```
*{Construct Variables}.

compute hhusual=hv012.
compute hhslept=hv013.


*{Members per sleeping room}.
if (hhusual=0) hhusual=hhslept.
if (hv216>0) memsleep=trunc(hhusual/hv216).
if (hv216=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 (hv201=11) h2oires=1.
variable labels h2oires "Piped into dwelling".
compute h2oyrd=0.
if (hv201=12) h2oyrd=1.
variable labels h2oyrd "Piped into yard/plot".
compute h2opub=0.
if (hv201=13) h2opub=1.
variable labels h2opub "Public tap / standpipe".
compute h2obwell=0.
if (hv201=21) h2obwell=1.
variable labels h2obwell "Tube well or borehole".
compute h2opwell=0.
if (hv201=31) h2opwell=1.
variable labels h2opwell "Protected well".
compute h2ouwell=0.
if (hv201=32) h2ouwell=1.
variable labels h2ouwell "Unprotected well".
compute h2opspg=0.
if (hv201=41) h2opspg=1.
variable labels h2opspg "Protected spring".
compute h2ouspg=0.
if (hv201=42) h2ouspg=1.
variable labels h2ouspg "Unprotected spring".
compute h2osurf=0.
if (hv201=43) h2osurf=1.
variable labels h2osurf "Surface water-river, lake, dam, etc.".
compute h2orain=0.
if (hv201=51) h2orain=1.
variable labels h2orain "Water from rain".
compute h2otruck=0.
if (hv201=61) h2otruck=1.
variable labels h2otruck "Water from tanker truck".
compute h2ocart=0.
if (hv201=62) h2ocart=1.
variable labels h2ocart "Water from cart with small tank".
```

```
compute h2obot=0.
if (hv201=71) h2obot=1.
variable labels h2obot "Bottled water".
compute h2ooth=0.
if (hv201=96) h2ooth=1.
variable labels h2ooth "Other water source".
formats h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell h2opspg
h2ouspg h2orain h2otruck h2ocart h2osurf h2obot h2ooth (f1.0).

*{Toilet facility}.
compute flushs=0.
if (hv205=11) flushs=1.
variable labels flushs "Flush toilet to sewer".
compute flusht=0.
if (hv205=12) flusht=1.
variable labels flusht "Flush toilet to septic tank".
compute flushp=0.
if (hv205=13) flushp=1.
variable labels flushp "Flush toilet to pit latrine".
compute flushe=0.
if (hv205=14 or hv205=15) flushe=1.
variable labels flushe "Flush toilet to elsewhere or don't know".
compute latvip=0.
if (hv205=21) latvip=1.
variable labels latvip "VIP Latrine".
compute latslab=0.
if (hv205=22) latslab=1.
variable labels latslab 'Pit latrine with slab'.
compute latpit=0.
if (hv205=23) latpit=1.
variable labels latpit "Traditional pit latrine (no slab)".
compute latcomp=0.
if (hv205=41) latcomp=1.
variable labels latcomp "Composting toilet".
compute latpail=0.
if (hv205=42) latpail=1.
variable labels latpail "Bucket latrine".
compute lathang=0.
if (hv205=43) lathang=1.
variable labels lathang "Hanging toilet/latrine".
compute latbush=0.
if (hv205=31) latbush=1.
variable labels latbush "No facility/bush/field".
compute latoth=0.
if (hv205=96) latoth=1.
variable labels latoth 'Other type of latrine/toilet'.
formats flushs flusht flushp flushe latvip latslab latpit latcomp
latpail latbush latoth (f1.0).

compute latshare=0.
if (hv225=1) 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 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 slatslab=0.
var labels slatslab "Shared pit latrine with slab".
compute slatpit=0.
var labels slatpit "Shared Traditional pit latrine".
compute slatoth=0.
var labels slatoth 'Other type of latrine/toilet'.

do if (latshare=1).
  if (hv205=11) sflushs=1.
  if (hv205=12) sflusht=1.
  if (hv205=13) sflushp=1.
  if (hv205=14 or hv205=15) sflushe=1.
  if (hv205=21) slatvip=1.
  if (hv205=22) slatslab=1.
  if (hv205=23) slatpit=1.
  if (hv205=96) slatoth=1.
end if.
formats sflushs sflusht sflushp sflushe slatvip slatslab slatpit
slatoth (f1.0).


*{Flooring}.
compute dirtfloo=0.
if (hv213=11 or hv213=12) dirtfloo=1.
variable labels dirtfloo "Earth, sand, dung floor".

compute woodfloo=0.
if (hv213=21) woodfloo=1.
variable labels woodfloo "Rudimentary wood plank floor".
compute palmfloo=0.
if (hv213=22) palmfloo=1.
variable labels palmfloo "Rudimentary cane floor".
compute prqfloo=0.
if (hv213=31) prqfloo=1.
variable labels prqfloo "Polished wood floor".
compute vinlfloo=0.
if (hv213=32) vinlfloo=1.
variable labels vinlfloo "Vinyl linoleum floor".
compute tilefloo=0.
```

```
if (hv213=33) tilefloo=1.
variable labels tilefloo "Ceramic tile floor".
compute cemtfloo=0.
if (hv213=34) cemtfloo=1.
variable labels cemtfloo "Cement floor".
compute rugfloo=0.
if (hv213=35) rugfloo=1.
variable labels rugfloo "Carpeted floor".
compute othfloo=0.
if (hv213=96) othfloo=1.
variable labels othfloo "Other type of flooring".
formats dirtfloo woodfloo prqfloo tilefloo cemtfloo vinlfloo
rugfloo othfloo (f1.0).

*{Walls}.
compute nowall=0.
if (hv214=11) nowall=1.
variable labels nowall "No walls".
compute natwall=0.
if (hv214>=12 and hv214<=14) natwall=1.
variable labels natwall "Cane/palm/trunks/dirt walls".
compute strawwall=0.
if (hv214=21) strawwall=1.
variable labels strawwall "Stras walls with mud".
compute stomwall=0.
if (hv214=22) stomwall=1.
variable labels stomwall "Stone walls with mud".
compute uadobe=0.
if (hv214=23) uadobe=1.
variable labels uadobe "Uncovered adobe walls".
compute plywall=0.
if (hv214=24) plywall=1.
variable labels plywall "Plywood walls".
compute cardwall=0.
if (hv214=25) cardwall=1.
variable labels cardwall "Cardboard walls".
compute rwoodwall=0.
if (hv214=26) rwoodwall=1.
variable labels rwoodwall "Reused wood walls".
compute tarpwall=0.
if (hv214=27) tarpwall=1.
variable labels tarpwall "Tarpaulin walls".
compute cmtwall=0.
if (hv214=31) cmtwall=1.
variable labels cmtwall "Cement walls".
compute stonwall=0.
if (hv214=32) stonwall=1.
variable labels stonwall "Stone walls with lime/cement".
compute brickwall=0.
if (hv214=33) brickwall=1.
variable labels brickwall "Brick walls".
compute cmtbwall=0.
```

```
if (hv214=34) cmtbwall=1.
variable labels cmtbwall "Cement block walls".
compute cadobewall=0.
if (hv214=35) cadobewall=1.
variable labels cadobewall "Covered adobe walls".
compute woodwall=0.
if (hv214=36) woodwall=1.
variable labels woodwall "Wood planks, shingles walls".
compute slagwall=0.
if (hv214=37) slagwall=1.
variable labels slagwall "Slag walls".
compute polywall=0.
if (hv214=38) polywall=1.
variable labels polywall "Polymer cover walls".
compute concwall=0.
if (hv214=39) concwall=1.
variable labels concwall "Concrete walls".
compute othwall=0.
if (hv214=96) othwall=1.
variable labels othwall "Other type of walls".
formats nowall natwall strawwall stomwall uadobe plywall cardwall
tarpwall rwoodwall cmtwall cmtbwall woodwall brickwall
   cadobewall slagwall, polywall concwall stonwall othwall
(f1.0).

*{Roofing}.
compute noroof=0.
if (hv215=11) noroof=1.
variable labels noroof "No roof".
compute natroof=0.
if (hv215=12 or hv215=13) natroof=1.
variable labels natroof "Thatch, palm, sod roof".
compute matroof=0.
if (hv215=21) matroof=1.
variable labels matroof "Mat roof".
compute wproof=0.
if (hv215=23) wproof=1.
variable labels wproof "Wood planks roof".
compute tarroof=0.
if (hv215=24) tarroof=1.
variable labels tarroof "Tar roof".
compute tinroof=0.
if (hv215=31) tinroof=1.
variable labels tinroof "Metal roof".
compute woodroof=0.
if (hv215=32) woodroof=1.
variable labels woodroof "Wood roof".
compute fiberoof=0.
if (hv215=33) fiberoof=1.
variable labels fiberoof "Calamine/cement fiber roof".
compute tileroof=0.
if (hv215=34) tileroof=1.
```

```
variable labels tileroof "Tile roof".
compute cmtroof=0.
if (hv215=35) cmtroof=1.
variable labels cmtroof "Cement/Beton blocks roof".
compute shingroof=0.
if (hv215=36) shingroof=1.
variable labels shingroof "Roofing shingles roof".
compute tauleroof=0.
if (hv215=37) tauleroof=1.
variable labels tauleroof "Taule (tarred rough paper) roof".
compute othroof=0.
if (hv215=96) othroof=1.
variable labels othroof "Other type of roof".
formats noroof natroof matroof wproof tarroof tinroof woodroof
fiberoof tileroof cmtroof shingroof tauleroof othroof (f1.0).

*{Cooking Fuel}.
compute cookelec=0.
if (hv226=1) cookelec=1.
variable labels cookelec "Electricity for cooking".
compute cooklpg=0.
if (hv226=2) cooklpg=1.
variable labels cooklpg "LPG for cooking".
compute cookgas=0.
if (hv226=3) cookgas=1.
variable labels cookgas "Natural gas for cooking".
compute cookbio=0.
if (hv226=4) cookbio=1.
variable labels cookbio "Biogas for cooking".
compute cookkero=0.
if (hv226=5) cookkero=1.
variable labels cookkero "Kerosene for cooking".
compute cookcoal=0.
if (hv226=6) cookcoal=1.
variable labels cookcoal "Coal/lignite for cooking".
compute cookchar=0.
if (hv226=7) cookchar=1.
variable labels cookchar "Charcoal for cooking".
compute cookwood=0.
if (hv226=8) cookwood=1.
variable labels cookwood "Wood for cooking".
compute cookstraw=0.
if (hv226=9) cookstraw=1.
variable labels cookstraw "Straw/shrubs/grass for cooking".
compute cookcrop=0.
if (hv226=10) cookcrop=1.
variable labels cookcrop "Ag. crops for cooking".
compute cookdung=0.
if (hv226=11) cookdung=1.
variable labels cookdung "Dung for cooking".
compute cooknone=0.
if (hv226=95) cooknone=1.
```

```
variable labels cooknone 'Does not cook'.
compute cookoth=0.
if (hv226=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}.
do repeat xamen=hv206 to hv212 hv221 hv243a hv243b hv243c hv243d
hv247 sh110c to sh110g sh110j
                              sh110l to sh110z sh118g sh118h.
if (missing(xamen) | xamen<>1) xamen=0.
end repeat.

* Land.
compute landarea=hv245/10.
if (missing(hv245) | hv245=998) landarea=$sysmis.
if (missing(hv244) | hv244<>1) landarea=0.
frequencies hv245 landarea.


*Animals.
do repeat anim=hv246a to hv246g hv246i.
if (missing(hv246) | hv246 <>1) anim=0.
end repeat.

missing values hv246b to hv246g hv246i (98,99).

* Bank account.
if (missing(hv247) | hv247<>1) hv247=0.

* Compute urban and rural variables coded (1/0) for filters
later.
COMPUTE urban=(hv025 = 1).
COMPUTE rural=(hv025 = 2).
VARIABLE LABELS urban 'Urban' / rural 'Rural'.
VALUE LABELS urban 1 'Urban' / rural 1 'Rural'.
FORMATS urban rural (f1.0).

execute.


* Check on indicator variable creation.

FREQUENCIES VARIABLES=HV025 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 hv246g hv246i HV247
    sh110c to sh110g sh110j sh110l to sh110z sh118g sh118h
    HOUSE LAND
```

```
   /ORDER=ANALYSIS.


FREQUENCIES VARIABLES=hhusual hhslept memsleep h2oires h2oyrd
h2opub h2obwell h2opwell h2ouwell
    h2opspg h2ouspg h2osurf h2otruck h2ocart h2obot h2ooth flushs
flusht flushp flushe latvip
    latslab latpit latpail latbush latshare sflushs sflushp
    slatvip slatslab slatpit dirtfloo woodfloo palmfloo prqfloo
vinlfloo tilefloo cemtfloo
    rugfloo othfloo nowall natwall strawwall stomwall uadobe
plywall cardwall rwoodwall
    cmtwall stonwall brickwall cmtbwall cadobewall woodwall
slagwall polywall concwall othwall noroof
    natroof matroof wproof tarroof tinroof woodroof fiberoof
tileroof cmtroof shingroof
    othroof cookelec cooklpg cookgas cookbio cookkero cookcoal
cookchar cookwood cookstraw cookcrop
    cookdung cooknone landarea
  /ORDER=ANALYSIS.

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

save outfile="c:\hnp2a\Kyrgyz Republic 2011\KY11assets.sav".

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

FACTOR
  /VARIABLES HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV213
HV214 HV215
    HV216 HV221 HV225 HV226 HV243A HV243B HV243C HV243D HV244
HV246 HV246A HV246B HV246C HV246D
    HV246E HV246F HV246G HV246I HV247 sh110c to sh110g sh110j
sh110l to sh110z sh118g sh118h
    HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
    h2opspg h2ouspg h2osurf h2otruck h2ocart h2obot h2ooth flushs
flusht flushp flushe latvip
    latslab latpit latpail latbush latshare sflushs sflushp
    slatvip slatslab slatpit dirtfloo woodfloo palmfloo prqfloo
vinlfloo tilefloo cemtfloo
    rugfloo othfloo nowall natwall strawwall stomwall uadobe
plywall cardwall rwoodwall
    cmtwall stonwall brickwall cmtbwall cadobewall woodwall
slagwall polywall concwall othwall noroof
    natroof matroof wproof tarroof tinroof woodroof fiberoof
tileroof cmtroof shingroof
    othroof cookelec cooklpg cookgas cookbio cookkero cookcoal
cookchar cookwood cookstraw cookcrop
    cookdung cooknone landarea
```

```
  /MISSING MEANSUB
  /ANALYSIS  HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV213
HV214 HV215
     HV216 HV221 HV225 HV226 HV243A HV243B HV243C HV243D HV244
HV246 HV246A HV246B HV246C HV246D
     HV246E HV246F HV246G HV246I HV247 sh110c to sh110g sh110j
sh110l to sh110z sh118g sh118h
     HOUSE LAND
     memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
     h2opspg h2ouspg h2osurf h2otruck h2ocart h2obot h2ooth flushs
flusht flushp flushe latvip
     latslab latpit latpail latbush latshare sflushs sflushp
     slatvip slatslab slatpit dirtfloo woodfloo palmfloo prqfloo
vinlfloo tilefloo cemtfloo
     rugfloo othfloo nowall natwall strawwall stomwall uadobe
plywall cardwall rwoodwall
     cmtwall stonwall brickwall cmtbwall cadobewall woodwall
slagwall polywall concwall othwall noroof
     natroof matroof wproof tarroof tinroof woodroof fiberoof
tileroof cmtroof shingroof
     othroof cookelec cooklpg cookgas cookbio cookkero cookcoal
cookchar cookwood cookstraw cookcrop
     cookdung cooknone 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 ****.
** Agricultural animal variables excluded.
** Any others ?.

FACTOR
  /VARIABLES  HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV213
HV214 HV215
     HV216 HV221 HV225 HV226 HV243A HV243B HV243C HV243D  HV247
sh110c to sh110g sh110j sh110l to sh110z sh118g sh118h
     HOUSE
     memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
     h2opspg h2ouspg h2osurf h2otruck h2ocart h2obot h2ooth flushs
flusht flushp flushe latvip
     latslab latpit latpail latbush latshare sflushs sflushp
     slatvip slatslab slatpit dirtfloo woodfloo palmfloo prqfloo
vinlfloo tilefloo cemtfloo
```

```
      rugfloo othfloo nowall natwall strawwall stomwall uadobe
plywall cardwall rwoodwall
      cmtwall stonwall brickwall cmtbwall cadobewall woodwall
slagwall polywall concwall othwall noroof
      natroof matroof wproof tarroof tinroof woodroof fiberoof
tileroof cmtroof shingroof
      othroof cookelec cooklpg cookgas cookbio cookkero cookcoal
cookchar cookwood cookstraw cookcrop
      cookdung cooknone
  /MISSING MEANSUB
  /ANALYSIS HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV213 HV214
HV215
      HV216 HV221 HV225 HV226 HV243A HV243B HV243C HV243D  HV247
sh110c to sh110g sh110j sh110l to sh110z sh118g sh118h
      HOUSE
      memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
      h2opspg h2ouspg h2osurf h2otruck h2ocart h2obot h2ooth flushs
flusht flushp flushe latvip
      latslab latpit latpail latbush latshare sflushs sflushp
      slatvip slatslab slatpit dirtfloo woodfloo palmfloo prqfloo
vinlfloo tilefloo cemtfloo
      rugfloo othfloo nowall natwall strawwall stomwall uadobe
plywall cardwall rwoodwall
      cmtwall stonwall brickwall cmtbwall cadobewall woodwall
slagwall polywall concwall othwall noroof
      natroof matroof wproof tarroof tinroof woodroof fiberoof
tileroof cmtroof shingroof
      othroof cookelec cooklpg cookgas cookbio cookkero cookcoal
cookchar cookwood cookstraw cookcrop
      cookdung cooknone
  /PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
  /CRITERIA FACTORS(1) ITERATE(25)
  /EXTRACTION PC
  /ROTATION NOROTATE
  /SAVE REG(ALL COM)
  /METHOD=CORRELATION.


weight off.

FILTER OFF.
USE ALL.
EXECUTE.

RANK VARIABLES=com1 (A) /RANK /NTILES (5) /PRINT=YES /TIES=MEAN.


** Now do the optimal binning.

compute cattle=hv246a.
compute dairy=hv246b.
compute equine=hv246c.
```

```
compute goats=hv246d.
compute sheep=hv246e.
compute chicks=hv246f.
compute pigs=hv246g.
compute hives=hv246i.
execute.

FREQUENCIES VARIABLES=cattle to hives.

** 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 cattle1 to cattle4 dairy1 to dairy4 equine1 to equine4,
goats1 to goats4, sheep1 to sheep4 chicks1 to chicks4 pigs1 to
pigs4 hives1 to hives4.
do repeat  lgan=dairy to hives
                /lg1=cattle1 dairy1 equine1 goats1 sheep1 pigs1
hives1
                /lg2=cattle2 dairy2 equine2 goats2 sheep2 pigs2
hives2
                /lg3=cattle3 dairy3 equine3 goats3 sheep3 pigs3
hives3
                /lg4=cattle4 dairy4 equine4 goats4 sheep4 pigs4
hives4.
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 hives1 1 'Zero'.
value labels dairy2 equine2 goats2 sheep2 pigs2 hives2 1 '1 to
4'.
value labels dairy3 equine3 goats3 sheep3 pigs3 hives3 1 '5 to
9'.
value labels dairy4 equine4 goats4 sheep4 pigs4 hives4 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 cattle1 to hives4.

USE ALL.
FILTER BY urban.
EXECUTE.

*OPTIMAL BINNING
  /variables guide=ncom1 bin=landarea  save=yes (into=landgrpu)
 /CRITERIA preprocess=EQUALFREQ
                  method=MDLP
                  LOWEREND =OBSERVED

                          UPPEREND =OBSERVED
 /MISSING SCOPE = PAIRWISE.

*NUMERIC lagu1 to lagu4.
*VECTOR lagv = lagu1 to lagu4.
*LOOP #i = 1 to 4.
*COMPUTE lagv(#i) = (landgrpu = #i).
*END LOOP.
*EXECUTE.

FACTOR
  /VARIABLES  HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV213
HV214 HV215
    HV216 HV221 HV225 HV226 HV243A HV243B HV243C HV243D HV244
HV246 HV246A HV246B HV246C HV246D
    HV246E HV246F HV246G HV246I HV247 sh110c to sh110g sh110j
sh110l to sh110z sh118g sh118h
    HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
    h2opspg h2ouspg h2osurf h2otruck h2obot h2ooth flushs flusht
flushp flushe latvip
    latslab latpit latpail latshare sflushs
    slatvip slatslab slatpit dirtfloo woodfloo palmfloo prqfloo
vinlfloo tilefloo cemtfloo
    rugfloo othfloo natwall strawwall stomwall uadobe plywall
rwoodwall
    cmtwall stonwall brickwall cmtbwall cadobewall woodwall
slagwall polywall concwall
    matroof wproof tarroof tinroof woodroof fiberoof tileroof
cmtroof shingroof
    othroof cookelec cooklpg cookgas cookbio cookcoal cookchar
cookwood cookstraw cookcrop
```

```
       cookdung cooknone landarea cattle1 to hives4
   /MISSING MEANSUB
   /ANALYSIS   HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV213
HV214 HV215
      HV216 HV221 HV225 HV226 HV243A HV243B HV243C HV243D HV244
HV246 HV246A HV246B HV246C HV246D
      HV246E HV246F HV246G HV246I HV247 sh110c to sh110g sh110j
sh110l to sh110z sh118g sh118h
      HOUSE LAND
      memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
      h2opspg h2ouspg h2osurf h2otruck h2obot h2ooth flushs flusht
flushp flushe latvip
      latslab latpit latpail latshare sflushs
      slatvip slatslab slatpit dirtfloo woodfloo palmfloo prqfloo
vinlfloo tilefloo cemtfloo
      rugfloo othfloo natwall strawwall stomwall uadobe plywall
rwoodwall
      cmtwall stonwall brickwall cmtbwall cadobewall woodwall
slagwall polywall concwall
      matroof wproof tarroof tinroof woodroof fiberoof tileroof
cmtroof shingroof
      othroof cookelec cooklpg cookgas cookbio cookcoal cookchar
cookwood cookstraw cookcrop
      cookdung cooknone landarea cattle1 to hives4
   /PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
   /CRITERIA FACTORS(1) ITERATE(25)
   /EXTRACTION PC
   /ROTATION NOROTATE
   /SAVE REG(ALL URB)
   /METHOD=CORRELATION.

means urb1 by  cattle1 to hives4.

USE ALL.
FILTER BY rural.
EXECUTE.

OPTIMAL BINNING
  /variables guide=ncom1 bin=landarea save=yes (into=landgrpr)
 /CRITERIA preprocess=EQUALFREQ
                 method=MDLP
                 LOWEREND =OBSERVED

                          UPPEREND =OBSERVED
 /MISSING SCOPE = PAIRWISE.

Frequencies landgrpr.

NUMERIC lagr1 to lagr3.
VECTOR lagv = lagr1 to lagr3.
LOOP #i = 1 to 3.
COMPUTE lagv(#i) = (landgrpr = #i).
```

```
END LOOP.
EXECUTE.


FACTOR
  /VARIABLES   HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV213
HV214 HV215
     HV216 HV221 HV225 HV226 HV243A HV243B HV243C HV243D HV244
HV246 HV246A HV246B HV246C HV246D
     HV246E HV246F HV246G HV246I HV247 sh110c to sh110g sh110j
sh110l to sh110z sh118g sh118h
     HOUSE LAND
     memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
     h2opspg h2ouspg h2osurf h2otruck h2ocart h2obot h2ooth flushs
flusht flushp latvip
     latslab latpit latbush latshare sflushp
     slatvip slatslab slatpit dirtfloo woodfloo palmfloo prqfloo
vinlfloo tilefloo cemtfloo
     rugfloo othfloo nowall natwall strawwall stomwall uadobe
plywall cardwall rwoodwall
     cmtwall stonwall brickwall cmtbwall cadobewall woodwall
slagwall polywall concwall othwall noroof
     natroof matroof wproof tarroof tinroof woodroof fiberoof
tileroof cmtroof
     othroof cookelec cooklpg cookgas cookbio cookkero cookcoal
cookchar cookwood cookstraw cookcrop
     cookdung cattle1 to hives4 lagr1 to lagr3
   /MISSING MEANSUB
  /ANALYSIS      HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV213
HV214 HV215
     HV216 HV221 HV225 HV226 HV243A HV243B HV243C HV243D HV244
HV246 HV246A HV246B HV246C HV246D
     HV246E HV246F HV246G HV246I HV247 sh110c to sh110g sh110j
sh110l to sh110z sh118g sh118h
     HOUSE LAND
     memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
     h2opspg h2ouspg h2osurf h2otruck h2ocart h2obot h2ooth flushs
flusht flushp latvip
     latslab latpit latbush latshare sflushp
     slatvip slatslab slatpit dirtfloo woodfloo palmfloo prqfloo
vinlfloo tilefloo cemtfloo
     rugfloo othfloo nowall natwall strawwall stomwall uadobe
plywall cardwall rwoodwall
     cmtwall stonwall brickwall cmtbwall cadobewall woodwall
slagwall polywall concwall othwall noroof
     natroof matroof wproof tarroof tinroof woodroof fiberoof
tileroof cmtroof
     othroof cookelec cooklpg cookgas cookbio cookkero cookcoal
cookchar cookwood cookstraw cookcrop
     cookdung cattle1 to hives4 lagr1 to lagr3
  /PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
  /CRITERIA FACTORS(1) ITERATE(25)
  /EXTRACTION PC
```

```
   /ROTATION NOROTATE
   /SAVE REG(ALL RUR)
   /METHOD=CORRELATION.
means rur1 by cattle1 to hives4 lagr1 to lagr3.

* 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.

** Urban Area.


*Tabulation for histograms.
compute hhwt = hv005/1000000.
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=hv005*hhusual/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=
    HV206 HV207 HV208 HV209 HV210 HV211 HV212
    HV216 HV221 HV225 HV243A HV243B HV243C HV243D HV244 HV246
HV246A HV246B HV246C HV246D
    HV246E HV246F HV246G HV246I HV247 sh110c to sh110g sh110j
sh110l to sh110z sh118g sh118h
```

```
     HOUSE LAND
     memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
     h2opspg h2ouspg h2osurf h2otruck h2ocart h2obot h2ooth flushs
flusht flushp flushe latvip
     latslab latpit latpail latbush latshare sflushs sflushp
     slatvip slatslab slatpit dirtfloo woodfloo palmfloo prqfloo
vinlfloo tilefloo cemtfloo
     rugfloo othfloo nowall natwall strawwall stomwall uadobe
plywall cardwall rwoodwall
     cmtwall stonwall brickwall cmtbwall cadobewall woodwall
slagwall polywall concwall othwall noroof
     natroof matroof wproof tarroof tinroof woodroof fiberoof
tileroof cmtroof shingroof
     othroof cookelec cooklpg cookgas cookbio cookkero cookcoal
cookchar cookwood cookstraw cookcrop
     cookdung cooknone landarea lagr1 to lagr3 cattle1 to hives4
     by Ncombsco
   /CELLS MEAN COUNT STDDEV.

WEIGHT OFF.

save outfile="c:\hnp2a\Kyrgyz Republic 2011\KY11assets.sav".

*** Write out scores file.
WRITE OUTFILE="c:\hnp2a\Kyrgyz Republic 2011\KY11scores.dat"
   TABLE
   /hhid combscor ncombsco urbscore nurbscor rurscore nrurscor.
EXECUTE.
```