```
*{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 h2pspring=0.
if (qh102=41) h2pspring=1.
variable labels h2pspring "Protected spring".
compute h2uspring=0.
if (qh102=42) h2uspring=1.
variable labels h2uspring "Unprotected spring".
compute h2orain=0.
if (qh102=51) h2orain=1.
variable labels h2orain "Rainwater for drinking".
compute h2otruck=0.
if (qh102=61) h2otruck=1.
variable labels h2otruck "Tanker truck".
compute h2ocart=0.
if (qh102=62) h2ocart=1.
variable labels h2ocart "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 latpit=0.
if (qh107=24) latpit=1.
var labels latpit "Traditional pit latrine".
compute latpitnf=0.
if (qh107=23) latpitnf=1.
var labels latpitnf "Pit latrine without flush".
compute latpits=0.
if (qh107=22) latpits=1.
var labels latpits "Pit latrine with hand flush".
compute latvip=0.
if (qh107=21) latvip=1.
var labels latvip "VIP latrine".
compute latbush=0.
if (qh107=31) 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'.

compute sflushs=0.
compute sflusht=0.
compute sflushp=0.
compute slatpit=0.
compute slatpitnf=0.
compute slatpits=0.
compute slatvip=0.

variable labels
   sflushs 'Shared flush toilet to sewer'
  /sflusht 'Shared flush toilet to septic tank'
  /sflushp 'Shared flush toilet to pit latrine'
  /slatpit 'Shared tradtional pit latrine'
  /slatpitnf "Shared pit latrine without flush"
  /slatpits 'Shared pit latrine with hand flush'
```

```
  /slatvip 'Shared VIP latrine'.

do if (latshare=1).
  if (flushs=1) sflushs=1.
  if (flusht=1) sflusht=1.
  if (sflushp=1) sflushp=1.
  if (latpit=1) slatpit=1.
  if (latpitnf=1) slatpitnf=1.
  if (latpits=1) slatpits=1.
  if (latvip=1) slatvip=1.
end if.


*{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 cemtfloo=0.
if (qh114=34) cemtfloo=1.
var labels cemtfloo "Cement 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 rugfloo=0.
if (qh114=35) rugfloo=1.
var labels rugfloo "Carpeted floor".
compute prqfloo=0.
if (qh114=31) prqfloo=1.
var labels prqfloo "Polished wood 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 bambwall=0.
if (qh116=21) bambwall=1.
var labels bambwall "Bamboo with mud walls".
compute stonwall=0.
if (qh116=22) stonwall=1.
var labels stonwall "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 stoncwall=0.
if (qh116=32) stoncwall=1.
var labels stoncwall "Stone walls with lime cement".
compute brkwall=0.
if (qh116=33) brkwall=1.
var labels brkwall "Brick walls".
compute cmtbwall=0.
if (qh116=34) cmtbwall=1.
var labels cmtbwall "Cement block walls".
compute cadobwall=0.
if (qh116=23) 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 or qh115=13) natroof=1.
var labels natroof "Thatch/palm/sod roof".
compute matroof=0.
if (qh115=21) matroof=1.
var labels matroof "Mat roof".
compute bambroof=0.
if (qh115=22) bambroof=1.
var labels bambroof "Palm / 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 "Calamine / cement fiber roof".
compute tileroof=0.
if (qh115=34) tileroof=1.
var labels tileroof "Ceramic tile roof".
compute cmtroof=0.
if (qh115=35) cmtroof=1.
var labels cmtroof "Concrete roof".
compute shngroof=0.
if (qh115=36) 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 cookchar=0.
if (qh111=3) cookchar=1.
var labels cookchar "Charcoal for cooking".
compute cookwood=0.
if (qh111=4 ) cookwood=1.
var labels cookwood "Wood, straw for cooking".
compute cookdung=0.
if (qh111=5) cookdung=1.
var labels cookdung "Dung for cooking".
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 (qh111<>1) qh111=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 (qh110m<>1) qh110m=0.
if (qh110n<>1) qh110n=0.
if (qh110o<>1) qh110o=0.

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

*Animals.
do repeat anim=qh122a to qh122g.
if (missing(qh121) | qh121 <>1) anim=0.
end repeat.

missing values qh122a to qh122g (98,99).

** Bank account.

if (qh123<>1) qh123=0.

*{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}.

* 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.

DATASET ACTIVATE DataSet1.
FREQUENCIES VARIABLES=QHTYPE HV009 HV012 HV013 QH102 QH107 QH108
QH109 QH110A QH110B QH110C QH110D QH110E QH110F QH110G
    QH110H QH110I QH110J QH110K QH110L QH110M QH110N QH110O QH111
QH114 QH115 QH116 QH117 QH118A
    QH118B QH118C QH118D QH118E QH118F qh118g 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 h2pspring h2uspring
    h2orain h2otruck h2ocart h2osurf h2obot h2ooth flushs flusht
latpit latpitnf latpits latvip latbush
    latoth latshare sflushs sflusht sflushp slatpit slatpitnf
slatpits slatvip dirtfloo woodfloo
    cemtfloo vinlfloo tilefloo rugfloo prqfloo othfloo nowall
natwall bambwall stonwall adobwall
    plywall cardwall rwoodwall cmtwall stoncwall brkwall cmtbwall
cadobwall woodwall othwall noroof
    natroof matroof bambroof wproof cardroof metroof woodroof
asbroof tileroof cmtroof shngroof othroof
    cookelec cooklpg cookchar cookwood cookdung cookoth landarea
```

```
  /ORDER=ANALYSIS.


save outfile="c:\hnp2a\Senegal 2012\sn12assets.sav".

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

FACTOR
  /VARIABLES QH110A QH110B QH110C QH110D QH110E QH110F QH110G
    QH110H QH110I QH110J QH110K QH110L QH110M QH110N QH110O
   qh118A qh118B qh118C qh118E qh118F qh118g
   QH122A QH122B QH122C QH122D QH122E QH122F
    QH122G QH123 house land
   memsleep h2oires h2oyrd h2opub h2obwell h2ipwell h2iowell
h2pspring h2uspring
    h2orain h2otruck h2osurf h2obot h2ooth flushs flusht latpit
latpitnf latpits latvip latbush
    latoth latshare sflushs sflusht slatpit slatpitnf slatpits
slatvip dirtfloo woodfloo
    cemtfloo vinlfloo tilefloo rugfloo prqfloo othfloo nowall
natwall bambwall stonwall
    rwoodwall cmtwall stoncwall brkwall cmtbwall woodwall othwall
noroof
    natroof bambroof wproof cardroof metroof woodroof asbroof
tileroof cmtroof shngroof othroof
    cookelec cooklpg cookchar cookwood cookdung landarea
  /MISSING MEANSUB
  /ANALYSIS QH110A QH110B QH110C QH110D QH110E QH110F QH110G
    QH110H QH110I QH110J QH110K QH110L QH110M QH110N QH110O
   qh118A qh118B qh118C qh118E qh118F qh118g
   QH122A QH122B QH122C QH122D QH122E QH122F
    QH122G QH123 house land
   memsleep h2oires h2oyrd h2opub h2obwell h2ipwell h2iowell
h2pspring h2uspring
    h2orain h2otruck h2osurf h2obot h2ooth flushs flusht latpit
latpitnf latpits latvip latbush
    latoth latshare sflushs sflusht slatpit slatpitnf slatpits
slatvip dirtfloo woodfloo
    cemtfloo vinlfloo tilefloo rugfloo prqfloo othfloo nowall
natwall bambwall stonwall
    rwoodwall cmtwall stoncwall brkwall cmtbwall woodwall othwall
noroof
    natroof bambroof wproof cardroof metroof woodroof asbroof
tileroof cmtroof shngroof othroof
    cookelec cooklpg cookchar cookwood cookdung landarea
        /PRINT UNIVARIATE INITIAL CORRELATION EXTRACTION
  /CRITERIA FACTORS(1) ITERATE(25)
  /EXTRACTION PC
  /ROTATION NOROTATE
  /METHOD=CORRELATION.
```

```
**********************************.
*** Common Factor Analysis.

FILTER OFF.
USE ALL.
EXECUTE.
weight off.

**** Redo removing area-specific variables ****.
** Agricultural animal variables excluded.
** Any others ?.

FACTOR
 /VARIABLES  QH110A QH110B QH110C QH110D QH110E QH110F QH110G
    QH110H QH110I QH110J QH110K QH110L QH110M QH110N QH110O
   qh118A qh118B qh118C qh118E qh118F qh118g
    QH123 house land
   memsleep h2oires h2oyrd h2opub h2obwell h2ipwell h2iowell
h2pspring h2uspring
    h2orain h2otruck h2osurf h2obot h2ooth flushs flusht latpit
latpitnf latpits latvip latbush
    latoth sflushs sflusht slatpit slatpitnf slatpits slatvip
dirtfloo woodfloo
    cemtfloo vinlfloo tilefloo rugfloo prqfloo othfloo nowall
natwall bambwall stonwall
    rwoodwall cmtwall stoncwall brkwall cmtbwall woodwall othwall
noroof
    natroof bambroof wproof cardroof metroof woodroof asbroof
tileroof cmtroof shngroof othroof
    cookelec cooklpg cookchar cookwood cookdung
  /MISSING MEANSUB
  /ANALYSIS QH110A QH110B QH110C QH110D QH110E QH110F QH110G
    QH110H QH110I QH110J QH110K QH110L QH110M QH110N QH110O
   qh118A qh118B qh118C qh118E qh118F qh118g
    QH123 house land
   memsleep h2oires h2oyrd h2opub h2obwell h2ipwell h2iowell
h2pspring h2uspring
    h2orain h2otruck h2osurf h2obot h2ooth flushs flusht latpit
latpitnf latpits latvip latbush
    latoth sflushs sflusht slatpit slatpitnf slatpits slatvip
dirtfloo woodfloo
    cemtfloo vinlfloo tilefloo rugfloo prqfloo othfloo nowall
natwall bambwall stonwall
    rwoodwall cmtwall stoncwall brkwall cmtbwall woodwall othwall
noroof
    natroof bambroof wproof cardroof metroof woodroof asbroof
tileroof cmtroof shngroof othroof
    cookelec cooklpg cookchar cookwood cookdung
  /PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
  /CRITERIA FACTORS(1) ITERATE(25)
  /EXTRACTION PC
  /ROTATION NOROTATE
```

```
  /SAVE REG(ALL COM)
  /METHOD=CORRELATION.

** Now do the optimal binning.

compute dairy=qh122a.
compute camels=qh122b.
compute equine=qh122c.
compute goats=qh122d.
compute sheep=qh122e.
compute pigs=qh122f.
compute chicks=qh122g.
execute.

FREQUENCIES VARIABLES=dairy to chicks.

** 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 camels1 to camels4 equine1 to equine4,
goats1 to goats4, sheep1 to sheep4  pigs1 to pigs4 chicks1 to
chicks4.
do repeat  lgan=dairy to sheep pigs
                /lg1=dairy1 camels1 equine1 goats1 sheep1 pigs1
                /lg2=dairy2 camels2 equine2 goats2 sheep2 pigs2
                /lg3=dairy3 camels3 equine3 goats3 sheep3 pigs3
                /lg4=dairy4 camels4 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 camels1 equine1 goats1 sheep1 pigs1 1
'Zero'.
value labels dairy2 camels2 equine2 goats2 sheep2 pigs2 1 '1 to
4'.
value labels dairy3 camels3 equine3 goats3 sheep3 pigs3 1 '5 to
9'.
value labels dairy4 camels4 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 chicks4.

** Standard wealth index for DHS by urban and rural areas.


**  Urban Areas.

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  QH110A QH110B QH110C QH110D QH110E QH110F QH110G
    QH110H QH110I QH110J QH110K QH110L QH110M QH110N QH110O
   qh118A qh118B qh118C qh118E qh118F qh118g
   QH123 house land
   memsleep h2oires h2oyrd h2opub h2obwell h2ipwell h2iowell
h2pspring
    h2orain h2obot h2ooth flushs flusht latpit latpitnf latpits
latvip latbush
    latoth sflushs sflusht slatpit slatpitnf slatpits slatvip
dirtfloo woodfloo
    cemtfloo vinlfloo tilefloo rugfloo prqfloo othfloo nowall
natwall bambwall stonwall
    rwoodwall cmtwall stoncwall brkwall cmtbwall woodwall othwall
    natroof wproof metroof woodroof asbroof tileroof cmtroof
shngroof othroof
    cookelec cooklpg cookchar cookwood cookdung landarea dairy1
to dairy4 equine1 to equine3 goats1 to chicks4
  /MISSING MEANSUB
  /ANALYSIS QH110A QH110B QH110C QH110D QH110E QH110F QH110G
    QH110H QH110I QH110J QH110K QH110L QH110M QH110N QH110O
```

```
   qh118A qh118B qh118C qh118E qh118F qh118g
   QH123 house land
   memsleep h2oires h2oyrd h2opub h2obwell h2ipwell h2iowell
h2pspring
    h2orain h2obot h2ooth flushs flusht latpit latpitnf latpits
latvip latbush
    latoth sflushs sflusht slatpit slatpitnf slatpits slatvip
dirtfloo woodfloo
    cemtfloo vinlfloo tilefloo rugfloo prqfloo othfloo nowall
natwall bambwall stonwall
    rwoodwall cmtwall stoncwall brkwall cmtbwall woodwall othwall
    natroof wproof metroof woodroof asbroof tileroof cmtroof
shngroof othroof
    cookelec cooklpg cookchar cookwood cookdung landarea dairy1
to dairy4 equine1 to equine3 goats1 to chicks4
  /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  QH110A QH110B QH110C QH110D QH110E QH110F QH110G
    QH110H QH110I QH110J QH110K QH110L QH110M QH110N QH110O
   qh118A qh118B qh118C qh118E qh118F qh118g
   QH123 house land
   memsleep h2oires h2oyrd h2opub h2obwell h2ipwell h2iowell
h2pspring h2uspring
    h2orain h2otruck h2osurf h2obot h2ooth flushs flusht latpit
latpitnf latpits latvip latbush
    latoth sflusht slatpit slatpitnf slatpits slatvip dirtfloo
woodfloo
    cemtfloo vinlfloo tilefloo rugfloo prqfloo othfloo nowall
natwall bambwall stonwall
    rwoodwall cmtwall stoncwall brkwall cmtbwall othwall noroof
    natroof bambroof cardroof metroof asbroof tileroof cmtroof
othroof
    cookelec cooklpg cookchar cookwood cookdung landarea dairy1
to chicks4
```

```
  /MISSING MEANSUB
  /ANALYSIS  QH110A QH110B QH110C QH110D QH110E QH110F QH110G
    QH110H QH110I QH110J QH110K QH110L QH110M QH110N QH110O
   qh118A qh118B qh118C qh118E qh118F qh118g
    QH123 house land
   memsleep h2oires h2oyrd h2opub h2obwell h2ipwell h2iowell
h2pspring h2uspring
    h2orain h2otruck h2osurf h2obot h2ooth flushs flusht latpit
latpitnf latpits latvip latbush
    latoth sflusht slatpit slatpitnf slatpits slatvip dirtfloo
woodfloo
    cemtfloo vinlfloo tilefloo rugfloo prqfloo othfloo nowall
natwall bambwall stonwall
    rwoodwall cmtwall stoncwall brkwall cmtbwall othwall noroof
    natroof bambroof cardroof metroof asbroof tileroof cmtroof
othroof
    cookelec cooklpg cookchar cookwood cookdung landarea dairy1
to chicks4
  /PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
  /CRITERIA FACTORS(1) ITERATE(25)
  /EXTRACTION PC
  /ROTATION NOROTATE
  /SAVE REG(ALL RUR)
  /METHOD=CORRELATION.

means rur1 by  dairy1 to chicks4.

* Calculate regressions with total score.

* To be added in where the regressions take place:.

* Name the dataset window for the hh data for use later.
dataset name assets.

* label the created score variables.
variable labels
  com1 "Common wealth score"
 /urb1 "Urban wealth score"
 /rur1 "Rural wealth score".

* Add a variable used for linking later.
use all.
string ROWTYPE_ (A8).
compute ROWTYPE_ = 'EST'.

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

use all.
filter by urban.
execute.
```

```
* Declare a dataset to be written to in the regression.
dataset declare urbcorv.
regression
  /missing listwise
  /statistics coeff outs r anova
  /criteria=pin(.05) pout(.10)
  /noorigin
  /dependent com1
  /method=enter urb1
  /outfile=corv(urbcorv).
* Activate file of output from regression.
dataset activate urbcorv.
* Drop all rows of output except the coefficients.
select if (ROWTYPE_ = 'EST').
execute.
* Delete unnecessary variables before merging.
delete variables DEPVAR_ VARNAME_.
* Rename variables containing the constant and the coefficient.
rename variables CONST_=urbconst urb1=urbcoeff.

* Re-activitate the main household data.
dataset activate assets.
* Rename the urban score.
rename variables urb1=urbscore.
* merge the coefficients.
match files
  /file = *
  /table = urbcorv
  /by ROWTYPE_.
execute.

** Rural area.

use all.
filter by rural.

* Declare a dataset to be written to in the regression.
dataset declare rurcorv.
regression
  /missing listwise
  /statistics coeff outs r anova
  /criteria=pin(.05) pout(.10)
  /noorigin
  /dependent com1
  /method=enter rur1
  /outfile=corv(rurcorv).
* Activate file of output from regression.
dataset activate rurcorv.
* Drop all rows of output except the coefficients.
select if (ROWTYPE_ = 'EST').
execute.
* Delete unnecessary variables before merging.
```

```
delete variables DEPVAR_ VARNAME_.
* Rename variables containing the constant and the coefficient.
rename variables CONST_=rurconst rur1=rurcoeff.

* Re-activitate the main household data.
dataset activate assets.
* Rename the rural score.
rename variables rur1=rurscore.
* merge the coefficients.
match files
  /file = *
  /table = rurcorv
  /by ROWTYPE_.
execute.

use all.

dataset close urbcorv.
dataset close rurcorv.
dataset activate assets.

*** Calculate combined wealth score from Urban and Rural Scores.
* Use coefficients from urban and rural regressions above!.
compute combscor=0.
variable labels combscor "Combined wealth score".
formats combscor (f11.5).
** Urban - replace values with those from the regressions above!.
if (urban = 1) combscor=urbconst+urbcoeff*urbscore.
** Rural - replace values with those from the regressions above!.
if (rural = 1) combscor=rurconst+rurcoeff*rurscore.
execute.


FILTER OFF.
USE ALL.
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 URBscore /FORMAT=NOTABLE
  /NTILES= 5
  /STATISTICS=STDDEV MEAN
  /HISTOGRAM  NORMAL
  /ORDER=ANALYSIS.

USE ALL.
FILTER BY rural.
EXECUTE.

FREQUENCIES
  VARIABLES=combscor RURscore /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*hv012/1000000.
weight by hhmemwt.
VARIABLE LABELS hhmemwt 'HH members weighting for index'.

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

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

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

RANK VARIABLES=rurscore (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 QH110M QH110N QH110O
   qh118A qh118B qh118C qh118E qh118F qh118g
   QH122A QH122B QH122C QH122D QH122E QH122F
    QH122G QH123 house land
   memsleep h2oires h2oyrd h2opub h2obwell h2ipwell h2iowell
h2pspring h2uspring
    h2orain h2otruck h2osurf h2obot h2ooth flushs flusht latpit
latpitnf latpits latvip latbush
    latoth latshare sflushs sflusht slatpit slatpitnf slatpits
slatvip dirtfloo woodfloo
    cemtfloo vinlfloo tilefloo rugfloo prqfloo othfloo nowall
natwall bambwall stonwall
    rwoodwall cmtwall stoncwall brkwall cmtbwall woodwall othwall
noroof
    natroof bambroof wproof cardroof metroof woodroof asbroof
tileroof cmtroof shngroof othroof
    cookelec cooklpg cookchar cookwood cookdung landarea dairy1
to chicks4
    by Ncombsco, nurbscor, nrurscor
  /CELLS MEAN COUNT STDDEV.

 weight off.

save outfile="c:\hnp2a\Senegal 2012\sn12assets.sav".


GRAPH
  /HISTOGRAM(NORMAL)=combscor
  /TITLE= 'Distribution of Households by Wealth Scores Senegal
2013'.
FREQUENCIES
  VARIABLES=combscor  /FORMAT=NOTABLE
```

```
  /NTILES= 5
  /STATISTICS=STDDEV MINIMUM MAXIMUM SEMEAN MEAN MEDIAN MODE
SKEWNESS SESKEW
  KURTOSIS SEKURT
  /ORDER=  ANALYSIS .

weight off.
use all.
write formats combscor urbscore rurscore (f11.5).

WRITE OUTFILE='c:\hnp2a\Senegal 2012\sn12scores.dat'
  TABLE
  /qhclust qhnumber combscor ncombsco urbscore nurbscor rurscore
nrurscor.
EXECUTE.
```