Economic Clustering Summary Report: Malawi 2015-16

# Data Summary

**Country Code-year:** MW15

**Number of observations:** 26109

**Number of variables used:** 21

**Variable set used:** 1

**Variables used in the algorithm:** hv206, hv207, hv208, hv210, hv225, hv227, hv237, hv243a, hv243b, hv244, hv246, hv247, sh121i, sh121j, sh121k, water, toilet, floor, roof, cookfuel, wall

# Top 10 Variable Sets (Sorted by ASW)

| Set | ASW | Var.1 | Var.2 | Var.3 | Var.4 |
| --- | --- | --- | --- | --- | --- |
| 1 | 0.916 | has electricity | has television | has mobile telephone | floor |
| 2 | 0.9151 | has electricity | has television | household has a bed with a mattress | floor |
| 3 | 0.91 | has electricity | has radio | has television | household has a bed with a mattress |
| 4 | 0.9092 | has electricity | has television | floor | roof |
| 5 | 0.908 | has electricity | has radio | has television | floor |
| 6 | 0.9057 | has electricity | has television | household has a sofa set | floor |
| 7 | 0.9049 | has electricity | has television | floor | wall |
| 8 | 0.9028 | has electricity | has television | has mobile telephone | household has a sofa set |
| 9 | 0.9019 | has electricity | has television | household has a bed with a mattress | roof |
| 10 | 0.9 | has electricity | has television | has bank account | household has a bed with a mattress |

# Marginal Distributions

| Variable | Description | % in Top Sets | Distribution |
| --- | --- | --- | --- |
| hv206 | has electricity | 100% | Binary, 12.8% (1/yes) |
| hv208 | has television | 100% | Binary, 13% (1/yes) |
| hv207 | has radio | 20% | Binary, 42% (1/yes) |
| hv243a | has mobile telephone | 20% | Binary, 56% (1/yes) |
| sh121j | household has a bed with a mattress | 40% | Binary, 29.7% (1/yes) |
| floor | floor | 60% | Categorical, 0 (finished) = 28.2%,   1 (natural) = 71.8%,   2 (other) = 0%,   3 (rudimentary) = 0% |
| sh121k | household has a sofa set | 20% | Binary, 15.1% (1/yes) |
| hv247 | has bank account | 10% | Binary, 19.8% (1/yes) |
| roof | roof | 20% | Categorical, 0 (finished) = 48.4%,   1 (natural) = 51%,   2 (other) = 0%,   3 (rudimentary) = 0.6% |
| wall | wall | 10% | Categorical, 0 (finished) = 78.4%,   1 (natural) = 2.4%,   2 (other) = 0%,   3 (rudimentary) = 19.1% |

# Cluster Configuration (Set #1)

| Cluster Group | has electricity | has television | has mobile telephone | floor | Proportion (%) |
| --- | --- | --- | --- | --- | --- |
| 1 | 0 | 0 | 0 | finished | 3.76 |
| 1 | 0 | 1 | 0 | finished |  |
| 1 | 1 | 0 | 0 | finished |  |
| 2 | 0 | 1 | 1 | finished | 13.93 |
| 2 | 1 | 0 | 1 | finished |  |
| 2 | 1 | 1 | 0 | finished |  |
| 2 | 1 | 1 | 1 | finished |  |
| 2 | 1 | 1 | 1 | natural |  |
| 3 | 0 | 0 | 1 | natural | 31.59 |
| 3 | 0 | 0 | 1 | other |  |
| 3 | 0 | 0 | 1 | rudimentary |  |
| 3 | 0 | 1 | 1 | natural |  |
| 3 | 1 | 0 | 1 | natural |  |
| 3 | 1 | 0 | 1 | other |  |
| 4 | 0 | 0 | 1 | finished | 10.76 |
| 5 | 0 | 0 | 0 | natural | 39.97 |
| 5 | 0 | 0 | 0 | other |  |
| 5 | 0 | 0 | 0 | rudimentary |  |
| 5 | 0 | 1 | 0 | natural |  |
| 5 | 1 | 0 | 0 | natural |  |
| 5 | 1 | 1 | 0 | natural |  |

# Validation Tables

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

| Cluster ID/Children Deceased | 0% | 1-33% | 34-66% | 67+% |
| --- | --- | --- | --- | --- |
| 2\* | 3,757 (89.0%) | 303 (7.2%) | 124 (2.9%) | 38 (0.9%) |
| 4 | 2,376 (83.7%) | 333 (11.7%) | 107 (3.8%) | 23 (0.8%) |
| 1 | 567 (81.9%) | 84 (12.1%) | 31 (4.5%) | 10 (1.4%) |
| 3 | 6,610 (79.4%) | 1,222 (14.7%) | 396 (4.8%) | 95 (1.1%) |
| 5 | 6,330 (76.5%) | 1,388 (16.8%) | 468 (5.7%) | 84 (1.0%) |
| Total | 19,640 (80.7%) | 3,330 (13.7%) | 1,126 (4.6%) | 250 (1.0%) |
| \*The chi-squared p-value is 0 | | | | |

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

| Cluster ID/Children Deceased | 0% | >0% |
| --- | --- | --- |
| 2\* | 3,757 (89.0%) | 465 (11.0%) |
| 4 | 2,376 (83.7%) | 463 (16.3%) |
| 1 | 567 (81.9%) | 125 (18.1%) |
| 3 | 6,610 (79.4%) | 1,713 (20.6%) |
| 5 | 6,330 (76.5%) | 1,940 (23.5%) |
| Total | 19,640 (80.7%) | 4,706 (19.3%) |
| \*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 | 92 (2.2%) | 926 (21.9%) | 311 (7.4%) | 1,401 (33.2%) | 931 (22.1%) | 561 (13.3%) | 2.91 |
| 4 | 165 (5.8%) | 1,199 (42.2%) | 313 (11.0%) | 787 (27.7%) | 290 (10.2%) | 85 (3.0%) | 2.03 |
| 1 | 62 (9.0%) | 369 (53.3%) | 76 (11.0%) | 149 (21.5%) | 32 (4.6%) | 4 (0.6%) | 1.61 |
| 3 | 881 (10.6%) | 4,877 (58.6%) | 863 (10.4%) | 1,335 (16.0%) | 341 (4.1%) | 26 (0.3%) | 1.45 |
| 5 | 1,555 (18.8%) | 5,453 (65.9%) | 540 (6.5%) | 624 (7.5%) | 95 (1.1%) | 3 (0.0%) | 1.06 |
| Total | 2,755 (11.3%) | 12,824 (52.7%) | 2,103 (8.6%) | 4,296 (17.6%) | 1,689 (6.9%) | 679 (2.8%) | 1.65 |
| \*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 | 1,087 (63.0%) | 635 (36.8%) | 3 (0.2%) |
| 4 | 925 (73.6%) | 329 (26.2%) | 3 (0.2%) |
| 1 | 257 (81.6%) | 57 (18.1%) | 1 (0.3%) |
| 3 | 3,261 (82.7%) | 674 (17.1%) | 8 (0.2%) |
| 5 | 3,135 (86.1%) | 491 (13.5%) | 15 (0.4%) |
| Total | 8,665 (79.6%) | 2,186 (20.1%) | 30 (0.3%) |
| \*The chi-squared p-value is 0 | | | |
| a0=public/government, 1=private, 2=other | | | |