

Forward Selection Results | 2 Interaction Limit 5 fold CV

The GLMSELECT Procedure

Data Set	WORK.WORKING
Dependent Variable	SalePrice
Selection Method	Forward
Select Criterion	SBC
Stop Criterion	SBC
Choose Criterion	Cross Validation
Cross Validation Method	Split
Cross Validation Fold	5
Effect Hierarchy Enforced	Single

Number of Observations Read	2919
Number of Observations Used	2919
Number of Observations Used for Training	1460
Number of Observations Used for Testing	1459

Class Level Information

Class	Levels	Values
Neighborhood	25	Blmngtn Blueste BrDale BrkSide ClearCr CollgCr Crawfor Edwards Gilbert IDOTRR MeadowV Mitchel NPKvill NWAmes NoRidge NridgHt OldTown SWISU Sawyer SawyerW Somerst StoneBr Timber Veenker NAmes
OverallQual	10	1 2 3 4 5 6 7 8 9 10
OverallCond	9	1 2 3 4 5 6 7 8 9
MSZoning	6	C FV NA RH RL RM

Dimensions

Number of Effects	16
Number of Parameters	552

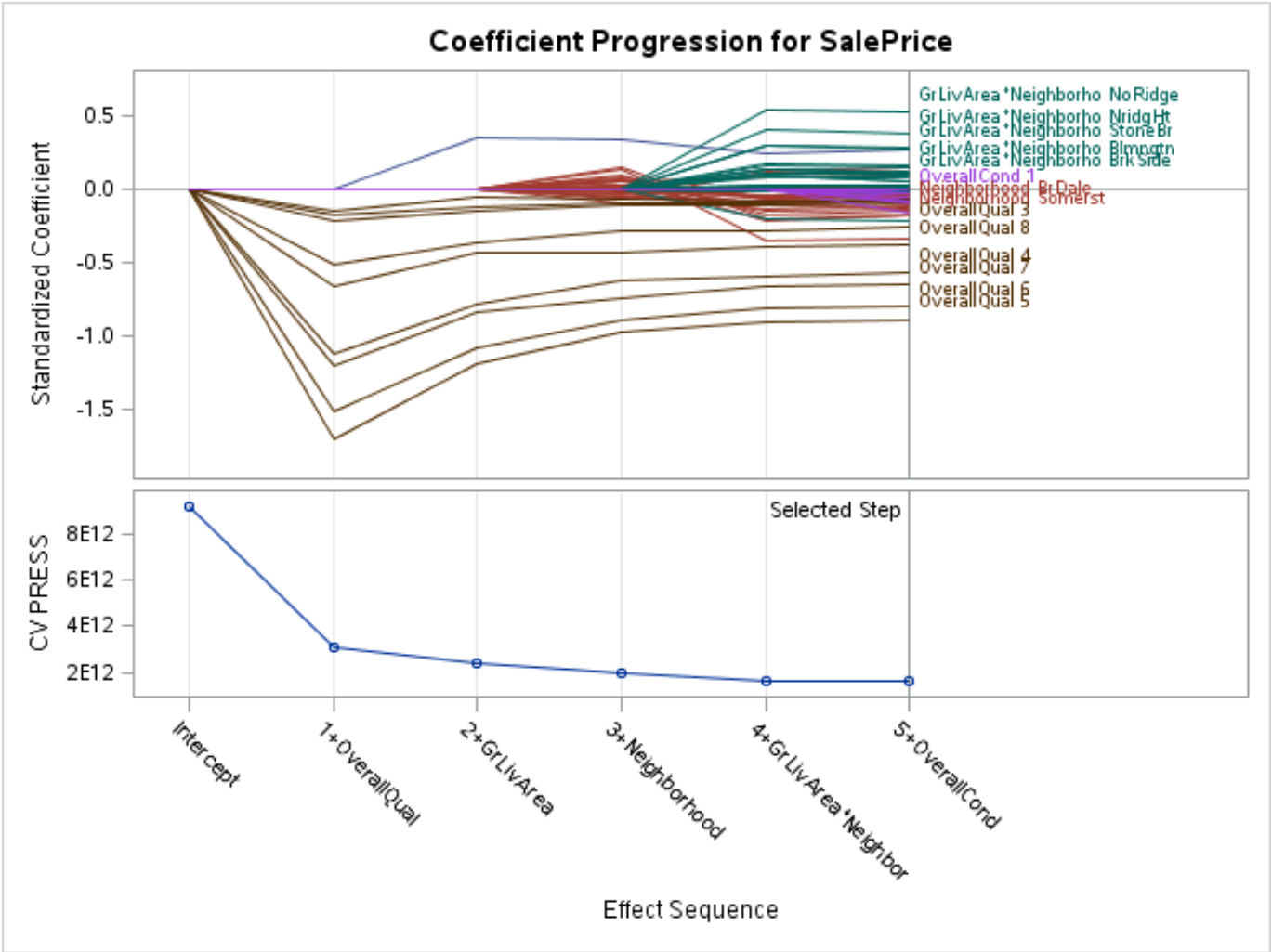
Forward Selection Results | 2 Interaction Limit 5 fold CV

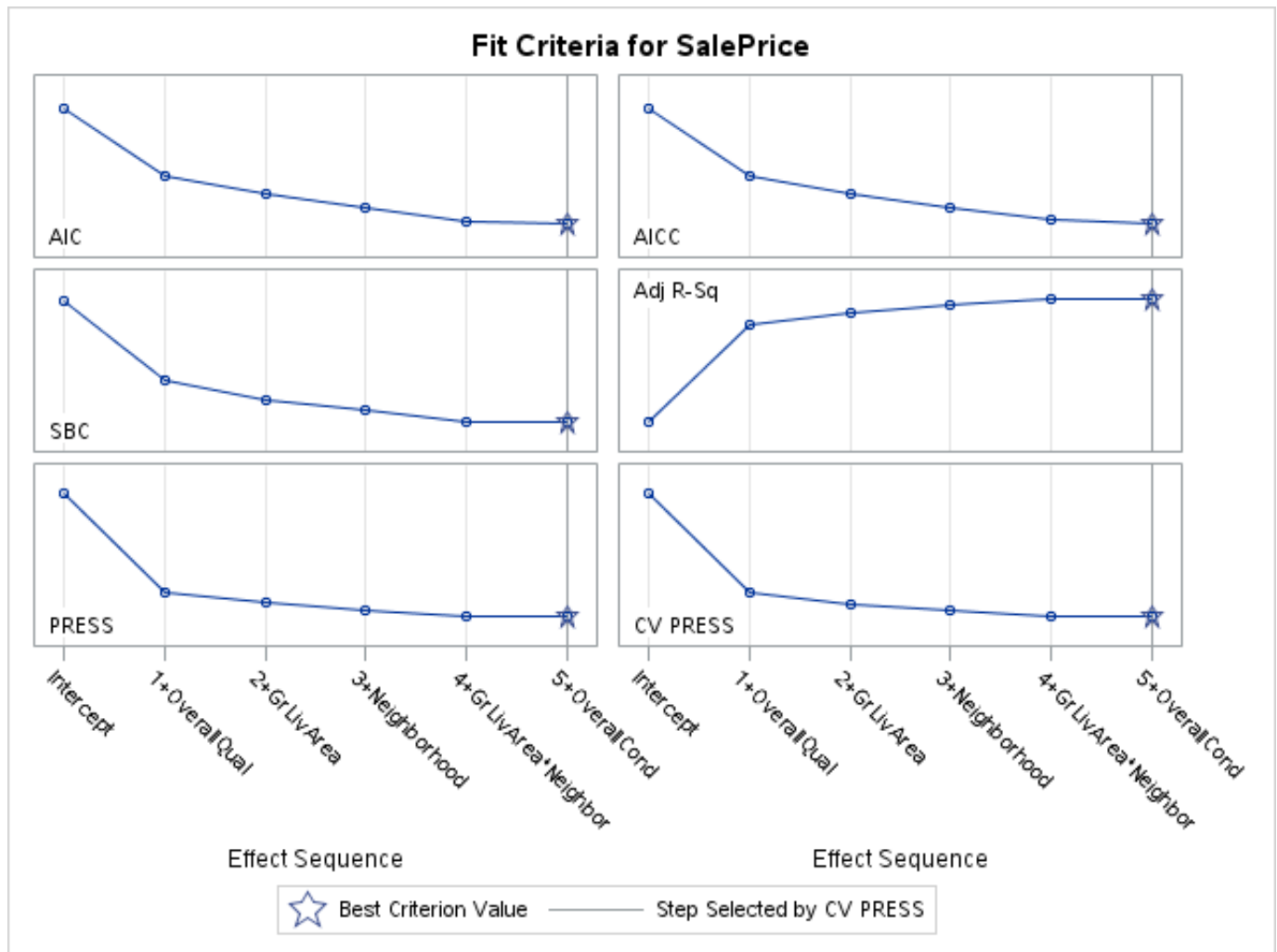
The GLMSELECT Procedure

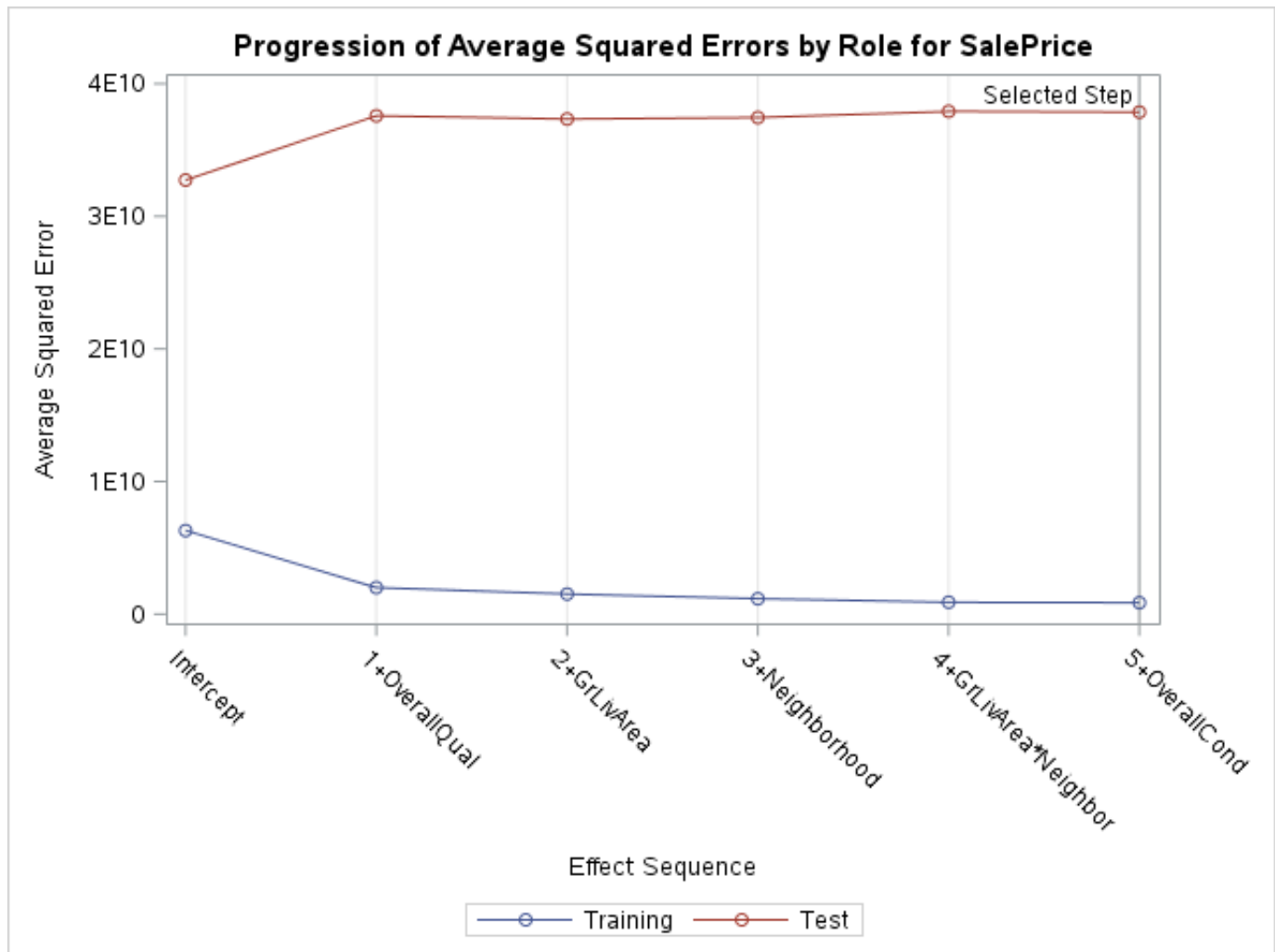
Forward Selection Summary									
Step	Effect Entered	Number Effects In	Number Parms In	Model R-Square	SBC	PRESS	ASE	Test ASE	CV PRESS
0	Intercept	1	1	0.0000	32952.0292	9.22054E12	6306788585	3.27325E10	9.21717E12
1	OverallQual	2	10	0.6842	31334.8280	2.99435E12	1991801855	3.75834E10	3.04585E12
2	GrLivArea	3	11	0.7597	30943.1141	2.31563E12	1515509915	3.73387E10	2.41904E12
3	Neighborhood	4	35	0.8159	30728.9455	1.83962E12	1161007459	3.74487E10	1.96917E12
4	GrLivArea*Neighborho	5	59	0.8581	30523.7195	1.47962E12	894893459	3.79102E10	1.64475E12
5	OverallCond	6	67	0.8646	30513.3098*	1.42379E12*	853760216	3.78647E10	1.61033E12*
* Optimal Value of Criterion									

Selection stopped at a local minimum of the SBC criterion.

Stop Details				
Candidate For	Effect	Candidate SBC		Compare SBC
Entry	GrLivArea*OverallCon	30523.3746	>	30513.3098







Forward Selection Results | 2 Interaction Limit 5 fold CV

The GLMSELECT Procedure
Selected Model

The selected model, based on Cross Validation, is the model at Step 5.

Effects: Intercept GrLivArea Neighborhood GrLivArea*Neighborho OverallQual OverallCond

Note: The p-values for parameters and effects are not adjusted for the fact that the terms in the model have been selected and so are generally liberal.

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	66	7.961421E12	1.206276E11	134.81	<.0001
Error	1393	1.24649E12	894824060		
Corrected Total	1459	9.207911E12			

Root MSE	29914
Dependent Mean	180921
R-Square	0.8646

Adj R-Sq	0.8582
AIC	31621
AICC	31628
PRESS	1.423788E12
SBC	30513
ASE (Train)	853760216
ASE (Test)	37864654203
CV PRESS	1.610327E12

Cross Validation Details			
Index	Observations		CV PRESS
	Fitted	Left Out	
1	1168	292	2.42951E11
2	1168	292	2.62591E11
3	1168	292	2.50474E11
4	1168	292	6.26581E11
5	1168	292	2.2773E11
Total			1.61033E12

Parameter Estimates										
Parameter	DF	Estimate	Standard Error	t Value	Pr > t	Cross Validation Estimates				
						1	2	3	4	5
Intercept	1	265394	12879	20.61	<.0001	239063.14	2.59E+05	276281.39	2.90E+05	274167.12
GrLivArea	1	41.310241	5.015060	8.24	<.0001	40.10	4.38E+01	38.41	4.39E+01	41.12
Neighborhood Blmngtn	1	-103591	78009	-1.33	0.1844	-129988.87	-1.20E+05	-103744.34	-1.07E+05	-15970.35
Neighborhood Blueste	1	-78091	181540	-0.43	0.6671	-79086.06	-1.50E+04	-83169.02	-7.40E+04	-27069.07
Neighborhood BrDale	1	-78951	58384	-1.35	0.1765	-79003.54	-7.99E+04	-87491.87	-7.24E+04	-83170.50
Neighborhood BrkSide	1	-49003	15380	-3.19	0.0015	-46045.76	-4.67E+04	-48329.25	-5.12E+04	-53664.85
Neighborhood ClearCr	1	56101	23856	2.35	0.0188	62800.35	5.29E+04	48069.01	5.53E+04	50921.11
Neighborhood CollgCr	1	-14766	11112	-1.33	0.1841	-16044.32	-1.93E+04	-3043.98	-2.04E+04	-11267.88
Neighborhood Crawford	1	-20061	16116	-1.24	0.2134	-28547.17	-2.36E+04	-20119.66	-8.10E+03	-13565.57
Neighborhood Edwards	1	45762	9881.851673	4.63	<.0001	44533.07	4.75E+04	47808.62	-1.78E+04	53465.54
Neighborhood Gilbert	1	-15992	20280	-0.79	0.4305	-18790.41	-1.72E+04	-29970.75	-1.94E+04	3979.99
Neighborhood IDOTRR	1	-38258	22496	-1.70	0.0892	-19521.19	-3.57E+04	-46570.11	-5.47E+04	-32332.01
Neighborhood MeadowV	1	-18536	19673	-0.94	0.3462	-15805.89	-1.64E+04	-21225.51	-2.49E+04	-12185.17
Neighborhood Mitchel	1	89.403710	16836	0.01	0.9958	-3427.71	1.27E+04	-4488.60	-2.74E+03	-573.46
Neighborhood NPKvill	1	9131.523752	57151	0.16	0.8731	4241.12	1.59E+04	4674.97	1.26E+04	11070.98
Neighborhood NWAmes	1	-8693.889554	16699	-0.52	0.6027	-21196.59	9.36E+03	-12726.51	-3.13E+03	-11450.68
Neighborhood NoRidge	1	-161214	23041	-7.00	<.0001	-180903.25	-1.38E+05	-161318.23	-1.47E+05	-156480.45
Neighborhood NridgHt	1	-61836	17885	-3.46	0.0006	-74510.79	-5.86E+04	-86655.34	-1.55E+04	-65018.23

Neighborhood OldTown	1	-24686	10362	-2.38	0.0173	-18453.28	-2.50E+04	-27993.73	-2.33E+04	-26410.03
Neighborhood SWISU	1	-26806	20641	-1.30	0.1943	-30907.04	-1.11E+04	-31724.47	-2.43E+04	-27310.95
Neighborhood Sawyer	1	2674.826976	14528	0.18	0.8540	6235.74	-1.96E+03	4114.12	3.12E+03	4904.15
Neighborhood SawyerW	1	-27392	14786	-1.85	0.0642	-30036.50	-2.89E+04	-31765.47	-1.39E+04	-27172.77
Neighborhood Somerst	1	-59756	19466	-3.07	0.0022	-73457.52	-5.58E+04	-88089.30	-4.68E+04	-36798.30
Neighborhood StoneBr	1	-94591	22740	-4.16	<.0001	-86280.74	-9.91E+04	-76004.24	-1.41E+05	-58057.18
Neighborhood Timber	1	-17906	23572	-0.76	0.4476	-28974.15	-7.25E+03	-12114.42	-6.03E+03	-41858.86
Neighborhood Veenker	1	-42467	48041	-0.88	0.3769	-44734.66	-2.35E+04	-30407.11	-2.31E+04	-74656.06
Neighborhood NAMES	0	0	.	.	.	0.00	0.00E+00	0.00	0.00E+00	0.00
GrLivArea*Neighborhood BImngtn	1	83.731962	54.353020	1.54	0.1237	106.09	9.74E+01	81.97	8.61E+01	14.44
GrLivArea*Neighborhood Blueste	1	41.258566	129.467911	0.32	0.7500	42.46	0.00E+00	44.15	3.86E+01	0.00
GrLivArea*Neighborhood BrDale	1	38.613451	50.419574	0.77	0.4439	39.18	3.96E+01	43.20	3.27E+01	45.09
GrLivArea*Neighborhood BrkSide	1	26.920990	11.888519	2.26	0.0237	27.07	2.42E+01	25.70	2.73E+01	31.47
GrLivArea*Neighborhood ClearCr	1	-9.223447	13.319438	-0.69	0.4888	-14.14	-1.03E+01	-5.66	-4.80E+00	-4.81
GrLivArea*Neighborhood CollgCr	1	26.163109	7.650677	3.42	0.0006	28.51	2.87E+01	15.98	2.98E+01	24.97
GrLivArea*Neighborhood Crawfor	1	24.695256	9.267105	2.66	0.0078	31.33	2.32E+01	26.60	1.70E+01	21.85
GrLivArea*Neighborhood Edwards	1	-45.850807	6.910627	-6.63	<.0001	-43.48	-4.74E+01	-48.87	3.22E+00	-49.89
GrLivArea*Neighborhood Gilbert	1	20.049777	12.411079	1.62	0.1064	23.07	2.09E+01	26.32	2.17E+01	9.06
GrLivArea*Neighborhood IDOTRR	1	6.059202	18.853419	0.32	0.7480	-6.25	2.40E-01	13.76	1.86E+01	1.10
GrLivArea*Neighborhood MeadowV	1	-5.468708	16.651483	-0.33	0.7426	-4.98	-6.76E+00	-6.20	-7.39E-01	-9.32
GrLivArea*Neighborhood Mitchel	1	7.736907	12.479593	0.62	0.5354	10.60	-3.09E+00	11.29	1.02E+01	9.16
GrLivArea*Neighborhood NPKvill	1	-12.776816	44.821529	-0.29	0.7756	-7.44	-1.78E+01	-10.78	-1.51E+01	-14.29
GrLivArea*Neighborhood NWames	1	10.536221	9.868898	1.07	0.2859	18.05	-8.11E-01	12.81	8.06E+00	11.35
GrLivArea*Neighborhood NoRidge	1	97.390721	9.920529	9.82	<.0001	109.46	8.51E+01	97.71	9.00E+01	94.37
GrLivArea*Neighborhood NridgHt	1	68.929160	9.940029	6.93	<.0001	79.17	6.95E+01	79.02	3.90E+01	71.43
GrLivArea*Neighborhood OldTown	1	-4.531655	7.003096	-0.65	0.5177	-8.06	-4.18E+00	-1.29	-6.99E+00	-4.09
GrLivArea*Neighborhood SWISU	1	0.676895	11.327341	0.06	0.9524	3.32	-8.12E+00	3.31	-1.14E+00	1.47
GrLivArea*Neighborhood Sawyer	1	-2.170988	11.329144	-0.19	0.8481	-4.85	2.27E+00	-3.21	-3.98E+00	-3.12
GrLivArea*Neighborhood SawyerW	1	27.668620	9.263497	2.99	0.0029	30.06	2.75E+01	31.40	1.76E+01	28.41

GrLivArea*Neighborhood Somerst	1	56.896660	12.204382	4.66	<.0001	68.95	5.40E+01	72.83	4.88E+01	41.35
GrLivArea*Neighborhood StoneBr	1	90.043318	12.005530	7.50	<.0001	91.71	9.22E+01	82.91	1.07E+02	70.09
GrLivArea*Neighborhood Timber	1	34.194447	13.526821	2.53	0.0116	42.99	2.93E+01	26.90	2.47E+01	51.49
GrLivArea*Neighborhood Veenker	1	60.075963	30.737062	1.95	0.0508	61.90	4.48E+01	52.36	4.48E+01	85.72
GrLivArea*Neighborhood NAMES	0	0	.	.	.	0.00	0.00E+00	0.00	0.00E+00	0.00
OverallQual 1	1	-150964	33762	-4.47	<.0001	-130377.12	-1.42E+05	-159784.87	-2.54E+05	-156526.23
OverallQual 2	1	-166437	21533	-7.73	<.0001	-147842.98	-1.73E+05	-172393.62	-1.94E+05	-175959.33
OverallQual 3	1	-175966	11791	-14.92	<.0001	-149724.22	-1.67E+05	-184399.32	-1.99E+05	-189619.64
OverallQual 4	1	-166740	9806.731511	-17.00	<.0001	-144509.97	-1.58E+05	-175841.10	-1.92E+05	-175933.50
OverallQual 5	1	-158494	9291.389424	-17.06	<.0001	-134179.76	-1.51E+05	-167417.97	-1.86E+05	-168491.63
OverallQual 6	1	-145714	9117.898007	-15.98	<.0001	-121288.57	-1.37E+05	-152438.85	-1.76E+05	-156019.65
OverallQual 7	1	-125581	8891.812001	-14.12	<.0001	-103075.84	-1.18E+05	-131233.89	-1.56E+05	-134695.00
OverallQual 8	1	-94584	8703.104331	-10.87	<.0001	-72183.90	-8.72E+04	-99646.87	-1.23E+05	-104147.44
OverallQual 9	1	-32342	9230.643347	-3.50	0.0005	-8548.51	-2.60E+04	-34916.73	-6.54E+04	-42495.86
OverallQual 10	0	0	.	.	.	0.00	0.00E+00	0.00	0.00E+00	0.00
OverallCond 1	1	-95087	44895	-2.12	0.0344	0.00	-1.00E+05	-93852.49	0.00E+00	-102173.73
OverallCond 2	1	-36836	15557	-2.37	0.0180	-32926.12	-3.52E+04	-37917.87	-5.47E+04	-33749.42
OverallCond 3	1	-48916	9548.614924	-5.12	<.0001	-45775.50	-5.38E+04	-50281.12	-4.28E+04	-48921.22
OverallCond 4	1	-35645	8079.004095	-4.41	<.0001	-33458.30	-4.09E+04	-31693.30	-3.67E+04	-35612.26
OverallCond 5	1	-25374	7021.474527	-3.61	0.0003	-22585.12	-3.02E+04	-23775.30	-2.36E+04	-25155.87
OverallCond 6	1	-19065	7103.844474	-2.68	0.0074	-16165.57	-2.37E+04	-18150.59	-1.79E+04	-17612.62
OverallCond 7	1	-12282	7131.148474	-1.72	0.0852	-9670.83	-1.62E+04	-9937.74	-1.34E+04	-10540.84
OverallCond 8	1	-12392	7641.493161	-1.62	0.1051	-11013.30	-1.46E+04	-12345.32	-1.25E+04	-9537.72
OverallCond 9	0	0	.	.	.	0.00	0.00E+00	0.00	0.00E+00	0.00