

NSFG2011-2019

2023-09-02

National Survey of Family Growth

The National Survey of Family Growth gathers information on pregnancy, births, marriage and cohabitation, and other components of family life.

<https://www.cdc.gov/nchs/nsfg/index.htm>

This analysis is focused on the number of lifetime opposite-sex partners.

Four surveys were combined for this analysis (2011-2013, 2013-2015, 2015-2017, and 2017-2019). Information on combining data files can be found here: https://www.cdc.gov/nchs/nsfg/nsfg_combining_data.htm

The data uses .dat and .dct files, so a large amount of data processing is required to make the data frame rectangular and usable for data analysis. A function called `read.dat.dct` from Stack Overflow is used to help perform this task. <https://stackoverflow.com/questions/14224321/reading-dat-and-dct-directly-from-r>

The data uses a complex survey design so I used the package `srvyr` to use `dplyr` commands on survey data. For this data set, I can use the command `as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE)` and then use `survey_mean` or `survey_prop` in order to carry out proper statistical analysis (for creating proper confidence intervals and variances of the results) of the complex survey design. I referenced the “Variance Estimation Examples” from the web page https://www.cdc.gov/nchs/nsfg/nsfg_2017_2019_puf.htm for what results to expect from properly estimating the confidence intervals and the results matched up with the result from using the package `srvyr`.

By far the largest factor that determine number of lifetime opposite-sex partners seem to be mostly the age of first intercourse. The visualizations (Average Number of Opposite-Sex Partners by Age of First Intercourse and Age (NSFG 2011-2019) for Males) and (Average Number of Opposite-Sex Partners by Age of First Intercourse and Age (NSFG 2011-2019) for Females) show how the average number of sex partners increases by age for each year of age of first intercourse. Of course, another major factor in the number of sex partners is age and the number of sex partner increases up until around the age of 30, where it mostly stabilizes. Other factors that are statistically significant whether one has ever been to prison, whether parents were intact, and drug use. Income and education were not very important in determining the number of lifetime opposite-sex partners.

In the tables below, all numbers in parentheses are 95% confidence intervals for the mean.

```
library(ggplot2)
library(kableExtra)
read.dat.dct <- function(dat, dct, labels.included = "no") {
  temp <- readLines(dct)
  temp <- temp[grepl("_column", temp)]
  switch(labels.included,
    yes = {
      pattern <- "_column\\((([0-9]+)\\)\\)\\s+([a-z0-9]+)\\s+(\\.*)\\s+%([0-9]+) [a-z]\\s+(\\.*)"
      classes <- c("numeric", "character", "character", "numeric", "character")
      N <- 5
      NAMES <- c("StartPos", "Str", "ColName", "ColWidth", "ColLabel")
    }
```

```

    },
    no = {
      pattern <- "_column\\((([0-9]+)\\)\\)\\s+([a-z0-9]+)\\s+(.*)\\s+%([0-9]+).*"
      classes <- c("numeric", "character", "character", "numeric")
      N <- 4
      NAMES <- c("StartPos", "Str", "ColName", "ColWidth")
    })
  metadata <- setNames(lapply(1:N, function(x) {
    out <- gsub(pattern, paste("\\", x, sep = ""), temp)
    out <- gsub("^\\s+|\\s+$", "", out)
    out <- gsub("\\'", "'", out, fixed = TRUE)
    class(out) <- classes[x] ; out }), NAMES)

  metadata[["ColName"]] <- make.names(gsub("\\s", "", metadata[["ColName"]]))

  myDF <- read.fwf(dat, widths = metadata[["ColWidth"]],
    col.names = metadata[["ColName"]])
  if (labels.included == "yes") {
    attr(myDF, "col.label") <- metadata[["ColLabel"]]
  }
  myDF
}

try_male = read.dat.dct(dat = "C:/Users/willi/Downloads/2011_2013_MaleData.dat",
  dct = "C:/Users/willi/Downloads/2011_2013_MaleSetup.dct")

try_female = read.dat.dct(dat = "C:/Users/willi/Downloads/2011_2013_FemRespData.dat",
  dct = "C:/Users/willi/Downloads/2011_2013_FemRespSetup.dct")

saveRDS(try_male, file = "Male_NSFG_2011_2013.rds")
saveRDS(try_female, file = "Female_NSFG_2011_2013.rds")

try_male = read.dat.dct(dat = "C:/Users/willi/Downloads/2013_2015_MaleData.dat",
  dct = "C:/Users/willi/Downloads/2013_2015_MaleSetup.dct")

try_female = read.dat.dct(dat = "C:/Users/willi/Downloads/2013_2015_FemRespData.dat",
  dct = "C:/Users/willi/Downloads/2013_2015_FemRespSetup.dct")

saveRDS(try_male, file = "Male_NSFG_2013_2015.rds")
saveRDS(try_female, file = "Female_NSFG_2013_2015.rds")

ren = function(data){
  data %>%
  dplyr::rename(caseid = CASEID,
    secu = SECU,
    sest = SEST,
    oppyearnum = OPPYEARNUM,
    nonmonog = NONMONOG,
    hieduc = HIEDUC,
    earn = EARN,
    lifprtnr = LIFPRtnr,
    ager = AGER,
    samesex = SAMESEX,

```

```

        sameosexany = SAMESEXANY,
        fmarital = FMARITAL,
        genhealt = GENHEALT,
        intctfam = INTCTFAM,

        intvwyear = INTVWYEAR)
}

#try_male_weights = read.dat.dct(dat = "C:/Users/willi/Downloads/2011_2019_MaleWgtData.dat",
#                                dct = "C:/Users/willi/Downloads/2011_2019_MaleWgtSetup.dct")

#try_female_weights = read.dat.dct(dat = "C:/Users/willi/Downloads/2011_2019_FemaleWgtData.dat",
#                                  dct = "C:/Users/willi/Downloads/2011_2019_FemaleWgtSetup.dct")

#saveRDS(try_male_weights, file = "Male_NSFG_2011_2019Weights.rds")
#saveRDS(try_female_weights, file = "Female_NSFG_2011_2019Weights.rds")

#try_male = read.dat.dct(dat = "C:/Users/willi/Downloads/2015_2017_MaleData.dat",
#                         dct = "C:/Users/willi/Downloads/2015_2017_MaleSetup.dct")

#try_female = read.dat.dct(dat = "C:/Users/willi/Downloads/2015_2017_FemRespData.dat",
#                           dct = "C:/Users/willi/Downloads/2015_2017_FemRespSetup.dct")

#saveRDS(try_male, file = "Male_NSFG_2015_2017.rds")
#saveRDS(try_female, file = "Female_NSFG_2015_2017.rds")

#try_male = read.dat.dct(dat = "C:/Users/willi/Downloads/2017_2019_MaleData.dat",
#                         dct = "C:/Users/willi/Downloads/2017_2019_MaleSetup.dct")

#try_female = read.dat.dct(dat = "C:/Users/willi/Downloads/2017_2019_FemRespData.dat",
#                           dct = "C:/Users/willi/Downloads/2017_2019_FemRespSetup.dct")

#saveRDS(try_male, file = "Male_NSFG_2017_2019.rds")
#saveRDS(try_female, file = "Female_NSFG_2017_2019.rds")

male = dplyr::bind_rows(readRDS("G:/My Drive/More Statistics/NSFG2017-2019/Male_NSFG_2017_2019.rds"),
                        readRDS("G:/My Drive/More Statistics/NSFG2017-2019/Male_NSFG_2015_2017.rds"),
                        readRDS("G:/My Drive/More Statistics/NSFG2017-2019/Male_NSFG_2013_2015.rds"),
                        readRDS("G:/My Drive/More Statistics/NSFG2017-2019/Male_NSFG_2011_2013.rds")) %>%
  dplyr::left_join(readRDS("G:/My Drive/More Statistics/NSFG2017-2019/Male_NSFG_2011_2019Weights.rds"),
                  by = "caseid")
female = dplyr::bind_rows(readRDS("G:/My Drive/More Statistics/NSFG2017-2019/Female_NSFG_2017_2019.rds"),
                          readRDS("G:/My Drive/More Statistics/NSFG2017-2019/Female_NSFG_2015_2017.rds"),
                          readRDS("G:/My Drive/More Statistics/NSFG2017-2019/Female_NSFG_2013_2015.rds"),
                          readRDS("G:/My Drive/More Statistics/NSFG2017-2019/Female_NSFG_2011_2013.rds")) %>%
  dplyr::left_join(readRDS("G:/My Drive/More Statistics/NSFG2017-2019/Female_NSFG_2011_2019Weights.rds"),
                  by = "caseid")

male = male %>%
  mutate(Year = dplyr::case_when(
    !is.na(WGT2011_2013) ~ "2011-2013",
    !is.na(WGT2013_2015) ~ "2013-2015",
  ))

```

```

    !is.na(WGT2015_2017) ~ "2015-2017",
    !is.na(WGT2017_2019) ~ "2017-2019"
  ))

female = female %>%
  mutate(Year = dplyr::case_when(
    !is.na(WGT2011_2013) ~ "2011-2013",
    !is.na(WGT2013_2015) ~ "2013-2015",
    !is.na(WGT2015_2017) ~ "2015-2017",
    !is.na(WGT2017_2019) ~ "2017-2019"
  ))

saveRDS(male, file = "Male_NSFG_All.rds")
saveRDS(female, file = "Female_NSFG_All.rds")

```

```
library(ggplot2)
```

```
## Warning: package 'ggplot2' was built under R version 4.2.3
```

```
library(kableExtra)
library(survey)
```

```
## Warning: package 'survey' was built under R version 4.2.3
```

```
## Loading required package: grid
```

```
## Loading required package: Matrix
```

```
## Loading required package: survival
```

```
##
## Attaching package: 'survey'
```

```
## The following object is masked from 'package:graphics':
##
##     dotchart
```

```
library(srvyr)
```

```
## Warning: package 'srvyr' was built under R version 4.2.3
```

```
##
## Attaching package: 'srvyr'
```

```
## The following object is masked from 'package:kableExtra':
##
##     group_rows
```

```
## The following object is masked from 'package:stats':
##
##     filter
```

```
male = readRDS("G:/My Drive/More Statistics/NSFG2017-2019/Male_NSFG_All.rds")
female = readRDS("G:/My Drive/More Statistics/NSFG2017-2019/Female_NSFG_All.rds")
```

```
male = male %>%
  mutate(poverty = ifelse(is.na(poverty), POVERTY, poverty),
         attract = ifelse(is.na(attract), ATTRACT, attract),
         samyearnum = ifelse(is.na(samyearnum), SAMYEARNUM, samyearnum),
         msmnonmon = ifelse(is.na(msmnonmon), MSMNONMON, msmnonmon),
         opplifenum = ifelse(is.na(opplifenum), OPPLIFENUM, opplifenum),
         Extreme = ifelse(lifprtnr >= 31, 1, 0))
```

```
female = female %>%
  mutate(poverty = ifelse(is.na(poverty), POVERTY, poverty),
         attract = ifelse(is.na(attract), ATTRACT, attract),
         samyearnum = ifelse(is.na(samyearnum), SAMYEARNUM, samyearnum),
         femsex = ifelse(is.na(femsex), FEMSEX, femsex),
         opplifenum = ifelse(is.na(opplifenum), OPPLIFENUM, opplifenum),
         Extreme = ifelse(lifprtnr >= 31, 1, 0))
```

```
male_logit = male %>%
  filter(ager >= 21 & ager <= 44 & HISPRACE2 != 3) %>%
  mutate(Drink12 = ifelse(DRINK12 >= 7 | DRINK12 <= 4, 0, DRINK12),
         Drink12 = dplyr::case_when(
           Drink12 == 0 ~ "Less than Weekly",
           Drink12 == 5 ~ "Every Week",
           Drink12 == 6 ~ "Every Day"
         ),
         Pot12 = dplyr::case_when(
           POT12 %in% c(1:2,7:9) ~ 0,
           POT12 %in% c(3:6) ~ 1
         ),
         AFI = ifelse(is.na(VRY1STAG), ager + 1, VRY1STAG),
         Crack12 = ifelse(COC12 %in% c(1, 7:9), 0, 1),
         Jailed = ifelse(is.na(JAILED2) | JAILED2 %in% c(5,7), 0, 1),
         Intact = ifelse(INTACT18 == 1, 1, 0),
         Race = dplyr::recode(HISPRACE2,
           `1` = "Hispanic",
           `2` = "Non-Hispanic White",
           `3` = "Non-Hispanic Black",
           `4` = "Non-Hispanic Other"),
         Poverty = ifelse(poverty >= 150, 0, 1),
         Degree = ifelse(hieduc >= 12, 1, 0),
         HighEarn = ifelse(!is.na(earn) & earn %in% 14:15, 1, 0),
         Attract = ifelse(attract >= 6, 1, attract),
         Weight = WGT2011_2019/mean(WGT2011_2019))
```

```
female_logit = female %>%
  filter(ager >= 21 & ager <= 44 & HISPRACE2 != 3) %>%
  mutate(Drink12 = ifelse(DRINK12 >= 7 | DRINK12 <= 4, 0, DRINK12),
         Drink12 = dplyr::case_when(
           Drink12 == 0 ~ "Less than Weekly",
           Drink12 == 5 ~ "Every Week",
```

```

    Drink12 == 6 ~ "Every Day"
  ),
  Pot12 = dplyr::case_when(
    POT12 %in% c(1:2,7:9) ~ 0,
    POT12 %in% c(3:6) ~ 1
  ),
  AFI = ifelse(is.na(VRY1STAG), ager + 1, VRY1STAG),
  Crack12 = ifelse(COC12 %in% c(1, 7:9), 0, 1),
  Intact = ifelse(INTACT18 == 1, 1, 0),
  Attract = ifelse(attract >= 6, 1, attract),
  Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"),
  Poverty = ifelse(poverty >= 150, 0, 1),
  Degree = ifelse(hieduc >= 12, 1, 0),
  HighEarn = ifelse(!is.na(earn) & earn %in% 14:15, 1, 0),
  Weight = WGT2011_2019/mean(WGT2011_2019))

male_logit_svy = svydesign(id=~secu, strata=~sest, weights=~WGT2011_2019, data= male_logit, nest = TRUE)
logit_male_glm = svyglm(Extreme ~ Poverty + AFI + I(AFI^2) + ager + I(ager^2) + Drink12 + Pot12 + Crack12)

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

logit_male_glm2 = glm(Extreme ~ Poverty + AFI + I(AFI^2) + ager + I(ager^2) + Drink12 + Pot12 + Crack12)

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

logit_male_glm_nodrug = svyglm(Extreme ~ Poverty + AFI + I(AFI^2) + ager + I(ager^2) + Jailed + Intact)

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

logit_male_glm_nodrug2 = glm(Extreme ~ Poverty + AFI + I(AFI^2) + ager + I(ager^2) + Jailed + Intact + Race)

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

female_logit_svy = svydesign(id=~secu, strata=~sest, weights=~WGT2011_2019, data = female_logit, nest = TRUE)
logit_female_glm = svyglm(Extreme ~ Poverty + AFI + I(AFI^2) + ager + I(ager^2) + Drink12 + Pot12 + Crack12)

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

logit_female_glm2 = glm(Extreme ~ Poverty + AFI + I(AFI^2) + ager + I(ager^2) + Drink12 + Pot12 + Crack12)

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

```

```
logit_female_glm_nodrug = svyglm(Extreme ~ Poverty + AFI + I(AFI^2) + age + I(age^2) + Intact + Race +
```

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

```
logit_female_glm_nodrug2 = glm(Extreme ~ Poverty + AFI + I(AFI^2) + age + I(age^2) + Intact + Race +
```

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

```
pred_male <- expand.grid(ager = 35, AFI = 16:21, Attract = 1, Poverty = 0:1, Drink12 = c("Every Day", "I  
Pot12 = 0:1, Crack12 = 0:1, Jailed = 0:1, Intact = 0:1,  
Race = "Non-Hispanic White", Degree = 0:1, HighEarn = 0:1)  
pred_male = cbind(pred_male, predict(logit_male_glm, type = "response", pred_male))  
#write.csv(pred_male, "PredictMaleExtreme_withAge.csv")
```

```
pred_male <- expand.grid(ager = 35, AFI = 16:21, Attract = 1, Poverty = 0:1,  
Jailed = 0:1, Intact = 0:1,  
Race = "Non-Hispanic White", Degree = 0:1, HighEarn = 0:1)  
pred_male = cbind(pred_male, predict(logit_male_glm_nodrug, type = "response", pred_male))  
#write.csv(pred_male, "PredictMaleExtremeNoDrug_withAge.csv")
```

```
pred_female <- expand.grid(ager = 35, AFI = 16:21, Attract = 1, Poverty = 0:1, Drink12 = c("Every Day", "I  
Pot12 = 0:1, Crack12 = 0:1, Intact = 0:1,  
Race = "Non-Hispanic White", Degree = 0:1, HighEarn = 0:1)  
pred_female = cbind(pred_female, predict(logit_female_glm, type = "response", pred_female))  
#write.csv(pred_female, "PredictFemaleExtreme_withAge.csv")
```

```
pred_female <- expand.grid(ager = 35, AFI = 16:21, Poverty = 0:1,  
Intact = 0:1,  
Race = "Non-Hispanic White", Degree = 0:1, HighEarn = 0:1)  
pred_female = cbind(pred_female, predict(logit_female_glm_nodrug, type = "response", pred_female))  
#write.csv(pred_female, "PredictFemaleExtremeNoDrug_withAge.csv")
```

```
extreme_male = male %>%  
  filter(ager >= 30 & ager <= 44) %>%  
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%  
  mutate(Extreme = ifelse(lifprtnr >= 31, 1, 0),  
    Extreme50 = ifelse(lifprtnr >= 50, 1, 0),  
    Edu = ifelse(hieduc >= 12, 1, 0),  
    Intact = ifelse(INTACT18 >= 8, 1, INTACT18),  
    Income = ifelse(!is.na(earn) & earn %in% 13:15, 1, 0),  
    Poverty = ifelse(poverty >= 400, 1, 0)) %>%  
  group_by(HISPRACE2, Edu) %>%  
  summarise(Extreme = survey_mean(Extreme, vartype = "ci"),  
    Extreme50 = survey_mean(Extreme50, vartype = "ci"))
```

```
extreme_female = female %>%  
  filter(ager >= 30 & ager <= 44) %>%  
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%  
  mutate(Extreme = ifelse(lifprtnr >= 31, 1, 0),  
    Extreme50 = ifelse(lifprtnr >= 50, 1, 0),  
    Edu = ifelse(hieduc >= 12, 1, 0),
```

```

    Intact = ifelse(INTACT18 >= 8, 1, INTACT18),
    Income = ifelse(!is.na(earn) & earn %in% 13:15, 1, 0),
    Poverty = ifelse(poverty >= 400, 1, 0)) %>%
group_by(HISPRACE2, Edu) %>%
summarise(Extreme = survey_mean(Extreme, vartype = "ci"),
          Extreme50 = survey_mean(Extreme50, vartype = "ci"))

extreme_male$Sex = "Male"
extreme_female$Sex = "Female"

extreme = dplyr::bind_rows(extreme_male, extreme_female) %>%
  ungroup() %>%
  mutate(`Percent` >= 31` = paste0(formatC(Extreme* 100, format = "f", digits = 1), "%", " (" ,
    formatC(Extreme_low* 100, format = "f", digits = 1), "%",",", " ,
    formatC(Extreme_upp* 100, format = "f", digits = 1), "%",")"),
    `Percent` >= 50` = paste0(formatC(Extreme50 * 100, format = "f", digits = 1), "%", " (" ,
    formatC(Extreme50_low* 100, format = "f", digits = 1), "%",",", " ,
    formatC(Extreme50_upp* 100, format = "f", digits = 1), "%",")"),
    Education = dplyr::recode(Edu, `0` = "No Degree", `1` = "Has Bachelor's"),
    Race = dplyr::recode(HISPRACE2,
      `1` = "Hispanic",
      `2` = "Non-Hispanic White",
      `3` = "Non-Hispanic Black",
      `4` = "Non-Hispanic Other")) %>%
  dplyr::select(Race, Education, Sex, `Percent` >= 31`, `Percent` >= 50`)

male_reg_svy = svydesign(id=~secu,strata=~sest, weights=~WGT2011_2019, data= male %>% filter(ager <= 44)
regress_male = svyglm(lifprtnr ~ VRY1STAG + I(VRY1STAG^2) + VRY1STAG*ager + VRY1STAG:I(ager^2) + ager +

female_reg_svy = svydesign(id=~secu,strata=~sest, weights=~WGT2011_2019, data= female %>% filter(ager <= 44)
regress_female = svyglm(lifprtnr ~ VRY1STAG + I(VRY1STAG^2) + VRY1STAG*ager + VRY1STAG:I(ager^2) + ager +

pred = expand.grid(VRY1STAG = 15:21, ager = 16:40)
res_m = cbind(pred, predict(regress_male, pred)) %>%
  tibble::tibble() %>%
  mutate(AFI = factor(VRY1STAG))
plot_m = ggplot(res_m, aes(x = ager, y = link, color = AFI, group = AFI)) +
  geom_line() + geom_point() + theme_bw() +
  scale_y_continuous(breaks = seq(0, 20, 2), limits = c(-1, NA)) +
  xlab("Age") + ylab("Average Number of Opposite-Sex Partners") +
  ggtitle("Average Number of Opposite-Sex Partners by Age of First Intercourse \n and Age (NSFG 2011-2013)

pred = expand.grid(VRY1STAG = 15:21, ager = 16:40)
res_f = cbind(pred, predict(regress_female, pred)) %>%
  tibble::tibble() %>%
  mutate(AFI = factor(VRY1STAG))
plot_f = ggplot(res_f, aes(x = ager, y = link, color = AFI, group = AFI)) +
  geom_line() + geom_point() + theme_bw() +
  scale_y_continuous(breaks = seq(0, 10, 2), limits = c(-1, NA)) +
  xlab("Age") + ylab("Average Number of Opposite-Sex Partners") +
  ggtitle("Average Number of Opposite-Sex Partners by Age of First Intercourse \n and Age (NSFG 2011-2013)

```



```

comb = dplyr::bind_rows(res_m %>% mutate(Sex = "Male"), res_f %>% mutate(Sex = "Female"))

age_18 = comb %>%
  filter(AFI == 18) %>%
  ggplot(aes(x = ager, y = link, color = Sex, group = Sex)) +
  geom_line() + geom_point() + theme_bw() +
  scale_x_continuous(breaks = seq(16, 44, 4)) +
  scale_y_continuous(breaks = seq(0, 20, 2), limits = c(-1, NA)) +
  xlab("Age") + ylab("Average Number of Opposite-Sex Partners") +
  ggtitle("Average Number of Opposite-Sex Partners by Age \n if Age of First Intercourse is 18 (NSFG 2000-2010)")

age_19 = comb %>%
  filter(AFI == 19) %>%
  ggplot(aes(x = ager, y = link, color = Sex, group = Sex)) +
  geom_line() + geom_point() + theme_bw() +
  scale_x_continuous(breaks = seq(16, 44, 4)) +
  scale_y_continuous(breaks = seq(0, 20, 2), limits = c(-1, NA)) +
  xlab("Age") + ylab("Average Number of Opposite-Sex Partners") +
  ggtitle("Average Number of Opposite-Sex Partners by Age \n if Age of First Intercourse is 19 (NSFG 2000-2010)")

age_20 = comb %>%
  filter(AFI == 20) %>%
  ggplot(aes(x = ager, y = link, color = Sex, group = Sex)) +
  geom_line() + geom_point() + theme_bw() +
  scale_x_continuous(breaks = seq(16, 44, 4)) +
  scale_y_continuous(breaks = seq(0, 20, 2), limits = c(-1, NA)) +
  xlab("Age") + ylab("Average Number of Opposite-Sex Partners") +
  ggtitle("Average Number of Opposite-Sex Partners by Age \n if Age of First Intercourse is 20 (NSFG 2000-2010)")

age_17 = comb %>%
  filter(AFI == 17) %>%
  ggplot(aes(x = ager, y = link, color = Sex, group = Sex)) +
  geom_line() + geom_point() + theme_bw() +
  scale_x_continuous(breaks = seq(16, 44, 4)) +
  scale_y_continuous(breaks = seq(0, 20, 2), limits = c(-1, NA)) +
  xlab("Age") + ylab("Average Number of Opposite-Sex Partners") +
  ggtitle("Average Number of Opposite-Sex Partners by Age \n if Age of First Intercourse is 17 (NSFG 2000-2010)")

bornout_male = male %>%
  filter(ager >= 22 & ager <= 35) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(goschol = ifelse(is.na(goschol), GOSCHOL, goschol),
         brnout = ifelse(is.na(brnout), BRNOUT, brnout),
         brnout = ifelse(brnout >= 8, 5, brnout),
         BornOut = ifelse(brnout == 1, "Yes", "No"),
         eversex = ifelse(is.na(eversex), EVERSEX, eversex),
         goschol = ifelse(goschol == 1, "College", "Not in College"),
         Zero = ifelse(oppyearnum == 0 | is.na(oppyearnum), 1, 0),
         One = ifelse(oppyearnum == 1 & !is.na(oppyearnum), 1, 0),
         Two = ifelse(oppyearnum >= 2 & oppyearnum <= 20 & !is.na(oppyearnum), 1, 0),
         Monog = ifelse(nonmonog==1 & !is.na(nonmonog), 1, 0),
         INTACT18 = ifelse(INTACT18 == 1, "Yes", "No"), Edu = ifelse(hieduc >= 12, 1, 0)) %>%

```

```

group_by(Edu, BornOut, HISPRA2) %>%
summarise(Zero = 100*survey_mean(Zero, vartype = "ci"),
          One = 100*survey_mean(One, vartype = "ci"),
          Two = 100*survey_mean(Two, vartype = "ci"),
          Monog = 100*survey_mean(Monog, vartype = "ci"))
bornout_female = female %>%
  filter(ager >= 22 & ager <= 35) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(goschol = ifelse(is.na(goschol), GOSCHOL, goschol),
         brnout = ifelse(is.na(brnout), BRNOUT, brnout),
         brnout = ifelse(brnout >= 8, 5, brnout),
         BornOut = ifelse(brnout == 1, "Yes", "No"),
         eversex = ifelse(is.na(eversex), EVERSEX, eversex),
         goschol = ifelse(goschol == 1, "College", "Not in College"),
         Zero = ifelse(oppyearnum == 0 | is.na(oppyearnum), 1, 0),
         One = ifelse(oppyearnum == 1 & !is.na(oppyearnum), 1, 0),
         Two = ifelse(oppyearnum >= 2 & oppyearnum <= 20 & !is.na(oppyearnum), 1, 0),
         Monog = ifelse(nonmonog==1 & !is.na(nonmonog), 1, 0),
         INTACT18 = ifelse(INTACT18 == 1, "Yes", "No"), Edu = ifelse(hieduc >= 12, 1, 0)) %>%
  group_by(Edu, BornOut, HISPRA2) %>%
  summarise(Zero = 100*survey_mean(Zero, vartype = "ci"),
            One = 100*survey_mean(One, vartype = "ci"),
            Two = 100*survey_mean(Two, vartype = "ci"),
            Monog = 100*survey_mean(Monog, vartype = "ci"))

```

```

male_young = male %>% filter(ager >= 22 & ager <= 30) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  group_by(lsexprac, HISPRA2) %>%
  summarise(Total = survey_total(),
            Prop = survey_prop())

```

When 'proportion' is unspecified, 'survey_prop()' now defaults to 'proportion = TRUE'.
 ## i This should improve confidence interval coverage.
 ## This message is displayed once per session.

```

female_young = female %>% filter(ager >= 22 & ager <= 30) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  group_by(HISPRA2) %>%
  summarise(Total = survey_total(),
            Prop = survey_prop())

```

```

male_young = male %>% filter(ager >= 18 & ager <= 30) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  group_by(HISPRA2) %>%
  summarise(Total = survey_total(),
            Prop = survey_prop())

```

```

bornout_male2 = male %>%
  filter(ager >= 26 & ager <= 39) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(goschol = ifelse(is.na(goschol), GOSCHOL, goschol),

```

```

    brnout = ifelse(is.na(brnout), BRNOUT, brnout),
    Monog = ifelse(nonmonog==1 & !is.na(nonmonog), 1, 0),
    brnout = ifelse(brnout >= 8, 5, brnout),
    BornOut = ifelse(brnout == 1, "Yes", "No"),
    Edu = ifelse(hieduc >= 13, 1, 0)) %>%
group_by(Edu, BornOut, HISPRACE2) %>%
summarise(Mean = survey_mean(lifprtnr, vartype = "ci"),
          Median = survey_median(lifprtnr, vartype = "ci"),
          Monog = 100*survey_mean(Monog, vartype = "ci"))
bornout_female2 = female %>%
  filter(ager >= 26 & ager <= 39) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(goschol = ifelse(is.na(goschol), GOSCHOL, goschol),
         brnout = ifelse(is.na(brnout), BRNOUT, brnout),
         brnout = ifelse(brnout >= 8, 5, brnout),
         Monog = ifelse(nonmonog==1 & !is.na(nonmonog), 1, 0),
         BornOut = ifelse(brnout == 1, "Yes", "No"),
         Edu = ifelse(hieduc >= 12, 1, 0)) %>%
  group_by(Edu, BornOut, HISPRACE2) %>%
  summarise(Mean = survey_mean(lifprtnr, vartype = "ci"),
            Median = survey_median(lifprtnr, vartype = "ci"),
            Monog = 100*survey_mean(Monog, vartype = "ci"))

```

```

school_male = male %>%
  filter(ager >= 19 & ager <= 23) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(goschol = ifelse(is.na(goschol), GOSCHOL, goschol),
         eversex = ifelse(is.na(eversex), EVERSEX, eversex),
         goschol = ifelse(goschol == 1, "College", "Not in College"),
         Zero = ifelse(oppyearnum == 0 | is.na(oppyearnum), 1, 0),
         One = ifelse(oppyearnum == 1 & !is.na(oppyearnum), 1, 0),
         Two = ifelse(oppyearnum >= 2 & oppyearnum <= 20 & !is.na(oppyearnum), 1, 0),
         Monog = ifelse(nonmonog==1 & !is.na(nonmonog), 1, 0),
         INTACT18 = ifelse(INTACT18 == 1, "Yes", "No")) %>%
  group_by(goschol, INTACT18) %>%
  summarise(Zero = survey_mean(Zero, vartype = "ci"),
            One = survey_mean(One, vartype = "ci"),
            Two = survey_mean(Two, vartype = "ci"),
            Monog = survey_mean(Monog, vartype = "ci"))

school_female = female %>%
  filter(ager >= 19 & ager <= 23) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(goschol = ifelse(is.na(goschol), GOSCHOL, goschol),
         One = ifelse(oppyearnum == 1 & !is.na(oppyearnum), 1, 0),
         goschol = ifelse(goschol == 1, "College", "Not in College"),
         Zero = ifelse(oppyearnum == 0 | is.na(oppyearnum), 1, 0),
         Two = ifelse(oppyearnum >= 2 & oppyearnum <= 20 & !is.na(oppyearnum), 1, 0),
         Monog = ifelse(nonmonog==1 & !is.na(nonmonog), 1, 0),
         INTACT18 = ifelse(INTACT18 == 1, "Yes", "No"),
         oppyearnum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum)) %>%
  group_by(goschol, INTACT18) %>%
  summarise(Zero = survey_mean(Zero, vartype = "ci"),

```

```

    One = survey_mean(One, vartype = "ci"),
    Two = survey_mean(Two, vartype = "ci"),
    Monog = survey_mean(Monog, vartype = "ci"))

school_male$Sex = "Male"
school_female$Sex = "Female"
school = dplyr::bind_rows(school_male, school_female) %>%
  ungroup() %>%
  mutate(`Percent = 0` = paste0(formatC(Zero* 100, format = "f", digits = 0), "%", " (" ,
    formatC(Zero_low* 100, format = "f", digits = 0), "%",",", " ",
    formatC(Zero_upp* 100, format = "f", digits = 0), "%",",")"),
    `Percent = 1` = paste0(formatC(One* 100, format = "f", digits = 0), "%", " (" ,
    formatC(One_low* 100, format = "f", digits = 0), "%",",", " ",
    formatC(One_upp* 100, format = "f", digits = 0), "%",",")"),
    `Percent >= 2` = paste0(formatC(Two* 100, format = "f", digits = 0), "%", " (" ,
    formatC(Two_low* 100, format = "f", digits = 0), "%",",", " ",
    formatC(Two_upp* 100, format = "f", digits = 0), "%",",")"),
    `Non-monogamous` = paste0(formatC(Monog* 100, format = "f", digits = 0), "%", " (" ,
    formatC(Monog_low* 100, format = "f", digits = 0), "%",",", " ",
    formatC(Monog_upp* 100, format = "f", digits = 0), "%",",")"),
    Intact = INTACT18,
    School = goschol) %>%
  dplyr::select(School, Intact, Sex, `Percent = 0`, `Percent = 1`, `Percent >= 2`, `Non-monogamous`)

```

```

prepare_male = male %>%
  filter(ager >= 18 & !is.na(VRY1STAG)) %>%
  mutate(oppyearnum = ifelse(oppyearnum >= 997, 1, oppyearnum),
    intctfam = ifelse(intctfam >= 8, 2, intctfam),
    nonmonog = ifelse(is.na(nonmonog) | nonmonog %in% c(7:9), 5, nonmonog),
    nonmonog = ifelse(nonmonog == 5, 1, 0),
    sexfreq = ifelse(is.na(sexfreq) | sexfreq >= 100, 1, sexfreq),
    earn = ifelse(is.na(earn) | earn >= 97, 10, earn),
    hieduc = ifelse(hieduc >= 3 & hieduc <= 8, 0, hieduc - 8),
    hieduc = ifelse(hieduc >= 3, 5, hieduc),
    genhealt = ifelse(genhealt >= 7, 4, genhealt),
    JAILED2 = ifelse(is.na(JAILED2) | JAILED2 >= 7, 5, JAILED2),
    JAILED2 = ifelse(JAILED2 == 5, 0, 1),
    dateapp = ifelse(dateapp >= 7, 5, dateapp),
    samesex = ifelse(samesex %in% c(8:9), 5, samesex),
    samesexany = ifelse(is.na(samesexany) | samesexany >= 6, 5, samesexany),
    casual = ifelse(nonmonog == 1 & dateapp == 1, 1, 0),
    attract = ifelse(attract >= 6, 1, attract))

```

```

model_male = lm(lifprtnr ~ VRY1STAG + I(VRY1STAG^2) + ager + I(ager^2) + factor(intctfam) + factor(Year)

```

```

prepare_female = female %>%
  filter(ager >= 20 & !is.na(VRY1STAG)) %>%
  mutate(oppyearnum = ifelse(oppyearnum >= 997, 1, oppyearnum),
    intctfam = ifelse(intctfam >= 8, 2, intctfam),
    nonmonog = ifelse(is.na(nonmonog) | nonmonog %in% c(7:9), 5, nonmonog),
    nonmonog = ifelse(nonmonog == 5, 1, 0),
    earn = ifelse(is.na(earn) | earn >= 97, 10, earn),

```

```

    hieduc = ifelse(hieduc >= 3 & hieduc <= 8, 0, hieduc - 8),
    hieduc = ifelse(hieduc >= 3, 5, hieduc),
    genhealt = ifelse(genhealt >= 7, 4, genhealt),
    dateapp = ifelse(dateapp >= 7, 5, dateapp),
    samesex = ifelse(samesex %in% c(8:9), 5, samesex),
    samesexany = ifelse(is.na(samesexany) | samesexany >= 6, 5, samesexany),
    casual = ifelse(nonmonog == 1 & dateapp == 1, 1, 0),
    attract = ifelse(attract >= 6, 1, attract))

model_female = lm(lifprtnr ~ VRY1STAG + I(VRY1STAG^2) + ager + I(ager^2) + factor(intctfam) + factor(Ye

model_male_year = lm(oppyearnum ~ VRY1STAG + I(VRY1STAG^2) + ager + I(ager^2) + factor(intctfam) + facto

model_female_year = lm(oppyearnum ~ VRY1STAG + I(VRY1STAG^2) + ager + I(ager^2) + factor(intctfam) + fa

okay = female%>%
  filter(ager >= 25 & ager <= 44) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  group_by(attract, lifprtnr) %>%
  summarise(Prop = survey_quantile(lifprtnr, c(0.25,0.5,0.75,0.90)))

male_overall = male %>%
  filter(ager >= 25 & ager <= 44) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
         Monog = ifelse(nonmonog == 1, 1, 0),
         Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
  group_by(Year) %>%
  summarise(LifeMean = survey_mean(lifprtnr, vartype = "ci"),
            YearMean = survey_mean(YearNum, vartype = "ci"),
            Prop2 = survey_mean(Single, vartype = "ci"),
            Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

female_overall = female %>%
  filter(ager >= 25 & ager <= 44) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
         Monog = ifelse(nonmonog == 1, 1, 0),
         Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
  group_by(Year) %>%
  summarise(LifeMean = survey_mean(lifprtnr, vartype = "ci"),
            YearMean = survey_mean(YearNum, vartype = "ci"),
            Prop2 = survey_mean(Single, vartype = "ci"),
            Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

male_overall$Sex = "Male"
female_overall$Sex = "Female"
overall = dplyr::bind_rows(male_overall, female_overall) %>%
  mutate(LifeMean = paste0(formatC(LifeMean, format = "f", digits = 2), " (",
                                formatC(LifeMean_low, format = "f", digits = 2), ", ",
                                formatC(LifeMean_upp, format = "f", digits = 2), ")"),

```

```

YearMean = paste0(formatC(YearMean, format = "f", digits = 2), " (",
  formatC(YearMean_low, format = "f", digits = 2), ", ",
  formatC(YearMean_upp, format = "f", digits = 2), ")"),
`Percent >= 2` = paste0(formatC(Prop2 * 100, format = "f", digits = 1), "% (",
  formatC(Prop2_low * 100, format = "f", digits = 1), "%, ",
  formatC(Prop2_upp * 100, format = "f", digits = 1), "%)"),
`Non-monogamous` = paste0(formatC(Monog * 100, format = "f", digits = 1), "% (",
  formatC(Monog_low * 100, format = "f", digits = 1), "%, ",
  formatC(Monog_upp * 100, format = "f", digits = 1), "%)")) %>%
dplyr::select(Year, Sex, LifeMean, YearMean, `Percent >= 2`, `Non-monogamous`)

male_young = male %>%
  filter(ager >= 18 & ager <= 34) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
    Monog = ifelse(nonmonog == 1, 1, 0),
    Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0),
    Extra = ifelse(!is.na(oppyearnum) & oppyearnum >= 3 & oppyearnum < 50, 1, 0)) %>%
  group_by(Year) %>%
  summarise(YearMean = survey_mean(YearNum, vartype = "ci"),
    Prop2 = survey_mean(Single, vartype = "ci"),
    Prop5 = survey_mean(Extra, vartype = "ci"),
    Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

female_young = female %>%
  filter(ager >= 18 & ager <= 34) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
    Monog = ifelse(nonmonog == 1, 1, 0),
    Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0),
    Extra = ifelse(!is.na(oppyearnum) & oppyearnum >= 3 & oppyearnum < 50, 1, 0)) %>%
  group_by(Year) %>%
  summarise(YearMean = survey_mean(YearNum, vartype = "ci"),
    Prop2 = survey_mean(Single, vartype = "ci"),
    Prop5 = survey_mean(Extra, vartype = "ci"),
    Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

male_young$Sex = "Male"
female_young$Sex = "Female"
young = dplyr::bind_rows(male_young, female_young) %>%
  mutate(YearMean = paste0(formatC(YearMean, format = "f", digits = 2), " (",
    formatC(YearMean_low, format = "f", digits = 2), ", ",
    formatC(YearMean_upp, format = "f", digits = 2), ")"),
    `Percent >= 2` = paste0(formatC(Prop2 * 100, format = "f", digits = 0), "% (",
    formatC(Prop2_low * 100, format = "f", digits = 0), "%, ",
    formatC(Prop2_upp * 100, format = "f", digits = 0), "%)"),
    `Percent >= 3` = paste0(formatC(Prop5 * 100, format = "f", digits = 1), "% (",
    formatC(Prop5_low * 100, format = "f", digits = 1), "%, ",
    formatC(Prop5_upp * 100, format = "f", digits = 1), "%)"),
    `Non-monogamous` = paste0(formatC(Monog * 100, format = "f", digits = 1), "% (",
    formatC(Monog_low * 100, format = "f", digits = 1), "%, ",
    formatC(Monog_upp * 100, format = "f", digits = 1), "%)")) %>%
  dplyr::select(Year, Sex, YearMean, `Percent >= 2`, `Percent >= 3`, `Non-monogamous`)

```



```

male_intact = male %>%
  filter(ager >= 18 & ager <= 34) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
         Monog = ifelse(!is.na(oppyearnum) & oppyearnum == 1, 1, 0),
         Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0),
         Extra = ifelse(!is.na(oppyearnum) & oppyearnum >= 3 & oppyearnum < 50, 1, 0)) %>%
  group_by(intctfam) %>%
  summarise(YearMean = survey_mean(YearNum, vartype = "ci"),
            Prop2 = survey_mean(Single, vartype = "ci"),
            Prop5 = survey_mean(Extra, vartype = "ci"),
            Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

female_intact = female %>%
  filter(ager >= 18 & ager <= 34) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
         Monog = ifelse(!is.na(oppyearnum) & oppyearnum == 1, 1, 0),
         Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0),
         Extra = ifelse(!is.na(oppyearnum) & oppyearnum >= 3 & oppyearnum < 50, 1, 0)) %>%
  group_by(intctfam) %>%
  summarise(YearMean = survey_mean(YearNum, vartype = "ci"),
            Prop2 = survey_mean(Single, vartype = "ci"),
            Prop5 = survey_mean(Extra, vartype = "ci"),
            Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

male_intact$Sex = "Male"
female_intact$Sex = "Female"
intact = dplyr::bind_rows(male_intact, female_intact) %>%
  mutate(Intact = dplyr::recode(intctfam, `1` = "Intact", `2` = "Not Intact"),
         YearMean = paste0(formatC(YearMean, format = "f", digits = 2), " (",
                                formatC(YearMean_low, format = "f", digits = 2), ", ",
                                formatC(YearMean_upp, format = "f", digits = 2), ")"),
         `Percent >= 2` = paste0(formatC(Prop2 * 100, format = "f", digits = 0), "% (",
                                formatC(Prop2_low * 100, format = "f", digits = 0), "%, ",
                                formatC(Prop2_upp * 100, format = "f", digits = 0), "%)"),
         `Percent >= 3` = paste0(formatC(Prop5 * 100, format = "f", digits = 1), "% (",
                                formatC(Prop5_low * 100, format = "f", digits = 1), "%, ",
                                formatC(Prop5_upp * 100, format = "f", digits = 1), "%)"),
         `Percent = 1` = paste0(formatC(Monog * 100, format = "f", digits = 1), "% (",
                                formatC(Monog_low * 100, format = "f", digits = 1), "%, ",
                                formatC(Monog_upp * 100, format = "f", digits = 1), "%)")) %>%
  dplyr::select(Intact, Sex, YearMean, `Percent = 1`, `Percent >= 2`, `Percent >= 3`)

```

```

male_race = male %>%
  filter(ager >= 18 & ager <= 34) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
         Monog = ifelse(!is.na(oppyearnum) & oppyearnum == 1, 1, 0),
         Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0),
         Extra = ifelse(!is.na(oppyearnum) & oppyearnum >= 3 & oppyearnum < 50, 1, 0)) %>%
  group_by(HISPRACE2) %>%
  summarise(YearMean = survey_mean(YearNum, vartype = "ci"),

```

```

    Prop2 = survey_mean(Single, vartype = "ci"),
    Prop5 = survey_mean(Extra, vartype = "ci"),
    Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

female_race = female %>%
  filter(ager >= 18 & ager <= 34) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
    Monog = ifelse(!is.na(oppyearnum) & oppyearnum == 1, 1, 0),
    Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0),
    Extra = ifelse(!is.na(oppyearnum) & oppyearnum >= 3 & oppyearnum < 50, 1, 0)) %>%
  group_by(HISPRACE2) %>%
  summarise(YearMean = survey_mean(YearNum, vartype = "ci"),
    Prop2 = survey_mean(Single, vartype = "ci"),
    Prop5 = survey_mean(Extra, vartype = "ci"),
    Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

male_race$Sex = "Male"
female_race$Sex = "Female"
race = dplyr::bind_rows(male_race, female_race) %>%
  mutate(Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"),
    YearMean = paste0(formatC(YearMean, format = "f", digits = 2), " (",
      formatC(YearMean_low, format = "f", digits = 2), ", ",
      formatC(YearMean_upp, format = "f", digits = 2), ")"),
    `Percent >= 2` = paste0(formatC(Prop2 * 100, format = "f", digits = 0), "% (",
      formatC(Prop2_low * 100, format = "f", digits = 0), "%, ",
      formatC(Prop2_upp * 100, format = "f", digits = 0), "%)"),
    `Percent >= 3` = paste0(formatC(Prop5 * 100, format = "f", digits = 1), "% (",
      formatC(Prop5_low * 100, format = "f", digits = 1), "%, ",
      formatC(Prop5_upp * 100, format = "f", digits = 1), "%)"),
    `Percent = 1` = paste0(formatC(Monog * 100, format = "f", digits = 1), "% (",
      formatC(Monog_low * 100, format = "f", digits = 1), "%, ",
      formatC(Monog_upp * 100, format = "f", digits = 1), "%)")) %>%
  dplyr::select(Race, Sex, YearMean, `Percent = 1`, `Percent >= 2`, `Percent >= 3`)

```

```

male_overall_race = male %>%
  filter(ager >= 25 & ager <= 44) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"), YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
    Monog = ifelse(nonmonog == 1, 1, 0),
    Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
  group_by(Year, Race) %>%
  summarise(LifeMean = survey_mean(lifprtnr, vartype = "ci"),
    YearMean = survey_mean(YearNum, vartype = "ci"),
    Prop2 = survey_mean(Single, vartype = "ci"),

```



```

    Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

female_overall_race = female %>%
  filter(ager >= 25 & ager <= 44) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"), YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
    Monog = ifelse(nonmonog == 1, 1, 0),
    Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
  group_by(Year, Race) %>%
  summarise(LifeMean = survey_mean(lifprtnr, vartype = "ci"),
    YearMean = survey_mean(YearNum, vartype = "ci"),
    Prop2 = survey_mean(Single, vartype = "ci"),
    Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

male_overall_race$Sex = "Male"
female_overall_race$Sex = "Female"
overall_race = dplyr::bind_rows(male_overall_race, female_overall_race) %>%
  mutate(LifeMean = paste0(formatC(LifeMean, format = "f", digits = 2), " (",
    formatC(LifeMean_low, format = "f", digits = 2), ", ",
    formatC(LifeMean_upp, format = "f", digits = 2), ")"),
    YearMean = paste0(formatC(YearMean, format = "f", digits = 2), " (",
    formatC(YearMean_low, format = "f", digits = 2), ", ",
    formatC(YearMean_upp, format = "f", digits = 2), ")"),
    `Percent >= 2` = paste0(formatC(Prop2 * 100, format = "f", digits = 1), "% (",
    formatC(Prop2_low * 100, format = "f", digits = 1), "%, ",
    formatC(Prop2_upp * 100, format = "f", digits = 1), "%)"),
    `Non-monogamous` = paste0(formatC(Monog * 100, format = "f", digits = 1), "% (",
    formatC(Monog_low * 100, format = "f", digits = 1), "%, ",
    formatC(Monog_upp * 100, format = "f", digits = 1), "%)")) %>%
  dplyr::select(Year, Race, Sex, LifeMean, YearMean, `Percent >= 2`)

```

```

male_edu_race = male %>%
  filter(ager >= 25 & ager <= 44) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"),
    Edu = dplyr::recode(hieduc,
    `5` = "1.Less than HS",
    `6` = "1.Less than HS",
    `7` = "1.Less than HS",
    `8` = "1.Less than HS",
    `9` = "2.HS Graduate",
    `10` = "2.HS Graduate",
    `11` = "2.HS Graduate",
    `12` = "3.Bachelor's Degree",
    `13` = "3.Bachelor's Degree",

```

```

`14` = "3.Bachelor's Degree",
`15` = "3.Bachelor's Degree"),
YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
  Monog = ifelse(nonmonog == 1, 1, 0),
  Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
group_by(Edu, Race) %>%
summarise(LifeMean = survey_mean(lifprtnr, vartype = "ci"),
  YearMean = survey_mean(YearNum, vartype = "ci"),
  Prop2 = survey_mean(Single, vartype = "ci"),
  Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

female_edu_race = female %>%
  filter(ager >= 25 & ager <= 44) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"),
    Edu = dplyr::recode(hieduc,
    `5` = "1.Less than HS",
    `6` = "1.Less than HS",
    `7` = "1.Less than HS",
    `8` = "1.Less than HS",
    `9` = "2.HS Graduate",
    `10` = "2.HS Graduate",
    `11` = "2.HS Graduate",
    `12` = "3.Bachelor's Degree",
    `13` = "3.Bachelor's Degree",
    `14` = "3.Bachelor's Degree",
    `15` = "3.Bachelor's Degree"),
    YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
    Monog = ifelse(nonmonog == 1, 1, 0),
    Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
  group_by(Edu, Race) %>%
  summarise(LifeMean = survey_mean(lifprtnr, vartype = "ci"),
    YearMean = survey_mean(YearNum, vartype = "ci"),
    Prop2 = survey_mean(Single, vartype = "ci"),
    Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

male_edu_race$Sex = "Male"
female_edu_race$Sex = "Female"
edu_race = dplyr::bind_rows(male_edu_race, female_edu_race) %>%
  mutate(LifeMean = paste0(formatC(LifeMean, format = "f", digits = 2), " (",
    formatC(LifeMean_low, format = "f", digits = 2), ", ",
    formatC(LifeMean_upp, format = "f", digits = 2), ")"),
    YearMean = paste0(formatC(YearMean, format = "f", digits = 2), " (",
    formatC(YearMean_low, format = "f", digits = 2), ", ",
    formatC(YearMean_upp, format = "f", digits = 2), ")"),
    `Percent >= 2` = paste0(formatC(Prop2 * 100, format = "f", digits = 1), "% (",
    formatC(Prop2_low * 100, format = "f", digits = 1), "%, ",
    formatC(Prop2_upp * 100, format = "f", digits = 1), "%)")) %>%
  dplyr::select(Edu, Race, Sex, LifeMean, YearMean, `Percent >= 2`)

```

```

male_income_race = male %>%
  filter(ager >= 25 & ager <= 44) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"),
    Income = dplyr::case_when(
      poverty < 150 ~ "0-150%",
      poverty < 400 ~ "150-400%",
      poverty < 701 ~ "400+"
    ),
    YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
    Monog = ifelse(nonmonog == 1, 1, 0),
    Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
  group_by(Income, Race) %>%
  summarise(LifeMean = survey_mean(lifprtnr, vartype = "ci"),
    YearMean = survey_mean(YearNum, vartype = "ci"),
    Prop2 = survey_mean(Single, vartype = "ci"),
    Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

female_income_race = female %>%
  filter(ager >= 25 & ager <= 44) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"),
    Income = dplyr::case_when(
      poverty < 150 ~ "0-150%",
      poverty < 400 ~ "150-400%",
      poverty < 701 ~ "400+"
    ),
    YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
    Monog = ifelse(nonmonog == 1, 1, 0),
    Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
  group_by(Income, Race) %>%
  summarise(LifeMean = survey_mean(lifprtnr, vartype = "ci"),
    YearMean = survey_mean(YearNum, vartype = "ci"),
    Prop2 = survey_mean(Single, vartype = "ci"),
    Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

male_income_race$Sex = "Male"
female_income_race$Sex = "Female"
income_race = dplyr::bind_rows(male_income_race, female_income_race) %>%
  mutate(LifeMean = paste0(formatC(LifeMean, format = "f", digits = 2), " (",
    formatC(LifeMean_low, format = "f", digits = 2), ", ",
    formatC(LifeMean_upp, format = "f", digits = 2), ")"),
    YearMean = paste0(formatC(YearMean, format = "f", digits = 2), " (",
    formatC(YearMean_low, format = "f", digits = 2), ", ",
    formatC(YearMean_upp, format = "f", digits = 2), ")"),

```

```

`Percent` >= 2` = paste0(formatC(Prop2 * 100, format = "f", digits = 1), "% (",
                           formatC(Prop2_low * 100, format = "f", digits = 1), "%, ",
                           formatC(Prop2_upp * 100, format = "f", digits = 1), "%)") %>%
dplyr::select(Income, Race, Sex, LifeMean, YearMean, `Percent` >= 2`)

```

```

male_income_intact = male %>%
  filter(ager >= 25 & ager <= 44) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"),
    Income = dplyr::case_when(
      poverty < 150 ~ "0-150%",
      poverty < 300 ~ "150-300%",
      poverty < 500 ~ "300-500%",
      poverty < 701 ~ "500+"
    ),
    YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
    Monog = ifelse(nonmonog == 1, 1, 0),
    Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
  group_by(Income, intctfam) %>%
  summarise(LifeMean = survey_mean(lifprtnr, vartype = "ci"),
    YearMean = survey_mean(YearNum, vartype = "ci"),
    Prop2 = survey_mean(Single, vartype = "ci"),
    Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

female_income_intact = female %>%
  filter(ager >= 25 & ager <= 44) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"),
    Income = dplyr::case_when(
      poverty < 150 ~ "0-150%",
      poverty < 300 ~ "150-300%",
      poverty < 500 ~ "300-500%",
      poverty < 701 ~ "500+"
    ),
    YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
    Monog = ifelse(nonmonog == 1, 1, 0),
    Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
  group_by(Income, intctfam) %>%
  summarise(LifeMean = survey_mean(lifprtnr, vartype = "ci"),
    YearMean = survey_mean(YearNum, vartype = "ci"),
    Prop2 = survey_mean(Single, vartype = "ci"),
    Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

male_income_intact$Sex = "Male"
female_income_intact$Sex = "Female"

```

```

income_intact = dplyr::bind_rows(male_income_intact, female_income_intact) %>%
  mutate(Intact = dplyr::recode(intctfam, `1` = "Intact", `2` = "Not Intact"),
    LifeMean = paste0(formatC(LifeMean, format = "f", digits = 2), " (",
      formatC(LifeMean_low, format = "f", digits = 2), ", ",
      formatC(LifeMean_upp, format = "f", digits = 2), ")"),
    YearMean = paste0(formatC(YearMean, format = "f", digits = 2), " (",
      formatC(YearMean_low, format = "f", digits = 2), ", ",
      formatC(YearMean_upp, format = "f", digits = 2), ")"),
    `Percent >= 2` = paste0(formatC(Prop2 * 100, format = "f", digits = 1), "% (",
      formatC(Prop2_low * 100, format = "f", digits = 1), "%, ",
      formatC(Prop2_upp * 100, format = "f", digits = 1), "%)")) %>%
  dplyr::select(Income, Intact, Sex, LifeMean, YearMean, `Percent >= 2`)

```

```

male_income_intact_young = male %>%
  filter(ager >= 18 & ager <= 34) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"),
    Income = dplyr::case_when(
      poverty < 150 ~ "0-150%",
      poverty < 300 ~ "150-300%",
      poverty < 500 ~ "300-500%",
      poverty < 701 ~ "500+"
    ),
    YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
    Monog = ifelse(!is.na(oppyearnum) & oppyearnum == 1, 1, 0),
    Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
  group_by(Income, intctfam) %>%
  summarise(YearMean = survey_mean(YearNum, vartype = "ci"),
    Prop2 = survey_mean(Single, vartype = "ci"),
    Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

```

```

female_income_intact_young = female %>%
  filter(ager >= 18 & ager <= 34) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"),
    Income = dplyr::case_when(
      poverty < 150 ~ "0-150%",
      poverty < 300 ~ "150-300%",
      poverty < 500 ~ "300-500%",
      poverty < 701 ~ "500+"
    ),
    YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
    Monog = ifelse(!is.na(oppyearnum) & oppyearnum == 1, 1, 0),
    Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
  group_by(Income, intctfam) %>%

```

```

    summarise(YearMean = survey_mean(YearNum, vartype = "ci"),
              Prop2 = survey_mean(Single, vartype = "ci"),
              Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

male_income_intact_young$Sex = "Male"
female_income_intact_young$Sex = "Female"
income_intact_young = dplyr::bind_rows(male_income_intact_young, female_income_intact_young) %>%
  mutate(Intact = dplyr::recode(intctfam, `1` = "Intact", `2` = "Not Intact"),
         YearMean = paste0(formatC(YearMean, format = "f", digits = 2), " (",
                               formatC(YearMean_low, format = "f", digits = 2), ", ",
                               formatC(YearMean_upp, format = "f", digits = 2), ")"),
         `Percent >= 2` = paste0(formatC(Prop2 * 100, format = "f", digits = 1), "% (",
                               formatC(Prop2_low * 100, format = "f", digits = 1), "%, ",
                               formatC(Prop2_upp * 100, format = "f", digits = 1), "%)"),
         `Percent = 1` = paste0(formatC(Monog * 100, format = "f", digits = 1), "% (",
                               formatC(Monog_low * 100, format = "f", digits = 1), "%, ",
                               formatC(Monog_upp * 100, format = "f", digits = 1), "%)")) %>%
  dplyr::select(Income, Intact, Sex, YearMean, `Percent = 1`, `Percent >= 2`)

```

```

male_income_young = male %>%
  filter(ager >= 18 & ager <= 34) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"),
    Income = dplyr::case_when(
      poverty < 100 ~ "0-100%",
      poverty < 200 ~ "100-200%",
      poverty < 300 ~ "200-300%",
      poverty < 500 ~ "300-500%",
      poverty < 701 ~ "500+"
    ),
    YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
    Monog = ifelse(!is.na(oppyearnum) & oppyearnum == 1, 1, 0),
    Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
  group_by(Income) %>%
  summarise(YearMean = survey_mean(YearNum, vartype = "ci"),
            Prop2 = survey_mean(Single, vartype = "ci"),
            Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

female_income_young = female %>%
  filter(ager >= 18 & ager <= 34) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  mutate(Race = dplyr::recode(HISPRACE2,
    `1` = "Hispanic",
    `2` = "Non-Hispanic White",
    `3` = "Non-Hispanic Black",
    `4` = "Non-Hispanic Other"),
    Income = dplyr::case_when(
      poverty < 100 ~ "0-100%",
      poverty < 200 ~ "100-200%",

```

```

    poverty < 300 ~ "200-300%",
    poverty < 500 ~ "300-500%",
    poverty < 701 ~ "500+%"
  ),
  YearNum = ifelse(is.na(oppyearnum) | oppyearnum >= 997, 0, oppyearnum),
  Monog = ifelse(!is.na(oppyearnum) & oppyearnum == 1, 1, 0),
  Single = ifelse(!is.na(oppyearnum) & oppyearnum >= 2 & oppyearnum < 50, 1, 0)) %>%
  group_by(Income) %>%
  summarise(YearMean = survey_mean(YearNum, vartype = "ci"),
    Prop2 = survey_mean(Single, vartype = "ci"),
    Monog = survey_mean(Monog, vartype = "ci", na.rm = TRUE))

male_income_young$Sex = "Male"
female_income_young$Sex = "Female"
income_young = dplyr::bind_rows(male_income_young, female_income_young) %>%
  mutate(YearMean = paste0(formatC(YearMean, format = "f", digits = 2), " (",
    formatC(YearMean_low, format = "f", digits = 2), ", ",
    formatC(YearMean_upp, format = "f", digits = 2), ")"),
    `Percent >= 2` = paste0(formatC(Prop2 * 100, format = "f", digits = 1), "% (",
    formatC(Prop2_low * 100, format = "f", digits = 1), "%, ",
    formatC(Prop2_upp * 100, format = "f", digits = 1), "%)"),
    `Percent = 1` = paste0(formatC(Monog * 100, format = "f", digits = 1), "% (",
    formatC(Monog_low * 100, format = "f", digits = 1), "%, ",
    formatC(Monog_upp * 100, format = "f", digits = 1), "%)")) %>%
  dplyr::select(Income, Sex, YearMean, `Percent = 1`, `Percent >= 2`)

```

```

prop_by_edu_male = male %>%
  filter(ager >= 30 & ager <= 44) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  dplyr::mutate(Edu = ifelse(hieduc >= 12, 1, 0),
    Income = ifelse(earn %in% c(14:15), 1, 0),
    intctfam = ifelse(intctfam >= 8, 2, intctfam),
    Prop1 = ifelse(lifprtnr == 1, 1, 0),
    Prop2 = ifelse(lifprtnr >= 2 & lifprtnr <= 4, 1, 0),
    Prop11 = ifelse(lifprtnr >= 11 & lifprtnr <= 20, 1, 0),
    Prop21 = ifelse(lifprtnr >= 21, 1, 0)) %>%
  group_by(Edu, intctfam) %>%
  summarise(Prop1 = survey_mean(Prop1, vartype = "ci"),
    Prop2 = survey_mean(Prop2, vartype = "ci"),
    Prop11 = survey_mean(Prop11, vartype = "ci"),
    Prop21 = survey_mean(Prop21, vartype = "ci"))

```

```

prop_by_edu_female = female %>%
  filter(ager >= 30 & ager <= 44) %>%
  as_survey_design(ids = secu, strata = sest, weights = WGT2011_2019, nest = TRUE) %>%
  dplyr::mutate(Edu = ifelse(hieduc >= 12, 1, 0),
    Income = ifelse(earn %in% c(14:15), 1, 0),
    intctfam = ifelse(intctfam >= 8, 2, intctfam),
    Prop1 = ifelse(lifprtnr == 1, 1, 0),
    Prop2 = ifelse(lifprtnr >= 2 & lifprtnr <= 4, 1, 0),
    Prop11 = ifelse(lifprtnr >= 11 & lifprtnr <= 20, 1, 0),
    Prop21 = ifelse(lifprtnr >= 21, 1, 0)) %>%

```



```

group_by(Edu, intctfam) %>%
  summarise(Prop1 = survey_mean(Prop1, vartype = "ci"),
            Prop2 = survey_mean(Prop2, vartype = "ci"),
            Prop11 = survey_mean(Prop11, vartype = "ci"),
            Prop21 = survey_mean(Prop21, vartype = "ci"))

prop_by_edu_male$Sex = "Male"
prop_by_edu_female$Sex = "Female"
prop_by_edu = dplyr::bind_rows(prop_by_edu_male, prop_by_edu_female) %>%
  ungroup() %>%
  mutate(Intact = dplyr::recode(intctfam,
                                `1` = "Yes", `2` = "No"),
         Education = dplyr::recode(Edu, `0` = "No Degree", `1` = "Has Bachelor's"),
         `Percent = 1` = paste0(formatC(Prop1* 100, format = "f", digits = 0), "%", " (" ,
                                       formatC(Prop1_low* 100, format = "f", digits = 0), "%",",", " ",
                                       formatC(Prop1_upp* 100, format = "f", digits = 0), "%",",")"),
         `Percent 2-5` = paste0(formatC(Prop2* 100, format = "f", digits = 0), "%", " (" ,
                                       formatC(Prop2_low* 100, format = "f", digits = 0), "%",",", " ",
                                       formatC(Prop2_upp* 100, format = "f", digits = 0), "%",",")"),
         `Percent 11-20` = paste0(formatC(Prop11* 100, format = "f", digits = 0), "%", " (" ,
                                       formatC(Prop11_low* 100, format = "f", digits = 0), "%",",", " ",
                                       formatC(Prop11_upp* 100, format = "f", digits = 0), "%",",")"),
         `Percent >= 21` = paste0(formatC(Prop21* 100, format = "f", digits = 0), "%", " (" ,
                                       formatC(Prop21_low* 100, format = "f", digits = 0), "%",",", " ",
                                       formatC(Prop21_upp* 100, format = "f", digits = 0), "%",",")")) %>%
  dplyr::select(Education, Intact, Sex, `Percent = 1`, `Percent 2-5`,
                `Percent 11-20`, `Percent >= 21`)

```


Table 1: Lifetime Number of Opposite-Sex Partners, Number of Opposite-Sex Partners Past Year, Percent Having 2 Or More Opposite-Sex Partners Past Year, Percent Having Non-Monogamous Sex Past Year by Year of Survey Age 25-44 (NSFG 2011-2019)

Year	Sex	LifeMean	YearMean	Percent ≥ 2	Non-monogamous
2011-2013	Male	12.23 (11.37, 13.09)	1.30 (1.21, 1.38)	14.1% (12.3%, 16.0%)	8.4% (6.8%, 10.0%)
2013-2015	Male	11.89 (11.16, 12.61)	1.27 (1.17, 1.36)	13.8% (12.1%, 15.5%)	8.4% (7.1%, 9.7%)
2015-2017	Male	11.82 (10.91, 12.73)	1.25 (1.17, 1.33)	13.9% (12.3%, 15.6%)	10.6% (8.7%, 12.5%)
2017-2019	Male	10.56 (9.83, 11.29)	1.26 (1.16, 1.36)	13.7% (12.2%, 15.1%)	8.8% (7.5%, 10.0%)
2011-2013	Female	6.98 (6.51, 7.44)	1.10 (1.06, 1.13)	11.0% (9.3%, 12.8%)	8.7% (7.4%, 10.1%)
2013-2015	Female	6.82 (6.36, 7.29)	1.09 (1.06, 1.12)	10.7% (9.4%, 11.9%)	7.9% (6.7%, 9.1%)
2015-2017	Female	6.71 (6.22, 7.19)	1.12 (1.06, 1.17)	11.3% (9.8%, 12.9%)	8.7% (7.0%, 10.3%)
2017-2019	Female	7.23 (6.75, 7.70)	1.08 (1.03, 1.13)	10.1% (8.8%, 11.4%)	8.2% (6.8%, 9.5%)

```
knitr::kable(overall, caption = "Lifetime Number of Opposite-Sex Partners, Number of Opposite-Sex Partners Past Year, Percent Having 2 Or More Opposite-Sex Partners Past Year, Percent Having Non-Monogamous Sex Past Year by Year of Survey Age 25-44 (NSFG 2011-2019)")
```

Table 2: Average Number of Opposite-Sex Partners Past Year, Percent Having 2+ or 3+ Opposite-Sex Partners Past Year, Percent Having Non-Monogamous Sex Past Year by Year of Survey Age 18-34 (NSFG 2011-2019)

Year	Sex	YearMean	Percent ≥ 2	Percent ≥ 3	Non-monogamous
2011-2013	Male	1.49 (1.39, 1.60)	22% (20%, 24%)	13.1% (11.6%, 14.7%)	13.0% (10.9%, 15.1%)
2013-2015	Male	1.47 (1.34, 1.60)	24% (21%, 26%)	12.2% (10.2%, 14.2%)	14.7% (12.4%, 16.9%)
2015-2017	Male	1.40 (1.31, 1.48)	23% (20%, 25%)	12.1% (10.1%, 14.0%)	17.2% (14.4%, 19.9%)
2017-2019	Male	1.32 (1.20, 1.45)	20% (18%, 22%)	10.3% (8.6%, 12.0%)	13.3% (11.2%, 15.3%)
2011-2013	Female	1.25 (1.18, 1.32)	18% (16%, 20%)	8.2% (6.7%, 9.6%)	13.1% (11.1%, 15.2%)
2013-2015	Female	1.21 (1.16, 1.25)	18% (16%, 20%)	7.8% (6.6%, 8.9%)	11.0% (9.8%, 12.3%)
2015-2017	Female	1.28 (1.22, 1.35)	20% (18%, 22%)	8.8% (7.4%, 10.1%)	13.8% (11.5%, 16.1%)
2017-2019	Female	1.19 (1.12, 1.27)	17% (15%, 19%)	8.5% (6.8%, 10.2%)	12.9% (10.8%, 15.0%)

```
knitr::kable(young, caption = "Average Number of Opposite-Sex Partners Past Year, Percent Having 2+ or 3+ Opposite-Sex Partners Past Year, Percent Having Non-Monogamous Sex Past Year by Year of Survey Age 18-34 (NSFG 2011-2019)")
```

Table 3: Average Number of Opposite-Sex Partners Past Year, Percent Having 1, 2+, or 3+ Opposite-Sex Partners Past Year by Whether Grew Up with Married Family (Intact Family) Age 18-34 (NSFG 2011-2019)

Intact	Sex	YearMean	Percent = 1	Percent >= 2	Percent >= 3
Intact	Male	1.29 (1.24, 1.35)	60.2% (58.1%, 62.2%)	19% (18%, 21%)	10.2% (9.1%, 11.3%)
Not Intact	Male	1.62 (1.51, 1.73)	57.5% (55.5%, 59.5%)	26% (24%, 28%)	14.5% (13.1%, 15.9%)
Intact	Female	1.13 (1.09, 1.17)	66.8% (65.1%, 68.5%)	15% (14%, 16%)	6.5% (5.5%, 7.5%)
Not Intact	Female	1.37 (1.32, 1.42)	64.9% (63.2%, 66.7%)	23% (21%, 24%)	10.6% (9.6%, 11.7%)

```
knitr::kable(intact, caption = "Average Number of Opposite-Sex Partners Past Year, Percent Having 1, 2+
```

Table 4: Average Number of Opposite-Sex Partners Past Year, Percent Having 1, 2+, or 3+ Opposite-Sex Partners Past Year by Race Age 18-34 (NSFG 2011-2019)

Race	Sex	YearMean	Percent = 1	Percent >= 2	Percent >= 3
Hispanic	Male	1.37 (1.25, 1.48)	59.4% (56.2%, 62.7%)	21% (19%, 23%)	11.0% (9.3%, 12.6%)
Non-Hispanic White	Male	1.35 (1.27, 1.43)	62.3% (60.4%, 64.2%)	20% (18%, 21%)	10.5% (9.3%, 11.7%)
Non-Hispanic Black	Male	2.05 (1.89, 2.20)	46.8% (43.2%, 50.4%)	37% (34%, 40%)	23.0% (20.2%, 25.8%)
Non-Hispanic Other	Male	1.18 (0.99, 1.37)	56.5% (52.2%, 60.8%)	17% (14%, 20%)	8.0% (5.7%, 10.2%)
Hispanic	Female	1.18 (1.11, 1.24)	68.9% (66.6%, 71.2%)	16% (14%, 17%)	7.3% (5.9%, 8.7%)
Non-Hispanic White	Female	1.24 (1.19, 1.29)	67.7% (65.8%, 69.5%)	17% (16%, 19%)	8.2% (7.0%, 9.3%)
Non-Hispanic Black	Female	1.35 (1.27, 1.42)	58.8% (56.0%, 61.6%)	27% (24%, 29%)	10.5% (8.6%, 12.4%)
Non-Hispanic Other	Female	1.16 (1.07, 1.24)	61.2% (57.1%, 65.3%)	18% (15%, 21%)	7.9% (5.6%, 10.2%)

```
knitr::kable(race, caption = "Average Number of Opposite-Sex Partners Past Year, Percent Having 1, 2+, or 3+ Opposite-Sex Partners Past Year by Race Age 18-34 (NSFG 2011-2019)")
```

```
knitr::kable(overall_race, caption = "Lifetime Number of Opposite-Sex Partners, Number of Opposite-Sex Partners by Race",  
  row_spec(c(4,8,12,16,20,24,28), hline_after = TRUE) %>%  
  column_spec(3, border_right = TRUE)
```

Table 5: Lifetime Number of Opposite-Sex Partners, Number of Opposite-Sex Partners Past Year, Percent Having 2 Or More Opposite-Sex Partners Past Year (By Year of Survey, Race, and Sex)Age 25-44 (NSFG 2011-2019)

Year	Race	Sex	LifeMean	YearMean	Percent ≥ 2
2011-2013	Hispanic	Male	10.21 (8.85, 11.58)	1.27 (1.11, 1.44)	11.7% (8.5%, 15.0%)
2011-2013	Non-Hispanic Black	Male	19.47 (16.94, 22.00)	1.66 (1.44, 1.88)	23.3% (18.0%, 28.6%)
2011-2013	Non-Hispanic Other	Male	11.17 (8.36, 13.99)	1.22 (0.91, 1.52)	13.9% (7.9%, 19.8%)
2011-2013	Non-Hispanic White	Male	11.56 (10.43, 12.68)	1.24 (1.14, 1.35)	13.1% (10.5%, 15.7%)
2013-2015	Hispanic	Male	10.21 (8.59, 11.82)	1.18 (1.05, 1.31)	11.4% (8.4%, 14.4%)
2013-2015	Non-Hispanic Black	Male	16.33 (14.24, 18.42)	1.50 (1.34, 1.66)	24.4% (17.8%, 31.0%)
2013-2015	Non-Hispanic Other	Male	7.98 (6.51, 9.46)	1.11 (1.02, 1.19)	11.0% (6.8%, 15.2%)
2013-2015	Non-Hispanic White	Male	12.37 (11.40, 13.33)	1.28 (1.13, 1.43)	13.2% (11.0%, 15.4%)
2015-2017	Hispanic	Male	10.00 (8.60, 11.41)	1.27 (1.01, 1.53)	14.7% (10.4%, 19.0%)
2015-2017	Non-Hispanic Black	Male	19.01 (15.97, 22.05)	1.79 (1.51, 2.07)	31.6% (24.4%, 38.9%)
2015-2017	Non-Hispanic Other	Male	9.68 (6.81, 12.56)	1.17 (0.89, 1.45)	10.1% (6.1%, 14.2%)
2015-2017	Non-Hispanic White	Male	11.40 (10.18, 12.63)	1.15 (1.08, 1.22)	10.9% (9.0%, 12.7%)
2017-2019	Hispanic	Male	10.85 (9.48, 12.21)	1.45 (1.08, 1.82)	19.8% (15.8%, 23.9%)
2017-2019	Non-Hispanic Black	Male	13.29 (11.48, 15.10)	1.75 (1.43, 2.07)	25.2% (19.1%, 31.2%)
2017-2019	Non-Hispanic Other	Male	7.56 (5.19, 9.94)	1.11 (0.97, 1.25)	11.8% (7.9%, 15.6%)
2017-2019	Non-Hispanic White	Male	10.52 (9.76, 11.28)	1.13 (1.05, 1.21)	9.6% (8.1%, 11.0%)
2011-2013	Hispanic	Female	4.73 (4.06, 5.40)	1.06 (1.01, 1.10)	9.3% (6.9%, 11.6%)
2011-2013	Non-Hispanic Black	Female	8.32 (7.33, 9.31)	1.22 (1.14, 1.30)	22.8% (18.2%, 27.3%)
2011-2013	Non-Hispanic Other	Female	5.23 (4.21, 6.25)	1.08 (0.90, 1.26)	7.9% (3.8%, 11.9%)
2011-2013	Non-Hispanic White	Female	7.63 (7.01, 8.25)	1.08 (1.04, 1.13)	9.0% (6.8%, 11.3%)
2013-2015	Hispanic	Female	4.82 (4.27, 5.36)	1.09 (1.03, 1.16)	10.7% (8.0%, 13.3%)
2013-2015	Non-Hispanic Black	Female	7.49 (6.62, 8.36)	1.12 (1.04, 1.20)	14.7% (11.3%, 18.2%)
2013-2015	Non-Hispanic Other	Female	4.77 (3.83, 5.71)	0.98 (0.90, 1.07)	9.6% (5.8%, 13.3%)
2013-2015	Non-Hispanic White	Female	7.74 (7.11, 8.38)	1.11 (1.07, 1.15)	10.1% (8.5%, 11.7%)
2015-2017	Hispanic	Female	4.44 (3.72, 5.17)	1.07 (0.99, 1.15)	10.3% (6.6%, 13.9%)
2015-2017	Non-Hispanic Black	Female	8.20 (7.11, 9.29)	1.19 (1.09, 1.29)	21.9% (16.5%, 27.2%)
2015-2017	Non-Hispanic Other	Female	5.51 (4.50, 6.53)	1.13 (0.94, 1.33)	9.6% (3.7%, 15.5%)
2015-2017	Non-Hispanic White	Female	7.29 (6.65, 7.94)	1.12 (1.03, 1.20)	9.5% (8.0%, 11.1%)
2017-2019	Hispanic	Female	4.99 (4.30, 5.68)	1.04 (0.96, 1.12)	8.1% (5.8%, 10.4%)
2017-2019	Non-Hispanic Black	Female	8.05 (7.30, 8.81)	1.14 (1.05, 1.23)	15.6% (12.6%, 18.6%)
2017-2019	Non-Hispanic Other	Female	6.04 (4.95, 7.13)	1.01 (0.92, 1.09)	10.2% (4.7%, 15.7%)
2017-2019	Non-Hispanic White	Female	8.22 (7.60, 8.84)	1.10 (1.03, 1.17)	9.6% (7.5%, 11.7%)

Table 6: Lifetime Number of Opposite-Sex Partners, Number of Opposite-Sex Partners Past Year, Percent Having 2 Or More Opposite-Sex Partners Past Year (By Educational Attainment, Race, and Sex) Age 25-44 (NSFG 2011-2019)

Edu	Race	Sex	LifeMean	YearMean	Percent ≥ 2
1.Less than HS	Hispanic	Male	7.43 (6.13, 8.72)	1.03 (0.96, 1.11)	8.0% (5.6%, 10.3%)
1.Less than HS	Non-Hispanic Black	Male	17.73 (13.06, 22.40)	2.23 (1.74, 2.73)	34.0% (22.8%, 45.1%)
1.Less than HS	Non-Hispanic Other	Male	12.06 (9.32, 14.81)	1.16 (0.85, 1.46)	11.1% (2.5%, 19.6%)
1.Less than HS	Non-Hispanic White	Male	13.32 (11.43, 15.21)	1.25 (1.08, 1.43)	15.0% (10.8%, 19.2%)
2.HS Graduate	Hispanic	Male	11.11 (10.23, 11.98)	1.45 (1.24, 1.66)	17.1% (14.2%, 20.1%)
2.HS Graduate	Non-Hispanic Black	Male	17.43 (15.90, 18.97)	1.64 (1.49, 1.79)	26.1% (22.2%, 29.9%)
2.HS Graduate	Non-Hispanic Other	Male	12.60 (10.51, 14.70)	1.34 (1.14, 1.55)	17.3% (13.2%, 21.3%)
2.HS Graduate	Non-Hispanic White	Male	12.94 (12.27, 13.60)	1.26 (1.17, 1.35)	13.5% (11.9%, 15.1%)
3.Bachelor's Degree	Hispanic	Male	13.40 (10.92, 15.88)	1.25 (1.00, 1.51)	17.8% (11.5%, 24.0%)
3.Bachelor's Degree	Non-Hispanic Black	Male	16.12 (13.59, 18.66)	1.47 (1.27, 1.68)	21.9% (16.8%, 27.1%)
3.Bachelor's Degree	Non-Hispanic Other	Male	5.14 (4.15, 6.12)	0.95 (0.89, 1.01)	6.2% (3.9%, 8.4%)
3.Bachelor's Degree	Non-Hispanic White	Male	9.17 (8.50, 9.84)	1.12 (1.06, 1.18)	8.7% (7.3%, 10.1%)
1.Less than HS	Hispanic	Female	2.92 (2.58, 3.26)	1.05 (0.96, 1.13)	7.5% (4.8%, 10.2%)
1.Less than HS	Non-Hispanic Black	Female	9.12 (7.57, 10.66)	1.29 (1.14, 1.45)	21.9% (15.7%, 28.0%)
1.Less than HS	Non-Hispanic Other	Female	4.86 (3.47, 6.25)	1.26 (0.72, 1.79)	10.1% (2.4%, 17.7%)
1.Less than HS	Non-Hispanic White	Female	8.76 (7.29, 10.23)	1.13 (0.99, 1.28)	12.7% (7.9%, 17.4%)
2.HS Graduate	Hispanic	Female	5.50 (5.06, 5.94)	1.09 (1.04, 1.13)	10.9% (9.1%, 12.6%)
2.HS Graduate	Non-Hispanic Black	Female	8.26 (7.65, 8.88)	1.18 (1.12, 1.23)	19.7% (16.8%, 22.6%)
2.HS Graduate	Non-Hispanic Other	Female	6.90 (5.99, 7.81)	1.14 (1.02, 1.27)	13.4% (9.0%, 17.9%)
2.HS Graduate	Non-Hispanic White	Female	8.37 (7.94, 8.80)	1.12 (1.08, 1.16)	10.7% (9.4%, 12.0%)
3.Bachelor's Degree	Hispanic	Female	5.36 (4.59, 6.12)	1.02 (0.95, 1.10)	8.4% (5.2%, 11.6%)
3.Bachelor's Degree	Non-Hispanic Black	Female	6.94 (6.26, 7.62)	1.11 (1.03, 1.18)	15.7% (11.5%, 19.9%)
3.Bachelor's Degree	Non-Hispanic Other	Female	4.02 (3.46, 4.59)	0.94 (0.88, 0.99)	5.7% (3.5%, 7.9%)
3.Bachelor's Degree	Non-Hispanic White	Female	6.85 (6.43, 7.26)	1.08 (1.02, 1.14)	8.0% (6.5%, 9.5%)

```
knitr::kable(educ_race, caption = "Lifetime Number of Opposite-Sex Partners, Number of Opposite-Sex Partners Past Year, Percent Having 2 Or More Opposite-Sex Partners Past Year (By Educational Attainment, Race, and Sex) Age 25-44 (NSFG 2011-2019)",
  row_spec(c(4,8,12,16,20), hline_after = TRUE) %>%
  column_spec(3, border_right = TRUE)
```

Table 7: Lifetime Number of Opposite-Sex Partners, Number of Opposite-Sex Partners Past Year, Percent Having 2 Or More Opposite-Sex Partners Past Year (By Income Percent of Poverty Line, Race, and Sex) Age 25-44 (NSFG 2011-2019)

Income	Race	Sex	LifeMean	YearMean	Percent ≥ 2
0-150%	Hispanic	Male	8.71 (7.47, 9.94)	1.26 (1.10, 1.42)	12.6% (9.7%, 15.5%)
0-150%	Non-Hispanic Black	Male	16.47 (14.48, 18.45)	1.78 (1.56, 2.01)	29.6% (24.3%, 34.9%)
0-150%	Non-Hispanic Other	Male	12.83 (9.38, 16.28)	1.39 (0.98, 1.80)	14.8% (8.1%, 21.5%)
0-150%	Non-Hispanic White	Male	13.07 (11.70, 14.43)	1.27 (1.05, 1.49)	15.3% (12.5%, 18.1%)
150-400%	Hispanic	Male	10.85 (9.65, 12.06)	1.31 (1.08, 1.55)	14.9% (12.0%, 17.8%)
150-400%	Non-Hispanic Black	Male	17.41 (15.43, 19.39)	1.66 (1.47, 1.85)	26.7% (21.8%, 31.7%)
150-400%	Non-Hispanic Other	Male	8.52 (6.67, 10.37)	1.07 (0.98, 1.16)	11.2% (8.0%, 14.4%)
150-400%	Non-Hispanic White	Male	11.23 (10.50, 11.96)	1.19 (1.12, 1.27)	11.9% (10.2%, 13.5%)
400+%	Hispanic	Male	12.85 (10.85, 14.85)	1.32 (1.11, 1.53)	17.4% (12.5%, 22.3%)
400+%	Non-Hispanic Black	Male	17.74 (14.99, 20.49)	1.54 (1.28, 1.79)	19.8% (14.6%, 25.0%)
400+%	Non-Hispanic Other	Male	7.27 (6.15, 8.39)	1.08 (1.01, 1.15)	10.2% (6.9%, 13.5%)
400+%	Non-Hispanic White	Male	11.11 (10.46, 11.76)	1.19 (1.13, 1.25)	10.2% (8.8%, 11.6%)
0-150%	Hispanic	Female	4.09 (3.71, 4.47)	1.07 (1.01, 1.13)	10.6% (8.3%, 12.8%)
0-150%	Non-Hispanic Black	Female	8.40 (7.73, 9.07)	1.25 (1.19, 1.31)	22.6% (19.2%, 26.0%)
0-150%	Non-Hispanic Other	Female	5.94 (4.84, 7.05)	1.06 (0.90, 1.22)	11.7% (7.4%, 15.9%)
0-150%	Non-Hispanic White	Female	8.77 (8.15, 9.39)	1.17 (1.10, 1.25)	14.7% (12.7%, 16.7%)
150-400%	Hispanic	Female	5.13 (4.51, 5.74)	1.07 (1.02, 1.12)	8.3% (6.2%, 10.3%)
150-400%	Non-Hispanic Black	Female	7.87 (7.06, 8.67)	1.09 (1.02, 1.15)	14.9% (11.9%, 17.9%)
150-400%	Non-Hispanic Other	Female	5.52 (4.76, 6.29)	1.03 (0.93, 1.13)	10.0% (6.1%, 13.9%)
150-400%	Non-Hispanic White	Female	7.54 (7.02, 8.05)	1.09 (1.05, 1.13)	9.2% (7.7%, 10.7%)
400+%	Hispanic	Female	6.48 (5.51, 7.45)	1.02 (0.92, 1.12)	8.3% (3.8%, 12.8%)
400+%	Non-Hispanic Black	Female	7.18 (6.31, 8.04)	1.10 (0.99, 1.22)	16.3% (9.9%, 22.7%)
400+%	Non-Hispanic Other	Female	4.67 (3.99, 5.35)	1.05 (0.95, 1.15)	6.8% (2.9%, 10.6%)
400+%	Non-Hispanic White	Female	7.16 (6.69, 7.62)	1.06 (1.00, 1.12)	6.4% (5.0%, 7.8%)

```
knitr::kable(income_race, caption = "Lifetime Number of Opposite-Sex Partners, Number of Opposite-Sex Partners Past Year, Percent Having 2 Or More Opposite-Sex Partners Past Year (By Income Percent of Poverty Line, Race, and Sex) Age 25-44 (NSFG 2011-2019)",
  row_spec(c(4,8,12,16,20), hline_after = TRUE) %>%
  column_spec(3, border_right = TRUE)
```


Table 8: Lifetime Number of Opposite-Sex Partners, Number of Opposite-Sex Partners Past Year, Percent Having 2 Or More Opposite-Sex Partners Past Year (By Income Percent of Poverty Line, Whether Grew Up with Married Parents (Intact Family), and Sex) Age 25-44 (NSFG 2011-2019)

Income	Intact	Sex	LifeMean	YearMean	Percent ≥ 2
0-150%	Intact	Male	9.20 (8.29, 10.12)	1.21 (1.11, 1.31)	13.1% (10.7%, 15.5%)
0-150%	Not Intact	Male	15.51 (13.96, 17.06)	1.53 (1.30, 1.77)	20.5% (17.4%, 23.6%)
150-300%	Intact	Male	9.67 (8.78, 10.57)	1.12 (1.06, 1.18)	11.6% (9.8%, 13.5%)
150-300%	Not Intact	Male	14.43 (13.20, 15.66)	1.42 (1.24, 1.61)	17.9% (15.4%, 20.4%)
300-500%	Intact	Male	9.73 (8.92, 10.54)	1.18 (1.10, 1.26)	11.4% (9.6%, 13.2%)
300-500%	Not Intact	Male	13.82 (12.75, 14.89)	1.40 (1.23, 1.57)	17.2% (14.2%, 20.3%)
500+%	Intact	Male	10.52 (9.69, 11.34)	1.17 (1.10, 1.24)	9.9% (8.2%, 11.7%)
500+%	Not Intact	Male	14.85 (13.33, 16.37)	1.37 (1.24, 1.51)	14.9% (12.0%, 17.8%)
0-150%	Intact	Female	5.36 (5.04, 5.69)	1.09 (1.04, 1.15)	11.2% (9.6%, 12.8%)
0-150%	Not Intact	Female	8.77 (8.19, 9.35)	1.21 (1.15, 1.26)	18.4% (16.2%, 20.6%)
150-300%	Intact	Female	5.95 (5.42, 6.49)	1.04 (1.00, 1.08)	8.9% (7.1%, 10.7%)
150-300%	Not Intact	Female	8.18 (7.60, 8.76)	1.15 (1.09, 1.21)	13.0% (10.8%, 15.2%)
300-500%	Intact	Female	5.98 (5.45, 6.50)	1.01 (0.98, 1.05)	5.8% (4.4%, 7.2%)
300-500%	Not Intact	Female	7.83 (7.14, 8.52)	1.10 (1.01, 1.19)	9.6% (7.1%, 12.0%)
500+%	Intact	Female	6.52 (5.93, 7.10)	1.08 (0.99, 1.17)	7.5% (5.4%, 9.5%)
500+%	Not Intact	Female	8.73 (7.83, 9.63)	1.08 (1.03, 1.14)	9.5% (6.5%, 12.6%)

```
knitr::kable(income_intact, caption = "Lifetime Number of Opposite-Sex Partners, Number of Opposite-Sex  
row_spec(8, hline_after = TRUE) %>%  
column_spec(3, border_right = TRUE)
```

Table 9: Average Number of Opposite-Sex Partners Past Year, Percent Having 1 or 2+ Opposite-Sex Partners Past Year (By Income Percent of Poverty Line, Whether Grew Up with Married Parents (Intact Family), and Sex) Age 18-34 (NSFG 2011-2019)

Income	Intact	Sex	YearMean	Percent = 1	Percent >= 2
0-150%	Intact	Male	1.30 (1.16, 1.45)	54.0% (50.0%, 58.0%)	19.7% (17.2%, 22.2%)
0-150%	Not Intact	Male	1.70 (1.49, 1.90)	53.0% (49.6%, 56.5%)	27.9% (24.9%, 31.0%)
150-300%	Intact	Male	1.20 (1.11, 1.29)	61.4% (57.9%, 65.0%)	17.3% (14.7%, 19.9%)
150-300%	Not Intact	Male	1.59 (1.38, 1.80)	58.5% (54.6%, 62.3%)	25.2% (22.3%, 28.1%)
300-500%	Intact	Male	1.29 (1.18, 1.40)	61.9% (57.7%, 66.1%)	19.5% (16.5%, 22.4%)
300-500%	Not Intact	Male	1.55 (1.36, 1.75)	59.5% (54.6%, 64.4%)	25.5% (21.3%, 29.7%)
500+%	Intact	Male	1.41 (1.31, 1.52)	64.2% (60.5%, 67.8%)	21.5% (18.3%, 24.8%)
500+%	Not Intact	Male	1.59 (1.38, 1.79)	63.7% (58.7%, 68.7%)	23.5% (19.0%, 27.9%)
0-150%	Intact	Female	1.12 (1.06, 1.19)	62.7% (59.9%, 65.5%)	16.3% (14.2%, 18.4%)
0-150%	Not Intact	Female	1.41 (1.34, 1.48)	59.8% (57.2%, 62.5%)	25.9% (23.6%, 28.3%)
150-300%	Intact	Female	1.10 (1.03, 1.17)	64.5% (60.9%, 68.1%)	15.2% (13.0%, 17.5%)
150-300%	Not Intact	Female	1.31 (1.23, 1.39)	68.1% (64.7%, 71.5%)	20.9% (18.1%, 23.7%)
300-500%	Intact	Female	1.15 (1.04, 1.26)	71.5% (67.8%, 75.3%)	13.5% (10.5%, 16.5%)
300-500%	Not Intact	Female	1.36 (1.20, 1.51)	69.8% (65.6%, 74.0%)	18.4% (14.7%, 22.2%)
500+%	Intact	Female	1.16 (1.05, 1.28)	72.8% (68.4%, 77.2%)	13.3% (9.9%, 16.8%)
500+%	Not Intact	Female	1.35 (1.21, 1.49)	74.1% (69.0%, 79.3%)	18.4% (14.0%, 22.8%)

```
knitr::kable(income_intact_young, caption = "Average Number of Opposite-Sex Partners Past Year, Percent
row_spec(8, hline_after = TRUE) %>%
column_spec(3, border_right = TRUE)
```

Table 10: Average Number of Opposite-Sex Partners Past Year, Percent Having 1 or 2+ Opposite-Sex Partners Past Year (By Income Percent of Poverty Line and Sex) Age 18-34 (NSFG 2011-2019)

Income	Sex	YearMean	Percent = 1	Percent >= 2
0-100%	Male	1.46 (1.30, 1.62)	52.2% (48.5%, 55.9%)	22.7% (20.4%, 25.1%)
100-200%	Male	1.44 (1.32, 1.55)	58.1% (55.4%, 60.8%)	22.7% (20.4%, 25.1%)
200-300%	Male	1.38 (1.24, 1.52)	60.0% (56.3%, 63.7%)	20.7% (18.2%, 23.1%)
300-500%	Male	1.38 (1.28, 1.49)	61.0% (57.8%, 64.2%)	21.7% (19.2%, 24.2%)
500+%	Male	1.46 (1.36, 1.56)	64.0% (61.0%, 67.1%)	22.1% (19.2%, 24.9%)
0-100%	Female	1.29 (1.23, 1.35)	59.7% (57.3%, 62.1%)	22.0% (20.0%, 24.0%)
100-200%	Female	1.20 (1.14, 1.26)	64.1% (61.4%, 66.7%)	19.2% (17.2%, 21.2%)
200-300%	Female	1.20 (1.14, 1.27)	67.6% (64.4%, 70.9%)	17.2% (14.9%, 19.5%)
300-500%	Female	1.22 (1.13, 1.32)	70.9% (68.0%, 73.9%)	15.3% (12.8%, 17.7%)
500+%	Female	1.21 (1.12, 1.31)	73.2% (69.7%, 76.7%)	14.7% (11.9%, 17.6%)

```
knitr::kable(income_young, caption = "Average Number of Opposite-Sex Partners Past Year, Percent Having
row_spec(5, hline_after = TRUE) %>%
column_spec(2, border_right = TRUE)
```

Table 11: Number of Lifetime Opposite-Sex Partners (1, 2-5, 11-20, 21+) (By Educational Attainment, Married Biological Parents Status, and Sex) Age 18-34 (NSFG 2011-2019)

Education	Intact	Sex	Percent = 1	Percent 2-5	Percent 11-20	Percent \geq 21
No Degree	Yes	Male	13% (11%, 15%)	24% (21%, 26%)	17% (15%, 19%)	15% (13%, 17%)
No Degree	No	Male	5% (4%, 6%)	17% (15%, 19%)	23% (20%, 26%)	25% (22%, 27%)
Has Bachelor's	Yes	Male	20% (17%, 23%)	23% (20%, 25%)	13% (11%, 15%)	11% (9%, 13%)
Has Bachelor's	No	Male	9% (6%, 12%)	19% (14%, 23%)	18% (14%, 23%)	21% (17%, 26%)
No Degree	Yes	Female	23% (20%, 25%)	33% (30%, 35%)	8% (7%, 10%)	5% (4%, 6%)
No Degree	No	Female	10% (8%, 12%)	26% (24%, 29%)	13% (11%, 15%)	8% (7%, 9%)
Has Bachelor's	Yes	Female	25% (22%, 28%)	28% (25%, 31%)	10% (9%, 12%)	3% (2%, 4%)
Has Bachelor's	No	Female	13% (10%, 17%)	27% (22%, 32%)	15% (12%, 19%)	8% (6%, 10%)

```
knitr::kable(prop_by_edu, caption = "Number of Lifetime Opposite-Sex Partners (1, 2-5, 11-20, 21+) (By 1
  row_spec(4, hline_after = TRUE) %>%
  column_spec(3, border_right = TRUE)
```

Table 12: Lifetime Number of Opposite-Sex Partners Percent 31 or Greater and Percent 50 or Greater by Education and Race Age 30-44 (NSFG 2011-2019)

Race	Education	Sex	Percent ≥ 31	Percent ≥ 50
Hispanic	No Degree	Male	7.3% (5.6%, 9.1%)	4.6% (3.2%, 6.0%)
Hispanic	Has Bachelor's	Male	15.2% (7.9%, 22.5%)	8.3% (3.7%, 12.8%)
Non-Hispanic White	No Degree	Male	12.1% (10.4%, 13.8%)	8.0% (6.6%, 9.5%)
Non-Hispanic White	Has Bachelor's	Male	7.1% (5.3%, 8.9%)	3.3% (2.3%, 4.4%)
Non-Hispanic Black	No Degree	Male	20.6% (17.0%, 24.2%)	16.1% (12.7%, 19.5%)
Non-Hispanic Black	Has Bachelor's	Male	18.1% (10.6%, 25.6%)	13.7% (7.1%, 20.4%)
Non-Hispanic Other	No Degree	Male	16.8% (10.7%, 22.8%)	12.7% (6.9%, 18.5%)
Non-Hispanic Other	Has Bachelor's	Male	2.5% (0.9%, 4.1%)	2.2% (0.6%, 3.7%)
Hispanic	No Degree	Female	1.6% (0.9%, 2.3%)	0.5% (0.2%, 0.9%)
Hispanic	Has Bachelor's	Female	0.9% (0.2%, 1.6%)	0.4% (0.0%, 0.8%)
Non-Hispanic White	No Degree	Female	4.1% (3.1%, 5.1%)	2.6% (1.9%, 3.3%)
Non-Hispanic White	Has Bachelor's	Female	2.2% (1.4%, 3.1%)	1.1% (0.4%, 1.8%)
Non-Hispanic Black	No Degree	Female	3.4% (2.2%, 4.6%)	2.1% (1.0%, 3.1%)
Non-Hispanic Black	Has Bachelor's	Female	1.1% (0.4%, 1.7%)	0.5% (0.1%, 1.0%)
Non-Hispanic Other	No Degree	Female	3.1% (1.6%, 4.7%)	2.0% (0.9%, 3.0%)
Non-Hispanic Other	Has Bachelor's	Female	0.2% (-0.0%, 0.4%)	0.1% (-0.1%, 0.3%)

```
knitr::kable(extreme, caption = "Lifetime Number of Opposite-Sex Partners Percent 31 or Greater and Percent 50 or Greater by Education and Race Age 30-44 (NSFG 2011-2019)",
  row_spec(8, hline_after = TRUE) %>%
  column_spec(3, border_right = TRUE)
```

Table 13: Number of Opposite-Sex Partners Past Year Age 19-23 by Whether in School, Sex, and Intact family (Parents were Married) (NSFG 2011-2019)

School	Intact	Sex	Percent = 0	Percent = 1	Percent >= 2	Non-monogamous
College	No	Male	25% (20%, 30%)	39% (32%, 45%)	36% (30%, 42%)	19% (14%, 25%)
College	Yes	Male	36% (31%, 41%)	39% (35%, 44%)	25% (20%, 29%)	13% (9%, 17%)
Not in College	No	Male	20% (16%, 25%)	44% (39%, 48%)	33% (29%, 37%)	17% (14%, 21%)
Not in College	Yes	Male	21% (17%, 24%)	48% (43%, 53%)	30% (25%, 35%)	13% (9%, 17%)
College	No	Female	18% (13%, 23%)	52% (47%, 58%)	28% (22%, 33%)	19% (14%, 24%)
College	Yes	Female	31% (27%, 35%)	43% (39%, 48%)	25% (21%, 30%)	12% (9%, 15%)
Not in College	No	Female	11% (8%, 14%)	55% (51%, 60%)	32% (28%, 36%)	17% (13%, 20%)
Not in College	Yes	Female	17% (13%, 21%)	58% (53%, 63%)	25% (20%, 29%)	14% (10%, 17%)

```
knitr::kable(school, caption = "Number of Opposite-Sex Partners Past Year Age 19-23 by Whether in School",
  row_spec(4, hline_after = TRUE) %>%
  column_spec(3, border_right = TRUE)
```

```
summary(model_male)
```

```
##
## Call:
## lm(formula = lifprtnr ~ VRY1STAG + I(VRY1STAG^2) + ager + I(ager^2) +
##     factor(intctfam) + factor(Year) + factor(HISPRACE2) + oppyearnum +
##     I(oppyearnum^2) + factor(attract) + factor(nonmonog) + sexfreq +
##     poverty + I(poverty^2) + factor(hieduc) + factor(genhealt) +
##     VRY1STAG:sexfreq + factor(JAILED2) + factor(samesex) + factor(samesexany) +
##     factor(fmarital), data = prepare_male, weights = WGT2011_2019)
##
## Weighted Residuals:
##      Min       1Q   Median       3Q      Max
## -4512.1  -305.9  -104.5   113.5  7016.9
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)      7.454e+00  2.463e+00   3.026 0.002481 **
## VRY1STAG         -3.425e+00  1.540e-01 -22.237 < 2e-16 ***
## I(VRY1STAG^2)      6.283e-02  3.750e-03  16.753 < 2e-16 ***
## ager              2.068e+00  1.148e-01  18.014 < 2e-16 ***
## I(ager^2)         -2.629e-02  1.789e-03 -14.696 < 2e-16 ***
## factor(intctfam)2   1.415e+00  1.948e-01   7.261 4.05e-13 ***
## factor(Year)2013-2015 -2.081e-01  2.517e-01  -0.827 0.408257
## factor(Year)2015-2017 -5.170e-01  2.775e-01  -1.863 0.062473 .
## factor(Year)2017-2019 -1.869e+00  2.782e-01  -6.718 1.91e-11 ***
## factor(HISPRACE2)2    8.544e-01  2.442e-01   3.498 0.000470 ***
## factor(HISPRACE2)3    2.678e+00  3.373e-01   7.938 2.22e-15 ***
## factor(HISPRACE2)4    4.307e-01  3.631e-01   1.186 0.235641
## oppyearnum          2.665e+00  1.304e-01  20.427 < 2e-16 ***
## I(oppyearnum^2)     -6.691e-02  8.044e-03  -8.318 < 2e-16 ***
## factor(attract)2     -2.789e-01  4.769e-01  -0.585 0.558721
## factor(attract)3     -3.765e+00  1.052e+00  -3.577 0.000348 ***
## factor(attract)4     -6.202e+00  1.349e+00  -4.597 4.33e-06 ***
## factor(attract)5     -5.469e+00  1.206e+00  -4.536 5.79e-06 ***
## factor(nonmonog)1    -2.214e+00  3.481e-01  -6.359 2.10e-10 ***
## sexfreq             6.859e-01  9.997e-02   6.861 7.15e-12 ***
## poverty             1.723e-04  2.106e-03   0.082 0.934792
## I(poverty^2)         2.122e-06  3.216e-06   0.660 0.509355
## factor(hieduc)1       2.206e+00  3.206e-01   6.880 6.22e-12 ***
## factor(hieduc)2       2.878e+00  3.453e-01   8.334 < 2e-16 ***
## factor(hieduc)5       2.443e+00  3.548e-01   6.886 5.99e-12 ***
## factor(genhealt)2     2.770e-01  2.214e-01   1.251 0.210796
## factor(genhealt)3     -4.782e-01  2.546e-01  -1.878 0.060362 .
## factor(genhealt)4     7.887e-02  4.171e-01   0.189 0.850028
## factor(genhealt)5     3.526e+00  9.977e-01   3.534 0.000411 ***
## factor(JAILED2)1      3.435e+00  2.454e-01  13.999 < 2e-16 ***
## factor(samesex)2      3.572e-01  2.554e-01   1.399 0.161930
## factor(samesex)3      2.727e-01  2.979e-01   0.915 0.360091
## factor(samesex)4     -7.489e-01  3.048e-01  -2.457 0.014022 *
## factor(samesex)5      1.192e+00  5.464e-01   2.182 0.029157 *
## factor(samesexany)5   -1.419e+00  4.972e-01  -2.854 0.004323 **
## factor(fmarital)2     -4.277e+00  2.125e+00  -2.013 0.044114 *
```

```

## factor(fmarital)3      2.682e+00  3.959e-01   6.773 1.31e-11 ***
## factor(fmarital)4      9.642e-01  6.729e-01   1.433 0.151945
## factor(fmarital)5      1.827e+00  2.355e-01   7.758 9.23e-15 ***
## VRY1STAG:sexfreq      -3.315e-02  6.064e-03  -5.466 4.67e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 641.5 on 14016 degrees of freedom
## (1137 observations deleted due to missingness)
## Multiple R-squared:  0.3191, Adjusted R-squared:  0.3172
## F-statistic: 168.4 on 39 and 14016 DF,  p-value: < 2.2e-16

```



```
summary(model_female)
```

```
##
## Call:
## lm(formula = lifprtnr ~ VRY1STAG + I(VRY1STAG^2) + ager + I(ager^2) +
##     factor(intctfam) + factor(Year) + factor(HISPRACE2) + oppyearnum +
##     I(oppyearnum^2) + factor(nonmonog) + factor(attract) + poverty +
##     I(poverty^2) + factor(hieduc) + factor(genhealt) + factor(samesex) +
##     factor(samesexany) + factor(fmarital), data = prepare_female,
##     weights = WGT2011_2019)
##
## Weighted Residuals:
##      Min       1Q   Median       3Q      Max
## -1754.7  -144.5   -39.5    67.4   5606.8
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)      2.360e+00  1.598e+00   1.477 0.139618
## VRY1STAG         -1.574e+00  9.323e-02 -16.880 < 2e-16 ***
## I(VRY1STAG^2)      2.540e-02  2.320e-03  10.947 < 2e-16 ***
## ager              1.266e+00  7.574e-02  16.720 < 2e-16 ***
## I(ager^2)         -1.635e-02  1.155e-03 -14.155 < 2e-16 ***
## factor(intctfam)2   4.989e-01  1.119e-01   4.459 8.30e-06 ***
## factor(Year)2013-2015 -2.894e-01  1.447e-01  -2.000 0.045467 *
## factor(Year)2015-2017 -2.716e-01  1.483e-01  -1.831 0.067085 .
## factor(Year)2017-2019 -1.766e-01  1.503e-01  -1.175 0.240049
## factor(HISPRACE2)2   1.899e+00  1.447e-01  13.125 < 2e-16 ***
## factor(HISPRACE2)3   1.198e+00  1.901e-01   6.302 3.01e-10 ***
## factor(HISPRACE2)4   9.024e-01  2.058e-01   4.385 1.17e-05 ***
## oppyearnum          2.075e+00  9.840e-02  21.090 < 2e-16 ***
## I(oppyearnum^2)     -4.659e-02  8.318e-03  -5.601 2.17e-08 ***
## factor(nonmonog)1   -1.572e+00  2.080e-01  -7.559 4.26e-14 ***
## factor(attract)2     8.713e-01  1.689e-01   5.159 2.52e-07 ***
## factor(attract)3     5.490e-02  2.891e-01   0.190 0.849398
## factor(attract)4    -2.167e+00  5.578e-01  -3.886 0.000102 ***
## factor(attract)5    -3.513e+00  6.253e-01  -5.619 1.96e-08 ***
## poverty             8.397e-04  1.200e-03   0.700 0.484091
## I(poverty^2)        4.521e-07  1.882e-06   0.240 0.810148
## factor(hieduc)1      1.144e+00  2.043e-01   5.598 2.21e-08 ***
## factor(hieduc)2      1.245e+00  2.135e-01   5.829 5.69e-09 ***
## factor(hieduc)5      1.260e+00  2.165e-01   5.819 6.04e-09 ***
## factor(genhealt)2    2.941e-01  1.299e-01   2.263 0.023632 *
## factor(genhealt)3    2.704e-01  1.457e-01   1.856 0.063414 .
## factor(genhealt)4    7.922e-01  2.185e-01   3.626 0.000289 ***
## factor(genhealt)5    9.355e-01  5.072e-01   1.844 0.065143 .
## factor(samesex)2    -6.492e-01  1.356e-01  -4.788 1.70e-06 ***
## factor(samesex)3    -1.154e+00  1.692e-01  -6.819 9.47e-12 ***
## factor(samesex)4    -1.101e+00  1.851e-01  -5.949 2.76e-09 ***
## factor(samesex)5    -5.837e-01  2.922e-01  -1.997 0.045797 *
## factor(samesexany)5  -4.432e+00  1.636e-01 -27.097 < 2e-16 ***
## factor(fmarital)2    1.875e+00  7.085e-01   2.646 0.008151 **
## factor(fmarital)3    1.741e+00  1.942e-01   8.961 < 2e-16 ***
## factor(fmarital)4    9.886e-01  2.931e-01   3.373 0.000745 ***
```

```

## factor(fmarital)5      2.155e+00  1.338e-01  16.100  < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 362.9 on 16793 degrees of freedom
## (1381 observations deleted due to missingness)
## Multiple R-squared:  0.3084, Adjusted R-squared:  0.3069
## F-statistic: 208 on 36 and 16793 DF, p-value: < 2.2e-16

```

```
summary(model_male_year)
```

```
##
## Call:
## lm(formula = oppyearnum ~ VRY1STAG + I(VRY1STAG^2) + ager + I(ager^2) +
##     factor(intctfam) + factor(Year) + factor(HISPRACE2) + sexfreq +
##     poverty + I(poverty^2) + factor(hieduc) + factor(attract) +
##     factor(genhealt) + VRY1STAG:sexfreq + factor(JAILED2) + factor(samesex) +
##     factor(samesexany), data = prepare_male, weights = WGT2011_2019)
##
## Weighted Residuals:
##      Min       1Q   Median       3Q      Max
## -312.93  -36.64  -14.68    8.00  2608.81
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)      6.813e+00  3.809e-01  17.888 < 2e-16 ***
## VRY1STAG         -2.528e-01  2.492e-02 -10.148 < 2e-16 ***
## I(VRY1STAG^2)     5.074e-03  6.076e-04   8.352 < 2e-16 ***
## ager             -1.137e-01  1.833e-02  -6.202 5.71e-10 ***
## I(ager^2)         1.262e-03  2.887e-04   4.372 1.24e-05 ***
## factor(intctfam)2  7.275e-02  3.168e-02   2.296 0.021666 *
## factor(Year)2013-2015 -4.101e-02  4.093e-02  -1.002 0.316390
## factor(Year)2015-2017 -1.658e-01  4.504e-02  -3.682 0.000232 ***
## factor(Year)2017-2019 -2.014e-01  4.514e-02  -4.460 8.25e-06 ***
## factor(HISPRACE2)2  -5.052e-02  3.967e-02  -1.273 0.202874
## factor(HISPRACE2)3   3.723e-01  5.451e-02   6.831 8.80e-12 ***
## factor(HISPRACE2)4  -1.679e-02  5.903e-02  -0.284 0.776039
## sexfreq           4.545e-02  1.625e-02   2.796 0.005174 **
## poverty           -1.016e-03  3.418e-04  -2.973 0.002950 **
## I(poverty^2)       1.729e-06  5.226e-07   3.308 0.000942 ***
## factor(hieduc)1     8.327e-02  5.214e-02   1.597 0.110285
## factor(hieduc)2     1.224e-01  5.617e-02   2.178 0.029392 *
## factor(hieduc)5     9.960e-02  5.764e-02   1.728 0.084036 .
## factor(attract)2    1.218e-02  7.756e-02   0.157 0.875195
## factor(attract)3   -2.400e-01  1.711e-01  -1.402 0.160793
## factor(attract)4   -1.285e+00  2.183e-01  -5.888 4.00e-09 ***
## factor(attract)5   -9.722e-01  1.950e-01  -4.985 6.28e-07 ***
## factor(genhealt)2  -1.160e-01  3.599e-02  -3.223 0.001273 **
## factor(genhealt)3  -6.340e-02  4.136e-02  -1.533 0.125316
## factor(genhealt)4  -2.319e-01  6.774e-02  -3.424 0.000619 ***
## factor(genhealt)5  -1.459e-01  1.622e-01  -0.899 0.368531
## factor(JAILED2)1    1.135e-01  3.978e-02   2.852 0.004349 **
## factor(samesex)2   -1.105e-01  4.151e-02  -2.661 0.007789 **
## factor(samesex)3    2.556e-02  4.832e-02   0.529 0.596835
## factor(samesex)4   -3.988e-02  4.928e-02  -0.809 0.418372
## factor(samesex)5    7.889e-03  8.884e-02   0.089 0.929243
## factor(samesexany)5 -2.173e-01  8.074e-02  -2.692 0.007121 **
## VRY1STAG:sexfreq   -1.351e-03  9.855e-04  -1.371 0.170295
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 104.4 on 14023 degrees of freedom
```

```
## (1137 observations deleted due to missingness)
## Multiple R-squared:  0.06628,    Adjusted R-squared:  0.06415
## F-statistic: 31.11 on 32 and 14023 DF,  p-value: < 2.2e-16
```

```
summary(model_female_year)
```

```
##
## Call:
## lm(formula = oppyearnum ~ VRY1STAG + I(VRY1STAG^2) + ager + I(ager^2) +
##     factor(intctfam) + factor(Year) + factor(HISPRACE2) + poverty +
##     I(poverty^2) + factor(hieduc) + factor(genhealt) + factor(attract) +
##     factor(samesex) + factor(samesexany), data = prepare_male,
##     weights = WGT2011_2019)
##
## Weighted Residuals:
##      Min       1Q   Median       3Q      Max
## -325.39  -36.32  -14.72    7.43 2651.84
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    6.899e+00  3.770e-01  18.300 < 2e-16 ***
## VRY1STAG       -2.741e-01  2.446e-02 -11.205 < 2e-16 ***
## I(VRY1STAG^2)   5.408e-03  6.055e-04   8.931 < 2e-16 ***
## ager           -1.001e-01  1.817e-02  -5.507 3.71e-08 ***
## I(ager^2)       1.063e-03  2.867e-04   3.709 0.000209 ***
## factor(intctfam)2  8.374e-02  3.161e-02   2.649 0.008087 **
## factor(Year)2013-2015 -3.915e-02  4.101e-02  -0.955 0.339761
## factor(Year)2015-2017 -6.408e-02  4.254e-02  -1.506 0.131985
## factor(Year)2017-2019 -1.134e-01  4.334e-02  -2.617 0.008881 **
## factor(HISPRACE2)2 -4.995e-02  3.971e-02  -1.258 0.208537
## factor(HISPRACE2)3  3.626e-01  5.459e-02   6.642 3.22e-11 ***
## factor(HISPRACE2)4 -1.770e-02  5.912e-02  -0.299 0.764680
## poverty         -1.028e-03  3.425e-04  -3.000 0.002703 **
## I(poverty^2)     1.743e-06  5.236e-07   3.330 0.000872 ***
## factor(hieduc)1    8.851e-02  5.224e-02   1.694 0.090200 .
## factor(hieduc)2    1.164e-01  5.627e-02   2.069 0.038608 *
## factor(hieduc)5    9.106e-02  5.764e-02   1.580 0.114134
## factor(genhealt)2 -1.186e-01  3.605e-02  -3.291 0.001001 **
## factor(genhealt)3 -6.779e-02  4.139e-02  -1.638 0.101447
## factor(genhealt)4 -2.468e-01  6.783e-02  -3.638 0.000276 ***
## factor(genhealt)5 -1.431e-01  1.623e-01  -0.881 0.378161
## factor(attract)2   3.601e-03  7.771e-02   0.046 0.963043
## factor(attract)3 -2.566e-01  1.714e-01  -1.497 0.134392
## factor(attract)4 -1.340e+00  2.186e-01  -6.130 9.02e-10 ***
## factor(attract)5 -1.003e+00  1.954e-01  -5.134 2.88e-07 ***
## factor(samesex)2  -1.018e-01  4.158e-02  -2.449 0.014340 *
## factor(samesex)3   3.914e-02  4.838e-02   0.809 0.418564
## factor(samesex)4  -3.131e-02  4.936e-02  -0.634 0.525853
## factor(samesex)5   2.084e-02  8.896e-02   0.234 0.814759
## factor(samesexany)5 -2.240e-01  8.088e-02  -2.770 0.005608 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 104.6 on 14026 degrees of freedom
## (1137 observations deleted due to missingness)
## Multiple R-squared:  0.06234,    Adjusted R-squared:  0.06041
## F-statistic: 32.16 on 29 and 14026 DF,  p-value: < 2.2e-16
```

```
summary(logit_male_glm)
```

```
##
## Call:
## svyglm(formula = Extreme ~ Poverty + AFI + I(AFI^2) + ager +
##       I(ager^2) + Drink12 + Pot12 + Crack12 + Jailed + Intact +
##       Race + Degree + HighEarn + factor(Attract), design = male_logit_svy,
##       family = binomial)
##
## Survey design:
## svydesign(id = ~secu, strata = ~sest, weights = ~WGT2011_2019,
##       data = male_logit, nest = TRUE)
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)      -3.155211    1.472759  -2.142 0.033390 *
## Poverty              0.199631    0.136487   1.463 0.145161
## AFI                -0.529087    0.056778  -9.318 < 2e-16 ***
## I(AFI^2)           0.008516    0.001321   6.447 8.61e-10 ***
## ager                0.371124    0.092466   4.014 8.49e-05 ***
## I(ager^2)          -0.004783    0.001415  -3.380 0.000874 ***
## Drink12Every Week   0.028341    0.167957   0.169 0.866176
## Drink12Less than Weekly -0.309399    0.173871  -1.779 0.076703 .
## Pot12               0.394576    0.129864   3.038 0.002701 **
## Crack12             0.783557    0.179240   4.372 2.00e-05 ***
## Jailed              0.531301    0.110208   4.821 2.85e-06 ***
## Intact             -0.277354    0.105811  -2.621 0.009445 **
## RaceNon-Hispanic Other 0.186301    0.204845   0.909 0.364212
## RaceNon-Hispanic White 0.154508    0.133547   1.157 0.248691
## Degree              0.060267    0.145858   0.413 0.679919
## HighEarn            0.033345    0.150392   0.222 0.824764
## factor(Attract)2     -0.200537    0.243305  -0.824 0.410810
## factor(Attract)3     -0.945250    0.627627  -1.506 0.133651
## factor(Attract)4     -1.781814    0.749261  -2.378 0.018359 *
## factor(Attract)5     -1.892209    0.677117  -2.795 0.005712 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 0.967232)
##
## Number of Fisher Scoring iterations: 7
```

```
summary(logit_male_glm_nodrug)
```

```
##
## Call:
## svyglm(formula = Extreme ~ Poverty + AFI + I(AFI^2) + ager +
##       I(ager^2) + Jailed + Intact + Race + Degree + HighEarn +
##       factor(Attract), design = male_logit_svy, family = binomial)
##
## Survey design:
## svydesign(id = ~secu, strata = ~sest, weights = ~WGT2011_2019,
##       data = male_logit, nest = TRUE)
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    -2.044288   1.509355  -1.354 0.177126
## Poverty         0.141079   0.135975   1.038 0.300733
## AFI            -0.540923   0.057795  -9.359 < 2e-16 ***
## I(AFI^2)        0.008567   0.001408   6.084 5.82e-09 ***
## ager           0.322673   0.093771   3.441 0.000705 ***
## I(ager^2)      -0.004229   0.001428  -2.962 0.003425 **
## Jailed         0.637705   0.108864   5.858 1.89e-08 ***
## Intact        -0.292373   0.105043  -2.783 0.005893 **
## RaceNon-Hispanic Other 0.202460  0.209625   0.966 0.335296
## RaceNon-Hispanic White 0.210750  0.134476   1.567 0.118642
## Degree         0.125793   0.148956   0.845 0.399394
## HighEarn       0.019106   0.151585   0.126 0.899823
## factor(Attract)2    -0.054497  0.234199  -0.233 0.816236
## factor(Attract)3    -0.863322  0.613680  -1.407 0.161033
## factor(Attract)4    -1.570343  0.744950  -2.108 0.036271 *
## factor(Attract)5    -1.825337  0.667646  -2.734 0.006816 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 0.9722939)
##
## Number of Fisher Scoring iterations: 7
```

```
summary(logit_female_glm)
```

```
##
## Call:
## svyglm(formula = Extreme ~ Poverty + AFI + I(AFI^2) + ager +
##       I(ager^2) + Drink12 + Pot12 + Crack12 + Intact + Race + Degree +
##       HighEarn + factor(Attract), design = female_logit_svy, family = binomial)
##
## Survey design:
## svydesign(id = ~secu, strata = ~sest, weights = ~WGT2011_2019,
##       data = female_logit, nest = TRUE)
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    -15.784385   2.822205  -5.593 7.35e-08 ***
## Poverty           0.218080   0.170704   1.278 0.202909
## AFI              0.170624   0.295064   0.578 0.563745
## I(AFI^2)        -0.013910   0.010532  -1.321 0.188116
## ager             0.699291   0.123181   5.677 4.83e-08 ***
## I(ager^2)       -0.009503   0.001855  -5.123 7.11e-07 ***
## Drink12Every Week -0.221219   0.297040  -0.745 0.457310
## Drink12Less than Weekly -0.331977   0.246006  -1.349 0.178728
## Pot12            0.800170   0.216407   3.698 0.000282 ***
## Crack12          0.866592   0.293622   2.951 0.003545 **
## Intact           -0.286736   0.176184  -1.627 0.105226
## RaceNon-Hispanic Other  0.093092   0.278645   0.334 0.738665
## RaceNon-Hispanic White  0.651001   0.200084   3.254 0.001340 **
## Degree           -0.509555   0.239045  -2.132 0.034270 *
## HighEarn         -0.132231   0.350883  -0.377 0.706687
## factor(Attract)2      1.179531   0.220537   5.348 2.44e-07 ***
## factor(Attract)3      1.325231   0.228773   5.793 2.69e-08 ***
## factor(Attract)4      1.220606   0.646037   1.889 0.060303 .
## factor(Attract)5      0.092035   0.780947   0.118 0.906305
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 10.69086)
##
## Number of Fisher Scoring iterations: 9
```



```
summary(logit_female_glm_nodrug)
```

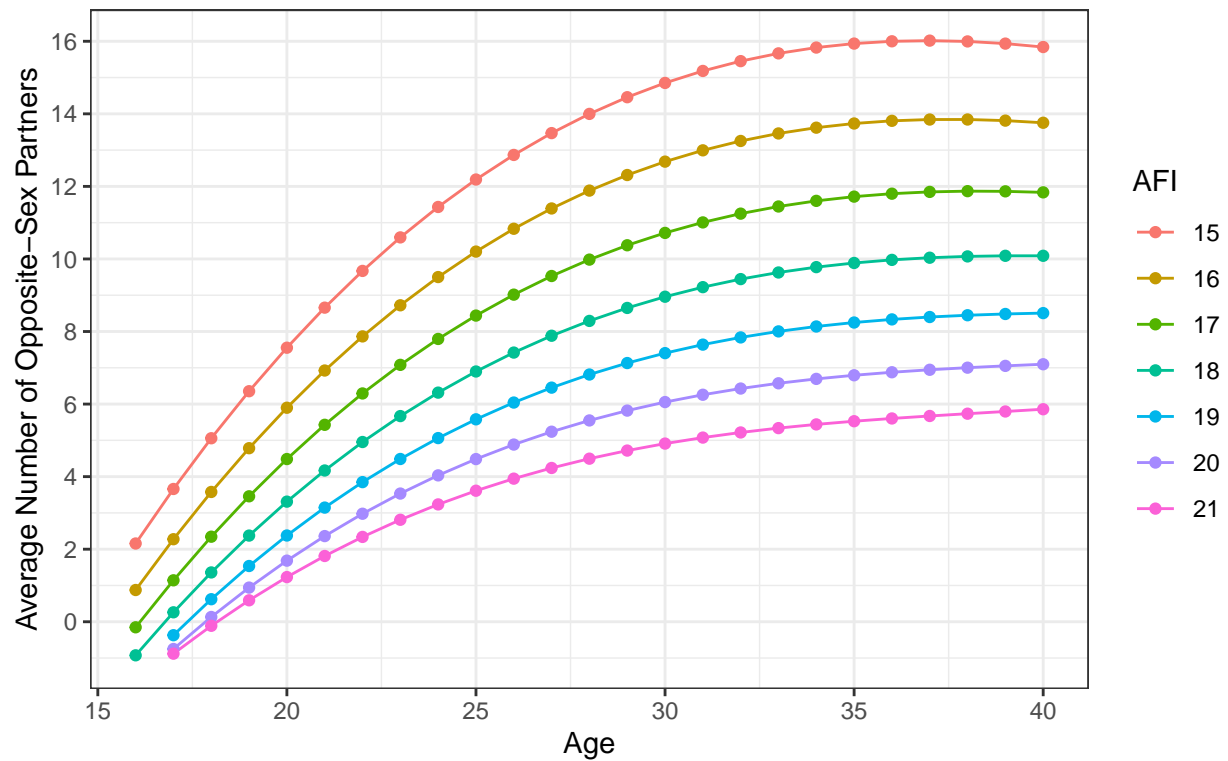
```
##
## Call:
## svyglm(formula = Extreme ~ Poverty + AFI + I(AFI^2) + ager +
##       I(ager^2) + Intact + Race + Degree + HighEarn, design = female_logit_svy,
##       family = binomial)
##
## Survey design:
## svydesign(id = ~secu, strata = ~sest, weights = ~WGT2011_2019,
##       data = female_logit, nest = TRUE)
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    -12.911118   2.668510  -4.838 2.56e-06 ***
## Poverty           0.167180   0.171168   0.977  0.3299
## AFI              0.179073   0.272255   0.658  0.5114
## I(AFI^2)        -0.016031   0.009899  -1.619  0.1069
## ager            0.594126   0.118515   5.013 1.15e-06 ***
## I(ager^2)       -0.008420   0.001783  -4.723 4.30e-06 ***
## Intact          -0.322061   0.171992  -1.873  0.0625 .
## RaceNon-Hispanic Other  0.268774   0.269586   0.997  0.3199
## RaceNon-Hispanic White  0.831709   0.198026   4.200 3.97e-05 ***
## Degree          -0.315974   0.227694  -1.388  0.1667
## HighEarn        -0.153833   0.346610  -0.444  0.6576
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## (Dispersion parameter for binomial family taken to be 30.76651)
##
## Number of Fisher Scoring iterations: 9
```

```
plot_m
```

```
## Warning: Removed 3 rows containing missing values ('geom_line()').
```

```
## Warning: Removed 3 rows containing missing values ('geom_point()').
```

Average Number of Opposite-Sex Partners by Age of First Intercourse and Age (NSFG 2011–2019) for Males

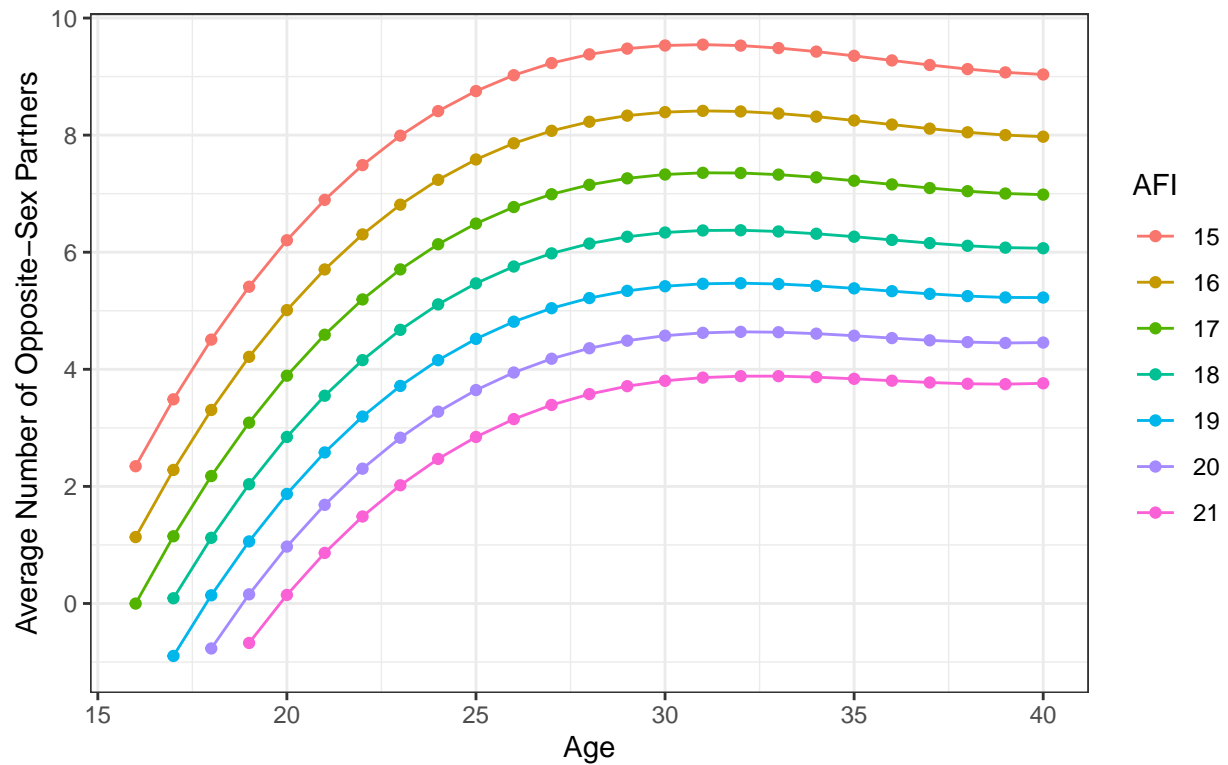


plot_f

```
## Warning: Removed 7 rows containing missing values ('geom_line()').
```

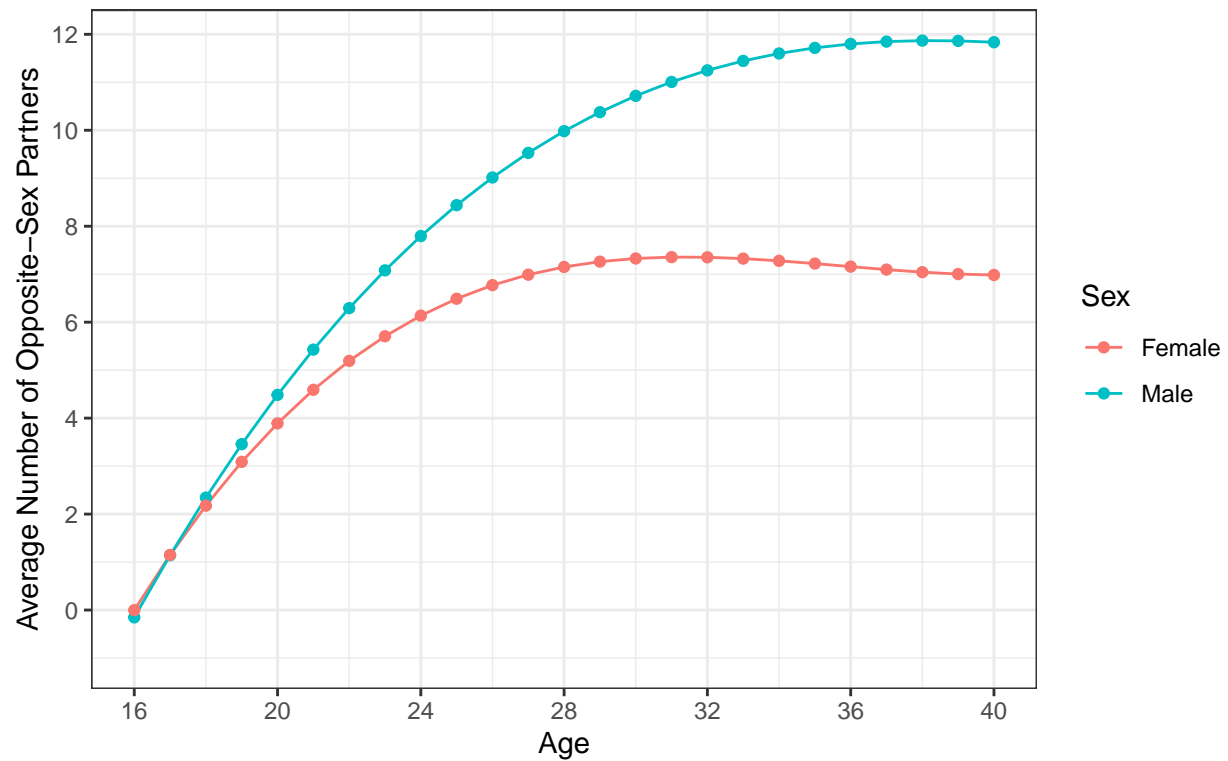
```
## Warning: Removed 7 rows containing missing values ('geom_point()').
```

Average Number of Opposite-Sex Partners by Age of First Intercourse and Age (NSFG 2011–2019) for Females



age_17

Average Number of Opposite-Sex Partners by Age
if Age of First Intercourse is 17 (NSFG 2011–2019)

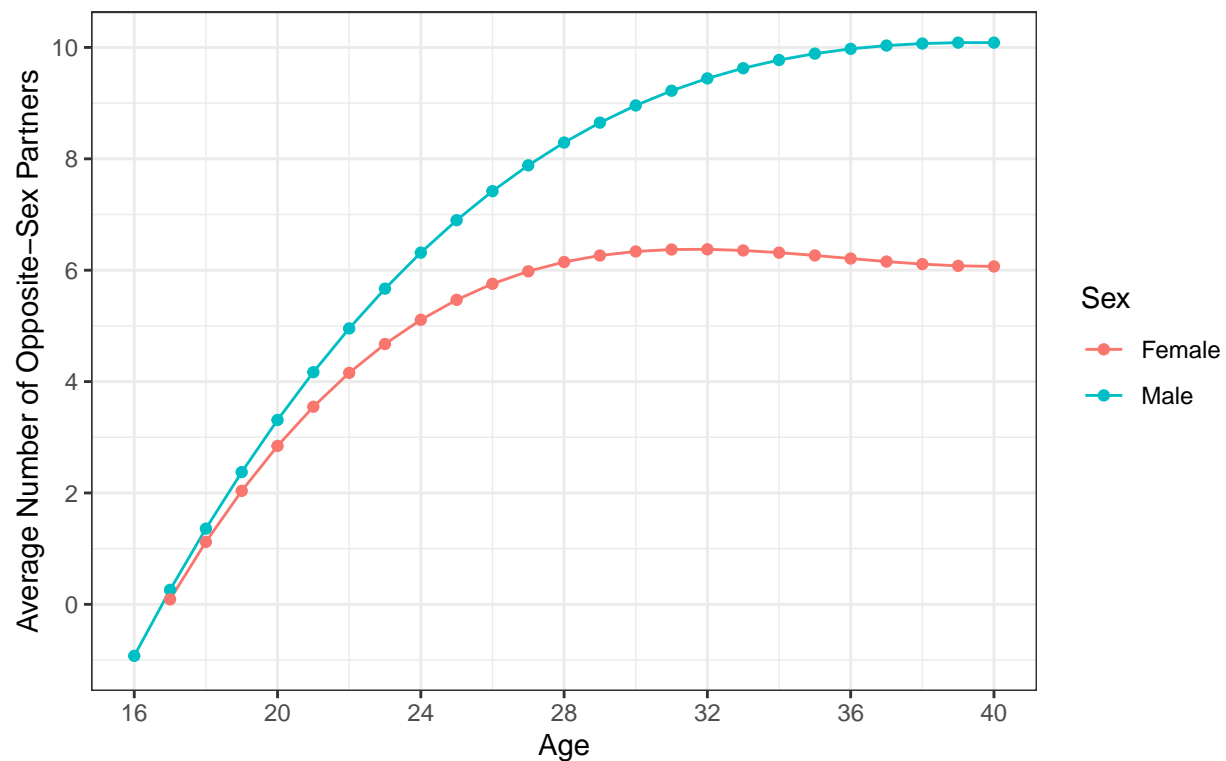


```
age_18
```

```
## Warning: Removed 1 row containing missing values ('geom_line()').
```

```
## Warning: Removed 1 rows containing missing values ('geom_point()').
```

Average Number of Opposite-Sex Partners by Age
if Age of First Intercourse is 18 (NSFG 2011–2019)

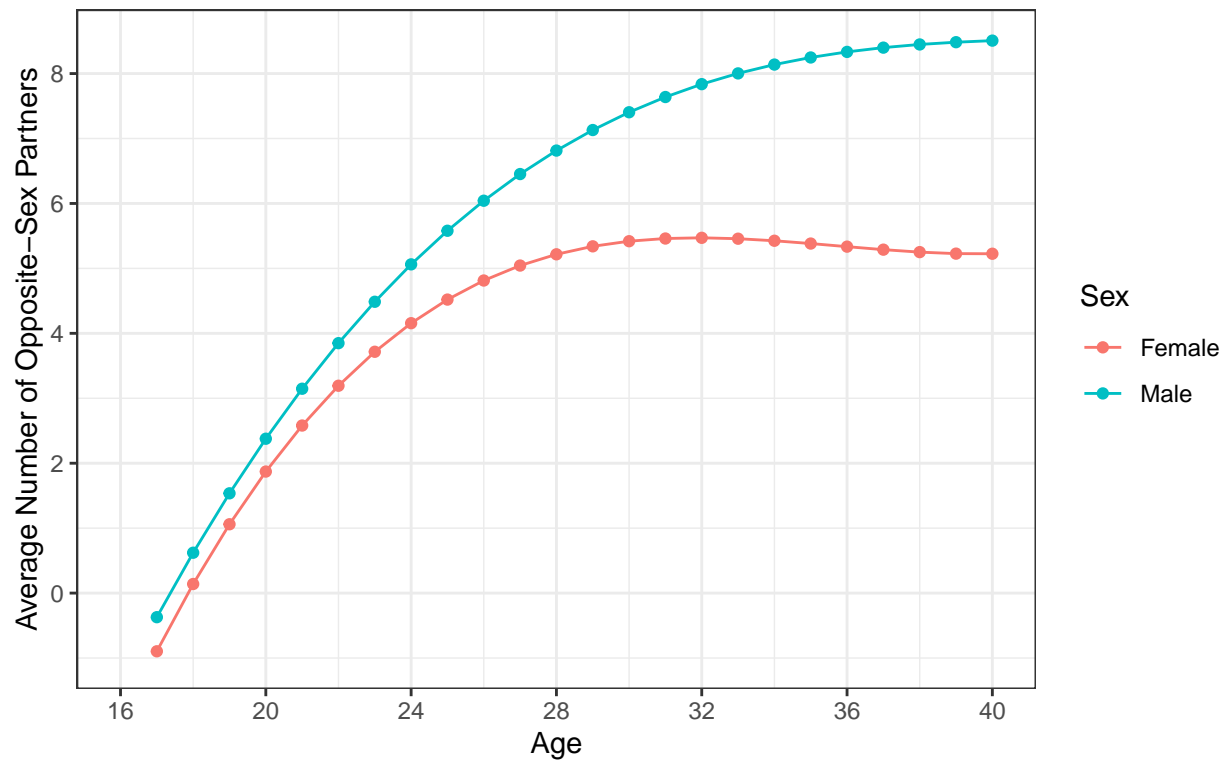


age_19

```
## Warning: Removed 2 rows containing missing values ('geom_line()').
```

```
## Warning: Removed 2 rows containing missing values ('geom_point()').
```

Average Number of Opposite-Sex Partners by Age
if Age of First Intercourse is 19 (NSFG 2011–2019)



```
age_20
```

```
## Warning: Removed 3 rows containing missing values ('geom_line()').
```

```
## Warning: Removed 3 rows containing missing values ('geom_point()').
```

Average Number of Opposite-Sex Partners by Age
if Age of First Intercourse is 20 (NSFG 2011–2019)

