

Steps to constructing the new DHS Wealth Index

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Step 0: The wealth index is based on household data. However, there are three variables that may be created from the individual interview file: whether the household has one or more domestic servants (“Domestic”), whether any household member works their own or their families agricultural land (“Land”), and whether any household member owns a dwelling unit (“House”). Determine if the survey that will be used is raw data or standard recode. Create a folder for the wealth index process. Download the data dictionaries and data files for the household and individual questionnaires. I use CSPRO, which has the hierarchical file. If there is a man’s questionnaire, download that dictionary and data as well.

Step 1: Review the questionnaire and data dictionary for the household survey (as well as any other documentation such a frequencies, recode doc.) to determine which variables are to be used for the wealth index, including country-specific variables. Normally included are: Source of drinking water, type of toilet, sharing of toilet facilities, material of principal floor, walls, roof, cooking fuel, household services and possessions, such as electricity, TV, radio, watch, types of vehicles, agricultural land size owned, type and number of animals owned, bank account, types of windows. The items vary somewhat between surveys as well as the categories of the core questionnaire items. All of these items will be used to distinguish one household from another so that “lumpiness” in the wealth distribution is reduced. However, since the wealth index is an indicator of the household’s economic status, type of area, level of education, occupation (other than domestic servant), are NOT included since they are determinants of health status in their own right and are used along with the wealth index.

Step 2: Create the three variables, Domestic, Land, House from the individual data and export all relevant variables to SPSS, along with the household ID.

2 a: Create the variables DOMESTIC, LAND, AND HOUSE. There various sources of information depending on the survey and its codes.

DOMESTIC: At the household level, set DOMESTIC =0. If there is a code for domestic servant in the relationship to the head of the household variable (HV101 in the household standard recode file), go through the household members and set DOMESTIC =1 if any member has that code. If the relationship to the head of the household does not have a code for domestic servant, go through the individual data file using the woman’s occupation (V717 in individual standard recode). If she has code 6 (“Household and domestic”) and her relationship to the head of the household is “not related”, the set DOMESTIC =1. Where the proper codes are available in V716, that variable can also be used. Also check country-specific occupations for domestic and household worker categories or use personal services if the domestic and household worker occupation is not given in any of the variables. For raw data individual files, the proper codes need to be used. Then repeat for the woman’s partner (V704 and V705 individual recode) and checking to make sure he is unrelated to the head of the household. If there is a

man's questionnaire, do the same using the appropriate variables from the men's individual data. Note that DOMESTIC is coded either 0 (no domestic servant) or 1 (domestic servant), no matter how many servants are in the household or the source of the information. Also note that all domestic servants should not be related to the head of the household.

LAND: Set LAND=0. Using the women's and men's individual data sets, set LAND =1 if the woman works her own or family's land (in the standard recode, V740=0 or 1). Also set LAND = 1, if the man works his own or family's land. Be sure to check for country-specific questions on land ownership. Note: if agricultural land ownership is asked about in the household questionnaire, do not use the created Land variable.

HOUSE: Set HOUSE=0. If there is a country-specific item on ownership of dwelling in the individual woman's or men's individual questionnaire, set HOUSE = 1.

Additional variables that need to be created if using the raw data files: HV009, HV012, HV013:

HV009 is the number of persons listed in the household schedule (usually qhsec01).

HV012 is the number of de jure persons listed in the household schedule (usually qhsec01 where qh05 =1).

HV013 is the number of de facto persons listed in the household schedule (usually qhsec01 where qh06=1).

Notes:

1. For raw data files, the appropriate variables and codes will have to be used upon reviewing the questionnaires.

2. These variables may also be created using non-hierarchical files by aggregating over the individual data belonging to the same household.

2b. Export the created variables and household data necessary for creating the wealth index.

Export the variables for the household ID (HHID in the standard recode), urban-rural location, household weight, HV009, HV012, HV013, the household characteristics (RECH1 and RECH3 in the standard recode and qhsec02 in the raw data file), and DOMESTIC, LAND, and HOUSE. Before exporting, select for interviewed households (HV015=1 in the standard recode, QHRESULT=1 in the raw data).

Step 3: Import the data file into SPSS (or other data analysis program capable of factor or principal components analysis) and create the wealth index indicator variables. Assign variable and value labels to each of the created indicator variables.

3a: Import the data file and save it under a new name such as assetsxxnn.sav, where xx is the country code and nn is the survey year.

3b: Indicator construction

1. Run frequencies for all categorical variables to be used in the factor analysis (also known as principal components analysis—PCA). Base the construction of the PCA indicator variables on these frequencies since not all categories may have been used. There is no need to construct indicator variables for empty categories. Also note whether there are additional categories to those in the questionnaire since some may have been created at the data entry stage from “other” answers.
2. From categorical variables, such as source of drinking water, roofing materials, etc., generate dichotomous (0-1) variables for each category of the categorical variables. Set the indicator variable to 1 if household is in that category and 0 otherwise. The “other” category is made into an indicator variable but the missing and DK categories are not. Specific variable instructions:
 - a. Source of drinking water—each category is a separate indicator variable except that surface water sources (lakes, ponds, rivers, streams, etc.) is combined into one indicator variable if they are separate categories.
 - b. Type of toilet and sharing of toilets—there have been two approaches used. The first is to create indicator variables for each type of toilet category and a separate indicator variable for whether the toilet is shared with other households (1 if shared, 0 if not shared or question is not applicable). The second approach is to create a set of indicator variables for each category of toilet that is shared. For example in this approach, there is an indicator variable for non-shared flush toilet connected to the sewer system and another for shared flush toilet connected to the sewer system, so that the household has a 1 value for only one of the indicator variables. In this approach the shared toilet variable should not be used in the principal components analysis. This second approach provides slightly more information on which to base the wealth index but the effect is not large.
 - c. Type of floor, wall, and roof materials—Natural materials are usually combined into a single material—earth, sand, dung floors; cane, palm leaves, sod roofs; and cane, palm, trunks, brush and mud walls.
3. Use of yes-no original variables, whether standard or country-specific—these variables are recoded so that a 1 indicates if the household has a “yes” answer to the question and 0 if it does not have a “yes” answer. The 0 category includes “no” answers (coded 0 in standard recode datasets and 2 in raw datasets), missing, DK and not applicable responses.
4. Members per sleeping room—This variable is a continuous variable in the PCA. To construct members per sleeping room divide the number of de jure members

(HV012) by the number of sleeping rooms (HV216 in the standard recode). If there are no de jure members, use the number of de facto members instead. (Note if there are no de facto members, then the household should have been excluded from the analysis data set). If the number of sleeping rooms is zero, then set the number of sleeping rooms to one since household members have to sleep somewhere. If the question on sleeping rooms is not asked but a question on number of rooms is asked, use that question instead. If the number of sleeping rooms or persons is missing or DK, set the value of the variable to missing. (Mean substitution for missing values will be used in the PCA.)

5. Agricultural land—In later DHS surveys, whether the household owned agricultural land and the amount of land owned was asked. If this is the case, create a continuous landarea variable for the PCA indicating the amount owned. If the household does not own agricultural land then code 0 in the landarea indicator variable. In some surveys, the unit of measurement varies and will have to be converted to a single unit. If the amount is missing then the created landarea variable is set to missing.
6. Farm animals (livestock)—Also in later DHS surveys, households were asked whether they possessed farm animals and if so the numbers of different types were asked, the types varying by country. Similarly to agricultural land, code a continuous indicator variable for each type of farm animal. All farm animal indicator variables should be set to 0 if the household has no farm animals. If the numbers of each type of animal is missing or DK, then set the indicator variable to missing. There should be no 'not applicable' code for the farm animal indicator variables since this code is incorporated as 0.
7. Run the frequencies on all the created indicator variables, compare with the original frequencies, and correct any discrepancies.
8. Save the data file and syntax file.

Step 4: Generation of household wealth scores

There are four substeps to generating the household wealth scores. All are run with no weights.

4a: Elimination of indicator variables with no variation, usually due to no cases.

Put all indicator variables into a factor analysis, making sure that the option for univariate descriptives is used (/PRINT UNIVARIATE in SPSS). If the analysis fails, check the standard deviation for each indicator variable and delete from the factor analysis syntax all variables with zero standard deviation, meaning that there is no variation for that variable. Also check the missing value number of cases to make sure that there are no unexpected numbers, remembering that small numbers

of missings may be expected for a few of the indicator variables, especially the continuous variables, which will be assigned the mean value for that variable.

4b: Factor analysis of common variables

For the common wealth score, using the indicator variables successfully run in step 4a, select the subset indicator variables which are thought to have the same relationship with the underlying economic status dimension in both urban and rural areas and select out those that do not apply to one or another area or are thought to indicate different levels of wealth. An example is number of chickens since having a few chickens in an urban area may indicate a poor urban household compared to those with no chickens while in rural areas having some chickens may indicate a household that is wealthier than one with no chickens. The selection of which variables to be included in the common factor analysis is based on one's understanding and experience. The factor analysis should be run with the following options: principal components extraction using correlation method with one factor extracted, substitution of mean for missing values, estimation of the factor scores using the regression method, saving of the factor scores for each household onto the data file using the name COM, printing of univariate descriptives, initial and extracted communalities, and factor score coefficient. The data should be unweighted.

4c. Factor analysis for urban areas

For the urban wealth score, first select the cases of the data file for urban areas. Then for the urban factor analysis, , select the subset indicator variables which are thought to be relevant to urban areas again using the indicator variables successfully run in step 4a. Rural-type indicators may also be relevant in urban areas but with a different relationship to wealth. The selection of which variables to be included in the urban factor analysis is again based on one's understanding and experience. Run the factor analysis as for the common variables in 4b. above but changing the name of the saved factor score variable to URB. If an indicator variable has no standard deviation, it should be deleted from the analysis. The data should be unweighted.

4d. Repeat factor analysis for rural areas

Remember to start with the variable list from step 4a since some indicator variables may be relevant for rural areas even though there are no cases for urban areas.

Step 5: Estimation of composite wealth scores

Save the syntax, data and output files. The factor score values will now be in the data set from the common variables (COM1 in SPSS) for all cases, from the urban factor analysis (URB1) in the set of cases in urban areas with missing values for rural areas, and from rural factor analysis (RUR1) in the rural set of cases with missing values for urban areas. The urban and rural wealth scores will be regressed on the common wealth scores to obtain the parameters to estimate the composite wealth score.

5a. Urban and rural regressions

Select urban area cases. Run a regression with the common factor score (COM1) as the dependent variable and the urban area factor score (URB1) as the independent variable. The data should be unweighted. Note the constant term and the coefficient. Also check the significance of the regression and terms. They should be highly significant.

Repeat for rural areas selecting rural cases using the rural area factor score (RUR1) as the independent variable.

5b. Calculate combined score

Using all cases, first make a new variable for the combined score, COMBSCOR, with five decimal places and set it equal to 0. Then for each area calculate the combined score using the appropriate urban or rural factor scores, constants and coefficients obtained in substep 5a.

Step 6: Calculate the wealth quintiles and their cutpoints.

6a. Calculate weighted number of household members

Multiply the number of dejure household members by the household sampling weight divided by 1,000,000 to obtain a variable called HHMEMWT. Set the analysis sample weight equal to HHMEMWT. If there are no dejure members, use the number of defacto household members.

6b. Divide the factor scores into five equal parts (quintiles)

There are two ways to achieve the quintiles. Using the appropriate wealth score, determine the weighted cumulative percentage distribution of the wealth score, determine the wealth score values that correspond to the four cut point values of the quintiles (<20%, <40%, <60%, and <80%). Create a new variable for the quintiles and recode for those wealth score values less than or equal to the first cutpoint, greater than the first and less than or equal to the second cutpoint, greater than the second and less than or equal to the third cutpoint, greater than the third and less than or equal to the fourth cutpoint, and greater than the fourth cutpoint. In most cases, the cumulative distribution will not be smooth at 20%, 40% and so on, such that a single wealth score value may increase the cumulation by several percentage points. In this case, use the value of the cutpoint that is immediately below 20%, 40%, and so on.

For the combined score quintiles use all cases and the COMBSCOR variable to create the quintile variable NCOMBSO. For urban quintiles, select for just urban areas and use the URB1 variable to create NURB1. For rural quintiles, select for just rural areas and use the RUR1 variable to create NRUR1.

An alternative procedure in SPSS is to use the RANK command with the option for five ntiles and ties set to the mean. The procedure automatically adds the above name quintile variables to the data file.

Save the syntax, data, and output files.

Step 7: Check on the quintile distributions

7a. Run frequency distributions on the quintile variables weighted by HHMEMWT as check. The percents for each quintile values should be very close 20%.

7b. Distribute the indicator variables by the quintiles

Change the sample weighting to the household weight. Select all cases. Crosstabulate all the indicator variables by NCOMBSCOR. Pivot the table so that percentages are in the cells, indicator variables in rows and quintiles are in columns. Change cells so that all are with 2 decimals. Check to see if each indicator variable is related to the wealth quintiles in the expected directions (e.g. percent with a TV increases with quintile, percent with a refrigerator are mostly in the top two quintiles, etc.). Be especially sensitive if the quintiles are “flipped” for most variables (e.g. percent with a TV decreases with increasing quintile value). If this is the case, then check the coding of all indicator values to make sure that they haven’t been coded 2 and 1 instead of 0 and 1 for no and yes responses. Also check if there are “unusual variables” that may mean different things at various economic levels, such as having a “dacha” in eastern Europe and former Soviet Union nations, where for the poor in urban areas a “dacha” means a garden plot with a shed whereas for the urban rich, a “dacha” means a large country house for vacations. This indicator variable was removed from the factor analysis and the rest of the results were satisfactory.

Step 8:

Turn weighting off. Use all cases. Write out a data file (nnxxscores.dat) with the household ID information, the combined wealth index score and quintile (COMBSCOR AND NCOMBSCOR), the urban wealth score and quintile (URB1 AND NURB1), and the rural score and quintile (RUR1 and NRUR1). Note the format for the data file.

Close the scores data file. Save the syntax and output files.

Step 9 (optional but useful): Histograms and Gini Coefficient.

9a. Histogram: For a histogram of households, use hweight as the weight variable. For a histogram of the household population, use hhmemwt as the weight variable. In SPSS there are two alternatives: GRAPH and FREQUENCIES:

GRAPH

```
/HISTOGRAM(NORMAL)=combscor
```

```
/TITLE= 'Distribution of Households by Wealth Scores Ethiopia 2010'.
```

Or

FREQUENCIES

```
VARIABLES=combscor /FORMAT=NOTABLE
```

```
/STATISTICS=STDDEV MEAN
```

```
/HISTOGRAM NORMAL
```

```
/ORDER= ANALYSIS
```

The FREQUENCIES procedure adds a normal curve to the histogram but requires that the label be changed in the output after tabulation.

9b.

Appendix: Syntax examples

Example CSPRO syntax for exporting Tanzania raw data file to SPSS:

```
{Application 'CSEXPORT' logic file generated by CSPRO }

PROC GLOBAL

numeric i;
file SPSS_EXPORT;

PROC TZIQ60_FF

PROC HOUSEHOLD

preproc

domestic=0;house=0;land=0;

if qhresult<>1 then skip case;endif;
hv012=0; hv013=0;hv009=soccurs(qhsec01);
i=1;while i<= soccurs(qhsec01) do

    if qh05(i)=1 then hv012=hv012+1;endif;
    if qh06(i)=1 then hv013=hv013+1;endif;

i=i+1;enddo;

postproc

set behavior() export ( SPSS , ItemOnly );

export to SPSS_EXPORT case_id (QHclust, qhnumber)
    qhweight,qhtype,HV009, HV012, HV013, qhsec02, domestic,
house, land ;

proc INDIVIDUAL

preproc

if q811=913 and qh03(qline)=12 then domestic=1;endif;
if q806=913 and qh03(qline)=12 then domestic=1;endif;
if q826a>=1 and q826a<=3 then house=1;endif;
if q826b>=1 and q826b<=3 then land=1;endif;
```

Example SPSS syntax for raw data (Ethiopia 2010):

```
DATA LIST FILE='C:\HNP2A\ETHIOPIA 2010\EXPORTEDET10' RECORDS=1
/
QHCLUST      1-3
QHNUMBER     4-6
QHWEIGHT     7-14
QHTYPE       15-15
HV009        16-18
HV012        19-21
HV013        22-24
QH101        25-25
QH102        26-27
QH102A       28-29
QH103        30-30
QH104        31-33
QH104A       34-34
QH105        35-35
QH106        36-42      (A)
QH107        43-44
QH108        45-45
QH109        46-47
QH110A       48-48
QH110B       49-49
QH110C       50-50
QH110D       51-51
QH110E       52-52
QH110F       53-53
QH110G       54-54
QH110H       55-55
QH110I       56-56
QH110J       57-57
QH110K       58-58
QH110L       59-59
QH111        60-61
QH112        62-62
QH113        63-63
QH114        64-65
QH115        66-67
QH116        68-69
QH117        70-71
QH118A       72-72
QH118B       73-73
QH118C       74-74
QH118D       75-75
QH119        76-76
QH120        77-80      (1)
QH121        81-81
QH122A       82-83
QH122B       84-85
QH122C       86-87
```

QH122D	88-89
QH122E	90-91
QH122F	92-93
QH122G	94-95
QH123	96-96
QH124	97-97
QH125	98-98
QH126	99-101 (A)
QH127	102-102
DOMESTIC	103-103
HOUSE	104-104
LAND	105-105

VARIABLE LABELS

QHCLUST	"Cluster number"
/QHNUMBER	"Household number"
/QHWEIGHT	"Household weight (6 decimals)"
/QHTYPE	"Type of place of residence"
/HV009	"Total persons in household"
/HV012	"Number of usual residents"
/HV013	"Number who slept in HH last night"
/QH101	"Frequency of smoking inside house"
/QH102	"Source of drinking water"
/QH102A	"Source of non-drinking water"
/QH103	"Location of source for water"
/QH104	"Time to water and back (mins)"
/QH104A	"Person fetching water"
/QH105	"Do anything to water to make safe to drink"
/QH106	"What do you usually do to make water safe to drink"
/QH107	"Type of toilet facility"
/QH108	"Share facilities with other households"
/QH109	"Number of households sharing toilet"
/QH110A	"Electricity"
/QH110B	"Watch/Clock"
/QH110C	"Radio"
/QH110D	"Television"
/QH110E	"Mobile telephone"
/QH110F	"Telephone (non-mobile)"
/QH110G	"Refrigerator"
/QH110H	"Table"
/QH110I	"Chair"
/QH110J	"Bed with cotton/sponge/spring mattress"
/QH110K	"Electric mitad"
/QH110L	"Kerosene lamp/pressure lamp"
/QH111	"Type of cooking fuel"
/QH112	"Food cooked in the house / in separate building / outdoors"
/QH113	"Household has separate room used as kitchen"
/QH114	"Main material of floor"
/QH115	"Main roof material"
/QH116	"Main wall material"
/QH117	"Number of rooms used for sleeping"

/QH118A "Bicycle"
 /QH118B "Motorcycle or Scooter"
 /QH118C "Animal-drawn cart"
 /QH118D "Car or Truck"
 /QH119 "Own land usable for agriculture"
 /QH120 "Hectares for agricultural land"
 /QH121 "Livestock, herds or farm animals"
 /QH122A "Cattle"
 /QH122B "Horses / donkeys / mules"
 /QH122C "Camels"
 /QH122D "Goats"
 /QH122E "Sheep"
 /QH122F "Chickens"
 /QH122G "Beehives"
 /QH123 "Bank account"
 /QH124 "Place for handwashing observed"
 /QH125 "Presence of water observed"
 /QH126 "Presence of soap, detergent or other cleansing agent
 observed"
 /QH127 "Test salt for Iodine"
 /DOMESTIC "Domestic servant in household"
 /HOUSE "Owns a dwelling"
 /LAND "Owns agricultural land"

MISSING VALUE

QH101 (9)
 /QH102 (99)
 /QH102A (99)
 /QH103 (9)
 /QH104 (999)
 /QH104A (9)
 /QH105 (9)
 /QH107 (99)
 /QH108 (9)
 /QH109 (99)
 /QH110A (9)
 /QH110B (9)
 /QH110C (9)
 /QH110D (9)
 /QH110E (9)
 /QH110F (9)
 /QH110G (9)
 /QH110H (9)
 /QH110I (9)
 /QH110J (9)
 /QH110K (9)
 /QH110L (9)
 /QH111 (99)
 /QH112 (9)
 /QH113 (9)
 /QH114 (99)
 /QH115 (99)

/QH116 (99)
/QH117 (99)
/QH118A (9)
/QH118B (9)
/QH118C (9)
/QH118D (9)
/QH119 (9)
/QH120 (100)
/QH121 (9)
/QH122A (99)
/QH122B (99)
/QH122C (99)
/QH122D (99)
/QH122E (99)
/QH122F (99)
/QH122G (99)
/QH123 (9)
/QH124 (9)
/QH125 (9)
/QH127 (9)

VALUE LABELS

QHTYPE

1 "Urban"
2 "Rural"

/QH101

1 "Daily"
2 "Weekly"
3 "Monthly"
4 "Less than monthly"
5 "Never"

/QH102

11 "Piped - into dwelling"
12 "Piped - into yard/plot"
13 "Piped - public tap / standpipe"
21 "Borehole"
31 "Dug well - protected"
32 "Dug well - unprotected"
41 "Spring - protected"
42 "Spring - unprotected"
51 "Rainwater"
61 "Tanker truck"
71 "Cart with small tank"
81 "Surface water (river/dam/lake/pond/stream/canal/irrigation
channel"
91 "Bottled water"
96 "Other"

/QH102A

11 "Piped - into dwelling"
12 "Piped - into yard/plot"
13 "Piped - public tap / standpipe"
21 "Borehole"

31 "Dug well - protected"
 32 "Dug well - unprotected"
 41 "Spring - protected"
 42 "Spring - unprotected"
 51 "Rainwater"
 61 "Tanker truck"
 71 "Cart with small tank"
 81 "Surface water (river/dam/lake/pond/stream/canal/irrigation
 channel"
 96 "Other"
 /QH103
 1 "In own dwelling"
 2 "In own yard/plot"
 3 "Elsewhere"
 /QH104
 996 "On premises"
 998 "Don't know"
 /QH104A
 1 "Adult woman"
 2 "Adult man"
 3 "Female child < 15 years"
 4 "Male child < 15 years"
 6 "Other"
 /QH105
 1 "Yes"
 2 "No"
 8 "Don't know"
 /QH106
 'A ' "Boil"
 'B ' "Add bleach/chlorine/water guard/pur/bishan gari/aquatabs"
 'C ' "Strain through a cloth"
 'D ' "Use water filter (ceramic/bio sand/composite)"
 'E ' "Solar disinfection"
 'F ' "Let it stand and settle"
 'X ' "Other"
 'Z ' "Don't know"
 /QH107
 11 "Flush - to piped sewer system"
 12 "Flush - to septic tank"
 13 "Flush - to pit latrine"
 14 "Flush - to somewhere else"
 15 "Flush - don't know where"
 21 "Pit latrine - ventilated improved pit (VIP)"
 22 "Pit latrine - with slab"
 23 "Pit latrine - without slab / open pit"
 31 "Composting toilet"
 41 "Bucket toilet"
 51 "Hanging toilet / hanging latrine"
 61 "No facility/bush/field"
 96 "Other"
 /QH108
 1 "Yes"

2 "No"
/QH109
95 "10 or more households"
98 "Don't know"
/QH110A
1 "Yes"
2 "No"
/QH110B
1 "Yes"
2 "No"
/QH110C
1 "Yes"
2 "No"
/QH110D
1 "Yes"
2 "No"
/QH110E
1 "Yes"
2 "No"
/QH110F
1 "Yes"
2 "No"
/QH110G
1 "Yes"
2 "No"
/QH110H
1 "Yes"
2 "No"
/QH110I
1 "Yes"
2 "No"
/QH110J
1 "Yes"
2 "No"
/QH110K
1 "Yes"
2 "No"
/QH110L
1 "Yes"
2 "No"
/QH111
1 "Electricity"
2 "LPG"
3 "Natural gas"
4 "Biogas"
5 "Kerosene"
6 "Charcoal"
7 "Wood"
8 "Straw / shrubs / grass"
9 "Agricultural crop"
10 "Animal dung"
95 "No food cooked in HH"

96 "Other"
/QH112
1 "In the house"
2 "In a separate building"
3 "Outdoors"
6 "Other"
/QH113
1 "Yes"
2 "No"
/QH114
11 "Earth, sand"
12 "Dung"
21 "Wood planks"
22 "Palm, bamboo"
31 "Parquet, polished wood"
32 "Vinyl, asphalt strips"
33 "Ceramic tiles"
34 "Cement"
35 "Carpet"
96 "Other"
/QH115
11 "No roof"
12 "Thatch / palm leaf / mud"
21 "Rustic mat"
22 "Reed / bamboo"
23 "Wood planks"
24 "Cardboard"
31 "Corrugate iron / metal"
32 "Wood"
33 "Asbestos / cement fiber"
34 "Cement / concrete"
35 "Roofing shingles"
96 "Other"
/QH116
11 "No walls"
12 "Cane / trunks / bamboo / reed"
13 "Dirt"
21 "Bamboo / wood with mud"
22 "Stone with mud"
23 "Uncovered adobe"
24 "Plywood"
25 "Cardboard"
26 "Reused wood"
31 "Cement"
32 "Stone with lime / cement"
33 "Bricks"
34 "Cement blocks"
35 "Covered adobe"
36 "Wood planks / shingles"
96 "Other"
/QH118A
1 "Yes"

2 "No"
/QH118B
1 "Yes"
2 "No"
/QH118C
1 "Yes"
2 "No"
/QH118D
1 "Yes"
2 "No"
/QH119
1 "Yes"
2 "No"
/QH120
95.0 "More than 95"
99.8 "Unknown"
/QH121
1 "Yes"
2 "No"
/QH122A
0 "None"
95 "95 or more"
98 "Unknown"
/QH122B
0 "None"
95 "95 or more"
98 "Unknown"
/QH122C
0 "None"
95 "95 or more"
98 "Unknown"
/QH122D
0 "None"
95 "95 or more"
98 "Unknown"
/QH122E
0 "None"
95 "95 or more"
98 "Unknown"
/QH122F
0 "None"
95 "95 or more"
98 "Unknown"
/QH122G
0 "None"
95 "95 or more"
98 "Unknown"
/QH123
1 "Yes"
2 "No"
/QH124
1 "Observed"

```

        2 "Not observed, not in dwelling / yard / plot"
        3 "Not observed, no permission to see"
        4 "Not observed, other reason"
/QH125
    1 "Water is available"
    2 "Water is not available"
/QH126
'A ' "Soap or detergent (bar, liquid, powder, paste)"
'B ' "Ash, mud, sand"
'C ' "None"
/QH127
    1 "Iodine present"
    2 "No iodine"
    3 "No salt in household"
    6 "Salt not tested"
.
EXECUTE.

*{Construct Variables}.

*{Members per sleeping room}.
if (hv012=0) hv012=hv013.
if (qh117>0) memsleep=trunc(hv012/qh117).
if (qh117=0) memsleep=hv012.
if (memsleep>=98) memsleep=98.

VARIABLE LABELS
    MEMSLEEP "Number of members per sleeping room".
value labels memsleep 0 'Less than 1 per room'.

*{Drinking water supply}.
compute h2oires=0.
if (qh102=11) h2oires=1.
var labels h2oires "Piped into dwelling".
compute h2oyrd=0.
if (qh102=12) h2oyrd=1.
var labels h2oyrd "Piped into yard/plot".
compute h2opub=0.
if (qh102=13) h2opub=1.
var labels h2opub "Public tap / standpipe".
compute h2obwell=0.
if (qh102=21) h2obwell=1.
var labels h2obwell "Tube well or borehole".
compute h2ipwell=0.
if (qh102=31) h2ipwell=1.
var labels h2ipwell "Protected dug well".
compute h2iowell=0.
if (qh102=32) h2iowell=1.
var labels h2iowell "Unprotected dug well".
compute h2opspg=0.
if (qh102=41) h2opspg=1.
var labels h2opspg "Protected Spring".

```

```

compute h2ouspg=0.
if (qh102=42) h2ouspg=1.
var labels h2ouspg "Unprotected Spring".
compute h2orain=0.
if (qh102=51) h2orain=1.
var labels h2orain "Water from rain".
compute h2otruck=0.
if (qh102=61) h2otruck=1.
var labels h2otruck "Water from tanker truck".
compute h2ocart=0.
if (qh102=71) h2ocart=1.
var labels h2ocart "Water from cart with small tank".
compute h2osurf=0.
if (qh102=81) h2osurf=1.
var labels h2osurf "Surface water-river, lake, dam, etc.".
compute h2obot=0.
if (qh102=91) h2obot=1.
var labels h2obot "Water from bottle".
compute h2ooth=0.
if (qh102=96) h2ooth=1.
var labels h2ooth "Other water source".

*{Toilet facility}.
compute flushs=0.
if (qh107=11) flushs=1.
var labels flushs "Flush toilet to sewer".
compute flusht=0.
if (qh107=12) flusht=1.
var labels flusht "Flush toilet to septic tank".
compute flushp=0.
if (qh107=13) flushp=1.
var labels flushp "Flush toilet to pit latrine".
compute flushe=0.
if (qh107=14 or qh107=15) flushe=1.
var labels flushe "Flush toilet to elsewhere".
compute latvip=0.
if (qh107=21) latvip=1.
var labels latvip "VIP latrine".
compute latpits=0.
if (qh107=22) latpits=1.
var labels latpits "Pit latrine with slab".
compute latpit=0.
if (qh107=23) latpit=1.
var labels latpit "Traditional pit latrine".
compute latcomp=0.
if (qh107=31) latcomp=1.
var labels latcomp 'Composting toilet/ecosan'.
compute latpail=0.
if (qh107=41) latpail=1.
var labels latpail 'Bucket toilet'.
compute lathang=0.
if (qh107=51) lathang=1.

```

```
var labels lathang 'Hanging toilet/latrine'.
compute latbush=0.
if (qh107=61) latbush=1.
var labels latbush "No facility/bush/field".
compute latoth=0.
if (qh107=96) latoth=1.
var labels latoth 'Other type of latrine/toilet'.

compute latshare=0.
if (qh108=1) latshare=1.
var labels latshare 'Shares latrine/toilet with other households'.
```

```
*{Flooring}.
compute dirtfloo=0.
if (qh114=11 or qh114=12) dirtfloo=1.
var labels dirtfloo "Earth, sand, dung floor".
compute woodfloo=0.
if (qh114=21 or qh114=22) woodfloo=1.
var labels woodfloo "Rudimentary wood plank, palm, bamboo floor".
compute prqfloo=0.
if (qh114=31) prqfloo=1.
var labels prqfloo "Polished wood floor".
compute vinlfloo=0.
if (qh114=32) vinlfloo=1.
var labels vinlfloo "Vinyl, asphalt strip floor".
compute tilefloo=0.
if (qh114=33) tilefloo=1.
var labels tilefloo "Ceramic tile floor".
compute centfloo=0.
if (qh114=34) centfloo=1.
var labels centfloo "Cement floor".
compute rugfloo=0.
if (qh114=35) rugfloo=1.
var labels rugfloo "Carpeted floor".
compute othfloo=0.
if (qh114=96) othfloo=1.
var labels othfloo "Other type of flooring".
```

```
*{Walls}.
compute nowall=0.
if (qh116=11) nowall=1.
var labels nowall "No walls".
compute natwall=0.
if (qh116=12 or qh116=13) natwall=1.
var labels natwall "Cane/palm/trunks/dirt walls".
compute mudwall=0.
if (qh116=21) mudwall=1.
var labels mudwall "Bamboo with mud walls".
compute mdstwall=0.
if (qh116=22) mdstwall=1.
var labels mdstwall "Stone with mud walls".
```

```

compute adobwall=0.
if (qh116=23) adobwall=1.
var labels adobwall "Uncovered adobe walls".
compute plywall=0.
if (qh116=24) plywall=1.
var labels plywall "Plywood walls".
compute cardwall=0.
if (qh116=25) cardwall=1.
var labels cardwall "Cardboard walls".
compute rwoodwall=0.
if (qh116=26) rwoodwall=1.
var labels rwoodwall "Reused wood walls".
compute cmtwall=0.
if (qh116=31) cmtwall=1.
var labels cmtwall "Cement walls".
compute stonwall=0.
if (qh116=32) stonwall=1.
var labels stonwall "Stone walls with lime/cement".
compute brkwall=0.
if (qh116=33) brkwall=1.
var labels brkwall "Baked brick walls".
compute cmtbwall=0.
if (qh116=34) cmtbwall=1.
var labels cmtbwall "Cement block walls".
compute cadobwall=0.
if (qh116=35) cadobwall=1.
var labels cadobwall "Covered adobe walls".
compute woodwall=0.
if (qh116=36) woodwall=1.
var labels woodwall "Wood planks, shingles walls".
compute othwall=0.
if (qh116=96) othwall=1.
var labels othwall "Other type of walls".

*{Roofing}.
compute noroof=0.
if (qh115=11) noroof=1.
var labels noroof "No roof".
compute natroof=0.
if (qh115=12) natroof=1.
var labels natroof "Thatch/palm/sod roof".
compute matroof=0.
if (qh115=21) matroof=1.
var labels matroof "Rustic mat / plastic roof".
compute bambroof=0.
if (qh115=22) bambroof=1.
var labels bambroof "Reed / bamboo roof".
compute wproof=0.
if (qh115=23) wproof=1.
var labels wproof "Wood planks roof".
compute cardroof=0.
if (qh115=24) cardroof=1.

```

```

var labels cardroof "Cardboard roof".
compute metroof=0.
if (qh115=31) metroof=1.
var labels metroof "Iron sheet roof".
compute woodroof=0.
if (qh115=32) woodroof=1.
var labels woodroof "Wood roof".
compute asbroof=0.
if (qh115=33) asbroof=1.
var labels asbroof "Asbestos / cement fiber roof".
compute cmtroof=0.
if (qh115=34) cmtroof=1.
var labels cmtroof "Concrete roof".
compute shngroof=0.
if (qh115=35) shngroof=1.
var labels shngroof "Roofing shingles roof".
compute othroof=0.
if (qh115=96) othroof=1.
var labels othroof "Other type of roof".

*{Cooking Fuel}.
compute cookelec=0.
if (qh111=1) cookelec=1.
var labels cookelec "Electricity for cooking".
compute cooklpg=0.
if (qh111=2) cooklpg=1.
var labels cooklpg "LPG for cooking".
compute cookgas=0.
if (qh111=3) cookgas=1.
var labels cookgas "Natural gas for cooking".
compute cookbio=0.
if (qh111=4) cookbio=1.
var labels cookbio "Biogas for cooking".
compute cookkero=0.
if (qh111=5) cookkero=1.
var labels cookkero "Kerosene for cooking".
compute cookchar=0.
if (qh111=6) cookchar=1.
var labels cookchar "Charcoal for cooking".
compute cookwood=0.
if (qh111=7 ) cookwood=1.
var labels cookwood "Wood for cooking".
compute cookstraw=0.
if (qh111=8) cookstraw=1.
var labels cookstraw "Straw for cooking".
compute cookcrop=0.
if (qh111=9) cookcrop=1.
var labels cookcrop "Agricultural crop for cooking".
compute cookdung=0.
if (qh111=10) cookdung=1.
var labels cookdung "Dung for cooking".
compute cooknone=0.

```

```

if (qh111=95) cooknone=1.
var labels cooknone 'Does not cook'.
compute cookoth=0.
if (qh111=96) cookoth=1.
var labels cookoth "Other fuel for cooking".

*{Reset missing values to "does not have", change 2 code to 0}.
if (qh110a<>1) qh110a=0.
if (qh110b<>1) qh110b=0.
if (qh110c<>1) qh110c=0.
if (qh110d<>1) qh110d=0.
if (qh110e<>1) qh110e=0.
if (qh110f<>1) qh110f=0.
if (qh110g<>1) qh110g=0.
if (qh110h<>1) qh110h=0.
if (qh110i<>1) qh110i=0.
if (qh110j<>1) qh110j=0.
if (qh110k<>1) qh110k=0.
if (qh110l<>1) qh110l=0.

if (qh118a<>1) qh118a=0.
if (qh118b<>1) qh118b=0.
if (qh118c<>1) qh118c=0.
if (qh118d<>1) qh118d=0.

if (qh119<>1) qh119=0.
if (qh119<>1) qh120=0.

compute landarea=0.
if (not(missing(qh120))) landarea=qh120.
if (qh119<>1) landarea=0.
FRECUENCIES landarea.

if (qh121<>1) qh121=0.
if (qh121<>1) qh122a=0.
if (qh121<>1) qh122b=0.
if (qh121<>1) qh122c=0.
if (qh121<>1) qh122d=0.
if (qh121<>1) qh122e=0.
if (qh121<>1) qh122f=0.
if (qh121<>1) qh122g=0.

missing values qh122a to qh122g (98,99).

if (qh123<>1) qh123=0.

*{Lighting fuel-Not available in Ethiopia}.
*compute eleclgt=0.
*if (qh106=1) eleclgt=1.
*var labels eleclgt "Electricity for lighting".
*compute sunlgt=0.
*if (qh106=2) sunlgt=1.

```

```

*var labels sunlgt "Solar electricity for lighting".
*compute gaslgt=0.
*if (qh106=3) gaslgt=1.
*var labels gaslgt "Gas for lighting".
*compute hurrlgt=0.
*if (qh106=4) hurrlgt=1.
*var labels hurrlgt "Pariffin-hurricane lamp".
*compute preslgt=0.
*if (qh106=5) preslgt=1.
*var labels preslgt "Pariffin-pressure lamp".
*compute wicklgt=0.
*if (qh106=6) wicklgt=1.
*var labels wicklgt "Wick lamp for lighting".
*compute candlgt=0.
*if (qh106=8) candlgt=1.
*var labels candlgt "Candles for lighting".
*compute woodlgt=0.
*if (qh106=7) woodlgt=1.
*var labels woodlgt "Firewood for lighting".
*compute othlgt=0.
*if (qh106=96) othlgt=1.
*var labels othlgt "Other type of lighting".

```

*{Solid waste/garbage collection-Not available in Ethiopia}.

execute.

* Check on indicator variable creation.

```

FREQUENCIES VARIABLES=QHTYPE HV009 HV012 HV013 QH102 QH107 QH108
QH110A QH110B QH110C QH110D QH110E
    QH110F QH110G QH110H QH110I QH110J QH110K QH110L QH111 QH114 QH115
QH116 QH117 QH118A QH118B QH118C
    QH118D QH119 QH120 QH121 QH122A QH122B QH122C QH122D QH122E QH122F
QH122G QH123 DOMESTIC HOUSE LAND
    /ORDER=ANALYSIS.

```

```

FREQUENCIES VARIABLES=memsleep h2oires h2oyrd h2opub h2obwell h2ipwell
h2iowell h2opspg h2ouspg
    h2orain h2otruck h2ocart h2osurf h2obot h2ooth flushs flusht
flushp flush latvip latpits latpit
    latcomp latpail lathang latbush latoth latshare dirtfloo woodfloo
prqfloo vinlfloo tilefloo
    cemtfloo rugfloo othfloo nowall natwall mudwall stonwall adobwall
plywall cardwall rwoodwall
    cmtwall brkwall cmtbwall cadobwall woodwall othwall noroof natroof
matroof bambroof wproof cardroof
    metroof woodroof asbroof cmtroof shngroof othroof cookelec cooklpg
cookgas cookbio cookkero

```



```
cookchar cookwood cookstraw cookcrop cookdung cooknone cookoth
/ORDER=ANALYSIS.
```

```
save outfile="c:\hnp2a\Ethiopia 2010\etassets.sav".
```

```
*****.
```

```
*** Factor Analysis to Test Distribution of created variables.
```

```
FACTOR
```

```
/VARIABLES QH108 QH110A QH110B QH110C QH110D QH110E QH110F QH110G
QH110H QH110I QH110J QH110K
QH110L QH118A QH118B QH118C QH118D QH119 QH120 QH121 QH122A QH122B
QH122C QH122D QH122E QH122F
QH122G QH123 DOMESTIC HOUSE LAND h2oires h2oyrd h2opub h2obwell
h2ipwell h2iowell h2opspg h2ouspg
h2orain h2otruck h2ocart h2osurf h2obot h2ooth flushs flusht
flushp flush latvip latpits latpit
latcomp latpail lathang latbush latoth latshare dirtfloo woodfloo
prqfloo vinlfloo tilefloo
cemtfloo rugfloo othfloo nowall natwall mudwall stonwall adobwall
plywall cardwall rwoodwall
cmtwall brkwall cmtbwall cadobwall woodwall othwall noroof natroof
matroof bambroof wproof cardroof
metroof woodroof asbroof cmtroof shngroof othroof cookelec cooklpg
cookgas cookbio cookkero
cookchar cookwood cookstraw cookcrop cookdung cooknone cookoth
landarea
```

```
/MISSING MEANSUB
```

```
/ANALYSIS QH108 QH110A QH110B QH110C QH110D QH110E QH110F QH110G
QH110H QH110I QH110J QH110K
QH110L QH118A QH118B QH118C QH118D QH119 QH120 QH121 QH122A QH122B
QH122C QH122D QH122E QH122F
QH122G QH123 DOMESTIC HOUSE LAND h2oires h2oyrd h2opub h2obwell
h2ipwell h2iowell h2opspg h2ouspg
h2orain h2otruck h2ocart h2osurf h2obot h2ooth flushs flusht
flushp flush latvip latpits latpit
latcomp latpail lathang latbush latoth latshare dirtfloo woodfloo
prqfloo vinlfloo tilefloo
cemtfloo rugfloo othfloo nowall natwall mudwall stonwall adobwall
plywall cardwall rwoodwall
cmtwall brkwall cmtbwall cadobwall woodwall othwall noroof natroof
matroof bambroof wproof cardroof
metroof woodroof asbroof cmtroof shngroof othroof cookelec cooklpg
cookgas cookbio cookkero
cookchar cookwood cookstraw cookcrop cookdung cooknone cookoth
landarea
```

```
/PRINT UNIVARIATE INITIAL EXTRACTION
```

```
/CRITERIA FACTORS(1) ITERATE(25)
```

```
/EXTRACTION PC
```

```
/ROTATION NOROTATE
```

```
/METHOD=CORRELATION.
```

*****.

*** Common Factor Analysis.

FILTER OFF.

USE ALL.

EXECUTE.

**** Redo removing area-specific variables ****.

FACTOR

/VARIABLES QH108 QH110A QH110B QH110C QH110D QH110E QH110F QH110G
QH110H QH110I QH110J QH110K

QH110L QH118A QH118B QH118C QH118D QH123 DOMESTIC HOUSE LAND
h2oires h2oyrd h2opub h2obwell h2ipwell h2iowell h2opspg h2ouspg
h2orain h2otruck h2ocart h2osurf h2obot h2ooth flushs flusht
flushp flushe latvip latpits latpit

latcomp latpail lathang latbush latoth latshare dirtfloo woodfloo
prqfloo vinlfloo tilefloo

centfloo rugfloo othfloo nowall natwall mudwall stonwall adobwall
plywall cardwall rwoodwall

cmtwall brkwall cmtbwall cadobwall woodwall othwall noroof natroof
matroof bambroof wproof cardroof

metroof woodroof asbroof cmtroof shngroof othroof cookelec cooklpg
cookgas cookbio cookkero

cookchar cookwood cookstraw cookcrop cookdung cooknone cookoth

/MISSING MEANSUB

/ANALYSIS QH108 QH110A QH110B QH110C QH110D QH110E QH110F QH110G
QH110H QH110I QH110J QH110K

QH110L QH118A QH118B QH118C QH118D QH123 DOMESTIC HOUSE LAND
h2oires h2oyrd h2opub h2obwell h2ipwell h2iowell h2opspg h2ouspg
h2orain h2otruck h2ocart h2osurf h2obot h2ooth flushs flusht
flushp flushe latvip latpits latpit

latcomp latpail lathang latbush latoth latshare dirtfloo woodfloo
prqfloo vinlfloo tilefloo

centfloo rugfloo othfloo nowall natwall mudwall stonwall adobwall
plywall cardwall rwoodwall

cmtwall brkwall cmtbwall cadobwall woodwall othwall noroof natroof
matroof bambroof wproof cardroof

metroof woodroof asbroof cmtroof shngroof othroof cookelec cooklpg
cookgas cookbio cookkero

cookchar cookwood cookstraw cookcrop cookdung cooknone cookoth

/PRINT UNIVARIATE INITIAL EXTRACTION FSCORE

/CRITERIA FACTORS(1) ITERATE(25)

/EXTRACTION PC

/ROTATION NOROTATE

/SAVE REG(ALL COM)

/METHOD=CORRELATION.

** Urban Area.

```
USE ALL.
COMPUTE filter_$=(qhtype = 1).
VARIABLE LABEL filter_$ 'qhtype = 1 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .
```

```
WEIGHT
  OFF.
```

FACTOR

```
  /VARIABLES QH108 QH110A QH110B QH110C QH110D QH110E QH110F QH110G
QH110H QH110I QH110J QH110K
  QH110L QH118A QH118B QH118C QH118D QH119 QH120 QH121 QH122A QH122B
QH122C QH122D QH122E QH122F
  QH122G QH123 DOMESTIC HOUSE LAND h2oires h2oyrd h2opub h2obwell
h2ipwell h2iowell h2opspg h2ouspg
  h2orain h2otruck h2ocart h2osurf h2obot h2ooth flushs flusht
flushp flush latvip latpits latpit
  latcomp latpail lathang latbush latoth latshare dirtfloo woodfloo
prqfloo vinlfloo tilefloo
  cemtfloo rugfloo othfloo nowall natwall mudwall stonwall adobwall
plywall cardwall rwoodwall
  cmtwall brkwall cmtbwall cadobwall woodwall othwall noroof natroof
matroof bambroof wproof cardroof
  metroof woodroof asbroof cmtroof shngroof othroof cookelec cooklpg
cookgas cookbio cookkero
  cookchar cookwood cookstraw cookcrop cookdung cooknone cookoth
landarea
  /MISSING MEANSUB
  /ANALYSIS QH108 QH110A QH110B QH110C QH110D QH110E QH110F QH110G
QH110H QH110I QH110J QH110K
  QH110L QH118A QH118B QH118C QH118D QH119 QH120 QH121 QH122A QH122B
QH122C QH122D QH122E QH122F
  QH122G QH123 DOMESTIC HOUSE LAND h2oires h2oyrd h2opub h2obwell
h2ipwell h2iowell h2opspg h2ouspg
  h2orain h2otruck h2ocart h2osurf h2obot h2ooth flushs flusht
flushp flush latvip latpits latpit
  latcomp latpail lathang latbush latoth latshare dirtfloo woodfloo
prqfloo vinlfloo tilefloo
  cemtfloo rugfloo othfloo nowall natwall mudwall stonwall adobwall
plywall cardwall rwoodwall
  cmtwall brkwall cmtbwall cadobwall woodwall othwall noroof natroof
matroof bambroof wproof cardroof
  metroof woodroof asbroof cmtroof shngroof othroof cookelec cooklpg
cookgas cookbio cookkero
```

```
    cookchar cookwood cookstraw cookcrop cookdung cooknone cookoth
landarea
  /PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
  /CRITERIA FACTORS(1) ITERATE(25)
  /EXTRACTION PC
  /ROTATION NOROTATE
  /SAVE REG(ALL URB)
  /METHOD=CORRELATION.
```

** Rural Area.

```
USE ALL.
COMPUTE filter_$=(qhtype = 2).
VARIABLE LABEL filter_$ 'qhtype = 2 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .
```

```
FACTOR
  /VARIABLES QH108 QH110A QH110B QH110C QH110D QH110E QH110F QH110G
QH110H QH110I QH110J QH110K
    QH110L QH118A QH118B QH118C QH118D QH119 QH120 QH121 QH122A QH122B
QH122C QH122D QH122E QH122F
    QH122G QH123 DOMESTIC HOUSE LAND h2oires h2oyrd h2opub h2obwell
h2ipwell h2iowell h2opspg h2ouspg
    h2orain h2otruck h2ocart h2osurf h2obot h2ooth flushs flusht
flushp flush latvip latpits latpit
    latcomp latpail lathang latbush latoth latshare dirtfloo woodfloo
prqfloo vinlfloo tilefloo
    centfloo rugfloo othfloo nowall natwall mudwall stonwall plywall
cardwall rwoodwall
    cmtwall brkwall cmtbwall cadobwall woodwall othwall noroof natroof
matroof bambroof wproof cardroof
    metroof woodroof asbroof cmtroof shngroof othroof cookelec cooklpg
cookbio cookkero
    cookchar cookwood cookstraw cookcrop cookdung cooknone cookoth
landarea
  /MISSING MEANSUB
  /ANALYSIS QH108 QH110A QH110B QH110C QH110D QH110E QH110F QH110G
QH110H QH110I QH110J QH110K
    QH110L QH118A QH118B QH118C QH118D QH119 QH120 QH121 QH122A QH122B
QH122C QH122D QH122E QH122F
    QH122G QH123 DOMESTIC HOUSE LAND h2oires h2oyrd h2opub h2obwell
h2ipwell h2iowell h2opspg h2ouspg
    h2orain h2otruck h2ocart h2osurf h2obot h2ooth flushs flusht
flushp flush latvip latpits latpit
    latcomp latpail lathang latbush latoth latshare dirtfloo woodfloo
prqfloo vinlfloo tilefloo
```

```

    cemtfloo rugfloo othfloo nowall natwall mudwall stonwall plywall
cardwall rwoodwall
    cmtwall brkwall cmtbwall cadobwall woodwall othwall noroof natroof
matroof bambroof wproof cardroof
    metroof woodroof asbroof cmtroof shngroof othroof cookelec cooklpg
cookbio cookkero
    cookchar cookwood cookstraw cookcrop cookdung cooknone cookoth
landarea
/PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
/CRITERIA FACTORS(1) ITERATE(25)
/EXTRACTION PC
/ROTATION NOROTATE
/SAVE REG(ALL RUR)
/METHOD=CORRELATION.

```

```

* Calculate regressions with total score.
** Urban Area.

```

```

USE ALL.
COMPUTE filter_$=(qhtype = 1).
VARIABLE LABEL filter_$ 'qhtype = 1 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .

```

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT COM1
/METHOD=ENTER URB1 .

```

```

** Rural Area.

```

```

USE ALL.
COMPUTE filter_$=(qhtype = 2).
VARIABLE LABEL filter_$ 'qhtype = 2 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .

```

```

REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)

```

```
/NOORIGIN
/DEPENDENT COM1
/METHOD=ENTER RUR1 .
```

```
FILTER OFF.
USE ALL.
EXECUTE .
```

```
*** Calculate combined wealth score from Urban and Rural Scores.
compute comb scor=0.
print formats comb scor (F11.5).
** Urban.
if (qhtype = 1) comb scor=1.232+0.856* URB1.
** Rural.
if (qhtype = 2) comb scor=(-0.544)+0.352* RUR1.
execute.
```

```
*Calculate quintiles and scores for data file.
compute hmemwt=qhweight*hv012/1000000.
weight by hmemwt.
VARIABLE LABELS hmemwt 'HH members weighting for Index' .
```

```
** Urban Area.
USE ALL.
COMPUTE filter_$=(qhtype = 1).
VARIABLE LABEL filter_$ 'qhtype = 1 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .
```

```
RANK
  VARIABLES=urb1 (A) /RANK /NTILES (5) /PRINT=YES
  /TIES=MEAN .
```

```
** Rural Area.
```

```
USE ALL.
COMPUTE filter_$=(qhtype = 2).
VARIABLE LABEL filter_$ 'qhtype = 2 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .
```

```
RANK
  VARIABLES=rur1 (A) /RANK /NTILES (5) /PRINT=YES
  /TIES=MEAN .
```

```
** National combined score.
```

```
FILTER OFF.  
USE ALL.  
EXECUTE .
```

```
RANK
```

```
VARIABLES=combscor (A) /RANK /NTILES (5) /PRINT=YES  
/TIES=MEAN .
```

```
FREQUENCIES
```

```
VARIABLES=combscor /FORMAT=NOTABLE  
/NTILES= 5  
/STATISTICS=STDDEV MINIMUM MAXIMUM MEAN MEDIAN MODE SKEWNESS SESKEW  
KURTOSIS SEKURT  
/ORDER= ANALYSIS .
```

```
*** Check on quintiles.
```

```
frequencies variables=ncombsco.
```

```
compute hhwt=qhweight/1000000.  
weight by hhwt.  
VARIABLE LABELS hhwt 'HH weights' .
```

```
MEANS TABLES=QH108 QH110A QH110B QH110C QH110D QH110E QH110F QH110G  
QH110H QH110I QH110J QH110K  
QH110L QH118A QH118B QH118C QH118D QH119 QH120 QH121 QH122A QH122B  
QH122C QH122D QH122E QH122F  
QH122G QH123 DOMESTIC HOUSE LAND h2oires h2oyrd h2opub h2obwell  
h2ipwell h2iowell h2opspg h2ouspg  
h2orain h2otruck h2ocart h2osurf h2obot h2ooth flushs flusht  
flushp flushe latvip latpits latpit  
latcomp latpail lathang latbush latoth latshare dirtfloo woodfloo  
prqfloo vinlfloo tilefloo  
cemtfluo rugfloo othfloo nowall natwall mudwall stonwall adobwall  
plywall cardwall rwoodwall  
cmtwall brkwall cmtbwall cadobwall woodwall othwall noroof natroof  
matroof bambroof wproof cardroof  
metroof woodroof asbroof cmtroof shngroof othroof cookelec cooklpg  
cookgas cookbio cookkero  
cookchar cookwood cookstraw cookcrop cookdung cooknone cookoth  
landarea  
by Ncombsco  
/CELLS MEAN COUNT STDDEV.
```

```
save outfile="c:\hnp2a\Ethiopia 2010\et10assets.sav".
```

```
WEIGHT  
OFF.
```

```
*** Write out scores file.

write formats combscor (f11.5).

WRITE OUTFILE='c:\hnp2a\Ethiopia 2010\et10scores.dat'
  TABLE
  /qhclust qhnumber combscor ncombsco urb1 nurb1 rur1 nrur1.
EXECUTE.

save outfile="c:\hnp2a\Ethiopia 2010\et10assets.sav".
```


Examples of Histogram SPSS syntax.

```
*** Histogram of combined wealth score values.
```

```
weight by hhwt.
```

```
GRAPH
```

```
  /HISTOGRAM(NORMAL)=combscor
```

```
  /TITLE= 'Distribution of Households by Wealth Scores Ethiopia 2010'.
```

```
FREQUENCIES
```

```
  VARIABLES=combscor  /FORMAT=NOTABLE
```

```
  /STATISTICS=STDDEV MEAN
```

```
  /HISTOGRAM  NORMAL
```

```
  /ORDER=  ANALYSIS
```

Example of ISSA Gini coefficient syntax.

```
PROC GINI
Table float(1) popdist wlthindg colpop total+hv025+shregion
      exclude(totals,specval)
      Title("Distribution of Household Population by Wealth Score",
            "Peru 2000");

Table float(1) wlthdist wlthindg colwlth total+hv025+shregion
      exclude(totals,specval)
      Title("Share of Wealth by Wealth Score",
            "Peru 2000");

Table float(1) coef total+hv025+shregion
      exclude(totals,specval)
      Title("Gini Coefficient",
            "Peru 2000");
PROC PEIR41
preproc
level 0;

{Find minimum and maximum wealth score}
wlthmin=0;
wlthmax=0;

w=open(scores);
while loadcase(scores) do
  if wlthindf<wlthmin then wlthmin=wlthindf;endif;
  if wlthindf>wlthmax then wlthmax=wlthindf;endif;
enddo;
w=close(scores);
d=display(12,wlthmin,wlthmax);

{-----}
level 1
if hv015<>1 then skip case;endif;
hweight=hv005/1000000;

{Load in wealth index and quintiles}

if !loadcase(scores,hhid) then
  e=errmsg(1,hhid);
endif;

{Determine tabulation categories as 1/100 of range of wealth scores}
wlthrng=wlthmax-wlthmin; {Note that wlthmin is a negative number}

wlthindg=int((wlthindf-wlthmin)/(wlthrng/100));
{x=display(10,wlthindf, wlthindg);}
```

```

{Tabulate household population and wealth score by weath groups}
colpop=0;
x=xtab(popdist,hweight*hv009);

colwlth=0;ginico=notappl;
x=xtab(wlthdist,hweight*(wlthindf-wlthmin))

{-----}
postproc
level 0

popsum=0; wlthsum=0;

k=0; while k<=(2+5) do   {Do for total, urban-rural layers, 5 regions}

    popsum=0; wlthsum=0;
    {Cumulate population and wealth scores}
    i=0;while i<=100 do
        popsum=popsum+popdist(i,0,k);
        wlthsum=wlthsum+wlthdist(i,0,k);
        i=i+1;enddo;

    {Calculate cumulated percentages}
    popdist(0,1,k)=popdist(0,0,k);
    popdist(0,2,k)=100*popdist(0,1,k)/popsum;
    wlthdist(0,1,k)=wlthdist(0,0,k);
    wlthdist(0,2,k)=100*wlthdist(0,1,k)/wlthsum;

    i=1;while i<=100 do
        popdist(i,1,k)=popdist(i-1,1,k)+popdist(i,0,k);
        popdist(i,2,k)=100*popdist(i,1,k)/popsum;
        wlthdist(i,1,k)=wlthdist(i-1,1,k)+wlthdist(i,0,k);
        wlthdist(i,2,k)=100*wlthdist(i,1,k)/wlthsum;
        i=i+1;enddo;

    {Calculate Gini Coefficient}
    g=(popdist(0,2,k)/100)*(wlthdist(0,2,k)/100);
    i=1;while i<100 do
        g=g+((popdist(i,2,k)-popdist(i-
1,2,k))/100)*((wlthdist(i,2,k)+wlthdist(i-1,2,k))/100);
        i=i+1;enddo;
    g=g+((100-popdist(99,2,k))/100)*((100+wlthdist(99,2,k))/100);

    g=1-g;if g<0 then g=-g;endif;
    coef(k)=100*g;   {Put into table for display}

k=k+1;enddo;

```

Standard Recode Example:

CSPRO Export Application

```
{Application 'CMEXPORT' logic file generated by CSPRO }
PROC GLOBAL

numeric i;
file SPSS_EXPORT;

PROC CMIR60_FF

PROC HOUSEHOLD

preproc

domestic=0;house=0;land=0;

if HV015<>1 then skip case;endif;

postproc

set behavior() export ( SPSS , ItemOnly );

export to SPSS_EXPORT case_id (HHID)
          HV005,HV025,HV009, HV012, HV013, RECH2, RECH3, domestic,
house, land ;

proc WOMAN

preproc

if V716=95 and HV101(V003)=12 then domestic=1;endif;
if V704=95 and HV101(V003)=12 then domestic=1;endif;
if V745A>=1 and V745A<=3 then house=1;endif;
if V745B>=1 and V745B<=3 then land=1;endif;
if v740=1 or v740=1 then land=1;endif;
```

SPSS syntax:

```
DATA LIST FILE='C:\HNP2A\CAMEROON 2011\CMEXPORTED' RECORDS=1
```

```
/
```

```
HHID          1-12      (A)
HV005         13-20
HV025         21-21
HV009         22-23
HV012         24-25
HV013         26-27
HV201         28-29
HV202         30-31
HV204         32-34
HV205         35-36
HV206         37-37
HV207         38-38
HV208         39-39
HV209         40-40
HV210         41-41
HV211         42-42
HV212         43-43
HV213         44-45
HV214         46-47
HV215         48-49
HV216         50-51
HV217         52-52
HV218         53-54
HV219         55-55
HV220         56-57
HV221         58-58
HV225         59-59
HV226         60-61
HV227         62-62
HV228         63-63
HV230A        64-64
HV230B        65-65
HV232         66-66
HV232B        67-67
HV232C        68-68
HV232D        69-69
HV232E        70-70
HV232Y        71-71
HV234         72-74
HV234A        75-75
HV235         76-76
HV236         77-77
HV237         78-78
HV237A        79-79
HV237B        80-80
HV237C        81-81
HV237D        82-82
```

HV237E	83-83
HV237F	84-84
HV237G	85-85
HV237H	86-86
HV237I	87-87
HV237J	88-88
HV237K	89-89
HV237X	90-90
HV237Z	91-91
HV238	92-93
HV239	94-94
HV240	95-95
HV241	96-96
HV242	97-97
HV243A	98-98
HV243B	99-99
HV243C	100-100
HV243D	101-101
HV244	102-102
HV245	103-105
HV246	106-106
HV246A	107-108
HV246B	109-110
HV246C	111-112
HV246D	113-114
HV246E	115-116
HV246F	117-118
HV246G	119-120
HV246H	121-122
HV246I	123-124
HV246J	125-126
HV246K	127-128
HV247	129-129
HV252	130-130
HV253	131-131
HV253A	132-132
HV253B	133-133
HV253C	134-134
HV253D	135-135
HV253E	136-136
HV253F	137-137
HV253G	138-138
HV253H	139-139
HV253X	140-140
HV253Z	141-141
HV270	142-142
HV271	143-150
HML1	151-152
HML1A	153-153
HML2	154-155
SHSTRUCT	156-158
SHQLANG	159-159

SHILANG	160-160
SHINTERP	161-161
SHTYPE1	162-162
SH104A	163-164
SH105A	165-166
SH105B	167-168
SH105C	169-170
SH105D	171-172
SH105AA	173-174
SH111G	175-175
SH111H	176-176
SH111I	177-177
SH111J	178-178
SH111K	179-179
SH111L	180-180
SH111M	181-181
SH111N	182-182
SH111O	183-183
SH111P	184-184
SH111Q	185-185
SH111R	186-186
SH125F	187-188
SH127	189-189
SH128	190-190
SH129A	191-191
SH129B	192-192
SH129C	193-193
SH129X	194-194
SH129Y	195-195
SH130	196-196
SH131A	197-197
SH131B	198-198
SH131C	199-199
SH131D	200-200
SH131X	201-201
SH131Y	202-202
SH132	203-203
SH133	204-204
SH134A	205-205
SH134B	206-206
SH134C	207-207
SH134D	208-208
SH134E	209-209
SH134F	210-210
SH134G	211-211
SH134H	212-212
SH134I	213-213
SH134Y	214-214
SH135A	215-215
SH135B	216-216
SH135C	217-217
SH135D	218-218

SH135E	219-219
SH135F	220-220
SH135Y	221-221
SH136A	222-222
SH136B	223-223
SH136C	224-224
SH136Y	225-225
SH201	226-226
SH202	227-227
SH203	228-228
SH204	229-230
SH205	231-231
SH206	232-232
SH209	233-233
SH210	234-234
SH211	235-235
SH212A	236-236
SH212B	237-237
SH212C	238-238
SH212D	239-239
SH212E	240-240
SH212X	241-241
SH212Y	242-242
SH601	243-243
SH604	244-244
SH608	245-245
SH612	246-246
SH616	247-247
SH620	248-248
SH624	249-249
SH701	250-250
SH702	251-252
DOMESTIC	253-253
HOUSE	254-254
LAND	255-255

VARIABLE LABELS

HHID	"Case Identification"
/HV005	"Household sample weight (6 decimals)"
/HV025	"Type of place of residence"
/HV009	"Number of household members"
/HV012	"Number of de jure members"
/HV013	"Number of de facto members"
/HV201	"Source of drinking water"
/HV202	"Source of non-drinking water"
/HV204	"Time to get to water source (minutes)"
/HV205	"Type of toilet facility"
/HV206	"Has electricity"
/HV207	"Has radio"
/HV208	"Has television"
/HV209	"Has refrigerator"
/HV210	"Has bicycle"

/HV211 "Has motorcycle/scooter"
/HV212 "Has car/truck"
/HV213 "Main floor material"
/HV214 "Main wall material"
/HV215 "Main roof material"
/HV216 "Number of rooms used for sleeping"
/HV217 "Relationship structure"
/HV218 "Line number of head of household"
/HV219 "Sex of head of household"
/HV220 "Age of head of household"
/HV221 "Has telephone (land-line)"
/HV225 "Share toilet with other households"
/HV226 "Type of cooking fuel"
/HV227 "Has mosquito bed net for sleeping"
/HV228 "Children under 5 slept under mosquito bed net last night"
/HV230A "Place where household members wash their hands"
/HV230B "Presence of water at hand washing place"
/HV232 "Items present: Soap or detergent"
/HV232B "Items present: Ash, mud, sand"
/HV232C "Items present: CS"
/HV232D "Items present: CS"
/HV232E "Items present: CS"
/HV232Y "Items present: None"
/HV234 "Result of salt test for iodine (PPM)"
/HV234A "Result of salt test for iodine"
/HV235 "Location of source for water"
/HV236 "Person fetching water"
/HV237 "Anything done to water to make safe to drink"
/HV237A "Water usually treated by: boil"
/HV237B "Water usually treated by: add bleach/chlorine"
/HV237C "Water usually treated by: strain through a cloth"
/HV237D "Water usually treated by: use water filter"
/HV237E "Water usually treated by: solar disinfection"
/HV237F "Water usually treated by: let it stand and settle"
/HV237G "Water usually treated by: CS"
/HV237H "Water usually treated by: CS"
/HV237I "Water usually treated by: CS"
/HV237J "Water usually treated by: CS"
/HV237K "Water usually treated by: CS"
/HV237X "Water usually treated by: other"
/HV237Z "Water usually treated by: don't know"
/HV238 "Number of households sharing toilet"
/HV239 "Food cooked on stove or open fire"
/HV240 "Household has a chimney, hood or neither"
/HV241 "Food cooked in the house/ separate building/ outdoors"
/HV242 "Household has separate room used as kitchen"
/HV243A "Has mobile telephone"
/HV243B "Has watch"
/HV243C "Has animal-drawn cart"
/HV243D "Has boat with a motor"
/HV244 "Owns land usable for agriculture"
/HV245 "Hectares of agricultural land (1 decimal)"

/HV246 "Owns livestock, herds or farm animals"
 /HV246A "Owns cattle"
 /HV246B "Owns cows/ bulls"
 /HV246C "Owns horses/ donkeys/ mules"
 /HV246D "Owns goats"
 /HV246E "Owns sheep"
 /HV246F "Owns chickens"
 /HV246G "Owns CS"
 /HV246H "Owns CS"
 /HV246I "Owns CS"
 /HV246J "Owns CS"
 /HV246K "Owns CS"
 /HV247 "Has bank account"
 /HV252 "Frequency household members smoke inside the house"
 /HV253 "Has dwelling been sprayed against mosquitoes in last 12
 months"
 /HV253A "Dwelling sprayed by: government worker/program"
 /HV253B "Dwelling sprayed by: private company"
 /HV253C "Dwelling sprayed by: NGO"
 /HV253D "Dwelling sprayed by: CS"
 /HV253E "Dwelling sprayed by: CS"
 /HV253F "Dwelling sprayed by: CS"
 /HV253G "Dwelling sprayed by: CS"
 /HV253H "Dwelling sprayed by: CS"
 /HV253X "Dwelling sprayed by: other"
 /HV253Z "Dwelling sprayed by: don't know"
 /HV270 "Wealth index"
 /HV271 "Wealth index factor score (5 decimals)"
 /HML1 "Number of mosquito bed nets"
 /HML1A "Number of mosquito bed nets with specific information"
 /HML2 "Number of children under mosquito bed net previous night"
 /SHSTRUCT "Structure number"
 /SHQLANG "Language of the questionnaire"
 /SHILANG "Language of the interview"
 /SHINTERP "Use of interpreter"
 /SHTYPE1 "Type of place of residence"
 /SH104A "How far is the water source"
 /SH105A "HH member fetching water"
 /SH105B "HH member fetching water"
 /SH105C "HH member fetching water"
 /SH105D "HH member fetching water"
 /SH105AA "Main HH member fetching water"
 /SH111G "Has cooker"
 /SH111H "Has gas stove"
 /SH111I "Has air conditioner"
 /SH111J "Has fan"
 /SH111K "Has CD/DVD reader"
 /SH111L "Has computer"
 /SH111M "Has grain mill"
 /SH111N "Has mixer"
 /SH111O "Has internet connection"
 /SH111P "Has connection to TV/SAT"

/SH111Q "Has generator"
 /SH111R "Has water pump"
 /SH125F "Owns Pigs"
 /SH127 "Owner or tenant of the lodging"
 /SH128 "Has a certificate/tittle for the lodging"
 /SH129A "Type of lodging document: Land tax"
 /SH129B "Type of lodging Electricity/water/tel bill"
 /SH129C "Type of lodging document: Sale certificate"
 /SH129X "Type of lodging document: Other"
 /SH129Y "Type of lodging document: Nothing/no dcument"
 /SH130 "Has writing document for renting"
 /SH131A "Document or agreement for renting: informal agreement"
 /SH131B "Document or agreement for renting: oral agreement"
 /SH131C "Document or agreement for renting: free occupation with
 owner's agrrement"
 /SH131D "Document or agreement for renting: free occupation without
 owner's agrrement"
 /SH131X "Document or agreement for renting: other"
 /SH131Y "Document or agreement for renting: nothing/no document"
 /SH132 "In security not to be sent away from the lodging"
 /SH133 "Has been sent away from the house in past 5 years"
 /SH134A "Location of lodging: landslide area"
 /SH134B "Location of lodging: flood exposed area"
 /SH134C "Location of lodging: riverside"
 /SH134D "Location of lodging: steep hill"
 /SH134E "Location of lodgingn: refuse deposit"
 /SH134F "Location of lodging: area of industrial pollution"
 /SH134G "Location of lodging: railway"
 /SH134H "Location of lodging: electric generating center"
 /SH134I "Location of lodging: airway bridge"
 /SH134Y "Location of lodging: none of the above"
 /SH135A "Condition of lodging: fissures/openings on walls"
 /SH135B "Condition of lodging: no window"
 /SH135C "Condition of lodging: window with broken panes/no panes"
 /SH135D "Condition of lodging: visible holes on the roof"
 /SH135E "Condition of lodging: incomplet roof"
 /SH135F "Condition of lodging: weak doors"
 /SH135Y "Condition of lodging: none of the above"
 /SH136A "Environment of lodging: very narrow passage between
 houses"
 /SH136B "Environment of lodging: many electrical cables"
 /SH136C "Environment of lodging: high/medium tension cables near
 the lodging"
 /SH136Y "Environment of lodging: none of the above"
 /SH201 "Windows with wire netting to hinder mosquitoes from
 entering"
 /SH202 "Doors with wire netting to hinder mosquitoes from
 entering"
 /SH203 "During the last 12 months, did anyone come here, to spray
 the inner walls of lodging"
 /SH204 "Months since spray"
 /SH205 "Who sprayed the walls of your lodging"

/SH206 "Since the walls were sprayed, have you done anything on
 it"
 /SH209 "Do you use mosquito nets out of the rooms"
 /SH210 "Do the members of your household continuously sleep under
 mosquito net through out the year"
 /SH211 "Why do the members of your household not sleep
 continuously under a mosquito net through out the year"
 /SH212A "Why there are no mosquito nets: lack of means"
 /SH212B "Why there are no mosquito nets: not necessary"
 /SH212C "Why there are no mosquito nets: use something else"
 /SH212D "Why there are no mosquito nets: not enough mosquitoes"
 /SH212E "Why there are no mosquito nets: doesn't like"
 /SH212X "Why there are no mosquito nets: other"
 /SH212Y "Why there are no mosquito nets: don't know"
 /SH601 "Anyone lacking part of his/her body"
 /SH604 "Anyone suffering from deformation of the upper/the lower
 limbs and who cannot or has difficulties in walking and/or usi"
 /SH608 "Anyone suffering from sight problems"
 /SH612 "Any person who barely hears or who is deaf"
 /SH616 "Anyone with serious difficulties in speaking or who is
 dumb"
 /SH620 "Anyone who lacks some parts of the body"
 /SH624 "Anyone with some disorderly behaviors"
 /SH701 "A household member presently sick"
 /SH702 "Number of patients"
 /DOMESTIC "Domestic servant in household"
 /HOUSE "Owns a dwelling"
 /LAND "Owns agricultural land"

MISSING VALUE

HV201 (99)
 /HV202 (99)
 /HV204 (999)
 /HV205 (99)
 /HV206 (9)
 /HV207 (9)
 /HV208 (9)
 /HV209 (9)
 /HV210 (9)
 /HV211 (9)
 /HV212 (9)
 /HV213 (99)
 /HV214 (99)
 /HV215 (99)
 /HV216 (99)
 /HV219 (9)
 /HV220 (99)
 /HV221 (9)
 /HV225 (9)
 /HV226 (99)
 /HV227 (9)
 /HV228 (9)

/HV230A (9)
/HV230B (9)
/HV232 (9)
/HV232B (9)
/HV232C (9)
/HV232D (9)
/HV232E (9)
/HV232Y (9)
/HV234 (999)
/HV234A (9)
/HV235 (9)
/HV236 (9)
/HV237 (9)
/HV237A (9)
/HV237B (9)
/HV237C (9)
/HV237D (9)
/HV237E (9)
/HV237F (9)
/HV237G (9)
/HV237H (9)
/HV237I (9)
/HV237J (9)
/HV237K (9)
/HV237X (9)
/HV237Z (9)
/HV238 (99)
/HV239 (9)
/HV240 (9)
/HV241 (9)
/HV242 (9)
/HV243A (9)
/HV243B (9)
/HV243C (9)
/HV243D (9)
/HV244 (9)
/HV245 (999)
/HV246 (9)
/HV246A (99)
/HV246B (99)
/HV246C (99)
/HV246D (99)
/HV246E (99)
/HV246F (99)
/HV246G (99)
/HV246H (99)
/HV246I (99)
/HV246J (99)
/HV246K (99)
/HV247 (9)
/HV252 (9)
/HV253 (9)

/HV253A (9)
/HV253B (9)
/HV253C (9)
/HV253D (9)
/HV253E (9)
/HV253F (9)
/HV253G (9)
/HV253H (9)
/HV253X (9)
/HV253Z (9)
/HML1 (99)
/HML2 (99)
/SHILANG (9)
/SHINTERP (9)
/SH104A (99)
/SH105A (99)
/SH105B (99)
/SH105C (99)
/SH105D (99)
/SH105AA (99)
/SH111G (9)
/SH111H (9)
/SH111I (9)
/SH111J (9)
/SH111K (9)
/SH111L (9)
/SH111M (9)
/SH111N (9)
/SH111O (9)
/SH111P (9)
/SH111Q (9)
/SH111R (9)
/SH125F (99)
/SH127 (9)
/SH128 (9)
/SH129A (9)
/SH129B (9)
/SH129C (9)
/SH129X (9)
/SH129Y (9)
/SH130 (9)
/SH131A (9)
/SH131B (9)
/SH131C (9)
/SH131D (9)
/SH131X (9)
/SH131Y (9)
/SH132 (9)
/SH133 (9)
/SH134A (9)
/SH134B (9)
/SH134C (9)

/SH134D (9)
/SH134E (9)
/SH134F (9)
/SH134G (9)
/SH134H (9)
/SH134I (9)
/SH134Y (9)
/SH135A (9)
/SH135B (9)
/SH135C (9)
/SH135D (9)
/SH135E (9)
/SH135F (9)
/SH135Y (9)
/SH136A (9)
/SH136B (9)
/SH136C (9)
/SH136Y (9)
/SH201 (9)
/SH202 (9)
/SH203 (9)
/SH204 (99)
/SH205 (9)
/SH206 (9)
/SH209 (9)
/SH210 (9)
/SH211 (9)
/SH212A (9)
/SH212B (9)
/SH212C (9)
/SH212D (9)
/SH212E (9)
/SH212X (9)
/SH212Y (9)
/SH601 (9)
/SH604 (9)
/SH608 (9)
/SH612 (9)
/SH616 (9)
/SH620 (9)
/SH624 (9)
/SH701 (9)

VALUE LABELS

HV025

1 "Urban"

2 "Rural"

/HV201

10 "PIPED WATER"

11 "Piped into dwelling"

12 "Piped to yard/plot"

13 "Public tap/standpipe"

20 "TUBE WELL WATER"
 21 "Tube well or borehole"
 30 "DUG WELL (OPEN/PROTECTED) "
 31 "Protected well"
 32 "Unprotected well"
 40 "SURFACE WATER"
 41 "Protected spring"
 42 "Unprotected spring"
 43 "River/dam/lake/ponds/stream/canal/irrigation channel"
 51 "Rainwater"
 61 "Tanker truck"
 62 "Cart with small tank"
 71 "Bottled water"
 96 "Other"
 /HV202
 10 "PIPED WATER"
 11 "Piped into dwelling"
 12 "Piped to yard/plot"
 13 "Public tap/standpipe"
 20 "TUBE WELL WATER"
 21 "Tube well or borehole"
 30 "DUG WELL (OPEN/PROTECTED) "
 31 "Protected well"
 32 "Unprotected well"
 40 "SURFACE WATER"
 41 "Protected spring"
 42 "Unprotected spring"
 43 "River/dam/lake/ponds/stream/canal/irrigation channel"
 51 "Rainwater"
 61 "Tanker truck"
 62 "Cart with small tank"
 71 "Bottled water"
 96 "Other"
 /HV204
 996 "On premises"
 998 "Don't know"
 /HV205
 10 "FLUSH TOILET"
 11 "Flush to piped sewer system"
 12 "Flush to septic tank"
 13 "Flush to pit latrine"
 14 "Flush to somewhere else"
 15 "Flush, don't know where"
 20 "PIT TOILET LATRINE"
 21 "Ventilated Improved Pit latrine (VIP) "
 22 "Pit latrine with slab"
 23 "Pit latrine without slab/open pit"
 30 "NO FACILITY"
 31 "No facility/bush/field"
 41 "Composting toilet"
 42 "Bucket toilet"
 43 "Hanging toilet/latrine"


```

    96 "Other"
/HV206
    0 "No"
    1 "Yes"
/HV207
    0 "No"
    1 "Yes"
/HV208
    0 "No"
    1 "Yes"
/HV209
    0 "No"
    1 "Yes"
/HV210
    0 "No"
    1 "Yes"
/HV211
    0 "No"
    1 "Yes"
/HV212
    0 "No"
    1 "Yes"
/HV213
    10 "NATURAL"
    11 "Earth, sand"
    12 "Dung"
    20 "RUDIMENTARY"
    21 "Wood planks"
    22 "Palm, bamboo"
    30 "FINISHED"
    31 "Parquet, polished wood"
    32 "Vinyl, asphalt strips"
    33 "Ceramic tiles"
    34 "Cement"
    35 "Carpet"
    96 "Other"
/HV214
    10 "NATURAL"
    11 "No walls"
    12 "Cane / palm / trunks"
    13 "Dirt"
    20 "RUDIMENTARY"
    21 "Bamboo with mud"
    22 "Stone with mud"
    23 "Uncovered adobe"
    24 "Plywood"
    25 "Cardboard"
    26 "Reused wood"
    30 "FINISHED"
    31 "Cement"
    32 "Stone with lime / cement"
    33 "Bricks"

```

34 "Cement blocks"
35 "Covered adobe"
36 "Wood planks / shingles"
96 "Other"
/HV215
10 "NATURAL"
11 "No roof"
12 "Thatch / palm leaf"
13 "Sod"
14 "Straw"
20 "RUDIMENTARY"
21 "Rustic mat"
22 "Palm / bamboo"
23 "Wood planks"
24 "Cardboard"
30 "FINISHED"
31 "Metal"
32 "Wood"
33 "Calamine / cement fiber"
34 "Ceramic tiles"
35 "Cement"
36 "Roofing shingles"
96 "Other"
/HV217
0 "No adults"
1 "One adult"
2 "Two adults, opposite sex"
3 "Two adults, same sex"
4 "Three+ related adults"
5 "Unrelated adults"
/HV219
1 "Male"
2 "Female"
/HV220
97 "97+"
98 "Don't know"
/HV221
0 "No"
1 "Yes"
/HV225
0 "No"
1 "Yes"
/HV226
1 "Electricity"
2 "LPG"
3 "Natural gas"
4 "Biogas"
5 "Kerosene"
6 "Coal, lignite"
7 "Charcoal"
8 "Wood"
9 "Straw/shrubs/grass"

10 "Agricultural crop"
11 "Animal dung"
95 "No food cooked in house"
96 "Other"
/HV227
0 "No"
1 "Yes"
/HV228
0 "No"
1 "All children"
2 "Some children"
3 "No net in household"
/HV230A
1 "Observed"
2 "Not observed: not in dwelling"
3 "Not observed: no permission to see"
4 "Not observed: other reason"
/HV230B
0 "Water not available"
1 "Water is available"
/HV232
0 "No"
1 "Yes"
/HV232B
0 "No"
1 "Yes"
/HV232C
0 "No"
1 "Yes"
/HV232D
0 "No"
1 "Yes"
/HV232E
0 "No"
1 "Yes"
/HV232Y
0 "No"
1 "Yes: no cleansing agent observed"
/HV234
0 "0 PPM (no iodine)"
7 "Below 15 PPM"
15 "15 PPM and above"
30 "30 PPM"
994 "Salt not tested"
995 "No salt in household"
/HV234A
0 "No iodine"
1 "Iodine present"
3 "No salt in household"
6 "Salt not tested"
/HV235
1 "In own dwelling"

```
    2 "In own yard/plot"
    3 "Elsewhere"
/HV236
    1 "Adult woman"
    2 "Adult man"
    3 "Female child under 15 years old"
    4 "Male child under 15 years old"
    6 "Other"
/HV237
    0 "No"
    1 "Yes"
    8 "Don't know"
/HV237A
    0 "No"
    1 "Yes"
    8 "Don't know"
/HV237B
    0 "No"
    1 "Yes"
    8 "Don't know"
/HV237C
    0 "No"
    1 "Yes"
    8 "Don't know"
/HV237D
    0 "No"
    1 "Yes"
    8 "Don't know"
/HV237E
    0 "No"
    1 "Yes"
    8 "Don't know"
/HV237F
    0 "No"
    1 "Yes"
    8 "Don't know"
/HV237G
    0 "No"
    1 "Yes"
    8 "Don't know"
/HV237H
    0 "No"
    1 "Yes"
    8 "Don't know"
/HV237I
    0 "No"
    1 "Yes"
    8 "Don't know"
/HV237J
    0 "No"
    1 "Yes"
    8 "Don't know"
```

/HV237K
0 "No"
1 "Yes"
8 "Don't know"
/HV237X
0 "No"
1 "Yes"
8 "Don't know"
/HV237Z
0 "No"
1 "Yes: don't know what is done to water"
8 "Don't know"
/HV238
95 "10 or more households"
98 "Don't know"
/HV239
1 "Open fire"
2 "Open stove"
3 "Closed stove with chimney"
6 "Other"
/HV240
0 "Neither chimney or hood"
1 "Chimney"
2 "Hood"
/HV241
1 "In the house"
2 "In a separate building"
3 "Outdoors"
6 "Other"
/HV242
0 "No"
1 "Yes"
/HV243A
0 "No"
1 "Yes"
/HV243B
0 "No"
1 "Yes"
/HV243C
0 "No"
1 "Yes"
/HV243D
0 "No"
1 "Yes"
/HV244
0 "No"
1 "Yes"
/HV245
950 "95 or more"
998 "Unknown"
/HV246
0 "No"

1 "Yes"
/HV246A
0 "None"
95 "95 or more"
98 "Unknown"
/HV246B
0 "None"
95 "95 or more"
98 "Unknown"
/HV246C
0 "None"
95 "95 or more"
98 "Unknown"
/HV246D
0 "None"
95 "95 or more"
98 "Unknown"
/HV246E
0 "None"
95 "95 or more"
98 "Unknown"
/HV246F
0 "None"
95 "95 or more"
98 "Unknown"
/HV246G
0 "None"
95 "95 or more"
98 "Unknown"
/HV246H
0 "None"
95 "95 or more"
98 "Unknown"
/HV246I
0 "None"
95 "95 or more"
98 "Unknown"
/HV246J
0 "None"
95 "95 or more"
98 "Unknown"
/HV246K
0 "None"
95 "95 or more"
98 "Unknown"
/HV247
0 "No"
1 "Yes"
8 "Don't know"
/HV252
0 "Never"
1 "Daily"

2 "Weekly"
3 "Monthly"
4 "Less than monthly"
/HV253
0 "No"
1 "Yes"
8 "Don't know"
/HV253A
0 "No"
1 "Yes"
8 "Don't know"
/HV253B
0 "No"
1 "Yes"
8 "Don't know"
/HV253C
0 "No"
1 "Yes"
8 "Don't know"
/HV253D
0 "No"
1 "Yes"
8 "Don't know"
/HV253E
0 "No"
1 "Yes"
8 "Don't know"
/HV253F
0 "No"
1 "Yes"
8 "Don't know"
/HV253G
0 "No"
1 "Yes"
8 "Don't know"
/HV253H
0 "No"
1 "Yes"
8 "Don't know"
/HV253X
0 "No"
1 "Yes"
8 "Don't know"
/HV253Z
0 "No"
1 "Yes: don't know who sprayed the dwelling"
8 "Don't know if it was sprayed"
/HV270
1 "Poorest"
2 "Poorer"
3 "Middle"
4 "Richer"

```
    5 "Richest"
/HML1
    98 "Don't know"
/SHQLANG
    1 "French"
    2 "English"
/SHILANG
    1 "French"
    2 "English"
    3 "Fulfuldé"
    4 "Ewondo"
    5 "Pidgin"
    6 "Other"
/SHINTERP
    0 "No"
    1 "Yes"
/SHTYPE1
    1 "Yaoundé/Douala"
    2 "Autres villes"
    3 "Ensemble urbain"
    4 "Rural"
/SH104A
    98 "NSP"
/SH105A
    0 "Pas membre du ménage"
    90 "Personne d'autre"
/SH105B
    0 "Pas membre du ménage"
    90 "Personne d'autre"
/SH105C
    0 "Pas membre du ménage"
    90 "Personne d'autre"
/SH105D
    0 "Pas membre du ménage"
    90 "Personne d'autre"
/SH105AA
    0 "Pas membre du ménage"
    90 "Personne"
/SH111G
    0 "No"
    1 "Yes"
/SH111H
    0 "No"
    1 "Yes"
/SH111I
    0 "No"
    1 "Yes"
/SH111J
    0 "No"
    1 "Yes"
/SH111K
    0 "No"
```



```
    1 "Yes"
/SH111L
    0 "No"
    1 "Yes"
/SH111M
    0 "No"
    1 "Yes"
/SH111N
    0 "No"
    1 "Yes"
/SH111O
    0 "No"
    1 "Yes"
/SH111P
    0 "No"
    1 "Yes"
/SH111Q
    0 "No"
    1 "Yes"
/SH111R
    0 "No"
    1 "Yes"
/SH125F
    95 "95 +"
    98 "DK"
/SH127
    1 "Owner"
    2 "Tenant"
    3 "Free lodging/illegal occupant/other"
/SH128
    0 "No"
    1 "Yes"
/SH129A
    0 "No"
    1 "Yes"
/SH129B
    0 "No"
    1 "Yes"
/SH129C
    0 "No"
    1 "Yes"
/SH129X
    0 "No"
    1 "Yes"
/SH129Y
    0 "No"
    1 "Yes"
/SH130
    0 "No"
    1 "Yes"
    8 "Don't know"
/SH131A
```

```
    0 "No"
    1 "Yes"
/SH131B
    0 "No"
    1 "Yes"
/SH131C
    0 "No"
    1 "Yes"
/SH131D
    0 "No"
    1 "Yes"
/SH131X
    0 "No"
    1 "Yes"
/SH131Y
    0 "No"
    1 "Yes"
/SH132
    0 "No"
    1 "Yes"
    8 "DK"
/SH133
    0 "No"
    1 "Yes"
    8 "DK"
/SH134A
    0 "No"
    1 "Yes"
/SH134B
    0 "No"
    1 "Yes"
/SH134C
    0 "No"
    1 "Yes"
/SH134D
    0 "No"
    1 "Yes"
/SH134E
    0 "No"
    1 "Yes"
/SH134F
    0 "No"
    1 "Yes"
/SH134G
    0 "No"
    1 "Yes"
/SH134H
    0 "No"
    1 "Yes"
/SH134I
    0 "No"
    1 "Yes"
```

/SH134Y
0 "No"
1 "Yes"
/SH135A
0 "No"
1 "Yes"
/SH135B
0 "No"
1 "Yes"
/SH135C
0 "No"
1 "Yes"
/SH135D
0 "No"
1 "Yes"
/SH135E
0 "No"
1 "Yes"
/SH135F
0 "No"
1 "Yes"
/SH135Y
0 "No"
1 "Yes"
/SH136A
0 "No"
1 "Yes"
/SH136B
0 "No"
1 "Yes"
/SH136C
0 "No"
1 "Yes"
/SH136Y
0 "No"
1 "Yes"
/SH201
0 "No"
1 "Yes"
6 "No windows"
/SH202
0 "No"
1 "Yes"
/SH203
0 "No"
1 "Yes"
8 "DK"
/SH204
98 "Don't know"
/SH205
1 "Gouvernement office"
2 "Private company"

3 "Household member"
6 "Other"
8 "Don't know"
/SH206
0 "No"
1 "Yes"
8 "Don't know/remember"
/SH209
0 "No"
1 "Yes"
/SH210
0 "No"
1 "Yes"
8 "Don't know/remember"
/SH211
1 "Not enough mosquitoes"
2 "Because of heather"
3 "Doesn't like"
4 "By negligence"
6 "Other"
8 "Don't know/remember"
/SH212A
0 "No"
1 "Yes"
/SH212B
0 "No"
1 "Yes"
/SH212C
0 "No"
1 "Yes"
/SH212D
0 "No"
1 "Yes"
/SH212E
0 "No"
1 "Yes"
/SH212X
0 "No"
1 "Yes"
/SH212Y
0 "No"
1 "Yes"
/SH601
0 "No"
1 "Yes"
/SH604
0 "No"
1 "Yes"
/SH608
0 "No"
1 "Yes"
/SH612

```

        0 "No"
        1 "Yes"
/SH616
        0 "No"
        1 "Yes"
/SH620
        0 "No"
        1 "Yes"
/SH624
        0 "No"
        1 "Yes"
/SH701
        0 "No"
        1 "Yes"
.
EXECUTE.
*{Construct Variables}.

*{Members per sleeping room}.
if (hv012=0) hv012=hv013.
if (hv216>0) memsleep=trunc(hv012/hv216).
if (hv216=0) memsleep=hv012.
if (memsleep>=98) memsleep=98.

VARIABLE LABELS
  MEMSLEEP "Number of members per sleeping room".
  value labels memsleep 0 'Less than 1 per room'.

*{Drinking water supply}.
compute h2oires=0.
if (hv201=11) h2oires=1.
var labels h2oires "Piped into dwelling".
compute h2oyrd=0.
if (hv201=12) h2oyrd=1.
var labels h2oyrd "Piped into yard/plot".
compute h2opub=0.
if (hv201=13) h2opub=1.
var labels h2opub "Public tap / standpipe".
compute h2obwell=0.
if (hv201=21) h2obwell=1.
var labels h2obwell "Tube well or borehole".
compute h2ipwell=0.
if (hv201=31) h2ipwell=1.
var labels h2ipwell "Protected dug well".
compute h2iowell=0.
if (hv201=32) h2iowell=1.
var labels h2iowell "Unprotected dug well".
compute h2opspg=0.
if (hv201=41) h2opspg=1.
var labels h2opspg "Protected Spring".
compute h2ouspg=0.
if (hv201=42) h2ouspg=1.

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var labels h2ouspg "Unprotected Spring".
compute h2orain=0.
if (hv201=51) h2orain=1.
var labels h2orain "Water from rain".
compute h2otruck=0.
if (hv201=61) h2otruck=1.
var labels h2otruck "Water from tanker truck".
compute h2ocart=0.
if (hv201=62) h2ocart=1.
var labels h2ocart "Water from cart with small tank".
compute h2osurf=0.
if (hv201=43) h2osurf=1.
var labels h2osurf "Surface water-river, lake, dam, etc.".
compute h2obot=0.
if (hv201=71) h2obot=1.
var labels h2obot "Water from bottle".
compute h2ooth=0.
if (hv201=96) h2ooth=1.
var labels h2ooth "Other water source".

*{Toilet facility}.
compute flushs=0.
if (hv205=11) flushs=1.
var labels flushs "Flush toilet to sewer".
compute flusht=0.
if (hv205=12) flusht=1.
var labels flusht "Flush toilet to septic tank".
compute flushp=0.
if (hv205=13) flushp=1.
var labels flushp "Flush toilet to pit latrine".
compute flushe=0.
if (hv205=14) flushe=1.
var labels flushe "Flush toilet to elsewhere".
compute latvip=0.
if (hv205=21) latvip=1.
var labels latvip "VIP latrine".
compute latpits=0.
if (hv205=22) latpits=1.
var labels latpits "Pit latrine with slab".
compute latpit=0.
if (hv205=23) latpit=1.
var labels latpit "Traditional pit latrine".
compute latpail=0.
if (hv205=42) latpail=1.
var labels latpail 'Bucket toilet'.
compute lathang=0.
if (hv205=43) lathang=1.
var labels lathang 'Hanging toilet/latrine'.
compute latbush=0.
if (hv205=31) latbush=1.
var labels latbush "No facility/bush/field".
compute latoth=0.

```

```

if (hv205=96) latoth=1.
var labels latoth 'Other type of latrine/toilet'.

compute latshare=0.
var labels latshare 'Shares latrine/toilet with other households'.
compute sflushs=0.
var labels flushs "Flush toilet to sewer".
compute sflusht=0.
var labels sflusht "Flush toilet to septic tank".
compute sflushp=0.
var labels sflushp "Shared Flush toilet to pit latrine".
compute sflushe=0.
var labels sflushe "Shared Flush toilet to elsewhere".
compute slatvip=0.
var labels slatvip "Shared VIP latrine".
compute slatpits=0.
var labels slatpits "Shared Pit latrine with slab".
compute slatpit=0.
var labels slatpit "Shared Traditional pit latrine".
compute slathang=0.
var labels slathang 'Shared Hanging toilet/latrine'.
compute slatoth=0.
var labels slatoth 'Other type of latrine/toilet'.

do if (hv225=1).
  compute latshare=1.
  if (hv205=11) sflushs=1.
  if (hv205=12) sflusht=1.
  if (hv205=13) sflushp=1.
  if (hv205=14) sflushe=1.
  if (hv205=21) slatvip=1.
  if (hv205=22) slatpits=1.
  if (hv205=23) slatpit=1.
  if (hv205=43) slathang=1.
  if (hv205=96) slatoth=1.
end if.

*{Flooring}.
compute dirtfloo=0.
if (hv213=11 or hv213=12) dirtfloo=1.
var labels dirtfloo "Earth, sand, dung floor".
compute woodfloo=0.
if (hv213=21 or hv213=22) woodfloo=1.
var labels woodfloo "Rudimentary wood plank, palm, bamboo floor".
compute prqfloo=0.
if (hv213=31) prqfloo=1.
var labels prqfloo "Polished wood floor".
compute vinlfloo=0.
if (hv213=32) vinlfloo=1.
var labels vinlfloo "Vinyl, asphalt strip floor".
compute tilefloo=0.

```

```

if (hv213=33) tilefloo=1.
var labels tilefloo "Ceramic tile floor".
compute cemtfloo=0.
if (hv213=34) cemtfloo=1.
var labels cemtfloo "Cement floor".
compute rugfloo=0.
if (hv213=35) rugfloo=1.
var labels rugfloo "Carpeted floor".
compute othfloo=0.
if (hv213=96) othfloo=1.
var labels othfloo "Other type of flooring".

*{Walls}.
compute nowall=0.
if (hv214=11) nowall=1.
var labels nowall "No walls".
compute natwall=0.
if (hv214=12 or hv214=13) natwall=1.
var labels natwall "Cane/palm/trunks/dirt walls".
compute mudwall=0.
if (hv214=21) mudwall=1.
var labels mudwall "Bamboo with mud walls".
compute stonwall=0.
if (hv214=22) stonwall=1.
var labels stonwall "Stone with mud walls".
compute adobwall=0.
if (hv214=23) adobwall=1.
var labels adobwall "Uncovered adobe walls".
compute plywall=0.
if (hv214=24) plywall=1.
var labels plywall "Plywood walls".
compute cardwall=0.
if (hv214=25) cardwall=1.
var labels cardwall "Cardboard walls".
compute rwoodwall=0.
if (hv214=26) rwoodwall=1.
var labels rwoodwall "Reused wood walls".
compute cmtwall=0.
if (hv214=31) cmtwall=1.
var labels cmtwall "Cement walls".
compute stonwall=0.
if (hv214=32) stonwall=1.
var labels stonwall "Stone walls with lime/cement".
compute brkwall=0.
if (hv214=33) brkwall=1.
var labels brkwall "Baked brick walls".
compute cmtbwall=0.
if (hv214=34) cmtbwall=1.
var labels cmtbwall "Cement block walls".
compute cadobwall=0.
if (hv214=35) cadobwall=1.
var labels cadobwall "Covered adobe walls".

```



```

compute woodwall=0.
if (hv214=36) woodwall=1.
var labels woodwall "Wood planks, shingles walls".
compute othwall=0.
if (hv214=96) othwall=1.
var labels othwall "Other type of walls".

*{Roofing}.
compute noroof=0.
if (hv215=11) noroof=1.
var labels noroof "No roof".
compute natroof=0.
if (hv215>=12 and hv215<=14) natroof=1.
var labels natroof "Thatch/palm/sod roof".
compute matroof=0.
if (hv215=21) matroof=1.
var labels matroof "Rustic mat / plastic roof".
compute bambroof=0.
if (hv215=22) bambroof=1.
var labels bambroof "Reed / bamboo roof".
compute wproof=0.
if (hv215=23) wproof=1.
var labels wproof "Wood planks roof".
compute cardroof=0.
if (hv215=24) cardroof=1.
var labels cardroof "Cardboard roof".
compute metroof=0.
if (hv215=31) metroof=1.
var labels metroof "Iron sheet roof".
compute woodroof=0.
if (hv215=32) woodroof=1.
var labels woodroof "Wood roof".
compute asbroof=0.
if (hv215=33) asbroof=1.
var labels asbroof "Asbestos / cement fiber roof".
compute tileroof=0.
if (hv215=34) tileroof=1.
var labels tileroof "Ceramic tile roof".
compute cmtroof=0.
if (hv215=35) cmtroof=1.
var labels cmtroof "Concrete roof".
compute shngroof=0.
if (hv215=36) shngroof=1.
var labels shngroof "Roofing shingles roof".
compute othroof=0.
if (hv215=96) othroof=1.
var labels othroof "Other type of roof".

*{Cooking Fuel}.
compute cookelec=0.
if (hv226=1) cookelec=1.
var labels cookelec "Electricity for cooking".

```

```

compute cooklpg=0.
if (hv226=2) cooklpg=1.
var labels cooklpg "LPG for cooking".
compute cookgas=0.
if (hv226=3) cookgas=1.
var labels cookgas "Natural gas for cooking".
compute cookbio=0.
if (hv226=4) cookbio=1.
var labels cookbio "Biogas for cooking".
compute cookkero=0.
if (hv226=5) cookkero=1.
var labels cookkero "Kerosene for cooking".
compute cookcoal=0.
if (hv226=6) cookcoal=1.
var labels cookcoal "Coal/lignite for cooking".
compute cookchar=0.
if (hv226=7) cookchar=1.
var labels cookchar "Charcoal for cooking".
compute cookwood=0.
if (hv226=8 ) cookwood=1.
var labels cookwood "Wood for cooking".
compute cookstraw=0.
if (hv226=9) cookstraw=1.
var labels cookstraw "Straw for cooking".
compute cookcrop=0.
if (hv226=10) cookcrop=1.
var labels cookcrop "Agricultural crop for cooking".
compute cookdung=0.
if (hv226=11) cookdung=1.
var labels cookdung "Dung for cooking".
compute cooknone=0.
if (hv226=95) cooknone=1.
var labels cooknone 'Does not cook'.
compute cookoth=0.
if (hv226=96) cookoth=1.
var labels cookoth "Other fuel for cooking".

*{Reset missing values to "does not have", code to 0}.
if (hv206<>1) hv206=0.
if (hv207<>1) hv207=0.
if (hv208<>1) hv208=0.
if (hv209<>1) hv209=0.
if (hv210<>1) hv210=0.
if (hv211<>1) hv211=0.
if (hv212<>1) hv212=0.
if (hv221<>1) hv221=0.
if (hv243a<>1) hv243a=0.
if (hv243b<>1) hv243b=0.
if (hv243c<>1) hv243c=0.
if (hv243d<>1) hv243d=0.
if (hv247<>1) hv247=0.

```

```

* Country-specific assets.
if (sh111g<>1) sh111g=0.
if (sh111h<>1) sh111h=0.
if (sh111i<>1) sh111i=0.
if (sh111j<>1) sh111j=0.
if (sh111k<>1) sh111k=0.
if (sh111l<>1) sh111l=0.
if (sh111m<>1) sh111m=0.
if (sh111n<>1) sh111n=0.
if (sh111o<>1) sh111o=0.
if (sh111p<>1) sh111p=0.
if (sh111q<>1) sh111q=0.
if (sh111r<>1) sh111r=0.

if (sh135a<>1) sh135a=0.
if (sh135b<>1) sh135b=0.
if (sh135c<>1) sh135c=0.
if (sh135d<>1) sh135d=0.
if (sh135e<>1) sh135e=0.
if (sh135f<>1) sh135f=0.

if (sh201<>1) sh201=0.
if (sh202<>1) sh202=0.

** Land owned.
if (hv244<>1) hv244=0.
compute landarea=0.
if (not(missing(hv245))) landarea=hv245/10.
if (hv244=1 and hv245=0) landarea=0.5.
if (missing(hv245) or hv245=998) landarea=$sysmis.
if (hv244<>1) landarea=0.
FREQUENCIES landarea.

* Livestock--farm animals.

if (hv246<>1) hv246=0.
if (hv246a<>1) hv246a=0.
if (hv246b<>1) hv246b=0.
if (hv246c<>1) hv246c=0.
if (hv246d<>1) hv246d=0.
if (hv246e<>1) hv246e=0.
if (hv246f<>1) hv246f=0.
if (hv246<>1) sh125f=0.

missing values hv246a to hv246f, sh125f (98,99).

*Type of tenancy of residence.
compute ownres=0.
if (sh127=1) ownres=1.
var labels ownres 'Owns residence'.
compute rentres=0.
if (sh127=2) rentres=1.

```

```
var labels rentres 'Rents residence'.
compute freeres=0.
if (sh127=3) freeres=1.
var labels freeres 'Free lodging/Illegal occupancy'.
```

```
*{Lighting fuel}.
*compute eleclgt=0.
*if (qh106=1) eleclgt=1.
*var labels eleclgt "Electricity for lighting".
*compute sunlgt=0.
*if (qh106=2) sunlgt=1.
*var labels sunlgt "Solar electricity for lighting".
*compute gaslgt=0.
*if (qh106=3) gaslgt=1.
*var labels gaslgt "Gas for lighting".
*compute hurrlgt=0.
*if (qh106=4) hurrlgt=1.
*var labels hurrlgt "Pariffin-hurricane lamp".
*compute preslgt=0.
*if (qh106=5) preslgt=1.
*var labels preslgt "Pariffin-pressure lamp".
*compute wicklgt=0.
*if (qh106=6) wicklgt=1.
*var labels wicklgt "Wick lamp for lighting".
*compute candlgt=0.
*if (qh106=8) candlgt=1.
*var labels candlgt "Candles for lighting".
*compute woodlgt=0.
*if (qh106=7) woodlgt=1.
*var labels woodlgt "Firewood for lighting".
*compute othlgt=0.
*if (qh106=96) othlgt=1.
*var labels othlgt "Other type of lighting".
```

```
*{Solid waste/garbage collection}.
```

```
execute.
```

```
FRECUENCIAS VARIABLES=HV025 HV009 HV012 HV013 HV201 HV205 HV206 HV207
HV208 HV209 HV210 HV211 HV212
HV213 HV214 HV215 HV216 HV221 HV225 HV226 HV243A HV243B HV243C
HV243D HV244 HV245 HV246 HV246A
HV246B HV246C HV246D HV246E HV246F HV247 SH111G SH111H SH111I
SH111J SH111K SH111L SH111M SH111N
SH111O SH111P SH111Q SH111R SH125F SH127 SH135A SH135B SH135C
SH135D SH135E SH135F SH135Y SH201
SH202 DOMESTIC HOUSE LAND
/ORDER=ANALYSIS.
```

```
FRECUENCIES VARIABLES=memsleep h2oires h2oyrd h2opub h2obwell h2ipwell
h2iowell h2opspg h2ouspg
    h2orain h2otruck h2ocart h2osurf h2obot h2ooth flushs flusht
flushp flush latvip latpits latpit
    latpail lathang latbush latoth latshare sflushs sflusht sflushp
sflush latvip slatpits slatpit
    slathang slatoth dirtfloo woodfloo prqfloo vinlfloo tilefloo
centfloo rugfloo othfloo nowall
    natwall mudwall stonwall adobwall plywall cardwall rwoodwall
cmtwall brkwall cmtbwall cadobwall
    woodwall othwall noroof natroof matroof bambroof wproof cardroof
metroof woodroof asbroof tileroof
    cmtroof shngroof othroof cookelec cooklpg cookgas cookbio cookkero
cookcoal cookchar cookwood
    cookstraw cookcrop cookdung cooknone cookoth landarea ownres
rentres freeres
    /ORDER=ANALYSIS.
```

```
save outfile="c:\hnp2a\Cameroon 2011\cmassets.sav".
```

```
*****.
```

```
*** Factor Analysis to Test Distribution of created variables.
```

```
FACTOR
```

```
    /VARIABLES HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221 HV243A
HV243B HV243C HV243D HV246
    HV246A HV246B HV246C HV246D HV246E HV246F HV247 SH111G SH111H
SH111I SH111J SH111K SH111L SH111M
    SH111N SH111O SH111P SH111Q SH111R SH125F DOMESTIC HOUSE LAND
memsleep h2oires h2oyrd h2opub
    h2obwell h2ipwell h2iowell h2opspg h2ouspg h2orain h2otruck
h2ocart h2osurf h2obot h2ooth flushs
    flusht flushp flush latvip latpits latpit latpail lathang latbush
latoth latshare sflushs sflusht
    sflushp slatvip slatpits slatpit slathang slatoth dirtfloo
woodfloo prqfloo vinlfloo
    tilefloo centfloo rugfloo othfloo nowall natwall mudwall stonwall
adobwall plywall cardwall
    rwoodwall cmtwall brkwall cmtbwall cadobwall woodwall othwall
norooof natroof matroof bambroof
    wproof cardroof metroof woodroof asbroof tileroof cmtroof shngroof
othroof cookelec cooklpg cookgas
    cookbio cookkero cookcoal cookchar cookwood cookstraw cookcrop
cookdung cooknone cookoth landarea
    ownres rentres freeres
    /MISSING MEANSUB
    /ANALYSIS HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221 HV243A
HV243B HV243C HV243D HV246
    HV246A HV246B HV246C HV246D HV246E HV246F HV247 SH111G SH111H
SH111I SH111J SH111K SH111L SH111M
    SH111N SH111O SH111P SH111Q SH111R SH125F DOMESTIC HOUSE LAND
memsleep h2oires h2oyrd h2opub
```

```

h2obwell h2ipwell h2iowell h2opspg h2ouspg h2orain h2otruck
h2ocart h2osurf h2obot h2ooth flushs
  flusht flushp flushe latvip latpits latpit latpail lathang latbush
latoth latshare sflushs sflusht
  sflushp slatvip slatpits slatpit slathang slatoth dirtfloo
woodfloo prqfloo vinlfloo
  tilefloo centfloo rugfloo othfloo nowall natwall mudwall stonwall
adobwall plywall cardwall
  rwoodwall cmtwall brkwall cmtbwall cadobwall woodwall othwall
norooft natroof matroof bambroof
  wproof cardroof metroof woodroof asbroof tileroof cmtrroof shngroof
othroof cookelec cooklpg cookgas
  cookbio cookkero cookcoal cookchar cookwood cookstraw cookcrop
cookdung cooknone cookoth landarea
  ownres rentres freeres
/PRINT UNIVARIATE INITIAL EXTRACTION
/CRITERIA FACTORS(1) ITERATE(25)
/EXTRACTION PC
/ROTATION NOROTATE
/METHOD=CORRELATION.

```

*****.

*** Common Factor Analysis.

```

FILTER OFF.
USE ALL.
EXECUTE.

```

**** Redo removing area-specific variables ****.

```

FACTOR
/VARIABLES HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221 HV243A
HV243B HV243C HV243D
HV247 SH111G SH111H SH111J SH111K SH111L
DOMESTIC HOUSE memsleep h2oires h2oyrd h2opub
  h2obwell h2ipwell h2iowell h2opspg h2ouspg h2orain h2otruck
h2ocart h2osurf h2obot h2ooth flushs
  flusht flushp flushe latvip latpits latpit latpail lathang latbush
latoth latshare sflushs sflusht
  sflushp slatvip slatpits slatpit slathang slatoth dirtfloo
woodfloo prqfloo vinlfloo
  tilefloo centfloo rugfloo othfloo nowall natwall mudwall stonwall
adobwall plywall cardwall
  rwoodwall cmtwall brkwall cmtbwall cadobwall woodwall othwall
norooft natroof matroof bambroof
  wproof cardroof metroof woodroof asbroof tileroof cmtrroof shngroof
othroof cookelec cooklpg cookgas
  cookbio cookkero cookcoal cookchar cookwood cookstraw cookcrop
cookdung cooknone cookoth
  ownres rentres freeres
/MISSING MEANSUB

```

```

/ANALYSIS HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221 HV243A
HV243B HV243C HV243D
HV247 SH111G SH111H SH111J SH111K SH111L
DOMESTIC HOUSE memsleep h2oires h2oyrd h2opub
h2obwell h2ipwell h2iowell h2opspg h2ouspg h2orain h2otruck
h2ocart h2osurf h2obot h2ooth flushs
flusht flushp flushes latvip latpits latpit latpail lathang latbush
latoth latshare sflushs sflusht
sflushp slatvip slatpits slatpit slathang slatoth dirtfloo
woodfloo prqfloo vinlfloo
tilefloo centfloo rugfloo othfloo nowall natwall mudwall stonwall
adobwall plywall cardwall
rwoodwall cmtwall brkwall cmtbwall cadobwall woodwall othwall
norooft natrooft matrooft bambrooft
wprooft cardrooft metrooft woodrooft asbrooft tilerooft cmtrooft shngrooft
othrooft cookelec cooklpg cookgas
cookbio cookkero cookcoal cookchar cookwood cookstraw cookcrop
cookdung cooknone cookoth
ownres rentres freeres
/PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
/CRITERIA FACTORS(1) ITERATE(25)
/EXTRACTION PC
/ROTATION NOROTATE
/SAVE REG(ALL COM)
/METHOD=CORRELATION.

```

** Urban Areas.

```

USE ALL.
COMPUTE filter_$=(HV025 = 1).
VARIABLE LABEL filter_$ 'HV025 = 1 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .

```

```

WEIGHT
OFF.

```

```

FACTOR
/VARIABLES HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221 HV243A
HV243B HV243C HV243D HV246
HV246A HV246B HV246C HV246D HV246E HV246F HV247 SH111G SH111H
SH111I SH111J SH111K SH111L SH111M
SH111N SH111O SH111P SH111Q SH111R SH125F DOMESTIC HOUSE memsleep
h2oires h2oyrd h2opub
h2obwell h2ipwell h2iowell h2opspg h2ouspg h2orain h2otruck
h2ocart h2osurf h2obot h2ooth flushs
flusht flushp flushes latvip latpits latpit latpail lathang latbush
latoth latshare sflushs sflusht

```

```

sflushp slatvip slatpits slatpit slathang slatoth dirtfloo
woodfloo prqfloo vinlfloo
tilefloo cemtfloo rugfloo othfloo nowall natwall mudwall stonwall
adobwall plywall cardwall
rwoodwall cmtwall brkwall cmtbwall cadobwall woodwall othwall
norooof natrooof matrooof bambrooof
wproof cardrooof metrooof woodrooof asbrooof tilerooof cmtrooof shngrooof
othrooof cookelec cooklpg cookgas
cookbio cookkero cookcoal cookchar cookwood cookstraw cookcrop
cookdung cooknone cookoth landarea
ownres rentres freeres
/MISSING MEANSUB
/ANALYSISHV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221 HV243A
HV243B HV243C HV243D HV246
HV246A HV246B HV246C HV246D HV246E HV246F HV247 SH111G SH111H
SH111I SH111J SH111K SH111L SH111M
SH111N SH111O SH111P SH111Q SH111R SH125F DOMESTIC HOUSE memsleep
h2oires h2oyrd h2opub
h2obwell h2ipwell h2iowell h2opspg h2ouspg h2orain h2otruck
h2ocart h2osurf h2obot h2ooth flushs
flusht flushp flush latvip latpits latpit latpail lathang latbush
latoth latshare sflushs sflusht
sflushp slatvip slatpits slatpit slathang slatoth dirtfloo
woodfloo prqfloo vinlfloo
tilefloo cemtfloo rugfloo othfloo nowall natwall mudwall stonwall
adobwall plywall cardwall
rwoodwall cmtwall brkwall cmtbwall cadobwall woodwall othwall
norooof natrooof matrooof bambrooof
wproof cardrooof metrooof woodrooof asbrooof tilerooof cmtrooof shngrooof
othrooof cookelec cooklpg cookgas
cookbio cookkero cookcoal cookchar cookwood cookstraw cookcrop
cookdung cooknone cookoth landarea
ownres rentres freeres
/PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
/CRITERIA FACTORS(1) ITERATE(25)
/EXTRACTION PC
/ROTATION NOROTATE
/SAVE REG(ALL URB)
/METHOD=CORRELATION.

```

** Rural Area.

```

USE ALL.
COMPUTE filter_$=(HV025 = 2).
VARIABLE LABEL filter_$ HVv025 = 2 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMAT filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE .

```


FACTOR

/VARIABLES HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221 HV243A
HV243B HV243C HV243D HV246

HV246A HV246B HV246C HV246D HV246E HV246F HV247 SH111G SH111H
SH111I SH111J SH111K SH111L SH111M

SH111N SH111O SH111P SH111Q SH111R SH125F DOMESTIC HOUSE LAND
memsleep h2oires h2oyrd h2opub

h2obwell h2ipwell h2iowell h2opspg h2ouspg h2orain h2ocart h2osurf
h2obot h2ooth flushs

flusht flushp latvip latpits latpit latpail lathang latbush latoth
latshare sflusht

sflushp slatvip slatpits slatpit slathang slatoth dirtfloo
woodfloo prqfloo vinlfloo

tilefloo centfloo rugfloo othfloo nowall natwall mudwall stonwall
adobwall plywall cardwall

rwoodwall cmtwall brkwall cmtbwall cadobwall woodwall othwall
norooft natroof matroof bambroof

wproof cardroof metroof woodroof asbroof tileroof cmtroof shngroof
othroof cooklpg cookgas

cookkero cookcoal cookchar cookwood cookstraw cookcrop cookdung
cooknone cookoth landarea

ownres rentres freeres

/MISSING MEANSUB

/ANALYSIS HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221 HV243A
HV243B HV243C HV243D HV246

HV246A HV246B HV246C HV246D HV246E HV246F HV247 SH111G SH111H
SH111I SH111J SH111K SH111L SH111M

SH111N SH111O SH111P SH111Q SH111R SH125F DOMESTIC HOUSE LAND
memsleep h2oires h2oyrd h2opub

h2obwell h2ipwell h2iowell h2opspg h2ouspg h2orain h2ocart h2osurf
h2obot h2ooth flushs

flusht flushp latvip latpits latpit latpail lathang latbush latoth
latshare sflusht

sflushp slatvip slatpits slatpit slathang slatoth dirtfloo
woodfloo prqfloo vinlfloo

tilefloo centfloo rugfloo othfloo nowall natwall mudwall stonwall
adobwall plywall cardwall

rwoodwall cmtwall brkwall cmtbwall cadobwall woodwall othwall
norooft natroof matroof bambroof

wproof cardroof metroof woodroof asbroof tileroof cmtroof shngroof
othroof cooklpg cookgas

cookkero cookcoal cookchar cookwood cookstraw cookcrop cookdung
cooknone cookoth landarea

ownres rentres freeres

/PRINT UNIVARIATE INITIAL EXTRACTION FSCORE

/CRITERIA FACTORS(1) ITERATE(25)

/EXTRACTION PC

/ROTATION NOROTATE

/SAVE REG(ALL RUR)

/METHOD=CORRELATION.

```
* Calculate regressions with total score.  
** Urban Area.
```

```
USE ALL.  
COMPUTE filter_$=(HV025 = 1).  
VARIABLE LABEL filter_$ 'HV025 = 1 (FILTER)'.  
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.  
FORMAT filter_$ (f1.0).  
FILTER BY filter_$.  
EXECUTE .
```

```
REGRESSION  
  /MISSING LISTWISE  
  /STATISTICS COEFF OUTS R ANOVA  
  /CRITERIA=PIN(.05) POUT(.10)  
  /NOORIGIN  
  /DEPENDENT COM1  
  /METHOD=ENTER URB1 .
```

```
** Rural Area.
```

```
USE ALL.  
COMPUTE filter_$=(HV025 = 2).  
VARIABLE LABEL filter_$ 'HV025 = 2 (FILTER)'.  
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.  
FORMAT filter_$ (f1.0).  
FILTER BY filter_$.  
EXECUTE .
```

```
REGRESSION  
  /MISSING LISTWISE  
  /STATISTICS COEFF OUTS R ANOVA  
  /CRITERIA=PIN(.05) POUT(.10)  
  /NOORIGIN  
  /DEPENDENT COM1  
  /METHOD=ENTER RUR1 .
```

```
FILTER OFF.  
USE ALL.  
EXECUTE .
```

```
*** Calculate combined wealth score from Urban and Rural Scores.  
compute comb scor=0.  
print formats comb scor (F11.5).  
** Urban.  
if (HV025 = 1) comb scor=0.733+0.776* URB1.  
** Rural.  
if (HV025 = 2) comb scor=(-0.655)+0.597* RUR1.
```

execute.

*Tabulation for histograms.

weight by hhwt.

filter off.

use all.

FREQUENCIES

VARIABLES=combscor /FORMAT=NOTABLE

/NTILES= 5

/STATISTICS=STDDEV MEAN

/HISTOGRAM NORMAL

/ORDER= ANALYSIS

.

* Calculate histogram intervals.

compute histnac=trunc(facl_1/((2.5-(-2.0))/50)).

if (facl_1 ge 0) histnac=histnac+1.

freq var=histnac.

*Calculate quintiles and scores for data file.

compute hmemwt=HV005*hv012/1000000.

weight by hmemwt.

VARIABLE LABELS hmemwt 'HH members weighting for Index' .

** Urban Area.

USE ALL.

COMPUTE filter_\$=(HV025 = 1).

VARIABLE LABEL filter_\$ 'HV025 = 1 (FILTER)'.
VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected'.

FORMAT filter_\$ (f1.0).

FILTER BY filter_\$.

EXECUTE .

RANK

VARIABLES=urb1 (A) /RANK /NTILES (5) /PRINT=YES

/TIES=MEAN .

** Rural Area.

USE ALL.

COMPUTE filter_\$=(HV025 = 2).

VARIABLE LABEL filter_\$ 'HV025 = 2 (FILTER)'.
VALUE LABELS filter_\$ 0 'Not Selected' 1 'Selected'.

FORMAT filter_\$ (f1.0).

FILTER BY filter_\$.

EXECUTE .

RANK

VARIABLES=rur1 (A) /RANK /NTILES (5) /PRINT=YES

/TIES=MEAN .

** National combined score.

FILTER OFF.

USE ALL.

EXECUTE .

RANK

VARIABLES=combscor (A) /RANK /NTILES (5) /PRINT=YES

/TIES=MEAN .

FREQUENCIES

VARIABLES=combscor /FORMAT=NOTABLE

/NTILES= 5

/STATISTICS=STDDEV MINIMUM MAXIMUM MEAN MEDIAN MODE SKEWNESS SESKEW

KURTOSIS SEKURT

/ORDER= ANALYSIS .

frequencies variables=ncombsco.

compute hhwt=HV005/1000000.

weight by hhwt.

VARIABLE LABELS hhwt 'HH weights' .

MEANS TABLES= HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221 HV243A
HV243B HV243C HV243D HV246

HV246A HV246B HV246C HV246D HV246E HV246F HV247 SH111G SH111H

SH111I SH111J SH111K SH111L SH111M

SH111N SH111O SH111P SH111Q SH111R SH125F DOMESTIC HOUSE memsleep
h2oires h2oyrd h2opub

h2obwell h2ipwell h2iowell h2opspg h2ouspg h2orain h2otruck

h2ocart h2osurf h2obot h2ooth flushs

flusst flushp flush latvip latpits latpit latpail lathang latbush
latoth latshare sflushs sflusst

sflushp slatvip slatpits slatpit slathang slatoth dirtfloo

woodfloo prqfloo vinlfloo

tilefloo cmtfloo rugfloo othfloo nowall natwall mudwall stonwall

adobwall plywall cardwall

rwoodwall cmtwall brkwall cmtbwall cadobwall woodwall othwall

norooft natrooft matrooft bambrooft

wprooft cardrooft metrooft woodrooft asbrooft tilerooft cmtrooft shngrooft

othrooft cookelec cooklpg cookgas

cookbio cookkero cookcoal cookchar cookwood cookstraw cookcrop

cookdung cooknone cookoth landarea

ownres rentres freeres

by Ncombsco

/CELLS MEAN COUNT STDDEV.

compute hv271=combscor.

compute hv270=ncombsco.

```
save outfile="c:\hnp2a\Cameroon 2011\cmassets.sav".
```

```
WEIGHT  
OFF.
```

```
write formats combscor (f11.5).
```

```
WRITE OUTFILE='c:\hnp2a\Cameroon 2011\cm11scores.dat'  
TABLE  
/hhid combscor ncombsco urb1 nurb1 rur1 nrur1.  
EXECUTE.
```

```
compute hhwt=HV005/1000000.  
weight by hhwt.
```

```
GRAPH  
/HISTOGRAM(NORMAL)=combscor  
/TITLE= 'Distribution of Households by Wealth Scores Cameroon'.
```

```
weight off.
```