

## *Fastclus Analysis-Standardized data*

### *The FASTCLUS Procedure*

*Replace=FULL Radius=0 Maxclusters=3 Impute Maxiter=100 Converge=0*

Statistics for Variables				
Variable	Total STD	Within STD	R-Square	RSQ/(1-RSQ)
<b>Y1</b>	1.00000	0.48358	0.771294	3.372418
<b>Y3</b>	1.00000	0.57446	0.677248	2.098353
<b>Y4</b>	1.00000	0.61507	0.630007	1.702755
<b>OVER-ALL</b>	1.00000	0.56040	0.692850	2.255733

**Pseudo F Statistic = 100.38**

Cluster Means			
Cluster	Y1	Y3	Y4
<b>1</b>	1.698325603	1.598506633	-0.702767083
<b>2</b>	-0.164318445	-0.161184358	-0.318232938
<b>3</b>	-0.991701039	-0.915473654	1.472492601

Cluster Standard Deviations			
Cluster	Y1	Y3	Y4
<b>1</b>	0.735078279	1.066983994	0.295352706
<b>2</b>	0.463930980	0.430307354	0.482799798
<b>3</b>	0.169257881	0.246692124	1.017904362

*Backward elimination - variable selection*

*The STEPDISC Procedure*

<b>The Method for Selecting Variables is BACKWARD</b>			
<b>Observations</b>	92	<b>Variable(s) in the Analysis</b>	3
<b>Class Levels</b>	3	<b>Variable(s) will be Included</b>	0
		<b>Significance Level to Stay</b>	0.15

<b>Class Level Information</b>				
<b>CLUSTER</b>	<b>Variable Name</b>	<b>Frequency</b>	<b>Weight</b>	<b>Proportion</b>
<b>1</b>	_1	17	17.0000	0.184783
<b>2</b>	_2	55	55.0000	0.597826
<b>3</b>	_3	20	20.0000	0.217391

*Backward elimination - variable selection*

*The STEPDISC Procedure*  
*Backward Elimination: Step 0*

All variables have been entered.

<b>Multivariate Statistics</b>					
<b>Statistic</b>	<b>Value</b>	<b>F Value</b>	<b>Num DF</b>	<b>Den DF</b>	<b>Pr &gt; F</b>
<b>Wilks' Lambda</b>	0.116289	56.04	6	174	<.0001
<b>Pillai's Trace</b>	1.247107	48.59	6	176	<.0001
<b>Average Squared Canonical Correlation</b>	0.623553				

*Backward elimination - variable selection*

*The STEPDISC Procedure  
Backward Elimination: Step 1*

Statistics for Removal, DF = 2, 87				
Variable	Label	Partial R-Square	F Value	Pr > F
Y1	minprce	0.2852	17.36	<.0001
Y3	mxprce	0.0219	0.98	0.3810
Y4	ctympg	0.4816	40.42	<.0001

Variable Y3 will be removed.

Variable(s) that have been Removed
Y3

Multivariate Statistics					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.118897	83.60	4	176	<.0001
Pillai's Trace	1.242204	72.95	4	178	<.0001
Average Squared Canonical Correlation	0.621102				

*Backward elimination - variable selection*

*The STEPDISC Procedure  
Backward Elimination: Step 2*

Statistics for Removal, DF = 2, 88				
Variable	Label	Partial R-Square	F Value	Pr > F
Y1	minprce	0.6786	92.92	<.0001
Y4	ctympg	0.4801	40.64	<.0001

No variables can be removed.

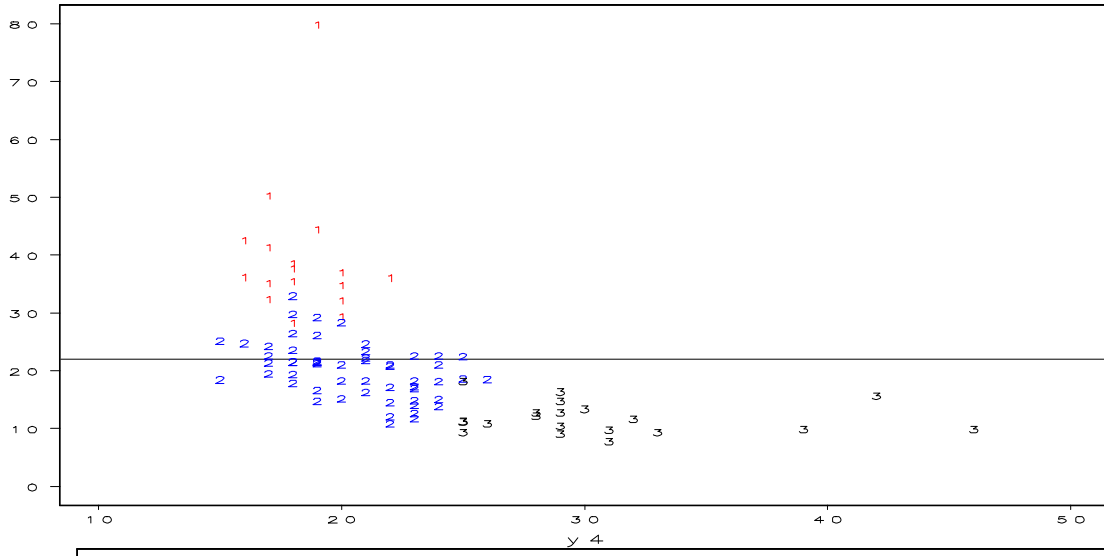
No further steps are possible.

*Backward elimination - variable selection*

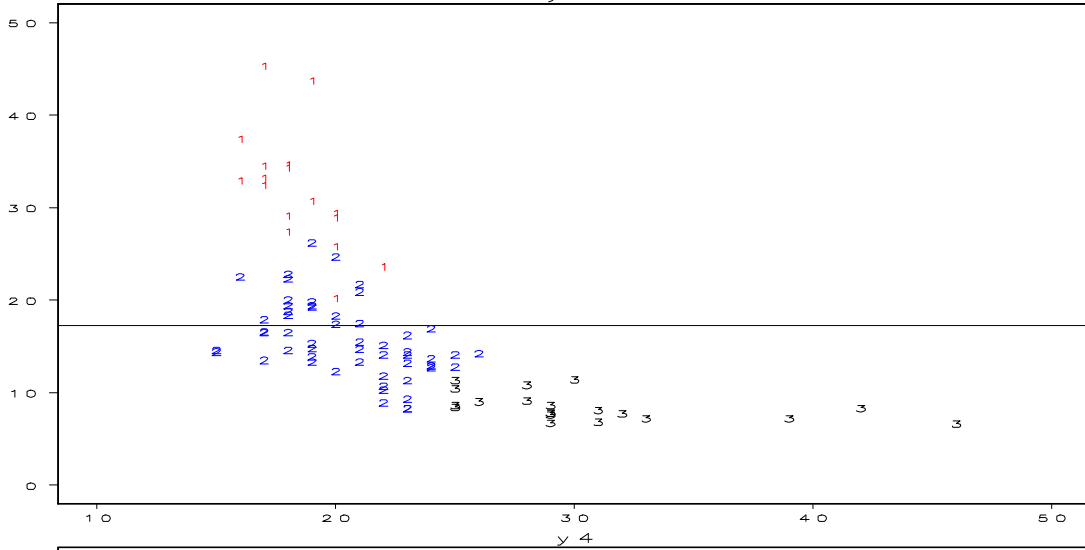
*The STEPDISC Procedure*

Backward Elimination Summary										
Step	Number In	Removed	Label	Partial R-Square	F Value	Pr > F	Wilks' Lambda	Pr < Lambda	Average Squared Canonical Correlation	Pr > ASCC
0	3			.	.	.	0.11628870	<.0001	0.62355329	<.0001
1	2	Y3	mxprce	0.0219	0.98	0.3810	0.11889725	<.0001	0.62110222	<.0001

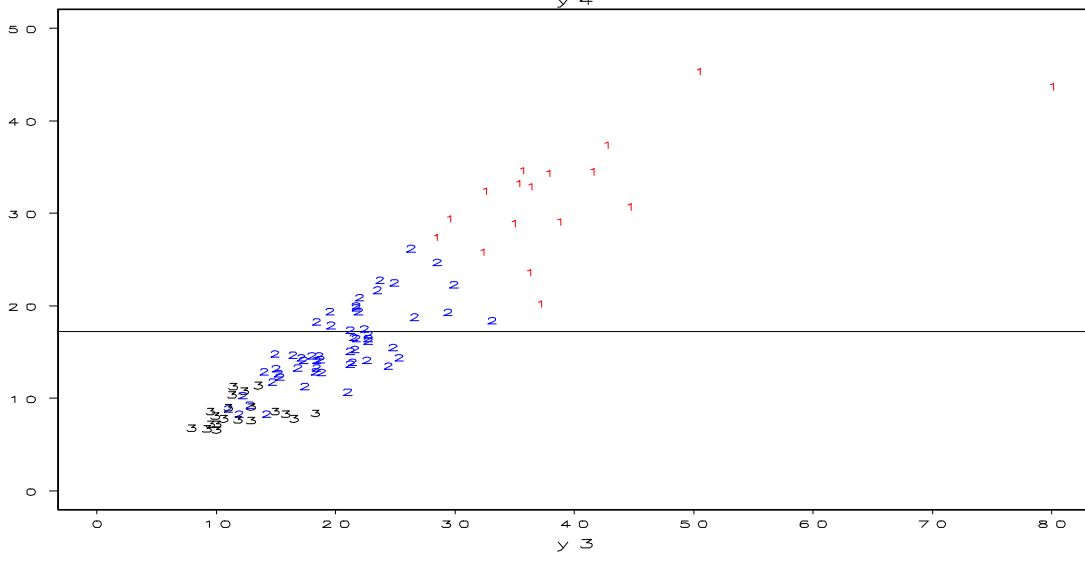
$y_3$



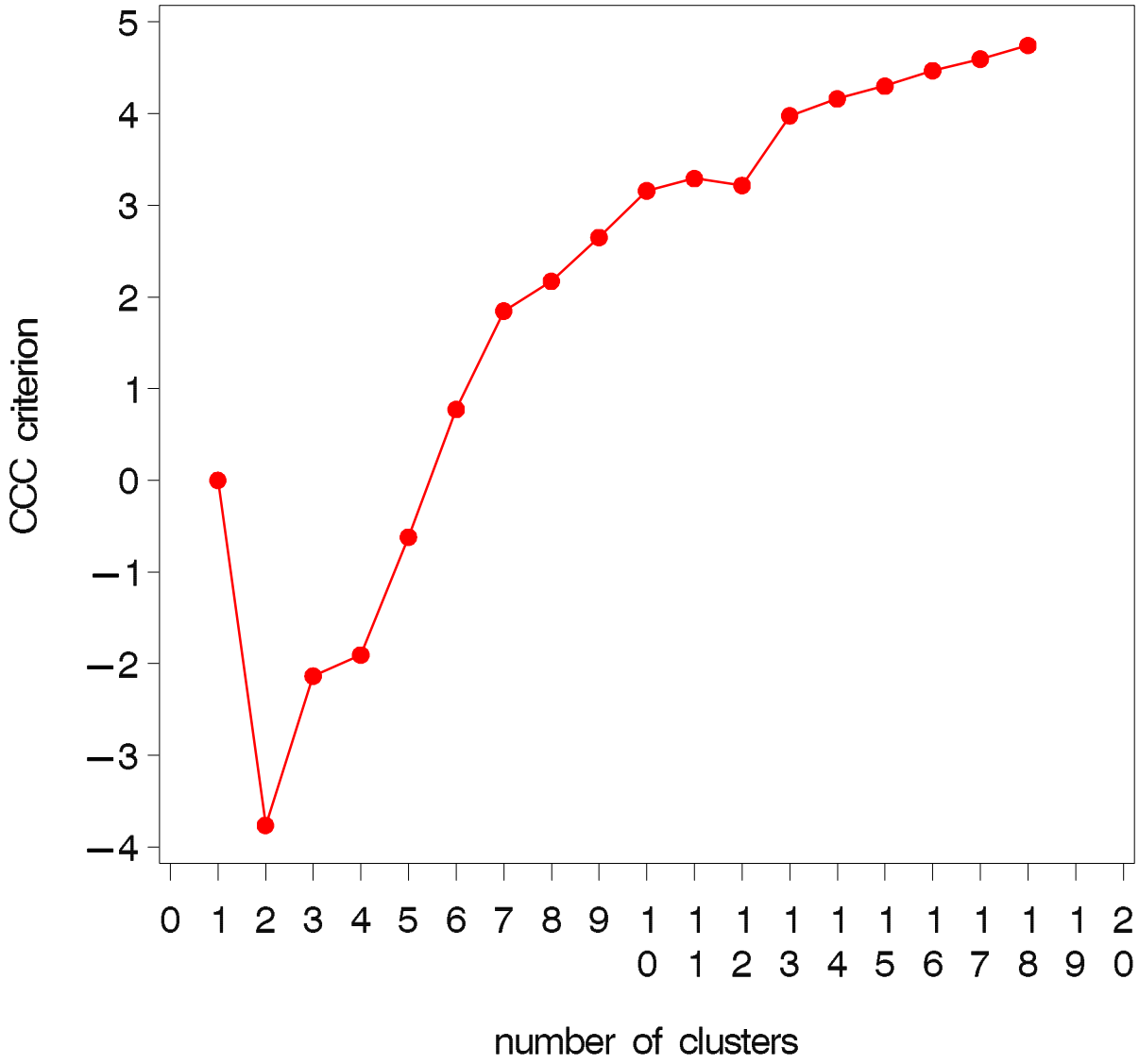
$y_1$



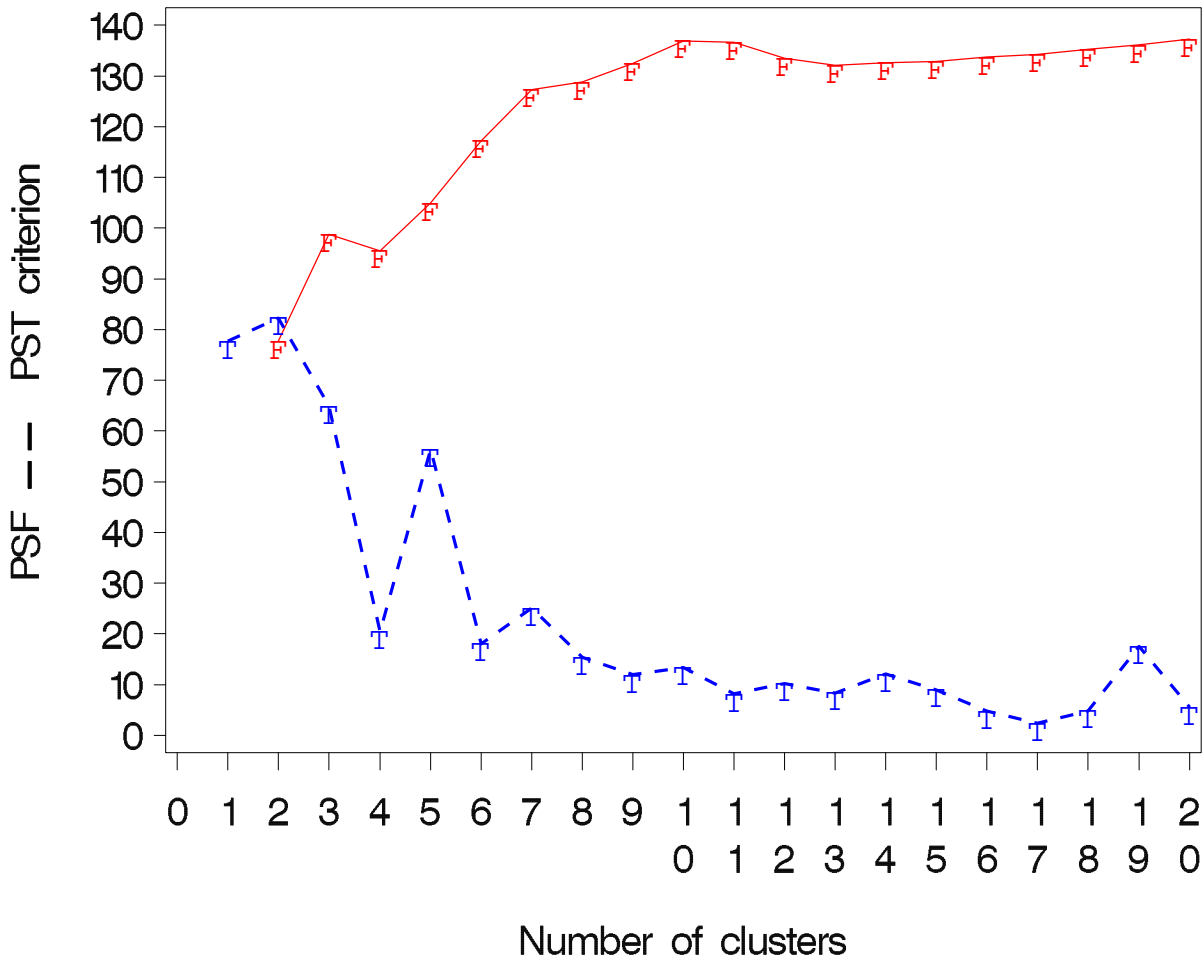
$y_1$



cars93: Number of cluster — estimation



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PLOT	<span style="color: red;">—</span>	Pseudo F Statistic
	<span style="color: blue;">- -</span>	Pseudo T-Squared Statistic