

Segmentation – Theater Example

The FASTCLUS Procedure
 Replace=FULL Drift Radius=0 Maxclusters=1 Maxiter=100 Converge=0

Initial Seeds								
Cluster	attitude	planning	parents	goodval	getto	age	educ	income
1	0.885426060	1.007532449	0.195737233	2.016106486	1.562621115	4.000000000	4.000000000	4.000000000

Criterion Based on Final Seeds =	1.8205
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Cluster Summary						
Cluster	Frequency	RMS Std Deviation	Maximum Distance from Seed to Observation	Radius Exceeded	Nearest Cluster	Distance Between Cluster Centroids
1	2747	1.8225	9.7088		.	.

Statistics for Variables				
Variable	Total STD	Within STD	R-Square	RSQ/(1-RSQ)
attitude	1.00000	1.00000	0.000000	0.000000
planning	1.00000	1.00000	0.000000	0.000000
parents	1.00000	1.00000	0.000000	0.000000
goodval	1.00000	1.00000	0.000000	0.000000
getto	1.00000	1.00000	0.000000	0.000000
age	3.03113	3.03113	0.000000	0.000000
educ	1.73781	1.73781	0.000000	0.000000
income	3.05991	3.05991	0.000000	0.000000
OVER-ALL	1.82087	1.82087	0.000000	0.000000

Pseudo F Statistic =	.
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Approximate Expected Over-All R-Squared =	0.00000
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Cubic Clustering Criterion =	0.000
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WARNING: The two values above are invalid for correlated variables.

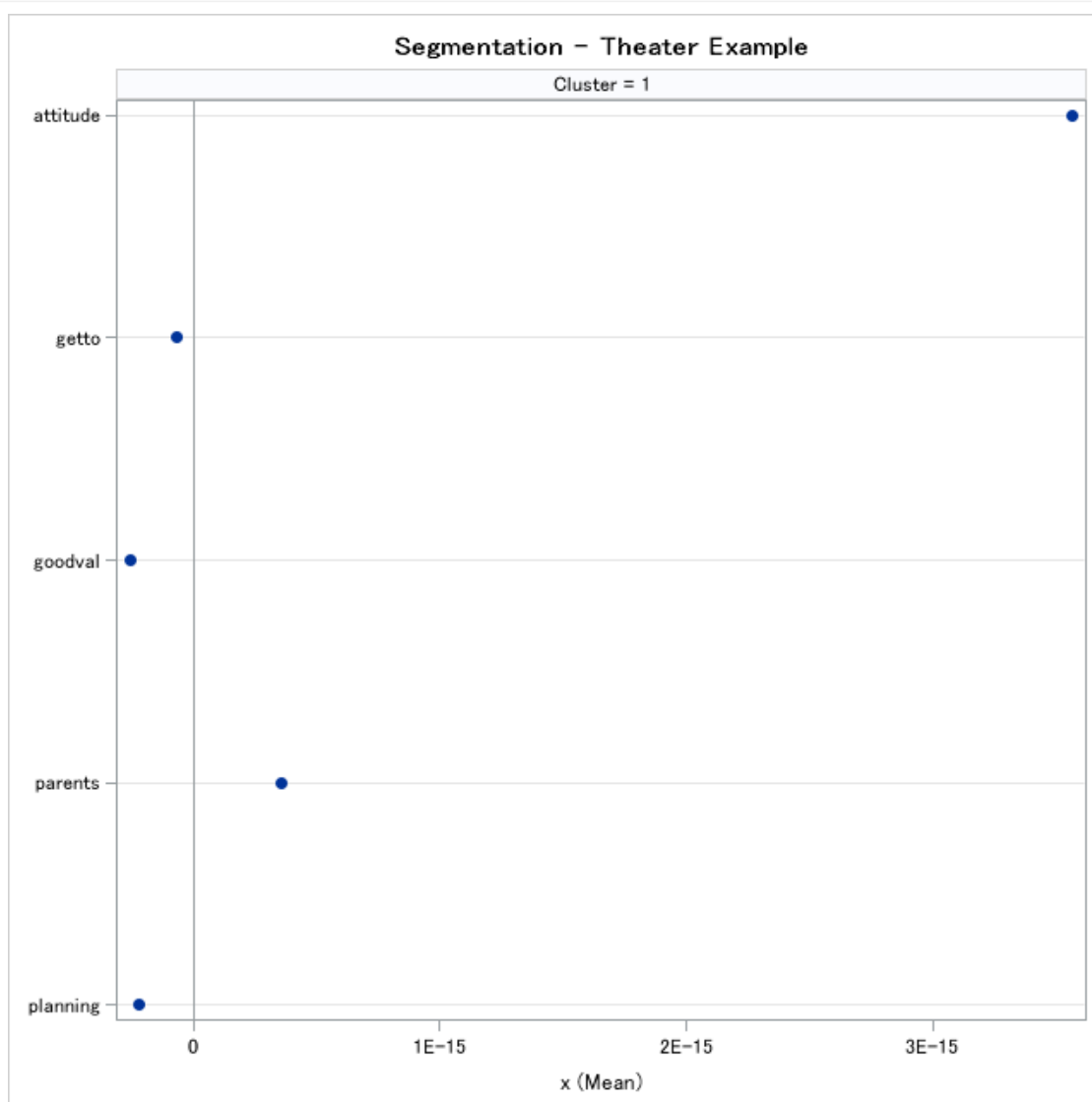
Cluster Means								
Cluster	attitude	planning	parents	goodval	getto	age	educ	income
1	0.000000000	-0.000000000	0.000000000	-0.000000000	-0.000000000	6.619309838	5.140492828	5.001092100

Cluster Standard Deviations								
Cluster	attitude	planning	parents	goodval	getto	age	educ	income
1	1.000000000	1.000000000	1.000000000	1.000000000	1.000000000	3.031129004	1.737811728	3.059913784

Segmentation – Theater Example

The FREQ Procedure

Cluster				
CLUSTER	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	2747	100.00	2747	100.00



Segmentation – Theater Example

The FASTCLUS Procedure
 Replace=FULL Drift Radius=0 Maxclusters=2 Maxiter=100 Converge=0

Initial Seeds								
Cluster	attitude	planning	parents	goodval	getto	age	educ	income
1	-1.19896545	-2.67454068	-2.30224269	-1.49837972	-1.79178384	4.00000000	8.00000000	12.00000000
2	1.44660839	-2.67454068	1.44472719	2.01610649	1.56262112	12.00000000	1.00000000	1.00000000

Minimum Distance Between Initial Seeds =	5.65679
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Iteration History			
Iteration	Criterion	Relative Change in Cluster Seeds	
		1	2
1	1.5571	0.0105	0.00556
2	1.5570	0.00474	0.00238
3	1.5570	0.00255	0.00128
4	1.5570	0.000819	0.000411
5	1.5570	0	0

Convergence criterion is satisfied.

Criterion Based on Final Seeds =	1.5570
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Cluster Summary						
Cluster	Frequency	RMS Std Deviation	Maximum Distance from Seed to Observation	Radius Exceeded	Nearest Cluster	Distance Between Cluster Centroids
1	917	1.4748	7.7369		2	5.6536
2	1830	1.6009	7.9242		1	5.6536

Statistics for Variables				
Variable	Total STD	Within STD	R-Square	RSQ/(1-RSQ)
attitude	1.00000	0.99986	0.000637	0.000637
planning	1.00000	0.99566	0.009027	0.009109
parents	1.00000	0.99915	0.002073	0.002077
goodval	1.00000	0.99979	0.000793	0.000793
getto	1.00000	1.00008	0.000204	0.000204
age	3.03113	3.01177	0.013095	0.013269
educ	1.73781	1.62124	0.129981	0.149400
income	3.05991	1.66659	0.703463	2.372255
OVER-ALL	1.82087	1.55756	0.268569	0.367182

Pseudo F Statistic =	1007.92
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Approximate Expected Over-All R-Squared =	0.26469
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Cubic Clustering Criterion =	0.961
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WARNING: The two values above are invalid for correlated variables.

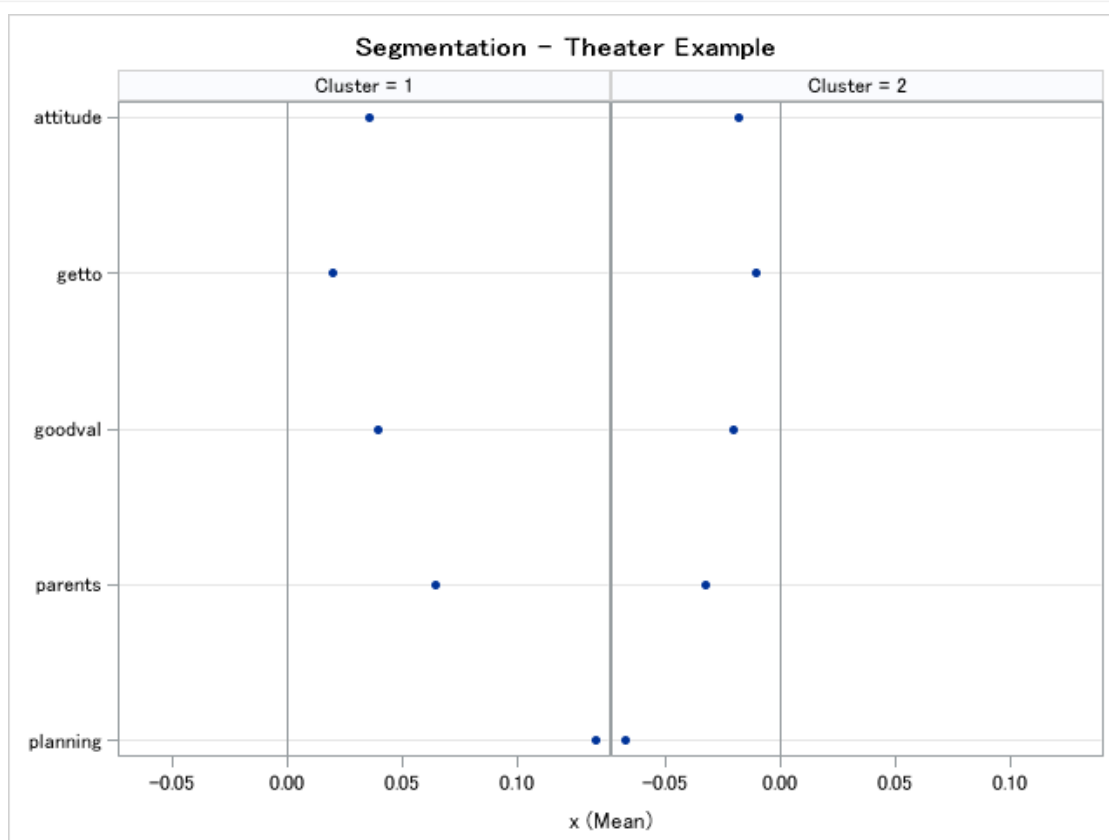
Cluster Means								
Cluster	attitude	planning	parents	goodval	getto	age	educ	income
1	0.035648302	0.134194492	0.064300448	0.039766913	0.020155734	6.129670330	6.020787746	8.625954198
2	-0.017863111	-0.067243907	-0.032220498	-0.019926918	-0.010099895	6.864939361	4.694736842	3.184699454

Cluster Standard Deviations								
Cluster	attitude	planning	parents	goodval	getto	age	educ	income
1	0.991073378	0.918020401	0.968338708	0.992655853	0.985403229	2.504275530	1.560255629	1.993631315
2	1.004236875	1.032347840	1.014222006	1.003337313	1.007350489	3.236402685	1.651244240	1.475806641

Segmentation – Theater Example

The FREQ Procedure

Cluster				
CLUSTER	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	917	33.38	917	33.38
2	1830	66.62	2747	100.00



Segmentation – Theater Example

The FASTCLUS Procedure
 Replace=FULL Drift Radius=0 Maxclusters=3 Maxiter=100 Converge=0

Initial Seeds								
Cluster	attitude	planning	parents	goodval	getto	age	educ	income
1	-1.19896545	-2.67454068	-2.30224269	-1.49837972	-1.79178384	4.00000000	8.00000000	12.00000000
2	1.44660839	1.00753245	1.44472719	2.01610649	1.56262112	12.00000000	8.00000000	4.00000000
3	1.20610168	1.00753245	1.44472719	-0.91263202	-1.79178384	1.00000000	2.00000000	1.00000000

Minimum Distance Between Initial Seeds =	5.889987
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Iteration History				
Iteration	Criterion	Relative Change in Cluster Seeds		
		1	2	3
1	1.3114	0.00611	0.00376	0.00234
2	1.3114	0.00157	0.00114	0.000521
3	1.3114	0	0	0

Convergence criterion is satisfied.

Criterion Based on Final Seeds =	1.3114
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Cluster Summary						
Cluster	Frequency	RMS Std Deviation	Maximum Distance from Seed to Observation	Radius Exceeded	Nearest Cluster	Distance Between Cluster Centroids
1	770	1.4129	7.3601		3	5.8871
2	759	1.2913	6.5552		3	5.9160
3	1218	1.2603	6.5499		1	5.8871

Statistics for Variables				
Variable	Total STD	Within STD	R-Square	RSQ/(1-RSQ)
attitude	1.00000	0.99785	0.005020	0.005045
planning	1.00000	0.99558	0.009545	0.009637
parents	1.00000	0.99651	0.007689	0.007749
goodval	1.00000	0.99830	0.004133	0.004150
getto	1.00000	1.00023	0.000275	0.000275
age	3.03113	1.82508	0.637726	1.760339
educ	1.73781	1.61257	0.139575	0.162216
income	3.05991	1.69893	0.691954	2.246265
OVER-ALL	1.82087	1.31207	0.481157	0.927364

Pseudo F Statistic =	1272.34
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Approximate Expected Over-All R-Squared =	0.46607
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Cubic Clustering Criterion =	3.745
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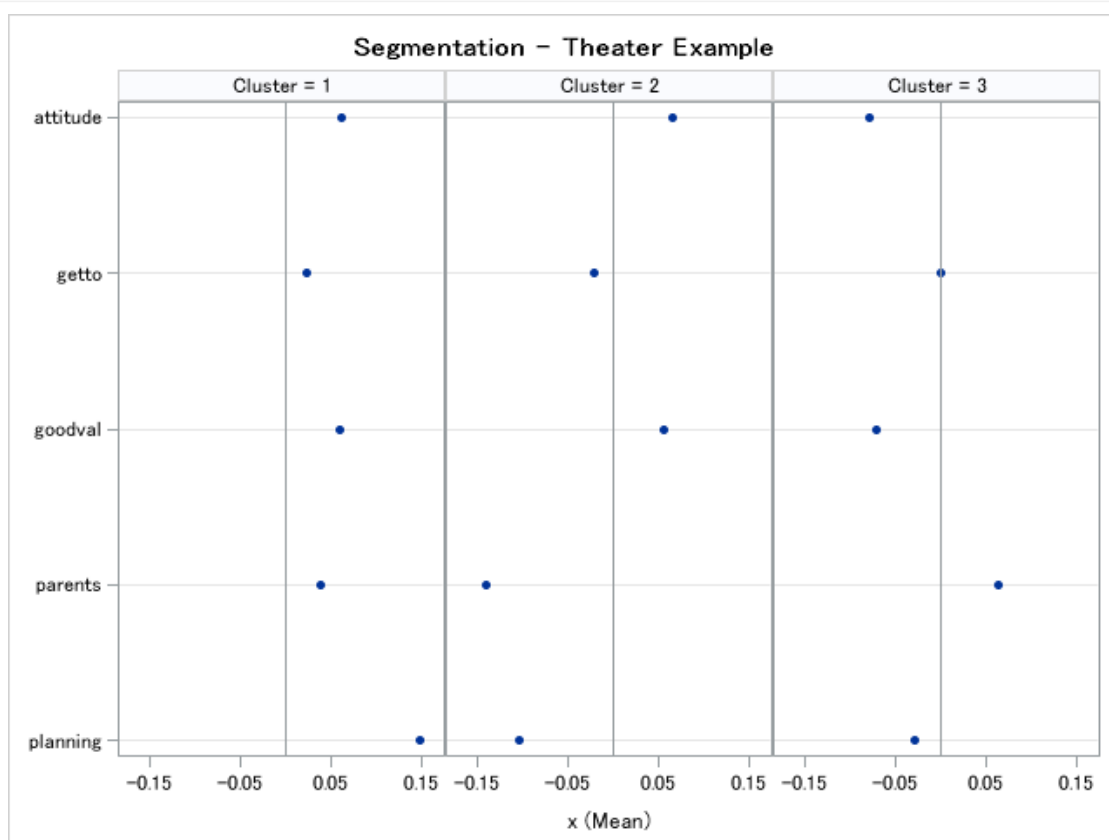
Cluster Means								
Cluster	attitude	planning	parents	goodval	getto	age	educ	income
1	0.06059446	0.14838205	0.03758591	0.05879631	0.02264430	6.40314136	6.13020833	9.06103896
2	0.06584123	-0.10420461	-0.14078246	0.05589679	-0.02177174	10.32576769	4.46558704	3.06455863
3	-0.07933598	-0.02886936	0.06396777	-0.07200232	-0.00074824	4.46325351	4.92561983	3.64121511

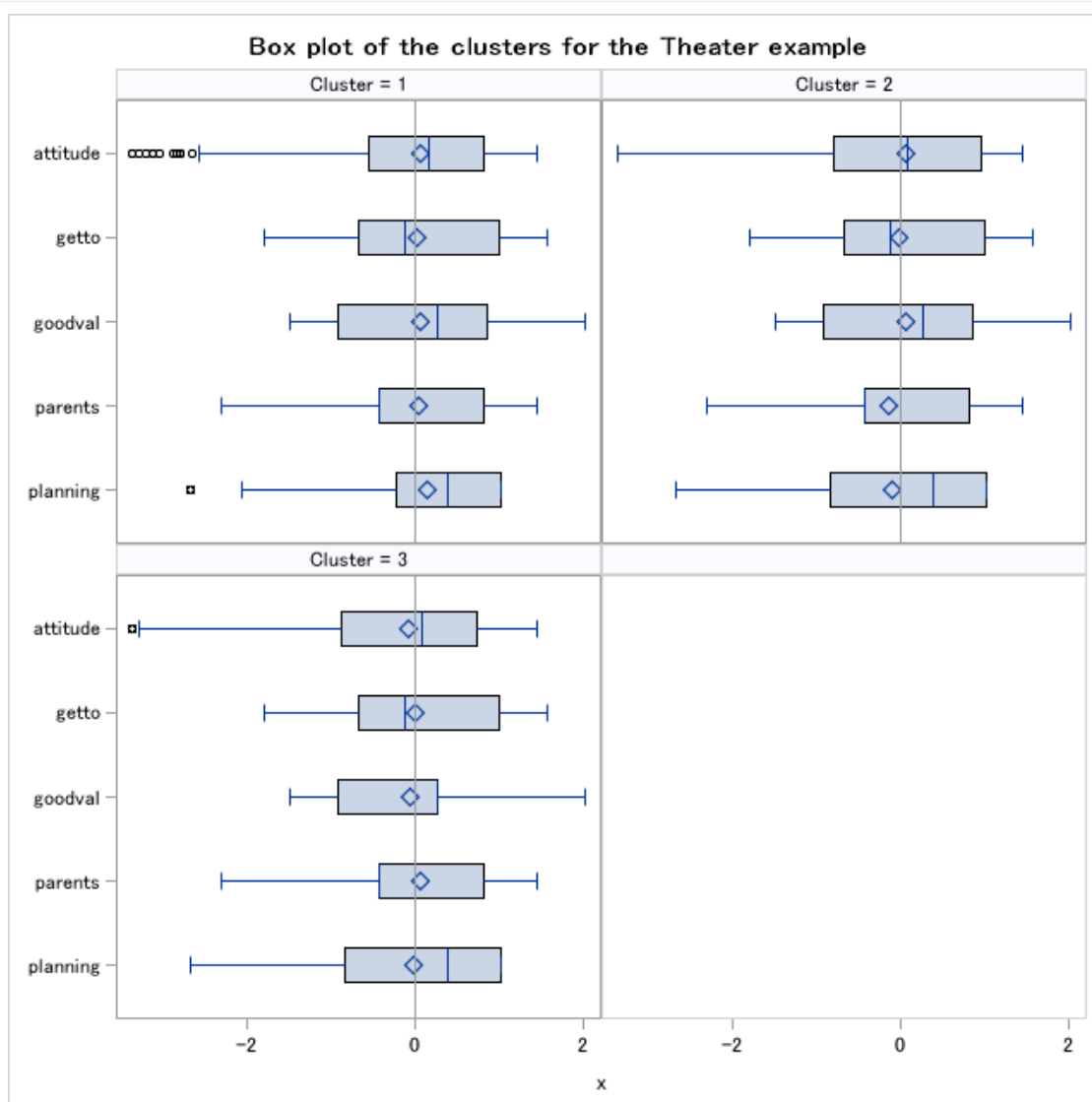
Cluster Standard Deviations								
Cluster	attitude	planning	parents	goodval	getto	age	educ	income
1	0.972881859	0.908886779	0.955865976	0.986941051	0.972439924	2.349488235	1.537441943	1.865479703
2	0.960157716	1.051658634	0.967836567	1.087721810	1.027239767	1.485452039	1.785971032	1.655659769
3	1.035744081	1.011925933	1.038392447	0.945858285	1.000488824	1.626514496	1.545907852	1.612963864

Segmentation – Theater Example

The FREQ Procedure

Cluster				
CLUSTER	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	770	28.03	770	28.03
2	759	27.63	1529	55.66
3	1218	44.34	2747	100.00





Scatter plot of three-cluster solution using the first two principal components

The PRINCOMP Procedure

Observations	2747
Variables	5

Simple Statistics					
	attitude	planning	parents	goodval	getto
Mean	0.000000000	0.000000000	0.000000000	0.000000000	0.000000000
StD	1.000000000	1.000000000	1.000000000	1.000000000	1.000000000

Correlation Matrix					
	attitude	planning	parents	goodval	getto
attitude	1.0000	0.2732	0.3583	0.1996	0.2308
planning	0.2732	1.0000	0.1402	-.1202	-.0639
parents	0.3583	0.1402	1.0000	0.1129	0.1255
goodval	0.1996	-.1202	0.1129	1.0000	0.3162
getto	0.2308	-.0639	0.1255	0.3162	1.0000

Eigenvalues of the Correlation Matrix				
	Eigenvalue	Difference	Proportion	Cumulative
1	1.70546826	0.42619681	0.3411	0.3411
2	1.27927145		0.2559	0.5969

Eigenvectors		
	Prin1	Prin2
attitude	0.592557	0.234873
planning	0.216741	0.666284
parents	0.488283	0.236258
goodval	0.407872	-.510177
getto	0.443981	-.429885

