```
Title Nigeria 2013.

*{Construct Variables}.

compute hhusual=hv012.
compute hhslept=hv013.


*{Members per sleeping room}.
if (hhusual=0) hhusual=hhslept.
if (qh117b>0) memsleep=trunc(hhusual/qh117b).
if (qh117b=0) memsleep=hhusual.
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.
variable labels h2oires "Piped into dwelling".
compute h2oyrd=0.
if (qh102=12) h2oyrd=1.
variable labels h2oyrd "Piped into yard/plot".
compute h2opub=0.
if (qh102=13) h2opub=1.
variable labels h2opub "Public tap / standpipe".
compute h2obwell=0.
if (qh102=21) h2obwell=1.
variable labels h2obwell "Tube well or borehole".
compute h2opwell=0.
if (qh102=31) h2opwell=1.
variable labels h2opwell "Protected dug well".
compute h2owell=0.
if (qh102=32) h2owell=1.
variable labels h2owell "Unprotected dug well".

compute h2opspg=0.
if (qh102=41) h2opspg=1.
variable labels h2opspg "Protected Spring".
compute h2ospg=0.
if (qh102=42) h2ospg=1.
variable labels h2ospg "Unprotected Spring".
compute h2orain=0.
if (qh102=51) h2orain=1.
variable labels h2orain "Water from rain".
compute h2otruck=0.
if (qh102=61) h2otruck=1.
variable labels h2otruck "Water from tanker truck".
compute h2ocart=0.
if (qh102=71) h2ocart=1.
variable labels h2ocart "Water from cart with small tank".
compute h2osurf=0.
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if (qh102=81) h2osurf=1.
variable labels h2osurf "Surface water-river, lake, dam, etc.".
compute h2obot=0.
if (qh102=91) h2obot=1.
variable labels h2obot "Water from bottle".
compute h2obag=0.
if (qh102=92) h2obag=1.
variable labels h2obag "Water from sachet".
compute h2ooth=0.
if (qh102=96) h2ooth=1.
variable labels h2ooth "Other water source".
formats h2oires h2oyrd h2opub h2obwell h2opwell h2owell h2opspg
h2ospg h2orain h2otruck h2ocart h2osurf h2obot h2obag h2ooth
(f1.0).

*{Toilet facility}.
compute flushs=0.
if (qh107=11) flushs=1.
variable labels flushs "Flush toilet to sewer".
compute flusht=0.
if (qh107=12) flusht=1.
variable labels flusht "Flush toilet to septic tank".
compute flushpl=0.
if (qh107=13) flushpl=1.
variable labels flushpl "Flush toilet to pit latrine".
compute flushe=0.
if (qh107=14 or qh107=15) flushe=1.
variable labels flushe "Flush toilet to unknown".
compute latvip=0.
if (qh107=21) latvip=1.
variable labels latvip "Ventilated improved Latrine".
compute latslab=0.
if (qh107=22) latslab=1.
variable labels latslab "Latrine with slab".
compute latpit=0.
if (qh107=23) latpit=1.
variable labels latpit "Traditional pit latrine".
compute latcomp=0.
if (qh107=31) latcomp=1.
variable labels latcomp 'Composting toilet/ecosan'.
compute latpail=0.
if (qh107=41) latpail=1.
VARIABLE LABELS latpail "Bucket toilet".
compute lathang=0.
if (qh107=51) lathang=1.
variable labels lathang 'Hanging toilet/latrine'.
compute latbush=0.
if (qh107=61) latbush=1.
variable labels latbush "No facility/bush/field".
compute latoth=0.
if (qh107=96) latoth=1.
variable labels latoth 'Other type of latrine/toilet'.
```

```
formats flushs flusht flushe latvip latpit latcomp latslab
lathang latbush latpail latoth (f1.0).

compute latshare=0.
if (qh108=2) latshare=1.
variable labels latshare 'Shares latrine/toilet with other
households'.
formats latshare (f1.0).

compute sflushs=0.
var labels Sflushs "Shared Flush toilet to sewer".
compute sflusht=0.
var labels sflusht "Shared Flush toilet to septic tank".
compute sflushpl=0.
var labels sflushpl "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 slatslab=0.
var labels slatslab "Shared latrine with slab".
compute slatpit=0.
var labels slatpit "Shared Traditional pit latrine".
compute slatcomp=0.
var labels slatcomp "Shared composting latrine".
compute slathang=0.
var labels slathang "Shared hanging latrine".
compute slatoth=0.
var labels slatoth 'Other type of latrine/toilet'.

do if (latshare=1).
  if (qh107=11) sflushs=1.
  if (qh107=12) sflusht=1.
  if (qh107=13) sflushpl=1.
  if (qh107=14 or qh107=15) sflushe=1.
  if (qh107=21) slatvip=1.
  if (qh107=22) slatslab=1.
  if (qh107=23) slatpit=1.
  if (qh107=31) slatcomp=1.
  if (qh107=41) slathang=1.
  if (qh107=96) slatoth=1.
end if.
formats sflushs sflusht sflushpl sflushe slatvip slatpit slatcomp
slathang slatslab slatoth (f1.0).


*{Flooring}.
compute dirtfloo=0.
if (qh114=11 or qh114=12) dirtfloo=1.
variable labels dirtfloo "Earth, sand, dung floor".
compute woodfloo=0.
if (qh114=21 or qh114=22) woodfloo=1.
```

```
variable labels woodfloo "Rudimentary wood plank, palm, bamboo
floor".
compute prqfloo=0.
if (qh114=31) prqfloo=1.
variable labels prqfloo "Polished wood floor".
compute vynfloo=0.
if (qh114=32) vynfloo=1.
variable labels vynfloo "Vinyl/asphalt strips floor".
compute tilefloo=0.
if (qh114=33) tilefloo=1.
variable labels tilefloo "Ceramic tile floor".
compute cemtfloo=0.
if (qh114=34) cemtfloo=1.
variable labels cemtfloo "Cement floor".
compute rugfloo=0.
if (qh114=35) rugfloo=1.
variable labels rugfloo "Carpet floor".
compute othfloo=0.
if (qh114=96) othfloo=1.
variable labels othfloo "Other type of flooring".
formats dirtfloo woodfloo rugfloo prqfloo vynfloo tilefloo
cemtfloo othfloo (f1.0).

*{Roofing}.
compute noroof=0.
if (qh115=11) noroof=1.
variable labels noroof "No roof".
compute natroof=0.
if (qh115=12 or qh115=13) natroof=1.
variable labels natroof "Thatch, palm, sod roof".
compute matroof=0.
if (qh115=21) matroof=1.
variable labels matroof "Rustic mat roof".
compute pbroof=0.
if (qh115=22) pbroof=1.
variable labels pbroof "Palm/bamboo roof".
compute wproof=0.
if (qh115=23) wproof=1.
variable labels wproof "Wood planks roof".
compute cardroof=0.
if (qh115=24) cardroof=1.
variable labels cardroof "Discarded materials roof".
compute tinroof=0.
if (qh115=31) tinroof=1.
variable labels tinroof "Metal/zinc roof".
compute woodroof=0.
if (qh115=32) woodroof=1.
variable labels woodroof "Wood roof".
compute cerroof=0.
if (qh115=33) cerroof=1.
variable labels cerroof "Ceramic tiles roof".
compute cmtroof=0.
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```
if (qh115=34) cmtroof=1.
variable labels cmtroof "Concrete roof".
compute shingroof=0.
if (qh115=35) shingroof=1.
variable labels shingroof "Shingles roof".
compute othroof=0.
if (qh115=96) othroof=1.
variable labels othroof "Other type of roof".
formats noroof natroof matroof pbroof wproof cardroof tinroof
cerroof cmtroof shingroof othroof (f1.0).

*{Walls}.
compute nowall=0.
if (qh116=11) nowall=1.
variable labels nowall "No walls".
compute natwall=0.
if (qh116=12 or qh116=13) natwall=1.
variable labels natwall "Cane/palm/trunks/dirt walls".
compute bmudwall=0.
if (qh116=21) bmudwall=1.
variable labels bmudwall "Bamboo and mud walls".
compute stomwall=0.
if (qh116=22) stomwall=1.
variable labels stomwall "Stone and mud walls".
compute pwoodwall=0.
if (qh116=23) pwoodwall=1.
variable labels pwoodwall "Plywood walls".
compute cardwall=0.
if (qh116=24) cardwall=1.
variable labels cardwall "Discarded materials walls".
compute rwoodwall=0.
if (qh116=25) rwoodwall=1.
variable labels rwoodwall "Reused wood walls".
compute metalwall=0.
if (qh116=26) metalwall=1.
variable labels metalwall "Metal/zinc walls".
compute cmtwall=0.
if (qh116=31) cmtwall=1.
variable labels cmtwall "Cement walls".
compute stonwall=0.
if (qh116=32) stonwall=1.
variable labels stonwall "Stone walls with lime/cement".
compute brkwall=0.
if (qh116=33) brkwall=1.
variable labels brkwall "Baked brick walls".
compute cmtbwall=0.
if (qh116=34) cmtbwall=1.
variable labels cmtbwall "Cement blocks walls".
compute shngwall=0.
if (qh116=35) shngwall=1.
variable labels shngwall "Shingles, wood planks walls".
compute othwall=0.
```

```
if (qh116=96) othwall=1.
variable labels othwall "Other type of walls".
formats nowall natwall stomwall bmudwall rwoodwall cardwall
pwoodwall, metalwall, cmtbwall shngwall stonwall brkwall cmtwall
othwall (f1.0).

*{Cooking Fuel}.
compute cookelec=0.
if (qh111=1) cookelec=1.
variable labels cookelec "Electricity for cooking".
compute cooklpg=0.
if (qh111=2) cooklpg=1.
variable labels cooklpg "LPG for cooking".
compute cookgas=0.
if (qh111=3) cookgas=1.
variable labels cookgas "Natural gas for cooking".
compute cookbio=0.
if (qh111=4) cookbio=1.
variable labels cookbio "Biogas for cooking".
compute cookkero=0.
if (qh111=5) cookkero=1.
variable labels cookkero "Kerosene for cooking".
compute cookcoal=0.
if (qh111=6) cookcoal=1.
variable labels cookcoal "Coal, lignite for cooking".
compute cookchar=0.
if (qh111=7) cookchar=1.
variable labels cookchar "Charcoal for cooking".
compute cookwood=0.
if (qh111=8) cookwood=1.
variable labels cookwood "Wood for cooking".
compute cookstraw=0.
if (qh111=9) cookstraw=1.
variable labels cookstraw "Straw, shrubs, grass for cooking".
compute cookcrop=0.
if (qh111=10) cookcrop=1.
variable labels cookcrop "Agricultural crops for cooking".
compute cookdung=0.
if (qh111=11) cookdung=1.
variable labels cookdung "Dung for cooking".
compute cooknone=0.
if (qh111=95) cooknone=1.
variable labels cooknone 'Does not cook'.
compute cookoth=0.
if (qh111=96) cookoth=1.
variable labels cookoth "Other fuel for cooking".
formats cookelec cooklpg cookgas, cookbio, cookkero cookcoal
cookchar cookwood cookstraw cookcrop, cookdung cooknone cookoth
(f1.0).

*{Reset missing values to "does not have", change 2 code to 0}.
if (missing(qh110a) | qh110a<>1) qh110a=0.
```

```
if (missing(qh110b) | qh110b<>1) qh110b=0.
if (missing(qh110c) | qh110c<>1) qh110c=0.
if (missing(qh110d) | qh110d<>1) qh110d=0.
if (missing(qh110e) | qh110e<>1) qh110e=0.
if (missing(qh110f) | qh110f<>1) qh110f=0.
if (missing(qh110g) | qh110g<>1) qh110g=0.
if (missing(qh110h) | qh110h<>1) qh110h=0.
if (missing(qh110i) | qh110i<>1) qh110i=0.
if (missing(qh110j) | qh110j<>1) qh110j=0.
if (missing(qh110k) | qh110k<>1) qh110k=0.
if (missing(qh110l) | qh110l<>1) qh110l=0.


if (missing(qh118a) | qh118a<>1) qh118a=0.
if (missing(qh118b) | qh118b<>1) qh118b=0.
if (missing(qh118c) | qh118c<>1) qh118c=0.
if (missing(qh118d) | qh118d<>1) qh118d=0.
if (missing(qh118e) | qh118e<>1) qh118e=0.
if (missing(qh118f) | qh118f<>1) qh118f=0.
if (missing(qh118g) | qh118g<>1) qh118g=0.


* Land.

compute landarea=hv245.
*if (missing(qh120) or qh120>995.0) landarea=$sysmis.
*if (qh119 NE 1 or missing(qh119)) landarea=0.
*  Acres.
*if (qh120u=1) landarea=qh120n*0.404686.
*  Hectares.
*if (qh120u=2) landarea=qh120n.

*if (missing(qh120u) | missing(qh120n) | qh120n=99.8) landarea=
$sysmis.
*if (qh120n=99.5) landarea=95.
*if (missing(qh119) | qh119<>1) landarea=0.
frequencies qh119 hv245 landarea.


*Animals.
if (missing(qh121) | qh121 <>1) qh121=0.
if (missing(qh122a) | qh121 <>1) qh122a=0.
if (missing(qh122b) | qh121 <>1) qh122b=0.
if (missing(qh122c) | qh121 <>1) qh122c=0.
if (missing(qh122d) | qh121 <>1) qh122d=0.
if (missing(qh122e) | qh121 <>1) qh122e=0.
if (missing(qh122f) | qh121<>1) qh122f=0.
if (missing(qh122g) | qh121<>1) qh122g=0.
if (missing(qh122h) | qh121<>1) qh122h=0.

missing values qh122a to qh122h (98,99).
```

```
* Bank account.
if (missing(qh123) | qh123<>1) qh123=0.

* Compute urban and rural variables coded (1/0) for filters
later.
COMPUTE urban=(qhtype = 1).
COMPUTE rural=(qhtype = 2).
VARIABLE LABELS urban 'Urban' / rural 'Rural'.
VALUE LABELS urban 1 'Urban' / rural 1 'Rural'.
FORMATS urban rural (f1.0).

execute.
** Now do the optimal binning.

compute dairy=qh122a.
compute equine=qh122b.
compute goats=qh122c.
compute sheep=qh122d.
compute chicks=qh122e.
compute pigs=qh122f.
execute.

FREQUENCIES VARIABLES=dairy to pigs.

** Classify large animals (cattle, dairy, traction, hogs, goats,
sheep, etc.) into the following categories
0, 1-4, 5-9, 10+.

** Classifiy small animals into the following categories:
0, 1-9, 10-29, 30+.
use all.
filter off.
execute.
numericdairy1 to dairy4 equine1 to equine4, goats1 to goats4,
sheep1 to sheep4 chicks1 to chicks4 pigs1 to pigs4 .
do repeat  lgan=dairy to sheep pigs
                /lg1=dairy1 equine1 goats1 sheep1 pigs1
                /lg2=dairy2 equine2 goats2 sheep2 pigs2
                /lg3=dairy3 equine3 goats3 sheep3 pigs3
                /lg4=dairy4 equine4 goats4 sheep4 pigs4.
compute lg1=(lgan = 0).
compute lg2=(lgan ge 1 and lgan le 4).
compute lg3=(lgan ge 5 and lgan le 9).
compute lg4=(lgan ge 10 and lgan le 97).
end repeat.
execute.
value labels dairy1 equine1 goats1 sheep1 pigs1 1 'Zero'.
value labels dairy2 equine2 goats2 sheep2 pigs2 1 '1 to 4'.
value labels dairy3 equine3 goats3 sheep3 pigs3 1 '5 to 9'.
value labels dairy4 equine4 goats4 sheep4 pigs4 1 '10 or more'.
```

```
do repeat sman=chicks
                /sm1=chicks1
                /sm2=chicks2
                /sm3=chicks3
                /sm4=chicks4.
compute sm1=(sman = 0).
compute sm2=(sman ge 1 and sman le 9).
compute sm3=(sman ge 10 and sman le 29).
compute sm4=(sman ge 30 and sman le 97).
end repeat.
execute.
value labels chicks1 1 'Zero'.
value labels chicks2 1 '1 to 9'.
value labels chicks3 1 '10 to 29'.
value labels chicks4 1 '30 or more'.
frequencies dairy1 to pigs4.


* 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 qh116 qh115
    qh117b qh118A qh118B qh118C qh118D qh118E qh118f qh118g qh119
hv245 qh121 qh122A qh122B qh122C qh122D qh122E
    qh122F qh122G qh122h qh123 DOMESTIC HOUSE LAND hhusual
hhslept
  /ORDER=ANALYSIS.

FREQUENCIES VARIABLES=memsleep h2oires h2oyrd h2opub h2obwell
h2opwell h2owell h2opspg h2ospg
    h2orain h2otruck h2ocart h2osurf h2obot h2obag h2ooth flushs
flusht flushpl flushe latvip latslab
    latpit latcomp latpail lathang latbush latoth latshare
sflushs sflusht sflushpl sflushe slatvip
    slatslab slatpit slatcomp slathang slatoth dirtfloo woodfloo
prqfloo vynfloo tilefloo cemtfloo
    rugfloo othfloo noroof natroof matroof pbroof wproof cardroof
tinroof woodroof cerroof cmtroof
    shingroof othroof nowall natwall bmudwall stomwall pwoodwall
cardwall rwoodwall metalwall cmtwall
    stonwall brkwall cmtbwall shngwall othwall cookelec cooklpg
cookgas cookbio cookkero cookcoal
    cookchar cookwood cookstraw cookcrop cookdung cooknone
cookoth landarea urban rural
  /ORDER=ANALYSIS.


* Turn off weights before all factor analysis.
WEIGHT OFF.
```

```
save outfile="c:\hnp2a\Nigeria 2013\ng13assets.sav".

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

FACTOR
  /VARIABLES =
     qh110A qh110B qh110C qh110D qh110E qh110F qh110G qh110H
qh110I qh110J qh110K qh110L
     qh118A qh118B qh118C qh118D qh118E qh118f qh118g
    qh122G qh122h qh123 DOMESTIC HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2owell
h2opspg h2ospg
    h2orain h2otruck h2ocart h2osurf h2obot h2obag h2ooth flushs
flusht flushpl flushe latvip latslab
    latpit latcomp latpail lathang latbush latoth latshare
sflushs sflusht sflushpl sflushe slatvip
    slatslab slatpit slatcomp slathang slatoth dirtfloo woodfloo
prqfloo vynfloo tilefloo cemtfloo
    rugfloo othfloo noroof natroof matroof pbroof wproof cardroof
tinroof woodroof cerroof cmtroof
    shingroof othroof nowall natwall bmudwall stomwall pwoodwall
cardwall rwoodwall metalwall cmtwall
    stonwall brkwall cmtbwall shngwall othwall cookelec cooklpg
cookgas cookbio cookkero cookcoal
    cookchar cookwood cookstraw cookcrop cookdung cooknone
cookoth landarea dairy1 to pigs4
  /MISSING MEANSUB
  /ANALYSIS qh110A qh110B qh110C qh110D qh110E qh110F qh110G
qh110H qh110I qh110J qh110K qh110L
     qh118A qh118B qh118C qh118D qh118E qh118f qh118g
   qh122G qh122h qh123 DOMESTIC HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2owell
h2opspg h2ospg
    h2orain h2otruck h2ocart h2osurf h2obot h2obag h2ooth flushs
flusht flushpl flushe latvip latslab
    latpit latcomp latpail lathang latbush latoth latshare
sflushs sflusht sflushpl sflushe slatvip
    slatslab slatpit slatcomp slathang slatoth dirtfloo woodfloo
prqfloo vynfloo tilefloo cemtfloo
    rugfloo othfloo noroof natroof matroof pbroof wproof cardroof
tinroof woodroof cerroof cmtroof
    shingroof othroof nowall natwall bmudwall stomwall pwoodwall
cardwall rwoodwall metalwall cmtwall
    stonwall brkwall cmtbwall shngwall othwall cookelec cooklpg
cookgas cookbio cookkero cookcoal
    cookchar cookwood cookstraw cookcrop cookdung cooknone
cookoth landarea  dairy1 to pigs4
  /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 ****.
** Agricultural animal variables excluded.
** Any others ?.

** qh110x, qh110y, and qh110z left out because of flipping of
urban factor.

FACTOR
  /VARIABLES   qh110A qh110B qh110C qh110D qh110E qh110F qh110G
qh110H qh110I qh110J qh110K qh110L
     qh118A qh118B qh118C qh118D qh118E qh118f qh118g qh123
DOMESTIC HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2owell
h2opspg h2ospg
    h2orain h2otruck h2ocart h2osurf h2obot h2obag h2ooth flushs
flusht flushpl flushe latvip latslab
    latpit latcomp latpail lathang latbush latoth latshare
sflushs sflusht sflushpl sflushe slatvip
    slatslab slatpit slatcomp slathang slatoth dirtfloo woodfloo
prqfloo vynfloo tilefloo cemtfloo
    rugfloo othfloo noroof natroof matroof pbroof wproof cardroof
tinroof woodroof cerroof cmtroof
    shingroof othroof nowall natwall bmudwall stomwall pwoodwall
cardwall rwoodwall metalwall cmtwall
    stonwall brkwall cmtbwall shngwall othwall cookelec cooklpg
cookgas cookbio cookkero cookcoal
    cookchar cookwood cookstraw cookcrop cookdung cooknone
cookoth
  /MISSING MEANSUB
  /ANALYSIS qh110A qh110B qh110C qh110D qh110E qh110F qh110G
qh110H qh110I qh110J qh110K qh110L
     qh118A qh118B qh118C qh118D qh118E qh118f qh118g qh123
DOMESTIC HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2owell
h2opspg h2ospg
    h2orain h2otruck h2ocart h2osurf h2obot h2obag h2ooth flushs
flusht flushpl flushe latvip latslab
    latpit latcomp latpail lathang latbush latoth latshare
sflushs sflusht sflushpl sflushe slatvip
    slatslab slatpit slatcomp slathang slatoth dirtfloo woodfloo
prqfloo vynfloo tilefloo cemtfloo
    rugfloo othfloo noroof natroof matroof pbroof wproof cardroof
tinroof woodroof cerroof cmtroof
```

```
    shingroof othroof nowall natwall bmudwall stomwall pwoodwall
cardwall rwoodwall metalwall cmtwall
    stonwall brkwall cmtbwall shngwall othwall cookelec cooklpg
cookgas cookbio cookkero cookcoal
    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.
FILTER BY urban.
EXECUTE.


FACTOR
  /VARIABLES  qh110A qh110B qh110C qh110D qh110E qh110F qh110G
qh110H qh110I qh110J qh110K qh110L
     qh118A qh118B qh118C qh118D qh118E qh118f qh118g
    qh122G qh122h qh123 DOMESTIC HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2owell
h2opspg h2ospg
    h2orain h2otruck h2ocart h2osurf h2obot h2obag h2ooth flushs
flusht flushpl flushe latvip latslab
    latpit latcomp latpail lathang latbush latshare sflushs
sflusht sflushpl sflushe slatvip
    slatslab slatpit slatcomp slathang dirtfloo woodfloo prqfloo
vynfloo tilefloo cemtfloo
    rugfloo othfloo noroof natroof matroof pbroof wproof cardroof
tinroof woodroof cerroof cmtroof
    shingroof othroof nowall natwall bmudwall stomwall pwoodwall
cardwall rwoodwall metalwall cmtwall
    stonwall brkwall cmtbwall shngwall cookelec cooklpg cookgas
cookbio cookkero cookcoal
    cookchar cookwood cookstraw cookcrop cookdung cooknone
cookoth landarea  dairy1 to pigs4
  /MISSING MEANSUB
  /ANALYSIS  qh110A qh110B qh110C qh110D qh110E qh110F qh110G
qh110H qh110I qh110J qh110K qh110L
     qh118A qh118B qh118C qh118D qh118E qh118f qh118g
    qh122G qh122h qh123 DOMESTIC HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2owell
h2opspg h2ospg
    h2orain h2otruck h2ocart h2osurf h2obot h2obag h2ooth flushs
flusht flushpl flushe latvip latslab
    latpit latcomp latpail lathang latbush latshare sflushs
```

```
sflusht sflushpl sflushe slatvip
    slatslab slatpit slatcomp slathang dirtfloo woodfloo prqfloo
vynfloo tilefloo cemtfloo
    rugfloo othfloo noroof natroof matroof pbroof wproof cardroof
tinroof woodroof cerroof cmtroof
    shingroof othroof nowall natwall bmudwall stomwall pwoodwall
cardwall rwoodwall metalwall cmtwall
    stonwall brkwall cmtbwall shngwall cookelec cooklpg cookgas
cookbio cookkero cookcoal
    cookchar cookwood cookstraw cookcrop cookdung cooknone
cookoth landarea  dairy1 to pigs4
  /PRINT UNIVARIATE INITIAL EXTRACTION fscore
  /CRITERIA FACTORS(1) ITERATE(25)
  /EXTRACTION PC
  /ROTATION NOROTATE
  /SAVE REG(ALL URB)
  /METHOD=CORRELATION.


** Rural Area.

USE ALL.
FILTER BY rural.
EXECUTE.


FACTOR
  /VARIABLES  qh110A qh110B qh110C qh110D qh110E qh110F qh110G
qh110H qh110I qh110J qh110K qh110L
     qh118A qh118B qh118C qh118D qh118E qh118f qh118g
    qh122G qh122h qh123 DOMESTIC HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2owell
h2opspg h2ospg
    h2orain h2otruck h2ocart h2osurf h2obot h2obag h2ooth flushs
flusht flushpl flushe latvip latslab
    latpit latcomp latpail lathang latbush latoth latshare
sflushs sflusht sflushpl sflushe slatvip
    slatslab slatpit slatcomp slathang slatoth dirtfloo woodfloo
prqfloo vynfloo tilefloo cemtfloo
    rugfloo othfloo noroof natroof matroof pbroof wproof cardroof
tinroof woodroof cerroof cmtroof
    shingroof othroof nowall natwall bmudwall stomwall pwoodwall
cardwall rwoodwall metalwall cmtwall
    stonwall brkwall cmtbwall shngwall othwall cookelec cooklpg
cookgas cookbio cookkero cookcoal
    cookchar cookwood cookstraw cookcrop cookdung cooknone
cookoth landarea dairy1 to pigs4
  /MISSING MEANSUB
  /ANALYSIS  qh110A qh110B qh110C qh110D qh110E qh110F qh110G
qh110H qh110I qh110J qh110K qh110L
     qh118A qh118B qh118C qh118D qh118E qh118f qh118g
    qh122G qh122h qh123 DOMESTIC HOUSE LAND
```

```
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2owell
h2opspg h2ospg
    h2orain h2otruck h2ocart h2osurf h2obot h2obag h2ooth flushs
flusht flushpl flushe latvip latslab
    latpit latcomp latpail lathang latbush latoth latshare
sflushs sflusht sflushpl sflushe slatvip
    slatslab slatpit slatcomp slathang slatoth dirtfloo woodfloo
prqfloo vynfloo tilefloo cemtfloo
    rugfloo othfloo noroof natroof matroof pbroof wproof cardroof
tinroof woodroof cerroof cmtroof
    shingroof othroof nowall natwall bmudwall stomwall pwoodwall
cardwall rwoodwall metalwall cmtwall
    stonwall brkwall cmtbwall shngwall othwall cookelec cooklpg
cookgas cookbio cookkero cookcoal
    cookchar cookwood cookstraw cookcrop cookdung cooknone
cookoth landarea  dairy1 to pigs4
  /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.
FILTER BY urban.
EXECUTE.

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

** Rural Area.

USE ALL.
FILTER BY rural.
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 combscor=0.
print formats combscor (F11.5).
write formats combscor (f11.5).
** Urban.
if (qhtype = 1) combscor=0.679+0.856* URB1.
** Rural.
if (qhtype = 2) combscor=(-0.475)+0.758* RUR1.
execute.

*Tabulation for histograms.
compute hhwt = qhweight/1000000.
VARIABLE LABELS hhwt 'HH weights' .
weight by hhwt.
filter off.
use all.

FREQUENCIES
  VARIABLES=combscor COM1 /FORMAT=NOTABLE
  /NTILES= 5
  /STATISTICS=STDDEV MEAN
  /HISTOGRAM  NORMAL
  /ORDER=ANALYSIS.

USE ALL.
FILTER BY urban.
EXECUTE.

FREQUENCIES
  VARIABLES=combscor URB1 /FORMAT=NOTABLE
  /NTILES= 5
  /STATISTICS=STDDEV MEAN
  /HISTOGRAM  NORMAL
  /ORDER=ANALYSIS.

USE ALL.
FILTER BY rural.
EXECUTE.

FREQUENCIES
  VARIABLES=combscor RUR1 /FORMAT=NOTABLE
  /NTILES= 5
  /STATISTICS=STDDEV MEAN
  /HISTOGRAM  NORMAL
  /ORDER=ANALYSIS.
```

```
FILTER OFF.
USE ALL.
EXECUTE.


*Calculate quintiles and scores for data file.
compute hhmemwt=qhweight*hhusual/1000000.
weight by hhmemwt.
VARIABLE LABELS hhmemwt 'HH members weighting for index'.

** Urban Area.
USE ALL.
FILTER BY urban.
EXECUTE.

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

** Rural Area.
USE ALL.
FILTER BY rural.
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.

weight by hhwt.

MEANS TABLES=
    qh110A qh110B qh110C qh110D qh110E qh110F qh110G qh110H
qh110I qh110J qh110K qh110L
     qh118A qh118B qh118C qh118D qh118E qh118f qh118g
   qh122a qh122b qh122c qh122d qh122e qh122f qh122G qh122h qh123
```

```
DOMESTIC HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2owell
h2opspg h2ospg
    h2orain h2otruck h2ocart h2osurf h2obot h2obag h2ooth flushs
flusht flushpl flushe latvip latslab
    latpit latcomp latpail lathang latbush latoth latshare
sflushs sflusht sflushpl sflushe slatvip
    slatslab slatpit slatcomp slathang slatoth dirtfloo woodfloo
prqfloo vynfloo tilefloo cemtfloo
    rugfloo othfloo noroof natroof matroof pbroof wproof cardroof
tinroof woodroof cerroof cmtroof
    shingroof othroof nowall natwall bmudwall stomwall pwoodwall
cardwall rwoodwall metalwall cmtwall
    stonwall brkwall cmtbwall shngwall othwall cookelec cooklpg
cookgas cookbio cookkero cookcoal
    cookchar cookwood cookstraw cookcrop cookdung cooknone
cookoth landarea
    by Ncombsco, nurb1, nrur1
  /CELLS MEAN COUNT STDDEV.

WEIGHT OFF.

save outfile="c:\hnp2a\Nigeria 2013\ng13assets.sav".

*** Write out scores file.
WRITE OUTFILE="c:\hnp2a\Nigeria 2013\ng13scores.dat"
  TABLE
  /qhclust qhnumber combscor ncombsco urb1 nurb1 rur1 nrur1.
EXECUTE.
```