Economic Clustering Summary Report: Gabon 2012

Andy Kim

17 July, 2023

# Summary of Data

**Country Code-year:** GA12

**Number of observations:** 9755

**Number of clusters:** 5

**Number of variables used:** 33

**Distance used:** Hamming

**Variables used in the algorithm:** hv206, hv207, hv208, hv209, hv212, hv225, hv227, hv243a, hv243b, hv244, hv246, hv246h, hv247, hv252, hv253, sh110d, sh110e, sh110g, sh110i, sh110k, sh110l, sh110m, sh110n, sh110o, sh110p, sh110x, sh110y, sh110z, water, toilet, floor, roof, cookfuel

# Top Variable Groupings (Sorted by ASW)

| Group | ASW | Var. 1 | Var. 2 | Var. 3 | Var. 4 |
| --- | --- | --- | --- | --- | --- |
| 1 | 0.9749 | has electricity | has car/truck | has mobile telephone | roof |
| 2 | 0.9741 | has mobile telephone | has hifi | has antenna / decoder | roof |
| 3 | 0.9741 | has television | has mobile telephone | has hifi | roof |
| 4 | 0.9739 | has television | has mobile telephone | has antenna / decoder | roof |
| 5 | 0.9733 | has electricity | has mobile telephone | has hifi | roof |
| 6 | 0.9731 | has car/truck | has mobile telephone | has hifi | roof |
| 7 | 0.9729 | has television | has hifi | has antenna / decoder | roof |
| 8 | 0.9724 | has television | has car/truck | has mobile telephone | roof |
| 9 | 0.9723 | has car/truck | has mobile telephone | has antenna / decoder | roof |
| 10 | 0.9723 | has electricity | has television | has car/truck | roof |

# Marginal Distributions

| Variable | Description | % Time in Top Clusters | Distribution |
| --- | --- | --- | --- |
| hv206 | has electricity | 30% | Categorical, 0 (0) = 29.7%,   1 (1) = 70.2%,   2 (9) = 0.1% |
| hv243a | has mobile telephone | 80% | Categorical, 0 (0) = 18.9%,   1 (1) = 80.9%,   2 (9) = 0.2% |
| hv208 | has television | 50% | Categorical, 0 (0) = 37%,   1 (1) = 62.8%,   2 (9) = 0.2% |
| hv212 | has car/truck | 50% | Categorical, 0 (0) = 91.3%,   1 (1) = 8.3%,   2 (9) = 0.4% |
| sh110g | has hifi | 50% | Categorical, 0 (0) = 86.3%,   1 (1) = 13.6%,   2 (9) = 0.2% |
| sh110x | has antenna / decoder | 40% | Categorical, 0 (0) = 74%,   1 (1) = 25.9%,   2 (9) = 0.2% |
| roof | roof | 100% | Categorical, 0 (finished) = 97.5%,   1 (other) = 0.1%,   2 (rudimentary) = 2.5% |

# Cluster #1 Configuration

| Cluster Group | has electricity | has car/truck | has mobile telephone | roof | Proportion (%) |
| --- | --- | --- | --- | --- | --- |
| 1 | 0 | 0 | 0 | finished | 13.07 |
| 1 | 0 | 0 | 0 | rudimentary |  |
| 1 | 0 | 9 | 0 | finished |  |
| 1 | 1 | 0 | 0 | rudimentary |  |
| 1 | 1 | 9 | 0 | finished |  |
| 1 | 9 | 0 | 0 | rudimentary |  |
| 2 | 0 | 0 | 1 | finished | 15.54 |
| 3 | 0 | 0 | 1 | other | 57.36 |
| 3 | 0 | 0 | 1 | rudimentary |  |
| 3 | 0 | 0 | 9 | finished |  |
| 3 | 0 | 9 | 1 | finished |  |
| 3 | 1 | 0 | 1 |  |  |
| 3 | 1 | 0 | 1 | finished |  |
| 3 | 1 | 0 | 1 | other |  |
| 3 | 1 | 0 | 1 | rudimentary |  |
| 3 | 1 | 0 | 9 | finished |  |
| 3 | 1 | 9 | 1 |  |  |
| 3 | 1 | 9 | 1 | finished |  |
| 3 | 9 | 0 | 1 | finished |  |
| 3 | 9 | 0 | 9 | finished |  |
| 3 | 9 | 9 | 9 | finished |  |
| 4 | 0 | 1 | 0 | finished | 8.27 |
| 4 | 0 | 1 | 1 | finished |  |
| 4 | 0 | 1 | 1 | rudimentary |  |
| 4 | 1 | 1 | 0 | finished |  |
| 4 | 1 | 1 | 1 | finished |  |
| 4 | 1 | 1 | 1 | other |  |
| 4 | 1 | 1 | 1 | rudimentary |  |
| 4 | 9 | 1 | 9 | finished |  |
| 5 | 1 | 0 | 0 | finished | 5.76 |

# Validation Tables

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

| Cluster ID/Children Deceased | 0% | 1-33% | 34-66% | 67+% |
| --- | --- | --- | --- | --- |
| 2\* | 887 (88.5%) | 84 (8.4%) | 21 (2.1%) | 10 (1.0%) |
| 5 | 4,782 (85.4%) | 588 (10.5%) | 166 (3.0%) | 63 (1.1%) |
| 3 | 197 (79.4%) | 43 (17.3%) | 8 (3.2%) | 0 (0.0%) |
| 4 | 366 (77.4%) | 86 (18.2%) | 16 (3.4%) | 5 (1.1%) |
| 1 | 836 (76.0%) | 209 (19.0%) | 36 (3.3%) | 19 (1.7%) |
| Total | 7,068 (83.9%) | 1,010 (12.0%) | 247 (2.9%) | 97 (1.2%) |
| \*The chi-squared p-value is 0 | | | | |

## a.2) Aggregating proportions greater than 0%

| Cluster ID/Children Deceased | 0% | >0% |
| --- | --- | --- |
| 2\* | 887 (88.5%) | 115 (11.5%) |
| 5 | 4,782 (85.4%) | 817 (14.6%) |
| 3 | 197 (79.4%) | 51 (20.6%) |
| 4 | 366 (77.4%) | 107 (22.6%) |
| 1 | 836 (76.0%) | 264 (24.0%) |
| Total | 7,068 (83.9%) | 1,354 (16.1%) |
| \*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. |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 2\*a | 26 (2.6%) | 98 (9.8%) | 46 (4.6%) | 679 (67.8%) | 45 (4.5%) | 108 (10.8%) | 2.94 |
| 5 | 219 (3.9%) | 1,205 (21.5%) | 443 (7.9%) | 3,376 (60.3%) | 118 (2.1%) | 238 (4.3%) | 2.48 |
| 3 | 20 (8.1%) | 95 (38.3%) | 23 (9.3%) | 106 (42.7%) | 2 (0.8%) | 2 (0.8%) | 1.92 |
| 1 | 65 (5.9%) | 503 (45.7%) | 118 (10.7%) | 406 (36.9%) | 5 (0.5%) | 3 (0.3%) | 1.81 |
| 4 | 53 (11.2%) | 284 (60.0%) | 55 (11.6%) | 81 (17.1%) | 0 (0.0%) | 0 (0.0%) | 1.35 |
| Total | 383 (4.5%) | 2,185 (25.9%) | 685 (8.1%) | 4,648 (55.2%) | 170 (2.0%) | 351 (4.2%) | 2.37 |
| \*The chi-squared p-value is 0 | | | | | | | |
| a0=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 | 41 | 51 | 61 |
| --- | --- | --- | --- | --- | --- | --- |
| 3\*a | 4 (13.3%) | 0 (0.0%) | 19 (63.3%) | 0 (0.0%) | 3 (10.0%) | 4 (13.3%) |
| 2 | 35 (15.5%) | 3 (1.3%) | 132 (58.4%) | 1 (0.4%) | 16 (7.1%) | 39 (17.3%) |
| 5 | 184 (16.0%) | 2 (0.2%) | 633 (55.2%) | 9 (0.8%) | 89 (7.8%) | 230 (20.1%) |
| 1 | 29 (20.3%) | 1 (0.7%) | 66 (46.2%) | 2 (1.4%) | 10 (7.0%) | 35 (24.5%) |
| 4 | 9 (29.0%) | 0 (0.0%) | 9 (29.0%) | 0 (0.0%) | 2 (6.5%) | 11 (35.5%) |
| Total | 261 (16.6%) | 6 (0.4%) | 859 (54.5%) | 12 (0.8%) | 120 (7.6%) | 319 (20.2%) |
| \*The chi-squared p-value is 0.1324 | | | | | | |
| a0=public/government, 1=private, 2=other | | | | | | |