```
Title Sierra Leone 2013.

*{Construct Variables}.

compute hhusual=hv012.
compute hhslept=hv013.


*{Members per sleeping room}.
if (hhusual=0) hhusual=hhslept.
if (qh117>0) memsleep=trunc(hhusual/qh117).
if (qh117=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.
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```
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 tarproof=0.
if (qh115=25) tarproof=1.
variable labels tarproof "Tarpaulin roof".
compute tinroof=0.
if (qh115=31) tinroof=1.
variable labels tinroof "Metal sheets roof".
compute woodroof=0.
if (qh115=32) woodroof=1.
variable labels woodroof "Wood roof".
compute calroof=0.
```

```
if (qh115=33) calroof=1.
variable labels calroof "Calamine/cement fiber roof".
compute cerroof=0.
if (qh115=34) cerroof=1.
variable labels cerroof "Ceramic tiles roof".
compute cmtroof=0.
if (qh115=35) cmtroof=1.
variable labels cmtroof "Concrete roof".
compute shingroof=0.
if (qh115=36) shingroof=1.
variable labels shingroof "Shingles roof".
compute asbroof=0.
if (qh115=36) asbroof=1.
variable labels asbroof "Asbestos roof".
compute othroof=0.
if (qh115=96) othroof=1.
variable labels othroof "Other type of roof".
formats noroof natroof matroof pbroof wproof cardroof tarproof
tinroof calroof cerroof cmtroof shingroof asbroof 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 adobewall=0.
if (qh116=23) adobewall=1.
variable labels adobewall "Uncovered adobe walls".
compute metalwall=0.
if (qh116=24) metalwall=1.
variable labels metalwall "Metal/zinc walls".
compute pwoodwall=0.
if (qh116=25) pwoodwall=1.
variable labels pwoodwall "Plywood walls".
compute cardwall=0.
if (qh116=26) cardwall=1.
variable labels cardwall "Discarded materials walls".
compute rwoodwall=0.
if (qh116=27) rwoodwall=1.
variable labels rwoodwall "Reused wood 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 cadobewall=0.
if (qh116=35) cadobewall=1.
VARIABLE LABELS cadobewall 'Covered adobe 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
adobewall pwoodwall, metalwall, cmtbwall shngwall cadobewall
stonwall brkwall cmtwall othwall (f1.0).

*{Cooking Fuel}.
compute cookelec=0.
if (qh111=1) cookelec=1.
variable labels cookelec "Electricity for cooking".
compute cookgas=0.
if (qh111=2) cookgas=1.
variable labels cookgas "Gas for cooking".
compute cookkero=0.
if (qh111=3) cookkero=1.
variable labels cookkero "Kerosene for cooking".
compute cookcoal=0.
if (qh111=4) cookcoal=1.
variable labels cookcoal "Coal, lignite for cooking".
compute cookchar=0.
if (qh111=5) cookchar=1.
variable labels cookchar "Charcoal for cooking".
compute cookwood=0.
if (qh111=6) cookwood=1.
variable labels cookwood "Wood for cooking".
compute cookstraw=0.
if (qh111=7) cookstraw=1.
variable labels cookstraw "Straw, shrubs, grass for cooking".
compute cookcrop=0.
if (qh111=8) cookcrop=1.
variable labels cookcrop "Agricultural crops 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 cookgas, cookkero cookcoal cookchar cookwood
cookstraw cookcrop, 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(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.

* Land.

compute landarea=qh120.
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 qh120 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.
if (missing(qh122i) | qh121<>1) qh122i=0.

missing values qh122a to qh122i (98,99).
```

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

* Compute urban and rural variables coded (1/0) for filters
later.

****** !!!! Note that Sierra Leone 2013 has reversed raw codes
for urban-rural  !!!! *******.
COMPUTE urban=(qhtype = 2).
COMPUTE rural=(qhtype = 1).
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 pigs=qh122c.
compute goats=qh122d.
compute sheep=qh122e.
compute rabbits=qh122f.
compute rodents=qh122g.
compute chicks=qh122h.
compute birds=qh122i.

execute.

FREQUENCIES VARIABLES=dairy to birds.

** 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.
numeric dairy1 to dairy4 equine1 to equine4, goats1 to goats4,
sheep1 to sheep4 pigs1 to pigs4 chicks1 to chicks4
             rabbits1 to rabbits4 rodents1 to rodents4 birds1 to
birds4.
do repeat  lgan=dairy equine pigs goats sheep
               /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=rabbits rodents chicks birds
              /sm1=rabbits1 rodents1 chicks1 birds1
              /sm2=rabbits2 rodents2 chicks2 birds2
              /sm3=rabbits3 rodents3 chicks3 birds3
              /sm4=rabbits4 rodents4 chicks4 birds4.
compute sm1=(sman eq 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 rabbits1 rodents1 chicks1 birds1 1 'Zero'.
value labels rabbits2 rodents2 chicks2 birds2 1 '1 to 9'.
value labels rabbits3 rodents3 chicks3 birds3 1 '10 to 29'.
value labels rabbits4 rodents4 chicks4 birds4 1 '30 or more'.
frequencies dairy1 to birds4.

*------------------------------ * .
* Check on indicator variable creation.

FREQUENCIES VARIABLES=QHTYPE HV009 HV012 HV013 qh102 qh107 QH108
    qh110A qh110B qh110C qh110D qh110E qh110F qh110G qh110H
qh110I qh110J
     qh111 qh114 qh116 qh115
    qh117 qh118A qh118B qh118C qh118D qh118E qh118f qh119 qh120
qh121 qh122A qh122B qh122C qh122D qh122E
    qh122F qh122G qh122h qh122i qh123 HOUSE LAND hhusual hhslept
  /ORDER=ANALYSIS.

FREQUENCIES VARIABLES=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
tarproof tinroof woodroof calroof cerroof
    cmtroof shingroof asbroof othroof nowall natwall bmudwall
stomwall adobewall metalwall pwoodwall
    cardwall rwoodwall cmtwall stonwall brkwall cmtbwall
```

9

```
cadobewall shngwall othwall cookelec cookgas
     cookkero cookcoal cookchar cookwood cookstraw cookcrop
cooknone cookoth landarea urban rural dairy
     equine pigs goats sheep rabbits rodents chicks birds dairy1
dairy2 dairy3 dairy4 equine1 equine2
     equine3 equine4 goats1 goats2 goats3 goats4 sheep1 sheep2
sheep3 sheep4 pigs1 pigs2 pigs3 pigs4
     chicks1 chicks2 chicks3 chicks4 rabbits1 rabbits2 rabbits3
rabbits4 rodents1 rodents2 rodents3
     rodents4 birds1 birds2 birds3 birds4
  /ORDER=ANALYSIS.



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

save outfile="c:\hnp2a\Sierra Leone 2013\sl13assets.sav".

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

FACTOR
  /VARIABLES =
      qh110A qh110B qh110C qh110D qh110E qh110F qh110G qh110H
qh110I qh110J
      qh118A qh118B qh118C qh118D qh118E qh118f
     qh123 HOUSE LAND memsleep
     h2oires h2oyrd h2opub h2obwell h2opwell h2owell h2ospg
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
tarproof tinroof woodroof calroof cerroof
     cmtroof shingroof asbroof othroof nowall natwall bmudwall
stomwall adobewall metalwall pwoodwall
     cardwall rwoodwall cmtwall stonwall brkwall cmtbwall
cadobewall shngwall othwall cookelec cookgas
     cookkero cookcoal cookchar cookwood cookstraw cookcrop
cooknone cookoth landarea dairy1 dairy2 dairy3 dairy4 equine1
     equine3 goats1 goats2 goats3 goats4 sheep1 sheep2 sheep3
sheep4 pigs1 pigs2 pigs3 pigs4
     chicks1 chicks2 chicks3 chicks4 rabbits1 rabbits2 rabbits3
rodents1 rodents2 rodents3
     rodents4 birds1 birds2 birds3 birds4
  /MISSING MEANSUB
  /ANALYSIS qh110A qh110B qh110C qh110D qh110E qh110F qh110G
qh110H qh110I qh110J
```

```
    qh118A qh118B qh118C qh118D qh118E qh118f
    qh123 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
tarproof tinroof woodroof calroof cerroof
    cmtroof shingroof asbroof othroof nowall natwall bmudwall
stomwall adobewall metalwall pwoodwall
    cardwall rwoodwall cmtwall stonwall brkwall cmtbwall
cadobewall shngwall othwall cookelec cookgas
    cookkero cookcoal cookchar cookwood cookstraw cookcrop
cooknone cookoth landarea dairy1 dairy2 dairy3 dairy4 equine1
    equine3 goats1 goats2 goats3 goats4 sheep1 sheep2 sheep3
sheep4 pigs1 pigs2 pigs3 pigs4
    chicks1 chicks2 chicks3 chicks4 rabbits1 rabbits2 rabbits3
rodents1 rodents2 rodents3
    rodents4 birds1 birds2 birds3 birds4
  /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
    qh118A qh118B qh118C qh118D qh118E qh118f
    qh123 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
tarproof tinroof woodroof calroof cerroof
        cmtroof shingroof asbroof othroof nowall natwall bmudwall
stomwall adobewall metalwall pwoodwall
        cardwall rwoodwall cmtwall stonwall brkwall cmtbwall
cadobewall shngwall othwall cookelec cookgas
        cookkero cookcoal cookchar cookwood cookstraw cookcrop
cooknone cookoth
    /MISSING MEANSUB
   /ANALYSIS qh110A qh110B qh110C qh110D qh110E qh110F qh110G
qh110H qh110I qh110J
        qh118A qh118B qh118C qh118D qh118E qh118f
        qh123 HOUSE LAND memsleep
        h2oires h2oyrd h2opub h2obwell h2opwell h2owell h2ospg
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
tarproof tinroof woodroof calroof cerroof
        cmtroof shingroof asbroof othroof nowall natwall bmudwall
stomwall adobewall metalwall pwoodwall
        cardwall rwoodwall cmtwall stonwall brkwall cmtbwall
cadobewall shngwall othwall cookelec cookgas
        cookkero cookcoal cookchar cookwood cookstraw cookcrop
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
        qh118A qh118B qh118C qh118D qh118E qh118f
```

```
qh123 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
tarproof tinroof woodroof calroof cerroof
cmtroof shingroof asbroof othroof nowall natwall bmudwall
stomwall adobewall metalwall pwoodwall
cardwall rwoodwall cmtwall stonwall brkwall cmtbwall
cadobewall shngwall othwall cookelec cookgas
cookkero cookcoal cookchar cookwood cookstraw cooknone
cookoth
landarea
dairy1 dairy2 dairy3 dairy4
goats1 goats2 goats3 goats4 sheep1 sheep2 sheep3 sheep4 pigs1
pigs2 pigs3 pigs4
chicks1 chicks2 chicks3 chicks4 rabbits1 rabbits2 rabbits3
rodents1 rodents2
rodents4 birds1 birds2 birds3 birds4
/MISSING MEANSUB
/ANALYSIS  qh110A qh110B qh110C qh110D qh110E qh110F qh110G
qh110H qh110I qh110J
    qh118A qh118B qh118C qh118D qh118E qh118f
qh123 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
tarproof tinroof woodroof calroof cerroof
cmtroof shingroof asbroof othroof nowall natwall bmudwall
stomwall adobewall metalwall pwoodwall
cardwall rwoodwall cmtwall stonwall brkwall cmtbwall
cadobewall shngwall othwall cookelec cookgas
cookkero cookcoal cookchar cookwood cookstraw cooknone
cookoth
landarea
dairy1 dairy2 dairy3 dairy4
goats1 goats2 goats3 goats4 sheep1 sheep2 sheep3 sheep4 pigs1
pigs2 pigs3 pigs4
chicks1 chicks2 chicks3 chicks4 rabbits1 rabbits2 rabbits3
rodents1 rodents2
rodents4 birds1 birds2 birds3 birds4
```

```
   /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
     qh118A qh118B qh118C qh118D qh118E qh118f
   qh123 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 dirtfloo woodfloo prqfloo tilefloo
cemtfloo rugfloo
   othfloo noroof natroof matroof pbroof wproof cardroof
tarproof tinroof woodroof calroof cerroof
   cmtroof shingroof asbroof othroof nowall natwall bmudwall
stomwall adobewall metalwall pwoodwall
   rwoodwall cmtwall stonwall brkwall cmtbwall cadobewall
shngwall othwall
   cookcoal cookchar cookwood cookstraw cookcrop cooknone
   landarea
   dairy1 dairy2 dairy3 dairy4 equine1
   equine3 goats1 goats2 goats3 goats4 sheep1 sheep2 sheep3
sheep4 pigs1 pigs2 pigs3 pigs4
   chicks1 chicks2 chicks3 chicks4 rabbits1 rabbits2 rodents1
rodents2 rodents3
   birds1 birds2 birds3
  /MISSING MEANSUB
  /ANALYSIS   qh110A qh110B qh110C qh110D qh110E qh110F qh110G
qh110H qh110I qh110J
     qh118A qh118B qh118C qh118D qh118E qh118f
   qh123 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 dirtfloo woodfloo prqfloo tilefloo
cemtfloo rugfloo
    othfloo noroof natroof matroof pbroof wproof cardroof
tarproof tinroof woodroof calroof cerroof
    cmtroof shingroof asbroof othroof nowall natwall bmudwall
stomwall adobewall metalwall pwoodwall
    rwoodwall cmtwall stonwall brkwall cmtbwall cadobewall
shngwall othwall
    cookcoal cookchar cookwood cookstraw cookcrop cooknone
    landarea
    dairy1 dairy2 dairy3 dairy4 equine1
    equine3 goats1 goats2 goats3 goats4 sheep1 sheep2 sheep3
sheep4 pigs1 pigs2 pigs3 pigs4
    chicks1 chicks2 chicks3 chicks4 rabbits1 rabbits2 rodents1
rodents2 rodents3
    birds1 birds2 birds3
  /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 (urban) combscor=0.840+1.127* URB1.
** Rural.
if (rural) combscor=(-0.476)+0.430* 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
     qh118A qh118B qh118C qh118D qh118E qh118f
```

```
    qh123 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
tarproof tinroof woodroof calroof cerroof
    cmtroof shingroof asbroof othroof nowall natwall bmudwall
stomwall adobewall metalwall pwoodwall
    cardwall rwoodwall cmtwall stonwall brkwall cmtbwall
cadobewall shngwall othwall cookelec cookgas
    cookkero cookcoal cookchar cookwood cookstraw cookcrop
cooknone cookoth landarea dairy equine
    goats sheep pigs chicks rabbits rodents birds
    by Ncombsco, nurb1, nrur1
  /CELLS MEAN COUNT STDDEV.

WEIGHT OFF.

save outfile="c:\hnp2a\Sierra Leone 2013\sl13assets.sav".

*** Write out scores file.
WRITE OUTFILE="c:\hnp2a\Sierra Leone 2013\sl13scores.dat"
  TABLE
  /qhclust qhnumber combscor ncombsco urb1 nurb1 rur1 nrur1.
EXECUTE.
```