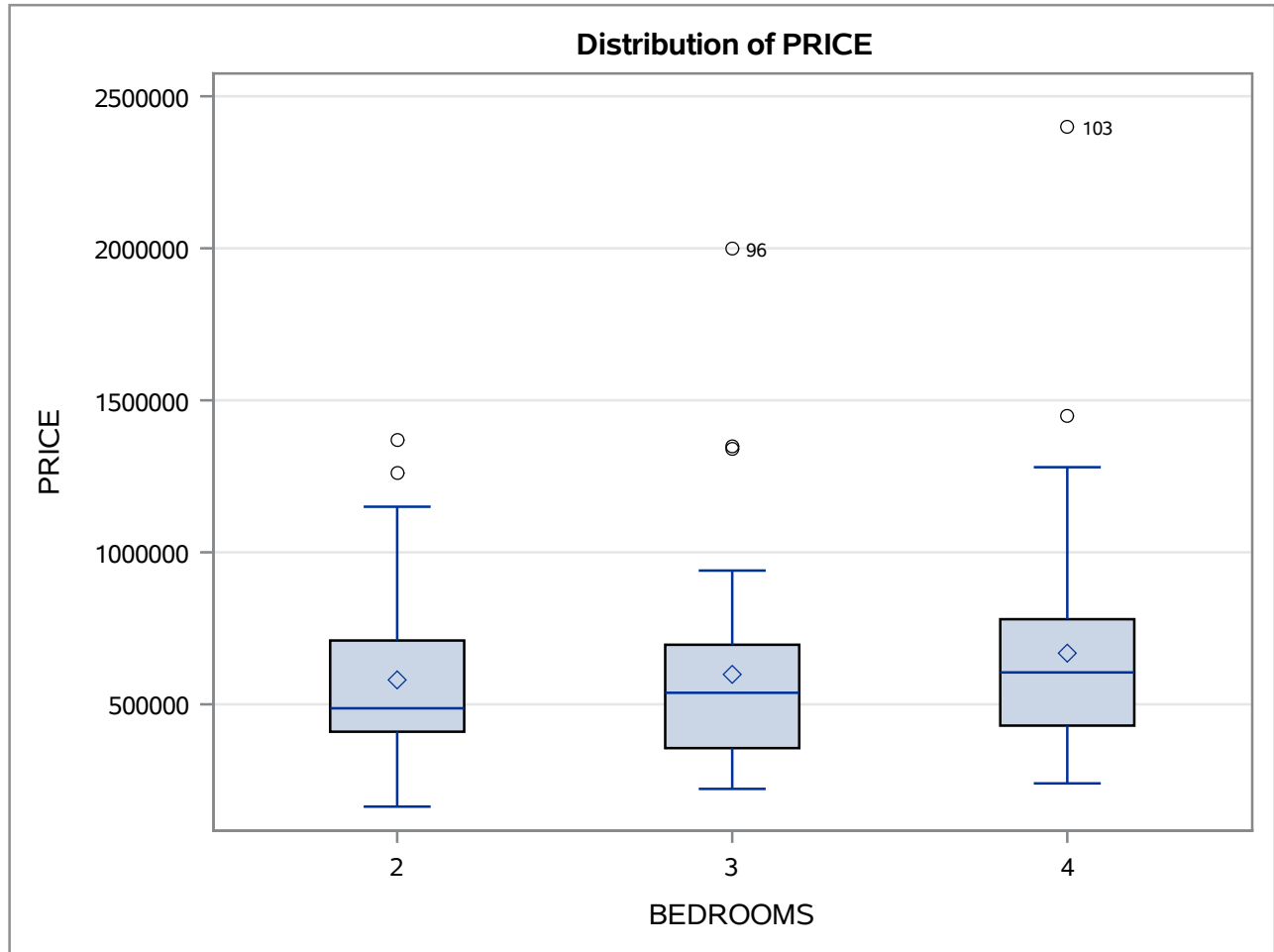
The GLM Procedure



Level of FLOORS	N	PRICE	
		Mean	Std Dev
1	45	596116.667	425098.150
2	45	504586.178	211744.676
1.5	45	746521.756	301451.094

SAS Program for CRF Design-HOUSE_PRICES

The GLM Procedure



Level of BEDROOMS	N	PRICE	
		Mean	Std Dev
2	45	580380.044	289360.996
3	45	598466.778	336714.123
4	45	668377.778	381333.995

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=1 BEDROOMS=2

Moments			
N	15	Sum Weights	15
Mean	516206.667	Sum Observations	7743100
Std Deviation	242615.467	Variance	5.88623E10
Skewness	0.7502438	Kurtosis	0.64129667
Uncorrected SS	4.82111E12	Corrected SS	8.24072E11
Coeff Variation	46.9996771	Std Error Mean	62643.0441

Basic Statistical Measures			
Location		Variability	
Mean	516206.7	Std Deviation	242615
Median	468000.0	Variance	5.88623E10
Mode	.	Range	883500
		Interquartile Range	286000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	8.240447	Pr > t 	<.0001
Sign	M	7.5	Pr >= M 	<.0001
Signed Rank	S	60	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.940675	Pr < W	0.3909
Kolmogorov-Smirnov	D	0.159397	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.061387	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.361295	Pr > A-Sq	>0.2500

Quantiles (Definition 5)	
Level	Quantile
100% Max	1072000
99%	1072000
95%	1072000
90%	835000
75% Q3	641000

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure Variable: PRICE (PRICE)

FLOORS=1 BEDROOMS=2

Quantiles (Definition 5)	
Level	Quantile
50% Median	468000
25% Q1	355000
10%	189000
5%	188500
1%	188500
0% Min	188500

Extreme Observations							
Lowest				Highest			
Value	FLOORS	BEDROOMS	Obs	Value	FLOORS	BEDROOMS	Obs
188500	1	2	6	585000	1	2	4
189000	1	2	2	641000	1	2	10
252700	1	2	3	775000	1	2	11
355000	1	2	5	835000	1	2	13
435000	1	2	15	1072000	1	2	7

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=1 BEDROOMS=3

Moments			
N	15	Sum Weights	15
Mean	622910	Sum Observations	9343650
Std Deviation	478927.934	Variance	2.29372E11
Skewness	2.05524781	Kurtosis	4.52561209
Uncorrected SS	9.03146E12	Corrected SS	3.21121E12
Coeff Variation	76.8855748	Std Error Mean	123658.661

Basic Statistical Measures			
Location		Variability	
Mean	622910.0	Std Deviation	478928
Median	510000.0	Variance	2.29372E11
Mode	.	Range	1778100
		Interquartile Range	370650

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	5.037334	Pr > t 	0.0002
Sign	M	7.5	Pr >= M 	<.0001
Signed Rank	S	60	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.762386	Pr < W	0.0013
Kolmogorov-Smirnov	D	0.267059	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.215692	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	1.265665	Pr > A-Sq	<0.0050

Quantiles (Definition 5)	
Level	Quantile
100% Max	2000000
99%	2000000
95%	2000000
90%	1350000
75% Q3	662500

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure Variable: PRICE (PRICE)

FLOORS=1 BEDROOMS=3

Quantiles (Definition 5)	
Level	Quantile
50% Median	510000
25% Q1	291850
10%	229500
5%	221900
1%	221900
0% Min	221900

Extreme Observations							
Lowest				Highest			
Value	FLOORS	BEDROOMS	Obs	Value	FLOORS	BEDROOMS	Obs
221900	1	3	16	662000	1	3	30
229500	1	3	18	662500	1	3	22
230000	1	3	20	790000	1	3	28
291850	1	3	17	1350000	1	3	27
356000	1	3	24	2000000	1	3	26

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=1 BEDROOMS=4

Moments			
N	15	Sum Weights	15
Mean	649233.333	Sum Observations	9738500
Std Deviation	518722.258	Variance	2.69073E11
Skewness	3.04952501	Kurtosis	10.6069152
Uncorrected SS	1.00896E13	Corrected SS	3.76702E12
Coeff Variation	79.8976626	Std Error Mean	133933.511

Basic Statistical Measures			
Location		Variability	
Mean	649233.3	Std Deviation	518722
Median	578000.0	Variance	2.69073E11
Mode	.	Range	2160000
		Interquartile Range	369000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	4.84743	Pr > t 	0.0003
Sign	M	7.5	Pr >= M 	<.0001
Signed Rank	S	60	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.630384	Pr < W	<0.0001
Kolmogorov-Smirnov	D	0.289858	Pr > D	<0.0100
Cramer-von Mises	W-Sq	0.310816	Pr > W-Sq	<0.0050
Anderson-Darling	A-Sq	1.86468	Pr > A-Sq	<0.0050

Quantiles (Definition 5)	
Level	Quantile
100% Max	2400000
99%	2400000
95%	2400000
90%	840000
75% Q3	749000

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=1 BEDROOMS=4

Quantiles (Definition 5)	
Level	Quantile
50% Median	578000
25% Q1	380000
10%	260000
5%	240000
1%	240000
0% Min	240000

Extreme Observations							
Lowest				Highest			
Value	FLOORS	BEDROOMS	Obs	Value	FLOORS	BEDROOMS	Obs
240000	1	4	34	660500	1	4	38
260000	1	4	37	749000	1	4	44
322500	1	4	33	775000	1	4	36
380000	1	4	35	840000	1	4	41
385000	1	4	32	2400000	1	4	43

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure Variable: PRICE (PRICE)

FLOORS=1.5 BEDROOMS=2

Moments			
N	15	Sum Weights	15
Mean	757808.267	Sum Observations	11367124
Std Deviation	316491.768	Variance	1.00167E11
Skewness	0.79136993	Kurtosis	-0.6384903
Uncorrected SS	1.00164E13	Corrected SS	1.40234E12
Coeff Variation	41.7640954	Std Error Mean	81717.823

Basic Statistical Measures			
Location		Variability	
Mean	757808.3	Std Deviation	316492
Median	672324.0	Variance	1.00167E11
Mode	.	Range	970100
		Interquartile Range	632500

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	9.273476	Pr > t 	<.0001
Sign	M	7.5	Pr >= M 	<.0001
Signed Rank	S	60	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.889933	Pr < W	0.0669
Kolmogorov-Smirnov	D	0.201674	Pr > D	0.0972
Cramer-von Mises	W-Sq	0.11163	Pr > W-Sq	0.0742
Anderson-Darling	A-Sq	0.652408	Pr > A-Sq	0.0750

Quantiles (Definition 5)	
Level	Quantile
100% Max	1370000
99%	1370000
95%	1370000
90%	1260000
75% Q3	1087500

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=1.5 BEDROOMS=2

Quantiles (Definition 5)	
Level	Quantile
50% Median	672324
25% Q1	455000
10%	439900
5%	399900
1%	399900
0% Min	399900

Extreme Observations							
Lowest				Highest			
Value	FLOORS	BEDROOMS	Obs	Value	FLOORS	BEDROOMS	Obs
399900	1.5	2	60	850000	1.5	2	58
439900	1.5	2	51	1087500	1.5	2	56
450000	1.5	2	50	1150000	1.5	2	59
455000	1.5	2	46	1260000	1.5	2	53
575000	1.5	2	54	1370000	1.5	2	57

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=1.5 BEDROOMS=3

Moments			
N	15	Sum Weights	15
Mean	645323.667	Sum Observations	9679855
Std Deviation	266439.03	Variance	7.09898E10
Skewness	1.08493167	Kurtosis	2.13982864
Uncorrected SS	7.2405E12	Corrected SS	9.93857E11
Coeff Variation	41.2876582	Std Error Mean	68794.2617

Basic Statistical Measures			
Location		Variability	
Mean	645323.7	Std Deviation	266439
Median	610000.0	Variance	7.09898E10
Mode	.	Range	1028750
		Interquartile Range	324000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	9.380487	Pr > t 	<.0001
Sign	M	7.5	Pr >= M 	<.0001
Signed Rank	S	60	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.914476	Pr < W	0.1586
Kolmogorov-Smirnov	D	0.125972	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.041762	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.374652	Pr > A-Sq	>0.2500

Quantiles (Definition 5)	
Level	Quantile
100% Max	1338750
99%	1338750
95%	1338750
90%	876650
75% Q3	784000

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=1.5 BEDROOMS=3

Quantiles (Definition 5)	
Level	Quantile
50% Median	610000
25% Q1	460000
10%	317625
5%	310000
1%	310000
0% Min	310000

Extreme Observations							
Lowest				Highest			
Value	FLOORS	BEDROOMS	Obs	Value	FLOORS	BEDROOMS	Obs
310000	1.5	3	61	780000	1.5	3	69
317625	1.5	3	62	784000	1.5	3	72
339000	1.5	3	75	850830	1.5	3	71
460000	1.5	3	64	876650	1.5	3	73
535000	1.5	3	67	1338750	1.5	3	74

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=1.5 BEDROOMS=4

Moments			
N	15	Sum Weights	15
Mean	836433.333	Sum Observations	12546500
Std Deviation	307689.365	Variance	9.46727E10
Skewness	0.65828514	Kurtosis	-0.5054825
Uncorrected SS	1.18197E13	Corrected SS	1.32542E12
Coeff Variation	36.7858803	Std Error Mean	79445.0524

Basic Statistical Measures			
Location		Variability	
Mean	836433.3	Std Deviation	307689
Median	780000.0	Variance	9.46727E10
Mode	.	Range	1005000
		Interquartile Range	439000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	10.52845	Pr > t 	<.0001
Sign	M	7.5	Pr >= M 	<.0001
Signed Rank	S	60	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.936105	Pr < W	0.3359
Kolmogorov-Smirnov	D	0.123231	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.050879	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.34996	Pr > A-Sq	>0.2500

Quantiles (Definition 5)	
Level	Quantile
100% Max	1450000
99%	1450000
95%	1450000
90%	1280000
75% Q3	1010000

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=1.5 BEDROOMS=4

Quantiles (Definition 5)	
Level	Quantile
50% Median	780000
25% Q1	571000
10%	485000
5%	445000
1%	445000
0% Min	445000

Extreme Observations							
Lowest				Highest			
Value	FLOORS	BEDROOMS	Obs	Value	FLOORS	BEDROOMS	Obs
445000	1.5	4	80	1000000	1.5	4	83
485000	1.5	4	76	1010000	1.5	4	84
535000	1.5	4	79	1249000	1.5	4	88
571000	1.5	4	78	1280000	1.5	4	90
610000	1.5	4	87	1450000	1.5	4	81

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=2 BEDROOMS=2

Moments			
N	15	Sum Weights	15
Mean	467125.2	Sum Observations	7006878
Std Deviation	228553.76	Variance	5.22368E10
Skewness	1.10993971	Kurtosis	0.91260009
Uncorrected SS	4.0044E12	Corrected SS	7.31315E11
Coeff Variation	48.9277308	Std Error Mean	59012.3271

Basic Statistical Measures			
Location		Variability	
Mean	467125.2	Std Deviation	228554
Median	419000.0	Variance	5.22368E10
Mode	.	Range	781500
		Interquartile Range	196000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	7.915722	Pr > t 	<.0001
Sign	M	7.5	Pr >= M 	<.0001
Signed Rank	S	60	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.88524	Pr < W	0.0568
Kolmogorov-Smirnov	D	0.193472	Pr > D	0.1331
Cramer-von Mises	W-Sq	0.107051	Pr > W-Sq	0.0850
Anderson-Darling	A-Sq	0.683848	Pr > A-Sq	0.0612

Quantiles (Definition 5)	
Level	Quantile
100% Max	945000
99%	945000
95%	945000
90%	935000
75% Q3	531000

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=2 BEDROOMS=2

Quantiles (Definition 5)	
Level	Quantile
50% Median	419000
25% Q1	335000
10%	215000
5%	163500
1%	163500
0% Min	163500

Extreme Observations							
Lowest				Highest			
Value	FLOORS	BEDROOMS	Obs	Value	FLOORS	BEDROOMS	Obs
163500	2	2	94	490000	2	2	96
215000	2	2	91	531000	2	2	98
259950	2	2	101	655000	2	2	95
335000	2	2	92	935000	2	2	102
359000	2	2	100	945000	2	2	104

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=2 BEDROOMS=3

Moments			
N	15	Sum Weights	15
Mean	527166.667	Sum Observations	7907500
Std Deviation	218001.693	Variance	4.75247E10
Skewness	0.84728636	Kurtosis	-0.2196709
Uncorrected SS	4.83392E12	Corrected SS	6.65346E11
Coeff Variation	41.3534669	Std Error Mean	56287.7951

Basic Statistical Measures			
Location		Variability	
Mean	527166.7	Std Deviation	218002
Median	465000.0	Variance	4.75247E10
Mode	.	Range	682500
		Interquartile Range	356000

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	9.365559	Pr > t 	<.0001
Sign	M	7.5	Pr >= M 	<.0001
Signed Rank	S	60	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.903346	Pr < W	0.1071
Kolmogorov-Smirnov	D	0.171291	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.081841	Pr > W-Sq	0.1878
Anderson-Darling	A-Sq	0.532438	Pr > A-Sq	0.1476

Quantiles (Definition 5)	
Level	Quantile
100% Max	940000
99%	940000
95%	940000
90%	937000
75% Q3	685000

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure Variable: PRICE (PRICE)

FLOORS=2 BEDROOMS=3

Quantiles (Definition 5)	
Level	Quantile
50% Median	465000
25% Q1	329000
10%	301000
5%	257500
1%	257500
0% Min	257500

Extreme Observations							
Lowest				Highest			
Value	FLOORS	BEDROOMS	Obs	Value	FLOORS	BEDROOMS	Obs
257500	2	3	107	580500	2	3	113
301000	2	3	115	685000	2	3	110
323000	2	3	108	770000	2	3	119
329000	2	3	111	937000	2	3	112
395000	2	3	109	940000	2	3	116

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=2 BEDROOMS=4

Moments			
N	15	Sum Weights	15
Mean	519466.667	Sum Observations	7792000
Std Deviation	197139.224	Variance	3.88639E10
Skewness	0.28407412	Kurtosis	-1.0127923
Uncorrected SS	4.59178E12	Corrected SS	5.44094E11
Coeff Variation	37.9503127	Std Error Mean	50901.1289

Basic Statistical Measures			
Location		Variability	
Mean	519466.7	Std Deviation	197139
Median	480000.0	Variance	3.88639E10
Mode	360000.0	Range	641500
		Interquartile Range	290000

Note: The mode displayed is the smallest of 2 modes with a count of 2.

Tests for Location: Mu0=0				
Test	Statistic		p Value	
Student's t	t	10.20541	Pr > t 	<.0001
Sign	M	7.5	Pr >= M 	<.0001
Signed Rank	S	60	Pr >= S 	<.0001

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.948956	Pr < W	0.5082
Kolmogorov-Smirnov	D	0.141689	Pr > D	>0.1500
Cramer-von Mises	W-Sq	0.05524	Pr > W-Sq	>0.2500
Anderson-Darling	A-Sq	0.321549	Pr > A-Sq	>0.2500

Quantiles (Definition 5)	
Level	Quantile
100% Max	885000
99%	885000
95%	885000
90%	785000
75% Q3	650000

SAS Program for CRF Design-HOUSE_PRICES

The UNIVARIATE Procedure
Variable: PRICE (PRICE)

FLOORS=2 BEDROOMS=4

Quantiles (Definition 5)	
Level	Quantile
50% Median	480000
25% Q1	360000
10%	287000
5%	243500
1%	243500
0% Min	243500

Extreme Observations							
Lowest				Highest			
Value	FLOORS	BEDROOMS	Obs	Value	FLOORS	BEDROOMS	Obs
243500	2	4	124	640000	2	4	127
287000	2	4	122	650000	2	4	131
292500	2	4	121	719000	2	4	126
360000	2	4	130	785000	2	4	133
360000	2	4	123	885000	2	4	134