FREQ hv015.
SELECT IF hv015 = 1.
FREQ hv015.
FREQ HV201 HV205 HV206 HV207 HV208 HV209 HV210 HV211
HV212 HV213 HV214 HV215 HV216 HV221 HV226 HV243A HV243C HV243D SH103G SH103H SH109F SH109G SH109H SH109I SH109J SH109K SH109M SH109AA SH109AB.
*begin recoding into dichotomized variables.
*WATER SOURCE.
COMPUTE h2oires = 0 .
IF (hv201 = 11) h2oires = 1 .
VARIABLE LABELS h2oires "if water is piped into residence". VALUE LABELS h2oires 0 "water not piped into residence"

1 "water is piped into residence".
COMPUTE h2oyard $=0$.
IF (hv201 = 12) h2oyard $=1$.
VARIABLE LABELS h2oyard "if water is piped into compound/plot". VALUE LABELS h2oyard 0 "water is not piped into compound/plot"

1 "water is piped into compound/plot".
COMPUTE h2opub $=0$.
IF (hv201 = 13) h2opub $=1$.
VARIABLE LABELS h2opub "if gets water from a public tap". VALUE LABELS h2opub 0 "does not get water from a public tap"

1 "gets water from a public tap".
COMPUTE h2otube = 0 .
IF (hv201 = 21) h2otube $=1$.
VARIABLE LABELS h2otube "if gets water from tubewell or borehole".
VALUE LABELS h2otube 0 "does not get water from tubewell or borehole"

1 "gets water from tubewell or borehole".
COMPUTE h2opwell $=0$.
IF (hv201 = 31) h2opwell = 1.
VARIABLE LABELS h2opwell "if gets water from a protected well". VALUE LABELS h2opwell 0 "does not get water from a protected well"

1 "gets water from a protected well".
COMPUTE h2upwell = 0.
IF (hv201 = 32) h2upwell = 1 .
VARIABLE LABELS h2upwell "if gets water from an unprotected
well".
VALUE LABELS h2upwell 0 "does not get water from an unprotected well"

1 "gets water from an unprotected well".
COMPUTE h2spring $=0$.
IF (hv201 = $41 \mid$ hv201 $=42$ ) h2spring $=1$.
VARIABLE LABELS h2spring "if gets water from a spring".
VALUE LABELS h2spring 0 "does not get water from a spring" 1 "gets water from a spring".

COMPUTE h2osurf = 0 .
IF (hv201 = 43) h2osurf = 1 .
VARIABLE LABELS h2osurf "if gets water from river, stream, pond, lake or dam".
VALUE LABELS h2osurf 0 "does not get water from surface sources" 1 "gets water from surface sources".

COMPUTE h2obottl $=0$.
IF (hv201 = 71) h2obottl = 1 .
VARIABLE LABELS h2obottl "if uses bottled drinking water".
VALUE LABELS h2obottl 0 "does not use bottled drinking water"
1 "uses bottled drinking water".
COMPUTE h2ooth $=0$.
IF (hv201 = $51 \mid$ hv201 = $61 \mid$ hv201 = 96) h2ooth $=1$.
VARIABLE LABELS h2ooth "if gets water from other source".
VALUE LABELS h2ooth 0 "does not get water from other source" 1 "gets water from other source".
*TOILET TYPES.
COMPUTE flushs = 0.
IF (hv205 = 11) flushs = 1 .
VARIABLE LABELS flushs "if has flush toilet to sewer".
VALUE LABELS flushs 0 "does not have flush toilet to sewer"
1 "has flush toilet to sewer".
COMPUTE flushspt = 0.
IF (hv205 = 12) flushspt = 1 .
VARIABLE LABELS flushspt "if has flush toilet to septic".
VALUE LABELS flushspt 0 "does not have flush toilet to septic"
1 "has flush toilet to septic".
COMPUTE flusho $=0$.
IF (hv205 > 12 \& hv205 < 16) flusho = 1.
VARIABLE LABELS flusho "if has flush toilet to non-sewer, nonseptic".
VALUE LABELS flusho 0 "does not have flush toilet to non-sewer" 1 "has flush toilet to non-sewer".

```
COMPUTE latvip = 0.
IF (hv205 = 21) latvip = 1.
VARIABLE LABELS latvip "if uses pit latrine (VIP)".
VALUE LABELS latvip 0 "does not use pit latrine"
    1 "uses pit latrine".
COMPUTE latpits = 0.
IF (hv205 = 22) latpits = 1.
VARIABLE LABELS latpits "if uses own pit latrine with slab".
VALUE LABELS latpits 0 "does not use own pit latrine with slab"
    1 "uses own pit latrine with slab".
COMPUTE latpito = 0.
IF (hv205 = 23) latpito = 1.
VARIABLE LABELS latpito "if uses own pit latrine without slab".
VALUE LABELS latpito 0 "does not use own pit latrine without
slab"
    1 "uses own pit latrine without slab".
COMPUTE latbush = 0.
IF (hv205 = 31) latbush = 1.
VARIABLE LABELS latbush "if uses the bush".
VALUE LABELS latbush 0 "does not use the bush"
    1 "uses the bush".
COMPUTE latother = 0.
IF (hv205 > 31) latother = 1.
VARIABLE LABELS latother "if uses some other type of facility".
VALUE LABELS latother 0 "does not use some other type of
facility"
    1 "uses some other type of facility".
```

```
*AMENITIES.
COMPUTE electric = 0.
IF (hv206 = 1) electric = 1.
VARIABLE LABELS electric "if household has electric".
VALUE LABELS electric 0 "no electric"
    1 "has electric".
COMPUTE radio = 0.
IF (hv207 = 1) radio = 1.
VARIABLE LABELS radio "if household has radio".
VALUE LABELS radio 0 "no radio"
    1 "has radio".
COMPUTE tv = 0.
IF (hv208 = 1) tv = 1.
VARIABLE LABELS tv "if household has tv".
VALUE LABELS tv 0 "no tv"
    1 "has tv".
```

```
COMPUTE fridge = 0.
IF (hv209 = 1) fridge = 1.
VARIABLE LABELS fridge "if household has fridge".
VALUE LABELS fridge 0 "no fridge"
    1 "has fridge".
COMPUTE bicycle = 0.
IF (hv210 = 1) bicycle = 1.
VARIABLE LABELS bicycle "if household has bicycle".
VALUE LABELS bicycle 0 "no bicycle"
    1 "has bicycle".
COMPUTE motobk = 0.
IF (hv211 = 1) motobk = 1.
VARIABLE LABELS motobk "if household has motorcycle or scooter".
VALUE LABELS motobk 0 "no motorbike/scooter"
                                    1 "has motorbike/scooter".
COMPUTE car = 0.
IF (hv212 = 1) car = 1.
VARIABLE LABELS car "if household has car or truck".
VALUE LABELS car 0 "no car/truck"
    1 "has car/truck".
COMPUTE mphone = 0.
IF (hv243a = 1) mphone = 1.
VARIABLE LABELS mphone "if household has mobile phone".
VALUE LABELS mphone 0 "no mobile phone"
    1 "house has mobile phone".
COMPUTE cart = 0.
IF (hv243c = 1) cart = 1.
VARIABLE LABELS cart "if household has cart".
VALUE LABELS cart 0 "no cart"
    1 "has cart".
COMPUTE boat = 0.
IF (hv243d = 1) boat = 1.
VARIABLE LABELS boat "if household has boat w motor".
VALUE LABELS boat 0 "no boat"
                                    1 "has boat".
COMPUTE stove = 0.
IF (sh103g = 1) stove = 1.
VARIABLE LABELS stove "if household has a stove".
VALUE LABELS stove 0 "stove"
    1 "has a stove".
COMPUTE impkit = 0.
IF (sh103h = 1) impkit = 1.
VARIABLE LABELS impkit "if household has an improved kitchen".
```

```
VALUE LABELS impkit 0 "no improved kitchen"
    1 "has an improved kitchen".
COMPUTE plow = 0.
IF (sh109f = 1) plow = 1.
VARIABLE LABELS plow "if household has a plow".
VALUE LABELS plow 0 "no plow"
                                    1 "has a plow".
COMPUTE horse = 0.
IF (sh109g = 1) horse = 1.
VARIABLE LABELS horse "if household has a horse".
VALUE LABELS horse 0 "no horse"
    1 "has a horse".
COMPUTE moo = 0.
IF (sh109h = 1) moo = 1.
VARIABLE LABELS moo "if household has cows/bulls".
VALUE LABELS moo 0 "no cows/bulls"
                                    1 "has cows/bulls".
COMPUTE camel = 0.
IF (sh109i = 1) camel = 1.
VARIABLE LABELS camel "if household has camel".
VALUE LABELS camel 0 "no camel"
    1 "has camel".
COMPUTE donkey = 0.
IF (sh109j = 1) donkey = 1.
VARIABLE LABELS donkey "if household has a donkey".
VALUE LABELS donkey
0 "no plow"
1 "has a plow".
COMPUTE sheep \(=0\).
IF (sh109k = 1) sheep = 1 .
VARIABLE LABELS sheep "if household has a sheep/goat".
VALUE LABELS sheep 0 "no sheep/goat"
1 "has a sheep/goat".
```

IF (MISSING(hv216)) hv216 = hv012.
EXECUTE.
COMPUTE memsleep = (hv012/hv216).
VARIABLE LABELS memsleep "number of members per sleeping room".
*FLOOR TYPE.

```
COMPUTE dirtfloo = 0.
IF (hv213 = 11) dirtfloo = 1.
VARIABLE LABELS dirtfloo "if floor is earth/sand".
VALUE LABELS dirtfloo 0 "floor is not earthen"
    1 "floor is earthen".
COMPUTE dungfloo = 0.
IF (hv213 = 12) dungfloo = 1.
VARIABLE LABELS dungfloo "if floor is dung".
VALUE LABELS dungfloo 0 "floor is not dung"
                    1 "floor is dung".
COMPUTE vinfloo = 0.
IF (hv213 = 32) vinfloo = 1.
VARIABLE LABELS vinfloo "if floor is of vinyl/asphalt strips".
VALUE LABELS vinfloo 0 "floor is not of vinyl/asphalt strips"
                                    1 "floor is of vinyl/asphalt strips".
COMPUTE cerafloo = 0.
IF (hv213 = 31 | hv213 = 33) cerafloo = 1.
VARIABLE LABELS cerafloo "if flooring is of ceramic tiles (+2
parquet)".
VALUE LABELS cerafloo 0 "floor is not of ceramic tiles"
    1 "floor is of ceramic tiles".
COMPUTE cemtfloo = 0.
IF (hv213 = 34) cemtfloo = 1.
VARIABLE LABELS cemtfloo "if floor is of cement".
VALUE LABELS cemtfloo 0 "floor is not cement"
    1 "floor is cement".
COMPUTE carpfloo = 0.
IF (hv213 = 35) carpfloo = 1.
VARIABLE LABELS carpfloo "if floor is of carpet".
VALUE LABELS carpfloo 0 "floor is not carpet"
    1 "floor is carpet".
COMPUTE othfloo = 0.
IF (hv213 = 96) othfloo = 1.
VARIABLE LABELS othfloo "if floor is of other material".
VALUE LABELS othfloo 0 "floor is not other material"
                                1 "floor is other material".
```

* TYPE OF WALL MATERIALS.
COMPUTE nowall = 0 .
IF (hv214 = 11) nowall = 1.
VARIABLE LABELS nowall "if no walls".
VALUE LABELS nowall 0 "has walls"
1 "doesn't have walls".

```
COMPUTE grnwall = 0.
IF (hv214 = 12) grnwall = 1.
VARIABLE LABELS grnwall "if wall made of cane/palm/trunks/grass
materials".
VALUE LABELS grnwall 0 "wall is not made of green materials"
    1 "wall is made of green materials".
COMPUTE dirtwall = 0.
IF (hv214 = 13) dirtwall = 1.
VARIABLE LABELS dirtwall "if wall made of dirt".
VALUE LABELS dirtwall 0 "wall is not made of dirt"
    1 "wall is made of dirt".
COMPUTE bamwall = 0.
IF (hv214 = 21) bamwall = 1.
VARIABLE LABELS bamwall "if wall made of bamboo w mud".
VALUE LABELS bamwall 0 "wall is not made of bamboo w mud"
    1 "wall is made of bamboo w mud".
COMPUTE mudwall = 0.
IF (hv214 = 22) mudwall = 1.
VARIABLE LABELS mudwall "if wall made of stone w mud".
VALUE LABELS mudwall 0 "wall is not made of stone w mud"
1 "wall is made of stone w mud".
COMPUTE rwdwall = 0.
IF (hv214 = 23 | hv214 = 24 | hv214 = 26) rwdwall = 1.
VARIABLE LABELS rwdwall "if wall made of reused wood (+8 unc-
adobe +2 plywd)".
VALUE LABELS rwdwall 0 "wall is not made of reused wood"
1 "wall is made of reused wood".
COMPUTE cmtwall = 0.
IF (hv214 = 31) cmtwall = 1.
VARIABLE LABELS cmtwall "if wall made of cement".
VALUE LABELS cmtwall 0 "wall is not made of cement"
1 "wall is made of cement".
COMPUTE stonwall = 0.
IF (hv214 = 32) stonwall = 1.
VARIABLE LABELS stonwall "if wall made of stone w lime/cement".
VALUE LABELS stonwall 0 "wall is not made of stone w lime/cement"
    1 "wall is made of stone w lime/cement".
COMPUTE brckwall = 0.
IF (hv214 = 33) brckwall = 1.
VARIABLE LABELS brckwall "if wall made of brick".
VALUE LABELS brckwall 0 "wall is not made of brick"
    1 "wall is made of brick".
COMPUTE blckwall = 0.
```

```
IF (hv214 = 34) blckwall = 1.
VARIABLE LABELS blckwall "if wall made of cemt block".
VALUE LABELS blckwall 0 "wall is not made of cemt block"
1 "wall is made of cemt block".
COMPUTE finwall = 0.
IF (hv214 = 35 | hv214 = 36) finwall = 1.
VARIABLE LABELS finwall "if wall made of finished materials (+12
cov-adobe, +41 wood planks)".
VALUE LABELS finwall 0 "wall is not made of finished materials"
1 "wall is made of finished materials".
COMPUTE othwall = 0.
IF (hv214 = 96) othwall = 1.
VARIABLE LABELS othwall "if wall made of other materials".
VALUE LABELS othwall 0 "wall is not made of other
materials"
1 "wall is made of other materials".
```

*TYPE OF ROOFING MATERIALS.
COMPUTE natroof $=0$.
IF (hv215 = 11 | hv215 = 12) natroof $=1$.
VARIABLE LABELS natroof "if has grass/thatch/palm roofing".
VALUE LABELS natroof 0 "no grass/thatch/palm roofing"
1 "has grass/thatch/palm roofing".
COMPUTE sodroof = 0 .
IF (hv215 = 13) sodroof = 1 .
VARIABLE LABELS sodroof "if has sod roofing".
VALUE LABELS sodroof 0 "no sod roofing"
1 "has sod roofing".
COMPUTE rudroof = 0 .
IF (hv215 > 20 \& hv215 < 25) rudroof $=1$.
VARIABLE LABELS rudroof "if has roof made of wood planks, mat,
palm/bamboo".
VALUE LABELS rudroof 0 "does not have roof made of wood planks"
1 "has roof made of wood planks".
COMPUTE ironroof $=0$.
IF (hv215 = 31) ironroof = 1 .
VARIABLE LABELS ironroof "if roof made of metal".
VALUE LABELS ironroof 0 "roof not made of metal"
1 "roof made of metal".
COMPUTE woodroof = 0 .
IF (hv215 = 32) woodroof = 1 .

```
VARIABLE LABELS woodroof "if has roof made of wood".
VALUE LABELS woodroof 0 "does not have roof made of wood"
    1 "has roof made of wood".
COMPUTE cmtfroof = 0.
IF (hv215 = 33) cmtfroof = 1.
VARIABLE LABELS cmtfroof "if roof made of calamine/cement fiber".
VALUE LABELS cmtfroof 0 "roof not made of calamine/cement fiber"
    1 "roof made of calamine/cement fiber".
COMPUTE tileroof = 0.
IF (hv215 = 34) tileroof = 1.
VARIABLE LABELS tileroof "if roof made of ceramic tiles".
VALUE LABELS tileroof 0 "roof not made of ceramic tiles"
1 "roof made of ceramic tiles".
COMPUTE concroof = 0.
IF (hv215 = 35) concroof = 1.
VARIABLE LABELS concroof "if roof is made of cement".
VALUE LABELS concroof 0 "roof is not made of cement"
1 "roof is made of cement".
COMPUTE shngroof = 0.
IF (hv215 = 36) shngroof = 1.
VARIABLE LABELS shngroof "if roof made of roofing shingles".
VALUE LABELS shngroof 0 "roof not made of roofing shingles"
                    1 "roof made of roofing shingles".
COMPUTE othroof = 0.
IF (hv215 = 96) othroof = 1.
VARIABLE LABELS othroof "if roof is made of other materials".
VALUE LABELS othroof 0 "roof is not made of other materials"
    1 "roof is made of other materials".
*TYPE OF COOKING FUEL.
COMPUTE cooklpg = 0.
IF (hv226 = 1 | hv226 = 2) cooklpg = 1.
VARIABLE LABELS cooklpg "if uses LPG for cooking (+9 elec)".
VALUE LABELS cooklpg 0 "does not use LPG for cooking"
                    1 "uses LPG for cooking".
COMPUTE cookcoal = 0.
IF (hv226 = 7) cookcoal = 1.
VARIABLE LABELS cookcoal "if uses charcoal for cooking".
VALUE LABELS cookcoal 0 "does not use charcoal for cooking"
    1 "uses charcoal for cooking".
COMPUTE cookwood = 0.
IF (hv226 = 9) cookwood = 1.
```

```
VARIABLE LABELS cookwood "if uses straw/shrubs/grass for cooking
fuel".
VALUE LABELS cookwood 0 "does not use straw/shrubs/grass for
cooking"
    1 "uses straw/shrubs/grass for cooking".
COMPUTE cookdung = 0.
IF (hv226 = 11) cookdung = 1.
VARIABLE LABELS cookdung "if uses dung for cooking fuel".
VALUE LABELS cookdung 0 "does not use dung for cooking"
                    1 "uses dung for cooking".
COMPUTE cookoth = 0.
IF (hv226 = 96) cookoth = 1.
VARIABLE LABELS cookoth "other".
VALUE LABELS cookoth 0 "not other"
    1 "other cookfuel source".
```


## EXECUTE.

FREQ h2oires h2oyard h2opub h2otube h2opwell h2upwell h2spring h2osurf
h2obottl h2ooth flushs flushspt flusho latvip latpits latpito latbush latother electric radio tv fridge bicycle motobk car mphone cart boat stove impkit plow horse moo
camel donkey sheep memsleep dirtfloo dungfloo vinfloo cerafloo cemtfloo carpfloo
othfloo nowall grnwall dirtwall bamwall mudwall rwdwall cmtwall stonwall brckwall
blckwall finwall othwall natroof sodroof rudroof ironroof woodroof cmtfroof tileroof concroof shngroof othroof cooklpg cookcoal cookwood cookdung cookoth.

## FACTOR

/VARIABLES h2oires h2oyard h2opub h2otube h2opwell h2upwell h2spring h2osurf h2obottl h2ooth flushs flushspt flusho latvip latpits latpito latbush latother electric radio tv fridge bicycle motobk car mphone cart boat stove impkit plow horse moo camel donkey sheep memsleep dirtfloo dungfloo vinfloo cerafloo cemtfloo carpfloo
othfloo nowall grnwall dirtwall bamwall mudwall rwdwall cmtwall stonwall brckwall
blckwall finwall othwall natroof sodroof rudroof ironroof woodroof cmtfroof tileroof

```
concroof shngroof othroof cooklpg cookcoal cookwood cookdung
cookoth
    /MISSING MEANSUB /ANALYSIS h2oires h2oyard h2opub h2otube
h2opwell h2upwell h2spring h2osurf
h2obottl h2ooth flushs flushspt flusho latvip latpits latpito
latbush latother electric
radio tv fridge bicycle motobk car mphone cart boat stove impkit
plow horse moo
camel donkey sheep memsleep dirtfloo dungfloo vinfloo cerafloo
cemtfloo carpfloo
othfloo nowall grnwall dirtwall bamwall mudwall rwdwall cmtwall
stonwall brckwall
blckwall finwall othwall natroof sodroof rudroof ironroof
woodroof cmtfroof tileroof
concroof shngroof othroof cooklpg cookcoal cookwood cookdung
cookoth
    /PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
    /CRITERIA FACTORS(1) ITERATE(25)
    /EXTRACTION PC
    /ROTATION NOROTATE
    /SAVE REG(ALL)
    /METHOD=CORRELATION .
COMPUTE hhmemwt = hv005/1000000 * hv012 .
VARIABLE LABELS hhmemwt 'HH members weighting for Index' .
WEIGHT
BY hhmemwt .
FREQUENCIES
VARIABLES=fac1_1 /FORMAT=NOTABLE
/NTILES= 5
/STATISTICS=STDDEV MINIMUM MAXIMUM MEAN MEDIAN /ORDER ANALYSIS .
RECODE
fac1_1
(Lowest thru -0.7670660480712=1) (-0.7670660480712 thru
-0.01864634932114=2) (-0.01864634932114 thru
0.836533562281=3) (0.836533562281 thru 1.57604288131=4)
(1.57604288131 thru Highest=5) INTO wlthind5 .
VARIABLE LABELS wlthind5 'Wealth Index Quintiles'.
EXECUTE .
write outfile='C:\Users\kiersten.b.johnson\Desktop\projects
\wealth index\senegal\scores.dat' records=1 table
/hhid fac1_1 wlthind5.
execute.
MEANS
    TABLES=h2oires h2oyard h2opub h2otube h2opwell h2upwell
h2spring h2osurf
h2obottl h2ooth flushs flushspt flusho latvip latpits latpito
```

```
latbush latother electric
radio tv fridge bicycle motobk car mphone cart boat stove impkit
plow horse moo
camel donkey sheep memsleep dirtfloo dungfloo vinfloo cerafloo
cemtfloo carpfloo
othfloo nowall grnwall dirtwall bamwall mudwall rwdwall cmtwall
stonwall brckwall
blckwall finwall othwall natroof sodroof rudroof ironroof
woodroof cmtfroof tileroof
concroof shngroof othroof cooklpg cookcoal cookwood cookdung
cookoth BY wlthind5
    /CELLS MEAN .
freq wlthind5.
weight off.
freq wlthind5.
COMPUTE wt = hv005/1000000.
WEIGHT by wt.
EXECUTE.
freq wlthind5.
```

