Economic Clustering Summary Report: Liberia 2019-20

# Data Summary

**Country Code-year:** LB19

**Number of observations:** 9006

**Number of variables used:** 20

**Variable set used:** 1

**Variables used in the algorithm:** hv206, hv207, hv208, hv227, hv237, hv243a, hv243b, hv244, hv246, hv247, sh121i, sh121j, sh121k, sh121l, water, toilet, floor, roof, cookfuel, wall

# Top 10 Variable Sets (Sorted by ASW)

| Set | ASW | Var.1 | Var.2 | Var.3 | Var.4 |
| --- | --- | --- | --- | --- | --- |
| 1 | 0.8745 | has television | cupboard | mattress | roof |
| 2 | 0.8713 | has television | has mobile telephone | mattress | roof |
| 3 | 0.8709 | has television | has bank account | mattress | roof |
| 4 | 0.8708 | has bank account | cupboard | mattress | roof |
| 5 | 0.8706 | has television | mattress | roof | cookfuel |
| 6 | 0.8701 | has electricity | has television | mattress | roof |
| 7 | 0.8676 | has electricity | cupboard | mattress | roof |
| 8 | 0.8662 | has electricity | has bank account | mattress | roof |
| 9 | 0.8637 | has television | mattress | floor | roof |
| 10 | 0.863 | table | cupboard | mattress | roof |

# Marginal Distributions

| Variable | Description | % in Top Sets | Distribution |
| --- | --- | --- | --- |
| hv208 | has television | 60% | Binary, 10.5% (1/yes) |
| hv247 | has bank account | 30% | Binary, 14.3% (1/yes) |
| hv206 | has electricity | 30% | Binary, 12.6% (1/yes) |
| sh121i | table | 10% | Binary, 76.5% (1/yes) |
| sh121k | cupboard | 40% | Binary, 15.7% (1/yes) |
| hv243a | has mobile telephone | 10% | Binary, 61.6% (1/yes) |
| sh121l | mattress | 100% | Binary, 83.4% (1/yes) |
| roof | roof | 100% | Categorical, 0 (finished) = 82.6%,   1 (natural) = 15.7%,   2 (rudimentary) = 1.6% |
| floor | floor | 10% | Categorical, 0 (finished) = 44.8%,   1 (natural) = 55%,   2 (rudimentary) = 0.2% |
| cookfuel | cookfuel | 10% | Categorical, 0 (electricity) = 0.4%,   1 (fire coal/charcoal) = 31.7%,   2 (gas cylinder) = 0.4%,   3 (kerosene stove) = 0.2%,   4 (no food cooked in house) = 1.6%,   5 (straw/shrubs/grass) = 0%,   6 (wood) = 65.8% |

# Cluster Configuration (Set #1)

| Cluster Group | has television | cupboard | mattress | roof | Proportion (%) |
| --- | --- | --- | --- | --- | --- |
| 1 | 1 | 0 | 1 | finished | 3.98 |
| 1 | 1 | 0 | 1 | natural |  |
| 1 | 1 | 0 | 1 | rudimentary |  |
| 2 | 1 | 1 | 0 | finished | 6.32 |
| 2 | 1 | 1 | 1 | finished |  |
| 2 | 1 | 1 | 1 | natural |  |
| 2 | 1 | 1 | 1 | rudimentary |  |
| 3 | 0 | 0 | 0 | finished | 16.18 |
| 3 | 0 | 0 | 0 | natural |  |
| 3 | 0 | 0 | 0 | rudimentary |  |
| 3 | 1 | 0 | 0 | finished |  |
| 4 | 0 | 1 | 0 | finished | 9.34 |
| 4 | 0 | 1 | 0 | natural |  |
| 4 | 0 | 1 | 1 | finished |  |
| 4 | 0 | 1 | 1 | natural |  |
| 4 | 0 | 1 | 1 | rudimentary |  |
| 5 | 0 | 0 | 1 | finished | 64.19 |
| 5 | 0 | 0 | 1 | natural |  |
| 5 | 0 | 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\* | 616 (85.4%) | 66 (9.2%) | 32 (4.4%) | 7 (1.0%) |
| 1 | 277 (81.7%) | 36 (10.6%) | 17 (5.0%) | 9 (2.7%) |
| 4 | 681 (76.3%) | 130 (14.6%) | 66 (7.4%) | 15 (1.7%) |
| 5 | 3,552 (71.3%) | 991 (19.9%) | 347 (7.0%) | 93 (1.9%) |
| 3 | 715 (66.1%) | 239 (22.1%) | 110 (10.2%) | 17 (1.6%) |
| Total | 5,841 (72.9%) | 1,462 (18.2%) | 572 (7.1%) | 141 (1.8%) |
| \*The chi-squared p-value is 0 | | | | |

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

| Cluster ID/Children Deceased | 0% | >0% |
| --- | --- | --- |
| 2\* | 616 (85.4%) | 105 (14.6%) |
| 1 | 277 (81.7%) | 62 (18.3%) |
| 4 | 681 (76.3%) | 211 (23.7%) |
| 5 | 3,552 (71.3%) | 1,431 (28.7%) |
| 3 | 715 (66.1%) | 366 (33.9%) |
| Total | 5,841 (72.9%) | 2,175 (27.1%) |
| \*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 | 96 (13.3%) | 89 (12.3%) | 18 (2.5%) | 234 (32.5%) | 160 (22.2%) | 124 (17.2%) | 2.89 |
| 1 | 78 (23.0%) | 57 (16.8%) | 14 (4.1%) | 111 (32.7%) | 57 (16.8%) | 22 (6.5%) | 2.23 |
| 4 | 244 (27.4%) | 188 (21.1%) | 39 (4.4%) | 288 (32.3%) | 94 (10.5%) | 39 (4.4%) | 1.91 |
| 5 | 1,975 (39.6%) | 1,438 (28.9%) | 199 (4.0%) | 1,079 (21.7%) | 236 (4.7%) | 56 (1.1%) | 1.26 |
| 3 | 576 (53.3%) | 294 (27.2%) | 35 (3.2%) | 154 (14.2%) | 18 (1.7%) | 4 (0.4%) | 0.85 |
| Total | 2,969 (37.0%) | 2,066 (25.8%) | 305 (3.8%) | 1,866 (23.3%) | 565 (7.0%) | 245 (3.1%) | 1.47 |
| \*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 | 89 (45.4%) | 105 (53.6%) | 2 (1.0%) |
| 1 | 56 (55.4%) | 45 (44.6%) | 0 (0.0%) |
| 4 | 164 (65.3%) | 87 (34.7%) | 0 (0.0%) |
| 3 | 195 (73.6%) | 68 (25.7%) | 2 (0.8%) |
| 5 | 1,168 (74.7%) | 388 (24.8%) | 8 (0.5%) |
| Total | 1,672 (70.3%) | 693 (29.2%) | 12 (0.5%) |
| \*The chi-squared p-value is 0 | | | |
| a0=public/government, 1=private, 2=other | | | |