

```

1 #Run to regenerate Dataset
2 if(FALSE){
3 cens <- read.csv('usa_00015.csv')
4 cens$fgen <- cens$BPL %in% 150:900
5
6 #Create dummies for kids and immigrant household leaders
7 cens$uSER <- with(cens, SERIAL*10000 + YEAR)
8 cens <- cens[cens$GQ %in% 1:2,]
9 cens$kid <- cens$AGE <= 9
10 cens$fhos <- cens$fgen * (cens$RELATE %in% 1:2)
11
12 #Create a household level aggregate of these dummies
13 hkey <- aggregate(cbind(kid, fhos) ~ uSER, cens, FUN=sum, na.rm=T)
14 hkey$HHWT <- cens[match(hkey$uSER, cens$uSER), "HHWT"]
15 hkey$YEAR <- hkey$uSER %% 10000
16
17 #Merge relevant data back into individual level matrix
18 cens$htkid <- hkey[match(cens$uSER, hkey$uSER), "kid"]
19 cens$htfhos <- hkey[match(cens$uSER, hkey$uSER), "fhos"]
20 }
21
22 #Set image print location
23 png('~/public_html/DartmouthShare/p4/Rplot%03d.png')
24
25 #Make individual plots for 1900, 1950, 1930
26 spineplot(prop.table(xtabs(PERWT ~ I(htkid-1) + htfhos,
27   cens[with(cens, kid==T & YEAR==1900),]),1),
28   ylab="Number of immigrant householder/spouses",
29   xlab="Number of children sharing household with the child",
30   main="Children in a house, by family immigration status, 1900")
31
32 spineplot(prop.table(xtabs(PERWT ~ I(htkid-1) + htfhos,
33   cens[with(cens, kid==T & YEAR==1950),]),1),
34   ylab="Number of immigrant householder/spouses",
35   xlab="Number of children sharing household with the child",
36   main="Children in a house, by family immigration status, 1950")
37
38 spineplot(prop.table(xtabs(PERWT ~ I(htkid-1) + htfhos,
39   cens[with(cens, kid==T & YEAR==1930),]),1),
40   ylab="Number of immigrant householder/spouses",
41   xlab="Number of children sharing household with the child",
42   main="Children in a house, by family immigration status, 1930")
43
44 #Make household plots for same years
45 spineplot(prop.table(xtabs(HHWT ~ kid + fhos, hkey[hkey$YEAR==1900,]),1),
46   ylab="Number of immigrant householder/spouses",
47   xlab="Number of children in household",
48   main="Children in a house, by family immigration status, 1900")
49
50 spineplot(prop.table(xtabs(HHWT ~ kid + fhos, hkey[hkey$YEAR==1950,]),1),
51   ylab="Number of immigrant householder/spouses",
52   xlab="Number of children in household",
53   main="Children in a house, by family immigration status, 1950")
54
55 spineplot(prop.table(xtabs(HHWT ~ kid + fhos, hkey[hkey$YEAR==1930,]),1),
56   ylab="Number of immigrant householder/spouses",
57   xlab="Number of children in household",
58   main="Children in a house, by family immigration status, 1930")
59
60 #Final mosaic plot
61 plot(xtabs(HHWT ~ kid + fhos, hkey[hkey$YEAR==1900 & hkey$kid <=7,]), main="Households by children and immigranton, 1900", xlab="Number of c
62   hildren in household", ylab="Number of immigrant householder/spouses", color=T)
63 dev.off()

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