> setwd("C:/Users/Nicho/OneDrive/Desktop/R for Econometrics/ecob2000\_lecture1")

> load("acs2017\_ny\_data.RData")

> #glimpse(acs2017\_ny) try this later

> acs2017\_ny[1:10,1:7]

AGE female educ\_nohs educ\_hs educ\_somecoll educ\_college educ\_advdeg

1 72 1 0 0 0 0 1

2 72 0 0 0 0 0 1

3 31 0 0 0 0 1 0

4 28 1 0 0 0 1 0

5 54 0 0 0 0 0 1

6 45 1 0 1 0 0 0

7 84 1 0 0 1 0 0

8 71 0 0 0 0 1 0

9 68 1 0 0 1 0 0

10 37 1 1 0 0 0 0

> attach(acs2017\_ny)

> summary(acs2017\_ny)

AGE female educ\_nohs educ\_hs educ\_somecoll educ\_college

Min. : 0.00 Min. :0.0000 Min. :0.000 Min. :0.0000 Min. :0.000 Min. :0.0000

1st Qu.:22.00 1st Qu.:0.0000 1st Qu.:0.000 1st Qu.:0.0000 1st Qu.:0.000 1st Qu.:0.0000

Median :42.00 Median :1.0000 Median :0.000 Median :0.0000 Median :0.000 Median :0.0000

Mean :41.57 Mean :0.5156 Mean :0.271 Mean :0.2804 Mean :0.173 Mean :0.1567

3rd Qu.:60.00 3rd Qu.:1.0000 3rd Qu.:1.000 3rd Qu.:1.0000 3rd Qu.:0.000 3rd Qu.:0.0000

Max. :95.00 Max. :1.0000 Max. :1.000 Max. :1.0000 Max. :1.000 Max. :1.0000

educ\_advdeg SCHOOL EDUC

Min. :0.000 N/A : 5569 Grade 12 :55119

1st Qu.:0.000 No, not in school:144968 4 years of college :30802

Median :0.000 Yes, in school : 46048 5+ years of college :23385

Mean :0.119 Missing : 0 1 year of college :19947

3rd Qu.:0.000 Nursery school to grade 4:14240

Max. :1.000 2 years of college :14065

(Other) :39027

EDUCD DEGFIELD

Regular high school diploma :35689 N/A :142398

Bachelor's degree :30802 Business : 9802

1 or more years of college credit, no degree:19947 Education Administration and Teaching : 6708

Master's degree :17010 Social Sciences : 4836

Associate's degree, type not specified :14065 Medical and Health Sciences and Services: 3919

Some college, but less than 1 year : 9086 Fine Arts : 3491

(Other) :69986 (Other) : 25431

DEGFIELDD DEGFIELD2

N/A :142398 N/A :190425

Psychology : 2926 Business : 972

Business Management and Administration: 2501 Social Sciences : 853

Accounting : 2284 Education Administration and Teaching: 611

General Education : 2238 Fine Arts : 465

English Language and Literature : 2202 Communications : 352

(Other) : 42036 (Other) : 2907

DEGFIELD2D PUMA GQ

N/A :190425 Min. : 100 Min. :1.000

Psychology : 284 1st Qu.:1500 1st Qu.:1.000

Economics : 260 Median :3201 Median :1.000

Political Science and Government : 243 Mean :2713 Mean :1.148

Business Management and Administration : 217 3rd Qu.:3902 3rd Qu.:1.000

French, German, Latin and Other Common Foreign Language Studies: 205 Max. :4114 Max. :5.000

(Other) : 4951

OWNERSHP OWNERSHPD MORTGAGE OWNCOST RENT COSTELEC COSTGAS

Min. :0.000 Min. : 0.00 Min. :0.000 Min. : 0 Min. : 0 Min. : 0 Min. : 0

1st Qu.:1.000 1st Qu.:12.00 1st Qu.:0.000 1st Qu.: 1208 1st Qu.: 0 1st Qu.: 960 1st Qu.: 840

Median :1.000 Median :13.00 Median :1.000 Median : 2891 Median : 0 Median :1560 Median :2400

Mean :1.266 Mean :14.95 Mean :1.453 Mean :38582 Mean : 393 Mean :2311 Mean :5032

3rd Qu.:2.000 3rd Qu.:22.00 3rd Qu.:3.000 3rd Qu.:99999 3rd Qu.: 630 3rd Qu.:2520 3rd Qu.:9993

Max. :2.000 Max. :22.00 Max. :4.000 Max. :99999 Max. :3800 Max. :9997 Max. :9997

COSTWATR COSTFUEL HHINCOME FOODSTMP LINGISOL ROOMS

Min. : 0 Min. : 0 Min. : -11800 Min. :1.000 Min. :0.000 Min. : 0.000

1st Qu.: 320 1st Qu.:9993 1st Qu.: 41600 1st Qu.:1.000 1st Qu.:1.000 1st Qu.: 4.000

Median :1400 Median :9993 Median : 81700 Median :1.000 Median :1.000 Median : 6.000

Mean :4836 Mean :7935 Mean : 114902 Mean :1.147 Mean :1.002 Mean : 5.887

3rd Qu.:9993 3rd Qu.:9993 3rd Qu.: 140900 3rd Qu.:1.000 3rd Qu.:1.000 3rd Qu.: 8.000

Max. :9997 Max. :9997 Max. :2030000 Max. :2.000 Max. :2.000 Max. :16.000

NA's :10630

BUILTYR2 UNITSSTR FUELHEAT SSMC FAMSIZE NCHILD

Min. : 0.000 Min. : 0.00 Min. :0.000 Min. :0.00000 Min. : 1.000 Min. :0.0000

1st Qu.: 1.000 1st Qu.: 3.00 1st Qu.:2.000 1st Qu.:0.00000 1st Qu.: 2.000 1st Qu.:0.0000

Median : 3.000 Median : 3.00 Median :2.000 Median :0.00000 Median : 3.000 Median :0.0000

Mean : 3.711 Mean : 4.39 Mean :2.959 Mean :0.01102 Mean : 3.087 Mean :0.5009

3rd Qu.: 5.000 3rd Qu.: 6.00 3rd Qu.:4.000 3rd Qu.:0.00000 3rd Qu.: 4.000 3rd Qu.:1.0000

Max. :22.000 Max. :10.00 Max. :9.000 Max. :2.00000 Max. :19.000 Max. :9.0000

NCHLT5 RELATE RELATED MARST RACE RACED

Min. :0.00000 Min. : 1.000 Min. : 101.0 Min. :1.000 Min. :1.00 Min. :100

1st Qu.:0.00000 1st Qu.: 1.000 1st Qu.: 101.0 1st Qu.:1.000 1st Qu.:1.00 1st Qu.:100

Median :0.00000 Median : 2.000 Median : 201.0 Median :5.000 Median :1.00 Median :100

Mean :0.08441 Mean : 3.307 Mean : 335.6 Mean :3.742 Mean :2.03 Mean :205

3rd Qu.:0.00000 3rd Qu.: 3.000 3rd Qu.: 301.0 3rd Qu.:6.000 3rd Qu.:2.00 3rd Qu.:200

Max. :5.00000 Max. :13.000 Max. :1301.0 Max. :6.000 Max. :9.00 Max. :990

HISPAN HISPAND BPL BPLD

Min. :0.0000 Min. : 0.00 New York :128517 New York :128517

1st Qu.:0.0000 1st Qu.: 0.00 West Indies : 8481 China : 4116

Median :0.0000 Median : 0.00 China : 4964 Dominican Republic: 3517

Mean :0.4153 Mean : 44.75 SOUTH AMERICA: 4957 Pennsylvania : 3303

3rd Qu.:0.0000 3rd Qu.: 0.00 India : 3476 New Jersey : 3127

Max. :4.0000 Max. :498.00 Pennsylvania : 3303 Puerto Rico : 2272

(Other) : 42887 (Other) : 51733

ANCESTR1 ANCESTR1D ANCESTR2

Not Reported :32021 Not Reported :32021 Not Reported:141487

Italian :20577 Italian (1990-2000, ACS, PRCS) :20577 German : 9476

Irish, various subheads,:16388 Irish :15651 Irish : 9238

German :12781 German (1990-2000, ACS/PRCS) :12605 English : 4895

African-American : 9559 African-American (1990-2000, ACS, PRCS): 9559 Italian : 4531

United States : 8209 United States : 8209 Polish : 3113

(Other) :97050 (Other) :97963 (Other) : 23845

ANCESTR2D CITIZEN YRSUSA1 HCOVANY HCOVPRIV

Not Reported :141487 Min. :0.0000 Min. : 0.000 Min. :1.000 Min. :1.000

German (1990-2000, ACS, PRCS) : 9441 1st Qu.:0.0000 1st Qu.: 0.000 1st Qu.:2.000 1st Qu.:1.000

Irish : 8809 Median :0.0000 Median : 0.000 Median :2.000 Median :2.000

English : 4895 Mean :0.4793 Mean : 5.377 Mean :1.951 Mean :1.691

Italian (1990-2000, ACS, PRCS): 4531 3rd Qu.:0.0000 3rd Qu.: 0.000 3rd Qu.:2.000 3rd Qu.:2.000

Polish : 3113 Max. :3.0000 Max. :92.000 Max. :2.000 Max. :2.000

(Other) : 24309

SEX EMPSTAT EMPSTATD LABFORCE OCC IND

Male : 95222 Min. :0.000 Min. : 0.00 Min. :0.000 0 : 79987 0 :79987

Female:101363 1st Qu.:1.000 1st Qu.:10.00 1st Qu.:1.000 2310 : 3494 7860 : 9025

Median :1.000 Median :10.00 Median :2.000 5700 : 3235 8680 : 6354

Mean :1.514 Mean :15.16 Mean :1.331 430 : 3025 770 : 6279

3rd Qu.:3.000 3rd Qu.:30.00 3rd Qu.:2.000 4720 : 2666 8190 : 5873

Max. :3.000 Max. :30.00 Max. :2.000 4760 : 2563 7870 : 4041

(Other):101615 (Other):85026

CLASSWKR CLASSWKRD WKSWORK2 UHRSWORK INCTOT FTOTINC

Min. :0.000 Min. : 0.00 Min. :0.000 Min. : 0.00 Min. : -7300 Min. : -11800

1st Qu.:0.000 1st Qu.: 0.00 1st Qu.:0.000 1st Qu.: 0.00 1st Qu.: 8000 1st Qu.: 35550

Median :2.000 Median :22.00 Median :1.000 Median :12.00 Median : 25000 Median : 74000

Mean :1.116 Mean :13.03 Mean :2.701 Mean :19.77 Mean : 45245 Mean : 107111

3rd Qu.:2.000 3rd Qu.:22.00 3rd Qu.:6.000 3rd Qu.:40.00 3rd Qu.: 56500 3rd Qu.: 132438

Max. :2.000 Max. :29.00 Max. :6.000 Max. :99.00 Max. :1563000 Max. :2030000

NA's :31129 NA's :10817

INCWAGE POVERTY MIGRATE1 MIGRATE1D MIGPLAC1 MIGCOUNTY1

Min. : 0 Min. : 0.0 Min. :0.000 Min. : 0.00 Min. : 0.000 Min. : 0.000

1st Qu.: 0 1st Qu.:159.0 1st Qu.:1.000 1st Qu.:10.00 1st Qu.: 0.000 1st Qu.: 0.000

Median : 10000 Median :351.0 Median :1.000 Median :10.00 Median : 0.000 Median : 0.000

Mean : 33796 Mean :318.7 Mean :1.122 Mean :11.51 Mean : 6.184 Mean : 4.117

3rd Qu.: 47000 3rd Qu.:501.0 3rd Qu.:1.000 3rd Qu.:10.00 3rd Qu.: 0.000 3rd Qu.: 0.000

Max. :638000 Max. :501.0 Max. :4.000 Max. :40.00 Max. :900.000 Max. :810.000

NA's :33427

MIGPUMA1 VETSTAT VETSTATD PWPUMA00 TRANWORK TRANTIME

Min. : 0 Min. :0.0000 Min. : 0.000 Min. : 0 Min. : 0.000 Min. : 0.00

1st Qu.: 0 1st Qu.:1.0000 1st Qu.:11.000 1st Qu.: 0 1st Qu.: 0.000 1st Qu.: 0.00

Median : 0 Median :1.0000 Median :11.000 Median : 0 Median : 0.000 Median : 0.00

Mean : 277 Mean :0.8621 Mean : 9.412 Mean : 1255 Mean : 9.725 Mean : 14.75

3rd Qu.: 0 3rd Qu.:1.0000 3rd Qu.:11.000 3rd Qu.: 3100 3rd Qu.:10.000 3rd Qu.: 20.00

Max. :70100 Max. :2.0000 Max. :20.000 Max. :59300 Max. :70.000 Max. :138.00

DEPARTS in\_NYC in\_Bronx in\_Manhattan in\_StatenI in\_Brooklyn

Min. : 0.0 Min. :0.0000 Min. :0.0000 Min. :0.00000 Min. :0.00000 Min. :0.000

1st Qu.: 0.0 1st Qu.:0.0000 1st Qu.:0.0000 1st Qu.:0.00000 1st Qu.:0.00000 1st Qu.:0.000

Median : 0.0 Median :0.0000 Median :0.0000 Median :0.00000 Median :0.00000 Median :0.000

Mean : 373.3 Mean :0.3615 Mean :0.0538 Mean :0.04981 Mean :0.02084 Mean :0.126

3rd Qu.: 732.0 3rd Qu.:1.0000 3rd Qu.:0.0000 3rd Qu.:0.00000 3rd Qu.:0.00000 3rd Qu.:0.000

Max. :2345.0 Max. :1.0000 Max. :1.0000 Max. :1.00000 Max. :1.00000 Max. :1.000

in\_Queens in\_Westchester in\_Nassau Hispanic Hisp\_Mex Hisp\_PR

Min. :0.0000 Min. :0.00000 Min. :0.00000 Min. :0.0000 Min. :0.00000 Min. :0.0000

1st Qu.:0.0000 1st Qu.:0.00000 1st Qu.:0.00000 1st Qu.:0.0000 1st Qu.:0.00000 1st Qu.:0.0000

Median :0.0000 Median :0.00000 Median :0.00000 Median :0.0000 Median :0.00000 Median :0.0000

Mean :0.1111 Mean :0.04413 Mean :0.07032 Mean :0.1387 Mean :0.01626 Mean :0.0436

3rd Qu.:0.0000 3rd Qu.:0.00000 3rd Qu.:0.00000 3rd Qu.:0.0000 3rd Qu.:0.00000 3rd Qu.:0.0000

Max. :1.0000 Max. :1.00000 Max. :1.00000 Max. :1.0000 Max. :1.00000 Max. :1.0000

Hisp\_Cuban Hisp\_DomR white AfAm Amindian Asian

Min. :0.000000 Min. :0.00000 Min. :0.0000 Min. :0.000 Min. :0.000000 Min. :0.00000

1st Qu.:0.000000 1st Qu.:0.00000 1st Qu.:0.0000 1st Qu.:0.000 1st Qu.:0.000000 1st Qu.:0.00000

Median :0.000000 Median :0.00000 Median :1.0000 Median :0.000 Median :0.000000 Median :0.00000

Mean :0.003403 Mean :0.02827 Mean :0.6997 Mean :0.125 Mean :0.003779 Mean :0.08656

3rd Qu.:0.000000 3rd Qu.:0.00000 3rd Qu.:1.0000 3rd Qu.:0.000 3rd Qu.:0.000000 3rd Qu.:0.00000

Max. :1.000000 Max. :1.00000 Max. :1.0000 Max. :1.000 Max. :1.000000 Max. :1.00000

race\_oth unmarried veteran has\_AnyHealthIns has\_PvtHealthIns Commute\_car

Min. :0.0000 Min. :0.00 Min. :0.00000 Min. :0.0000 Min. :0.0000 Min. :0.0000

1st Qu.:0.0000 1st Qu.:0.00 1st Qu.:0.00000 1st Qu.:1.0000 1st Qu.:0.0000 1st Qu.:0.0000

Median :0.0000 Median :0.00 Median :0.00000 Median :1.0000 Median :1.0000 Median :0.0000

Mean :0.1324 Mean :0.45 Mean :0.04443 Mean :0.9513 Mean :0.6906 Mean :0.2997

3rd Qu.:0.0000 3rd Qu.:1.00 3rd Qu.:0.00000 3rd Qu.:1.0000 3rd Qu.:1.0000 3rd Qu.:1.0000

Max. :1.0000 Max. :1.00 Max. :1.00000 Max. :1.0000 Max. :1.0000 Max. :1.0000

Commute\_bus Commute\_subway Commute\_rail Commute\_other below\_povertyline below\_150poverty

Min. :0.00000 Min. :0.00000 Min. :0.00000 Min. :0.00000 Min. :0.000 Min. :0.0000

1st Qu.:0.00000 1st Qu.:0.00000 1st Qu.:0.00000 1st Qu.:0.00000 1st Qu.:0.000 1st Qu.:0.0000

Median :0.00000 Median :0.00000 Median :0.00000 Median :0.00000 Median :0.000 Median :0.0000

Mean :0.02162 Mean :0.07468 Mean :0.01332 Mean :0.05506 Mean :0.122 Mean :0.1965

3rd Qu.:0.00000 3rd Qu.:0.00000 3rd Qu.:0.00000 3rd Qu.:0.00000 3rd Qu.:0.000 3rd Qu.:0.0000

Max. :1.00000 Max. :1.00000 Max. :1.00000 Max. :1.00000 Max. :1.000 Max. :1.0000

below\_200poverty foodstamps

Min. :0.0000 Min. :0.0000

1st Qu.:0.0000 1st Qu.:0.0000

Median :0.0000 Median :0.0000

Mean :0.2676 Mean :0.1465

3rd Qu.:1.0000 3rd Qu.:0.0000

Max. :1.0000 Max. :1.0000

> print(NN\_obs <- length(AGE))

[1] 196585

> summary(AGE[female == 1])

Min. 1st Qu. Median Mean 3rd Qu. Max.

0.00 23.00 44.00 42.72 61.00 95.00

> summary(AGE[!female])

Min. 1st Qu. Median Mean 3rd Qu. Max.

0.00 21.00 40.00 40.35 59.00 95.00

> sd(AGE[female == 1])

[1] 23.72012

> mean(AGE[!female])

[1] 40.35398

> sd(AGE[!female])

[1] 23.1098

> which git

Error: unexpected symbol in "which git"

> hist(AGE[(AGE > 90)])

> mean(AGE[ (female == 1) & (AGE<90) ])

[1] 41.98866

> #Top coding would push the avg age up by grouping more people

> #into the top coded age thus moving up the average instead of

> #people 92 and older

> str(as.numeric(PUMA))

num [1:196585] 902 902 4002 4002 3803 ...

> mean(puma)

Error in mean(puma) : object 'puma' not found

> mean(PUMA)

[1] 2713.164

> PUMA <- as.factor(PUMA)

> female <- as.factor(female)

> print(levels(female))

[1] "0" "1"

> levels(female) <- c("male","female")

> educ\_indx <- factor((educ\_nohs + 2\*educ\_hs + 3\*educ\_somecoll + 4\*educ\_college + 5\*educ\_advdeg), levels=c(1,2,3,4,5),labels = c("No HS","HS","SmColl","Bach","Adv"))

> install.packages("tidyverse")

WARNING: Rtools is required to build R packages but is not currently installed. Please download and install the appropriate version of Rtools before proceeding:

https://cran.rstudio.com/bin/windows/Rtools/

Installing package into ‘C:/Users/Nicho/OneDrive/Documents/R/win-library/4.0’

(as ‘lib’ is unspecified)

also installing the dependencies ‘processx’, ‘lifecycle’, ‘gargle’, ‘uuid’, ‘ids’, ‘rlang’, ‘ellipsis’, ‘vctrs’, ‘callr’, ‘broom’, ‘cli’, ‘crayon’, ‘dbplyr’, ‘dplyr’, ‘dtplyr’, ‘googledrive’, ‘googlesheets4’, ‘lubridate’, ‘pillar’, ‘reprex’, ‘rvest’, ‘tibble’

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/processx\_3.5.2.zip'

Content type 'application/zip' length 1246562 bytes (1.2 MB)

downloaded 1.2 MB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/lifecycle\_1.0.0.zip'

Content type 'application/zip' length 111225 bytes (108 KB)

downloaded 108 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/gargle\_1.2.0.zip'

Content type 'application/zip' length 537533 bytes (524 KB)

downloaded 524 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/uuid\_0.1-4.zip'

Content type 'application/zip' length 33765 bytes (32 KB)

downloaded 32 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/ids\_1.0.1.zip'

Content type 'application/zip' length 123869 bytes (120 KB)

downloaded 120 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/rlang\_0.4.11.zip'

Content type 'application/zip' length 1199374 bytes (1.1 MB)

downloaded 1.1 MB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/ellipsis\_0.3.2.zip'

Content type 'application/zip' length 49121 bytes (47 KB)

downloaded 47 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/vctrs\_0.3.8.zip'

Content type 'application/zip' length 1250837 bytes (1.2 MB)

downloaded 1.2 MB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/callr\_3.7.0.zip'

Content type 'application/zip' length 439261 bytes (428 KB)

downloaded 428 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/broom\_0.7.9.zip'

Content type 'application/zip' length 1795745 bytes (1.7 MB)

downloaded 1.7 MB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/cli\_3.0.1.zip'

Content type 'application/zip' length 757048 bytes (739 KB)

downloaded 739 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/crayon\_1.4.1.zip'

Content type 'application/zip' length 141976 bytes (138 KB)

downloaded 138 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/dbplyr\_2.1.1.zip'

Content type 'application/zip' length 834413 bytes (814 KB)

downloaded 814 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/dplyr\_1.0.7.zip'

Content type 'application/zip' length 1343610 bytes (1.3 MB)

downloaded 1.3 MB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/dtplyr\_1.1.0.zip'

Content type 'application/zip' length 242912 bytes (237 KB)

downloaded 237 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/googledrive\_2.0.0.zip'

Content type 'application/zip' length 1872559 bytes (1.8 MB)

downloaded 1.8 MB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/googlesheets4\_1.0.0.zip'

Content type 'application/zip' length 492107 bytes (480 KB)

downloaded 480 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/lubridate\_1.7.10.zip'

Content type 'application/zip' length 1766907 bytes (1.7 MB)

downloaded 1.7 MB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/pillar\_1.6.2.zip'

Content type 'application/zip' length 1070987 bytes (1.0 MB)

downloaded 1.0 MB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/reprex\_2.0.1.zip'

Content type 'application/zip' length 500465 bytes (488 KB)

downloaded 488 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/rvest\_1.0.1.zip'

Content type 'application/zip' length 206032 bytes (201 KB)

downloaded 201 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/tibble\_3.1.4.zip'

Content type 'application/zip' length 871442 bytes (851 KB)

downloaded 851 KB

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/tidyverse\_1.3.1.zip'

Content type 'application/zip' length 429910 bytes (419 KB)

downloaded 419 KB

package ‘processx’ successfully unpacked and MD5 sums checked

package ‘lifecycle’ successfully unpacked and MD5 sums checked

package ‘gargle’ successfully unpacked and MD5 sums checked

package ‘uuid’ successfully unpacked and MD5 sums checked

package ‘ids’ successfully unpacked and MD5 sums checked

package ‘rlang’ successfully unpacked and MD5 sums checked

package ‘ellipsis’ successfully unpacked and MD5 sums checked

package ‘vctrs’ successfully unpacked and MD5 sums checked

package ‘callr’ successfully unpacked and MD5 sums checked

package ‘broom’ successfully unpacked and MD5 sums checked

package ‘cli’ successfully unpacked and MD5 sums checked

package ‘crayon’ successfully unpacked and MD5 sums checked

package ‘dbplyr’ successfully unpacked and MD5 sums checked

package ‘dplyr’ successfully unpacked and MD5 sums checked

package ‘dtplyr’ successfully unpacked and MD5 sums checked

package ‘googledrive’ successfully unpacked and MD5 sums checked

package ‘googlesheets4’ successfully unpacked and MD5 sums checked

package ‘lubridate’ successfully unpacked and MD5 sums checked

package ‘pillar’ successfully unpacked and MD5 sums checked

package ‘reprex’ successfully unpacked and MD5 sums checked

package ‘rvest’ successfully unpacked and MD5 sums checked

package ‘tibble’ successfully unpacked and MD5 sums checked

package ‘tidyverse’ successfully unpacked and MD5 sums checked

The downloaded binary packages are in

C:\Users\Nicho\AppData\Local\Temp\Rtmpe8XRfJ\downloaded\_packages

> install.packages("plyr")

WARNING: Rtools is required to build R packages but is not currently installed. Please download and install the appropriate version of Rtools before proceeding:

https://cran.rstudio.com/bin/windows/Rtools/

Installing package into ‘C:/Users/Nicho/OneDrive/Documents/R/win-library/4.0’

(as ‘lib’ is unspecified)

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.0/plyr\_1.8.6.zip'

Content type 'application/zip' length 1500565 bytes (1.4 MB)

downloaded 1.4 MB

package ‘plyr’ successfully unpacked and MD5 sums checked

The downloaded binary packages are in

C:\Users\Nicho\AppData\Local\Temp\Rtmpe8XRfJ\downloaded\_packages

> library(tidyverse)

-- Attaching packages -------------------------------- tidyverse 1.3.1 --

v ggplot2 3.3.5 v purrr 0.3.4

v tibble 3.1.4 v dplyr 1.0.7

v tidyr 1.1.3 v stringr 1.4.0

v readr 1.4.0 v forcats 0.5.1

-- Conflicts ----------------------------------- tidyverse\_conflicts() --

x dplyr::filter() masks stats::filter()

x dplyr::lag() masks stats::lag()

Warning messages:

1: package ‘tidyverse’ was built under R version 4.0.5

2: package ‘ggplot2’ was built under R version 4.0.5

3: package ‘tibble’ was built under R version 4.0.5

4: package ‘tidyr’ was built under R version 4.0.5

5: package ‘dplyr’ was built under R version 4.0.5

> levels\_n <- read.csv("PUMA\_levels.csv")

Error in file(file, "rt") : cannot open the connection

In addition: Warning message:

In file(file, "rt") :

cannot open file 'PUMA\_levels.csv': No such file or directory

> levels\_orig <- levels(PUMA)

> levels\_new <- join(data.frame(levels\_orig),data.frame(levels\_n))

Error in join(data.frame(levels\_orig), data.frame(levels\_n)) :

could not find function "join"

> levels(PUMA) <- levels\_new$New\_Level

Error: object 'levels\_new' not found

> levels\_n <- read.csv("PUMA\_levels.csv")

Error in file(file, "rt") : cannot open the connection

In addition: Warning message:

In file(file, "rt") :

cannot open file 'PUMA\_levels.csv': No such file or directory

> summary(female)

male female

95222 101363

> summary(PUMA)

2500 200 4112 4009 4103 4017 500 403 2402

3051 2624 2438 2422 2290 2234 2214 2202 2172

4105 704 4110 2600 2002 2203 703 1500 1400

2148 2043 2040 2039 2030 1950 1945 1914 1909

4016 1300 800 100 1207 402 3107 906 4101

1903 1885 1871 1819 1787 1774 1762 1752 1748

300 1204 4014 1900 4111 701 3105 600 3903

1724 1701 1698 1694 1694 1692 1679 1670 1621

2802 401 3201 2801 1000 2702 4013 3106 1600

1620 1597 1543 1542 1536 1533 1519 1518 1510

4015 1700 2100 4106 3202 2202 1802 4104 3102

1479 1407 1404 1393 1376 1358 1356 1344 1341

1205 3305 2903 4008 4004 4102 2201 3705 3709

1333 1326 1323 1321 1320 1316 1311 1311 1307

4113 3901 4001 4012 901 3103 3303 3304 3204

1304 1303 1293 1291 1288 1283 1279 1268 1267

702 4010 3801 3003 3205 3206 2902 3208 3902

1265 1250 1238 1232 1215 1207 1195 1188 1173

4005 3805 3710 4109 1102 904 3810 3308 902

1168 1167 1166 1158 1153 1141 1136 1131 1126

1202 2701 3704 1206 3707 2401 2300 905 3306

1122 1118 1115 1112 1112 1109 1105 1099 1097

(Other)

44328

> summary(educ\_indx)

No HS HS SmColl Bach Adv

53267 55119 34012 30802 23385

> ddply(acs2017\_ny, .(PUMA), summarize, mean = round(mean(AGE), 2), sd = round(sd(AGE), 2), n\_obsv = length(PUMA))

Error in ddply(acs2017\_ny, .(PUMA), summarize, mean = round(mean(AGE), :

could not find function "ddply"

> library(ddply)

Error in library(ddply) : there is no package called ‘ddply’

> ddply(acs2017\_ny, .(PUMA), summarize, mean = round(mean(AGE), 2), sd = round(sd(AGE), 2), n\_obsv = length(PUMA))

Error in ddply(acs2017\_ny, .(PUMA), summarize, mean = round(mean(AGE), :

could not find function "ddply"

> ddply(acs2017\_ny, .(PUMA), summarize, mean = round(mean(AGE), 2), sd = round(sd(AGE), 2), n\_obsv = length(PUMA))

Error in ddply(acs2017\_ny, .(PUMA), summarize, mean = round(mean(AGE), :

could not find function "ddply"

> ddply(dat\_use1, .(PUMA), summarize, inc90 = quantile(INCWAGE,probs = 0.9), inc10 = quantile(INCWAGE,probs = 0.1), n\_obs = length(INCWAGE))

Error in ddply(dat\_use1, .(PUMA), summarize, inc90 = quantile(INCWAGE, :

could not find function "ddply"

> dat\_use1 <- subset(acs2017\_ny,((INCWAGE > 0) & in\_NYC))

> ddply(dat\_use1, .(PUMA), summarize, inc90 = quantile(INCWAGE,probs = 0.9), inc10 = quantile(INCWAGE,probs = 0.1), n\_obs = length(INCWAGE))

Error in ddply(dat\_use1, .(PUMA), summarize, inc90 = quantile(INCWAGE, :

could not find function "ddply"

> table(educ\_indx,female)

female

educ\_indx male female

No HS 27180 26087

HS 27309 27810

SmColl 15847 18165

Bach 14632 16170

Adv 10254 13131

> xtabs(~educ\_indx + female)

female

educ\_indx male female

No HS 27180 26087

HS 27309 27810

SmColl 15847 18165

Bach 14632 16170

Adv 10254 13131

> prop.table(table(educ\_indx,female))

female

educ\_indx male female

No HS 0.13826080 0.13270087

HS 0.13891701 0.14146552

SmColl 0.08061144 0.09240278

Bach 0.07443091 0.08225450

Adv 0.05216064 0.06679553

> #test using table with PUMA

> prop.table(table(educ\_indx, PUMA))

PUMA

educ\_indx 100 200 300 401

No HS 0.0025078210 0.0036574510 0.0022382176 0.0022636519

HS 0.0032962841 0.0048782969 0.0030419411 0.0029351171

SmColl 0.0019380929 0.0024569525 0.0015413180 0.0017244449

Bach 0.0007375944 0.0013276700 0.0010529796 0.0007070733

Adv 0.0007732024 0.0010275453 0.0008952870 0.0004934252

PUMA

educ\_indx 402 403 500 600

No HS 0.0025841239 0.0027062085 0.0031843732 0.0025790371

HS 0.0029300303 0.0038710990 0.0042119185 0.0030978966

SmColl 0.0017397055 0.0023196073 0.0020500038 0.0016074472

Bach 0.0010682402 0.0012208459 0.0010987614 0.0006663784

Adv 0.0007019864 0.0010835008 0.0007172470 0.0005442938

PUMA

educ\_indx 701 702 703 704

No HS 0.0024823868 0.0013988860 0.0022789124 0.0027062085

HS 0.0026299056 0.0017295318 0.0025993845 0.0033573263

SmColl 0.0018058346 0.0013124094 0.0019686141 0.0021771753

Bach 0.0009156345 0.0011903248 0.0017244449 0.0012462802

Adv 0.0007732024 0.0008037236 0.0013225831 0.0009054607

PUMA

educ\_indx 800 901 902 903

No HS 0.0026146451 0.0013988860 0.0017600529 0.0014955363

HS 0.0033471526 0.0016786632 0.0014344940 0.0016227077

SmColl 0.0017854872 0.0012462802 0.0009410687 0.0009970242

Bach 0.0010529796 0.0011089351 0.0009359819 0.0004272961

Adv 0.0007172470 0.0011191088 0.0006562047 0.0002746903

PUMA

educ\_indx 904 905 906 1000

No HS 0.0014751888 0.0011140219 0.0019228324 0.0020805250

HS 0.0019787878 0.0015667523 0.0018363558 0.0029198566

SmColl 0.0011648905 0.0014243203 0.0016176209 0.0016328815

Bach 0.0007325076 0.0008138973 0.0017447923 0.0007630287

Adv 0.0004527304 0.0006714653 0.0017905741 0.0004171224

PUMA

educ\_indx 1101 1102 1201 1202

No HS 0.0013327568 0.0013937991 0.0011191088 0.0010835008

HS 0.0020093090 0.0020856118 0.0013276700 0.0011292825

SmColl 0.0012310197 0.0012615408 0.0009665030 0.0010987614

Bach 0.0004985121 0.0006867258 0.0008851133 0.0012106722

Adv 0.0003255589 0.0004374698 0.0005442938 0.0011852379

PUMA

educ\_indx 1203 1204 1205 1206

No HS 0.0011699774 0.0020245695 0.0021161330 0.0014904494

HS 0.0013174962 0.0030063331 0.0022178701 0.0013378437

SmColl 0.0008851133 0.0018923112 0.0015006231 0.0010224585

Bach 0.0008596790 0.0011292825 0.0006358573 0.0009156345

Adv 0.0005544675 0.0006002493 0.0003102983 0.0008902002

PUMA

educ\_indx 1207 1300 1400 1500

No HS 0.0020601775 0.0023501284 0.0024162576 0.0024874736

HS 0.0028486405 0.0037388407 0.0030622886 0.0031335046

SmColl 0.0019635272 0.0020449170 0.0019228324 0.0022026096

Bach 0.0013073225 0.0009054607 0.0013378437 0.0011038482

Adv 0.0009105476 0.0005493807 0.0009715899 0.0008088104

PUMA

educ\_indx 1600 1700 1801 1802

No HS 0.0022280438 0.0017091843 0.0011852379 0.0017905741

HS 0.0027519902 0.0021517410 0.0013276700 0.0020805250

SmColl 0.0015769260 0.0015260574 0.0011394562 0.0012208459

Bach 0.0006714653 0.0010224585 0.0010173716 0.0010733271

Adv 0.0004527304 0.0007477681 0.0008851133 0.0007325076

PUMA

educ\_indx 1900 2001 2002 2100

No HS 0.0017600529 0.0009817636 0.0023094336 0.0017091843

HS 0.0028791617 0.0012106722 0.0026604268 0.0022636519

SmColl 0.0017651398 0.0010580665 0.0019889615 0.0013531043

Bach 0.0013124094 0.0007833761 0.0017346186 0.0008037236

Adv 0.0009003739 0.0006612916 0.0016328815 0.0010122848

PUMA

educ\_indx 2201 2202 2203 2300

No HS 0.0015769260 0.0016634026 0.0024671262 0.0008138973

HS 0.0021619147 0.0024111707 0.0039117939 0.0016684895

SmColl 0.0016227077 0.0013378437 0.0017397055 0.0012717145

Bach 0.0008189842 0.0009054607 0.0011089351 0.0008240710

Adv 0.0004883384 0.0005900755 0.0006918127 0.0010428059

PUMA

educ\_indx 2401 2402 2500 2600

No HS 0.0013988860 0.0031182440 0.0042017448 0.0026756874

HS 0.0019787878 0.0043289162 0.0057634102 0.0038609253

SmColl 0.0011699774 0.0020805250 0.0033725869 0.0022331307

Bach 0.0005748150 0.0008800265 0.0012462802 0.0008902002

Adv 0.0005188595 0.0006409441 0.0009359819 0.0007121601

PUMA

educ\_indx 2701 2702 2801 2802

No HS 0.0014497546 0.0017142712 0.0019330061 0.0019330061

HS 0.0016735763 0.0024671262 0.0021568278 0.0023297810

SmColl 0.0010478928 0.0015870997 0.0014853626 0.0016481420

Bach 0.0008851133 0.0010733271 0.0012768014 0.0012106722

Adv 0.0006307704 0.0009563293 0.0009919373 0.0011191088

PUMA

educ\_indx 2901 2902 2903 3001

No HS 0.0013988860 0.0015667523 0.0024722130 0.0011547168

HS 0.0015921866 0.0021110461 0.0016634026 0.0011445431

SmColl 0.0010021110 0.0011343694 0.0010377191 0.0008444184

Bach 0.0007172470 0.0007986367 0.0009359819 0.0009258082

Adv 0.0005900755 0.0004679909 0.0006205967 0.0008393316

PUMA

educ\_indx 3002 3003 3101 3102

No HS 0.0011903248 0.0027875982 0.0011292825 0.0017956609

HS 0.0009817636 0.0015260574 0.0013073225 0.0014751888

SmColl 0.0007325076 0.0009156345 0.0007070733 0.0010377191

Bach 0.0010224585 0.0005951624 0.0009207213 0.0014192334

Adv 0.0008698527 0.0004425567 0.0008138973 0.0010936745

PUMA

educ\_indx 3103 3104 3105 3106

No HS 0.0017091843 0.0016277946 0.0021568278 0.0021975227

HS 0.0010326322 0.0010173716 0.0014090597 0.0020754381

SmColl 0.0006612916 0.0005799018 0.0009410687 0.0013480174

Bach 0.0015158837 0.0010377191 0.0017854872 0.0011852379

Adv 0.0016074472 0.0012971488 0.0022483913 0.0009156345

PUMA

educ\_indx 3107 3201 3202 3203

No HS 0.0024671262 0.0020957855 0.0016176209 0.0012004985

HS 0.0021212198 0.0009003739 0.0011191088 0.0011954117

SmColl 0.0012564540 0.0006511178 0.0010682402 0.0006307704

Bach 0.0015514917 0.0020194827 0.0016634026 0.0013124094

Adv 0.0015667523 0.0021822621 0.0015311443 0.0008138973

PUMA

educ\_indx 3204 3205 3206 3207

No HS 0.0015870997 0.0014395808 0.0019126586 0.0013734517

HS 0.0015362311 0.0013683648 0.0018872244 0.0015667523

SmColl 0.0009461556 0.0011547168 0.0011292825 0.0008596790

Bach 0.0012208459 0.0013887123 0.0007375944 0.0009665030

Adv 0.0011547168 0.0008291579 0.0004730778 0.0007070733

PUMA

educ\_indx 3208 3209 3210 3211

No HS 0.0013632780 0.0011496299 0.0012157591 0.0011191088

HS 0.0016227077 0.0011241956 0.0011038482 0.0012004985

SmColl 0.0010529796 0.0007884630 0.0007935499 0.0010021110

Bach 0.0011648905 0.0011394562 0.0011089351 0.0009258082

Adv 0.0008393316 0.0009919373 0.0007986367 0.0006765521

PUMA

educ\_indx 3212 3301 3302 3303

No HS 0.0011445431 0.0011547168 0.0012818882 0.0016125340

HS 0.0009868505 0.0008189842 0.0009207213 0.0012818882

SmColl 0.0006867258 0.0006409441 0.0008952870 0.0009156345

Bach 0.0010428059 0.0010835008 0.0010122848 0.0015209706

Adv 0.0010326322 0.0010529796 0.0010682402 0.0011750642

PUMA

educ\_indx 3304 3305 3306 3307

No HS 0.0012310197 0.0014853626 0.0014294071 0.0011241956

HS 0.0015921866 0.0017244449 0.0019482667 0.0014497546

SmColl 0.0012920620 0.0010377191 0.0009614162 0.0008037236

Bach 0.0009970242 0.0012717145 0.0007121601 0.0006612916

Adv 0.0013378437 0.0012259328 0.0005290332 0.0004425567

PUMA

educ\_indx 3308 3309 3310 3311

No HS 0.0013225831 0.0010224585 0.0017397055 0.0014141466

HS 0.0018516163 0.0013073225 0.0016634026 0.0013174962

SmColl 0.0011852379 0.0010173716 0.0009614162 0.0009003739

Bach 0.0008851133 0.0007681156 0.0003713406 0.0009308950

Adv 0.0005086858 0.0007070733 0.0002238218 0.0007070733

PUMA

educ\_indx 3312 3313 3701 3702

No HS 0.0010885876 0.0014141466 0.0014344940 0.0016328815

HS 0.0015820129 0.0016227077 0.0010885876 0.0017905741

SmColl 0.0009207213 0.0008444184 0.0007121601 0.0010428059

Bach 0.0007782893 0.0006155098 0.0006968996 0.0006409441

Adv 0.0005849887 0.0004171224 0.0008291579 0.0004476435

PUMA

educ\_indx 3703 3704 3705 3706

No HS 0.0010631533 0.0018516163 0.0030928097 0.0020703512

HS 0.0013429305 0.0016837500 0.0018058346 0.0010835008

SmColl 0.0007070733 0.0008851133 0.0011699774 0.0006409441

Bach 0.0004832515 0.0007477681 0.0004476435 0.0003560801

Adv 0.0003052115 0.0005035990 0.0001526057 0.0001933006

PUMA

educ\_indx 3707 3708 3709 3710

No HS 0.0028842485 0.0021212198 0.0027774245 0.0029808988

HS 0.0014599283 0.0012310197 0.0018923112 0.0017142712

SmColl 0.0008240710 0.0006765521 0.0010580665 0.0007426813

Bach 0.0003459064 0.0004323829 0.0006104230 0.0003764275

Adv 0.0001424320 0.0002034743 0.0003102983 0.0001169977

PUMA

educ\_indx 3801 3802 3803 3804

No HS 0.0020703512 0.0009614162 0.0012310197 0.0012310197

HS 0.0011496299 0.0008342447 0.0009868505 0.0008647659

SmColl 0.0009410687 0.0009156345 0.0006765521 0.0006612916

Bach 0.0011852379 0.0008088104 0.0008545922 0.0006562047

Adv 0.0009512425 0.0009156345 0.0008138973 0.0004985121

PUMA

educ\_indx 3805 3806 3807 3808

No HS 0.0010733271 0.0008647659 0.0005442938 0.0003866012

HS 0.0004527304 0.0003916881 0.0005188595 0.0003662538

SmColl 0.0003408195 0.0004069486 0.0005392070 0.0004374698

Bach 0.0017498792 0.0012920620 0.0017753135 0.0014650151

Adv 0.0023196073 0.0018719638 0.0014243203 0.0012004985

PUMA

educ\_indx 3809 3810 3901 3902

No HS 0.0015362311 0.0008495053 0.0016786632 0.0018160083

HS 0.0011852379 0.0004629041 0.0019991352 0.0016176209

SmColl 0.0007681156 0.0005544675 0.0010580665 0.0007884630

Bach 0.0013124094 0.0021008724 0.0011191088 0.0010377191

Adv 0.0006002493 0.0018109215 0.0007732024 0.0007070733

PUMA

educ\_indx 3903 4001 4002 4003

No HS 0.0023653890 0.0018007478 0.0017091843 0.0016074472

HS 0.0024366050 0.0013124094 0.0012717145 0.0013836254

SmColl 0.0014395808 0.0006612916 0.0007782893 0.0007935499

Bach 0.0012768014 0.0018973981 0.0012310197 0.0010936745

Adv 0.0007274207 0.0009054607 0.0004018618 0.0006256835

PUMA

educ\_indx 4004 4005 4006 4007

No HS 0.0014701020 0.0013734517 0.0013531043 0.0014955363

HS 0.0009919373 0.0006053361 0.0012920620 0.0017244449

SmColl 0.0006714653 0.0004730778 0.0007681156 0.0008291579

Bach 0.0018719638 0.0018261821 0.0012513671 0.0003967749

Adv 0.0017091843 0.0016634026 0.0008138973 0.0001526057

PUMA

educ\_indx 4008 4009 4010 4011

No HS 0.0024213445 0.0032505023 0.0015769260 0.0010987614

HS 0.0025637765 0.0035964087 0.0022026096 0.0010885876

SmColl 0.0010682402 0.0024162576 0.0012055854 0.0007274207

Bach 0.0004629041 0.0018414426 0.0009563293 0.0007833761

Adv 0.0002034743 0.0012157591 0.0004171224 0.0004629041

PUMA

educ\_indx 4012 4013 4014 4015

No HS 0.0029351171 0.0021161330 0.0034946715 0.0021415673

HS 0.0014090597 0.0017651398 0.0024162576 0.0018465295

SmColl 0.0006358573 0.0010173716 0.0010021110 0.0011191088

Bach 0.0010122848 0.0016176209 0.0010529796 0.0013480174

Adv 0.0005748150 0.0012106722 0.0006714653 0.0010682402

PUMA

educ\_indx 4016 4017 4018 4101

No HS 0.0026960348 0.0039372282 0.0014751888 0.0018973981

HS 0.0026349925 0.0030470280 0.0012055854 0.0021110461

SmColl 0.0013632780 0.0017142712 0.0006663784 0.0011801511

Bach 0.0019024849 0.0018668769 0.0008291579 0.0024722130

Adv 0.0010835008 0.0007986367 0.0005290332 0.0012310197

PUMA

educ\_indx 4102 4103 4104 4105

No HS 0.0025739502 0.0036523641 0.0016837500 0.0029402040

HS 0.0020194827 0.0032098075 0.0018058346 0.0033369789

SmColl 0.0009665030 0.0019838747 0.0010580665 0.0020754381

Bach 0.0006663784 0.0017702266 0.0014650151 0.0016277946

Adv 0.0004679909 0.0010326322 0.0008240710 0.0009461556

PUMA

educ\_indx 4106 4107 4108 4109

No HS 0.0019126586 0.0017854872 0.0011598036 0.0013988860

HS 0.0016277946 0.0015209706 0.0008444184 0.0014599283

SmColl 0.0012361065 0.0006918127 0.0006867258 0.0008240710

Bach 0.0013276700 0.0006816390 0.0014243203 0.0013734517

Adv 0.0009817636 0.0002696035 0.0011801511 0.0008342447

PUMA

educ\_indx 4110 4111 4112 4113

No HS 0.0028689880 0.0024925605 0.0039880968 0.0021670016

HS 0.0033522395 0.0024874736 0.0039372282 0.0021415673

SmColl 0.0015413180 0.0015718392 0.0023908233 0.0011801511

Bach 0.0017600529 0.0013276700 0.0014904494 0.0008138973

Adv 0.0008545922 0.0007375944 0.0005951624 0.0003306458

PUMA

educ\_indx 4114

No HS 0.0016634026

HS 0.0014446677

SmColl 0.0007223339

Bach 0.0006358573

Adv 0.0003866012

> #This data includes not just whether a person has a college degree but also what field was the

> #degree in: Economics or Psychology, for instance. Look over the codebook about DEGFIELD and DEGFIELDD

> #(that second D means more detail) to see the codes. Maybe look at 10th and 90th percentiles by degree field?

> ###IF I OPEN THE DATA TABLE IN THE ENVIRONMENT HOW CAN I SEE THE DEGREES LISTED?

> view(acs2017\_ny)

> #Nevermind lol, i just called the data from the envronment. It has alot of information, rent too.

> mean(educ\_nohs[(AGE >= 25)&(AGE <= 55)])

[1] 0.08354656

> mean(educ\_hs[(AGE >= 25)&(AGE <= 55)])

[1] 0.2974594

> mean(educ\_somecoll[(AGE >= 25)&(AGE <= 55)])

[1] 0.2057843

> mean(educ\_college[(AGE >= 25)&(AGE <= 55)])

[1] 0.2383112

> mean(educ\_advdeg[(AGE >= 25)&(AGE <= 55)])

[1] 0.1748986

> # alternatively

> restrict1 <- as.logical((AGE >= 25)&(AGE <= 55))

> dat\_age\_primeage <- subset(acs2017\_ny, restrict1)

> detach()

> attach(dat\_age\_primeage)

The following objects are masked \_by\_ .GlobalEnv:

female, PUMA

The following objects are masked from acs2017\_ny:

AfAm, AGE, Amindian, ANCESTR1, ANCESTR1D, ANCESTR2,

ANCESTR2D, Asian, below\_150poverty, below\_200poverty,

below\_povertyline, BPL, BPLD, BUILTYR2, CITIZEN, CLASSWKR,

CLASSWKRD, Commute\_bus, Commute\_car, Commute\_other,

Commute\_rail, Commute\_subway, COSTELEC, COSTFUEL, COSTGAS,

COSTWATR, DEGFIELD, DEGFIELD2, DEGFIELD2D, DEGFIELDD,

DEPARTS, EDUC, educ\_advdeg, educ\_college, educ\_hs,

educ\_nohs, educ\_somecoll, EDUCD, EMPSTAT, EMPSTATD, FAMSIZE,

female, foodstamps, FOODSTMP, FTOTINC, FUELHEAT, GQ,

has\_AnyHealthIns, has\_PvtHealthIns, HCOVANY, HCOVPRIV,

HHINCOME, Hisp\_Cuban, Hisp\_DomR, Hisp\_Mex, Hisp\_PR, HISPAN,

HISPAND, Hispanic, in\_Bronx, in\_Brooklyn, in\_Manhattan,

in\_Nassau, in\_NYC, in\_Queens, in\_StatenI, in\_Westchester,

INCTOT, INCWAGE, IND, LABFORCE, LINGISOL, MARST, MIGCOUNTY1,

MIGPLAC1, MIGPUMA1, MIGRATE1, MIGRATE1D, MORTGAGE, NCHILD,

NCHLT5, OCC, OWNCOST, OWNERSHP, OWNERSHPD, POVERTY, PUMA,

PWPUMA00, RACE, race\_oth, RACED, RELATE, RELATED, RENT,

ROOMS, SCHOOL, SEX, SSMC, TRANTIME, TRANWORK, UHRSWORK,

UNITSSTR, unmarried, veteran, VETSTAT, VETSTATD, white,

WKSWORK2, YRSUSA1

> mean(educ\_nohs)

[1] 0.08354656

> mean(educ\_hs)

[1] 0.2974594

> mean(educ\_college)

[1] 0.2383112

> mean(educ\_advdeg)

[1] 0.1748986

> detach()