title: "CEM for Data 1 Summary"
author: "Cephas Ablakwa"
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output: html_document

Remove NA's
> Ce <- data.frame(na.omit(Ce))

> Cef <- droplevels(Ce) %>% dplyr::select(c("id", "sex", "urbanicity", "a_f1race", "a_fcomp3", "a_byp81", "ses", "testSc","a_f1rgpp2", "change","steadyhi", "a_f3evratt", "ATTAINMENT", "LAttain"))

> str(Cef)
'data.frame':	9126 obs. of 14 variables:
 $ id   : num 101101 101102 101104 101106 101107 ...
 $ sex   : Factor w/ 2 levels "Female","Male": 1 1 1 1 2 2 1 1 2 1 ...
 $ urbanicity: Factor w/ 3 levels "Urban","Suburban",..: 1 1 1 1 1 1 1 1 1 1 ...
 $ a_f1race : Factor w/ 5 levels "Asian, Hawaii/Pac. Islander",..: 3 1 5 3 3 2 3 2 1 2 ...
 $ famCom   : Factor w/ 2 levels "Not both biological",..: 1 2 2 2 1 1 1 2 1 1 ...
 $ parAsp   : Factor w/ 2 levels "Not","BA": 1 2 2 2 1 2 1 2 2 2 ...
 $ ses   : num -0.25 0.57 -0.86 -1.41 -0.99 -0.19 -0.04 -0.81 -0.17 0.06 ...
 $ testSc   : num 56.2 57.7 66.5 36.2 30.7 ...
 $ gpa4cat   : Factor w/ 4 levels "0.00-2.00","2.01-3.00",..: 1 2 2 2 1 3 1 1 1 1 ...
 $ change   : Factor w/ 3 levels "Steadyhi","Riser",..: 3 1 2 1 3 2 1 3 2 1 ...
 $ steadyhi : Factor w/ 2 levels "Not","steadyhi": 1 2 1 2 1 1 2 1 1 2 ...
 $ a_f3evratt: Factor w/ 2 levels "No postsecondary enrollment",..: 2 2 2 2 2 2 2 2 2 2 ...
 $ ATTAINMENT: Factor w/ 9 levels "No HS credential, no PS attendance",..: 3 9 6 4 3 3 3 5 5 3 ...
 $ LAttain   : num 0.477 1 0.778 0.602 0.477 ...

todrop <- c("id","change","steadyhi","a_f3evratt", "ATTAINMENT", "LAttain")

matCef <- cem(treatment = "steadyhi", data = Cef, drop = todrop, keep.all=TRUE)
> matCef

          GNot Gsteadyhi
All   3194   5932
Matched   426   678
Unmatched 2289   4338

> #Automated Progressive coarsening
> tabshi <- relax.cem(matCef, Cef, depth=1, perc=0.3)
Executing 34 different relaxations

|===
=======================| 100%
Error in 1:n : argument of length 0