

Regression for number of semesters

The REG Procedure
 Model: MODEL1
 Dependent Variable: nsems

Number of Observations Read	50
Number of Observations Used	50

Maximum R-Square Improvement: Step 1

Variable unsure Entered: R-Square = 0.3105 and C(p) = 23.4722

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	53.95063	53.95063	21.61	<.0001
Error	48	119.82937	2.49645		
Corrected Total	49	173.78000			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	4.71429	0.42228	311.14286	124.63	<.0001
unsure	2.31349	0.49766	53.95063	21.61	<.0001

Bounds on condition number: 1, 1

The above model is the best 1-variable model found.

Maximum R-Square Improvement: Step 2

Variable cgpa Entered: R-Square = 0.3737 and C(p) = 19.0973

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	64.94631	32.47316	14.02	<.0001
Error	47	108.83369	2.31561		
Corrected Total	49	173.78000			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	8.32312	1.70531	55.16066	23.82	<.0001
cgpa	-0.98583	0.45240	10.99568	4.75	0.0344
unsure	1.75344	0.54385	24.07036	10.39	0.0023

Bounds on condition number: 1.2875, 5.1502

The above model is the best 2-variable model found.

Maximum R-Square Improvement: Step 3

Variable it Entered: R-Square = 0.4506 and C(p) = 13.3566

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	78.29798	26.09933	12.57	<.0001
Error	46	95.48202	2.07570		
Corrected Total	49	173.78000			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	9.49035	1.67887	66.32768	31.95	<.0001
cgpa	-1.45387	0.46639	20.17068	9.72	0.0031
unsure	1.86377	0.51674	27.00196	13.01	0.0008
it	1.52916	0.60293	13.35167	6.43	0.0147

Bounds on condition number: 1.5265, 12.347

The above model is the best 3-variable model found.

Maximum R-Square Improvement: Step 4

Variable hsgpa Entered: R-Square = 0.4938 and C(p) = 10.9972

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	85.81727	21.45432	10.98	<.0001
Error	45	87.96273	1.95473		
Corrected Total	49	173.78000			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	14.88652	3.19751	42.36909	21.68	<.0001
hsgpa	-1.40875	0.71827	7.51929	3.85	0.0560
cgpa	-1.47450	0.45272	20.73596	10.61	0.0021
unsure	1.92727	0.50251	28.75347	14.71	0.0004
it	1.70503	0.59193	16.21843	8.30	0.0061

Bounds on condition number: 1.5274, 20.715

The above model is the best 4-variable model found.

Maximum R-Square Improvement: Step 5

Variable nremedial Entered: R-Square = 0.5275 and C(p) = 9.5997

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	91.67755	18.33551	9.83	<.0001
Error	44	82.10245	1.86596		
Corrected Total	49	173.78000			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	14.27266	3.14321	38.47390	20.62	<.0001
hsgpa	-1.29133	0.70490	6.26223	3.36	0.0737
cgpa	-1.48172	0.44234	20.93791	11.22	0.0017
nremedial	0.14606	0.08242	5.86028	3.14	0.0833
unsure	1.56564	0.53168	16.18017	8.67	0.0051
it	1.80333	0.58099	17.97711	9.63	0.0033

Bounds on condition number: 1.5275, 33.475

The above model is the best 5-variable model found.

Maximum R-Square Improvement: Step 6

Variable voc Entered: R-Square = 0.5617 and C(p) = 8.1569

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	97.61578	16.26930	9.19	<.0001
Error	43	76.16422	1.77126		
Corrected Total	49	173.78000			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	14.89874	3.08144	41.40710	23.38	<.0001
hsgpa	-1.35006	0.68752	6.82983	3.86	0.0561
cgpa	-1.54132	0.43219	22.52764	12.72	0.0009
nremedial	0.20025	0.08558	9.69823	5.48	0.0240
unsure	1.24162	0.54741	9.11251	5.14	0.0284
voc	-1.40058	0.76493	5.93823	3.35	0.0740
it	3.08776	0.90139	20.78466	11.73	0.0014

Bounds on condition number: 3.3853, 73.709

Maximum R-Square Improvement: Step 7

Variable it Removed: R-Square = 0.5712 and C(p) = 7.1986
Variable altscore Entered

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	99.26875	16.54479	9.55	<.0001
Error	43	74.51125	1.73282		
Corrected Total	49	173.78000			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	12.97648	2.96038	33.29457	19.21	<.0001
hsgpa	-1.26550	0.67721	6.05109	3.49	0.0685
cgpa	-1.20420	0.40834	15.06973	8.70	0.0051
nremedial	0.19246	0.08366	9.17087	5.29	0.0263
unsure	1.82602	0.52987	20.57883	11.88	0.0013
voc	-3.36308	1.20931	13.40137	7.73	0.0080
altscore	1.72018	0.47804	22.43762	12.95	0.0008

Bounds on condition number: 8.5562, 132.89

The above model is the best 6-variable model found.

Maximum R-Square Improvement: Step 8

Variable uninterested Entered: R-Square = 0.5935 and C(p) = 6.9514

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	103.14484	14.73498	8.76	<.0001
Error	42	70.63516	1.68179		
Corrected Total	49	173.78000			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
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Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	13.51251	2.93776	35.58055	21.16	<.0001
hsgpa	-1.27255	0.66718	6.11838	3.64	0.0633
cgpa	-1.20485	0.40228	15.08594	8.97	0.0046
nremedial	0.19034	0.08243	8.96775	5.33	0.0259
unsure	2.14514	0.56275	24.43756	14.53	0.0004
uninterested	-0.84753	0.55827	3.87609	2.30	0.1365
voc	-3.45966	1.19307	14.14183	8.41	0.0059
altscore	1.65512	0.47289	20.60186	12.25	0.0011

Bounds on condition number: 8.627, 168.68

The above model is the best 7-variable model found.

Maximum R-Square Improvement: Step 9

Variable it Entered: R-Square = 0.6079 and C(p) = 7.5091

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	105.63249	13.20406	7.94	<.0001
Error	41	68.14751	1.66213		
Corrected Total	49	173.78000			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	14.69635	3.07668	37.92463	22.82	<.0001
hsgpa	-1.34868	0.66618	6.81238	4.10	0.0495
cgpa	-1.40584	0.43236	17.57330	10.57	0.0023
nremedial	0.20672	0.08303	10.30228	6.20	0.0169
unsure	1.86915	0.60322	15.95887	9.60	0.0035
uninterested	-0.90406	0.55692	4.38005	2.64	0.1122
voc	-2.94879	1.25744	9.14061	5.50	0.0239
it	1.69390	1.38461	2.48765	1.50	0.2282
altscore	0.94752	0.74535	2.68613	1.62	0.2108

Bounds on condition number: 21.685, 378.24

The above model is the best 8-variable model found.

Maximum R-Square Improvement: Step 10

Variable pg Entered: R-Square = 0.6129 and C(p) = 9.0003

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	9	106.51013	11.83446	7.04	<.0001
Error	40	67.26987	1.68175		
Corrected Total	49	173.78000			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	15.51047	3.29358	37.29700	22.18	<.0001
pg	-0.33522	0.46403	0.87765	0.52	0.4742
hsgpa	-1.46840	0.69029	7.61006	4.53	0.0396
cgpa	-1.49277	0.45124	18.40473	10.94	0.0020

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
nremedial	0.23089	0.08997	11.07486	6.59	0.0141
unsure	1.82207	0.61026	14.99204	8.91	0.0048
uninterested	-0.81826	0.57265	3.43375	2.04	0.1608
voc	-3.23510	1.32548	10.01815	5.96	0.0192
it	1.72768	1.39354	2.58494	1.54	0.2223
altscore	1.03559	0.75958	3.12601	1.86	0.1804

Bounds on condition number: 22.259, 457.93

The above model is the best 9-variable model found.

Maximum R-Square Improvement: Step 11

Variable nswitch Entered: R-Square = 0.6129 and C(p) = 11.0000

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	10	106.51069	10.65107	6.18	<.0001
Error	39	67.26931	1.72485		
Corrected Total	49	173.78000			

Variable	Parameter Estimate	Standard Error	Type II SS	F Value	Pr > F
Intercept	15.53010	3.51005	33.76552	19.58	<.0001
pg	-0.33403	0.47459	0.85443	0.50	0.4857
hsgpa	-1.46806	0.69935	7.60074	4.41	0.0423
cgpa	-1.49818	0.54737	12.92163	7.49	0.0093
nremedial	0.23110	0.09184	10.92076	6.33	0.0161
nswitch	-0.00378	0.21039	0.00055636	0.00	0.9858
unsure	1.82336	0.62218	14.81355	8.59	0.0056
uninterested	-0.81875	0.58058	3.43026	1.99	0.1664
voc	-3.23613	1.34358	10.00639	5.80	0.0208
it	1.73005	1.41745	2.56952	1.49	0.2296
altscore	1.03507	0.76981	3.11839	1.81	0.1865

Bounds on condition number: 22.291, 540.85

The above model is the best 10-variable model found.

No further improvement in R-Square is possible.

Regression for number of semesters

The REG Procedure
Model: MODEL1
Dependent Variable: nsems





