Economic Clustering Summary Report: South Africa 2016

Data Summary

Country Code-year: ZA16

Number of observations: 11083

Number of variables used: 20

Variable set used: 1

Variables used in the algorithm: hv206, hv207, hv208, hv209, hv212, hv225, hv243b, hv243e, hv246, sh121g, sh121h, sh121i, sh121j, sh124b, water, toilet, floor, roof, cookfuel, wall

Top 10 Variable Sets (Sorted by ASW)

Set	ASW	Var.1	Var.2	Var.3	Var.4
1	0.9411	has electricity	has refrigerator	vacuum cleaner or floor polisher	washing machine
2	0.9408	has electricity	has refrigerator	vacuum cleaner or floor polisher	microwave oven
3	0.9376	has electricity	has a computer	vacuum cleaner or floor polisher	roof
4	0.9375	has electricity	vacuum cleaner or floor polisher	microwave oven	electric/gas stove
5	0.9369	has electricity	vacuum cleaner or floor polisher	electric/gas stove	roof
6	0.9364	has electricity	has a computer	washing machine	roof
7	0.9358	has refrigerator	vacuum cleaner or floor polisher	electric/gas stove	roof
8	0.9355	has electricity	has a computer	microwave oven	roof
9	0.9355	has electricity	microwave oven	washing machine	roof
10	0.935	has electricity	has refrigerator	vacuum cleaner or floor polisher	roof

Marginal Distributions

Variable	Description	% in Top Sets	Distribution
hv206	has electricity	90%	Binary, 90% (1/yes)
hv209	has refrigerator	40%	Binary, 74.5% (1/yes)
hv243e	has a computer	30%	Binary, 19.6% (1/yes)
sh121g	vacuum cleaner or floor polisher	70%	Binary, 12.2% (1/yes)
sh121h	microwave oven	40%	Binary, 49% (1/yes)
sh121i	electric/gas stove	30%	Binary, 83.2% (1/yes)
sh121j	washing machine	30%	Binary, 34.8% (1/yes)
roof	roof	70%	Categorical, 0 (finished) = 95.6%, 1 (natural) = 2.2%, 2 (other) = 0.1%, 3 (rudimentary) = 2%

Cluster Configuration (Set #1)

Cluster Group	has electricity	has refrigerator	vacuum cleaner or floor polisher	washing machine	Proportion (%)
1	0	0	0	0	9.19
1	0	0	0	1	
2	0	1	0	0	40.71
2	1	1	0	0	
2	1	1	1	0	
3	0	1	0	1	23.81
3	1	0	0	1	
3	1	1	0	1	
4	0	1	1	1	10.91
4	1	0	1	1	
4	1	1	1	1	
5	1	0	0	0	15.37
5	1	0	1	0	

Validation Tables

a.1) Using Children Deceased (Sorted by proportion of 0%)

Cluster ID/Children Deceased	0%	1-33%	34-66%	67+%
4[*]	630 (95.9%)	14 (2.1%)	12 (1.8%)	1 (0.2%)
3	2,231 (93.6%)	82 (3.4%)	54 (2.3%)	17 (0.7%)
2	3,399 (91.6%)	169 (4.6%)	103 (2.8%)	38 (1.0%)
5	907 (90.1%)	48 (4.8%)	36 (3.6%)	16 (1.6%)
1	665 (87.8%)	60 (7.9%)	24 (3.2%)	8 (1.1%)
Total	7,832 (92.0%)	373 (4.4%)	229 (2.7%)	80 (0.9%)

[*]The chi-squared p-value is 0

a.2) Aggregating proportions greater than 0%

Cluster ID/Children Deceased	0%	>0%
4[*]	630 (95.9%)	27 (4.1%)
3	2,231 (93.6%)	153 (6.4%)
2	3,399 (91.6%)	310 (8.4%)
5	907 (90.1%)	100 (9.9%)
1	665 (87.8%)	92 (12.2%)
Total	7,832 (92.0%)	682 (8.0%)

[*]The chi-squared p-value is 0

b) Using Individual Education Level Attained (Sorted by weighted average by row)

Cluster ID/Education	0	1	2	3	4	5	W. Avg.
4[*][a]	2 (0.3%)	5 (0.8%)	6 (0.9%)	192 (29.2%)	235 (35.8%)	217 (33.0%)	3.98
3	34 (1.4%)	83 (3.5%)	53 (2.2%)	1,145 (48.0%)	724 (30.4%)	345 (14.5%)	3.46
2	69 (1.9%)	227 (6.1%)	145 (3.9%)	2,042 (55.1%)	937 (25.3%)	289 (7.8%)	3.19
5	35 (3.5%)	108 (10.7%)	68 (6.8%)	586 (58.2%)	189 (18.8%)	21 (2.1%)	2.84
1	50 (6.6%)	101 (13.3%)	66 (8.7%)	444 (58.7%)	87 (11.5%)	9 (1.2%)	2.59
Total	190 (2.2%)	524 (6.2%)	338 (4.0%)	4,409 (51.8%)	2,172 (25.5%)	881 (10.3%)	3.23

[*]The chi-squared p-value is 0

[a]0=none, 1=incomplete primary, 2=primary, 3=incomplete secondary, 4=secondary, 5=higher

c) Using Primary Healthcare Source (Sorted by % enrolled in public healthcare [ascending order])

Cluster ID/Primary Healthcare Source	0	1	2
4[*][a]	149 (50.9%)	143 (48.8%)	1 (0.3%)
3	885 (79.9%)	219 (19.8%)	4 (0.4%)
2	1,500 (85.6%)	244 (13.9%)	9 (0.5%)
5	437 (89.5%)	50 (10.2%)	1 (0.2%)
1	336 (94.4%)	18 (5.1%)	2 (0.6%)
Total	3,307 (82.7%)	674 (16.9%)	17 (0.4%)

[*]The chi-squared p-value is 0

[a]0=public/government, 1=private, 2=other