Economic Clustering Summary Report: Senegal 2019

# Data Summary

**Country Code-year:** SN19

**Number of observations:** 4538

**Number of variables used:** 24

**Variable set used:** 1

**Variables used in the algorithm:** hv206, hv207, hv208, hv209, hv210, hv211, hv227, hv237, hv243c, hv243e, hv244, hv246, hv247, sh121e, sh121k, sh122f, sh126a, sh126b, water, toilet, floor, roof, cookfuel, wall

# Top 10 Variable Sets (Sorted by ASW)

| Set | ASW | Var.1 | Var.2 | Var.3 | Var.4 |
| --- | --- | --- | --- | --- | --- |
| 1 | 0.9219 | has television | has refrigerator | has a computer | roof |
| 2 | 0.9211 | has electricity | has refrigerator | has a computer | roof |
| 3 | 0.9131 | has electricity | has television | canal | roof |
| 4 | 0.9079 | has electricity | has television | has a computer | roof |
| 5 | 0.8971 | has electricity | has television | has refrigerator | roof |
| 6 | 0.8941 | has television | has a computer | canal | roof |
| 7 | 0.8827 | has television | canal | floor | roof |
| 8 | 0.8818 | has electricity | has television | windows with grids to prevent mosquitoes | roof |
| 9 | 0.8799 | has electricity | has television | has refrigerator | has a computer |
| 10 | 0.878 | has television | has a computer | floor | roof |

# Marginal Distributions

| Variable | Description | % in Top Sets | Distribution |
| --- | --- | --- | --- |
| hv208 | has television | 90% | Binary, 53.1% (1/yes) |
| hv206 | has electricity | 60% | Binary, 61.2% (1/yes) |
| hv209 | has refrigerator | 40% | Binary, 25.4% (1/yes) |
| hv243e | has a computer | 60% | Binary, 10.6% (1/yes) |
| sh121e | canal | 30% | Binary, 16.5% (1/yes) |
| floor | floor | 20% | Categorical, 0 (finished) = 76.5%,   1 (natural) = 21%,   2 (other) = 2.4%,   3 (rudimentary) = 0.1% |
| sh126a | windows with grids to prevent mosquitoes | 10% | Binary, 13.9% (1/yes) |
| roof | roof | 90% | Categorical, 0 (finished) = 80%,   1 (natural) = 19.7%,   2 (rudimentary) = 0.2% |

# Cluster Configuration (Set #1)

| Cluster Group | has television | has refrigerator | has a computer | roof | Proportion (%) |
| --- | --- | --- | --- | --- | --- |
| 1 | 0 | 0 | 0 | natural | 18.60 |
| 1 | 0 | 0 | 1 | natural |  |
| 2 | 0 | 1 | 1 | finished | 7.71 |
| 2 | 1 | 1 | 1 | finished |  |
| 2 | 1 | 1 | 1 | natural |  |
| 3 | 0 | 0 | 0 | finished | 28.21 |
| 3 | 0 | 0 | 0 | rudimentary |  |
| 3 | 0 | 0 | 1 | finished |  |
| 3 | 0 | 1 | 0 | finished |  |
| 4 | 1 | 1 | 0 | finished | 16.75 |
| 4 | 1 | 1 | 0 | natural |  |
| 4 | 1 | 1 | 0 | rudimentary |  |
| 5 | 1 | 0 | 0 | finished | 28.74 |
| 5 | 1 | 0 | 0 | natural |  |
| 5 | 1 | 0 | 0 | rudimentary |  |
| 5 | 1 | 0 | 1 | finished |  |
| 5 | 1 | 0 | 1 | natural |  |
| 5 | 1 | 0 | 1 | rudimentary |  |

# Validation Tables

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

| Cluster ID/Children Deceased | 0% | 1-33% | 34-66% | 67+% |
| --- | --- | --- | --- | --- |
| 2\* | 797 (93.4%) | 42 (4.9%) | 7 (0.8%) | 7 (0.8%) |
| 4 | 1,667 (90.3%) | 140 (7.6%) | 32 (1.7%) | 8 (0.4%) |
| 5 | 2,369 (88.0%) | 258 (9.6%) | 51 (1.9%) | 13 (0.5%) |
| 3 | 1,668 (81.8%) | 286 (14.0%) | 65 (3.2%) | 19 (0.9%) |
| 1 | 917 (75.2%) | 242 (19.8%) | 48 (3.9%) | 13 (1.1%) |
| Total | 7,418 (85.8%) | 968 (11.2%) | 203 (2.3%) | 60 (0.7%) |
| \*The chi-squared p-value is 0 | | | | |

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

| Cluster ID/Children Deceased | 0% | >0% |
| --- | --- | --- |
| 2\* | 797 (93.4%) | 56 (6.6%) |
| 4 | 1,667 (90.3%) | 180 (9.7%) |
| 5 | 2,369 (88.0%) | 322 (12.0%) |
| 3 | 1,668 (81.8%) | 370 (18.2%) |
| 1 | 917 (75.2%) | 303 (24.8%) |
| Total | 7,418 (85.8%) | 1,231 (14.2%) |
| \*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 | 187 (21.9%) | 141 (16.5%) | 25 (2.9%) | 362 (42.4%) | 25 (2.9%) | 113 (13.2%) | 2.28 |
| 4 | 710 (38.4%) | 392 (21.2%) | 56 (3.0%) | 623 (33.7%) | 23 (1.2%) | 43 (2.3%) | 1.45 |
| 5 | 1,330 (49.4%) | 463 (17.2%) | 110 (4.1%) | 697 (25.9%) | 36 (1.3%) | 55 (2.0%) | 1.19 |
| 3 | 1,263 (62.0%) | 312 (15.3%) | 61 (3.0%) | 395 (19.4%) | 1 (0.0%) | 6 (0.3%) | 0.81 |
| 1 | 925 (75.8%) | 163 (13.4%) | 22 (1.8%) | 110 (9.0%) | 0 (0.0%) | 0 (0.0%) | 0.44 |
| Total | 4,415 (51.0%) | 1,471 (17.0%) | 274 (3.2%) | 2,187 (25.3%) | 85 (1.0%) | 217 (2.5%) | 1.16 |
| \*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 |
| --- | --- | --- | --- |
| 2\*a | 128 (79.5%) | 32 (19.9%) | 1 (0.6%) |
| 4 | 284 (87.4%) | 40 (12.3%) | 1 (0.3%) |
| 5 | 489 (91.6%) | 42 (7.9%) | 3 (0.6%) |
| 3 | 341 (95.3%) | 17 (4.7%) | 0 (0.0%) |
| 1 | 145 (98.6%) | 2 (1.4%) | 0 (0.0%) |
| Total | 1,387 (91.0%) | 133 (8.7%) | 5 (0.3%) |
| \*The chi-squared p-value is 0 | | | |
| a0=public/government, 1=private, 2=other | | | |