# Project : Propensity Score on Yahoo Personals Data 2004-2005, M. Sherrod

## R Packages

You will need to use an R package that you may not already have installed, arm.

```
# load data
YHdatNA <- OG_YH_test
colnames(YHdatNA)
```

**Load the data and choose confounders (5 points)**

```
##   [1] "ID"                "SEX"
##   [3] "REGION"            "AGE"
##   [5] "ETHNICITY"         "MARSTAT"
##   [7] "BODY"              "HEIGHT_FT"
##   [9] "HEIGHT_IN"         "SMOKING"
##  [11] "DRINKING"          "LIVE_ALONE"
##  [13] "LIVE_KIDS"         "LIVE_PAR"
##  [15] "LIVE_PETS"         "LIVE_ROOM"
##  [17] "LIVE_FAM"          "LIVE_PARTY"
##  [19] "HAVEKIDS"          "WANTKIDS"
##  [21] "EDUCATION"         "CGRAD"
##  [23] "EMPSTAT"           "OCCUP"
##  [25] "INCOME"            "RELIGION"
##  [27] "SERVICES"          "POLITICS"
##  [29] "LANG_ENGLISH"      "LANG_FRENCH"
##  [31] "LANG_GERMAN"       "LANG_ITALIAN"
##  [33] "LANG_SPANISH"      "LANG_PORTUGUESE"
##  [35] "LANG_DUTCH"        "LANG_CHINESE"
##  [37] "LANG_JAPANESE"     "LANG_ARABIC"
##  [39] "LANG_RUSSIAN"      "LANG_HEBREW"
##  [41] "LANG_HINDI"        "LANG_TAGALOG"
##  [43] "LANG_URDU"         "D_MILES"
##  [45] "D_YOUNGEST"        "D_OLDEST"
##  [47] "D_MARSTAT_ANY"     "D_MARSTAT_SINGLE"
##  [49] "D_MARSTAT_DIV"     "D_MARSTAT_WID"
##  [51] "D_MARSTAT_SEP"     "D_BODY_ANY"
##  [53] "D_BODY_SLIM"       "D_BODY_SLENDER"
##  [55] "D_BODY_AVERAGE"    "D_BODY_ATH"
##  [57] "D_BODY_FIT"        "D_BODY_THICK"
##  [59] "D_BODY_EXTRA"      "D_BODY_LARGE"
##  [61] "D_BODY_VOLUP"      "D_BODY_CURVY"
##  [63] "D_MINHEIGHT_FT"    "D_MINHEIGHT_IN"
##  [65] "D_MAXHEIGHT_FT"    "D_MAXHEIGHT_IN"
##  [67] "D_EYES_ANY"        "D_EYES_BLACK"
##  [69] "D_EYES_BLUE"       "D_EYES_BROWN"
```

```
##  [71] "D_EYES_GRAY"           "D_EYES_GREEN"
##  [73] "D_EYES_HAZEL"          "D_HAIR_ANY"
##  [75] "D_HAIR_AUBURN"         "D_HAIR_BLACK"
##  [77] "D_HAIR_BLONDE"         "D_HAIR_DARKBLONDE"
##  [79] "D_HAIR_LIGHTBROWN"     "D_HAIR_DARKBROWN"
##  [81] "D_HAIR_RED"            "D_HAIR_WHITE"
##  [83] "D_HAIR_BALD"           "D_HAIR_LITGRAY"
##  [85] "D_ETHNIC_ANY"          "D_ETHNIC_BLACK"
##  [87] "D_ETHNIC_ASIAN"        "D_ETHNIC_WHITE"
##  [89] "D_ETHNIC_EINDIAN"      "D_ETHNIC_LATINO"
##  [91] "D_ETHNIC_MIDEAST"      "D_ETHNIC_NATIVE"
##  [93] "D_ETHNIC_PACIFIC"      "D_ETHNIC_INTER"
##  [95] "D_ETHNIC_OTHER"        "D_SMOKE_ANY"
##  [97] "D_SMOKE_NO"            "D_SMOKE_OCC"
##  [99] "D_SMOKE_OFTEN"         "D_DRINK_ANY"
## [101] "D_DRINK_NO"            "D_DRINK_SOCIAL"
## [103] "D_DRINK_REG"           "D_LIVING_ANY"
## [105] "D_LIVING_ALONE"        "D_LIVING_KIDS"
## [107] "D_LIVING_PARENTS"      "D_LIVING_PETS"
## [109] "D_LIVING_ROOMMATE"     "D_LIVING_FAMILY"
## [111] "D_LIVING_PARTY"        "D_KIDS_ANY"
## [113] "D_KIDS_NO"             "D_KIDS_HOMEFT"
## [115] "D_KIDS_HOMEPT"         "D_KIDS_NOTHOME"
## [117] "D_WANTKIDS_ANY"        "D_WANTKIDS_NO"
## [119] "D_WANTKIDS_YES"        "D_WANTKIDS_NOTSURE"
## [121] "D_EDUC"                "D_CGRAD"
## [123] "D_EMPSTAT_ANY"         "D_EMPSTAT_FT"
## [125] "D_EMPSTAT_PT"          "D_EMPSTAT_HOME"
## [127] "D_EMPSTAT_RETIRED"     "D_EMPSTAT_SELF"
## [129] "D_EMPSTAT_STUDENT"     "D_EMPSTAT_UNEMP"
## [131] "D_EMPSTAT_ATHOME"      "D_OCC_ANY"
## [133] "D_OCC_ART"             "D_OCC_BANK"
## [135] "D_OCC_CLER"            "D_OCC_COMP"
## [137] "D_OCC_CONSTR"          "D_OCC_EDUC"
## [139] "D_OCC_MEDIA"           "D_OCC_EXEC"
## [141] "D_OCC_TRAVEL"          "D_OCC_LEGAL"
## [143] "D_OCC_MANU"            "D_OCC_MED"
## [145] "D_OCC_POLITICS"        "D_OCC_SALES"
## [147] "D_OCC_TECH"            "D_OCC_TRANSPORT"
## [149] "D_OCC_FOOD"            "D_OCC_OTHER"
## [151] "D_INCOME"              "D_FAITH_ANY"
## [153] "D_FAITH_BUDDHIST"      "D_FAITH_CHRISTIAN"
## [155] "D_FAITH_HINDU"         "D_FAITH_JEWISH"
## [157] "D_FAITH_ISLAM"         "D_FAITH_AGNOSTIC"
## [159] "D_FAITH_PROTESTANT"    "D_FAITH_CATHOLIC"
## [161] "D_FAITH_ATHEIST"       "D_FAITH_LDS"
## [163] "D_FAITH_CHRISTIAN_OTHER" "D_FAITH_NOTRELIG"
## [165] "D_FAITH_SPIRITUAL"     "D_FAITH_SCIENT"
## [167] "D_FAITH_OTHER"         "D_SERVICE_ANY"
## [169] "D_SERVICE_MORE"        "D_SERVICE_WEEKLY"
## [171] "D_SERVICE_MONTHLY"     "D_SERVICE_HOLIDAYS"
## [173] "D_SERVICE_RARELY"      "D_SERVICE_NEVER"
## [175] "D_POLITICS_ANY"        "D_POLITICS_VCONS"
## [177] "D_POLITICS_CONS"       "D_POLITICS_MIDDLE"
```

```
## [179] "D_POLITICS_LIB"           "D_POLITICS_VLIB"
## [181] "D_POLITICS_NOTPOL"        "D_LANG_ANY"
## [183] "D_LANG_ENGLISH"           "D_LANG_FRENCH"
## [185] "D_LANG_GERMAN"            "D_LANG_ITALIAN"
## [187] "D_LANG_SPANISH"           "D_LANG_PORTUGUESE"
## [189] "D_LANG_DUTCH"             "D_LANG_CHINESE"
## [191] "D_LANG_JAPANESE"          "D_LANG_ARABIC"
## [193] "D_LANG_RUSSIAN"           "D_LANG_HEBREW"
## [195] "D_LANG_HINDI"             "D_LANG_TAGALOG"
## [197] "D_LANG_URDU"              "PERMEX"
## [199] "PERPR"                    "PERCUB"
## [201] "PEROTLAT"                 "PERHIS"
## [203] "PERWHT"                   "PERBLK"
## [205] "PERAMIND"                 "PERASN"
## [207] "PERISLD"                  "PEROTHRACE"
## [209] "PERMLTRAC"
```

```r
summary(YHdatNA$CGRAD)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##  0.0000  0.0000  1.0000  0.5898  1.0000  1.0000
```

```r
sum(YHdatNA$CGRAD == 1) #3462
```

```
## [1] 3462
```

```r
sum(YHdatNA$CGRAD == 0) #2408
```

```
## [1] 2408
```

```r
# print out the names of all your confounders
YHdatNA_NAMES <- YHdatNA %>% dplyr::select(-c(1, 21:22, 44:209)) #removing ID column, EDUCATION AND CGR

confounder_names <- colnames(YHdatNA_NAMES)
confounder_names
```

```
##  [1] "SEX"              "REGION"          "AGE"             "ETHNICITY"
##  [5] "MARSTAT"          "BODY"            "HEIGHT_FT"       "HEIGHT_IN"
##  [9] "SMOKING"          "DRINKING"        "LIVE_ALONE"      "LIVE_KIDS"
## [13] "LIVE_PAR"         "LIVE_PETS"       "LIVE_ROOM"       "LIVE_FAM"
## [17] "LIVE_PARTY"       "HAVEKIDS"        "WANTKIDS"        "EMPSTAT"
## [21] "OCCUP"            "INCOME"          "RELIGION"        "SERVICES"
## [25] "POLITICS"         "LANG_ENGLISH"    "LANG_FRENCH"     "LANG_GERMAN"
## [29] "LANG_ITALIAN"     "LANG_SPANISH"    "LANG_PORTUGUESE" "LANG_DUTCH"
## [33] "LANG_CHINESE"     "LANG_JAPANESE"   "LANG_ARABIC"     "LANG_RUSSIAN"
## [37] "LANG_HEBREW"      "LANG_HINDI"      "LANG_TAGALOG"    "LANG_URDU"
```

#Plotting Data

```r
#plotting counts of cGrad by region
pcgradreg <- ggplot(data = YHdatNA, aes(x = as.factor(CGRAD), fill = REGION)) +
    geom_bar() +
    labs(title = "No. College Grads and Non-Grads by Region",  # Adding title
       x = "College Graduate",  # X-axis label
       y = "Count") +
  geom_text(stat = 'count', aes(label = ..count..), position = position_stack(vjust = 0.5))
pcgradreg
```

```
## Warning: The dot-dot notation (`..count..`) was deprecated in ggplot2 3.4.0.
## i Please use `after_stat(count)` instead.
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was
## generated.
```

## No. College Grads and Non–Grads by Region
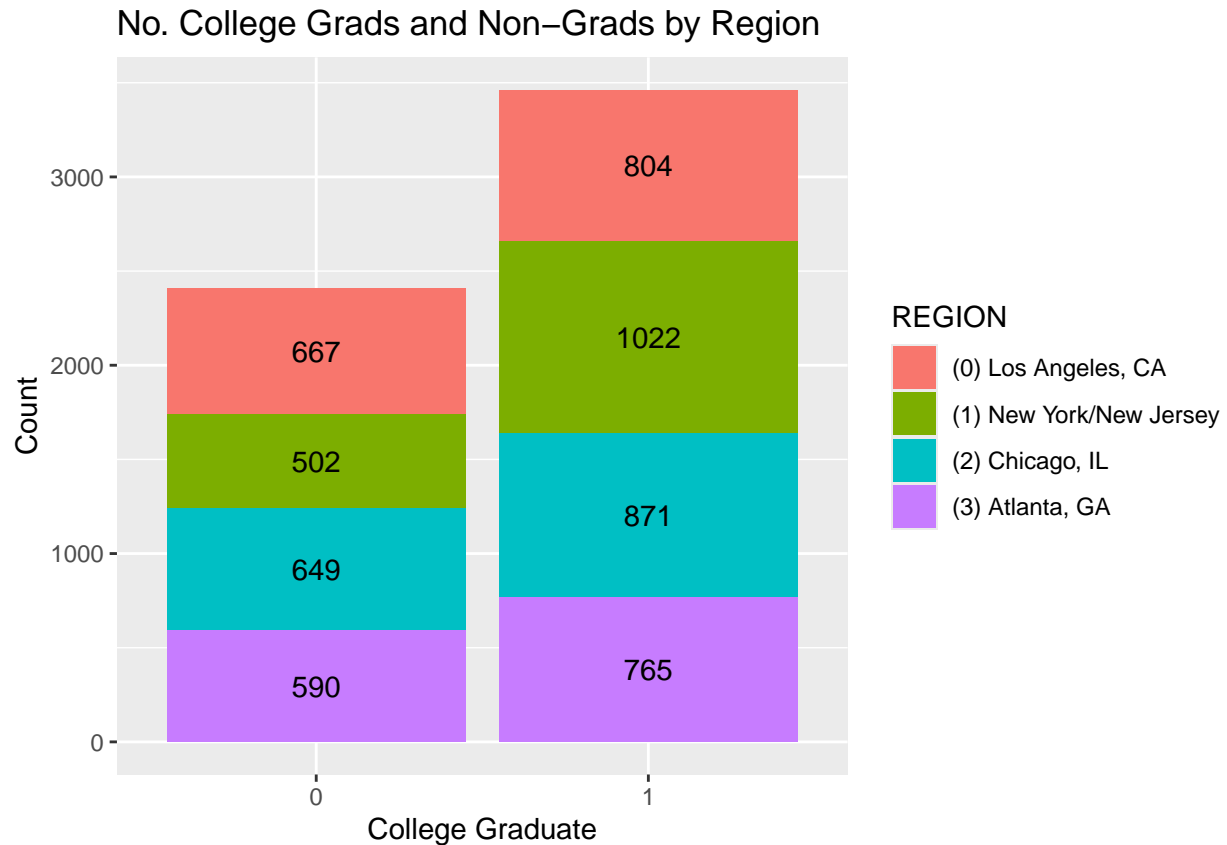


```
pcgradwant_kids <- ggplot(data = YHdatNA, aes(x = as.factor(CGRAD), fill = D_WANTKIDS_YES)) +
    geom_bar() +
      labs(title = "Non-C. Grads and C .Grads w/ 'Does Not Want Kids' Preference in Partner",  # Adding
       x = "College Graduate",  # X-axis label
       y = "Count") +
  geom_text(stat = 'count', aes(label = ..count..), position = position_stack(vjust = 0.5))
pcgradwant_kids
```

## Non−C. Grads and C .Grads w/ 'Does Not Want Kids' Preference in Partne



```
#ggsave("pcgradwant_kids.png", pcgradwant_kids, width = 6, height = 4, dpi = 300)
#dev.off()
```
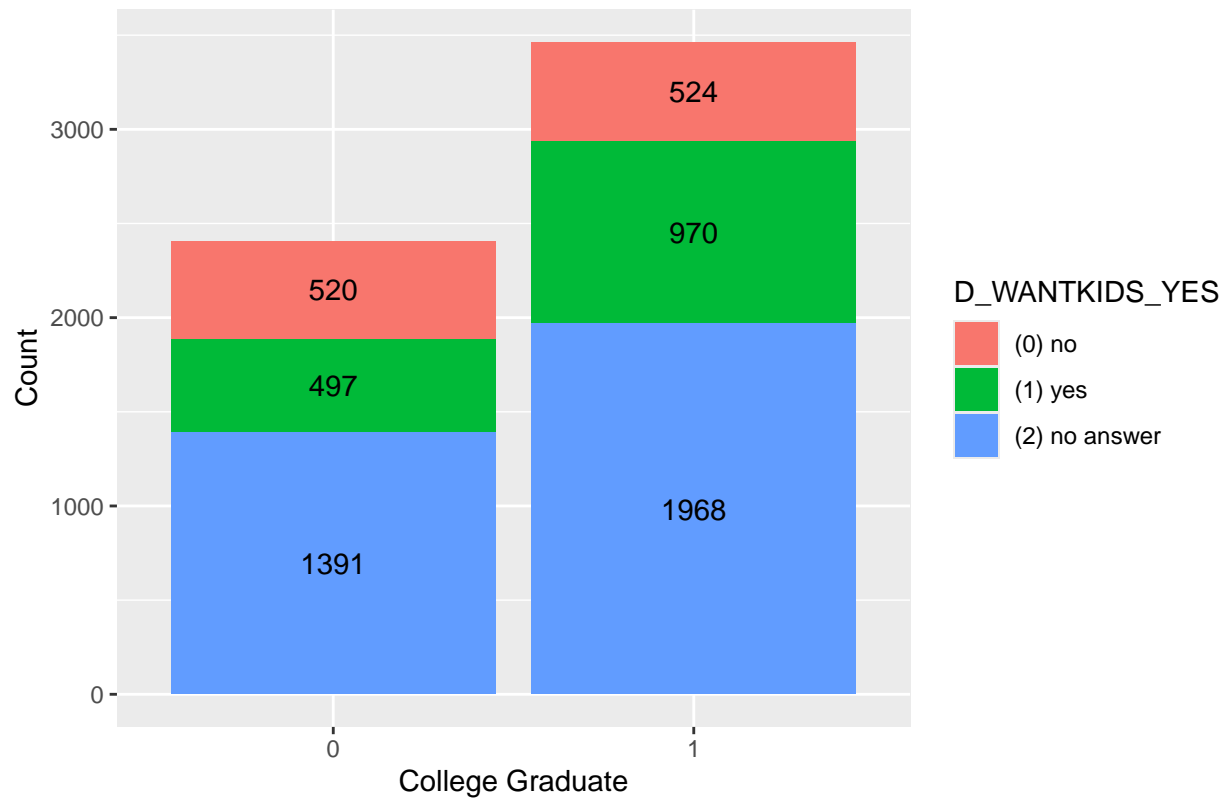
```
pcgradsex <- ggplot(data = YHdatNA, aes(x = as.factor(CGRAD), fill = SEX)) +
    geom_bar() +
      labs(title = "No. College Grads and Non-Grads by Sex",  # Adding title
      x = "College Graduate",  # X-axis label
      y = "Count") +
  geom_text(stat = 'count', aes(label = ..count..), position = position_stack(vjust = 0.5))

pcgradsex
```

## No. College Grads and Non-Grads by Sex
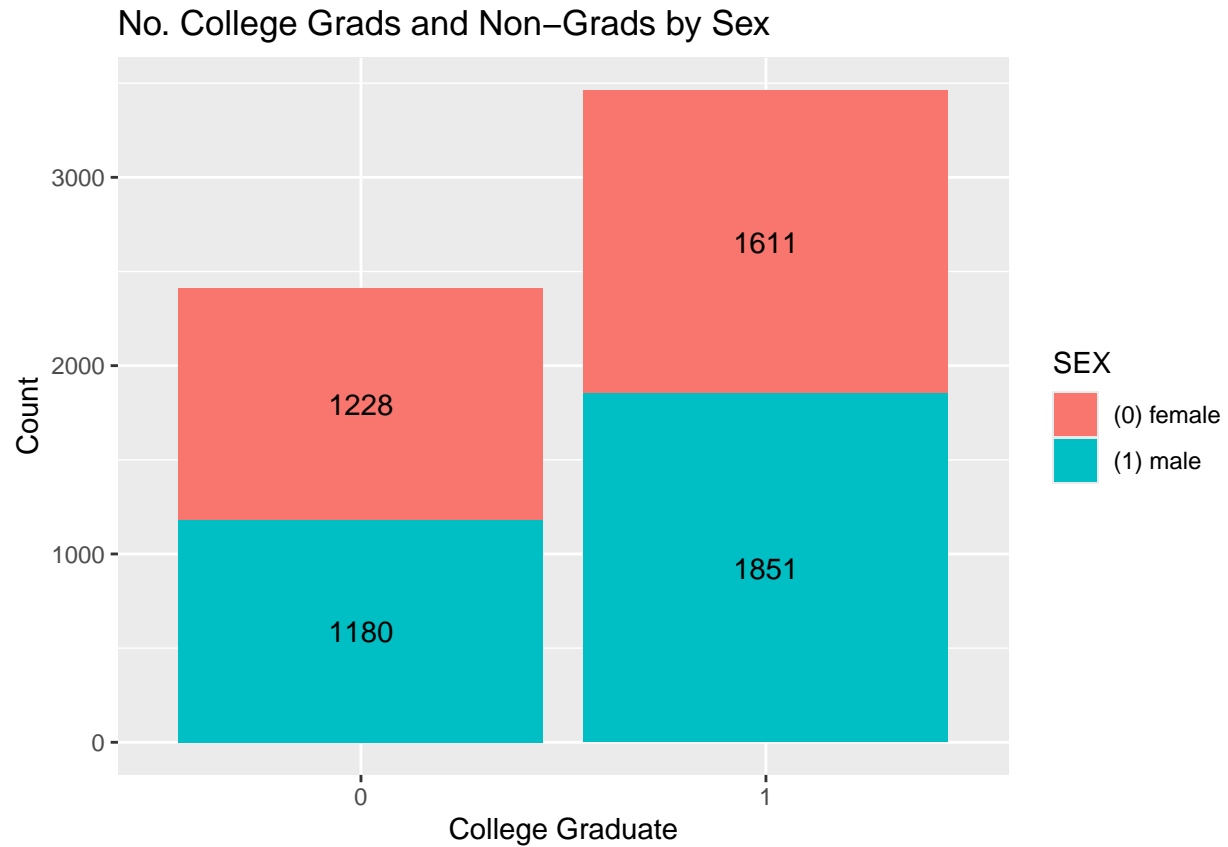


```
pcgradwant_kids_region <- ggplot(data = YHdatNA, aes(x = as.factor(CGRAD), fill = D_WANTKIDS_YES)) +
    geom_bar() +
  facet_wrap(~ REGION) +
      labs(title = "Non-C.Grads/C.Grads w. 'Does Not Want Kids' Preference in Partner by Region",  # Ad
      x = "College Graduate",  # X-axis label
      y = "Count") +
  geom_text(stat = 'count', aes(label = ..count..), position = position_stack(vjust = 0.5))
pcgradwant_kids_region
```

## Non-C.Grads/C.Grads w. 'Does Not Want Kids' Preference in Partner by F
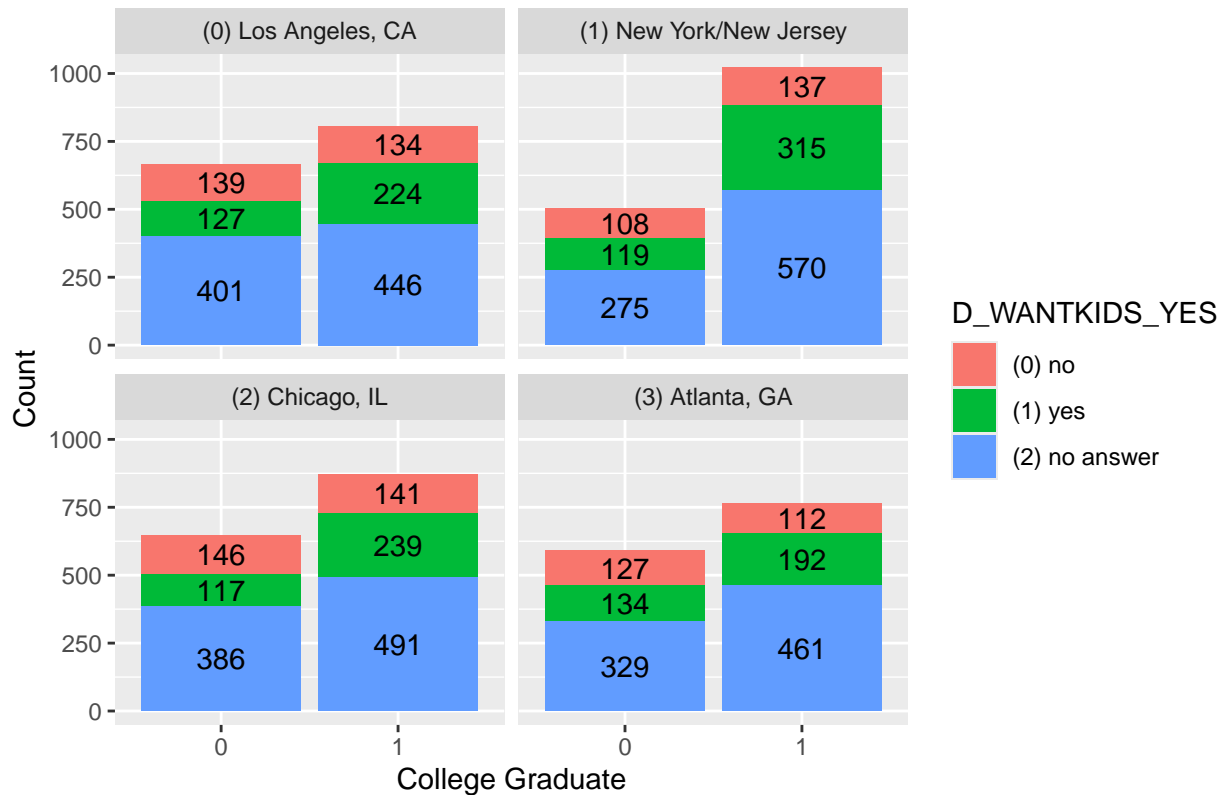
**Step 2: Look at original balance and overlap**  #PROBIT MODELS

```
bal_ov_B4_prob_ATC <- matchit(CGRAD ~ SEX + REGION + AGE + ETHNICITY + MARSTAT + BODY + HEIGHT_FT + HEIG
                method = NULL, distance = "glm", link = "probit", estimand = "ATC")

bal_ov_B4_prob_ATC

## A matchit object
##  - method: None (no matching)
##  - distance: Propensity score
##              - estimated with probit regression
##  - number of obs.: 5870 (original)
##  - target estimand: ATC
##  - covariates: SEX, REGION, AGE, ETHNICITY, MARSTAT, BODY, HEIGHT_FT, HEIGHT_IN, SMOKING, DRINKING, 

sum_bal4_ATC <- summary(bal_ov_B4_prob_ATC)

summarydf_sum_bal4_ATC <- cbind(
  "Means Treated B4" = sum_bal4_ATC$sum.all[,"Means Treated"],
  "Means Treated M" = sum_bal4_ATC$sum.matched[,"Means Treated"],
  "Means Control B4" = sum_bal4_ATC$sum.all[,"Means Control"],
  "Means Control M" = sum_bal4_ATC$sum.matched[,"Means Control"],
  "Std. Mean Diff. B4" = sum_bal4_ATC$sum.all[,"Std. Mean Diff."],
  "Std. Mean Diff. M" = sum_bal4_ATC$sum.matched[,"Std. Mean Diff."],
  "Var. Ratio B4" = sum_bal4_ATC$sum.all[,"Var. Ratio"],
  "Var. Ratio M" = sum_bal4_ATC$sum.matched[,"Var. Ratio"],
  "eCDF Mean B4" = sum_bal4_ATC$sum.all[,"eCDF Mean"],
```

```
  "eCDF Mean M" = sum_bal4_ATC$sum.matched[,"eCDF Mean"],
  "eCDF Max B4" = sum_bal4_ATC$sum.all[,"eCDF Max"],
  "eCDF Max M" = sum_bal4_ATC$sum.matched[,"eCDF Max"],
  "Std. Pair Dist. B4" = sum_bal4_ATC$sum.all[,"Std. Pair Dist."],
  "Std. Pair Dist. M" = sum_bal4_ATC$sum.matched[,"Std. Pair Dist."]
)

summarydf_sum_bal4_ATC <- as.data.frame(summarydf_sum_bal4_ATC)

view(summarydf_sum_bal4_ATC)

summarynn_sum_bal4_ATC <- sum_bal4_ATC$nn
summarynn_sum_bal4_ATC
```

```
##                Control Treated
## All (ESS)         2408    3462
## All               2408    3462
## Matched (ESS)     2408    3462
## Matched           2408    3462
## Unmatched            0       0
## Discarded            0       0
```

```
bal.plot(bal_ov_B4_prob_ATC, type = "histogram") #plot looks pretty good
```

## No `var.name` was provided. Displaying balance for distance.

## Warning: No shared levels found between `names(values)` of the manual scale and the
## data's colour values.

## Distributional Balance for "distance"
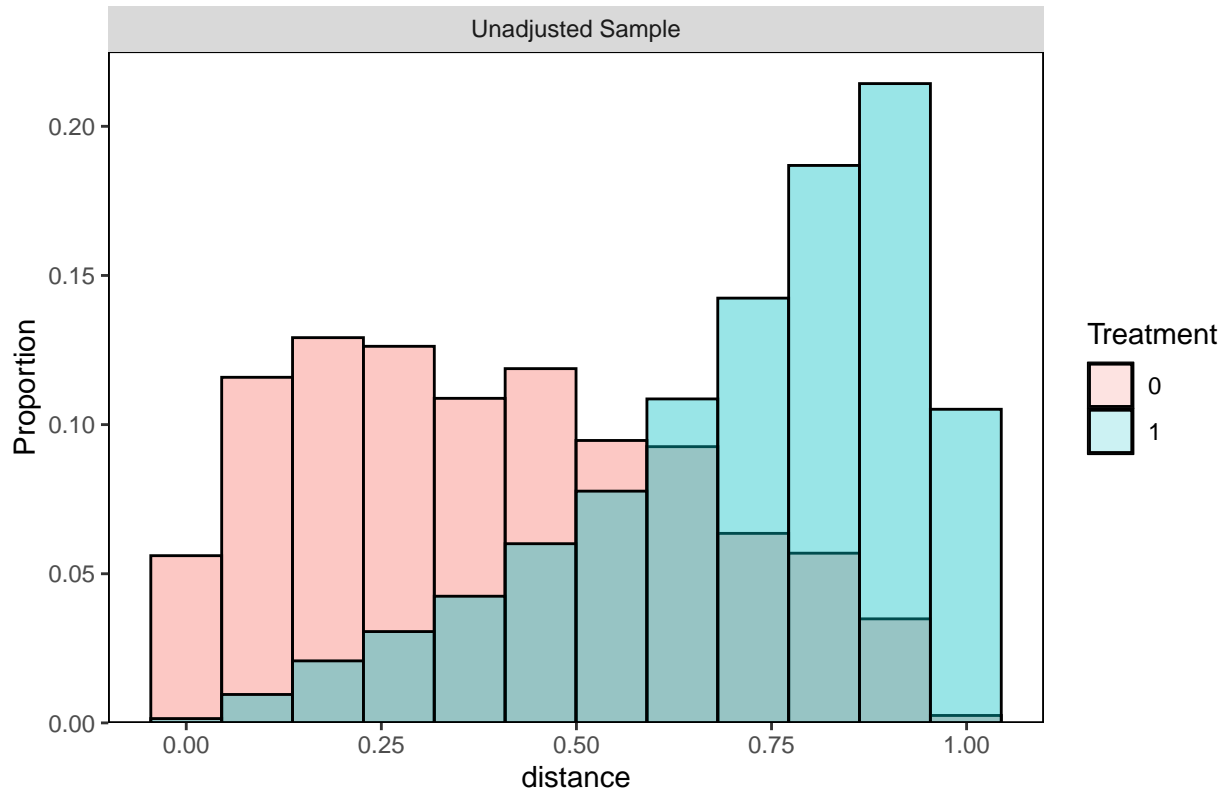


```r
stdm_summarydf_sum_bal4_ATC <- summarydf_sum_bal4_ATC[order(-abs(summarydf_sum_bal4_ATC$"Std. Mean Diff
table1 <- round(head(stdm_summarydf_sum_bal4_ATC, n= 7), digits = 4)
write.csv(table1, "table1.csv", row.names = T)

kableExtra::kable(stdm_summarydf_sum_bal4_ATC)
```

| | Means Treated B4 | Means Control B4 | Std. Mean Diff. B4 | Var. Ratio B4 | eCDF Mean B4 | eCDF Max B4 | Std. Pair Dist. B4 |
|---|---|---|---|---|---|---|---|
| distance | 0.7226382 | 0.3998113 | 1.3009268 | 0.7505352 | 0.3311568 | 0.5102950 | NA |
| ETHNICITY(1) Asian | 0.3032929 | 0.1362126 | 0.4870943 | NA | 0.1670803 | 0.1670803 | NA |
| INCOME(7) $150,000+ | 0.0447718 | 0.0074751 | 0.4330041 | NA | 0.0372967 | 0.0372967 | NA |
| INCOME(6) $100,000 to $149,999 | 0.0450607 | 0.0078904 | 0.4201144 | NA | 0.0371703 | 0.0371703 | NA |
| ETHNICITY(4) Hispanic/Latino | 0.1770653 | 0.3629568 | -0.3865874 | NA | 0.1858915 | 0.1858915 | NA |
| LIVE_ALONE(1) yes | 0.4020797 | 0.2421096 | 0.3734475 | NA | 0.1599701 | 0.1599701 | NA |
| AGE | 32.6002311 | 29.7549834 | 0.3413698 | 0.6756963 | 0.0863779 | 0.2259474 | NA |
| LANG_CHINESE(1) yes | 0.0834778 | 0.0286545 | 0.3286108 | NA | 0.0548233 | 0.0548233 | NA |
| INCOME(5) $75,000 to $99,999 | 0.0701906 | 0.0228405 | 0.3169459 | NA | 0.0473501 | 0.0473501 | NA |
| OCCUP(05) education/academic research | 0.0797227 | 0.0290698 | 0.3015017 | NA | 0.0506529 | 0.0506529 | NA |
| HAVEKIDS(0) no | 0.7833622 | 0.6465947 | 0.2861083 | NA | 0.1367675 | 0.1367675 | NA |

| | Means Treated B4 | Means Control B4 | Std. Mean Diff. B4 | Var. Ratio B4 | eCDF Mean B4 | eCDF Max B4 | Std. Pair Dist. B4 |
|---|---|---|---|---|---|---|---|
| LIVE_PAR(1) yes | 0.0427499 | 0.1378738 | -0.2759074 | NA | 0.0951239 | 0.0951239 | NA |
| LIVE_ALONE(0) no | 0.2845176 | 0.4202658 | -0.2750157 | NA | 0.1357482 | 0.1357482 | NA |
| BODY(3) athletic | 0.3379549 | 0.2296512 | 0.2574931 | NA | 0.1083038 | 0.1083038 | NA |
| INCOME(1) less than $24,999 | 0.0222415 | 0.0980066 | -0.2548239 | NA | 0.0757652 | 0.0757652 | NA |
| SMOKING(1) no | 0.8492201 | 0.7379568 | 0.2530172 | NA | 0.1112633 | 0.1112633 | NA |
| EMPSTAT(0) full-time | 0.7712305 | 0.6511628 | 0.2519243 | NA | 0.1200677 | 0.1200677 | NA |
| INCOME(2) $25,000 to $34,999y | 0.0421722 | 0.1200166 | -0.2395354 | NA | 0.0778445 | 0.0778445 | NA |
| ETHNICITY(2) Caucasian | 0.2954939 | 0.1997508 | 0.2394697 | NA | 0.0957431 | 0.0957431 | NA |
| LIVE_PAR(0) no | 0.6415367 | 0.5236711 | 0.2359958 | NA | 0.1178656 | 0.1178656 | NA |
| HAVEKIDS(1) yes, at home full-time | 0.0733680 | 0.1594684 | -0.2351749 | NA | 0.0861004 | 0.0861004 | NA |
| OCCUP(01) banking/financial services/real estate | 0.1181398 | 0.0622924 | 0.2310746 | NA | 0.0558474 | 0.0558474 | NA |
| EMPSTAT(5) student | 0.0462161 | 0.1204319 | -0.2280295 | NA | 0.0742158 | 0.0742158 | NA |
| OCCUP(02) clerical/administrative | 0.0233969 | 0.0867940 | -0.2251855 | NA | 0.0633971 | 0.0633971 | NA |
| POLITICS(3) liberal | 0.1964183 | 0.1229236 | 0.2238306 | NA | 0.0734947 | 0.0734947 | NA |
| BODY(5) thick | 0.0450607 | 0.1146179 | -0.2183489 | NA | 0.0695573 | 0.0695573 | NA |
| REGION(1) New York/New Jersey | 0.2952051 | 0.2084718 | 0.2135154 | NA | 0.0867333 | 0.0867333 | NA |
| EMPSTAT(1) part-time | 0.0297516 | 0.0897010 | -0.2097946 | NA | 0.0599494 | 0.0599494 | NA |
| POLITICS(5) not political | 0.1129405 | 0.1951827 | -0.2075036 | NA | 0.0822422 | 0.0822422 | NA |
| RELIGION(07) Hindu | 0.0066436 | 0.0008306 | 0.2017872 | NA | 0.0058130 | 0.0058130 | NA |
| OCCUP(17) other | 0.0866551 | 0.1565615 | -0.1923745 | NA | 0.0699063 | 0.0699063 | NA |
| LANG_FRENCH(1) yes | 0.0548816 | 0.0249169 | 0.1922386 | NA | 0.0299646 | 0.0299646 | NA |
| OCCUP(07) executive/management | 0.0774119 | 0.0398671 | 0.1919007 | NA | 0.0375448 | 0.0375448 | NA |
| SMOKING(2) occasionally | 0.0930098 | 0.1640365 | -0.1918041 | NA | 0.0710267 | 0.0710267 | NA |
| LIVE_KIDS(1) yes | 0.0606586 | 0.1237542 | -0.1916046 | NA | 0.0630956 | 0.0630956 | NA |
| RELIGION(08) Jewish | 0.0199307 | 0.0058140 | 0.1856796 | NA | 0.0141167 | 0.0141167 | NA |
| LANG_TAGALOG(1) yes | 0.0352397 | 0.0137043 | 0.1852342 | NA | 0.0215354 | 0.0215354 | NA |
| WANTKIDS(1) yes | 0.4560947 | 0.3700166 | 0.1782862 | NA | 0.0860781 | 0.0860781 | NA |
| OCCUP(14) technical science/engineering | 0.0843443 | 0.0469269 | 0.1769292 | NA | 0.0374174 | 0.0374174 | NA |
| WANTKIDS(0) no | 0.1016753 | 0.1656977 | -0.1721915 | NA | 0.0640223 | 0.0640223 | NA |
| LIVE_KIDS(0) no | 0.6239168 | 0.5382060 | 0.1719243 | NA | 0.0857108 | 0.0857108 | NA |
| POLITICS(2) middle of the road | 0.3076256 | 0.2350498 | 0.1711573 | NA | 0.0725758 | 0.0725758 | NA |

| | Means Treated B4 | Means Control B4 | Std. Mean Diff. B4 | Var. Ratio B4 | eCDF Mean B4 | eCDF Max B4 | Std. Pair Dist. B4 |
|---|---|---|---|---|---|---|---|
| ETHNICITY(0) African American | 0.2241479 | 0.3010797 | -0.1677071 | NA | 0.0769318 | 0.0769318 | NA |
| RELIGION(14) Other | 0.0375505 | 0.0830565 | -0.1648959 | NA | 0.0455059 | 0.0455059 | NA |
| OCCUP(18) no answer | 0.0745234 | 0.1274917 | -0.1588145 | NA | 0.0529683 | 0.0529683 | NA |
| LANG_SPANISH(1) yes | 0.1707106 | 0.2346346 | -0.1508459 | NA | 0.0639240 | 0.0639240 | NA |
| LANG_HINDI(1) yes | 0.0127094 | 0.0037375 | 0.1470291 | NA | 0.0089719 | 0.0089719 | NA |
| POLITICS(6) no answer | 0.2697863 | 0.3388704 | -0.1459548 | NA | 0.0690842 | 0.0690842 | NA |
| LANG_SPANISH(0) no | 0.5389948 | 0.4676080 | 0.1430742 | NA | 0.0713868 | 0.0713868 | NA |
| SMOKING(3) often | 0.0231080 | 0.0539867 | -0.1366365 | NA | 0.0308787 | 0.0308787 | NA |
| OCCUP(11) medical/health services | 0.0872328 | 0.0573090 | 0.1287423 | NA | 0.0299238 | 0.0299238 | NA |
| RELIGION(10) Spiritual but not religious | 0.1045638 | 0.0714286 | 0.1286610 | NA | 0.0331353 | 0.0331353 | NA |
| EMPSTAT(4) self-employed | 0.1106297 | 0.0768272 | 0.1269256 | NA | 0.0338025 | 0.0338025 | NA |
| OCCUP(15) transportation | 0.0095321 | 0.0315615 | -0.1260051 | NA | 0.0220294 | 0.0220294 | NA |
| INCOME(4) $50,000 to $74,999 | 0.1282496 | 0.0921927 | 0.1246359 | NA | 0.0360569 | 0.0360569 | NA |
| HAVEKIDS(3) yes, but not at home | 0.0805893 | 0.1187708 | -0.1180195 | NA | 0.0381815 | 0.0381815 | NA |
| LANG_PORTUGUESE(1) yes | 0.0147314 | 0.0058140 | 0.1172923 | NA | 0.0089174 | 0.0089174 | NA |
| LANG_JAPANESE(1) yes | 0.0259965 | 0.0128738 | 0.1164091 | NA | 0.0131228 | 0.0131228 | NA |
| WANTKIDS(2) not sure | 0.2400347 | 0.2927741 | -0.1159017 | NA | 0.0527394 | 0.0527394 | NA |
| OCCUP(16) food service | 0.0017331 | 0.0157807 | -0.1127181 | NA | 0.0140476 | 0.0140476 | NA |
| BODY(6) a few extra pounds | 0.0387060 | 0.0664452 | -0.1113763 | NA | 0.0277392 | 0.0277392 | NA |
| INCOME(3) $35,000 to $49,999 | 0.0895436 | 0.1258306 | -0.1094106 | NA | 0.0362869 | 0.0362869 | NA |
| LANG_GERMAN(1) yes | 0.0202195 | 0.0099668 | 0.1032139 | NA | 0.0102527 | 0.0102527 | NA |
| OCCUP(09) legal services | 0.0314847 | 0.0178571 | 0.1029021 | NA | 0.0136275 | 0.0136275 | NA |
| LANG_CHINESE(0) no | 0.6262276 | 0.6735880 | -0.1010033 | NA | 0.0473604 | 0.0473604 | NA |
| REGION(0) Los Angeles, CA | 0.2322357 | 0.2769934 | -0.1000142 | NA | 0.0447577 | 0.0447577 | NA |
| MARSTAT(0) single-never married | 0.7614096 | 0.7163621 | 0.0999360 | NA | 0.0450475 | 0.0450475 | NA |
| OCCUP(04) construction/craftsman | 0.0101098 | 0.0253322 | -0.0968768 | NA | 0.0152225 | 0.0152225 | NA |
| RELIGION(00) none/agnostic | 0.0557481 | 0.0373754 | 0.0968616 | NA | 0.0183727 | 0.0183727 | NA |
| OCCUP(12) politics/government/military | 0.0225303 | 0.0419435 | -0.0968432 | NA | 0.0194132 | 0.0194132 | NA |

| | Means Treated B4 | Means Control B4 | Std. Mean Diff. B4 | Var. Ratio B4 | eCDF Mean B4 | eCDF Max B4 | Std. Pair Dist. B4 |
|---|---|---|---|---|---|---|---|
| LANG_ITALIAN(1) yes | 0.0222415 | 0.0120432 | 0.0934948 | NA | 0.0101983 | 0.0101983 | NA |
| RELIGION(01) Atheist | 0.0077990 | 0.0029070 | 0.0908649 | NA | 0.0048920 | 0.0048920 | NA |
| SEX(1) male | 0.5346620 | 0.4900332 | 0.0892754 | NA | 0.0446288 | 0.0446288 | NA |
| SEX(0) female | 0.4653380 | 0.5099668 | -0.0892754 | NA | 0.0446288 | 0.0446288 | NA |
| BODY(8) voluptous | 0.0170422 | 0.0328073 | -0.0885026 | NA | 0.0157651 | 0.0157651 | NA |
| BODY(1) slender | 0.0615251 | 0.0436047 | 0.0877535 | NA | 0.0179205 | 0.0179205 | NA |
| BODY(2) average | 0.2911612 | 0.3313953 | -0.0854746 | NA | 0.0403342 | 0.0403342 | NA |
| LIVE_FAM(0) no | 0.6415367 | 0.5996678 | 0.0854527 | NA | 0.0418689 | 0.0418689 | NA |
| OCCUP(03) computer related/hardware | 0.0745234 | 0.0556478 | 0.0823396 | NA | 0.0188756 | 0.0188756 | NA |
| WANTKIDS(3) no answer | 0.2021953 | 0.1715116 | 0.0813986 | NA | 0.0306836 | 0.0306836 | NA |
| HEIGHT_FT | 5.1808203 | 5.1503322 | 0.0802308 | 1.1141004 | 0.0076852 | 0.0287900 | NA |
| LIVE_FAM(1) yes | 0.0427499 | 0.0618771 | -0.0793884 | NA | 0.0191272 | 0.0191272 | NA |
| SERVICES(1) never | 0.1057192 | 0.0838870 | 0.0787545 | NA | 0.0218322 | 0.0218322 | NA |
| RELIGION(05) Christian/Protestant | 0.0228192 | 0.0137043 | 0.0784003 | NA | 0.0091149 | 0.0091149 | NA |
| LANG_URDU(1) yes | 0.0077990 | 0.0033223 | 0.0777972 | NA | 0.0044767 | 0.0044767 | NA |
| DRINKING(2) occasionally | 0.8238013 | 0.7940199 | 0.0736404 | NA | 0.0297813 | 0.0297813 | NA |
| BODY(4) fit | 0.0644136 | 0.0485880 | 0.0736056 | NA | 0.0158256 | 0.0158256 | NA |
| BODY(0) slim | 0.1213172 | 0.0996678 | 0.0722714 | NA | 0.0216494 | 0.0216494 | NA |
| RELIGION(03) Christian/Catholic | 0.1340266 | 0.1602990 | -0.0716098 | NA | 0.0262724 | 0.0262724 | NA |
| HAVEKIDS(2) yes, at home part-time | 0.0291739 | 0.0431894 | -0.0689456 | NA | 0.0140155 | 0.0140155 | NA |
| EMPSTAT(6) unemployed | 0.0025997 | 0.0091362 | -0.0687004 | NA | 0.0065366 | 0.0065366 | NA |
| MARSTAT(4) no answer | 0.0231080 | 0.0357143 | -0.0679301 | NA | 0.0126063 | 0.0126063 | NA |
| OCCUP(10) manufacturing/distributions | 0.0089544 | 0.0178571 | -0.0672252 | NA | 0.0089028 | 0.0089028 | NA |
| OCCUP(06) entertainment/media | 0.0580589 | 0.0444352 | 0.0661153 | NA | 0.0136237 | 0.0136237 | NA |
| INCOME(0) no answer | 0.5577701 | 0.5257475 | 0.0641302 | NA | 0.0320226 | 0.0320226 | NA |
| LIVE_PARTY(1) yes | 0.0034662 | 0.0095515 | -0.0625647 | NA | 0.0060853 | 0.0060853 | NA |
| LIVE_PARTY(0) no | 0.6808203 | 0.6519934 | 0.0605179 | NA | 0.0288270 | 0.0288270 | NA |
| LIVE_ROOM(0) no | 0.5288850 | 0.4987542 | 0.0602620 | NA | 0.0301309 | 0.0301309 | NA |
| OCCUP(13) sales/marketing | 0.0794339 | 0.0647841 | 0.0595171 | NA | 0.0146498 | 0.0146498 | NA |
| BODY(7) large | 0.0109763 | 0.0191030 | -0.0593677 | NA | 0.0081267 | 0.0081267 | NA |
| RELIGION(02) Buddhist/Taoist | 0.0231080 | 0.0157807 | 0.0587942 | NA | 0.0073273 | 0.0073273 | NA |
| SERVICES(3) only on holidays | 0.0973426 | 0.0813953 | 0.0583205 | NA | 0.0159472 | 0.0159472 | NA |

| | Means Treated B4 | Means Control B4 | Std. Mean Diff. B4 | Var. Ratio B4 | eCDF Mean B4 | eCDF Max B4 | Std. Pair Dist. B4 |
|---|---|---|---|---|---|---|---|
| MARSTAT(1) divorced | 0.1813980 | 0.2043189 | -0.0568470 | NA | 0.0229209 | 0.0229209 | NA |
| EMPSTAT(2) homemaker | 0.0025997 | 0.0074751 | -0.0566023 | NA | 0.0048754 | 0.0048754 | NA |
| REGION(3) Atlanta, GA | 0.2209705 | 0.2450166 | -0.0559085 | NA | 0.0240461 | 0.0240461 | NA |
| LIVE_PETS(0) no | 0.6036973 | 0.5764120 | 0.0552193 | NA | 0.0272853 | 0.0272853 | NA |
| DRINKING(1) no | 0.1510687 | 0.1715116 | -0.0542316 | NA | 0.0204429 | 0.0204429 | NA |
| SERVICES(2) rarely | 0.2628538 | 0.2861296 | -0.0515006 | NA | 0.0232757 | 0.0232757 | NA |
| LANG_DUTCH(1) yes | 0.0023108 | 0.0008306 | 0.0513837 | NA | 0.0014802 | 0.0014802 | NA |
| LIVE_ALONE(2) no answer | 0.3134027 | 0.3376246 | -0.0512200 | NA | 0.0242219 | 0.0242219 | NA |
| POLITICS(4) very liberal | 0.0329289 | 0.0253322 | 0.0483460 | NA | 0.0075967 | 0.0075967 | NA |
| LANG_FRENCH(0) no | 0.6548238 | 0.6773256 | -0.0481322 | NA | 0.0225018 | 0.0225018 | NA |
| LIVE_PAR(2) no answer | 0.3157135 | 0.3384551 | -0.0480610 | NA | 0.0227417 | 0.0227417 | NA |
| LIVE_PETS(2) no answer | 0.3157135 | 0.3384551 | -0.0480610 | NA | 0.0227417 | 0.0227417 | NA |
| LIVE_ROOM(2) no answer | 0.3157135 | 0.3384551 | -0.0480610 | NA | 0.0227417 | 0.0227417 | NA |
| LIVE_FAM(2) no answer | 0.3157135 | 0.3384551 | -0.0480610 | NA | 0.0227417 | 0.0227417 | NA |
| LIVE_PARTY(2) no answer | 0.3157135 | 0.3384551 | -0.0480610 | NA | 0.0227417 | 0.0227417 | NA |
| LIVE_KIDS(2) no answer | 0.3154246 | 0.3380399 | -0.0478081 | NA | 0.0226153 | 0.0226153 | NA |
| SMOKING(0) no answer | 0.0346620 | 0.0440199 | -0.0456172 | NA | 0.0093579 | 0.0093579 | NA |
| DRINKING(3) often | 0.0049105 | 0.0091362 | -0.0444134 | NA | 0.0042258 | 0.0042258 | NA |
| POLITICS(0) very conservative | 0.0063547 | 0.0107973 | -0.0429872 | NA | 0.0044426 | 0.0044426 | NA |
| RELIGION(11) Christian | 0.3362218 | 0.3567276 | -0.0428065 | NA | 0.0205057 | 0.0205057 | NA |
| MARSTAT(3) separated | 0.0254188 | 0.0328073 | -0.0414775 | NA | 0.0073885 | 0.0073885 | NA |
| REGION(2) Chicago, IL | 0.2515887 | 0.2695183 | -0.0404084 | NA | 0.0179296 | 0.0179296 | NA |
| LANG_RUSSIAN(1) yes | 0.0098209 | 0.0066445 | 0.0390976 | NA | 0.0031764 | 0.0031764 | NA |
| RELIGION(12) Not religious | 0.0332178 | 0.0274086 | 0.0355798 | NA | 0.0058092 | 0.0058092 | NA |
| RELIGION(06) Christian/Other | 0.0161756 | 0.0211794 | -0.0347528 | NA | 0.0050038 | 0.0050038 | NA |
| SERVICES(6) more than once a week | 0.0233969 | 0.0290698 | -0.0337668 | NA | 0.0056729 | 0.0056729 | NA |
| DRINKING(0) no answer | 0.0202195 | 0.0253322 | -0.0325376 | NA | 0.0051127 | 0.0051127 | NA |

13

| | Means Treated B4 | Means Control B4 | Std. Mean Diff. B4 | Var. Ratio B4 | eCDF Mean B4 | eCDF Max B4 | Std. Pair Dist. B4 |
|---|---|---|---|---|---|---|---|
| RELIGION(09) Islam | 0.0072213 | 0.0049834 | 0.0317803 | NA | 0.0022379 | 0.0022379 | NA |
| LANG_TAGALOG(0) no | 0.6744656 | 0.6885382 | -0.0303884 | NA | 0.0140726 | 0.0140726 | NA |
| EMPSTAT(8) no answer | 0.0317735 | 0.0373754 | -0.0295333 | NA | 0.0056019 | 0.0056019 | NA |
| LANG_ARABIC(1) yes | 0.0023108 | 0.0041528 | -0.0286435 | NA | 0.0018420 | 0.0018420 | NA |
| OCCUP(08) hospitality/travel | 0.0150202 | 0.0186877 | -0.0270824 | NA | 0.0036675 | 0.0036675 | NA |
| EMPSTAT(7) work at home | 0.0037551 | 0.0058140 | -0.0270810 | NA | 0.0020589 | 0.0020589 | NA |
| LANG_ENGLISH(0) no | 0.0031774 | 0.0049834 | -0.0256477 | NA | 0.0018060 | 0.0018060 | NA |
| LANG_ENGLISH(1) yes | 0.9968226 | 0.9950166 | 0.0256477 | NA | 0.0018060 | 0.0018060 | NA |
| MARSTAT(2) widowed | 0.0086655 | 0.0107973 | -0.0206277 | NA | 0.0021318 | 0.0021318 | NA |
| LANG_ARABIC(0) no | 0.7073946 | 0.6980897 | 0.0202682 | NA | 0.0093049 | 0.0093049 | NA |
| LANG_HEBREW(1) yes | 0.0011554 | 0.0020764 | -0.0202329 | NA | 0.0009210 | 0.0009210 | NA |
| LIVE_ROOM(1) yes | 0.1554015 | 0.1627907 | -0.0200154 | NA | 0.0073892 | 0.0073892 | NA |
| RELIGION(04) Christian/LDS | 0.0008666 | 0.0016611 | -0.0195117 | NA | 0.0007946 | 0.0007946 | NA |
| BODY(9) no answer | 0.0118429 | 0.0141196 | -0.0192970 | NA | 0.0022767 | 0.0022767 | NA |
| LANG_HEBREW(0) no | 0.7085500 | 0.7001661 | 0.0182980 | NA | 0.0083839 | 0.0083839 | NA |
| LANG_FRENCH(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |
| LANG_GERMAN(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |
| LANG_ITALIAN(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |
| LANG_SPANISH(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |
| LANG_PORTUGUESE(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |
| LANG_DUTCH(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |
| LANG_CHINESE(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |
| LANG_JAPANESE(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |
| LANG_ARABIC(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |
| LANG_RUSSIAN(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |
| LANG_HEBREW(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |
| LANG_HINDI(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |

| | Means Treated B4 | Means Control B4 | Std. Mean Diff. B4 | Var. Ratio B4 | eCDF Mean B4 | eCDF Max B4 | Std. Pair Dist. B4 |
|---|---|---|---|---|---|---|---|
| LANG_TAGALOG(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |
| LANG_URDU(2) no answer | 0.2902946 | 0.2977575 | -0.0163204 | NA | 0.0074628 | 0.0074628 | NA |
| LIVE_PETS(1) yes | 0.0805893 | 0.0851329 | -0.0162808 | NA | 0.0045436 | 0.0045436 | NA |
| SERVICES(5) weekly | 0.1574235 | 0.1632060 | -0.0156473 | NA | 0.0057825 | 0.0057825 | NA |
| HEIGHT_IN | 5.5675910 | 5.6179402 | -0.0150319 | 1.0688186 | 0.0103338 | 0.0275296 | NA |
| EMPSTAT(3) retired | 0.0014443 | 0.0020764 | -0.0138874 | NA | 0.0006322 | 0.0006322 | NA |
| LANG_DUTCH(0) no | 0.7073946 | 0.7014120 | 0.0130728 | NA | 0.0059826 | 0.0059826 | NA |
| LANG_JAPANESE(0) no | 0.6837088 | 0.6893688 | -0.0122310 | NA | 0.0056599 | 0.0056599 | NA |
| OCCUP(00) artistic/musical/writer | 0.0571924 | 0.0598007 | -0.0110000 | NA | 0.0026083 | 0.0026083 | NA |
| LANG_RUSSIAN(0) no | 0.6998845 | 0.6955980 | 0.0093153 | NA | 0.0042865 | 0.0042865 | NA |
| HAVEKIDS(4) no answer | 0.0335066 | 0.0319767 | 0.0086957 | NA | 0.0015299 | 0.0015299 | NA |
| POLITICS(1) conservative | 0.0739457 | 0.0718439 | 0.0081394 | NA | 0.0021018 | 0.0021018 | NA |
| RELIGION(15) no answer | 0.1938186 | 0.1964286 | -0.0065693 | NA | 0.0026100 | 0.0026100 | NA |
| LANG_URDU(0) no | 0.7019064 | 0.6989203 | 0.0065096 | NA | 0.0029861 | 0.0029861 | NA |
| RELIGION(13) Scientology | 0.0002889 | 0.0004153 | -0.0062055 | NA | 0.0001264 | 0.0001264 | NA |
| LANG_GERMAN(0) no | 0.6894858 | 0.6922757 | -0.0060446 | NA | 0.0027899 | 0.0027899 | NA |
| LANG_ITALIAN(0) no | 0.6874639 | 0.6901993 | -0.0059156 | NA | 0.0027354 | 0.0027354 | NA |
| SERVICES(4) monthly | 0.0866551 | 0.0880399 | -0.0048870 | NA | 0.0013848 | 0.0013848 | NA |
| SERVICES(0) no answer | 0.2666089 | 0.2682724 | -0.0037546 | NA | 0.0016635 | 0.0016635 | NA |
| LANG_HINDI(0) no | 0.6969960 | 0.6985050 | -0.0032883 | NA | 0.0015090 | 0.0015090 | NA |
| LANG_PORTUGUESE(0) no | 0.6949740 | 0.6964286 | -0.0031635 | NA | 0.0014546 | 0.0014546 | NA |

```
mat_nearest_ATC_wr <- matchit(CGRAD ~ SEX + REGION + AGE + ETHNICITY + MARSTAT + BODY + HEIGHT_FT + HEIG

mat_nearest_ATC_wr
```

**Step 3: Create a propensity model and assess balance and overlap - NEW (to get absolute mean difference. We eant to use eCDF Mean**

```
## A matchit object
##  - method: 1:1 nearest neighbor matching with replacement
##  - distance: Propensity score
##              - estimated with probit regression
```

```
##  - number of obs.: 5870 (original), 3478 (matched)
##  - target estimand: ATC
##  - covariates: SEX, REGION, AGE, ETHNICITY, MARSTAT, BODY, HEIGHT_FT, HEIGHT_IN, SMOKING, DRINKING, I
```

```r
options(max.print=3000)
sum_MatwrATC <- summary(mat_nearest_ATC_wr)
#sum_fullATE

summarydf_sum_MatwrATC <- cbind(
  "Means Treated B4" = sum_MatwrATC$sum.all[,"Means Treated"],
  "Means Treated M" = sum_MatwrATC$sum.matched[,"Means Treated"],
  "Means Control B4" = sum_MatwrATC$sum.all[,"Means Control"],
  "Means Control M" = sum_MatwrATC$sum.matched[,"Means Control"],
  "Std. Mean Diff. B4" = sum_MatwrATC$sum.all[,"Std. Mean Diff."],
  "Std. Mean Diff. M" = sum_MatwrATC$sum.matched[,"Std. Mean Diff."],
  "Var. Ratio B4" = sum_MatwrATC$sum.all[,"Var. Ratio"],
  "Var. Ratio M" = sum_MatwrATC$sum.matched[,"Var. Ratio"],
  "eCDF Mean B4" = sum_MatwrATC$sum.all[,"eCDF Mean"],
  "eCDF Mean M" = sum_MatwrATC$sum.matched[,"eCDF Mean"],
  "eCDF Max B4" = sum_MatwrATC$sum.all[,"eCDF Max"],
  "eCDF Max M" = sum_MatwrATC$sum.matched[,"eCDF Max"],
  "Std. Pair Dist. B4" = sum_MatwrATC$sum.all[,"Std. Pair Dist."],
  "Std. Pair Dist. M" = sum_MatwrATC$sum.matched[,"Std. Pair Dist."]
)

summarydf_sum_MatwrATC <- as.data.frame(summarydf_sum_MatwrATC)

view(summarydf_sum_MatwrATC)

summarynn_sum_MatwrATC <- sum_MatwrATC$nn
summarynn_sum_MatwrATC
```

```
##                 Control   Treated
## All (ESS)          2408 3462.0000
## All                2408 3462.0000
## Matched (ESS)      2408  394.2924
## Matched            2408 1070.0000
## Unmatched             0 2392.0000
## Discarded             0    0.0000
```

```r
bal.plot(mat_nearest_ATC_wr, type = "histogram")
```

```
## No `var.name` was provided. Displaying balance for distance.
```

```
## Warning: No shared levels found between `names(values)` of the manual scale and the
## data's colour values.
```

## Distributional Balance for "distance"
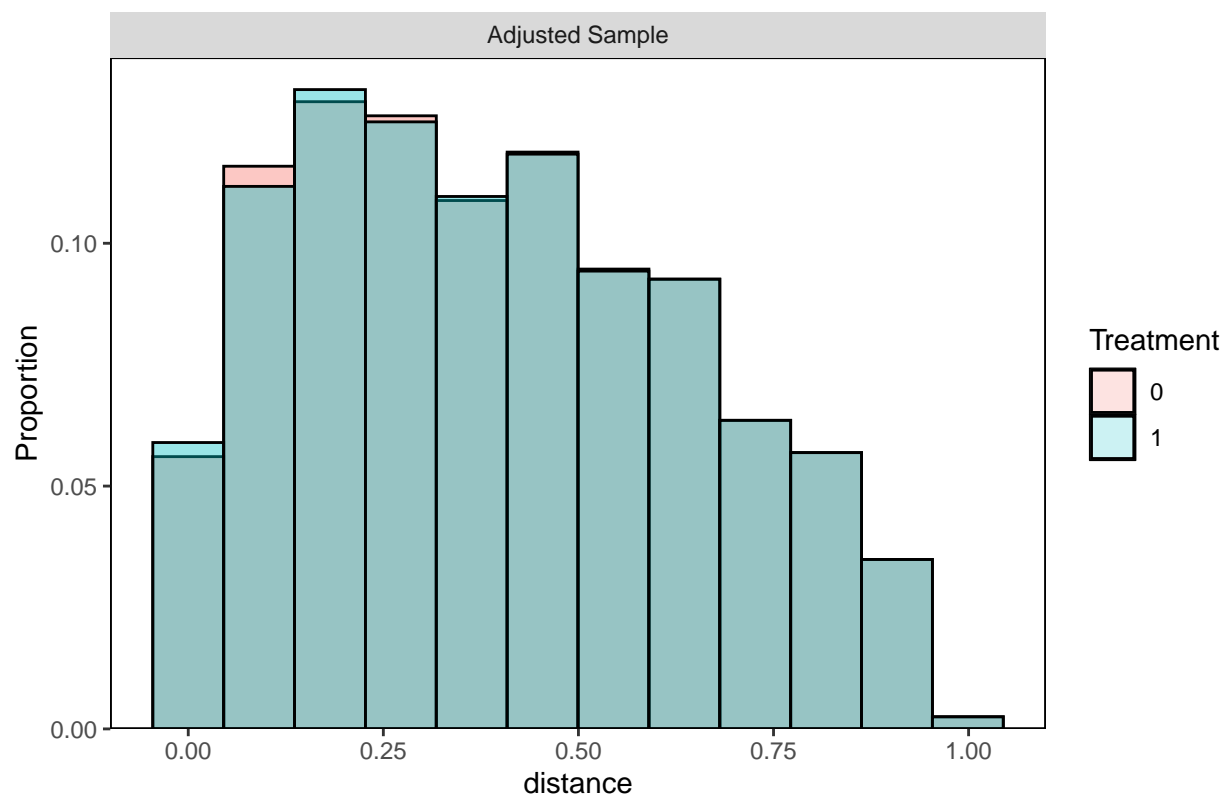


```r
stdm_sum_MatwrATC <- summarydf_sum_MatwrATC[order(-abs(summarydf_sum_MatwrATC$"eCDF Mean M")), ] #sorti

stdm_sum_MatwrATC$actualdiff <- stdm_sum_MatwrATC$`Means Control M` - stdm_sum_MatwrATC$`Means Treated

#check that the actual difference is equal to eCDF Mean M
stdm_sum_MatwrATC$actualdiff <- abs(stdm_sum_MatwrATC$`Means Control M` - stdm_sum_MatwrATC$`Means Treat

#check and see which variables where they don't match
view(stdm_sum_MatwrATC %>% filter(`eCDF Mean M` != actualdiff))
#they are continuous variables and their standard differences are under 0.10


 #sorting it so its in descending order (largest absval to smallest)
table2 <- round(head(stdm_sum_MatwrATC, n= 7), digits = 4)
setwd("~/R")
write.csv(table2, "table2.csv", row.names = T)


#sort covariates by absolute value of mean difference
#stdm_sum_MatwrATC <- stdm_sum_MatwrATC %>% relocate("eCDF Mean M", .before = "Means Treated B4") #movi

kableExtra::kable(stdm_sum_MatwrATC)
```

| | Means Treated B4 | Means Treated M | Means Control B4 | Means Control M | Std. Mean Diff. B4 | Std. Mean Diff. M | Var. Ratio B4 | Var. Ratio M | eCDF Mean B4 | eCDF Mean M | eCDF Max B4 | eCDF Max M | Std. Pair Dist. B4 | Std. Pair Dist. M | actualdiff |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LIVE_KIDS(0) no | 0.623916 | 0.689294 | 0.338206 | 0.338206 | 0.719243 | -0.0907970 | NA | NA | 0.085710 | 0.045266 | 0.085710 | 0.045266 | NA | 0.9904372 | 0.452658 |
| LIVE_PETS(0) no | 0.603697 | 0.731146 | 0.276411 | 0.276411 | 0.552193 | -0.0916076 | NA | NA | 0.027285 | 0.045266 | 0.027285 | 0.045266 | NA | 0.9841501 | 0.8452658 |
| LIVE_PARTY(0) no | 0.680820 | 0.807558 | 0.365199 | 0.365199 | 0.605179 | -0.0932850 | NA | NA | 0.028827 | 0.044436 | 0.028827 | 0.044435 | NA | 0.9825441 | 0.9444352 |
| AGE | 32.600230 | 31.505820 | 40.549283 | 40.549283 | 0.341360 | 0.0900083 | 0.675606 | 0.7318880 | 0.086377 | 0.042533 | 0.205947 | 0.163206 | NA | 0.9866377 | 0.7508306 |
| LIVE_PAR(2) no answer | 0.315710 | 0.337333 | 0.389384 | 0.513384551 | 0.07372 | -0.0480610 | NA | NA | 0.022741 | 0.034880 | 0.022741 | 0.034883 | NA | 0.9618866 | 0.0348837 |
| LIVE_PETS(2) no answer | 0.315710 | 0.337333 | 0.389384 | 0.513384551 | 0.07372 | -0.0480610 | NA | NA | 0.022741 | 0.034880 | 0.022741 | 0.034883 | NA | 0.9618866 | 0.0348837 |
| LIVE_ROOM(2) no answer | 0.315710 | 0.337333 | 0.389384 | 0.513384551 | 0.07372 | -0.0480610 | NA | NA | 0.022741 | 0.034880 | 0.022741 | 0.034883 | NA | 0.9618866 | 0.0348837 |
| LIVE_FAM(2) no answer | 0.315710 | 0.337333 | 0.389384 | 0.513384551 | 0.07372 | -0.0480610 | NA | NA | 0.022741 | 0.034880 | 0.022741 | 0.034883 | NA | 0.9618866 | 0.0348837 |
| LIVE_PARTY(2) no answer | 0.315710 | 0.337333 | 0.389384 | 0.513384551 | 0.07372 | -0.0480610 | NA | NA | 0.022741 | 0.034880 | 0.022741 | 0.034883 | NA | 0.9618866 | 0.0348837 |
| LIVE_KIDS(2) no answer | 0.315424 | 0.672923 | 0.380393 | 0.380399 | 0.07374 | -0.0478081 | NA | NA | 0.022615 | 0.034880 | 0.022615 | 0.034883 | NA | 0.9621753 | 0.0348837 |
| LIVE_ALONE(2) no answer | 0.134023 | 0.716777 | 0.376246 | 0.376246 | 0.07200 | -0.0512200 | NA | NA | 0.024220 | 0.034050 | 0.024220 | 0.034053 | NA | 0.9607087 | 0.0340532 |
| RELIGION(11) Christian | 0.336221 | 0.890780 | 0.356727 | 0.6567276 | 0.07108 | -0.0428065 | NA | NA | 0.020505 | 0.034050 | 0.020505 | 0.034053 | NA | 0.9588106 | 0.0340532 |
| SERVICES(5) weekly | 0.157423 | 0.519518 | 0.276320 | 0.0632060 | 0.08652 | -0.0156473 | NA | NA | 0.005782 | 0.031970 | 0.005782 | 0.031976 | NA | 0.7899890 | 0.0319767 |
| LIVE_ROOM(0) no | 0.528885 | 0.467192 | 0.498754 | 0.498754 | 0.602620 | -0.0631231 | NA | NA | 0.030130 | 0.031560 | 0.030130 | 0.031561 | NA | 0.9900363 | 0.0315615 |
| LANG_ITALIAN no | 0.874636 | 0.590053 | 0.901998 | 0.8901993 | -0.00591 | 0.0673560 | NA | NA | 0.002735 | 0.031140 | 0.002735 | 0.031146 | NA | 0.9762130 | 0.0311462 |
| LIVE_PAR(0) no | 0.641536 | 0.749252 | 0.492367 | 0.523671 | 0.359958 | -0.0623623 | NA | NA | 0.117865 | 0.031140 | 0.117865 | 0.031146 | NA | 0.9620402 | 0.0311462 |
| EMPSTAT(5) student | 0.046210 | 0.615074 | 0.752043 | 0.9204319 | -0.09314 | 0.2280295 | NA | NA | 0.074215 | 0.030167 | 0.074216 | 0.030315 | NA | 0.6979507 | 0.0303156 |
| HAVEKIDS(0) no | 0.783362 | 0.316279 | 0.646591 | 0.6465947 | 0.861083 | -0.0634182 | NA | NA | 0.136767 | 0.030315 | 0.136767 | 0.030315 | NA | 0.8991482 | 0.0303156 |
| EMPSTAT(0) full-time | 0.771230 | 0.521262 | 0.655116 | 0.2851162 | 0.519243 | -0.0627364 | NA | NA | 0.120067 | 0.029900 | 0.030067 | 0.029900 | NA | 0.9061920 | 0.0299003 |
| ETHNICITY(0) African American | 0.224147 | 0.730149 | 0.301079 | 0.3010797 | -0.06337 | 0.1677071 | NA | NA | 0.076930 | 0.029060 | 0.076930 | 0.029069 | NA | 0.9451254 | 0.0290698 |
| LANG_HINDI no | 0.969966 | 0.702265 | 0.698505 | 0.56985050 | -0.00328 | 0.0615358 | NA | NA | 0.001500 | 0.028230 | 0.001500 | 0.028239 | NA | 0.9574241 | 0.0282392 |
| LANG_ARABIC no | 0.739466 | 0.698505 | 0.698089 | 0.69808897 | 0.202682 | -0.0615117 | NA | NA | 0.009300 | 0.028230 | 0.009300 | 0.028239 | NA | 0.9624775 | 0.0282392 |
| LANG_RUSSIAN no | 0.998045 | 0.673586 | 0.695598 | 0.6955980 | 0.093153 | -0.0613691 | NA | NA | 0.004286 | 0.028230 | 0.004286 | 0.028239 | NA | 0.9566355 | 0.0282392 |
| LANG_DUTCH no | 0.739467 | 0.358870 | 0.014120 | 0.0141200 | 0.130728 | -0.0607989 | NA | NA | 0.005982 | 0.027820 | 0.005982 | 0.027823 | NA | 0.9537256 | 0.0278239 |
| LIVE_ALONE(1) yes | 0.207921 | 0.470124 | 0.210964 | 0.6421093 | 0.734475 | -0.0639850 | NA | NA | 0.159970 | 0.027408 | 0.159970 | 0.027408 | NA | 0.7716980 | 0.0274086 |

| | Means Treated B4 | Means Treated M | Means Control B4 | Means Control M | Std. Mean Diff. B4 | Std. Mean Diff. M | Var. Ratio B4 | Var. Ratio M | eCDF Mean B4 | eCDF Mean M | eCDF Max B4 | eCDF Max M | Std. Pair Dist. B4 | Std. Pair Dist. M | actualdiff |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANG_TAGALOG no | 0.674400 | 0.661206 | 0.885382 | 0.885382 | - | -0.0303884 | NA | NA | 0.0140 | 0.2274086 | 0.0140 | 0.2274086 | NA | 0.9631222 | 0.2274086 |
| LANG_FRENCH no answer | 0.290294 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| LANG_GERMAN no answer | 0.290294 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| LANG_ITALIAN no answer | 0.290294 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| LANG_SPANISH no answer | 0.290294 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| LANG_PORTUG no | 0.694976 | 0.694350 | 0.964286 | 0.964286 | - | -0.0031685 | NA | NA | 0.0145 | 0.0269934 | 0.0145 | 0.0269934 | NA | 0.958275 | 0.0269934 |
| LANG_PORTUG no answer | 0.290296 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| LANG_DUTCH no answer | 0.290290 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| LANG_CHINESE no answer | 0.290290 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| LANG_JAPANESE no answer | 0.290294 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| LANG_ARABIC no answer | 0.290290 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| LANG_RUSSIAN no answer | 0.290290 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| LANG_HEBREW no answer | 0.290290 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| LANG_HINDI no answer | 0.290290 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| LANG_TAGALOG no answer | 0.290290 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| LANG_URDU no answer | 0.290290 | 0.162475 | 0.0897757 | 0.3977575 | - | -0.0163204 | 0.059031 | NA | 0.0074 | 0.0269934 | 0.0074 | 0.0269934 | NA | 0.954489 | 0.0269934 |
| DRINKING(1) no | 0.151068 | 0.744936 | 0.6715116 | 0.6715116 | - | -0.0542306 | 0.0705072 | NA | 0.0204 | 0.0265781 | 0.0204 | 0.0265781 | NA | 0.705072 | 0.0265781 |
| LANG_HEBREW no | 0.085500 | 0.074003 | 0.001667 | 0.001660 | 0.0182980 | -0.0571009 | NA | NA | 0.0083 | 0.0261628 | 0.0083 | 0.0261628 | NA | 0.959839 | 0.0261628 |
| LANG_URDU no | 0.070190 | 0.067275 | 0.0698920 | 0.0698920 | 0.0065096 | -0.0570334 | NA | NA | 0.0029 | 0.0261628 | 0.0029 | 0.0261628 | NA | 0.955083 | 0.0261628 |
| DRINKING(2) occasionally | 0.823801 | 0.819767 | 0.794010 | 0.794010 | 0.0736404 | -0.0636655 | NA | NA | 0.0297 | 0.0257475 | 0.0297 | 0.0257475 | NA | 0.768098 | 0.0257475 |
| LANG_SPANISH no | 0.538999 | 0.484186 | 0.567608 | 0.467608 | 0.0430742 | -0.0516034 | NA | NA | 0.0713 | 0.0257475 | 0.0713 | 0.0257475 | NA | 0.975470 | 0.0257475 |
| LANG_FRENCH no | 0.554082 | 0.385199 | 0.477325 | 0.56773256 | - | -0.0481302 | 0.0541867 | NA | 0.0225 | 0.0253322 | 0.0225 | 0.0253322 | NA | 0.978024 | 0.0253322 |
| MARSTAT(0) single-never married | 0.761409 | 0.691445 | 0.7163621 | 0.7163621 | 0.0999360 | -0.0552772 | NA | NA | 0.0450 | 0.0249169 | 0.0450 | 0.0249169 | NA | 0.908389 | 0.0249169 |
| LANG_JAPANESE no | 0.165700 | 0.86486076 | 0.893688 | 0.893688 | - | -0.0122300 | 0.0529477 | NA | 0.0056 | 0.0245017 | 0.0056 | 0.0245017 | NA | 0.953956 | 0.0245017 |

| | Means Treated B4 | Means Treated M | Means Control B4 | Means Control M | Std. Mean Diff. B4 | Std. Mean Diff. M | Var. Ratio B4 | Var. Ratio M | eCDF Mean B4 | eCDF Mean M | eCDF Max B4 | eCDF Max M | Std. Pair Dist. B4 | Std. Pair Dist. M | actualdiff |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SMOKING(2) occasionally | 0.0930009 | 0.0839950 | 0.0264036 | 0.0564036 | -0.191800 | 0.1065044 | NA | NA | 0.071020 | 0.0240807 | 0.071020 | 0.0240864 | NA | 0.688569 | 0.0240864 |
| INCOME(3) $35,000 to $49,999 | 0.0895436 | 0.0474212 | 0.2258306 | 0.2258306 | -0.1094106 | 0.065111 | NA | NA | 0.036286 | 0.0215903 | 0.036286 | 0.0215947 | NA | 0.741266 | 0.0215947 |
| LANG_CHINESE no | 0.0832022 | 0.7652408 | 0.6735880 | 0.6735880 | -0.1010003 | 0.0451683 | NA | NA | 0.047360 | 0.0211794 | 0.047360 | 0.0211794 | NA | 0.960932 | 0.0211794 |
| LANG_GERMAN no | 0.6890485 | 0.6719260 | 0.6922757 | 0.6922757 | -0.0060446 | 0.0440879 | NA | NA | 0.002789 | 0.0203488 | 0.002789 | 0.0203488 | NA | 0.958236 | 0.0203488 |
| MARSTAT(1) divorced | 0.1813982 | 0.2466780 | 0.2043189 | 0.2043189 | -0.0568470 | 0.0504680 | NA | NA | 0.022920 | 0.0203488 | 0.022920 | 0.0203488 | NA | 0.853835 | 0.0203488 |
| LIVE_FAM(0) no | 0.6415365 | 0.8014959 | 0.8996678 | 0.8996678 | -0.0398360 | 0.854527 | NA | NA | 0.041866 | 0.0195183 | 0.041866 | 0.0195183 | NA | 0.955216 | 0.0195183 |
| OCCUP(02) clerical/administrative | 0.0233969 | 0.0672757 | 0.0867940 | 0.0867940 | -0.2251865 | 0.0693285 | NA | NA | 0.063397 | 0.0195183 | 0.063397 | 0.0195183 | NA | 0.500050 | 0.0195183 |
| POLITICS(6) no answer | 0.2697863 | 0.2101013 | 0.3388704 | 0.3388704 | -0.1459508 | 0.0377270 | NA | NA | 0.069080 | 0.0178571 | 0.069080 | 0.0178571 | NA | 0.894040 | 0.0178571 |
| SEX(0) female | 0.4653386 | 0.5265785 | 0.5099668 | 0.5099668 | -0.0332292 | 0.0892754 | NA | NA | 0.044620 | 0.0166113 | 0.044620 | 0.0166113 | NA | 1.031766 | 0.0166113 |
| SEX(1) male | 0.5346602 | 0.4734219 | 0.4900332 | 0.4900332 | -0.0892754 | 0.0332292 | NA | NA | 0.044620 | 0.0166113 | 0.044620 | 0.0166113 | NA | 1.031766 | 0.0166113 |
| BODY(3) athletic | 0.3379504 | 0.2462622 | 0.2296512 | 0.2296512 | 0.1257496 | 0.1039493 | NA | NA | 0.108303 | 0.0166113 | 0.108303 | 0.0166113 | NA | 0.884650 | 0.0166113 |
| ETHNICITY(2) Caucasian | 0.2954939 | 0.3839701 | 0.1997508 | 0.1997508 | 0.2394697 | 0.0394703 | NA | NA | 0.095740 | 0.0157807 | 0.095740 | 0.0157807 | NA | 0.781090 | 0.0157807 |
| LIVE_FAM(1) yes | 0.0427499 | 0.0465106 | 0.0618771 | 0.0618771 | -0.0793880 | 0.0637750 | NA | NA | 0.019120 | 0.0153654 | 0.019120 | 0.0153654 | NA | 0.415399 | 0.0153654 |
| HEIGHT_IN | 5.5675951 | 5.7221766 | 5.6179402 | 5.6179402 | -0.0311119 | 0.0150319 | 0.9688089 | 0.8567301 | 0.033385 | 0.0407520 | 0.061495 | NA | 1.191356 | 1.042359 |
| SMOKING(1) no | 0.8492201 | 0.7524917 | 0.8379568 | 0.8379568 | 0.5301702 | 0.0330529 | NA | NA | 0.111263 | 0.0345349 | 0.111263 | 0.0345349 | NA | 0.867870 | 0.0145349 |
| HAVEKIDS(1) yes, at home full-time | 0.0733680 | 0.0723422 | 0.0594684 | 0.0594684 | -0.035163 | 0.2351749 | NA | NA | 0.086100 | 0.0428708 | 0.086100 | 0.0428738 | NA | 0.742968 | 0.0128738 |
| ETHNICITY(1) Asian | 0.3032929 | 0.2333893 | 0.3621026 | 0.3621026 | -0.0375313 | 0.2687094 | NA | NA | 0.167080 | 0.0328708 | 0.167080 | 0.0328738 | NA | 0.611396 | 0.0128738 |
| OCCUP(01) banking/financial services/real estate | 0.1181390 | 0.0849418 | 0.0662292 | 0.0662292 | -0.0532665 | 0.2431074 | NA | NA | 0.055840 | 0.0428708 | 0.055840 | 0.0428738 | NA | 0.420977 | 0.0128738 |
| EMPSTAT(4) self-employed | 0.1106290 | 0.0892850 | 0.0776827 | 0.0776827 | 0.2269260 | 0.0604678 | NA | NA | 0.033800 | 0.0512458 | 0.033800 | 0.0512458 | NA | 0.570723 | 0.0124585 |

| | Means Treated B4 | Means Treated M | Means Control B4 | Means Control M | Std. Mean Diff. B4 | Std. Mean Diff. M | Var. Ratio B4 | Var. Ratio M | eCDF Mean B4 | eCDF Mean M | eCDF Max B4 | eCDF Max M | Std. Pair Dist. B4 | Std. Pair Dist. M | actualdiff |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REGION(0) Los Angeles, CA | 0.232235 | 0.289036 | 0.376993 | 0.2769934 | -0.1000142 | -0.02691 | NA | NA | 0.04475 | 0.07120 | 0.04247 | 0.07120 | NA | 0.915910 | 0.3120432 |
| RELIGION(03) Christian/Catholic | 0.134026 | 0.164867 | 0.116029 | 0.0602990 | -0.0716008 | -0.0316938 | NA | NA | 0.02627 | 0.74160 | 0.02627 | 0.74160 | NA | 0.719900 | 0.2116279 |
| BODY(2) average | 0.29116 | 0.131976 | 0.43139 | 0.3313953 | -0.0854706 | -0.0247027 | NA | NA | 0.04023 | 0.34210 | 0.04023 | 0.34210 | NA | 0.921056 | 0.2116279 |
| OCCUP(03) computer related/hardware | 0.074523 | 0.066860 | 0.055647 | 0.8556478 | 0.8233060 | 0.0489121 | NA | NA | 0.01887 | 0.56121 | 0.06887 | 0.66121 | NA | 0.476439 | 0.09112126 |
| MARSTAT(4) no answer | 0.023108 | 0.046510 | 0.16357104 | 0.8357143 | -0.0679301 | 0.05818 | NA | NA | 0.01260 | 0.63079 | 0.03260 | 0.63079 | NA | 0.407278 | 0.0107973 |
| RELIGION(00) none/agnostic | 0.055748 | 0.026578 | 0.03737 | 0.4373754 | -0.0569240 | 0.968616 | NA | NA | 0.01837 | 0.27079 | 0.03837 | 0.27079 | NA | 0.319650 | 0.0107973 |
| SMOKING(3) often | 0.023108 | 0.064784 | 0.053986 | 0.0539867 | -0.1366365 | 0.04777 | NA | NA | 0.03087 | 0.87079 | 0.03087 | 0.87079 | NA | 0.503503 | 0.0107973 |
| INCOME(0) no answer | 0.557770 | 0.153655 | 0.425747 | 0.5257476 | -0.0207917 | 0.641302 | NA | NA | 0.03202 | 0.26038 | 0.03202 | 0.26038 | NA | 0.967230 | 0.0103821 |
| WANTKIDS(1) yes | 0.456094 | 0.359634 | 0.870016 | 0.6700166 | -0.0215035 | 0.782862 | NA | NA | 0.08607 | 0.81038 | 0.08607 | 0.81038 | NA | 0.934970 | 0.0103821 |
| OCCUP(05) education/academic research | 0.079722 | 0.039451 | 0.82906 | 0.9829069 | 0.0150070 | 0.06179 | NA | NA | 0.05065 | 0.29038 | 0.05065 | 0.29038 | NA | 0.373255 | 0.0103821 |
| LIVE_KIDS(1) yes | 0.060658 | 0.063413 | 0.62237 | 0.5042237542 | -0.1916046 | 0.03152 | NA | NA | 0.06309 | 0.56038 | 0.06309 | 0.56038 | NA | 0.659557 | 0.0103821 |
| LIVE_PETS(1) yes | 0.080589 | 0.089551 | 0.50851 | 0.3029851329 | -0.0162808 | 0.03720 | NA | NA | 0.00459 | 0.86038 | 0.00459 | 0.46038 | NA | 0.605634 | 0.0103821 |
| SERVICES(1) never | 0.105710 | 0.097350 | 0.508388 | 0.70838870 | -0.0374508 | 0.0787545 | NA | NA | 0.02183 | 0.22038 | 0.02183 | 0.22038 | NA | 0.516820 | 0.0103821 |
| HAVEKIDS(3) yes, but not at home | 0.080589 | 0.032873 | 0.75187 | 0.708187708 | -0.1180195 | 0.03080 | NA | NA | 0.03818 | 0.05996 | 0.03818 | 0.05996 | NA | 0.680330 | 0.0099668 |
| WANTKIDS(0) no | 0.101675 | 0.137566 | 0.45656 | 0.9776569 | -0.1721915 | 0.02680 | NA | NA | 0.06402 | 0.28996 | 0.06402 | 0.28996 | NA | 0.732702 | 0.0099668 |
| POLITICS(2) middle of the road | 0.307625 | 0.264501 | 0.2350498 | 0.2350498 | 0.711570 | 0.02350 | NA | NA | 0.07257 | 0.58996 | 0.07257 | 0.58996 | NA | 0.848134 | 0.0099668 |
| BODY(6) a few extra pounds | 0.038706 | 0.076412 | 0.066445 | 0.2664452 | -0.1113763 | 0.04001 | NA | NA | 0.02773 | 0.92996 | 0.02773 | 0.92996 | NA | 0.520231 | 0.0099668 |
| BODY(5) thick | 0.045060 | 0.072458 | 0.71461 | 0.79146179 | -0.2183489 | 0.03128 | NA | NA | 0.06955 | 0.73996 | 0.06955 | 0.73996 | NA | 0.625738 | 0.0099668 |
| SERVICES(4) monthly | 0.086655 | 0.078073 | 0.880399 | 0.9880399 | -0.0048870 | 0.0351744 | NA | NA | 0.00138 | 0.48996 | 0.00138 | 0.48996 | NA | 0.518822 | 0.0099668 |
| LIVE_PARTY(1) yes | 0.034662 | 0.191030 | 0.0095515 | 0.0095515 | -0.0625647 | 0.09820 | NA | NA | 0.00608 | 0.58995 | 0.00608 | 0.58995 | NA | 0.286066 | 0.0095515 |

|  | Means Treated B4 | Means Treated M | Means Control B4 | Means Control M | Std. Mean Diff. B4 | Std. Mean Diff. M | Var. Ratio B4 | Var. Ratio M | eCDF Mean B4 | eCDF Mean M | eCDF Max B4 | eCDF Max M | Std. Pair Dist. B4 | Std. Pair Dist. M | actualdiff |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INCOME(2) $25,000 to $34,999y | 0.0421722 | 0.108804 | 0.0200166 | 0.0200166 | - 0.239536 | -0.0281131 | NA | NA | 0.0778405 | 0.013027 | 0.0778405 | 0.013621 | 0.587818 | 0.7091362 | |
| BODY(4) fit | 0.0644136 | 0.039451 | 0.048588 | 0.048588 | 0.0736056 | -0.0424930 | NA | NA | 0.0158250 | 0.013025 | 0.0158250 | 0.013621 | 0.397888 | 0.8091362 | |
| OCCUP(11) medical/health services | 0.0872328 | 0.066029 | 0.057309 | 0.057309 | 0.028740 | 0.303752 | NA | NA | 0.0299238 | 0.0872 | 0.0299238 | 0.0872 | 0.509204 | 0.7087209 | |
| OCCUP(08) hospitality/travel | 0.0150200 | 0.022699 | 0.041868 | 0.0186877 | - 0.0270824 | 0.0613327 | NA | NA | 0.0036670 | 0.0830 | 0.0036670 | 0.08305 | 0.337329 | 0.7083056 | |
| RELIGION(14) Other | 0.0375550 | 0.074750 | 0.083056 | 0.083056 | - 0.164896 | 0.0300965 | NA | NA | 0.0455050 | 0.0830 | 0.0455050 | 0.08305 | 0.520668 | 0.8083056 | |
| SERVICES(0) no answer | 0.2666082 | 0.260382 | 0.2682724 | 0.2682724 | - 0.0037504 | 0.0178088 | NA | NA | 0.0016635 | 0.0789 | 0.0016635 | 0.0789 | 0.874505 | 0.3078904 | |
| MARSTAT(3) separated | 0.0254168 | 0.024916 | 0.032807 | 0.0328073 | - 0.041477 | 0.0442951 | NA | NA | 0.0073885 | 0.0789 | 0.0073885 | 0.0789 | 0.305402 | 0.8078904 | |
| OCCUP(14) technical science/engineering | 0.0843404 | 0.083903 | 0.069469 | 0.069469 | 0.769292 | - 0.0373098 | NA | NA | 0.0374107 | 0.0789 | 0.0374107 | 0.0789 | 0.371134 | 0.0078904 | |
| POLITICS(3) liberal | 0.1964183 | 0.303098 | 0.229236 | 0.229236 | 0.238300 | 0.0227656 | NA | NA | 0.0734940 | 0.0747 | 0.0734940 | 0.0747 | 0.652614 | 0.8074751 | |
| RELIGION(12) Not religious | 0.0332170 | 0.203408 | 0.274086 | 0.274086 | 0.355798 | - 0.0432398 | NA | NA | 0.0058090 | 0.0705 | 0.0058090 | 0.0705 | 0.272156 | 0.3070598 | |
| POLITICS(5) not political | 0.1129403 | 0.018272 | 0.295182 | 0.27951827 | - 0.2075036 | 0.01676 | NA | NA | 0.0822412 | 0.0640 | 0.0822412 | 0.00664 | 0.773268 | 0.9066445 | |
| LANG_GERMAN(02) yes | 0.0095033 | 0.209966 | 0.099666 | 0.032139 | - 0.0668900 | | NA | NA | 0.0102527 | 0.0640 | 0.0102527 | 0.00664 | 0.133780 | 0.0066445 | |
| HAVEKIDS(4) no answer | 0.0335006 | 0.038621 | 0.031976 | 0.0319767 | 0.0708696 | 0.0377636 | NA | NA | 0.0015299 | 0.0640 | 0.0015299 | 0.00664 | 0.377662 | 0.0066445 | |
| REGION(3) Atlanta, GA | 0.2209702 | 0.338372 | 0.245016 | 0.0245016 | - 0.055908 | 0.0154489 | NA | NA | 0.0240406 | 0.0640 | 0.0234040 | 0.00664 | 0.840032 | 0.9066445 | |
| LIVE_ALONE(2) no | 0.0845107 | 0.136212 | 0.202658 | 0.202658 | - 0.275016 | 0.0134613 | NA | NA | 0.1357482 | 0.0640 | 0.1357482 | 0.00664 | 0.918733 | 0.8066445 | |
| OCCUP(17) other | 0.0866551 | 0.163206 | 0.056560 | 0.1565615 | - 0.1923745 | 0.0182850 | NA | NA | 0.0699006 | 0.0640 | 0.0699000 | 0.00664 | 0.699400 | 0.3066445 | |
| REGION(1) New York/New Jersey | 0.2952050 | 0.202657 | 0.308471 | 0.3084718 | 0.135154 | 0.0143125 | NA | NA | 0.0867338 | 0.0580 | 0.0867330 | 0.0058 | 0.811720 | 0.8058140 | |
| LANG_CHINESE(34) yes | 0.1834770 | 0.228406 | 0.286545 | 0.3286108 | 0.0348488 | | NA | NA | 0.0548238 | 0.0580 | 0.0548206 | 0.0058 | 0.298704 | 0.4058140 | |
| EMPSTAT(1) part-time | 0.0297516 | 0.084302 | 0.089701 | 0.10897010 | - 0.209790 | 0.0188928 | NA | NA | 0.0599490 | 0.0539 | 0.0599100 | 0.0539 | 0.524638 | 0.4053987 | |

22

| | Means Treated B4 | Means Treated M | Means Control B4 | Means Control M | Std. Mean Diff. B4 | Std. Mean Diff. M | Var. Ratio B4 | Var. Ratio M | eCDF Mean B4 | eCDF Mean M | eCDF Max B4 | eCDF Max M | Std. Pair Dist. B4 | Std. Pair Dist. M | actualdiff |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BODY(9) no answer | 0.0118420 | 0.0087209 | 0.0141196 | 0.0141196 | -0.019297 | 0.00457576 | NA | NA | 0.00227 | 6.7053987 | 0.00227 | 6.7053987 | NA | 0.17951 | 0.0053987 |
| BODY(0) slim | 0.121310 | 0.794269 | 0.909966 | 0.899666 | 0.78722714 | -0.0180222 | NA | NA | 0.02164 | 9.6053987 | 0.02164 | 9.6053987 | NA | 0.605823 | 0.0053987 |
| OCCUP(15) transportation | 0.009532 | 0.036540 | 0.031560 | 0.0315615 | -0.1260051 | 0.0285043 | NA | NA | 0.02202 | 9.0049833 | 0.02202 | 9.0049833 | NA | 0.370556 | 0.0049834 |
| WANTKIDS(2) not sure | 0.240030 | 0.297342 | 0.292770 | 0.2927741 | -0.1159017 | 0.0100390 | NA | NA | 0.05273 | 9.0045681 | 0.05273 | 9.0045681 | NA | 0.893470 | 0.0045681 |
| POLITICS(1) conservative | 0.073945 | 0.067275 | 0.0718439 | 0.0718430 | 0.081394 | -0.0176901 | NA | NA | 0.00210 | 8.0045681 | 0.00210 | 8.0045681 | NA | 0.513013 | 0.0045681 |
| BODY(7) large | 0.010976 | 0.014534 | 0.0191030 | 0.0191030 | -0.0593607 | 0.0333714 | NA | NA | 0.00812 | 6.7045681 | 0.00812 | 6.7045681 | NA | 0.239667 | 0.0045681 |
| WANTKIDS(3) no answer | 0.202195 | 0.367358 | 0.6715101 | 0.6715101 | 0.6813986 | -0.0110168 | NA | NA | 0.03006 | 8.3064152 | 0.03006 | 8.3064152 | NA | 0.746935 | 0.0041528 |
| INCOME(5) $75,000 to $99,999 | 0.070190 | 0.026993 | 0.0422840 | 0.0522840 | 0.3169469 | 0.0277976 | NA | NA | 0.04735 | 0.0041528 | 0.04735 | 0.0041528 | NA | 0.300214 | 0.0041528 |
| POLITICS(4) very liberal | 0.032928 | 0.021179 | 0.0253320 | 0.0253320 | 0.0483460 | -0.0264289 | NA | NA | 0.00759 | 6.7041528 | 0.00759 | 6.7041528 | NA | 0.296000 | 0.0041528 |
| LANG_ITALIAN(2) yes | 0.022415 | 0.161960 | 0.0120432 | 0.0120432 | 0.0293494 | 0.038077 | NA | NA | 0.01019 | 8.3041528 | 0.01019 | 8.3041528 | NA | 0.258888 | 0.0041528 |
| LIVE_PAR(1) yes | 0.042749 | 0.934136 | 0.2378738 | 0.2378738 | -0.2759074 | 0.0108408 | NA | NA | 0.09512 | 8.9037375 | 0.09512 | 8.9037375 | NA | 0.572150 | 0.0037375 |
| SERVICES(2) rarely | 0.262853 | 0.882390 | 0.2861296 | 0.2861296 | -0.0515006 | 0.0082698 | NA | NA | 0.02327 | 7.0037375 | 0.02327 | 7.0037375 | NA | 0.895894 | 0.0037375 |
| LIVE_ROOM(1) yes | 0.155401 | 0.159468 | 0.1627907 | 0.1627907 | -0.0200161 | 0.0089992 | NA | NA | 0.00738 | 9.0033223 | 0.00738 | 9.0033223 | NA | 0.753679 | 0.0033223 |
| EMPSTAT(8) no answer | 0.031773 | 0.034053 | 0.0373754 | 0.0373754 | -0.0295363 | 0.0175151 | NA | NA | 0.00560 | 0.0933223 | 0.00560 | 0.0033223 | NA | 0.367816 | 0.0033223 |
| OCCUP(13) sales/marketing | 0.079433 | 0.061461 | 0.0647840 | 0.0647840 | 0.0595171 | -0.0134972 | NA | NA | 0.01464 | 9.0833223 | 0.01464 | 0.0833223 | NA | 0.482524 | 0.0033223 |
| HEIGHT_FT | 5.180825 | 5.134576 | 5.1503322 | 5.1503322 | 0.0802308 | -0.0120212 | 1.1141 | 0.9221 | 3.90768 | 0.0230 | 1.08870 | 0.0078900 | NA | 0.713620 | 0.0045681 |
| OCCUP(18) no answer | 0.074523 | 0.424584 | 0.7274917 | 0.7274917 | -0.1588145 | 0.0087160 | NA | NA | 0.05296 | 8.829007 | 0.05296 | 8.029007 | NA | 0.648717 | 0.0029070 |
| INCOME(1) less than $24,999 | 0.022241 | 0.595009 | 0.0980066 | 0.0980066 | -0.2548209 | 0.0097771 | NA | NA | 0.07576 | 5.29007 | 0.07576 | 5.029007 | NA | 0.467906 | 0.0029070 |
| EMPSTAT(2) homemaker | 0.002599 | 0.004568 | 0.0074751 | 0.0074751 | -0.0566023 | 0.0337491 | NA | NA | 0.00487 | 5.029007 | 0.00487 | 5.029007 | NA | 0.139810 | 0.0029070 |
| POLITICS(0) very conservative | 0.006354 | 0.013289 | 0.0107973 | 0.0107973 | -0.0241098 | 0.0429872 | NA | NA | 0.00444 | 6.24907 | 0.00444 | 6.24907 | NA | 0.233060 | 0.0024917 |
| LANG_ENGLISH no | 0.003017 | 0.007475 | 0.0049834 | 0.0049834 | -0.0353848 | 0.0256477 | NA | NA | 0.00180 | 6.024907 | 0.00180 | 6.024907 | NA | 0.176924 | 0.0024917 |
| RELIGION(0) Christian/Protestant | 0.022810 | 0.161960 | 0.0137040 | 0.0137040 | 0.6784003 | 0.021432 | NA | NA | 0.00910 | 4.024907 | 0.00910 | 4.024907 | NA | 0.257183 | 0.0024917 |

| | Means Treated B4 | Means Treated M | Means Control B4 | Means Control M | Std. Mean Diff. B4 | Std. Mean Diff. M | Var. Ratio B4 | Var. Ratio M | eCDF Mean B4 | eCDF Mean M | eCDF Max B4 | eCDF Max M | Std. Pair Dist. B4 | Std. Pair Dist. M | actualdiff |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANG_JAPANESE yes | 0.0859905 | 0.10382 | 0.0128738 | 0.0128738 | 0.8164091 | -0.0221032 | NA | NA | 0.013102282490073 | 0.0128249 | | NA | | 0.2062968 | 0.0024917 |
| OCCUP(07) executive/management | 0.0774110 | 0.9373750 | 0.0398670 | 0.0398670 | 1.919007 | -0.0127357 | NA | NA | 0.037504082490375 | 0.0408249 | | NA | | 0.3905605 | 0.0024917 |
| LANG_ENGLISH yes | 0.0996822 | 0.0925249 | 0.0950160 | 0.0950160 | 0.6256477 | -0.0353848 | NA | NA | 0.001806024907180 | 0.0024917 | | NA | | 0.1769242 | 0.0024917 |
| OCCUP(16) food service | 0.0017331 | 0.137043 | 0.0157807 | 0.0157807 | -0.112718 | -0.0166611 | NA | NA | 0.014040762070440 | 0.02076 | | NA | | 0.2365878 | 0.0020764 |
| OCCUP(00) artistic/musical/writer | 0.0571920 | 0.061877 | 0.0598007 | 0.0598007 | -0.0110000 | 0.0087569 | NA | NA | 0.002600883200260 | 0.02076 | | NA | | 0.4851324 | 0.0020764 |
| INCOME(4) $50,000 to $74,999 | 0.1282490 | 0.0901100 | 0.0921920 | 0.0921920 | 0.7246359 | -0.0071774 | NA | NA | 0.036055692070360 | 0.02076 | | NA | | 0.5440485 | 0.0020764 |
| BODY(8) voluptous | 0.0170422 | 0.311462 | 0.0328073 | 0.0328073 | -0.0885020 | 0.0093253 | NA | NA | 0.015765011660157 | 0.0166 | | NA | | 0.3403726 | 0.0016611 |
| DRINKING(0) no answer | 0.0202190 | 0.0526990 | 0.0253322 | 0.0253322 | -0.0325376 | 0.0105710 | NA | NA | 0.005110711660051 | 0.0166 | | NA | | 0.3224322 | 0.0016611 |
| OCCUP(12) politics/government/military | 0.0225308 | 0.043600 | 0.0419435 | 0.0419435 | -0.0968432 | 0.0082856 | NA | NA | 0.019411801660194 | 0.0166 | | NA | | 0.4101859 | 0.0016611 |
| MARSTAT(2) widowed | 0.0086655 | 0.124586 | 0.0107973 | 0.0107973 | -0.0206277 | 0.0160752 | NA | NA | 0.002130811660021 | 0.0166 | | NA | | 0.2169882 | 0.0016611 |
| OCCUP(04) construction/craftsman | 0.0101090 | 0.082367 | 0.0253322 | 0.0253322 | -0.0968766 | 0.0105715 | NA | NA | 0.015220201660152 | 0.0166 | | NA | | 0.2960033 | 0.0016611 |
| RELIGION(02) Buddhist/Taoist | 0.0231080 | 0.017441 | 0.0157807 | 0.0157807 | 0.0587940 | 0.0133289 | NA | NA | 0.007327081660073 | 0.0166 | | NA | | 0.2665778 | 0.0016611 |
| EMPSTAT(7) work at home | 0.0037551 | 0.0415280 | 0.0058140 | 0.0058140 | -0.0270800 | 0.0218491 | NA | NA | 0.002058901660020 | 0.0166 | | NA | | 0.1310947 | 0.0016611 |
| RELIGION(10) Spiritual but not religious | 0.1045603 | 0.0873089 | 0.0771428 | 0.0771428 | 0.2862866 | -0.0000645 | NA | NA | 0.033133581660331 | 0.0166 | | NA | | 0.5160002 | 0.0016611 |
| LANG_FRENCH yes | 0.1554810 | 0.0232558 | 0.0249169 | 0.0249169 | 0.9922386 | -0.0106570 | NA | NA | 0.029964061660299 | 0.0166 | | NA | | 0.2930677 | 0.0016611 |
| BODY(1) slender | 0.0615251 | 0.044850 | 0.0543600 | 0.0543600 | 0.0787750 | 0.0500610 | NA | NA | 0.017920512450879 | 0.01245 | | NA | | 0.4250164 | 0.0012458 |
| OCCUP(06) entertainment/media | 0.0580530 | 0.0431890 | 0.0444350 | 0.0444350 | 0.0661153 | -0.0060460 | NA | NA | 0.013622701240836 | 0.01245 | | NA | | 0.4050847 | 0.0012458 |
| LANG_RUSSIAN yes | 0.0098200 | 0.0078900 | 0.0406640 | 0.0406640 | 0.639097 | -0.0153334 | NA | NA | 0.003176401240831 | 0.01245 | | NA | | 0.1789071 | 0.0012458 |
| EMPSTAT(3) retired | 0.0014440 | 0.0333220 | 0.0020764 | 0.0020764 | -0.0138874 | 0.0273690 | NA | NA | 0.000063221240806 | 0.01245 | | NA | | 0.1185991 | 0.0012458 |

| | Means Treated B4 | Means Treated M | Means Control B4 | Means Control M | Std. Mean Diff. B4 | Std. Mean Diff. M | Var. Ratio B4 | Var. Ratio M | eCDF Mean B4 | eCDF Mean M | eCDF Max B4 | eCDF Max M | Std. Pair Dist. B4 | Std. Pair Dist. M | actualdiff |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RELIGION(04) Christian/LDS | 0.0008666 | 0.0041153 | 0.0016611 | 0.0016611 | -0.0195107 | 0.0305931 | NA | NA | 0.0007946 | 0.0124608 | 0.0079400 | 0.0124508 | NA | 0.0509886 | 0.0012458 |
| LANG_ARABIC yes | 0.0023110 | 0.0053987 | 0.0041528 | 0.0041528 | -0.0286435 | 0.0193780 | NA | NA | 0.0018420 | 0.0124608 | 0.0184200 | 0.0124508 | NA | 0.1485263 | 0.0012458 |
| LANG_HINDI yes | 0.0127090 | 0.0049830 | 0.0037375 | 0.0037375 | 0.5470290 | 0.0204117 | NA | NA | 0.0089700 | 0.0124608 | 0.0089700 | 0.0124508 | NA | 0.1429167 | 0.0012458 |
| SMOKING(0) no answer | 0.0346620 | 0.0427740 | 0.0440199 | 0.0440199 | -0.0456172 | 0.0060732 | NA | NA | 0.0093570 | 0.0124608 | 0.0093570 | 0.0124508 | NA | 0.4028538 | 0.0012458 |
| LANG_SPANISH yes | 0.0710710 | 0.0333887 | 0.0346346 | 0.0346346 | -0.1508469 | 0.0029399 | NA | NA | 0.0639240 | 0.0124608 | 0.0639240 | 0.0124508 | NA | 0.8339551 | 0.0012458 |
| DRINKING(3) often | 0.0049100 | 0.0083056 | 0.0091362 | 0.0091362 | -0.0444164 | 0.0087294 | NA | NA | 0.0042258 | 0.0083006 | 0.0042258 | 0.0083006 | NA | 0.1833170 | 0.0008306 |
| EMPSTAT(6) unemployed | 0.0025990 | 0.0083056 | 0.0091362 | 0.0091362 | -0.0687004 | 0.0087294 | NA | NA | 0.0065366 | 0.0083006 | 0.0065366 | 0.0083006 | NA | 0.1833170 | 0.0008306 |
| RELIGION(09) Islam | 0.0072210 | 0.0058140 | 0.0049830 | 0.0049830 | 0.0431780 | 0.0117949 | NA | NA | 0.0022370 | 0.0083006 | 0.0022370 | 0.0083006 | NA | 0.1533343 | 0.0008306 |
| LANG_HEBREW yes | 0.0011550 | 0.0012458 | 0.0020764 | 0.0020764 | -0.0202309 | 0.0182460 | NA | NA | 0.0009200 | 0.0083006 | 0.0009200 | 0.0083006 | NA | 0.0729841 | 0.0008306 |
| LANG_URDU yes | 0.0077990 | 0.0024910 | 0.0033226 | 0.0033226 | 0.0777972 | 0.0144338 | NA | NA | 0.0044767 | 0.0083006 | 0.0044767 | 0.0083006 | NA | 0.0866025 | 0.0008306 |
| RELIGION(07) Hindu | 0.0066436 | 0.0000000 | 0.0008306 | 0.0008306 | 0.0017872 | 0.0288315 | NA | NA | 0.0058130 | 0.0083006 | 0.0058130 | 0.0083006 | NA | 0.0288315 | 0.0008306 |
| LANG_DUTCH yes | 0.0023110 | 0.0016610 | 0.0008306 | 0.0008306 | 0.0651386 | 0.0288315 | NA | NA | 0.0014820 | 0.0083006 | 0.0014820 | 0.0083006 | NA | 0.0864945 | 0.0008306 |
| INCOME(6) $100,000 to $149,999 | 0.0450600 | 0.0070598 | 0.0078904 | 0.0078904 | 0.4201144 | 0.0093874 | NA | NA | 0.0371700 | 0.0083006 | 0.0371700 | 0.0083006 | NA | 0.1595857 | 0.0008306 |
| HAVEKIDS(2) yes, at home part-time | 0.0291730 | 0.0440199 | 0.0431894 | 0.0431894 | -0.0689456 | 0.0040858 | NA | NA | 0.0140155 | 0.0083006 | 0.0140155 | 0.0083006 | NA | 0.3963180 | 0.0008306 |
| RELIGION(06) Christian/Other | 0.0161750 | 0.0203488 | 0.0211794 | 0.0211794 | -0.0347508 | 0.0057685 | NA | NA | 0.0050008 | 0.0083006 | 0.0050008 | 0.0083006 | NA | 0.2595838 | 0.0008306 |
| distance | 0.7226383 | 0.9990239 | 1.3998113 | 1.3998113 | 0.0092680 | -0.7505352 | NA | NA | 0.1110331 | 0.6804658 | 0.2950245 | NA | NA | 0.0022948 | 0.0000912 |
| ETHNICITY(4) Hispanic/Latino | 0.1770653 | 0.6254413 | 0.6295568 | 0.6295568 | -0.3865874 | 0.0008636 | NA | NA | 0.1858905 | 0.0041585 | 0.1858905 | 0.0041585 | NA | 0.8990469 | 0.0004153 |
| SERVICES(3) only on holidays | 0.0973426 | 0.0809800 | 0.0813956 | 0.0813956 | 0.0583205 | 0.0015187 | NA | NA | 0.0159417 | 0.0041635 | 0.0159417 | 0.0041635 | NA | 0.5604099 | 0.0004153 |
| LANG_TAGALOG yes | 0.0352307 | 0.0141196 | 0.0137043 | 0.0137043 | 0.0852342 | 0.0035752 | NA | NA | 0.0215350 | 0.0041635 | 0.0215350 | 0.0041635 | NA | 0.2321799 | 0.0004153 |
| INCOME(7) $150,000+ | 0.0447718 | 0.0705980 | 0.0747500 | 0.0747500 | 0.4330041 | 0.0048213 | NA | NA | 0.0372960 | 0.0041635 | 0.0372960 | 0.0041635 | NA | 0.1687457 | 0.0004153 |
| RELIGION(01) Atheist | 0.0077990 | 0.0332260 | 0.0290709 | 0.0290709 | 0.0860900 | 0.0771356 | NA | NA | 0.0048920 | 0.0041635 | 0.0048920 | 0.0041635 | NA | 0.1157034 | 0.0004153 |

| | Means Treated B4 | Means Treated M | Means Control B4 | Means Control M | Std. Mean Diff. B4 | Std. Mean Diff. M | Var. Ratio B4 | Var. Ratio M | eCDF Mean B4 | eCDF Mean M | eCDF Max B4 | eCDF Max M | Std. Pair Dist. B4 | Std. Pair Dist. M | actualdiff |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RELIGION(13) Scientology | 0.0002889 | 0.0000000 | 0.00004153 | 0.0004153 | -0.0062065 | 0.0203827 | NA | NA | 0.0001260 | 0.0004160 | 0.0001260 | 0.0004153 | NA | 0.0203827 | 0.0004153 |
| OCCUP(09) legal services | 0.0314840 | 0.0182724 | 0.017857 | 0.0178571 | 0.102900 | 0.0031358 | NA | NA | 0.0136275 | 0.0004163 | 0.0136275 | 0.0004153 | NA | 0.266544 | 0.0004153 |
| OCCUP(10) manufacturing/distributions | 0.0089540 | 0.017440 | 0.017857 | 0.0178571 | -0.0672262 | 0.0031358 | NA | NA | 0.0089020 | 0.0004163 | 0.0089020 | 0.0004153 | NA | 0.260272 | 0.0004153 |
| SERVICES(6) more than once a week | 0.0233969 | 0.029485 | 0.0290698 | 0.0290698 | -0.0337668 | 0.002471 | NA | NA | 0.0056720 | 0.0004163 | 0.0056720 | 0.0004153 | NA | 0.343592 | 0.0004153 |
| REGION(2) Chicago, IL | 0.2515882 | 0.269933 | 0.2695183 | 0.2695183 | -0.0404084 | 0.000935 | NA | NA | 0.0179296 | 0.0004163 | 0.0179296 | 0.0004153 | NA | 0.929380 | 0.0004153 |
| RELIGION(08) Jewish | 0.0199307 | 0.0058140 | 0.0058140 | 0.0058140 | 0.0856790 | 0.0000000 | NA | NA | 0.0141167 | 0.0000000 | 0.0141167 | 0.0000000 | NA | 0.010797 | 0.0000000 |
| RELIGION(15) no answer | 0.1938186 | 0.2869642 | 0.2869642 | 0.2869642 | -0.0065693 | 0.0000000 | NA | NA | 0.0026100 | 0.0000000 | 0.0026100 | 0.0000000 | NA | 0.316446 | 0.0000000 |
| LANG_PORTUGUESE(5) yes | 0.0144890 | 0.0058140 | 0.0058140 | 0.0058140 | 0.0172923 | 0.0000000 | NA | NA | 0.0089170 | 0.0000000 | 0.0089170 | 0.0000000 | NA | 0.011627 | 0.0000000 |

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#
#
# mat_nearest_ATC_wr <- matchit(CGRAD ~ SEX + REGION + AGE + ETHNICITY + MARSTAT + BODY + HEIGHT_FT + H.
#
#
# mat_nearest_ATC_wr
# options(max.print=3000)
# sum_MatwrATC <- summary(mat_nearest_ATC_wr)
# #sum_fullATE
#
# summarydf_sum_MatwrATC <- cbind(
#   "Means Treated B4" = sum_MatwrATC$sum.all[,"Means Treated"],
#   "Means Treated M" = sum_MatwrATC$sum.matched[,"Means Treated"],
#   "Means Control B4" = sum_MatwrATC$sum.all[,"Means Control"],
#   "Means Control M" = sum_MatwrATC$sum.matched[,"Means Control"],
#   "Std. Mean Diff. B4" = sum_MatwrATC$sum.all[,"Std. Mean Diff."],
#   "Std. Mean Diff. M" = sum_MatwrATC$sum.matched[,"Std. Mean Diff."],
#   "Var. Ratio B4" = sum_MatwrATC$sum.all[,"Var. Ratio"],
#   "Var. Ratio M" = sum_MatwrATC$sum.matched[,"Var. Ratio"],
#   "eCDF Mean B4" = sum_MatwrATC$sum.all[,"eCDF Mean"],
#   "eCDF Mean M" = sum_MatwrATC$sum.matched[,"eCDF Mean"],
#   "eCDF Max B4" = sum_MatwrATC$sum.all[,"eCDF Max"],
#   "eCDF Max M" = sum_MatwrATC$sum.matched[,"eCDF Max"],
#   "Std. Pair Dist. B4" = sum_MatwrATC$sum.all[,"Std. Pair Dist."],
#   "Std. Pair Dist. M" = sum_MatwrATC$sum.matched[,"Std. Pair Dist."]
# )
#
```

```
# summarydf_sum_MaturATC <- as.data.frame(summarydf_sum_MaturATC)
#
# view(summarydf_sum_MaturATC)
#
# summarynn_sum_MaturATC <- sum_MaturATC$nn
# summarynn_sum_MaturATC
#
#
# bal.plot(mat_nearest_ATC_wr, type = "histogram")
#
# stdm_sum_MaturATC <- summarydf_sum_MaturATC[order(-abs(summarydf_sum_MaturATC$"Std. Mean Diff. M")),
#
#  #sorting it so its in descending order (largest std to smallest)
# table2 <- round(head(stdm_sum_MaturATC, n= 7), digits = 4)
# setwd("~/R")
# write.csv(table2, "table2.csv", row.names = T)
#
#
# #sort covariates by absolute value of standarzied mean difference
# stdm_sum_MaturATC <- stdm_sum_MaturATC %>% relocate("Std. Mean Diff. M", .before = "Means Treated B4"
#
# stdm_sum_MaturATC
```

**Step 3: Create a propensity model and assess balance and overlap**

```
#Final Model
#just interaction between Havekids and wantkids


mat_nearest_ATC_wr4 <- matchit(CGRAD ~ SEX + REGION + AGE + ETHNICITY + MARSTAT + BODY + HEIGHT_FT + HE
                method = "nearest", estimand = "ATC", distance = "glm", link = "probit", replace = T)

mat_nearest_ATC_wr4
```

**Step 4: Edit Propensity Score model to create better balance**

```
## A matchit object
##  - method: 1:1 nearest neighbor matching with replacement
##  - distance: Propensity score
##              - estimated with probit regression
##  - number of obs.: 5870 (original), 3436 (matched)
##  - target estimand: ATC
##  - covariates: SEX, REGION, AGE, ETHNICITY, MARSTAT, BODY, HEIGHT_FT, HEIGHT_IN, SMOKING, DRINKING, I
```

```
options(max.print=3000)
sum_MatwrATC4 <- summary(mat_nearest_ATC_wr4)
#sum_MatwrATC4


summarydf_sum_MatwrATC4 <- cbind(
  "Means Treated B4" = sum_MatwrATC4$sum.all[,"Means Treated"],
  "Means Treated M" = sum_MatwrATC4$sum.matched[,"Means Treated"],
  "Means Control B4" = sum_MatwrATC4$sum.all[,"Means Control"],
  "Means Control M" = sum_MatwrATC4$sum.matched[,"Means Control"],
  "Std. Mean Diff. B4" = sum_MatwrATC4$sum.all[,"Std. Mean Diff."],
```

```
    "Std. Mean Diff. M" = sum_MatwrATC4$sum.matched[,"Std. Mean Diff."],
    "Var. Ratio B4" = sum_MatwrATC4$sum.all[,"Var. Ratio"],
    "Var. Ratio M" = sum_MatwrATC4$sum.matched[,"Var. Ratio"],
    "eCDF Mean B4" = sum_MatwrATC4$sum.all[,"eCDF Mean"],
    "eCDF Mean M" = sum_MatwrATC4$sum.matched[,"eCDF Mean"],
    "eCDF Max B4" = sum_MatwrATC4$sum.all[,"eCDF Max"],
    "eCDF Max M" = sum_MatwrATC4$sum.matched[,"eCDF Max"],
    "Std. Pair Dist. B4" = sum_MatwrATC4$sum.all[,"Std. Pair Dist."],
    "Std. Pair Dist. M" = sum_MatwrATC4$sum.matched[,"Std. Pair Dist."]
)

summarydf_sum_MatwrATC4 <- as.data.frame(summarydf_sum_MatwrATC4)

view(summarydf_sum_MatwrATC4)

summarynn_sum_MatwrATC4 <- sum_MatwrATC4$nn
summarynn_sum_MatwrATC4
```

```
##                 Control  Treated
## All (ESS)          2408 3462.0000
## All                2408 3462.0000
## Matched (ESS)      2408  350.9966
## Matched            2408 1028.0000
## Unmatched             0 2434.0000
## Discarded             0    0.0000
```

```
bal.plot(mat_nearest_ATC_wr4, type = "histogram")
```

```
## No `var.name` was provided. Displaying balance for distance.
```

```
## Warning: No shared levels found between `names(values)` of the manual scale and the
## data's colour values.
```

# Distributional Balance for "distance"
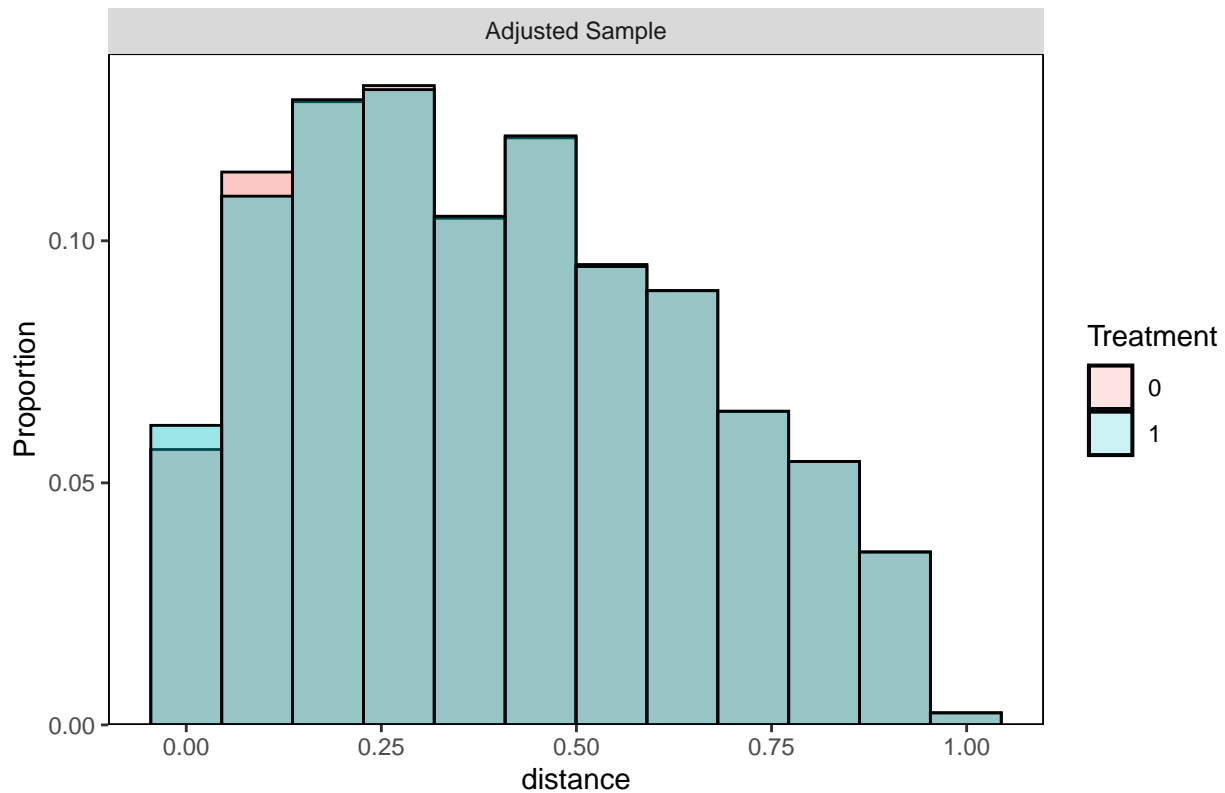


```
#sort covariates by absolute value mean difference

stdm_sum_MatwrATC4 <- summarydf_sum_MatwrATC4[order(-abs(summarydf_sum_MatwrATC4$"eCDF Mean M")), ] #so

# table3 <- round(head(stdm_sum_MatwrATC4, n= 7), digits = 4)
# setwd("~/R")
# write.csv(table3, "table3.csv", row.names = T)

stdm_sum_MatwrATC4 <- stdm_sum_MatwrATC4 %>% relocate("eCDF Mean M", .before = "Means Treated B4") #mov
stdm_sum_MatwrATC4
```

```
##                                        eCDF Mean M Means Treated B4
## AGE                                    4.904108e-02      3.260023e+01
## RELIGION(11) Christian                 3.696013e-02      3.362218e-01
## LIVE_KIDS(0) no                        3.612957e-02      6.239168e-01
## HAVEKIDS(1) yes, at home full-time     3.197674e-02      7.336800e-02
## POLITICS(6) no answer                  3.156146e-02      2.697863e-01
## SERVICES(5) weekly                     3.114618e-02      1.574235e-01
## HAVEKIDS(0) no                         2.906977e-02      7.833622e-01
## LIVE_KIDS(1) yes                       2.616279e-02      6.065858e-02
## OCCUP(18) no answer                    2.574751e-02      7.452340e-02
## LIVE_PETS(0) no                        2.533223e-02      6.036973e-01
## MARSTAT(0) single-never married        2.450166e-02      7.614096e-01
## SMOKING(1) no                          2.367110e-02      8.492201e-01
## LANG_ITALIAN(0) no                     2.367110e-02      6.874639e-01
## SERVICES(0) no answer                  2.367110e-02      2.666089e-01
```

```
## MARSTAT(1) divorced                        2.117940e-02    1.813980e-01
## EMPSTAT(5) student                         2.117940e-02    4.621606e-02
## RELIGION(14) Other                         2.117940e-02    3.755055e-02
## RELIGION(15) no answer                     2.034884e-02    1.938186e-01
## HEIGHT_IN                                  2.014120e-02    5.567591e+00
## LIVE_PARTY(0) no                           1.910299e-02    6.808203e-01
## INCOME(0) no answer                        1.910299e-02    5.577701e-01
## POLITICS(5) not political                  1.910299e-02    1.129405e-01
## REGION(2) Chicago, IL                      1.868771e-02    2.515887e-01
## BODY(6) a few extra pounds                 1.785714e-02    3.870595e-02
## RELIGION(03) Christian/Catholic            1.785714e-02    1.340266e-01
## LANG_RUSSIAN(0) no                         1.785714e-02    6.998845e-01
## SMOKING(2) occasionally                    1.744186e-02    9.300982e-02
## LIVE_ALONE(1) yes                          1.702658e-02    4.020797e-01
## SEX(0) female                             1.661130e-02    4.653380e-01
## SEX(1) male                               1.661130e-02    5.346620e-01
## LIVE_PETS(1) yes                           1.578073e-02    8.058925e-02
## INCOME(3) $35,000 to $49,999               1.578073e-02    8.954362e-02
## ETHNICITY(4) Hispanic/Latino               1.536545e-02    1.770653e-01
## EMPSTAT(8) no answer                       1.495017e-02    3.177354e-02
## SERVICES(3) only on holidays               1.495017e-02    9.734258e-02
## LANG_ARABIC(0) no                          1.411960e-02    7.073946e-01
## OCCUP(00) artistic/musical/writer          1.411960e-02    5.719237e-02
## LANG_FRENCH(0) no                          1.370432e-02    6.548238e-01
## LANG_DUTCH(0) no                           1.370432e-02    7.073946e-01
## LANG_TAGALOG(0) no                         1.370432e-02    6.744656e-01
## HAVEKIDS(3) yes, but not at home           1.328904e-02    8.058925e-02
## LANG_FRENCH(2) no answer                   1.328904e-02    2.902946e-01
## LANG_GERMAN(2) no answer                   1.328904e-02    2.902946e-01
## LANG_ITALIAN(2) no answer                  1.328904e-02    2.902946e-01
## LANG_SPANISH(2) no answer                  1.328904e-02    2.902946e-01
## LANG_PORTUGUESE(2) no answer               1.328904e-02    2.902946e-01
## LANG_DUTCH(2) no answer                    1.328904e-02    2.902946e-01
## LANG_CHINESE(2) no answer                  1.328904e-02    2.902946e-01
## LANG_JAPANESE(2) no answer                 1.328904e-02    2.902946e-01
## LANG_ARABIC(2) no answer                   1.328904e-02    2.902946e-01
## LANG_RUSSIAN(2) no answer                  1.328904e-02    2.902946e-01
## LANG_HEBREW(2) no answer                   1.328904e-02    2.902946e-01
## LANG_HINDI(2) no answer                    1.328904e-02    2.902946e-01
## LANG_TAGALOG(2) no answer                  1.328904e-02    2.902946e-01
## LANG_URDU(2) no answer                     1.328904e-02    2.902946e-01
## LANG_GERMAN(0) no                          1.287375e-02    6.894858e-01
## SERVICES(2) rarely                         1.245847e-02    2.628538e-01
## LANG_URDU(0) no                            1.245847e-02    7.019064e-01
## REGION(3) Atlanta, GA                      1.204319e-02    2.209705e-01
## LANG_HEBREW(0) no                          1.162791e-02    7.085500e-01
## LIVE_PAR(1) yes                            1.162791e-02    4.274986e-02
## LANG_SPANISH(0) no                         1.162791e-02    5.389948e-01
## LIVE_FAM(0) no                             1.121262e-02    6.415367e-01
## LANG_HINDI(0) no                           1.121262e-02    6.969960e-01
## ETHNICITY(2) Caucasian                     1.121262e-02    2.954939e-01
## WANTKIDS(0) no                             1.121262e-02    1.016753e-01
## BODY(4) fit                                1.079734e-02    6.441363e-02
## OCCUP(02) clerical/administrative          1.079734e-02    2.339688e-02
```

```
## LANG_ITALIAN(1) yes                                  1.038206e-02    2.224148e-02
## LIVE_ALONE(2) no answer                              1.038206e-02    3.134027e-01
## LANG_JAPANESE(0) no                                  1.038206e-02    6.837088e-01
## LANG_PORTUGUESE(0) no                                1.038206e-02    6.949740e-01
## LIVE_KIDS(2) no answer                               9.966777e-03    3.154246e-01
## LANG_CHINESE(0) no                                   9.551495e-03    6.262276e-01
## BODY(7) large                                        9.551495e-03    1.097631e-02
## LIVE_PARTY(1) yes                                    9.551495e-03    3.466205e-03
## HAVEKIDS(4) no answer                                9.551495e-03    3.350664e-02
## OCCUP(01) banking/financial services/real estate 9.551495e-03    1.181398e-01
## OCCUP(08) hospitality/travel                         9.551495e-03    1.502022e-02
## OCCUP(14) technical science/engineering              9.551495e-03    8.434431e-02
## LIVE_PAR(2) no answer                                9.551495e-03    3.157135e-01
## LIVE_PETS(2) no answer                               9.551495e-03    3.157135e-01
## LIVE_ROOM(2) no answer                               9.551495e-03    3.157135e-01
## LIVE_FAM(2) no answer                                9.551495e-03    3.157135e-01
## LIVE_PARTY(2) no answer                              9.551495e-03    3.157135e-01
## OCCUP(13) sales/marketing                            9.551495e-03    7.943385e-02
## MARSTAT(3) separated                                 8.720930e-03    2.541883e-02
## OCCUP(17) other                                      8.305648e-03    8.665511e-02
## DRINKING(2) occasionally                             7.890365e-03    8.238013e-01
## ETHNICITY(1) Asian                                   7.890365e-03    3.032929e-01
## OCCUP(16) food service                               7.475083e-03    1.733102e-03
## WANTKIDS(3) no answer                                7.059801e-03    2.021953e-01
## INCOME(2) $25,000 to $34,999y                        7.059801e-03    4.217215e-02
## SERVICES(4) monthly                                  7.059801e-03    8.665511e-02
## POLITICS(2) middle of the road                       7.059801e-03    3.076256e-01
## LIVE_ALONE(0) no                                     6.644518e-03    2.845176e-01
## POLITICS(3) liberal                                  6.644518e-03    1.964183e-01
## HAVEKIDS(2) yes, at home part-time                   6.644518e-03    2.917389e-02
## OCCUP(03) computer related/hardware                  6.229236e-03    7.452340e-02
## OCCUP(04) construction/craftsman                     6.229236e-03    1.010976e-02
## RELIGION(12) Not religious                           6.229236e-03    3.321779e-02
## LIVE_ROOM(1) yes                                     5.813953e-03    1.554015e-01
## DRINKING(0) no answer                                5.813953e-03    2.021953e-02
## RELIGION(06) Christian/Other                         5.813953e-03    1.617562e-02
## BODY(0) slim                                         5.813953e-03    1.213172e-01
## OCCUP(06) entertainment/media                        5.398671e-03    5.805893e-02
## OCCUP(12) politics/government/military               5.398671e-03    2.253033e-02
## WANTKIDS(1) yes                                      5.398671e-03    4.560947e-01
## INCOME(4) $50,000 to $74,999                         5.398671e-03    1.282496e-01
## OCCUP(11) medical/health services                    4.983389e-03    8.723281e-02
## OCCUP(10) manufacturing/distributions                4.983389e-03    8.954362e-03
## SERVICES(1) never                                    4.983389e-03    1.057192e-01
## HEIGHT_FT                                            4.879568e-03    5.180820e+00
## BODY(8) voluptous                                    4.568106e-03    1.704217e-02
## EMPSTAT(6) unemployed                                4.568106e-03    2.599653e-03
## LANG_RUSSIAN(1) yes                                  4.568106e-03    9.820913e-03
## SMOKING(0) no answer                                 4.568106e-03    3.466205e-02
## BODY(3) athletic                                     4.152824e-03    3.379549e-01
## ETHNICITY(0) African American                        3.737542e-03    2.241479e-01
## MARSTAT(4) no answer                                 3.737542e-03    2.310803e-02
## LANG_CHINESE(1) yes                                  3.737542e-03    8.347776e-02
## REGION(0) Los Angeles, CA                            3.737542e-03    2.322357e-01
```

```
## LIVE_ROOM(0) no                              3.737542e-03    5.288850e-01
## BODY(2) average                              3.322259e-03    2.911612e-01
## EMPSTAT(1) part-time                          3.322259e-03    2.975159e-02
## BODY(1) slender                              3.322259e-03    6.152513e-02
## REGION(1) New York/New Jersey                 2.906977e-03    2.952051e-01
## EMPSTAT(0) full-time                          2.906977e-03    7.712305e-01
## RELIGION(10) Spiritual but not religious      2.906977e-03    1.045638e-01
## LANG_PORTUGUESE(1) yes                        2.906977e-03    1.473137e-02
## LANG_JAPANESE(1) yes                          2.906977e-03    2.599653e-02
## INCOME(1) less than $24,999                   2.491694e-03    2.224148e-02
## INCOME(7) $150,000+                           2.491694e-03    4.477181e-02
## LIVE_PAR(0) no                               2.076412e-03    6.415367e-01
## LANG_ENGLISH(1) yes                           2.076412e-03    9.968226e-01
## RELIGION(00) none/agnostic                    2.076412e-03    5.574812e-02
## SERVICES(6) more than once a week             2.076412e-03    2.339688e-02
## DRINKING(3) often                            2.076412e-03    4.910456e-03
## LANG_HINDI(1) yes                            2.076412e-03    1.270942e-02
## BODY(9) no answer                            2.076412e-03    1.184287e-02
## EMPSTAT(2) homemaker                          2.076412e-03    2.599653e-03
## LANG_ENGLISH(0) no                           2.076412e-03    3.177354e-03
## SMOKING(3) often                            1.661130e-03    2.310803e-02
## MARSTAT(2) widowed                          1.661130e-03    8.665511e-03
## INCOME(5) $75,000 to $99,999                 1.661130e-03    7.019064e-02
## RELIGION(08) Jewish                          1.661130e-03    1.993068e-02
## LANG_HEBREW(1) yes                           1.661130e-03    1.155402e-03
## RELIGION(09) Islam                           1.661130e-03    7.221259e-03
## BODY(5) thick                               1.661130e-03    4.506066e-02
## LIVE_FAM(1) yes                             1.661130e-03    4.274986e-02
## EMPSTAT(4) self-employed                     1.661130e-03    1.106297e-01
## OCCUP(07) executive/management               1.661130e-03    7.741190e-02
## LANG_SPANISH(1) yes                          1.661130e-03    1.707106e-01
## OCCUP(09) legal services                     1.245847e-03    3.148469e-02
## RELIGION(04) Christian/LDS                   1.245847e-03    8.665511e-04
## RELIGION(05) Christian/Protestant            1.245847e-03    2.281918e-02
## OCCUP(05) education/academic research        1.245847e-03    7.972270e-02
## POLITICS(4) very liberal                     1.245847e-03    3.292894e-02
## WANTKIDS(2) not sure                         1.245847e-03    2.400347e-01
## OCCUP(15) transportation                     8.305648e-04    9.532062e-03
## RELIGION(01) Atheist                         8.305648e-04    7.798960e-03
## POLITICS(0) very conservative                8.305648e-04    6.354708e-03
## LANG_URDU(1) yes                             8.305648e-04    7.798960e-03
## LANG_ARABIC(1) yes                           8.305648e-04    2.310803e-03
## POLITICS(1) conservative                     8.305648e-04    7.394570e-02
## distance                                     5.136704e-04    7.233403e-01
## LANG_FRENCH(1) yes                           4.152824e-04    5.488157e-02
## EMPSTAT(7) work at home                      4.152824e-04    3.755055e-03
## LANG_TAGALOG(1) yes                          4.152824e-04    3.523975e-02
## LANG_DUTCH(1) yes                            4.152824e-04    2.310803e-03
## RELIGION(07) Hindu                           4.152824e-04    6.643559e-03
## RELIGION(13) Scientology                     4.152824e-04    2.888504e-04
## EMPSTAT(3) retired                           4.152824e-04    1.444252e-03
## RELIGION(02) Buddhist/Taoist                 4.152824e-04    2.310803e-02
## LANG_GERMAN(1) yes                           4.152824e-04    2.021953e-02
## DRINKING(1) no                              2.775558e-17    1.510687e-01
```

32

```
## INCOME(6) $100,000 to $149,999                0.000000e+00      4.506066e-02
##                                               Means Treated M
## AGE                                           3.011005e+01
## RELIGION(11) Christian                        3.936877e-01
## LIVE_KIDS(0) no                               5.020764e-01
## HAVEKIDS(1) yes, at home full-time            1.914452e-01
## POLITICS(6) no answer                         3.073090e-01
## SERVICES(5) weekly                            1.943522e-01
## HAVEKIDS(0) no                                6.175249e-01
## LIVE_KIDS(1) yes                              1.499169e-01
## OCCUP(18) no answer                           1.017442e-01
## LIVE_PETS(0) no                               5.510797e-01
## MARSTAT(0) single-never married               6.918605e-01
## SMOKING(1) no                                 7.616279e-01
## LANG_ITALIAN(0) no                            6.665282e-01
## SERVICES(0) no answer                         2.446013e-01
## MARSTAT(1) divorced                           2.254983e-01
## EMPSTAT(5) student                            1.416113e-01
## RELIGION(14) Other                            6.187708e-02
## RELIGION(15) no answer                        1.760797e-01
## HEIGHT_IN                                     5.750000e+00
## LIVE_PARTY(0) no                              6.328904e-01
## INCOME(0) no answer                           5.066445e-01
## POLITICS(5) not political                     2.142857e-01
## REGION(2) Chicago, IL                         2.882060e-01
## BODY(6) a few extra pounds                    8.430233e-02
## RELIGION(03) Christian/Catholic               1.781561e-01
## LANG_RUSSIAN(0) no                            6.777409e-01
## SMOKING(2) occasionally                       1.465947e-01
## LIVE_ALONE(1) yes                             2.250831e-01
## SEX(0) female                                 5.265781e-01
## SEX(1) male                                   4.734219e-01
## LIVE_PETS(1) yes                              1.009136e-01
## INCOME(3) $35,000 to $49,999                  1.416113e-01
## ETHNICITY(4) Hispanic/Latino                  3.783223e-01
## EMPSTAT(8) no answer                          2.242525e-02
## SERVICES(3) only on holidays                  9.634551e-02
## LANG_ARABIC(0) no                             6.839701e-01
## OCCUP(00) artistic/musical/writer             7.392027e-02
## LANG_FRENCH(0) no                             6.636213e-01
## LANG_DUTCH(0) no                              6.877076e-01
## LANG_TAGALOG(0) no                            6.748339e-01
## HAVEKIDS(3) yes, but not at home              1.320598e-01
## LANG_FRENCH(2) no answer                      3.110465e-01
## LANG_GERMAN(2) no answer                      3.110465e-01
## LANG_ITALIAN(2) no answer                     3.110465e-01
## LANG_SPANISH(2) no answer                     3.110465e-01
## LANG_PORTUGUESE(2) no answer                  3.110465e-01
## LANG_DUTCH(2) no answer                       3.110465e-01
## LANG_CHINESE(2) no answer                     3.110465e-01
## LANG_JAPANESE(2) no answer                    3.110465e-01
## LANG_ARABIC(2) no answer                      3.110465e-01
## LANG_RUSSIAN(2) no answer                     3.110465e-01
## LANG_HEBREW(2) no answer                      3.110465e-01
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## LANG_HINDI(2) no answer                              3.110465e-01
## LANG_TAGALOG(2) no answer                            3.110465e-01
## LANG_URDU(2) no answer                               3.110465e-01
## LANG_GERMAN(0) no                                    6.794020e-01
## SERVICES(2) rarely                                   2.736711e-01
## LANG_URDU(0) no                                      6.864618e-01
## REGION(3) Atlanta, GA                                2.329734e-01
## LANG_HEBREW(0) no                                    6.885382e-01
## LIVE_PAR(1) yes                                      1.262458e-01
## LANG_SPANISH(0) no                                   4.559801e-01
## LIVE_FAM(0) no                                       5.884551e-01
## LANG_HINDI(0) no                                     6.872924e-01
## ETHNICITY(2) Caucasian                               1.885382e-01
## WANTKIDS(0) no                                       1.544850e-01
## BODY(4) fit                                          3.779070e-02
## OCCUP(02) clerical/administrative                    7.599668e-02
## LANG_ITALIAN(1) yes                                  2.242525e-02
## LIVE_ALONE(2) no answer                              3.480066e-01
## LANG_JAPANESE(0) no                                  6.789867e-01
## LANG_PORTUGUESE(0) no                                6.860465e-01
## LIVE_KIDS(2) no answer                               3.480066e-01
## LANG_CHINESE(0) no                                   6.640365e-01
## BODY(7) large                                        9.551495e-03
## LIVE_PARTY(1) yes                                    1.910299e-02
## HAVEKIDS(4) no answer                                2.242525e-02
## OCCUP(01) banking/financial services/real estate     5.274086e-02
## OCCUP(08) hospitality/travel                         2.823920e-02
## OCCUP(14) technical science/engineering              5.647841e-02
## LIVE_PAR(2) no answer                                3.480066e-01
## LIVE_PETS(2) no answer                               3.480066e-01
## LIVE_ROOM(2) no answer                               3.480066e-01
## LIVE_FAM(2) no answer                                3.480066e-01
## LIVE_PARTY(2) no answer                              3.480066e-01
## OCCUP(13) sales/marketing                            5.523256e-02
## MARSTAT(3) separated                                 4.152824e-02
## OCCUP(17) other                                      1.648671e-01
## DRINKING(2) occasionally                             8.019103e-01
## ETHNICITY(1) Asian                                   1.283223e-01
## OCCUP(16) food service                               8.305648e-03
## WANTKIDS(3) no answer                                1.785714e-01
## INCOME(2) $25,000 to $34,999y                        1.270764e-01
## SERVICES(4) monthly                                  8.098007e-02
## POLITICS(2) middle of the road                       2.421096e-01
## LIVE_ALONE(0) no                                     4.269103e-01
## POLITICS(3) liberal                                  1.295681e-01
## HAVEKIDS(2) yes, at home part-time                   3.654485e-02
## OCCUP(03) computer related/hardware                  6.187708e-02
## OCCUP(04) construction/craftsman                     3.156146e-02
## RELIGION(12) Not religious                           2.117940e-02
## LIVE_ROOM(1) yes                                     1.569767e-01
## DRINKING(0) no answer                                1.951827e-02
## RELIGION(06) Christian/Other                         1.536545e-02
## BODY(0) slim                                         1.054817e-01
## OCCUP(06) entertainment/media                        3.903654e-02
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## OCCUP(12) politics/government/military          4.734219e-02
## WANTKIDS(1) yes                                 3.754153e-01
## INCOME(4) $50,000 to $74,999                    8.679402e-02
## OCCUP(11) medical/health services              6.229236e-02
## OCCUP(10) manufacturing/distributions          2.284053e-02
## SERVICES(1) never                              7.890365e-02
## HEIGHT_FT                                       5.134967e+00
## BODY(8) voluptous                               3.737542e-02
## EMPSTAT(6) unemployed                           4.568106e-03
## LANG_RUSSIAN(1) yes                             1.121262e-02
## SMOKING(0) no answer                            3.945183e-02
## BODY(3) athletic                                2.254983e-01
## ETHNICITY(0) African American                   3.048173e-01
## MARSTAT(4) no answer                            3.197674e-02
## LANG_CHINESE(1) yes                             2.491694e-02
## REGION(0) Los Angeles, CA                       2.732558e-01
## LIVE_ROOM(0) no                                 4.950166e-01
## BODY(2) average                                 3.347176e-01
## EMPSTAT(1) part-time                            8.637874e-02
## BODY(1) slender                                 4.028239e-02
## REGION(1) New York/New Jersey                   2.055648e-01
## EMPSTAT(0) full-time                            6.482558e-01
## RELIGION(10) Spiritual but not religious        7.433555e-02
## LANG_PORTUGUESE(1) yes                          2.906977e-03
## LANG_JAPANESE(1) yes                            9.966777e-03
## INCOME(1) less than $24,999                     1.004983e-01
## INCOME(7) $150,000+                             4.983389e-03
## LIVE_PAR(0) no                                  5.257475e-01
## LANG_ENGLISH(1) yes                             9.970930e-01
## RELIGION(00) none/agnostic                      3.529900e-02
## SERVICES(6) more than once a week               3.114618e-02
## DRINKING(3) often                               7.059801e-03
## LANG_HINDI(1) yes                               1.661130e-03
## BODY(9) no answer                               1.204319e-02
## EMPSTAT(2) homemaker                            9.551495e-03
## LANG_ENGLISH(0) no                              2.906977e-03
## SMOKING(3) often                                5.232558e-02
## MARSTAT(2) widowed                              9.136213e-03
## INCOME(5) $75,000 to $99,999                    2.450166e-02
## RELIGION(08) Jewish                             7.475083e-03
## LANG_HEBREW(1) yes                              4.152824e-04
## RELIGION(09) Islam                              3.322259e-03
## BODY(5) thick                                   1.129568e-01
## LIVE_FAM(1) yes                                 6.353821e-02
## EMPSTAT(4) self-employed                        7.848837e-02
## OCCUP(07) executive/management                  3.820598e-02
## LANG_SPANISH(1) yes                             2.329734e-01
## OCCUP(09) legal services                        1.910299e-02
## RELIGION(04) Christian/LDS                      4.152824e-04
## RELIGION(05) Christian/Protestant               1.245847e-02
## OCCUP(05) education/academic research           2.782392e-02
## POLITICS(4) very liberal                        2.408638e-02
## WANTKIDS(2) not sure                            2.915282e-01
## OCCUP(15) transportation                        3.239203e-02
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## RELIGION(01) Atheist                            3.737542e-03
## POLITICS(0) very conservative                   9.966777e-03
## LANG_URDU(1) yes                                2.491694e-03
## LANG_ARABIC(1) yes                              4.983389e-03
## POLITICS(1) conservative                        7.267442e-02
## distance                                        3.989653e-01
## LANG_FRENCH(1) yes                              2.533223e-02
## EMPSTAT(7) work at home                         6.229236e-03
## LANG_TAGALOG(1) yes                             1.411960e-02
## LANG_DUTCH(1) yes                               1.245847e-03
## RELIGION(07) Hindu                              4.152824e-04
## RELIGION(13) Scientology                        8.305648e-04
## EMPSTAT(3) retired                              2.491694e-03
## RELIGION(02) Buddhist/Taoist                    1.536545e-02
## LANG_GERMAN(1) yes                              9.551495e-03
## DRINKING(1) no                                  1.715116e-01
## INCOME(6) $100,000 to $149,999                  7.890365e-03
##                                            Means Control B4
## AGE                                             2.975498e+01
## RELIGION(11) Christian                          3.567276e-01
## LIVE_KIDS(0) no                                 5.382060e-01
## HAVEKIDS(1) yes, at home full-time              1.594684e-01
## POLITICS(6) no answer                           3.388704e-01
## SERVICES(5) weekly                              1.632060e-01
## HAVEKIDS(0) no                                  6.465947e-01
## LIVE_KIDS(1) yes                                1.237542e-01
## OCCUP(18) no answer                             1.274917e-01
## LIVE_PETS(0) no                                 5.764120e-01
## MARSTAT(0) single-never married                 7.163621e-01
## SMOKING(1) no                                   7.379568e-01
## LANG_ITALIAN(0) no                              6.901993e-01
## SERVICES(0) no answer                           2.682724e-01
## MARSTAT(1) divorced                             2.043189e-01
## EMPSTAT(5) student                              1.204319e-01
## RELIGION(14) Other                              8.305648e-02
## RELIGION(15) no answer                          1.964286e-01
## HEIGHT_IN                                       5.617940e+00
## LIVE_PARTY(0) no                                6.519934e-01
## INCOME(0) no answer                             5.257475e-01
## POLITICS(5) not political                       1.951827e-01
## REGION(2) Chicago, IL                           2.695183e-01
## BODY(6) a few extra pounds                      6.644518e-02
## RELIGION(03) Christian/Catholic                 1.602990e-01
## LANG_RUSSIAN(0) no                              6.955980e-01
## SMOKING(2) occasionally                         1.640365e-01
## LIVE_ALONE(1) yes                               2.421096e-01
## SEX(0) female                                   5.099668e-01
## SEX(1) male                                     4.900332e-01
## LIVE_PETS(1) yes                                8.513289e-02
## INCOME(3) $35,000 to $49,999                    1.258306e-01
## ETHNICITY(4) Hispanic/Latino                    3.629568e-01
## EMPSTAT(8) no answer                            3.737542e-02
## SERVICES(3) only on holidays                    8.139535e-02
## LANG_ARABIC(0) no                               6.980897e-01
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## OCCUP(00) artistic/musical/writer                      5.980066e-02
## LANG_FRENCH(0) no                                       6.773256e-01
## LANG_DUTCH(0) no                                        7.014120e-01
## LANG_TAGALOG(0) no                                      6.885382e-01
## HAVEKIDS(3) yes, but not at home                        1.187708e-01
## LANG_FRENCH(2) no answer                                2.977575e-01
## LANG_GERMAN(2) no answer                                2.977575e-01
## LANG_ITALIAN(2) no answer                               2.977575e-01
## LANG_SPANISH(2) no answer                               2.977575e-01
## LANG_PORTUGUESE(2) no answer                            2.977575e-01
## LANG_DUTCH(2) no answer                                 2.977575e-01
## LANG_CHINESE(2) no answer                               2.977575e-01
## LANG_JAPANESE(2) no answer                              2.977575e-01
## LANG_ARABIC(2) no answer                                2.977575e-01
## LANG_RUSSIAN(2) no answer                               2.977575e-01
## LANG_HEBREW(2) no answer                                2.977575e-01
## LANG_HINDI(2) no answer                                 2.977575e-01
## LANG_TAGALOG(2) no answer                               2.977575e-01
## LANG_URDU(2) no answer                                  2.977575e-01
## LANG_GERMAN(0) no                                       6.922757e-01
## SERVICES(2) rarely                                      2.861296e-01
## LANG_URDU(0) no                                         6.989203e-01
## REGION(3) Atlanta, GA                                   2.450166e-01
## LANG_HEBREW(0) no                                       7.001661e-01
## LIVE_PAR(1) yes                                         1.378738e-01
## LANG_SPANISH(0) no                                      4.676080e-01
## LIVE_FAM(0) no                                          5.996678e-01
## LANG_HINDI(0) no                                        6.985050e-01
## ETHNICITY(2) Caucasian                                  1.997508e-01
## WANTKIDS(0) no                                          1.656977e-01
## BODY(4) fit                                             4.858804e-02
## OCCUP(02) clerical/administrative                       8.679402e-02
## LANG_ITALIAN(1) yes                                     1.204319e-02
## LIVE_ALONE(2) no answer                                 3.376246e-01
## LANG_JAPANESE(0) no                                     6.893688e-01
## LANG_PORTUGUESE(0) no                                   6.964286e-01
## LIVE_KIDS(2) no answer                                  3.380399e-01
## LANG_CHINESE(0) no                                      6.735880e-01
## BODY(7) large                                           1.910299e-02
## LIVE_PARTY(1) yes                                       9.551495e-03
## HAVEKIDS(4) no answer                                   3.197674e-02
## OCCUP(01) banking/financial services/real estate        6.229236e-02
## OCCUP(08) hospitality/travel                            1.868771e-02
## OCCUP(14) technical science/engineering                 4.692691e-02
## LIVE_PAR(2) no answer                                   3.384551e-01
## LIVE_PETS(2) no answer                                  3.384551e-01
## LIVE_ROOM(2) no answer                                  3.384551e-01
## LIVE_FAM(2) no answer                                   3.384551e-01
## LIVE_PARTY(2) no answer                                 3.384551e-01
## OCCUP(13) sales/marketing                               6.478405e-02
## MARSTAT(3) separated                                    3.280731e-02
## OCCUP(17) other                                         1.565615e-01
## DRINKING(2) occasionally                                7.940199e-01
## ETHNICITY(1) Asian                                      1.362126e-01
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## OCCUP(16) food service                          1.578073e-02
## WANTKIDS(3) no answer                            1.715116e-01
## INCOME(2) $25,000 to $34,999y                    1.200166e-01
## SERVICES(4) monthly                              8.803987e-02
## POLITICS(2) middle of the road                   2.350498e-01
## LIVE_ALONE(0) no                                 4.202658e-01
## POLITICS(3) liberal                              1.229236e-01
## HAVEKIDS(2) yes, at home part-time               4.318937e-02
## OCCUP(03) computer related/hardware              5.564784e-02
## OCCUP(04) construction/craftsman                 2.533223e-02
## RELIGION(12) Not religious                       2.740864e-02
## LIVE_ROOM(1) yes                                 1.627907e-01
## DRINKING(0) no answer                            2.533223e-02
## RELIGION(06) Christian/Other                     2.117940e-02
## BODY(0) slim                                     9.966777e-02
## OCCUP(06) entertainment/media                    4.443522e-02
## OCCUP(12) politics/government/military           4.194352e-02
## WANTKIDS(1) yes                                  3.700166e-01
## INCOME(4) $50,000 to $74,999                     9.219269e-02
## OCCUP(11) medical/health services               5.730897e-02
## OCCUP(10) manufacturing/distributions            1.785714e-02
## SERVICES(1) never                                8.388704e-02
## HEIGHT_FT                                        5.150332e+00
## BODY(8) voluptous                                3.280731e-02
## EMPSTAT(6) unemployed                            9.136213e-03
## LANG_RUSSIAN(1) yes                              6.644518e-03
## SMOKING(0) no answer                             4.401993e-02
## BODY(3) athletic                                 2.296512e-01
## ETHNICITY(0) African American                    3.010797e-01
## MARSTAT(4) no answer                             3.571429e-02
## LANG_CHINESE(1) yes                              2.865449e-02
## REGION(0) Los Angeles, CA                        2.769934e-01
## LIVE_ROOM(0) no                                  4.987542e-01
## BODY(2) average                                  3.313953e-01
## EMPSTAT(1) part-time                             8.970100e-02
## BODY(1) slender                                  4.360465e-02
## REGION(1) New York/New Jersey                    2.084718e-01
## EMPSTAT(0) full-time                             6.511628e-01
## RELIGION(10) Spiritual but not religious         7.142857e-02
## LANG_PORTUGUESE(1) yes                           5.813953e-03
## LANG_JAPANESE(1) yes                             1.287375e-02
## INCOME(1) less than $24,999                      9.800664e-02
## INCOME(7) $150,000+                              7.475083e-03
## LIVE_PAR(0) no                                   5.236711e-01
## LANG_ENGLISH(1) yes                              9.950166e-01
## RELIGION(00) none/agnostic                       3.737542e-02
## SERVICES(6) more than once a week                2.906977e-02
## DRINKING(3) often                                9.136213e-03
## LANG_HINDI(1) yes                                3.737542e-03
## BODY(9) no answer                                1.411960e-02
## EMPSTAT(2) homemaker                             7.475083e-03
## LANG_ENGLISH(0) no                               4.983389e-03
## SMOKING(3) often                                 5.398671e-02
## MARSTAT(2) widowed                               1.079734e-02
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## INCOME(5) $75,000 to $99,999                2.284053e-02
## RELIGION(08) Jewish                         5.813953e-03
## LANG_HEBREW(1) yes                          2.076412e-03
## RELIGION(09) Islam                          4.983389e-03
## BODY(5) thick                               1.146179e-01
## LIVE_FAM(1) yes                             6.187708e-02
## EMPSTAT(4) self-employed                    7.682724e-02
## OCCUP(07) executive/management              3.986711e-02
## LANG_SPANISH(1) yes                         2.346346e-01
## OCCUP(09) legal services                    1.785714e-02
## RELIGION(04) Christian/LDS                  1.661130e-03
## RELIGION(05) Christian/Protestant           1.370432e-02
## OCCUP(05) education/academic research       2.906977e-02
## POLITICS(4) very liberal                    2.533223e-02
## WANTKIDS(2) not sure                        2.927741e-01
## OCCUP(15) transportation                    3.156146e-02
## RELIGION(01) Atheist                        2.906977e-03
## POLITICS(0) very conservative               1.079734e-02
## LANG_URDU(1) yes                            3.322259e-03
## LANG_ARABIC(1) yes                          4.152824e-03
## POLITICS(1) conservative                    7.184385e-02
## distance                                    3.988864e-01
## LANG_FRENCH(1) yes                          2.491694e-02
## EMPSTAT(7) work at home                     5.813953e-03
## LANG_TAGALOG(1) yes                         1.370432e-02
## LANG_DUTCH(1) yes                           8.305648e-04
## RELIGION(07) Hindu                          8.305648e-04
## RELIGION(13) Scientology                    4.152824e-04
## EMPSTAT(3) retired                          2.076412e-03
## RELIGION(02) Buddhist/Taoist                1.578073e-02
## LANG_GERMAN(1) yes                          9.966777e-03
## DRINKING(1) no                              1.715116e-01
## INCOME(6) $100,000 to $149,999              7.890365e-03
##                                        Means Control M
## AGE                                         2.975498e+01
## RELIGION(11) Christian                      3.567276e-01
## LIVE_KIDS(0) no                             5.382060e-01
## HAVEKIDS(1) yes, at home full-time          1.594684e-01
## POLITICS(6) no answer                       3.388704e-01
## SERVICES(5) weekly                          1.632060e-01
## HAVEKIDS(0) no                              6.465947e-01
## LIVE_KIDS(1) yes                            1.237542e-01
## OCCUP(18) no answer                         1.274917e-01
## LIVE_PETS(0) no                             5.764120e-01
## MARSTAT(0) single-never married             7.163621e-01
## SMOKING(1) no                               7.379568e-01
## LANG_ITALIAN(0) no                          6.901993e-01
## SERVICES(0) no answer                       2.682724e-01
## MARSTAT(1) divorced                         2.043189e-01
## EMPSTAT(5) student                          1.204319e-01
## RELIGION(14) Other                          8.305648e-02
## RELIGION(15) no answer                      1.964286e-01
## HEIGHT_IN                                   5.617940e+00
## LIVE_PARTY(0) no                            6.519934e-01
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## INCOME(0) no answer                        5.257475e-01
## POLITICS(5) not political                   1.951827e-01
## REGION(2) Chicago, IL                        2.695183e-01
## BODY(6) a few extra pounds                   6.644518e-02
## RELIGION(03) Christian/Catholic              1.602990e-01
## LANG_RUSSIAN(0) no                           6.955980e-01
## SMOKING(2) occasionally                      1.640365e-01
## LIVE_ALONE(1) yes                            2.421096e-01
## SEX(0) female                               5.099668e-01
## SEX(1) male                                 4.900332e-01
## LIVE_PETS(1) yes                            8.513289e-02
## INCOME(3) $35,000 to $49,999                1.258306e-01
## ETHNICITY(4) Hispanic/Latino                3.629568e-01
## EMPSTAT(8) no answer                         3.737542e-02
## SERVICES(3) only on holidays                8.139535e-02
## LANG_ARABIC(0) no                           6.980897e-01
## OCCUP(00) artistic/musical/writer           5.980066e-02
## LANG_FRENCH(0) no                           6.773256e-01
## LANG_DUTCH(0) no                            7.014120e-01
## LANG_TAGALOG(0) no                          6.885382e-01
## HAVEKIDS(3) yes, but not at home            1.187708e-01
## LANG_FRENCH(2) no answer                    2.977575e-01
## LANG_GERMAN(2) no answer                    2.977575e-01
## LANG_ITALIAN(2) no answer                   2.977575e-01
## LANG_SPANISH(2) no answer                   2.977575e-01
## LANG_PORTUGUESE(2) no answer                2.977575e-01
## LANG_DUTCH(2) no answer                     2.977575e-01
## LANG_CHINESE(2) no answer                   2.977575e-01
## LANG_JAPANESE(2) no answer                  2.977575e-01
## LANG_ARABIC(2) no answer                    2.977575e-01
## LANG_RUSSIAN(2) no answer                   2.977575e-01
## LANG_HEBREW(2) no answer                    2.977575e-01
## LANG_HINDI(2) no answer                     2.977575e-01
## LANG_TAGALOG(2) no answer                   2.977575e-01
## LANG_URDU(2) no answer                      2.977575e-01
## LANG_GERMAN(0) no                           6.922757e-01
## SERVICES(2) rarely                          2.861296e-01
## LANG_URDU(0) no                             6.989203e-01
## REGION(3) Atlanta, GA                       2.450166e-01
## LANG_HEBREW(0) no                           7.001661e-01
## LIVE_PAR(1) yes                             1.378738e-01
## LANG_SPANISH(0) no                          4.676080e-01
## LIVE_FAM(0) no                              5.996678e-01
## LANG_HINDI(0) no                            6.985050e-01
## ETHNICITY(2) Caucasian                      1.997508e-01
## WANTKIDS(0) no                              1.656977e-01
## BODY(4) fit                                 4.858804e-02
## OCCUP(02) clerical/administrative           8.679402e-02
## LANG_ITALIAN(1) yes                         1.204319e-02
## LIVE_ALONE(2) no answer                     3.376246e-01
## LANG_JAPANESE(0) no                         6.893688e-01
## LANG_PORTUGUESE(0) no                       6.964286e-01
## LIVE_KIDS(2) no answer                      3.380399e-01
## LANG_CHINESE(0) no                          6.735880e-01
```

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## BODY(7) large                                        1.910299e-02
## LIVE_PARTY(1) yes                                     9.551495e-03
## HAVEKIDS(4) no answer                                 3.197674e-02
## OCCUP(01) banking/financial services/real estate      6.229236e-02
## OCCUP(08) hospitality/travel                          1.868771e-02
## OCCUP(14) technical science/engineering               4.692691e-02
## LIVE_PAR(2) no answer                                 3.384551e-01
## LIVE_PETS(2) no answer                                3.384551e-01
## LIVE_ROOM(2) no answer                                3.384551e-01
## LIVE_FAM(2) no answer                                 3.384551e-01
## LIVE_PARTY(2) no answer                               3.384551e-01
## OCCUP(13) sales/marketing                             6.478405e-02
## MARSTAT(3) separated                                  3.280731e-02
## OCCUP(17) other                                       1.565615e-01
## DRINKING(2) occasionally                              7.940199e-01
## ETHNICITY(1) Asian                                    1.362126e-01
## OCCUP(16) food service                                1.578073e-02
## WANTKIDS(3) no answer                                 1.715116e-01
## INCOME(2) $25,000 to $34,999y                         1.200166e-01
## SERVICES(4) monthly                                   8.803987e-02
## POLITICS(2) middle of the road                        2.350498e-01
## LIVE_ALONE(0) no                                      4.202658e-01
## POLITICS(3) liberal                                   1.229236e-01
## HAVEKIDS(2) yes, at home part-time                    4.318937e-02
## OCCUP(03) computer related/hardware                   5.564784e-02
## OCCUP(04) construction/craftsman                      2.533223e-02
## RELIGION(12) Not religious                            2.740864e-02
## LIVE_ROOM(1) yes                                      1.627907e-01
## DRINKING(0) no answer                                 2.533223e-02
## RELIGION(06) Christian/Other                          2.117940e-02
## BODY(0) slim                                          9.966777e-02
## OCCUP(06) entertainment/media                         4.443522e-02
## OCCUP(12) politics/government/military                4.194352e-02
## WANTKIDS(1) yes                                       3.700166e-01
## INCOME(4) $50,000 to $74,999                          9.219269e-02
## OCCUP(11) medical/health services                     5.730897e-02
## OCCUP(10) manufacturing/distributions                 1.785714e-02
## SERVICES(1) never                                     8.388704e-02
## HEIGHT_FT                                             5.150332e+00
## BODY(8) voluptous                                     3.280731e-02
## EMPSTAT(6) unemployed                                 9.136213e-03
## LANG_RUSSIAN(1) yes                                   6.644518e-03
## SMOKING(0) no answer                                  4.401993e-02
## BODY(3) athletic                                      2.296512e-01
## ETHNICITY(0) African American                         3.010797e-01
## MARSTAT(4) no answer                                  3.571429e-02
## LANG_CHINESE(1) yes                                   2.865449e-02
## REGION(0) Los Angeles, CA                             2.769934e-01
## LIVE_ROOM(0) no                                       4.987542e-01
## BODY(2) average                                       3.313953e-01
## EMPSTAT(1) part-time                                  8.970100e-02
## BODY(1) slender                                       4.360465e-02
## REGION(1) New York/New Jersey                         2.084718e-01
## EMPSTAT(0) full-time                                  6.511628e-01
```

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## RELIGION(10) Spiritual but not religious          7.142857e-02
## LANG_PORTUGUESE(1) yes                             5.813953e-03
## LANG_JAPANESE(1) yes                               1.287375e-02
## INCOME(1) less than $24,999                        9.800664e-02
## INCOME(7) $150,000+                                7.475083e-03
## LIVE_PAR(0) no                                     5.236711e-01
## LANG_ENGLISH(1) yes                                9.950166e-01
## RELIGION(00) none/agnostic                         3.737542e-02
## SERVICES(6) more than once a week                  2.906977e-02
## DRINKING(3) often                                  9.136213e-03
## LANG_HINDI(1) yes                                  3.737542e-03
## BODY(9) no answer                                  1.411960e-02
## EMPSTAT(2) homemaker                               7.475083e-03
## LANG_ENGLISH(0) no                                 4.983389e-03
## SMOKING(3) often                                   5.398671e-02
## MARSTAT(2) widowed                                 1.079734e-02
## INCOME(5) $75,000 to $99,999                       2.284053e-02
## RELIGION(08) Jewish                                5.813953e-03
## LANG_HEBREW(1) yes                                 2.076412e-03
## RELIGION(09) Islam                                 4.983389e-03
## BODY(5) thick                                      1.146179e-01
## LIVE_FAM(1) yes                                    6.187708e-02
## EMPSTAT(4) self-employed                           7.682724e-02
## OCCUP(07) executive/management                     3.986711e-02
## LANG_SPANISH(1) yes                                2.346346e-01
## OCCUP(09) legal services                           1.785714e-02
## RELIGION(04) Christian/LDS                         1.661130e-03
## RELIGION(05) Christian/Protestant                  1.370432e-02
## OCCUP(05) education/academic research              2.906977e-02
## POLITICS(4) very liberal                           2.533223e-02
## WANTKIDS(2) not sure                               2.927741e-01
## OCCUP(15) transportation                           3.156146e-02
## RELIGION(01) Atheist                               2.906977e-03
## POLITICS(0) very conservative                      1.079734e-02
## LANG_URDU(1) yes                                   3.322259e-03
## LANG_ARABIC(1) yes                                 4.152824e-03
## POLITICS(1) conservative                           7.184385e-02
## distance                                           3.988864e-01
## LANG_FRENCH(1) yes                                 2.491694e-02
## EMPSTAT(7) work at home                            5.813953e-03
## LANG_TAGALOG(1) yes                                1.370432e-02
## LANG_DUTCH(1) yes                                  8.305648e-04
## RELIGION(07) Hindu                                 8.305648e-04
## RELIGION(13) Scientology                           4.152824e-04
## EMPSTAT(3) retired                                 2.076412e-03
## RELIGION(02) Buddhist/Taoist                       1.578073e-02
## LANG_GERMAN(1) yes                                 9.966777e-03
## DRINKING(1) no                                     1.715116e-01
## INCOME(6) $100,000 to $149,999                     7.890365e-03
##                                            Std. Mean Diff. B4
## AGE                                                0.341369826
## RELIGION(11) Christian                            -0.042806487
## LIVE_KIDS(0) no                                    0.171924312
## HAVEKIDS(1) yes, at home full-time                -0.235174919
```

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## POLITICS(6) no answer                    -0.145954835
## SERVICES(5) weekly                        -0.015647330
## HAVEKIDS(0) no                             0.286108271
## LIVE_KIDS(1) yes                          -0.191604638
## OCCUP(18) no answer                       -0.158814548
## LIVE_PETS(0) no                            0.055219286
## MARSTAT(0) single-never married           0.099935991
## SMOKING(1) no                              0.253017173
## LANG_ITALIAN(0) no                        -0.005915603
## SERVICES(0) no answer                     -0.003754634
## MARSTAT(1) divorced                       -0.056847041
## EMPSTAT(5) student                        -0.228029521
## RELIGION(14) Other                        -0.164895932
## RELIGION(15) no answer                    -0.006569327
## HEIGHT_IN                                 -0.015031856
## LIVE_PARTY(0) no                           0.060517891
## INCOME(0) no answer                        0.064130218
## POLITICS(5) not political                 -0.207503550
## REGION(2) Chicago, IL                     -0.040408404
## BODY(6) a few extra pounds                -0.111376298
## RELIGION(03) Christian/Catholic           -0.071609804
## LANG_RUSSIAN(0) no                         0.009315264
## SMOKING(2) occasionally                   -0.191804075
## LIVE_ALONE(1) yes                          0.373447499
## SEX(0) female                             -0.089275383
## SEX(1) male                                0.089275383
## LIVE_PETS(1) yes                          -0.016280802
## INCOME(3) $35,000 to $49,999             -0.109410642
## ETHNICITY(4) Hispanic/Latino              -0.386587395
## EMPSTAT(8) no answer                      -0.029533291
## SERVICES(3) only on holidays              0.058320479
## LANG_ARABIC(0) no                          0.020268223
## OCCUP(00) artistic/musical/writer         -0.011000006
## LANG_FRENCH(0) no                         -0.048132217
## LANG_DUTCH(0) no                           0.013072777
## LANG_TAGALOG(0) no                        -0.030388362
## HAVEKIDS(3) yes, but not at home          -0.118019527
## LANG_FRENCH(2) no answer                  -0.016320358
## LANG_GERMAN(2) no answer                  -0.016320358
## LANG_ITALIAN(2) no answer                 -0.016320358
## LANG_SPANISH(2) no answer                 -0.016320358
## LANG_PORTUGUESE(2) no answer              -0.016320358
## LANG_DUTCH(2) no answer                   -0.016320358
## LANG_CHINESE(2) no answer                 -0.016320358
## LANG_JAPANESE(2) no answer                -0.016320358
## LANG_ARABIC(2) no answer                  -0.016320358
## LANG_RUSSIAN(2) no answer                 -0.016320358
## LANG_HEBREW(2) no answer                  -0.016320358
## LANG_HINDI(2) no answer                   -0.016320358
## LANG_TAGALOG(2) no answer                 -0.016320358
## LANG_URDU(2) no answer                    -0.016320358
## LANG_GERMAN(0) no                         -0.006044612
## SERVICES(2) rarely                        -0.051500587
## LANG_URDU(0) no                            0.006509634
```

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## REGION(3) Atlanta, GA                               -0.055908484
## LANG_HEBREW(0) no                                     0.018297975
## LIVE_PAR(1) yes                                      -0.275907437
## LANG_SPANISH(0) no                                    0.143074210
## LIVE_FAM(0) no                                        0.085452746
## LANG_HINDI(0) no                                     -0.003288306
## ETHNICITY(2) Caucasian                                0.239469710
## WANTKIDS(0) no                                       -0.172191467
## BODY(4) fit                                           0.073605628
## OCCUP(02) clerical/administrative                    -0.225185482
## LANG_ITALIAN(1) yes                                   0.093494831
## LIVE_ALONE(2) no answer                              -0.051219999
## LANG_JAPANESE(0) no                                  -0.012231025
## LANG_PORTUGUESE(0) no                                -0.003163481
## LIVE_KIDS(2) no answer                               -0.047808118
## LANG_CHINESE(0) no                                   -0.101003258
## BODY(7) large                                        -0.059367745
## LIVE_PARTY(1) yes                                    -0.062564746
## HAVEKIDS(4) no answer                                 0.008695666
## OCCUP(01) banking/financial services/real estate      0.231074590
## OCCUP(08) hospitality/travel                         -0.027082396
## OCCUP(14) technical science/engineering               0.176929200
## LIVE_PAR(2) no answer                                -0.048060967
## LIVE_PETS(2) no answer                               -0.048060967
## LIVE_ROOM(2) no answer                               -0.048060967
## LIVE_FAM(2) no answer                                -0.048060967
## LIVE_PARTY(2) no answer                              -0.048060967
## OCCUP(13) sales/marketing                             0.059517090
## MARSTAT(3) separated                                 -0.041477546
## OCCUP(17) other                                      -0.192374484
## DRINKING(2) occasionally                              0.073640359
## ETHNICITY(1) Asian                                    0.487094315
## OCCUP(16) food service                               -0.112718066
## WANTKIDS(3) no answer                                 0.081398577
## INCOME(2) $25,000 to $34,999y                        -0.239535438
## SERVICES(4) monthly                                  -0.004887032
## POLITICS(2) middle of the road                        0.171157282
## LIVE_ALONE(0) no                                     -0.275015690
## POLITICS(3) liberal                                   0.223830620
## HAVEKIDS(2) yes, at home part-time                   -0.068945604
## OCCUP(03) computer related/hardware                   0.082339574
## OCCUP(04) construction/craftsman                     -0.096876835
## RELIGION(12) Not religious                            0.035579845
## LIVE_ROOM(1) yes                                     -0.020015450
## DRINKING(0) no answer                                -0.032537584
## RELIGION(06) Christian/Other                         -0.034752807
## BODY(0) slim                                          0.072271448
## OCCUP(06) entertainment/media                         0.066115252
## OCCUP(12) politics/government/military               -0.096843161
## WANTKIDS(1) yes                                       0.178286177
## INCOME(4) $50,000 to $74,999                          0.124635858
## OCCUP(11) medical/health services                     0.128742335
## OCCUP(10) manufacturing/distributions                -0.067225243
## SERVICES(1) never                                     0.078754509
```

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## HEIGHT_FT                                       0.080230835
## BODY(8) voluptous                              -0.088502581
## EMPSTAT(6) unemployed                          -0.068700378
## LANG_RUSSIAN(1) yes                             0.039097622
## SMOKING(0) no answer                           -0.045617214
## BODY(3) athletic                                0.257493079
## ETHNICITY(0) African American                  -0.167707142
## MARSTAT(4) no answer                           -0.067930101
## LANG_CHINESE(1) yes                             0.328610768
## REGION(0) Los Angeles, CA                      -0.100014160
## LIVE_ROOM(0) no                                 0.060261957
## BODY(2) average                               -0.085474614
## EMPSTAT(1) part-time                           -0.209794564
## BODY(1) slender                                 0.087753505
## REGION(1) New York/New Jersey                   0.213515379
## EMPSTAT(0) full-time                            0.251924291
## RELIGION(10) Spiritual but not religious        0.128660964
## LANG_PORTUGUESE(1) yes                          0.117292273
## LANG_JAPANESE(1) yes                            0.116409086
## INCOME(1) less than $24,999                    -0.254823894
## INCOME(7) $150,000+                             0.433004071
## LIVE_PAR(0) no                                  0.235995790
## LANG_ENGLISH(1) yes                             0.025647705
## RELIGION(00) none/agnostic                      0.096861606
## SERVICES(6) more than once a week             -0.033766756
## DRINKING(3) often                              -0.044413435
## LANG_HINDI(1) yes                               0.147029106
## BODY(9) no answer                              -0.019296979
## EMPSTAT(2) homemaker                           -0.056602313
## LANG_ENGLISH(0) no                             -0.025647705
## SMOKING(3) often                               -0.136636487
## MARSTAT(2) widowed                             -0.020627742
## INCOME(5) $75,000 to $99,999                    0.316945919
## RELIGION(08) Jewish                             0.185679632
## LANG_HEBREW(1) yes                             -0.020232948
## RELIGION(09) Islam                              0.031780260
## BODY(5) thick                                  -0.218348867
## LIVE_FAM(1) yes                                -0.079388410
## EMPSTAT(4) self-employed                        0.126925558
## OCCUP(07) executive/management                  0.191900737
## LANG_SPANISH(1) yes                            -0.150845860
## OCCUP(09) legal services                        0.102902140
## RELIGION(04) Christian/LDS                     -0.019511741
## RELIGION(05) Christian/Protestant               0.078400303
## OCCUP(05) education/academic research           0.301501748
## POLITICS(4) very liberal                        0.048346046
## WANTKIDS(2) not sure                           -0.115901748
## OCCUP(15) transportation                       -0.126005085
## RELIGION(01) Atheist                            0.090864943
## POLITICS(0) very conservative                  -0.042987230
## LANG_URDU(1) yes                                0.077797198
## LANG_ARABIC(1) yes                             -0.028643524
## POLITICS(1) conservative                        0.008139445
## distance                                        1.305111830
```

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## LANG_FRENCH(1) yes                                    0.192238646
## EMPSTAT(7) work at home                              -0.027081041
## LANG_TAGALOG(1) yes                                   0.185234207
## LANG_DUTCH(1) yes                                     0.051383690
## RELIGION(07) Hindu                                    0.201787164
## RELIGION(13) Scientology                            -0.006205482
## EMPSTAT(3) retired                                   -0.013887423
## RELIGION(02) Buddhist/Taoist                          0.058794193
## LANG_GERMAN(1) yes                                    0.103213869
## DRINKING(1) no                                       -0.054231563
## INCOME(6) $100,000 to $149,999                        0.420114425
##                                               Std. Mean Diff. M
## AGE                                               4.260050e-02
## RELIGION(11) Christian                            7.715565e-02
## LIVE_KIDS(0) no                                  -7.247102e-02
## HAVEKIDS(1) yes, at home full-time                8.734134e-02
## POLITICS(6) no answer                            -6.668021e-02
## SERVICES(5) weekly                                8.428057e-02
## HAVEKIDS(0) no                                   -6.081195e-02
## LIVE_KIDS(1) yes                                  7.944950e-02
## OCCUP(18) no answer                              -7.719861e-02
## LIVE_PETS(0) no                                  -5.126666e-02
## MARSTAT(0) single-never married                  -5.435595e-02
## SMOKING(1) no                                     5.382902e-02
## LANG_ITALIAN(0) no                               -5.119057e-02
## SERVICES(0) no answer                            -5.342637e-02
## MARSTAT(1) divorced                               5.252788e-02
## EMPSTAT(5) student                                6.507410e-02
## RELIGION(14) Other                               -7.674598e-02
## RELIGION(15) no answer                           -5.121828e-02
## HEIGHT_IN                                         3.942671e-02
## LIVE_PARTY(0) no                                 -4.010384e-02
## INCOME(0) no answer                              -3.825674e-02
## POLITICS(5) not political                         4.819833e-02
## REGION(2) Chicago, IL                             4.211698e-02
## BODY(6) a few extra pounds                        7.169854e-02
## RELIGION(03) Christian/Catholic                   4.867256e-02
## LANG_RUSSIAN(0) no                               -3.880691e-02
## SMOKING(2) occasionally                          -4.710086e-02
## LIVE_ALONE(1) yes                                -3.974826e-02
## SEX(0) female                                     3.322919e-02
## SEX(1) male                                      -3.322919e-02
## LIVE_PETS(1) yes                                  5.654568e-02
## INCOME(3) $35,000 to $49,999                      4.758129e-02
## ETHNICITY(4) Hispanic/Latino                      3.195460e-02
## EMPSTAT(8) no answer                             -7.881784e-02
## SERVICES(3) only on holidays                      5.467413e-02
## LANG_ARABIC(0) no                                -3.075586e-02
## OCCUP(00) artistic/musical/writer                 5.954694e-02
## LANG_FRENCH(0) no                                -2.931409e-02
## LANG_DUTCH(0) no                                 -2.994571e-02
## LANG_TAGALOG(0) no                               -2.959314e-02
## HAVEKIDS(3) yes, but not at home                  4.107658e-02
## LANG_FRENCH(2) no answer                          2.906154e-02
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## LANG_GERMAN(2) no answer                               2.906154e-02
## LANG_ITALIAN(2) no answer                              2.906154e-02
## LANG_SPANISH(2) no answer                              2.906154e-02
## LANG_PORTUGUESE(2) no answer                           2.906154e-02
## LANG_DUTCH(2) no answer                                2.906154e-02
## LANG_CHINESE(2) no answer                              2.906154e-02
## LANG_JAPANESE(2) no answer                             2.906154e-02
## LANG_ARABIC(2) no answer                               2.906154e-02
## LANG_RUSSIAN(2) no answer                              2.906154e-02
## LANG_HEBREW(2) no answer                               2.906154e-02
## LANG_HINDI(2) no answer                                2.906154e-02
## LANG_TAGALOG(2) no answer                              2.906154e-02
## LANG_URDU(2) no answer                                 2.906154e-02
## LANG_GERMAN(0) no                                     -2.789233e-02
## SERVICES(2) rarely                                    -2.756600e-02
## LANG_URDU(0) no                                       -2.715878e-02
## REGION(3) Atlanta, GA                                 -2.800110e-02
## LANG_HEBREW(0) no                                     -2.537819e-02
## LIVE_PAR(1) yes                                       -3.372681e-02
## LANG_SPANISH(0) no                                    -2.330477e-02
## LIVE_FAM(0) no                                        -2.288451e-02
## LANG_HINDI(0) no                                      -2.443332e-02
## ETHNICITY(2) Caucasian                                -2.804467e-02
## WANTKIDS(0) no                                        -3.015695e-02
## BODY(4) fit                                           -5.021898e-02
## OCCUP(02) clerical/administrative                     -3.835196e-02
## LANG_ITALIAN(1) yes                                    9.517958e-02
## LIVE_ALONE(2) no answer                                2.195404e-02
## LANG_JAPANESE(0) no                                   -2.243547e-02
## LANG_PORTUGUESE(0) no                                 -2.257952e-02
## LIVE_KIDS(2) no answer                                 2.106953e-02
## LANG_CHINESE(0) no                                    -2.037001e-02
## BODY(7) large                                         -6.977647e-02
## LIVE_PARTY(1) yes                                      9.820186e-02
## HAVEKIDS(4) no answer                                 -5.428894e-02
## OCCUP(01) banking/financial services/real estate     -3.952030e-02
## OCCUP(08) hospitality/travel                           7.053257e-02
## OCCUP(14) technical science/engineering                4.516451e-02
## LIVE_PAR(2) no answer                                  2.018558e-02
## LIVE_PETS(2) no answer                                 2.018558e-02
## LIVE_ROOM(2) no answer                                 2.018558e-02
## LIVE_FAM(2) no answer                                  2.018558e-02
## LIVE_PARTY(2) no answer                                2.018558e-02
## OCCUP(13) sales/marketing                             -3.880443e-02
## MARSTAT(3) separated                                   4.895770e-02
## OCCUP(17) other                                        2.285622e-02
## DRINKING(2) occasionally                               1.951052e-02
## ETHNICITY(1) Asian                                    -2.300303e-02
## OCCUP(16) food service                                -5.998001e-02
## WANTKIDS(3) no answer                                  1.872848e-02
## INCOME(2) $25,000 to $34,999y                          2.172374e-02
## SERVICES(4) monthly                                   -2.491523e-02
## POLITICS(2) middle of the road                         1.664930e-02
## LIVE_ALONE(0) no                                       1.346130e-02
```

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## POLITICS(3) liberal                          2.023612e-02
## HAVEKIDS(2) yes, at home part-time           -3.268602e-02
## OCCUP(03) computer related/hardware           2.717338e-02
## OCCUP(04) construction/craftsman              3.964330e-02
## RELIGION(12) Not religious                   -3.815275e-02
## LIVE_ROOM(1) yes                             -1.574852e-02
## DRINKING(0) no answer                        -3.700041e-02
## RELIGION(06) Christian/Other                 -4.037971e-02
## BODY(0) slim                                  1.940854e-02
## OCCUP(06) entertainment/media                -2.619951e-02
## OCCUP(12) politics/government/military        2.693140e-02
## WANTKIDS(1) yes                               1.118180e-02
## INCOME(4) $50,000 to $74,999                 -1.866130e-02
## OCCUP(11) medical/health services             2.144020e-02
## OCCUP(10) manufacturing/distributions         3.762976e-02
## SERVICES(1) never                            -1.797640e-02
## HEIGHT_FT                                    -4.043487e-02
## BODY(8) voluptous                             2.564451e-02
## EMPSTAT(6) unemployed                        -4.801159e-02
## LANG_RUSSIAN(1) yes                           5.622793e-02
## SMOKING(0) no answer                         -2.226830e-02
## BODY(3) athletic                             -9.873371e-03
## ETHNICITY(0) African American                 8.147633e-03
## MARSTAT(4) no answer                         -2.014013e-02
## LANG_CHINESE(1) yes                          -2.240283e-02
## REGION(0) Los Angeles, CA                    -8.351802e-03
## LIVE_ROOM(0) no                              -7.475106e-03
## BODY(2) average                               7.057902e-03
## EMPSTAT(1) part-time                         -1.162634e-02
## BODY(1) slender                              -1.626853e-02
## REGION(1) New York/New Jersey                -7.156237e-03
## EMPSTAT(0) full-time                         -6.099375e-03
## RELIGION(10) Spiritual but not religious      1.128750e-02
## LANG_PORTUGUESE(1) yes                       -3.823596e-02
## LANG_JAPANESE(1) yes                         -2.578711e-02
## INCOME(1) less than $24,999                   8.380411e-03
## INCOME(7) $150,000+                          -2.892784e-02
## LIVE_PAR(0) no                                4.157486e-03
## LANG_ENGLISH(1) yes                           2.948737e-02
## RELIGION(00) none/agnostic                   -1.094692e-02
## SERVICES(6) more than once a week             1.235944e-02
## DRINKING(3) often                            -2.182345e-02
## LANG_HINDI(1) yes                            -3.402778e-02
## BODY(9) no answer                            -1.759909e-02
## EMPSTAT(2) homemaker                          2.410654e-02
## LANG_ENGLISH(0) no                           -2.948737e-02
## SMOKING(3) often                             -7.350408e-03
## MARSTAT(2) widowed                           -1.607320e-02
## INCOME(5) $75,000 to $99,999                  1.111905e-02
## RELIGION(08) Jewish                           2.184912e-02
## LANG_HEBREW(1) yes                           -3.649204e-02
## RELIGION(09) Islam                           -2.358989e-02
## BODY(5) thick                                -5.214490e-03
## LIVE_FAM(1) yes                               6.894595e-03
```

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## EMPSTAT(4) self-employed                              6.237411e-03
## OCCUP(07) executive/management                       -8.490445e-03
## LANG_SPANISH(1) yes                                  -3.919883e-03
## OCCUP(09) legal services                              9.407440e-03
## RELIGION(04) Christian/LDS                           -3.059314e-02
## RELIGION(05) Christian/Protestant                    -1.071599e-02
## OCCUP(05) education/academic research               -7.415663e-03
## POLITICS(4) very liberal                             -7.928660e-03
## WANTKIDS(2) not sure                                 -2.737911e-03
## OCCUP(15) transportation                              4.750714e-03
## RELIGION(01) Atheist                                  1.542712e-02
## POLITICS(0) very conservative                        -8.036602e-03
## LANG_URDU(1) yes                                     -1.443376e-02
## LANG_ARABIC(1) yes                                    1.291533e-02
## POLITICS(1) conservative                              3.216386e-03
## distance                                              3.171153e-04
## LANG_FRENCH(1) yes                                    2.664252e-03
## EMPSTAT(7) work at home                               5.462279e-03
## LANG_TAGALOG(1) yes                                   3.571998e-03
## LANG_DUTCH(1) yes                                     1.441575e-02
## RELIGION(07) Hindu                                   -1.441575e-02
## RELIGION(13) Scientology                              2.038271e-02
## EMPSTAT(3) retired                                    9.123009e-03
## RELIGION(02) Buddhist/Taoist                         -3.332223e-03
## LANG_GERMAN(1) yes                                   -4.180625e-03
## DRINKING(1) no                                        2.775558e-17
## INCOME(6) $100,000 to $149,999                        0.000000e+00
##                                            Var. Ratio B4 Var. Ratio M
## AGE                                           0.6756963    0.6580395
## RELIGION(11) Christian                               NA           NA
## LIVE_KIDS(0) no                                      NA           NA
## HAVEKIDS(1) yes, at home full-time                   NA           NA
## POLITICS(6) no answer                                NA           NA
## SERVICES(5) weekly                                   NA           NA
## HAVEKIDS(0) no                                       NA           NA
## LIVE_KIDS(1) yes                                     NA           NA
## OCCUP(18) no answer                                  NA           NA
## LIVE_PETS(0) no                                      NA           NA
## MARSTAT(0) single-never married                      NA           NA
## SMOKING(1) no                                        NA           NA
## LANG_ITALIAN(0) no                                   NA           NA
## SERVICES(0) no answer                                NA           NA
## MARSTAT(1) divorced                                  NA           NA
## EMPSTAT(5) student                                   NA           NA
## RELIGION(14) Other                                   NA           NA
## RELIGION(15) no answer                               NA           NA
## HEIGHT_IN                                     1.0688186    0.9595655
## LIVE_PARTY(0) no                                     NA           NA
## INCOME(0) no answer                                  NA           NA
## POLITICS(5) not political                            NA           NA
## REGION(2) Chicago, IL                                NA           NA
## BODY(6) a few extra pounds                           NA           NA
## RELIGION(03) Christian/Catholic                      NA           NA
## LANG_RUSSIAN(0) no                                   NA           NA
```

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## SMOKING(2) occasionally                              NA          NA
## LIVE_ALONE(1) yes                                     NA          NA
## SEX(0) female                                         NA          NA
## SEX(1) male                                           NA          NA
## LIVE_PETS(1) yes                                       NA          NA
## INCOME(3) $35,000 to $49,999                          NA          NA
## ETHNICITY(4) Hispanic/Latino                          NA          NA
## EMPSTAT(8) no answer                                  NA          NA
## SERVICES(3) only on holidays                          NA          NA
## LANG_ARABIC(0) no                                     NA          NA
## OCCUP(00) artistic/musical/writer                     NA          NA
## LANG_FRENCH(0) no                                     NA          NA
## LANG_DUTCH(0) no                                      NA          NA
## LANG_TAGALOG(0) no                                    NA          NA
## HAVEKIDS(3) yes, but not at home                      NA          NA
## LANG_FRENCH(2) no answer                              NA          NA
## LANG_GERMAN(2) no answer                              NA          NA
## LANG_ITALIAN(2) no answer                             NA          NA
## LANG_SPANISH(2) no answer                             NA          NA
## LANG_PORTUGUESE(2) no answer                          NA          NA
## LANG_DUTCH(2) no answer                               NA          NA
## LANG_CHINESE(2) no answer                             NA          NA
## LANG_JAPANESE(2) no answer                            NA          NA
## LANG_ARABIC(2) no answer                              NA          NA
## LANG_RUSSIAN(2) no answer                             NA          NA
## LANG_HEBREW(2) no answer                              NA          NA
## LANG_HINDI(2) no answer                               NA          NA
## LANG_TAGALOG(2) no answer                             NA          NA
## LANG_URDU(2) no answer                                NA          NA
## LANG_GERMAN(0) no                                     NA          NA
## SERVICES(2) rarely                                    NA          NA
## LANG_URDU(0) no                                       NA          NA
## REGION(3) Atlanta, GA                                 NA          NA
## LANG_HEBREW(0) no                                     NA          NA
## LIVE_PAR(1) yes                                       NA          NA
## LANG_SPANISH(0) no                                    NA          NA
## LIVE_FAM(0) no                                        NA          NA
## LANG_HINDI(0) no                                      NA          NA
## ETHNICITY(2) Caucasian                                NA          NA
## WANTKIDS(0) no                                        NA          NA
## BODY(4) fit                                           NA          NA
## OCCUP(02) clerical/administrative                     NA          NA
## LANG_ITALIAN(1) yes                                   NA          NA
## LIVE_ALONE(2) no answer                               NA          NA
## LANG_JAPANESE(0) no                                   NA          NA
## LANG_PORTUGUESE(0) no                                 NA          NA
## LIVE_KIDS(2) no answer                                NA          NA
## LANG_CHINESE(0) no                                    NA          NA
## BODY(7) large                                         NA          NA
## LIVE_PARTY(1) yes                                     NA          NA
## HAVEKIDS(4) no answer                                 NA          NA
## OCCUP(01) banking/financial services/real estate      NA          NA
## OCCUP(08) hospitality/travel                          NA          NA
## OCCUP(14) technical science/engineering               NA          NA
```

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## LIVE_PAR(2) no answer                          NA          NA
## LIVE_PETS(2) no answer                         NA          NA
## LIVE_ROOM(2) no answer                         NA          NA
## LIVE_FAM(2) no answer                          NA          NA
## LIVE_PARTY(2) no answer                        NA          NA
## OCCUP(13) sales/marketing                      NA          NA
## MARSTAT(3) separated                           NA          NA
## OCCUP(17) other                                NA          NA
## DRINKING(2) occasionally                       NA          NA
## ETHNICITY(1) Asian                             NA          NA
## OCCUP(16) food service                         NA          NA
## WANTKIDS(3) no answer                          NA          NA
## INCOME(2) $25,000 to $34,999y                  NA          NA
## SERVICES(4) monthly                            NA          NA
## POLITICS(2) middle of the road                 NA          NA
## LIVE_ALONE(0) no                               NA          NA
## POLITICS(3) liberal                            NA          NA
## HAVEKIDS(2) yes, at home part-time             NA          NA
## OCCUP(03) computer related/hardware            NA          NA
## OCCUP(04) construction/craftsman               NA          NA
## RELIGION(12) Not religious                     NA          NA
## LIVE_ROOM(1) yes                               NA          NA
## DRINKING(0) no answer                          NA          NA
## RELIGION(06) Christian/Other                   NA          NA
## BODY(0) slim                                   NA          NA
## OCCUP(06) entertainment/media                  NA          NA
## OCCUP(12) politics/government/military         NA          NA
## WANTKIDS(1) yes                                NA          NA
## INCOME(4) $50,000 to $74,999                   NA          NA
## OCCUP(11) medical/health services             NA          NA
## OCCUP(10) manufacturing/distributions          NA          NA
## SERVICES(1) never                              NA          NA
## HEIGHT_FT                               1.1141004   0.8973342
## BODY(8) voluptous                              NA          NA
## EMPSTAT(6) unemployed                          NA          NA
## LANG_RUSSIAN(1) yes                            NA          NA
## SMOKING(0) no answer                           NA          NA
## BODY(3) athletic                               NA          NA
## ETHNICITY(0) African American                  NA          NA
## MARSTAT(4) no answer                           NA          NA
## LANG_CHINESE(1) yes                            NA          NA
## REGION(0) Los Angeles, CA                      NA          NA
## LIVE_ROOM(0) no                                NA          NA
## BODY(2) average                                NA          NA
## EMPSTAT(1) part-time                           NA          NA
## BODY(1) slender                                NA          NA
## REGION(1) New York/New Jersey                  NA          NA
## EMPSTAT(0) full-time                           NA          NA
## RELIGION(10) Spiritual but not religious       NA          NA
## LANG_PORTUGUESE(1) yes                         NA          NA
## LANG_JAPANESE(1) yes                           NA          NA
## INCOME(1) less than $24,999                    NA          NA
## INCOME(7) $150,000+                            NA          NA
## LIVE_PAR(0) no                                 NA          NA
```

```
## LANG_ENGLISH(1) yes                              NA          NA
## RELIGION(00) none/agnostic                        NA          NA
## SERVICES(6) more than once a week                 NA          NA
## DRINKING(3) often                                 NA          NA
## LANG_HINDI(1) yes                                 NA          NA
## BODY(9) no answer                                 NA          NA
## EMPSTAT(2) homemaker                              NA          NA
## LANG_ENGLISH(0) no                                NA          NA
## SMOKING(3) often                                  NA          NA
## MARSTAT(2) widowed                                NA          NA
## INCOME(5) $75,000 to $99,999                      NA          NA
## RELIGION(08) Jewish                               NA          NA
## LANG_HEBREW(1) yes                                NA          NA
## RELIGION(09) Islam                                NA          NA
## BODY(5) thick                                     NA          NA
## LIVE_FAM(1) yes                                   NA          NA
## EMPSTAT(4) self-employed                          NA          NA
## OCCUP(07) executive/management                    NA          NA
## LANG_SPANISH(1) yes                               NA          NA
## OCCUP(09) legal services                          NA          NA
## RELIGION(04) Christian/LDS                        NA          NA
## RELIGION(05) Christian/Protestant                 NA          NA
## OCCUP(05) education/academic research             NA          NA
## POLITICS(4) very liberal                          NA          NA
## WANTKIDS(2) not sure                              NA          NA
## OCCUP(15) transportation                          NA          NA
## RELIGION(01) Atheist                              NA          NA
## POLITICS(0) very conservative                     NA          NA
## LANG_URDU(1) yes                                  NA          NA
## LANG_ARABIC(1) yes                                NA          NA
## POLITICS(1) conservative                          NA          NA
## distance                                   0.7477346   1.0016627
## LANG_FRENCH(1) yes                                NA          NA
## EMPSTAT(7) work at home                           NA          NA
## LANG_TAGALOG(1) yes                               NA          NA
## LANG_DUTCH(1) yes                                 NA          NA
## RELIGION(07) Hindu                                NA          NA
## RELIGION(13) Scientology                          NA          NA
## EMPSTAT(3) retired                                NA          NA
## RELIGION(02) Buddhist/Taoist                      NA          NA
## LANG_GERMAN(1) yes                                NA          NA
## DRINKING(1) no                                    NA          NA
## INCOME(6) $100,000 to $149,999                    NA          NA
##                                          eCDF Mean B4  eCDF Max B4
## AGE                                       0.0863778797 0.2259474484
## RELIGION(11) Christian                    0.0205057377 0.0205057377
## LIVE_KIDS(0) no                           0.0857108310 0.0857108310
## HAVEKIDS(1) yes, at home full-time        0.0861004432 0.0861004432
## POLITICS(6) no answer                     0.0690841812 0.0690841812
## SERVICES(5) weekly                        0.0057825254 0.0057825254
## HAVEKIDS(0) no                            0.1367675340 0.1367675340
## LIVE_KIDS(1) yes                          0.0630955740 0.0630955740
## OCCUP(18) no answer                       0.0529682975 0.0529682975
## LIVE_PETS(0) no                           0.0272853247 0.0272853247
```

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## MARSTAT(0) single-never married              0.0450474636 0.0450474636
## SMOKING(1) no                                 0.1112632934 0.1112632934
## LANG_ITALIAN(0) no                            0.0027354418 0.0027354418
## SERVICES(0) no answer                         0.0016635287 0.0016635287
## MARSTAT(1) divorced                           0.0229209011 0.0229209011
## EMPSTAT(5) student                            0.0742158336 0.0742158336
## RELIGION(14) Other                            0.0455059296 0.0455059296
## RELIGION(15) no answer                        0.0026099695 0.0026099695
## HEIGHT_IN                                     0.0103337581 0.0275295520
## LIVE_PARTY(0) no                              0.0288269796 0.0288269796
## INCOME(0) no answer                           0.0320225668 0.0320225668
## POLITICS(5) not political                     0.0822422274 0.0822422274
## REGION(2) Chicago, IL                         0.0179295954 0.0179295954
## BODY(6) a few extra pounds                    0.0277392324 0.0277392324
## RELIGION(03) Christian/Catholic               0.0262724291 0.0262724291
## LANG_RUSSIAN(0) no                            0.0042864532 0.0042864532
## SMOKING(2) occasionally                       0.0710267239 0.0710267239
## LIVE_ALONE(1) yes                             0.1599700882 0.1599700882
## SEX(0) female                                 0.0446288225 0.0446288225
## SEX(1) male                                   0.0446288225 0.0446288225
## LIVE_PETS(1) yes                              0.0045436356 0.0045436356
## INCOME(3) $35,000 to $49,999                  0.0362869484 0.0362869484
## ETHNICITY(4) Hispanic/Latino                  0.1858915304 0.1858915304
## EMPSTAT(8) no answer                          0.0056018740 0.0056018740
## SERVICES(3) only on holidays                  0.0159472277 0.0159472277
## LANG_ARABIC(0) no                             0.0093048686 0.0093048686
## OCCUP(00) artistic/musical/writer             0.0026082901 0.0026082901
## LANG_FRENCH(0) no                             0.0225017801 0.0225017801
## LANG_DUTCH(0) no                              0.0059826095 0.0059826095
## LANG_TAGALOG(0) no                            0.0140725792 0.0140725792
## HAVEKIDS(3) yes, but not at home              0.0381815094 0.0381815094
## LANG_FRENCH(2) no answer                      0.0074628477 0.0074628477
## LANG_GERMAN(2) no answer                      0.0074628477 0.0074628477
## LANG_ITALIAN(2) no answer                     0.0074628477 0.0074628477
## LANG_SPANISH(2) no answer                     0.0074628477 0.0074628477
## LANG_PORTUGUESE(2) no answer                  0.0074628477 0.0074628477
## LANG_DUTCH(2) no answer                       0.0074628477 0.0074628477
## LANG_CHINESE(2) no answer                     0.0074628477 0.0074628477
## LANG_JAPANESE(2) no answer                    0.0074628477 0.0074628477
## LANG_ARABIC(2) no answer                      0.0074628477 0.0074628477
## LANG_RUSSIAN(2) no answer                     0.0074628477 0.0074628477
## LANG_HEBREW(2) no answer                      0.0074628477 0.0074628477
## LANG_HINDI(2) no answer                       0.0074628477 0.0074628477
## LANG_TAGALOG(2) no answer                     0.0074628477 0.0074628477
## LANG_URDU(2) no answer                        0.0074628477 0.0074628477
## LANG_GERMAN(0) no                             0.0027899012 0.0027899012
## SERVICES(2) rarely                            0.0232757264 0.0232757264
## LANG_URDU(0) no                               0.0029861467 0.0029861467
## REGION(3) Atlanta, GA                         0.0240460740 0.0240460740
## LANG_HEBREW(0) no                             0.0083838582 0.0083838582
## LIVE_PAR(1) yes                               0.0951238986 0.0951238986
## LANG_SPANISH(0) no                            0.0713868273 0.0713868273
## LIVE_FAM(0) no                                0.0418689099 0.0418689099
## LANG_HINDI(0) no                              0.0015090273 0.0015090273
```

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## ETHNICITY(2) Caucasian                              0.0957431036 0.0957431036
## WANTKIDS(0) no                                       0.0640223422 0.0640223422
## BODY(4) fit                                          0.0158255939 0.0158255939
## OCCUP(02) clerical/administrative                    0.0633971395 0.0633971395
## LANG_ITALIAN(1) yes                                  0.0101982895 0.0101982895
## LIVE_ALONE(2) no answer                              0.0242219273 0.0242219273
## LANG_JAPANESE(0) no                                  0.0056599319 0.0056599319
## LANG_PORTUGUESE(0) no                                0.0014545680 0.0014545680
## LIVE_KIDS(2) no answer                               0.0226152571 0.0226152571
## LANG_CHINESE(0) no                                   0.0473604258 0.0473604258
## BODY(7) large                                        0.0081266758 0.0081266758
## LIVE_PARTY(1) yes                                    0.0060852905 0.0060852905
## HAVEKIDS(4) no answer                                0.0015298994 0.0015298994
## OCCUP(01) banking/financial services/real estate 0.0558474448 0.0558474448
## OCCUP(08) hospitality/travel                         0.0036674881 0.0036674881
## OCCUP(14) technical science/engineering              0.0374173993 0.0374173993
## LIVE_PAR(2) no answer                                0.0227416891 0.0227416891
## LIVE_PETS(2) no answer                               0.0227416891 0.0227416891
## LIVE_ROOM(2) no answer                               0.0227416891 0.0227416891
## LIVE_FAM(2) no answer                                0.0227416891 0.0227416891
## LIVE_PARTY(2) no answer                              0.0227416891 0.0227416891
## OCCUP(13) sales/marketing                            0.0146498001 0.0146498001
## MARSTAT(3) separated                                 0.0073884759 0.0073884759
## OCCUP(17) other                                      0.0699063491 0.0699063491
## DRINKING(2) occasionally                             0.0297813374 0.0297813374
## ETHNICITY(1) Asian                                   0.1670802697 0.1670802697
## OCCUP(16) food service                               0.0140476286 0.0140476286
## WANTKIDS(3) no answer                                0.0306836349 0.0306836349
## INCOME(2) $25,000 to $34,999y                        0.0778444565 0.0778444565
## SERVICES(4) monthly                                  0.0013847545 0.0013847545
## POLITICS(2) middle of the road                       0.0725758160 0.0725758160
## LIVE_ALONE(0) no                                     0.1357481609 0.1357481609
## POLITICS(3) liberal                                  0.0734946673 0.0734946673
## HAVEKIDS(2) yes, at home part-time                   0.0140154808 0.0140154808
## OCCUP(03) computer related/hardware                  0.0188755563 0.0188755563
## OCCUP(04) construction/craftsman                     0.0152224628 0.0152224628
## RELIGION(12) Not religious                           0.0058091553 0.0058091553
## LIVE_ROOM(1) yes                                     0.0073891957 0.0073891957
## DRINKING(0) no answer                                0.0051126996 0.0051126996
## RELIGION(06) Christian/Other                         0.0050037810 0.0050037810
## BODY(0) slim                                         0.0216493836 0.0216493836
## OCCUP(06) entertainment/media                        0.0136237095 0.0136237095
## OCCUP(12) politics/government/military               0.0194131923 0.0194131923
## WANTKIDS(1) yes                                      0.0860781316 0.0860781316
## INCOME(4) $50,000 to $74,999                         0.0360568757 0.0360568757
## OCCUP(11) medical/health services                    0.0299238433 0.0299238433
## OCCUP(10) manufacturing/distributions                0.0089027812 0.0089027812
## SERVICES(1) never                                    0.0218321942 0.0218321942
## HEIGHT_FT                                            0.0076852433 0.0287900336
## BODY(8) voluptous                                    0.0157651368 0.0157651368
## EMPSTAT(6) unemployed                                0.0065365592 0.0065365592
## LANG_RUSSIAN(1) yes                                  0.0031763945 0.0031763945
## SMOKING(0) no answer                                 0.0093578885 0.0093578885
## BODY(3) athletic                                     0.1083037766 0.1083037766
```

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## ETHNICITY(0) African American                    0.0769318428 0.0769318428
## MARSTAT(4) no answer                              0.0126062557 0.0126062557
## LANG_CHINESE(1) yes                               0.0548232735 0.0548232735
## REGION(0) Los Angeles, CA                         0.0447576536 0.0447576536
## LIVE_ROOM(0) no                                   0.0301308847 0.0301308847
## BODY(2) average                                   0.0402341703 0.0402341703
## EMPSTAT(1) part-time                              0.0599494080 0.0599494080
## BODY(1) slender                                   0.0179204788 0.0179204788
## REGION(1) New York/New Jersey                     0.0867333230 0.0867333230
## EMPSTAT(0) full-time                              0.1200677119 0.1200677119
## RELIGION(10) Spiritual but not religious          0.0331352645 0.0331352645
## LANG_PORTUGUESE(1) yes                            0.0089174157 0.0089174157
## LANG_JAPANESE(1) yes                              0.0131227796 0.0131227796
## INCOME(1) less than $24,999                       0.0757651656 0.0757651656
## INCOME(7) $150,000+                               0.0372967251 0.0372967251
## LIVE_PAR(0) no                                    0.1178655877 0.1178655877
## LANG_ENGLISH(1) yes                               0.0018060346 0.0018060346
## RELIGION(00) none/agnostic                        0.0183727072 0.0183727072
## SERVICES(6) more than once a week                 0.0056728870 0.0056728870
## DRINKING(3) often                                 0.0042257562 0.0042257562
## LANG_HINDI(1) yes                                 0.0089718750 0.0089718750
## BODY(9) no answer                                 0.0022767359 0.0022767359
## EMPSTAT(2) homemaker                              0.0048754297 0.0048754297
## LANG_ENGLISH(0) no                                0.0018060346 0.0018060346
## SMOKING(3) often                                  0.0308786809 0.0308786809
## MARSTAT(2) widowed                                0.0021318309 0.0021318309
## INCOME(5) $75,000 to $99,999                      0.0473501097 0.0473501097
## RELIGION(08) Jewish                               0.0141167224 0.0141167224
## LANG_HEBREW(1) yes                                0.0009210105 0.0009210105
## RELIGION(09) Islam                                0.0022378707 0.0022378707
## BODY(5) thick                                     0.0695572816 0.0695572816
## LIVE_FAM(1) yes                                   0.0191272208 0.0191272208
## EMPSTAT(4) self-employed                          0.0338024513 0.0338024513
## OCCUP(07) executive/management                    0.0375447910 0.0375447910
## LANG_SPANISH(1) yes                               0.0639239796 0.0639239796
## OCCUP(09) legal services                          0.0136275481 0.0136275481
## RELIGION(04) Christian/LDS                        0.0007945784 0.0007945784
## RELIGION(05) Christian/Protestant                 0.0091148607 0.0091148607
## OCCUP(05) education/academic research             0.0506529362 0.0506529362
## POLITICS(4) very liberal                          0.0075967169 0.0075967169
## WANTKIDS(2) not sure                              0.0527394243 0.0527394243
## OCCUP(15) transportation                          0.0220293994 0.0220293994
## RELIGION(01) Atheist                              0.0048919834 0.0048919834
## POLITICS(0) very conservative                     0.0044426339 0.0044426339
## LANG_URDU(1) yes                                  0.0044767010 0.0044767010
## LANG_ARABIC(1) yes                                0.0018420209 0.0018420209
## POLITICS(1) conservative                          0.0021018423 0.0021018423
## distance                                          0.3320404906 0.5143038514
## LANG_FRENCH(1) yes                                0.0299646278 0.0299646278
## EMPSTAT(7) work at home                           0.0020588986 0.0020588986
## LANG_TAGALOG(1) yes                               0.0215354269 0.0215354269
## LANG_DUTCH(1) yes                                 0.0014802382 0.0014802382
## RELIGION(07) Hindu                                0.0058129939 0.0058129939
## RELIGION(13) Scientology                          0.0001264320 0.0001264320
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## EMPSTAT(3) retired                          0.0006321601 0.0006321601
## RELIGION(02) Buddhist/Taoist                0.0073272991 0.0073272991
## LANG_GERMAN(1) yes                           0.0102527489 0.0102527489
## DRINKING(1) no                               0.0204428815 0.0204428815
## INCOME(6) $100,000 to $149,999              0.0371702931 0.0371702931
##                                                eCDF Max M
## AGE                                          1.436877e-01
## RELIGION(11) Christian                       3.696013e-02
## LIVE_KIDS(0) no                              3.612957e-02
## HAVEKIDS(1) yes, at home full-time           3.197674e-02
## POLITICS(6) no answer                        3.156146e-02
## SERVICES(5) weekly                           3.114618e-02
## HAVEKIDS(0) no                               2.906977e-02
## LIVE_KIDS(1) yes                             2.616279e-02
## OCCUP(18) no answer                          2.574751e-02
## LIVE_PETS(0) no                              2.533223e-02
## MARSTAT(0) single-never married              2.450166e-02
## SMOKING(1) no                                2.367110e-02
## LANG_ITALIAN(0) no                           2.367110e-02
## SERVICES(0) no answer                        2.367110e-02
## MARSTAT(1) divorced                          2.117940e-02
## EMPSTAT(5) student                           2.117940e-02
## RELIGION(14) Other                           2.117940e-02
## RELIGION(15) no answer                       2.034884e-02
## HEIGHT_IN                                    4.485050e-02
## LIVE_PARTY(0) no                             1.910299e-02
## INCOME(0) no answer                          1.910299e-02
## POLITICS(5) not political                    1.910299e-02
## REGION(2) Chicago, IL                        1.868771e-02
## BODY(6) a few extra pounds                   1.785714e-02
## RELIGION(03) Christian/Catholic              1.785714e-02
## LANG_RUSSIAN(0) no                           1.785714e-02
## SMOKING(2) occasionally                      1.744186e-02
## LIVE_ALONE(1) yes                            1.702658e-02
## SEX(0) female                                1.661130e-02
## SEX(1) male                                  1.661130e-02
## LIVE_PETS(1) yes                             1.578073e-02
## INCOME(3) $35,000 to $49,999                1.578073e-02
## ETHNICITY(4) Hispanic/Latino                 1.536545e-02
## EMPSTAT(8) no answer                         1.495017e-02
## SERVICES(3) only on holidays                 1.495017e-02
## LANG_ARABIC(0) no                            1.411960e-02
## OCCUP(00) artistic/musical/writer            1.411960e-02
## LANG_FRENCH(0) no                            1.370432e-02
## LANG_DUTCH(0) no                             1.370432e-02
## LANG_TAGALOG(0) no                           1.370432e-02
## HAVEKIDS(3) yes, but not at home             1.328904e-02
## LANG_FRENCH(2) no answer                     1.328904e-02
## LANG_GERMAN(2) no answer                     1.328904e-02
## LANG_ITALIAN(2) no answer                    1.328904e-02
## LANG_SPANISH(2) no answer                    1.328904e-02
## LANG_PORTUGUESE(2) no answer                 1.328904e-02
## LANG_DUTCH(2) no answer                      1.328904e-02
## LANG_CHINESE(2) no answer                    1.328904e-02
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## LANG_JAPANESE(2) no answer                           1.328904e-02
## LANG_ARABIC(2) no answer                             1.328904e-02
## LANG_RUSSIAN(2) no answer                            1.328904e-02
## LANG_HEBREW(2) no answer                             1.328904e-02
## LANG_HINDI(2) no answer                              1.328904e-02
## LANG_TAGALOG(2) no answer                            1.328904e-02
## LANG_URDU(2) no answer                               1.328904e-02
## LANG_GERMAN(0) no                                    1.287375e-02
## SERVICES(2) rarely                                   1.245847e-02
## LANG_URDU(0) no                                      1.245847e-02
## REGION(3) Atlanta, GA                                1.204319e-02
## LANG_HEBREW(0) no                                    1.162791e-02
## LIVE_PAR(1) yes                                      1.162791e-02
## LANG_SPANISH(0) no                                   1.162791e-02
## LIVE_FAM(0) no                                       1.121262e-02
## LANG_HINDI(0) no                                     1.121262e-02
## ETHNICITY(2) Caucasian                               1.121262e-02
## WANTKIDS(0) no                                       1.121262e-02
## BODY(4) fit                                          1.079734e-02
## OCCUP(02) clerical/administrative                    1.079734e-02
## LANG_ITALIAN(1) yes                                  1.038206e-02
## LIVE_ALONE(2) no answer                              1.038206e-02
## LANG_JAPANESE(0) no                                  1.038206e-02
## LANG_PORTUGUESE(0) no                                1.038206e-02
## LIVE_KIDS(2) no answer                               9.966777e-03
## LANG_CHINESE(0) no                                   9.551495e-03
## BODY(7) large                                        9.551495e-03
## LIVE_PARTY(1) yes                                    9.551495e-03
## HAVEKIDS(4) no answer                                9.551495e-03
## OCCUP(01) banking/financial services/real estate 9.551495e-03
## OCCUP(08) hospitality/travel                         9.551495e-03
## OCCUP(14) technical science/engineering              9.551495e-03
## LIVE_PAR(2) no answer                                9.551495e-03
## LIVE_PETS(2) no answer                               9.551495e-03
## LIVE_ROOM(2) no answer                               9.551495e-03
## LIVE_FAM(2) no answer                                9.551495e-03
## LIVE_PARTY(2) no answer                              9.551495e-03
## OCCUP(13) sales/marketing                            9.551495e-03
## MARSTAT(3) separated                                 8.720930e-03
## OCCUP(17) other                                      8.305648e-03
## DRINKING(2) occasionally                             7.890365e-03
## ETHNICITY(1) Asian                                   7.890365e-03
## OCCUP(16) food service                               7.475083e-03
## WANTKIDS(3) no answer                                7.059801e-03
## INCOME(2) $25,000 to $34,999y                        7.059801e-03
## SERVICES(4) monthly                                  7.059801e-03
## POLITICS(2) middle of the road                       7.059801e-03
## LIVE_ALONE(0) no                                     6.644518e-03
## POLITICS(3) liberal                                  6.644518e-03
## HAVEKIDS(2) yes, at home part-time                   6.644518e-03
## OCCUP(03) computer related/hardware                  6.229236e-03
## OCCUP(04) construction/craftsman                     6.229236e-03
## RELIGION(12) Not religious                           6.229236e-03
## LIVE_ROOM(1) yes                                     5.813953e-03
```

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## DRINKING(0) no answer                         5.813953e-03
## RELIGION(06) Christian/Other                   5.813953e-03
## BODY(0) slim                                   5.813953e-03
## OCCUP(06) entertainment/media                  5.398671e-03
## OCCUP(12) politics/government/military          5.398671e-03
## WANTKIDS(1) yes                                 5.398671e-03
## INCOME(4) $50,000 to $74,999                    5.398671e-03
## OCCUP(11) medical/health services              4.983389e-03
## OCCUP(10) manufacturing/distributions          4.983389e-03
## SERVICES(1) never                              4.983389e-03
## HEIGHT_FT                                       1.744186e-02
## BODY(8) voluptous                              4.568106e-03
## EMPSTAT(6) unemployed                          4.568106e-03
## LANG_RUSSIAN(1) yes                            4.568106e-03
## SMOKING(0) no answer                           4.568106e-03
## BODY(3) athletic                               4.152824e-03
## ETHNICITY(0) African American                  3.737542e-03
## MARSTAT(4) no answer                           3.737542e-03
## LANG_CHINESE(1) yes                            3.737542e-03
## REGION(0) Los Angeles, CA                      3.737542e-03
## LIVE_ROOM(0) no                                3.737542e-03
## BODY(2) average                               3.322259e-03
## EMPSTAT(1) part-time                          3.322259e-03
## BODY(1) slender                               3.322259e-03
## REGION(1) New York/New Jersey                 2.906977e-03
## EMPSTAT(0) full-time                          2.906977e-03
## RELIGION(10) Spiritual but not religious      2.906977e-03
## LANG_PORTUGUESE(1) yes                        2.906977e-03
## LANG_JAPANESE(1) yes                          2.906977e-03
## INCOME(1) less than $24,999                   2.491694e-03
## INCOME(7) $150,000+                           2.491694e-03
## LIVE_PAR(0) no                                2.076412e-03
## LANG_ENGLISH(1) yes                           2.076412e-03
## RELIGION(00) none/agnostic                    2.076412e-03
## SERVICES(6) more than once a week             2.076412e-03
## DRINKING(3) often                             2.076412e-03
## LANG_HINDI(1) yes                             2.076412e-03
## BODY(9) no answer                             2.076412e-03
## EMPSTAT(2) homemaker                          2.076412e-03
## LANG_ENGLISH(0) no                            2.076412e-03
## SMOKING(3) often                              1.661130e-03
## MARSTAT(2) widowed                            1.661130e-03
## INCOME(5) $75,000 to $99,999                  1.661130e-03
## RELIGION(08) Jewish                           1.661130e-03
## LANG_HEBREW(1) yes                            1.661130e-03
## RELIGION(09) Islam                            1.661130e-03
## BODY(5) thick                                 1.661130e-03
## LIVE_FAM(1) yes                               1.661130e-03
## EMPSTAT(4) self-employed                      1.661130e-03
## OCCUP(07) executive/management                1.661130e-03
## LANG_SPANISH(1) yes                           1.661130e-03
## OCCUP(09) legal services                      1.245847e-03
## RELIGION(04) Christian/LDS                    1.245847e-03
## RELIGION(05) Christian/Protestant             1.245847e-03
```

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## OCCUP(05) education/academic research        1.245847e-03
## POLITICS(4) very liberal                      1.245847e-03
## WANTKIDS(2) not sure                           1.245847e-03
## OCCUP(15) transportation                       8.305648e-04
## RELIGION(01) Atheist                           8.305648e-04
## POLITICS(0) very conservative                  8.305648e-04
## LANG_URDU(1) yes                               8.305648e-04
## LANG_ARABIC(1) yes                             8.305648e-04
## POLITICS(1) conservative                       8.305648e-04
## distance                                       1.328904e-02
## LANG_FRENCH(1) yes                             4.152824e-04
## EMPSTAT(7) work at home                        4.152824e-04
## LANG_TAGALOG(1) yes                            4.152824e-04
## LANG_DUTCH(1) yes                              4.152824e-04
## RELIGION(07) Hindu                             4.152824e-04
## RELIGION(13) Scientology                       4.152824e-04
## EMPSTAT(3) retired                             4.152824e-04
## RELIGION(02) Buddhist/Taoist                   4.152824e-04
## LANG_GERMAN(1) yes                             4.152824e-04
## DRINKING(1) no                                 2.775558e-17
## INCOME(6) $100,000 to $149,999                 0.000000e+00
##                                                Std. Pair Dist. B4
## AGE                                            NA
## RELIGION(11) Christian                         NA
## LIVE_KIDS(0) no                                NA
## HAVEKIDS(1) yes, at home full-time             NA
## POLITICS(6) no answer                          NA
## SERVICES(5) weekly                             NA
## HAVEKIDS(0) no                                 NA
## LIVE_KIDS(1) yes                               NA
## OCCUP(18) no answer                            NA
## LIVE_PETS(0) no                                NA
## MARSTAT(0) single-never married                NA
## SMOKING(1) no                                  NA
## LANG_ITALIAN(0) no                             NA
## SERVICES(0) no answer                          NA
## MARSTAT(1) divorced                            NA
## EMPSTAT(5) student                             NA
## RELIGION(14) Other                             NA
## RELIGION(15) no answer                         NA
## HEIGHT_IN                                      NA
## LIVE_PARTY(0) no                               NA
## INCOME(0) no answer                            NA
## POLITICS(5) not political                      NA
## REGION(2) Chicago, IL                          NA
## BODY(6) a few extra pounds                     NA
## RELIGION(03) Christian/Catholic                NA
## LANG_RUSSIAN(0) no                             NA
## SMOKING(2) occasionally                        NA
## LIVE_ALONE(1) yes                              NA
## SEX(0) female                                  NA
## SEX(1) male                                    NA
## LIVE_PETS(1) yes                               NA
## INCOME(3) $35,000 to $49,999                   NA
```

```
## ETHNICITY(4) Hispanic/Latino                             NA
## EMPSTAT(8) no answer                                      NA
## SERVICES(3) only on holidays                              NA
## LANG_ARABIC(0) no                                         NA
## OCCUP(00) artistic/musical/writer                         NA
## LANG_FRENCH(0) no                                         NA
## LANG_DUTCH(0) no                                          NA
## LANG_TAGALOG(0) no                                        NA
## HAVEKIDS(3) yes, but not at home                          NA
## LANG_FRENCH(2) no answer                                  NA
## LANG_GERMAN(2) no answer                                  NA
## LANG_ITALIAN(2) no answer                                 NA
## LANG_SPANISH(2) no answer                                 NA
## LANG_PORTUGUESE(2) no answer                              NA
## LANG_DUTCH(2) no answer                                   NA
## LANG_CHINESE(2) no answer                                 NA
## LANG_JAPANESE(2) no answer                                NA
## LANG_ARABIC(2) no answer                                  NA
## LANG_RUSSIAN(2) no answer                                 NA
## LANG_HEBREW(2) no answer                                  NA
## LANG_HINDI(2) no answer                                   NA
## LANG_TAGALOG(2) no answer                                 NA
## LANG_URDU(2) no answer                                    NA
## LANG_GERMAN(0) no                                         NA
## SERVICES(2) rarely                                        NA
## LANG_URDU(0) no                                           NA
## REGION(3) Atlanta, GA                                     NA
## LANG_HEBREW(0) no                                         NA
## LIVE_PAR(1) yes                                           NA
## LANG_SPANISH(0) no                                        NA
## LIVE_FAM(0) no                                            NA
## LANG_HINDI(0) no                                          NA
## ETHNICITY(2) Caucasian                                    NA
## WANTKIDS(0) no                                            NA
## BODY(4) fit                                               NA
## OCCUP(02) clerical/administrative                         NA
## LANG_ITALIAN(1) yes                                       NA
## LIVE_ALONE(2) no answer                                   NA
## LANG_JAPANESE(0) no                                       NA
## LANG_PORTUGUESE(0) no                                     NA
## LIVE_KIDS(2) no answer                                    NA
## LANG_CHINESE(0) no                                        NA
## BODY(7) large                                             NA
## LIVE_PARTY(1) yes                                         NA
## HAVEKIDS(4) no answer                                     NA
## OCCUP(01) banking/financial services/real estate          NA
## OCCUP(08) hospitality/travel                              NA
## OCCUP(14) technical science/engineering                   NA
## LIVE_PAR(2) no answer                                     NA
## LIVE_PETS(2) no answer                                    NA
## LIVE_ROOM(2) no answer                                    NA
## LIVE_FAM(2) no answer                                     NA
## LIVE_PARTY(2) no answer                                   NA
## OCCUP(13) sales/marketing                                 NA
```

```
## MARSTAT(3) separated                                  NA
## OCCUP(17) other                                       NA
## DRINKING(2) occasionally                              NA
## ETHNICITY(1) Asian                                    NA
## OCCUP(16) food service                                NA
## WANTKIDS(3) no answer                                 NA
## INCOME(2) $25,000 to $34,999y                         NA
## SERVICES(4) monthly                                   NA
## POLITICS(2) middle of the road                        NA
## LIVE_ALONE(0) no                                      NA
## POLITICS(3) liberal                                   NA
## HAVEKIDS(2) yes, at home part-time                    NA
## OCCUP(03) computer related/hardware                   NA
## OCCUP(04) construction/craftsman                      NA
## RELIGION(12) Not religious                            NA
## LIVE_ROOM(1) yes                                      NA
## DRINKING(0) no answer                                 NA
## RELIGION(06) Christian/Other                          NA
## BODY(0) slim                                          NA
## OCCUP(06) entertainment/media                         NA
## OCCUP(12) politics/government/military                NA
## WANTKIDS(1) yes                                       NA
## INCOME(4) $50,000 to $74,999                          NA
## OCCUP(11) medical/health services                     NA
## OCCUP(10) manufacturing/distributions                 NA
## SERVICES(1) never                                     NA
## HEIGHT_FT                                             NA
## BODY(8) voluptous                                     NA
## EMPSTAT(6) unemployed                                 NA
## LANG_RUSSIAN(1) yes                                   NA
## SMOKING(0) no answer                                  NA
## BODY(3) athletic                                      NA
## ETHNICITY(0) African American                         NA
## MARSTAT(4) no answer                                  NA
## LANG_CHINESE(1) yes                                   NA
## REGION(0) Los Angeles, CA                             NA
## LIVE_ROOM(0) no                                       NA
## BODY(2) average                                       NA
## EMPSTAT(1) part-time                                  NA
## BODY(1) slender                                       NA
## REGION(1) New York/New Jersey                         NA
## EMPSTAT(0) full-time                                  NA
## RELIGION(10) Spiritual but not religious              NA
## LANG_PORTUGUESE(1) yes                                NA
## LANG_JAPANESE(1) yes                                  NA
## INCOME(1) less than $24,999                           NA
## INCOME(7) $150,000+                                   NA
## LIVE_PAR(0) no                                        NA
## LANG_ENGLISH(1) yes                                   NA
## RELIGION(00) none/agnostic                            NA
## SERVICES(6) more than once a week                     NA
## DRINKING(3) often                                     NA
## LANG_HINDI(1) yes                                     NA
## BODY(9) no answer                                     NA
```

```
## EMPSTAT(2) homemaker                                        NA
## LANG_ENGLISH(0) no                                          NA
## SMOKING(3) often                                            NA
## MARSTAT(2) widowed                                          NA
## INCOME(5) $75,000 to $99,999                                NA
## RELIGION(08) Jewish                                         NA
## LANG_HEBREW(1) yes                                          NA
## RELIGION(09) Islam                                          NA
## BODY(5) thick                                               NA
## LIVE_FAM(1) yes                                             NA
## EMPSTAT(4) self-employed                                    NA
## OCCUP(07) executive/management                              NA
## LANG_SPANISH(1) yes                                         NA
## OCCUP(09) legal services                                    NA
## RELIGION(04) Christian/LDS                                  NA
## RELIGION(05) Christian/Protestant                           NA
## OCCUP(05) education/academic research                       NA
## POLITICS(4) very liberal                                    NA
## WANTKIDS(2) not sure                                        NA
## OCCUP(15) transportation                                    NA
## RELIGION(01) Atheist                                        NA
## POLITICS(0) very conservative                               NA
## LANG_URDU(1) yes                                            NA
## LANG_ARABIC(1) yes                                          NA
## POLITICS(1) conservative                                    NA
## distance                                                    NA
## LANG_FRENCH(1) yes                                          NA
## EMPSTAT(7) work at home                                     NA
## LANG_TAGALOG(1) yes                                         NA
## LANG_DUTCH(1) yes                                           NA
## RELIGION(07) Hindu                                          NA
## RELIGION(13) Scientology                                    NA
## EMPSTAT(3) retired                                          NA
## RELIGION(02) Buddhist/Taoist                                NA
## LANG_GERMAN(1) yes                                          NA
## DRINKING(1) no                                              NA
## INCOME(6) $100,000 to $149,999                              NA
##                                            Std. Pair Dist. M
## AGE                                              0.965661130
## RELIGION(11) Christian                           0.997821903
## LIVE_KIDS(0) no                                  0.968779232
## HAVEKIDS(1) yes, at home full-time               0.765654618
## POLITICS(6) no answer                            0.956334640
## SERVICES(5) weekly                               0.832692029
## HAVEKIDS(0) no                                   0.959091379
## LIVE_KIDS(1) yes                                 0.720089948
## OCCUP(18) no answer                              0.607627762
## LIVE_PETS(0) no                                  1.007684003
## MARSTAT(0) single-never married                  0.927736341
## SMOKING(1) no                                    0.828211392
## LANG_ITALIAN(0) no                               0.972620756
## SERVICES(0) no answer                            0.874505273
## MARSTAT(1) divorced                              0.855895455
## EMPSTAT(5) student                               0.636705452
```

```
## RELIGION(14) Other                          0.501106113
## RELIGION(15) no answer                      0.807994564
## HEIGHT_IN                                    1.148334014
## LIVE_PARTY(0) no                             0.976441405
## INCOME(0) no answer                          0.981368474
## POLITICS(5) not political                    0.806798180
## REGION(2) Chicago, IL                        0.920022079
## BODY(6) a few extra pounds                   0.541907568
## RELIGION(03) Christian/Catholic              0.766309908
## LANG_RUSSIAN(0) no                           0.950318050
## SMOKING(2) occasionally                      0.693055541
## LIVE_ALONE(1) yes                            0.784301074
## SEX(0) female                               0.971953918
## SEX(1) male                                 0.971953918
## LIVE_PETS(1) yes                            0.595217666
## INCOME(3) $35,000 to $49,999                0.726240776
## ETHNICITY(4) Hispanic/Latino                0.900774145
## EMPSTAT(8) no answer                         0.306513823
## SERVICES(3) only on holidays                 0.610527817
## LANG_ARABIC(0) no                            0.946194943
## OCCUP(00) artistic/musical/writer            0.532419712
## LANG_FRENCH(0) no                            0.962035209
## LANG_DUTCH(0) no                             0.950095829
## LANG_TAGALOG(0) no                           0.955051328
## HAVEKIDS(3) yes, but not at home             0.688032706
## LANG_FRENCH(2) no answer                     0.948132682
## LANG_GERMAN(2) no answer                     0.948132682
## LANG_ITALIAN(2) no answer                    0.948132682
## LANG_SPANISH(2) no answer                    0.948132682
## LANG_PORTUGUESE(2) no answer                 0.948132682
## LANG_DUTCH(2) no answer                      0.948132682
## LANG_CHINESE(2) no answer                    0.948132682
## LANG_JAPANESE(2) no answer                   0.948132682
## LANG_ARABIC(2) no answer                     0.948132682
## LANG_RUSSIAN(2) no answer                    0.948132682
## LANG_HEBREW(2) no answer                     0.948132682
## LANG_HINDI(2) no answer                      0.948132682
## LANG_TAGALOG(2) no answer                    0.948132682
## LANG_URDU(2) no answer                       0.948132682
## LANG_GERMAN(0) no                            0.960035993
## SERVICES(2) rarely                           0.913353369
## LANG_URDU(0) no                              0.946935991
## REGION(3) Atlanta, GA                        0.846791808
## LANG_HEBREW(0) no                            0.949869403
## LIVE_PAR(1) yes                              0.563719602
## LANG_SPANISH(0) no                           0.985458851
## LIVE_FAM(0) no                               0.994204898
## LANG_HINDI(0) no                             0.949279675
## ETHNICITY(2) Caucasian                       0.738509702
## WANTKIDS(0) no                               0.733819002
## BODY(4) fit                                  0.378573836
## OCCUP(02) clerical/administrative            0.510376114
## LANG_ITALIAN(1) yes                          0.315996209
## LIVE_ALONE(2) no answer                      0.956317853
```

```
## LANG_JAPANESE(0) no                               0.966520034
## LANG_PORTUGUESE(0) no                              0.949243203
## LIVE_KIDS(2) no answer                             0.958663688
## LANG_CHINESE(0) no                                 0.962704155
## BODY(7) large                                      0.209329400
## LIVE_PARTY(1) yes                                  0.277527004
## HAVEKIDS(4) no answer                              0.295048570
## OCCUP(01) banking/financial services/real estate   0.438159853
## OCCUP(08) hospitality/travel                       0.340396324
## OCCUP(14) technical science/engineering            0.457536088
## LIVE_PAR(2) no answer                              0.957498403
## LIVE_PETS(2) no answer                             0.957498403
## LIVE_ROOM(2) no answer                             0.957498403
## LIVE_FAM(2) no answer                              0.957498403
## LIVE_PARTY(2) no answer                            0.957498403
## OCCUP(13) sales/marketing                          0.460591750
## MARSTAT(3) separated                               0.407980832
## OCCUP(17) other                                    0.731398958
## DRINKING(2) occasionally                           0.799931273
## ETHNICITY(1) Asian                                 0.608974904
## OCCUP(16) food service                             0.186604476
## WANTKIDS(3) no answer                              0.754647427
## INCOME(2) $25,000 to $34,999y                      0.619765417
## SERVICES(4) monthly                                0.540806955
## POLITICS(2) middle of the road                     0.860866577
## LIVE_ALONE(0) no                                   0.893493817
## POLITICS(3) liberal                                0.685498445
## HAVEKIDS(2) yes, at home part-time                 0.363632001
## OCCUP(03) computer related/hardware                0.501801713
## OCCUP(04) construction/craftsman                   0.330360832
## RELIGION(12) Not religious                         0.297591449
## LIVE_ROOM(1) yes                                   0.706433598
## DRINKING(0) no answer                              0.285431759
## RELIGION(06) Christian/Other                       0.248046768
## BODY(0) slim                                       0.601664614
## OCCUP(06) entertainment/media                      0.388961943
## OCCUP(12) politics/government/military             0.424687401
## WANTKIDS(1) yes                                    0.979697685
## INCOME(4) $50,000 to $74,999                       0.546919502
## OCCUP(11) medical/health services                  0.450244140
## OCCUP(10) manufacturing/distributions              0.294766451
## SERVICES(1) never                                  0.545284239
## HEIGHT_FT                                          0.689578478
## BODY(8) voluptous                                  0.370679727
## EMPSTAT(6) unemployed                              0.144034782
## LANG_RUSSIAN(1) yes                                0.219800095
## SMOKING(0) no answer                               0.390707472
## BODY(3) athletic                                   0.825413856
## ETHNICITY(0) African American                      0.869986125
## MARSTAT(4) no answer                               0.342382136
## LANG_CHINESE(1) yes                                0.291236770
## REGION(0) Los Angeles, CA                          0.863947552
## LIVE_ROOM(0) no                                    1.030734097
## BODY(2) average                                    0.931643020
```

```
## EMPSTAT(1) part-time                          0.508652161
## BODY(1) slender                               0.398579036
## REGION(1) New York/New Jersey                 0.794342340
## EMPSTAT(0) full-time                          0.858269261
## RELIGION(10) Spiritual but not religious      0.498262676
## LANG_PORTUGUESE(1) yes                        0.103783308
## LANG_JAPANESE(1) yes                          0.202612974
## INCOME(1) less than $24,999                   0.474889979
## INCOME(7) $150,000+                           0.144639214
## LIVE_PAR(0) no                                0.978672107
## LANG_ENGLISH(1) yes                           0.112051989
## RELIGION(00) none/agnostic                    0.383142279
## SERVICES(6) more than once a week             0.348536158
## DRINKING(3) often                             0.170222924
## LANG_HINDI(1) yes                             0.088472230
## BODY(9) no answer                             0.214708886
## EMPSTAT(2) homemaker                          0.197673592
## LANG_ENGLISH(0) no                            0.112051989
## SMOKING(3) often                              0.448374897
## MARSTAT(2) widowed                            0.192878440
## INCOME(5) $75,000 to $99,999                  0.289095300
## RELIGION(08) Jewish                           0.174792940
## LANG_HEBREW(1) yes                            0.054738055
## RELIGION(09) Islam                            0.117949462
## BODY(5) thick                                 0.591844630
## LIVE_FAM(1) yes                               0.475727035
## EMPSTAT(4) self-employed                      0.530179976
## OCCUP(07) executive/management                0.369334363
## LANG_SPANISH(1) yes                           0.831015187
## OCCUP(09) legal services                      0.266544132
## RELIGION(04) Christian/LDS                    0.050988564
## RELIGION(05) Christian/Protestant             0.217891886
## OCCUP(05) education/academic research         0.333704832
## POLITICS(4) very liberal                      0.314503512
## WANTKIDS(2) not sure                          0.898947539
## OCCUP(15) transportation                      0.351552869
## RELIGION(01) Atheist                          0.123416971
## POLITICS(0) very conservative                 0.200915042
## LANG_URDU(1) yes                              0.086602540
## LANG_ARABIC(1) yes                            0.142068597
## POLITICS(1) conservative                      0.527487325
## distance                                      0.002516448
## LANG_FRENCH(1) yes                            0.317046008
## EMPSTAT(7) work at home                       0.158406102
## LANG_TAGALOG(1) yes                           0.232179879
## LANG_DUTCH(1) yes                             0.072078741
## RELIGION(07) Hindu                            0.043247245
## RELIGION(13) Scientology                      0.061148134
## EMPSTAT(3) retired                            0.100353101
## RELIGION(02) Buddhist/Taoist                  0.249916708
## LANG_GERMAN(1) yes                            0.196489393
## DRINKING(1) no                                0.289867110
## INCOME(6) $100,000 to $149,999                0.014119601
```

```
#get the weights of all the observations
weights_ATC_wr4 <- as.vector(mat_nearest_ATC_wr4$weights)


YHdatNA$D_WANTKIDS_NO_v2 <- ifelse(YHdatNA$D_WANTKIDS_NO == "(1) yes", 1, 0) #yes, they want't to date

#Warning: non-integer #successes in a binomial glm!
Mat_Mod_ATC_wr4_log <- glm(D_WANTKIDS_NO_v2  ~ as.factor(CGRAD) + REGION + as.factor(SEX) + AGE +  ETHNI
```

**Step 5: Estimate Treatment Effects**

```
## Warning in eval(family$initialize): non-integer #successes in a binomial glm!
```

```
options(max.print=50)
Mat_Mod_ATC_wr_summary <- summary(Mat_Mod_ATC_wr4_log)

sink("lm.txt")
print(Mat_Mod_ATC_wr_summary)
```

```
##
## Call:
## glm(formula = D_WANTKIDS_NO_v2 ~ as.factor(CGRAD) + REGION +
##     as.factor(SEX) + AGE + ETHNICITY + MARSTAT + BODY + HEIGHT_FT +
##     HEIGHT_IN + SMOKING + DRINKING + LIVE_ALONE + LIVE_KIDS +
##     LIVE_PAR + LIVE_PETS + LIVE_ROOM + LIVE_FAM + LIVE_PARTY +
##     HAVEKIDS + WANTKIDS + EMPSTAT + OCCUP + INCOME + RELIGION +
##     SERVICES + POLITICS + LANG_ENGLISH + LANG_FRENCH + LANG_GERMAN +
##     LANG_ITALIAN + LANG_SPANISH + LANG_PORTUGUESE + LANG_DUTCH +
##     LANG_CHINESE + LANG_JAPANESE + LANG_ARABIC + LANG_RUSSIAN +
##     LANG_HEBREW + LANG_HINDI + LANG_TAGALOG + LANG_URDU, family = binomial("logit"),
##     data = YHdatNA, weights = weights_ATC_wr4)
##
## Coefficients: (17 not defined because of singularities)
##                                    Estimate Std. Error z value
## (Intercept)                        -5.531e+00  2.703e+00  -2.046
## as.factor(CGRAD)1                  -1.441e-01  1.600e-01  -0.901
## REGION(1) New York/New Jersey       2.651e-01  2.145e-01   1.236
## REGION(2) Chicago, IL               3.417e-01  2.044e-01   1.671
## REGION(3) Atlanta, GA               3.607e-01  2.166e-01   1.665
## as.factor(SEX)(1) male             -5.777e-01  2.284e-01  -2.530
## AGE                                 5.866e-02  1.204e-02   4.871
## ETHNICITY(1) Asian                  2.167e-01  3.210e-01   0.675
## ETHNICITY(2) Caucasian              1.230e-01  2.380e-01   0.517
## ETHNICITY(4) Hispanic/Latino        1.631e-01  2.371e-01   0.688
##                                    Pr(>|z|)
## (Intercept)                         0.04071 *
## as.factor(CGRAD)1                   0.36756
## REGION(1) New York/New Jersey       0.21650
## REGION(2) Chicago, IL               0.09466 .
## REGION(3) Atlanta, GA               0.09593 .
## as.factor(SEX)(1) male              0.01141 *
## AGE                                 1.11e-06 ***
## ETHNICITY(1) Asian                  0.49958
## ETHNICITY(2) Caucasian              0.60534
```

```
## ETHNICITY(4) Hispanic/Latino                          0.49147
##  [ reached getOption("max.print") -- omitted 131 rows ]
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 1)
##
##      Null deviance: 2614.2  on 3435  degrees of freedom
## Residual deviance: 1505.1  on 3312  degrees of freedom
## AIC: 1677.4
##
## Number of Fisher Scoring iterations: 14
```

```r
sink()
```

```r
point_estimate_matchATC_wr4_log <- (coeftest(Mat_Mod_ATC_wr4_log, vcov = sandwich)[2,1])
point_estimate_matchATC_wr4_log
```

```
## [1] -0.1441447
```

```r
probcoef <- point_estimate_matchATC_wr4_log/4
probcoef
```

```
## [1] -0.03603616
```

```r
point_SE_matchATC_wr4_log <- (coeftest(Mat_Mod_ATC_wr4_log, vcov = sandwich)[2,2])
point_SE_matchATC_wr4_log
```

```
## [1] 0.1085549
```

```r
#linear regression for final compare

Mat_Mod_ATC_wr4_lm_vanilla <- lm(D_WANTKIDS_NO_v2 ~ as.factor(CGRAD) + REGION + as.factor(SEX) + AGE +

options(max.print=50)
Mat_Mod_ATC_wr4_lm_vanilla_summary <- summary(Mat_Mod_ATC_wr4_lm_vanilla)
Mat_Mod_ATC_wr4_lm_vanilla_summary
```

```
##
## Call:
## lm(formula = D_WANTKIDS_NO_v2 ~ as.factor(CGRAD) + REGION + as.factor(SEX) +
##     AGE + ETHNICITY + MARSTAT + BODY + HEIGHT_FT + HEIGHT_IN +
##     SMOKING + DRINKING + LIVE_ALONE + LIVE_KIDS + LIVE_PAR +
##     LIVE_PETS + LIVE_ROOM + LIVE_FAM + LIVE_PARTY + HAVEKIDS +
##     WANTKIDS + EMPSTAT + OCCUP + INCOME + RELIGION + SERVICES +
##     POLITICS + LANG_ENGLISH + LANG_FRENCH + LANG_GERMAN + LANG_ITALIAN +
##     LANG_SPANISH + LANG_PORTUGUESE + LANG_DUTCH + LANG_CHINESE +
##     LANG_JAPANESE + LANG_ARABIC + LANG_RUSSIAN + LANG_HEBREW +
##     LANG_HINDI + LANG_TAGALOG + LANG_URDU, data = YHdatNA)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -0.73771 -0.07567 -0.02919  0.01460  1.05769
##
## Coefficients: (17 not defined because of singularities)
##                                           Estimate Std. Error t value
```

```
## (Intercept)                              0.3704392  0.1123204   3.298
## as.factor(CGRAD)1                        -0.0079750  0.0080026  -0.997
## REGION(1) New York/New Jersey            0.0082174  0.0094541   0.869
## REGION(2) Chicago, IL                    0.0214617  0.0094914   2.261
## REGION(3) Atlanta, GA                     0.0180687  0.0101156   1.786
## as.factor(SEX)(1) male                   -0.0275866  0.0105202  -2.622
## AGE                                       0.0055464  0.0006052   9.165
## ETHNICITY(1) Asian                        0.0222458  0.0125783   1.769
## ETHNICITY(2) Caucasian                    0.0076189  0.0105130   0.725
## ETHNICITY(4) Hispanic/Latino              0.0116773  0.0117635   0.993
##                                          Pr(>|t|)
## (Intercept)                              0.000979 ***
## as.factor(CGRAD)1                        0.319020
## REGION(1) New York/New Jersey            0.384781
## REGION(2) Chicago, IL                    0.023785 *
## REGION(3) Atlanta, GA                     0.074117 .
## as.factor(SEX)(1) male                   0.008758 **
## AGE                                       < 2e-16 ***
## ETHNICITY(1) Asian                        0.077017 .
## ETHNICITY(2) Caucasian                    0.468658
## ETHNICITY(4) Hispanic/Latino              0.320912
##   [ reached getOption("max.print") -- omitted 131 rows ]
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.2502 on 5746 degrees of freedom
## Multiple R-squared:  0.3664, Adjusted R-squared:  0.3528
## F-statistic: 27.01 on 123 and 5746 DF,  p-value: < 2.2e-16
```

```r
sink("lm_van.txt")
print(Mat_Mod_ATC_wr4_lm_vanilla_summary)
```

```
##
## Call:
## lm(formula = D_WANTKIDS_NO_v2 ~ as.factor(CGRAD) + REGION + as.factor(SEX) +
##     AGE + ETHNICITY + MARSTAT + BODY + HEIGHT_FT + HEIGHT_IN +
##     SMOKING + DRINKING + LIVE_ALONE + LIVE_KIDS + LIVE_PAR +
##     LIVE_PETS + LIVE_ROOM + LIVE_FAM + LIVE_PARTY + HAVEKIDS +
##     WANTKIDS + EMPSTAT + OCCUP + INCOME + RELIGION + SERVICES +
##     POLITICS + LANG_ENGLISH + LANG_FRENCH + LANG_GERMAN + LANG_ITALIAN +
##     LANG_SPANISH + LANG_PORTUGUESE + LANG_DUTCH + LANG_CHINESE +
##     LANG_JAPANESE + LANG_ARABIC + LANG_RUSSIAN + LANG_HEBREW +
##     LANG_HINDI + LANG_TAGALOG + LANG_URDU, data = YHdatNA)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.73771 -0.07567 -0.02919  0.01460  1.05769
##
## Coefficients: (17 not defined because of singularities)
##                                           Estimate Std. Error t value
## (Intercept)                              0.3704392  0.1123204   3.298
## as.factor(CGRAD)1                        -0.0079750  0.0080026  -0.997
## REGION(1) New York/New Jersey            0.0082174  0.0094541   0.869
## REGION(2) Chicago, IL                    0.0214617  0.0094914   2.261
## REGION(3) Atlanta, GA                     0.0180687  0.0101156   1.786
```

```
## as.factor(SEX)(1) male                          -0.0275866  0.0105202  -2.622
## AGE                                               0.0055464  0.0006052   9.165
## ETHNICITY(1) Asian                                0.0222458  0.0125783   1.769
## ETHNICITY(2) Caucasian                            0.0076189  0.0105130   0.725
## ETHNICITY(4) Hispanic/Latino                      0.0116773  0.0117635   0.993
##                                                   Pr(>|t|)
## (Intercept)                                       0.000979 ***
## as.factor(CGRAD)1                                 0.319020
## REGION(1) New York/New Jersey                     0.384781
## REGION(2) Chicago, IL                             0.023785 *
## REGION(3) Atlanta, GA                             0.074117 .
## as.factor(SEX)(1) male                            0.008758 **
## AGE                                                < 2e-16 ***
## ETHNICITY(1) Asian                                0.077017 .
## ETHNICITY(2) Caucasian                            0.468658
## ETHNICITY(4) Hispanic/Latino                      0.320912
##   [ reached getOption("max.print") -- omitted 131 rows ]
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.2502 on 5746 degrees of freedom
## Multiple R-squared:  0.3664, Adjusted R-squared:  0.3528
## F-statistic: 27.01 on 123 and 5746 DF,  p-value: < 2.2e-16
```

```r
sink()
```

```r
point_estimate_matchATC_wr4_lm_van<- (coeftest(Mat_Mod_ATC_wr4_lm_vanilla, vcov = sandwich)[2,1])
point_estimate_matchATC_wr4_lm_van
```

```
## [1] -0.007975043
```

```r
point_SE_matchATC_wr4_lm_van <- (coeftest(Mat_Mod_ATC_wr4_lm_vanilla, vcov = sandwich)[2,2])
point_SE_matchATC_wr4_lm_van
```

```
## [1] 0.008098707
```