

Analysis 1: Main Analysis with Original and Mail-In Data

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Analytical Strategy

Variables

- Outcome: Foreigner Suffrage (min 0, max 1)
- Mediator 1: (Objective) Political Knowledge (min = 0, max = 1)
- Mediator 2: Ideology (min 0 = left/liberal, max 1 = right/conservative)
- Mediator 3: LDP - DPJ FT (min 0 = favor DPJ, max 1 = favor LDP)
- Mediator 4: Favorability of South Korea (min = 0, max = 1)
- Mediator 5: Favorability of China (min = 0, max = 1)
- Mediator 6: Favorability of USA (min = 0, max = 1)
- Mediator 7: Income (percentile, min = 0, max = 1)
- Independent Variable: University Education (0 = Junior College or Less, 1 = University or More)
- Moderator 1: Gender (0 = Female, 1 = Male), This means that all “base” coefficients are for female.
- Moderator 2: Age (by 10 years, centered at 20). Reasoning: Two trends may influence the role of university education. (1) There is an evident increase in number of university graduates over the years, especially among women. This trend may impies that university experience may be more gendered in the past than today. (2) There is a trend of “internationalization” in university education in recent days. Therefore, the diversifying and liberalizing effect of education may be stronger for younger generation.
- Control 1: Percent in life residing locally. More locally-identified individuals may dislike outsiders more.
- Control 2: (ZIP level) Residing in densely inhabited district (DID)
- Control 3: (ZIP level) Percent of foreigners in neighborhood (transformed by square root)
- Control 4: (ZIP level) Percent of university graduates in neighborhood (by 10 percent)
- Control 5: (Municipality level) Percent of residents residing in DID
- Control 6: (Municipality level) Percent of foreigners (transformed by square root)
- Control 7: (Municipality level) Percent of university graduates (by 10 percent)

Subset Data

Analysis is conducted on the following subset.

If age - years of local ZIP residence is 15 or smaller. 15 is the age of entering high school in Japan. Assuming that an individual is living in the local ZIP continuously, this condition implies that one spend significant time before college in the ZIP of current residence. This filters out the possibility that education changes attitudes through the movement in residence.

Modeling Strategy

All models are estimated by OLS. For outcome model, alternative model is estimated by the multinomial logit model, with 3 category DV (disagree, neither, agree), with disagree as a reference category.

Robustness Check (in this file)

SIFCCT has one special survey where they conducted a survey through mail. Mail survey contains identical set of variables as online survey. So I replicated the analysis with the mail survey.

Preparation

```
## Clean Up Space
rm(list=ls())

## Set Working Directory (Automatically) ##
require(rstudioapi); require(rprojroot)
if (rstudioapi::isAvailable()==TRUE) {
  setwd(dirname(rstudioapi::getActiveDocumentContext()$path));
}
projdir <- find_root(has_file("thisishome.txt"))
cat(paste("Working Directory Set to:\n",projdir))

## Working Directory Set to:
## /home/gentok/GoogleDrive/Projects/Fan-Gento-Lab/ForeignerJapan
setwd(projdir)

## Original Data
datadir1a <- paste0(projdir, "/data/sifcct_zip_latest_v5.rds")
datadir1b <- paste0(projdir, "/data/sifcct_zip_latest_panel_v5.rds")
datadir2 <- paste0(projdir, "/data/mail_zip_latest_v5.rds")

## packages
require(sandwich)
require(lmtest)
require(MASS)
# devtools::install_github("tidyverse/ggplot2") # Need development version (as of Dec 31, 2019)
require(ggplot2)
require(texreg)
require(mlogit)
require(Formula)
```

Import and clean data

```
#####
## SIFCCT Online ##
#####

sifcct <- rbind(readRDS(datadir1a),readRDS(datadir1b))

## Knowledge Variable (Replaced)
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==2] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==3] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==4] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==5] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==6] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==7] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==8] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==9] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==10] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==11] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==12] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
## Knowledge Variable (Replaced)
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==14] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==15] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==16] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==17] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==18] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==19] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==20] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==21] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==22] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==23] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]
sifcct$knowledge[sifcct$panel==1 & sifcct$wave==24] <- sifcct$knowledge[sifcct$panel==1 & sifcct$wave==1]

## Subset Waves
sifcct <- subset(sifcct, !wave%in%c(1,23,24) & !(panel==1 & wave%in%c(1,3:12,14:24)))
table(sifcct$wave,sifcct$panel)

##
##      0      1
##  2 1626 1054
##  3 1748      0
##  4 1918      0
##  5 1873      0
##  6 1916      0
##  7 1779      0
##  8 1774      0
##  9 1789      0
## 10 1674      0
## 11 1731      0
## 12 1668      0
## 13 1636   982
## 14 1648      0
## 15 1758      0
## 16 1744      0
```

```

##      17 1673      0
##      18 1724      0
##      19 1728      0
##      20 1672      0
##      21 1717      0
##      22 1787      0

## sreg with no population as NA
sifcct$c10_sreg_pop[which(sifcct$c10_sreg_pop==0)] <- NA

## Income Missing Percentage (8.9%)
table(is.na(sifcct$income))/sum(table(is.na(sifcct$income)))

##
##      FALSE      TRUE
## 0.91032911 0.08967089

## Exclude Missing Values
sifcctx <- sifcct[,c("id", "foreignsuff", "foreignsuff3", "foreignsuff3x",
  "knowledge", "polint", "ideology", "ldpdpjft",
  "familiarityFT_KOR", "familiarityFT_CHN", "familiarityFT_USA",
  # "evecon", "evecon_verybad", "evecon_bad", "evecon_notbad", "evecon_qtype",
  "income", #"employed",
  "female", "male", "edu", "edu2", "age", "agecat", "bornyr",
  "lvlen", "lvpr",
  "zip_did", "c10_sreg_foreignN", "c10_sreg_pop",
  "c10_sreg_edu_ugsP", "c10_sreg_edu_ugs", "c10_sreg_edu_graduated",
  "didper", "c10_mun_foreignN", "c10_mun_pop",
  "c10_mun_edu_ugsP", "c10_mun_edu_ugs", "c10_mun_edu_graduated",
  "zip", "c10_name_pref", "c10_name_mun", "c10_name_sreg",
  "zip_lat", "zip_lon",
  "wave", "panel")]
sifcctx <- na.omit(sifcctx)
nrow(sifcctx)

## [1] 34703

## Add Income and fper
sifcctx$income <- sifcct$income[match(paste(sifcctx$id, sifcctx$wave), paste(sifcct$id, sifcct$wave))]
summary(sifcctx$income)

##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
## 0.04098 0.18484 0.40915 0.50079 0.78565 0.97505

sifcctx$fper <- sifcct$fper[match(paste(sifcctx$id, sifcctx$wave), paste(sifcct$id, sifcct$wave))]
summary(sifcctx$fper)

##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
## 0.03136 0.77811 1.35848 1.79431 2.24808 28.08225

## Replace Data
sifcct <- sifcctx
rm(sifcctx)

nrow(sifcct[which(sifcct$age - sifcct$lvlen<=15),])

## [1] 7827

```

```
#####
## SIFCCT Mail ##
#####

mail <- readRDS(datadir2)

## sreg with no population as NA
mail$c10_sreg_pop[which(mail$c10_sreg_pop==0)] <- NA

## Exclude Missing Values
mailx <- mail[,c("id", "foreignsuff", "foreignsuff3", "foreignsuff3x",
  "knowledge", "polint", "ideology", "ldpdpjft",
  "familiarityFT_KOR", "familiarityFT_CHN", "familiarityFT_USA",
  # "evecon", "evecon_verybad", "evecon_bad", "evecon_notbad", "evecon_qtype",
  # "income", "employed",
  "female", "male", "edu", "edu2", "age", "agecat", "bornyr",
  "lvlen", "lvpr",
  "zip_did", "c10_sreg_foreignN", "c10_sreg_pop",
  "c10_sreg_edu_ugsP", "c10_sreg_edu_ugs", "c10_sreg_edu_graduated",
  "didper", "c10_mun_foreignN", "c10_mun_pop",
  "c10_mun_edu_ugsP", "c10_mun_edu_ugs", "c10_mun_edu_graduated",
  "zip", "c10_name_pref", "c10_name_mun", "c10_name_sreg",
  "zip_lat", "zip_lon")]
mailx <- na.omit(mailx)
nrow(mailx)

## [1] 1000

## Add Income & fper
mailx$income <- mail$income[match(paste(mailx$id), paste(mail$id))]
summary(mailx$income)

##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.     NA's
## 0.05033 0.23742 0.48322 0.53321 0.82203 0.98067     105

mailx$fper <- mail$fper[match(paste(mailx$id), paste(mail$id))]
summary(mailx$fper)

##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
## 0.0000 0.6821 1.2061 1.5734 1.9266 10.9614

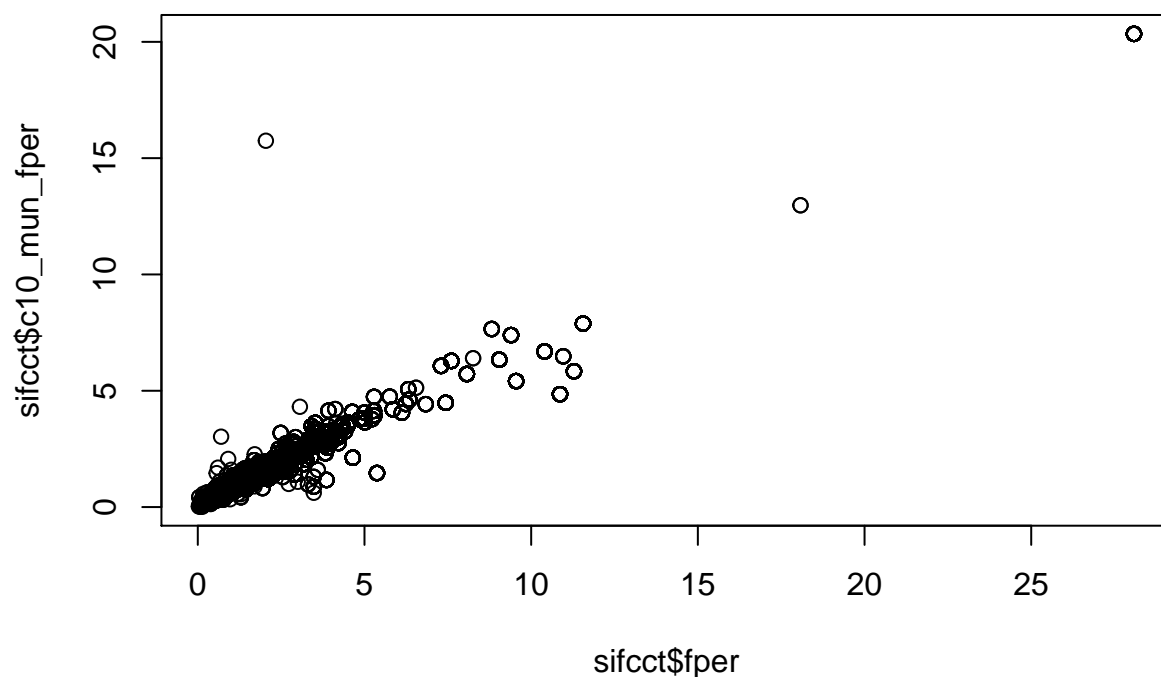
## Replace Data
mail <- mailx
rm(mailx)
```

Recoding Variables

```
## SIFCCT ##

## Binary Age Cohort (50s or over)
sifcct$age2 <- ifelse(sifcct$age >= 50, 1, 0)
sifcct$agex <- sifcct$age/10 - 4.5
## Small Region Foreigner Percent
sifcct$c10_sreg_fper <- sifcct$c10_sreg_foreignN/sifcct$c10_sreg_pop*100
## Municipality Foreigner Percent
```

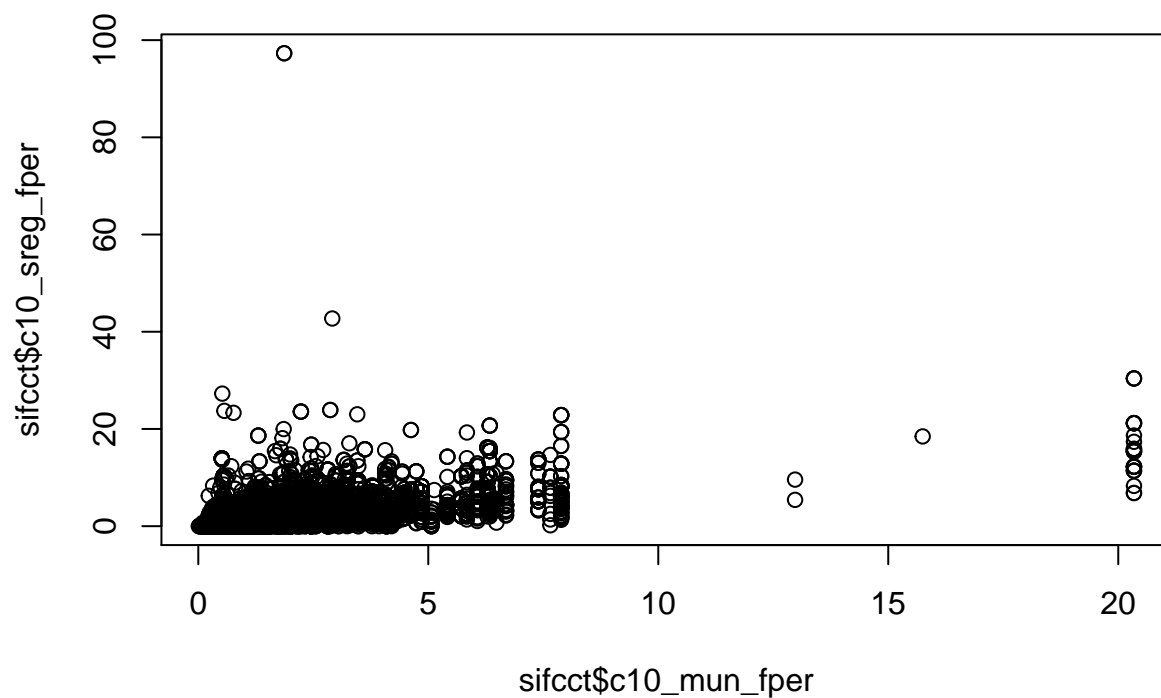
```
sifcct$c10_mun_fper <- sifcct$c10_mun_foreignN/sifcct$c10_mun_pop*100
## Compare Census and Foreinger Registry Numbers
plot(sifcct$fper, sifcct$c10_mun_fper)
```



```
cor(sifcct$fper, sifcct$c10_mun_fper, use="pairwise")
```

```
## [1] 0.972352
```

```
plot(sifcct$c10_mun_fper, sifcct$c10_sreg_fper)
```



```
cor(sifcct$c10_mun_fper, sifcct$c10_sreg_fper, use="pairwise")
```

```
## [1] 0.6087222
```

```
## MAIL ##
```

```
## Binary Age Cohort (50s or over)
```

```
mail$age2 <- ifelse(mail$age >= 50, 1, 0)
```

```
mail$agex <- mail$age/10 - 4.5
```

```
## Small Region Foreiner Percent
```

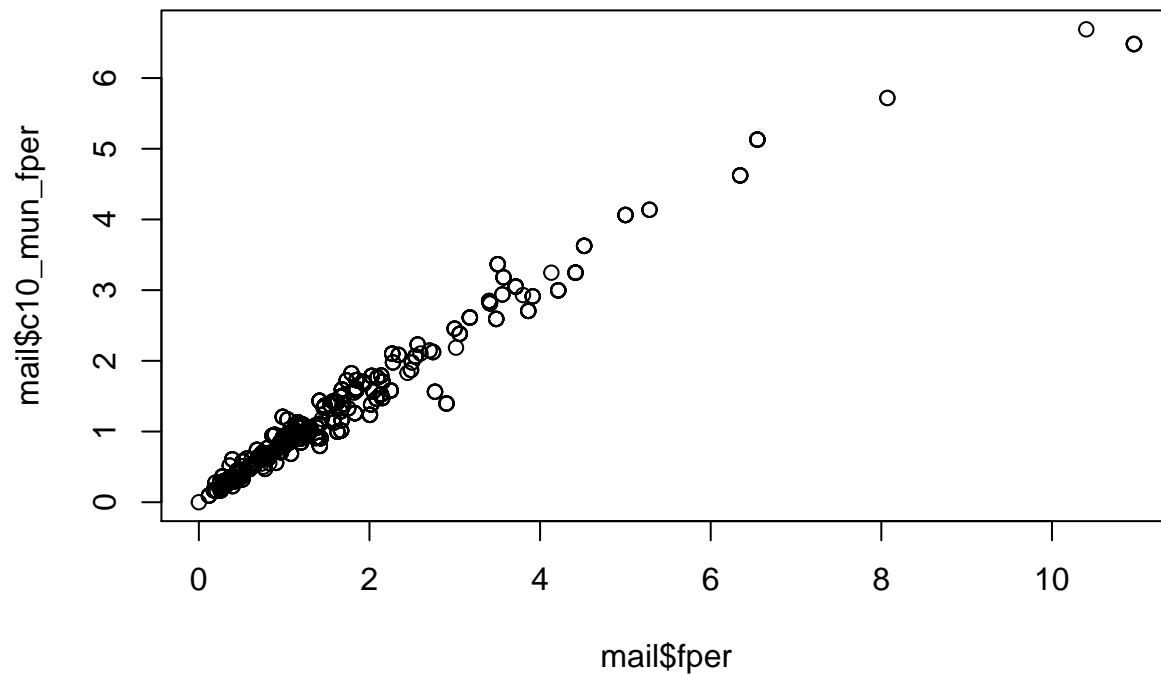
```
mail$c10_sreg_fper <- mail$c10_sreg_foreignN/mail$c10_sreg_pop*100
```

```
## Municipality Foreinger Percent
```

```
mail$c10_mun_fper <- mail$c10_mun_foreignN/mail$c10_mun_pop*100
```

```
## Compare Census and Foreinger Registry Numbers
```

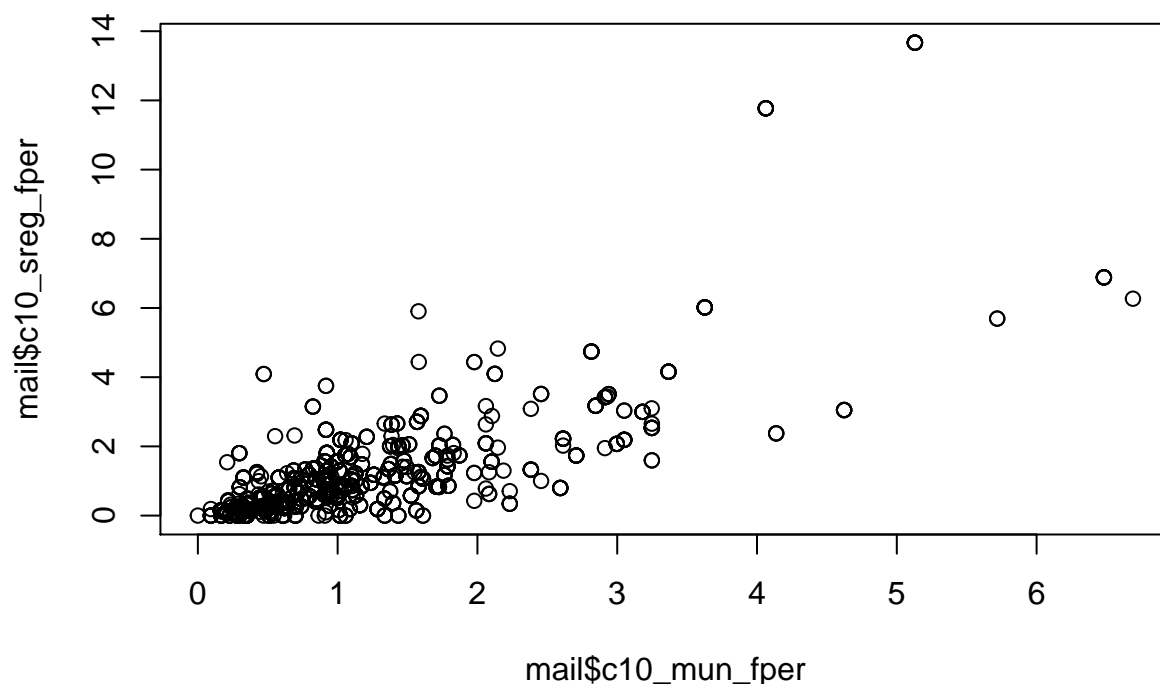
```
plot(mail$fper, mail$c10_mun_fper)
```



```
cor(mail$fper, mail$c10_mun_fper, use="pairwise")
```

```
## [1] 0.9782127
```

```
plot(mail$c10_mun_fper, mail$c10_sreg_fper)
```



```
cor(mail$c10_mun_fper, mail$c10_sreg_fper, use="pairwise")
```

```
## [1] 0.7526452
```

```
## Formula (SIFCCT) ##
```

```
basemod0 <- formula( ~ edu2*male*agex + lvpr +
  as.factor(wave)) # sifcct
basemodA <- formula( ~ edu2*male*agex + lvpr +
  zip_did + sqrt(c10_sreg_fper) + I(c10_sreg_edu_ugsP/10) +
  as.factor(wave)) # sifcct
basemodB <- formula( ~ edu2*male*agex + lvpr +
  didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10) +
  as.factor(wave)) # sifcct
basemodC <- formula( ~ edu2*male*agex + lvpr +
  zip_did + sqrt(c10_sreg_fper) + I(c10_sreg_edu_ugsP/10) +
  didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10) +
  as.factor(wave)) # sifcct
```

```
## Formula (SIFCCT.mlogit) ##
```

```
outmod0.mlogit <- Formula(foreignsuff3x ~ 0 | edu2*male*agex + lvpr +
  as.factor(wave)) # sifcct
outmodA.mlogit <- Formula(foreignsuff3x ~ 0 | edu2*male*agex + lvpr +
  zip_did + sqrt(c10_sreg_fper) + I(c10_sreg_edu_ugsP/10) +
  as.factor(wave)) # sifcct
outmodB.mlogit <- Formula(foreignsuff3x ~ 0 | edu2*male*agex + lvpr +
  didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10) +
  as.factor(wave)) # sifcct
outmodC.mlogit <- Formula(foreignsuff3x ~ 0 | edu2*male*agex + lvpr +
  zip_did + sqrt(c10_sreg_fper) + I(c10_sreg_edu_ugsP/10) +
  didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10) +
  as.factor(wave)) # sifcct
```



```

## Formula (MAIL) ##

basemod0m <- formula( ~ edu2*male*agex + lvpr) # sifcct
basemodAm <- formula( ~ edu2*male*agex + lvpr +
  zip_did + sqrt(c10_sreg_fper) + I(c10_sreg_edu_ugsP/10)) # sifcct
basemodBm <- formula( ~ edu2*male*agex + lvpr +
  didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10)) # sifcct
basemodCm <- formula( ~ edu2*male*agex + lvpr +
  zip_did + sqrt(c10_sreg_fper) + I(c10_sreg_edu_ugsP/10) +
  didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10)) # sifcct

## Formula (MAIL.mlogit) ##

outmod0m.mlogit <- Formula(foreignsuff3x ~ 0 | edu2*male*agex + lvpr) # sifcct
outmodAm.mlogit <- Formula(foreignsuff3x ~ 0 | edu2*male*agex + lvpr +
  zip_did + sqrt(c10_sreg_fper) + I(c10_sreg_edu_ugsP/10)) # sifcct
outmodBm.mlogit <- Formula(foreignsuff3x ~ 0 | edu2*male*agex + lvpr +
  didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10)) # sifcct
outmodCm.mlogit <- Formula(foreignsuff3x ~ 0 | edu2*male*agex + lvpr +
  zip_did + sqrt(c10_sreg_fper) + I(c10_sreg_edu_ugsP/10) +
  didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10)) # sifcct

## Variable Names ##

vnmap <- list("edu2" = "University education",
  "edu2 (1)" = "University education",
  "female" = "Gender (female)",
  "male" = "Gender (male)",
  "age2" = "Age 50s or older",
  "agex" = "Age (by 10 years, centered at 45)",
  "edu2:female" = "University * Female",
  "edu2:male" = "University * Male",
  "edu2 (2)" = "University * Male",
  "edu2:age2" = "University * >=50s",
  "edu2:agex" = "University * Age",
  "edu2 (3)" = "University * Age",
  "edu2:female:age2" = "University * Female * >=50s",
  "edu2:male:age2" = "University * Male * >=50s",
  "edu2:female:agex" = "University * Female * Age",
  "edu2:male:agex" = "University * Male * Age",
  "edu2 (4)" = "University * Male * Age",
  "female:age2" = "Female * >=50s",
  "male:age2" = "Male * >=50s",
  "female:agex" = "Female * Age",
  "male:agex" = "Male * Age",
  "male (2)" = "Male * Age",
  "agecatMiddle Aged (40-50s)" = "Middle Aged (40-50s)",
  "agecatElder (>=60s)" = "Elder (>=60s)",
  "lvpr" = "% of Life Residing Locally (zip)",
  "zip_did" = "DID residence (zip)",
  "sqrt(c10_sreg_fper)" = "Foreigner % sqrt. (zip)",
  "c10_sreg_edu_ugsP" = "University % (zip)",
  "I(c10_sreg_edu_ugsP/10)" = "University % by 10% (zip)",

```

```

"didper" = "DID proportion (mun.)",
"sqrt(c10_mun_fper)" = "Foreigner % sqrt. (mun.)",
"I(c10_mun_edu_ugsP/10)" = "University % by 10% (mun.)",
"c10_mun_edu_ugsP" = "University % (mun.)"

```

SIFCCT: Outcome Model

Living in Local ZIP since at least age 15

```

smo_10 <- lm(update(foreignsuff ~ ., basemod0), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smo_1A <- lm(update(foreignsuff ~ ., basemodA), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smo_1B <- lm(update(foreignsuff ~ ., basemodB), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smo_1C <- lm(update(foreignsuff ~ ., basemodC), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])

screenreg(list(smo_10,smo_1A,smo_1B,smo_1C), digits = 4, # single.row = T,
  override.se = list(coefestest(smo_10,vcov.=vcovHC(smo_10))[2],
    coefestest(smo_1A,vcov.=vcovHC(smo_1A))[2],
    coefestest(smo_1B,vcov.=vcovHC(smo_1B))[2],
    coefestest(smo_1C,vcov.=vcovHC(smo_1C))[2]),
  override.pvalues = list(coefestest(smo_10,vcov.=vcovHC(smo_10))[4],
    coefestest(smo_1A,vcov.=vcovHC(smo_1A))[4],
    coefestest(smo_1B,vcov.=vcovHC(smo_1B))[4],
    coefestest(smo_1C,vcov.=vcovHC(smo_1C))[4]),
  omit.coef = "(wave)",stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Base","ZIP","Municipality","Full"))

```

```

##
## =====
##                               Base                ZIP                Municipality        Full
## -----
## University education          -0.0345 *          -0.0331 *          -0.0325 *          -0.0327 *
##                               (0.0136)          (0.0137)          (0.0137)          (0.0137)
## Gender (male)                 -0.1089 ***        -0.1094 ***        -0.1096 ***        -0.1097 ***
##                               (0.0108)          (0.0108)          (0.0108)          (0.0108)
## Age (by 10 years, centered at 45) 0.0013            0.0014            0.0014            0.0013
##                               (0.0057)          (0.0057)          (0.0057)          (0.0057)
## University * Male              0.0341 *           0.0340 *           0.0343 *           0.0343 *
##                               (0.0169)          (0.0170)          (0.0170)          (0.0170)
## University * Age              -0.0149            -0.0150            -0.0151            -0.0149
##                               (0.0092)          (0.0092)          (0.0092)          (0.0092)
## University * Male * Age        0.0150            0.0151            0.0150            0.0151
##                               (0.0118)          (0.0118)          (0.0118)          (0.0118)
## Male * Age                    0.0107            0.0106            0.0107            0.0106
##                               (0.0081)          (0.0081)          (0.0081)          (0.0081)
## % of Life Residing Locally (zip) -0.0356            -0.0359            -0.0358            -0.0358
##                               (0.0294)          (0.0295)          (0.0295)          (0.0296)
## DID residence (zip)            0.0065            0.0065            0.0065            0.0110
##                               (0.0092)          (0.0092)          (0.0092)          (0.0113)
## Foreigner % sqrt. (zip)        -0.0151 *          -0.0151 *          -0.0151 *          -0.0129
##                               (0.0066)          (0.0066)          (0.0066)          (0.0089)
## University % by 10% (zip)      -0.0013            -0.0013            -0.0013            -0.0004

```

```
## (0.0051) (0.0073)
## DID proportion (mun.) -0.0029 -0.0129
## (0.0162) (0.0198)
## Foreigner % sqrt. (mun.) -0.0150 -0.0031
## (0.0093) (0.0124)
## University % by 10% (mun.) -0.0012 -0.0012
## (0.0074) (0.0103)
## -----
## R^2 0.0281 0.0288 0.0285 0.0289
## Adj. R^2 0.0246 0.0249 0.0247 0.0246
## Num. obs. 7827 7827 7827 7827
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1
```

SIFCCT: Outcome Model 2

```
## Living in Local ZIP since at least age 15 ##
```

```
require(nnet)
smo2_10 <- multinom(update(foreignsuff3x ~ ., basemod0), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])

## # weights: 90 (58 variable)
## initial value 8598.838383
## iter 10 value 8276.717582
## iter 20 value 8254.943927
## iter 30 value 8249.294653
## iter 40 value 8248.353430
## final value 8248.335241
## converged

smo2_1A <- multinom(update(foreignsuff3x ~ ., basemodA), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])

## # weights: 99 (64 variable)
## initial value 8598.838383
## iter 10 value 8343.875666
## iter 20 value 8289.185217
## iter 30 value 8249.698803
## iter 40 value 8244.254566
## iter 50 value 8243.808758
## final value 8243.793638
## converged

smo2_1B <- multinom(update(foreignsuff3x ~ ., basemodB), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])

## # weights: 99 (64 variable)
## initial value 8598.838383
## iter 10 value 8345.896359
## iter 20 value 8266.970395
## iter 30 value 8249.664297
## iter 40 value 8243.592555
## iter 50 value 8243.110333
## final value 8243.104809
## converged
```

```
smo2_1C <- multinom(update(foreignsuff3x ~ ., basemodC), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
```

```
## # weights: 108 (70 variable)
## initial value 8598.838383
## iter 10 value 8308.687907
## iter 20 value 8275.760125
## iter 30 value 8248.754268
## iter 40 value 8240.611153
## iter 50 value 8239.256612
## iter 60 value 8239.145675
## final value 8239.143575
## converged
```

```
sifcct.mlogit <- dfix(sifcct[which(sifcct$age - sifcct$lvlen<=15),],
                    shape = "wide", choice = "foreignsuff3x")
# levels(sifcct.mlogit$id2) <- c("Disagree", "Neither", "Agree")
smo2_10 <- mlogit(outmod0.mlogit, data=sifcct.mlogit, reflevel="Disagree")
smo2_1A <- mlogit(outmodA.mlogit, data=sifcct.mlogit, reflevel="Disagree")
smo2_1B <- mlogit(outmodB.mlogit, data=sifcct.mlogit, reflevel="Disagree")
smo2_1C <- mlogit(outmodC.mlogit, data=sifcct.mlogit, reflevel="Disagree")

screenreg(list(smo2_10,smo2_1A), digits = 4, # single.row = T,
           override.se = list(coeftest(smo2_10,vcov=sandwich)[grep(":Neither",names(coef(smo2_10))),2],
                             coeftest(smo2_10,vcov=sandwich)[grep(":Agree",names(coef(smo2_10))),2],
                             coeftest(smo2_1A,vcov=sandwich)[grep(":Neither",names(coef(smo2_1A))),2],
                             coeftest(smo2_1A,vcov=sandwich)[grep(":Agree",names(coef(smo2_1A))),2]),
           override.pvalues = list(coeftest(smo2_10,vcov=sandwich)[grep(":Neither",names(coef(smo2_10))),4],
                                   coeftest(smo2_10,vcov=sandwich)[grep(":Agree",names(coef(smo2_10))),4],
                                   coeftest(smo2_1A,vcov=sandwich)[grep(":Neither",names(coef(smo2_1A))),4],
                                   coeftest(smo2_1A,vcov=sandwich)[grep(":Agree",names(coef(smo2_1A))),4]),

           beside = T,
           custom.coef.map = vnmap,
           custom.model.names = c("Base: Agree", "Base: Neither",
                                  "ZIP: Agree", "ZIP: Neither"),
           # custom.model.names = c("Base: Neither", "Base: Agree",
           #                          "ZIP: Neither", "ZIP: Agree"),
           omit.coef = "(wave)", stars = c(0.1, 0.05, 0.01, 0.001), symbol = "+")
```

```
##
## =====
##                               Base: Agree      Base: Neither  ZIP: Agree      ZIP: Neither
## -----
## University education          -0.2366 ***      -0.5074 *        -0.2280 ***      -0.4878 *
##                               (0.1019)          (0.1026)         (0.1029)         (0.1034)
## Age (by 10 years, centered at 45) 0.0267 +        -0.0845          0.0274 +        -0.0818
##                               (0.0447)          (0.0464)         (0.0448)         (0.0464)
## University * Male              0.3166 *        0.3177 *        0.3170 *        0.3198 *
##                               (0.1256)          (0.1270)         (0.1258)         (0.1272)
## University * Age              -0.1114         0.0384          -0.1120          0.0358
##                               (0.0689)          (0.0701)         (0.0689)         (0.0701)
## University * Male * Age        0.0813          0.0493          0.0821           0.0522
##                               (0.0877)          (0.0884)         (0.0877)         (0.0884)
## Male * Age                    0.0955          -0.0154          0.0949           -0.0175
##                               (0.0620)          (0.0634)         (0.0620)         (0.0634)
```

```
## % of Life Residing Locally (zip)      -0.1575      0.1758      -0.1588      0.1545
##                                     (0.2161)      (0.2144)      (0.2174)      (0.2153)
## DID residence (zip)                   0.0404      0.0117
##                                     (0.0679)      (0.0677)
## Foreigner % sqrt. (zip)              -0.1095 *      -0.1045 *
##                                     (0.0477)      (0.0494)
## University % by 10% (zip)            -0.0057      -0.0319
##                                     (0.0373)      (0.0370)
## -----
## AIC                                  16612.6702      16612.6702      16615.5868      16615.5868
## Log Likelihood                       -8248.3351      -8248.3351      -8243.7934      -8243.7934
## Num. obs.                            7827          7827          7827          7827
## K                                    3            3            3            3
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1
screenreg(list(smo2_1B,smo2_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(smo2_1B,vcov=sandwich)[grep(":",names(coef(smo2_1B))),2],
    coeftest(smo2_1B,vcov=sandwich)[grep(":",names(coef(smo2_1B))),2],
    coeftest(smo2_1C,vcov=sandwich)[grep(":",names(coef(smo2_1C))),2],
    coeftest(smo2_1C,vcov=sandwich)[grep(":",names(coef(smo2_1C))),2]),
  override.pvalues = list(coeftest(smo2_1B,vcov=sandwich)[grep(":",names(coef(smo2_1B))),4],
    coeftest(smo2_1B,vcov=sandwich)[grep(":",names(coef(smo2_1B))),4],
    coeftest(smo2_1C,vcov=sandwich)[grep(":",names(coef(smo2_1C))),4],
    coeftest(smo2_1C,vcov=sandwich)[grep(":",names(coef(smo2_1C))),4]),

  beside = T,
  # custom.coef.map = vnmap,
  custom.model.names = c("Mun.: Agree","Mun.: Neither",
    "Full: Agree","Full: Neither"),
  # custom.model.names = c("Mun.: Neither","Mun.: Agree",
  #   "Full: Neither","Full: Agree"),
  omit.coef = "(wave)",stars = c(0.1,0.05,0.01,0.001), symbol = "+")

##
## =====
##               Mun.: Agree      Mun.: Neither      Full: Agree      Full: Neither
## -----
## (Intercept)      0.2119      0.0490      0.2067      0.0595
##                  (0.2541)      (0.2528)      (0.2545)      (0.2532)
## edu2 (1)          -0.2225 ***      -0.4957 *      -0.2250 ***      -0.4884 *
##                  (0.1027)      (0.1033)      (0.1029)      (0.1036)
## male (1)          -0.7863 ***      -0.8100 ***      -0.7877 ***      -0.8149 ***
##                  (0.0817)      (0.0857)      (0.0819)      (0.0857)
## agex              0.0273 +      -0.0823      0.0267 +      -0.0816
##                  (0.0448)      (0.0464)      (0.0448)      (0.0464)
## lvpr              -0.1593      0.1667      -0.1588      0.1554
##                  (0.2175)      (0.2150)      (0.2178)      (0.2153)
## didper            0.0063 *      -0.2650      -0.0445 **      -0.3924
##                  (0.1195)      (0.1198)      (0.1434)      (0.1455)
## sqrt(c10_mun_fper) -0.1130      -0.0532 +      -0.0283      0.0716
##                  (0.0671)      (0.0677)      (0.0917)      (0.0929)
## c10_mun_edu_ugsP/10 -0.0143      0.0418      -0.0233      0.1103
##                  (0.0554)      (0.0540)      (0.0759)      (0.0746)
## edu2 (2)          0.3170 **      0.3288 *      0.3177 **      0.3265 *
##                  (0.1257)      (0.1272)      (0.1258)      (0.1273)
```

```
## edu2 (3)                -0.1124          0.0360          -0.1117          0.0359
##                        (0.0689)          (0.0701)          (0.0689)          (0.0701)
## male (2)                0.0962          -0.0180          0.0953          -0.0205
##                        (0.0621)          (0.0634)          (0.0622)          (0.0634)
## edu2 (4)                0.0807          0.0515          0.0818          0.0541
##                        (0.0877)          (0.0884)          (0.0878)          (0.0884)
## zip_did                 0.0576 +          0.1353
##                        (0.0821)          (0.0823)
## sqrt(c10_sreg_fper)    -0.0909 *          -0.1365
##                        (0.0665)          (0.0678)
## c10_sreg_edu_ugsP/10   0.0115          -0.0661
##                        (0.0530)          (0.0525)
## -----
## AIC                    16614.2088        16614.2088        16618.2864        16618.2864
## Log Likelihood         -8243.1044        -8243.1044        -8239.1432        -8239.1432
## Num. obs.              7827          7827          7827          7827
## K                      3            3            3            3
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1
```

SIFCCT: Mediator Models

Knowledge

```
smm01_10 <- lm(update(knowledge ~ ., basemod0), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm01_1A <- lm(update(knowledge ~ ., basemodA), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm01_1B <- lm(update(knowledge ~ ., basemodB), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm01_1C <- lm(update(knowledge ~ ., basemodC), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
screenreg(list(smm01_10,smm01_1A,smm01_1B,smm01_1C), digits = 4, # single.row = T,
  override.se = list(coefest(smm01_10,vcov.=vcovHC(smm01_10))[,2],
    coefest(smm01_1A,vcov.=vcovHC(smm01_1A))[,2],
    coefest(smm01_1B,vcov.=vcovHC(smm01_1B))[,2],
    coefest(smm01_1C,vcov.=vcovHC(smm01_1C))[,2]),
  override.pvalues = list(coefest(smm01_10,vcov.=vcovHC(smm01_10))[,4],
    coefest(smm01_1A,vcov.=vcovHC(smm01_1A))[,4],
    coefest(smm01_1B,vcov.=vcovHC(smm01_1B))[,4],
    coefest(smm01_1C,vcov.=vcovHC(smm01_1C))[,4]),
  omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Base","ZIP","Municipality","Full"))
```

```
##
## =====
##                        Base          ZIP          Municipality    Full
## -----
## University education    0.1553 ***    0.1483 ***    0.1510 ***    0.1486 ***
##                        (0.0125)    (0.0126)    (0.0126)    (0.0126)
## Gender (male)          0.1842 ***    0.1857 ***    0.1859 ***    0.1867 ***
##                        (0.0100)    (0.0100)    (0.0100)    (0.0100)
## Age (by 10 years, centered at 45) 0.0542 ***    0.0536 ***    0.0540 ***    0.0537 ***
##                        (0.0053)    (0.0053)    (0.0053)    (0.0053)
## University * Male      -0.0287 +    -0.0278 +    -0.0293 +    -0.0285 +
##                        (0.0152)    (0.0152)    (0.0152)    (0.0152)
```

```
## University * Age          -0.0158 +      -0.0151 +      -0.0153 +      -0.0151 +
##                          (0.0083)      (0.0083)      (0.0083)      (0.0083)
## University * Male * Age   0.0054        0.0048        0.0046        0.0044
##                          (0.0104)      (0.0104)      (0.0104)      (0.0104)
## Male * Age                0.0020        0.0025        0.0025        0.0028
##                          (0.0074)      (0.0074)      (0.0074)      (0.0074)
## % of Life Residing Locally (zip) -0.1088 *** -0.0984 *** -0.0987 *** -0.0961 ***
##                          (0.0257)      (0.0257)      (0.0257)      (0.0257)
## DID residence (zip)      -0.0117
##                          (0.0079)
## Foreigner % sqrt. (zip)  -0.0016
##                          (0.0057)
## University % by 10% (zip) 0.0205 ***
##                          (0.0043)
## DID proportion (mun.)    0.0052
##                          (0.0137)
## Foreigner % sqrt. (mun.) -0.0157 +
##                          (0.0081)
## University % by 10% (mun.) 0.0209 ***
##                          (0.0062)
## -----
## R^2                      0.1892        0.1916        0.1912        0.1924
## Adj. R^2                 0.1863        0.1884        0.1880        0.1888
## Num. obs.                7827          7827          7827          7827
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1
```

Ideology

```
smm02_10 <- lm(update(ideology ~ ., basemod0), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm02_1A <- lm(update(ideology ~ ., basemodA), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm02_1B <- lm(update(ideology ~ ., basemodB), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm02_1C <- lm(update(ideology ~ ., basemodC), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
screenreg(list(smm02_10,smm02_1A,smm02_1B,smm02_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(smm02_10,vcov.=vcovHC(smm02_10))[2],
    coeftest(smm02_1A,vcov.=vcovHC(smm02_1A))[2],
    coeftest(smm02_1B,vcov.=vcovHC(smm02_1B))[2],
    coeftest(smm02_1C,vcov.=vcovHC(smm02_1C))[2]),
  override.pvalues = list(coeftest(smm02_10,vcov.=vcovHC(smm02_10))[4],
    coeftest(smm02_1A,vcov.=vcovHC(smm02_1A))[4],
    coeftest(smm02_1B,vcov.=vcovHC(smm02_1B))[4],
    coeftest(smm02_1C,vcov.=vcovHC(smm02_1C))[4]),
  omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Base","ZIP","Municipality","Full"))
```

```
##
## =====
##                      Base          ZIP          Municipality    Full
## -----
## University education -0.0120        -0.0130        -0.0127        -0.0126
##                      (0.0083)      (0.0083)      (0.0083)      (0.0083)
## Gender (male)        -0.0254 *** -0.0251 *** -0.0262 *** -0.0260 ***
##                      (0.0070)      (0.0070)      (0.0070)      (0.0070)
```



```
## Age (by 10 years, centered at 45)      -0.0052      -0.0053      -0.0051      -0.0053
##                                       (0.0034)      (0.0034)      (0.0034)      (0.0034)
## University * Male                     0.0147      0.0148      0.0154      0.0152
##                                       (0.0107)      (0.0107)      (0.0107)      (0.0107)
## University * Age                      -0.0046      -0.0044      -0.0046      -0.0044
##                                       (0.0055)      (0.0055)      (0.0055)      (0.0055)
## University * Male * Age                0.0104      0.0103      0.0104      0.0102
##                                       (0.0074)      (0.0074)      (0.0074)      (0.0074)
## Male * Age                           -0.0003      -0.0002      -0.0004      -0.0003
##                                       (0.0051)      (0.0051)      (0.0051)      (0.0051)
## % of Life Residing Locally (zip)       0.0190      0.0211      0.0215      0.0223
##                                       (0.0183)      (0.0183)      (0.0183)      (0.0184)
## DID residence (zip)                   0.0014
##                                       (0.0060)
## Foreigner % sqrt. (zip)              -0.0040
##                                       (0.0042)
## University % by 10% (zip)             0.0033
##                                       (0.0033)
## DID proportion (mun.)                 -0.0207 +
##                                       (0.0107)
## Foreigner % sqrt. (mun.)              -0.0067
##                                       (0.0060)
## University % by 10% (mun.)            0.0104 *
##                                       (0.0048)
## -----
## R^2                                0.0054      0.0057      0.0063      0.0066
## Adj. R^2                           0.0018      0.0017      0.0023      0.0023
## Num. obs.                          7827      7827      7827      7827
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1
```

LDP - DPJ FT

```
smm03_10 <- lm(update(ldpdpjft ~ ., basemod0), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm03_1A <- lm(update(ldpdpjft ~ ., basemodA), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm03_1B <- lm(update(ldpdpjft ~ ., basemodB), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm03_1C <- lm(update(ldpdpjft ~ ., basemodC), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
screenreg(list(smm03_10,smm03_1A,smm03_1B,smm03_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(smm03_10,vcov.=vcovHC(smm03_10))[2],
    coeftest(smm03_1A,vcov.=vcovHC(smm03_1A))[2],
    coeftest(smm03_1B,vcov.=vcovHC(smm03_1B))[2],
    coeftest(smm03_1C,vcov.=vcovHC(smm03_1C))[2]),
  override.pvalues = list(coeftest(smm03_10,vcov.=vcovHC(smm03_10))[4],
    coeftest(smm03_1A,vcov.=vcovHC(smm03_1A))[4],
    coeftest(smm03_1B,vcov.=vcovHC(smm03_1B))[4],
    coeftest(smm03_1C,vcov.=vcovHC(smm03_1C))[4]),
  omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Base","ZIP","Municipality","Full"))
```

```
##
## =====
##                               Base      ZIP      Municipality      Full
## -----
```


## University education	-0.0038	-0.0045	-0.0035	-0.0042
##	(0.0068)	(0.0069)	(0.0069)	(0.0069)
## Gender (male)	0.0220 ***	0.0222 ***	0.0216 ***	0.0220 ***
##	(0.0053)	(0.0054)	(0.0054)	(0.0054)
## Age (by 10 years, centered at 45)	-0.0020	-0.0020	-0.0019	-0.0022
##	(0.0028)	(0.0028)	(0.0028)	(0.0028)
## University * Male	0.0038	0.0039	0.0041	0.0041
##	(0.0085)	(0.0086)	(0.0086)	(0.0086)
## University * Age	-0.0057	-0.0057	-0.0058	-0.0057
##	(0.0046)	(0.0045)	(0.0046)	(0.0046)
## University * Male * Age	0.0062	0.0062	0.0064	0.0062
##	(0.0059)	(0.0059)	(0.0059)	(0.0059)
## Male * Age	-0.0135 ***	-0.0135 ***	-0.0137 ***	-0.0134 ***
##	(0.0041)	(0.0041)	(0.0041)	(0.0041)
## % of Life Residing Locally (zip)	0.0194	0.0199	0.0178	0.0192
##	(0.0142)	(0.0142)	(0.0142)	(0.0142)
## DID residence (zip)		-0.0024		0.0002
##		(0.0046)		(0.0056)
## Foreigner % sqrt. (zip)		0.0042		0.0043
##		(0.0033)		(0.0044)
## University % by 10% (zip)		0.0012		0.0058 +
##		(0.0025)		(0.0035)
## DID proportion (mun.)			-0.0055	-0.0057
##			(0.0081)	(0.0098)
## Foreigner % sqrt. (mun.)			0.0059	0.0020
##			(0.0047)	(0.0062)
## University % by 10% (mun.)			-0.0019	-0.0078
##			(0.0038)	(0.0051)
## -----				
## R^2	0.0989	0.0991	0.0992	0.0996
## Adj. R^2	0.0956	0.0955	0.0956	0.0957
## Num. obs.	7827	7827	7827	7827
## =====				
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1				

Favorability of South Korea

```

smm04_10 <- lm(update(familiarityFT_KOR ~ ., basemod0), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm04_1A <- lm(update(familiarityFT_KOR ~ ., basemodA), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm04_1B <- lm(update(familiarityFT_KOR ~ ., basemodB), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm04_1C <- lm(update(familiarityFT_KOR ~ ., basemodC), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
screenreg(list(smm04_10,smm04_1A,smm04_1B,smm04_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(smm04_10,vcov.=vcovHC(smm04_10))[ ,2],
    coeftest(smm04_1A,vcov.=vcovHC(smm04_1A))[ ,2],
    coeftest(smm04_1B,vcov.=vcovHC(smm04_1B))[ ,2],
    coeftest(smm04_1C,vcov.=vcovHC(smm04_1C))[ ,2]),
  override.pvalues = list(coeftest(smm04_10,vcov.=vcovHC(smm04_10))[ ,4],
    coeftest(smm04_1A,vcov.=vcovHC(smm04_1A))[ ,4],
    coeftest(smm04_1B,vcov.=vcovHC(smm04_1B))[ ,4],
    coeftest(smm04_1C,vcov.=vcovHC(smm04_1C))[ ,4]),
  omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Base","ZIP","Municipality","Full"))

```

```
##
## =====
##               Base               ZIP               Municipality       Full
## -----
## University education           -0.0088           -0.0106           -0.0107           -0.0113
##                               (0.0104)           (0.0105)           (0.0105)           (0.0105)
## Gender (male)                  -0.0580 ***          -0.0581 ***          -0.0578 ***          -0.0580 ***
##                               (0.0083)           (0.0083)           (0.0083)           (0.0084)
## Age (by 10 years, centered at 45) 0.0094 *             0.0094 *             0.0093 *             0.0096 *
##                               (0.0046)           (0.0046)           (0.0046)           (0.0046)
## University * Male              0.0153              0.0159              0.0155              0.0159
##                               (0.0127)           (0.0127)           (0.0127)           (0.0127)
## University * Age              -0.0141 +           -0.0141 *           -0.0140 +           -0.0142 *
##                               (0.0072)           (0.0072)           (0.0072)           (0.0072)
## University * Male * Age        0.0073              0.0073              0.0073              0.0075
##                               (0.0090)           (0.0090)           (0.0090)           (0.0090)
## Male * Age                    0.0190 **           0.0190 **           0.0189 **           0.0188 **
##                               (0.0063)           (0.0063)           (0.0063)           (0.0063)
## % of Life Residing Locally (zip) -0.0103             -0.0087             -0.0088             -0.0096
##                               (0.0227)           (0.0227)           (0.0227)           (0.0227)
## DID residence (zip)            -0.0109             -0.0109             -0.0109             -0.0127
##                               (0.0068)           (0.0068)           (0.0068)           (0.0082)
## Foreigner % sqrt. (zip)        0.0030              0.0030              0.0030              0.0037
##                               (0.0047)           (0.0047)           (0.0047)           (0.0065)
## University % by 10% (zip)      0.0055              0.0055              0.0055              0.0023
##                               (0.0038)           (0.0038)           (0.0038)           (0.0053)
## DID proportion (mun.)          -0.0084             -0.0084             -0.0084             -0.0044
##                               (0.0118)           (0.0118)           (0.0118)           (0.0143)
## Foreigner % sqrt. (mun.)       0.0086              0.0086              0.0086              0.0124
##                               (0.0068)           (0.0068)           (0.0068)           (0.0092)
## University % by 10% (mun.)     0.0063              0.0063              0.0063              0.0042
##                               (0.0056)           (0.0056)           (0.0056)           (0.0076)
## -----
## R^2                           0.0740              0.0744              0.0744              0.0747
## Adj. R^2                      0.0706              0.0707              0.0707              0.0707
## Num. obs.                     7827               7827               7827               7827
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1
```

Favorability of China

```
smm05_10 <- lm(update(familiarityFT_CHN ~ ., basemod0), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),
smm05_1A <- lm(update(familiarityFT_CHN ~ ., basemodA), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),
smm05_1B <- lm(update(familiarityFT_CHN ~ ., basemodB), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),
smm05_1C <- lm(update(familiarityFT_CHN ~ ., basemodC), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),
screenreg(list(smm05_10,smm05_1A,smm05_1B,smm05_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(smm05_10,vcov.=vcovHC(smm05_10))[,2],
                    coeftest(smm05_1A,vcov.=vcovHC(smm05_1A))[,2],
                    coeftest(smm05_1B,vcov.=vcovHC(smm05_1B))[,2],
                    coeftest(smm05_1C,vcov.=vcovHC(smm05_1C))[,2]),
  override.pvalues = list(coeftest(smm05_10,vcov.=vcovHC(smm05_10))[,4],
                        coeftest(smm05_1A,vcov.=vcovHC(smm05_1A))[,4],
                        coeftest(smm05_1B,vcov.=vcovHC(smm05_1B))[,4],
```

```

      coeftest(smm05_1C,vcov.=vcovHC(smm05_1C))[,4]),
omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
custom.coef.map = vnmap,
custom.model.names = c("Base","ZIP","Municipality","Full"))

```

```

##
## =====
##                               Base           ZIP           Municipality   Full
## -----
## University education          -0.0055        -0.0052        -0.0053        -0.0053
##                               (0.0088)        (0.0089)        (0.0089)        (0.0089)
## Gender (male)                 -0.0185 **   -0.0192 **   -0.0195 **   -0.0197 **
##                               (0.0072)        (0.0072)        (0.0072)        (0.0072)
## Age (by 10 years, centered at 45) -0.0051        -0.0049        -0.0050        -0.0049
##                               (0.0041)        (0.0041)        (0.0041)        (0.0041)
## University * Male              0.0131         0.0136         0.0138         0.0139
##                               (0.0108)        (0.0108)        (0.0108)        (0.0108)
## University * Age              -0.0122 *     -0.0124 *     -0.0124 *     -0.0124 *
##                               (0.0062)        (0.0062)        (0.0062)        (0.0062)
## University * Male * Age        0.0043         0.0045         0.0045         0.0046
##                               (0.0078)        (0.0078)        (0.0078)        (0.0078)
## Male * Age                    0.0071         0.0070         0.0069         0.0068
##                               (0.0056)        (0.0056)        (0.0056)        (0.0056)
## % of Life Residing Locally (zip) -0.0446 *     -0.0454 *     -0.0449 *     -0.0456 *
##                               (0.0195)        (0.0195)        (0.0195)        (0.0195)
## DID residence (zip)            -0.0060
##                               (0.0058)
## Foreigner % sqrt. (zip)       -0.0044
##                               (0.0041)
## University % by 10% (zip)      0.0008
##                               (0.0032)
## DID proportion (mun.)         -0.0182 +
##                               (0.0102)
## Foreigner % sqrt. (mun.)      -0.0008
##                               (0.0057)
## University % by 10% (mun.)     0.0039
##                               (0.0047)
## -----
## R^2                           0.0332         0.0336         0.0337         0.0339
## Adj. R^2                      0.0298         0.0297         0.0298         0.0297
## Num. obs.                     7827          7827          7827          7827
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1

```

Favorability of USA

```

smm06_10 <- lm(update(familiarityFT_USA ~ ., basemod0), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),
smm06_1A <- lm(update(familiarityFT_USA ~ ., basemodA), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),
smm06_1B <- lm(update(familiarityFT_USA ~ ., basemodB), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),
smm06_1C <- lm(update(familiarityFT_USA ~ ., basemodC), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),
screenreg(list(smm06_10,smm06_1A,smm06_1B,smm06_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(smm06_10,vcov.=vcovHC(smm06_10))[,2],
                    coeftest(smm06_1A,vcov.=vcovHC(smm06_1A))[,2],

```

```

coeftest(smm06_1B,vcov.=vcovHC(smm06_1B))[,2],
coeftest(smm06_1C,vcov.=vcovHC(smm06_1C))[,2]),
override.pvalues = list(coeftest(smm06_10,vcov.=vcovHC(smm06_10))[,4],
coeftest(smm06_1A,vcov.=vcovHC(smm06_1A))[,4],
coeftest(smm06_1B,vcov.=vcovHC(smm06_1B))[,4],
coeftest(smm06_1C,vcov.=vcovHC(smm06_1C))[,4]),
omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
custom.coef.map = vnmap,
custom.model.names = c("Base","ZIP","Municipality","Full"))

```

```

##
## =====
##                               Base           ZIP           Municipality     Full
## -----
## University education          -0.0085         -0.0102         -0.0108         -0.0111
##                               (0.0090)         (0.0091)         (0.0091)         (0.0091)
## Gender (male)                  0.0263 ***         0.0268 ***         0.0274 ***         0.0271 ***
##                               (0.0073)         (0.0073)         (0.0073)         (0.0073)
## Age (by 10 years, centered at 45) 0.0066 +           0.0064           0.0065 +         0.0067 +
##                               (0.0039)         (0.0039)         (0.0039)         (0.0039)
## University * Male              0.0211 +           0.0212 +           0.0207 +         0.0210 +
##                               (0.0112)         (0.0112)         (0.0112)         (0.0112)
## University * Age              -0.0136 *          -0.0133 *          -0.0133 *         -0.0134 *
##                               (0.0061)         (0.0061)         (0.0061)         (0.0061)
## University * Male * Age        0.0134 +           0.0133 +           0.0132 +         0.0135 +
##                               (0.0078)         (0.0078)         (0.0078)         (0.0078)
## Male * Age                    0.0043             0.0044             0.0044             0.0042
##                               (0.0055)         (0.0055)         (0.0055)         (0.0055)
## % of Life Residing Locally (zip) -0.0302            -0.0271            -0.0268            -0.0277
##                               (0.0192)         (0.0193)         (0.0193)         (0.0194)
## DID residence (zip)            -0.0002            -0.0002            -0.0002            -0.0048
##                               (0.0060)         (0.0060)         (0.0060)         (0.0071)
## Foreigner % sqrt. (zip)       -0.0032            -0.0032            -0.0032            -0.0100 +
##                               (0.0042)         (0.0042)         (0.0042)         (0.0058)
## University % by 10% (zip)      0.0054             0.0054             0.0054             0.0005
##                               (0.0034)         (0.0034)         (0.0034)         (0.0048)
## DID proportion (mun.)          0.0068             0.0068             0.0068             0.0121
##                               (0.0107)         (0.0107)         (0.0107)         (0.0127)
## Foreigner % sqrt. (mun.)       0.0018             0.0018             0.0018             0.0113
##                               (0.0060)         (0.0060)         (0.0060)         (0.0080)
## University % by 10% (mun.)     0.0065             0.0065             0.0065             0.0063
##                               (0.0050)         (0.0050)         (0.0050)         (0.0068)
## -----
## R^2                           0.0230             0.0235             0.0238             0.0243
## Adj. R^2                      0.0195             0.0196             0.0199             0.0200
## Num. obs.                     7827             7827             7827             7827
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1

```

Income

```

smm07_10 <- lm(update(income ~ ., basemod0), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm07_1A <- lm(update(income ~ ., basemodA), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])

```

```

smm07_1B <- lm(update(income ~ ., basemodB), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
smm07_1C <- lm(update(income ~ ., basemodC), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
screenreg(list(smm07_10,smm07_1A,smm07_1B,smm07_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(smm07_10,vcov.=vcovHC(smm07_10))[,2],
    coeftest(smm07_1A,vcov.=vcovHC(smm07_1A))[,2],
    coeftest(smm07_1B,vcov.=vcovHC(smm07_1B))[,2],
    coeftest(smm07_1C,vcov.=vcovHC(smm07_1C))[,2]),
  override.pvalues = list(coeftest(smm07_10,vcov.=vcovHC(smm07_10))[,4],
    coeftest(smm07_1A,vcov.=vcovHC(smm07_1A))[,4],
    coeftest(smm07_1B,vcov.=vcovHC(smm07_1B))[,4],
    coeftest(smm07_1C,vcov.=vcovHC(smm07_1C))[,4]),
  omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Base","ZIP","Municipality","Full"))

```

```

##
## =====
##                               Base           ZIP           Municipality     Full
## -----
## University education          0.1449 ***      0.1313 ***      0.1328 ***      0.1294 ***
##                               (0.0116)      (0.0117)      (0.0116)      (0.0117)
## Gender (male)                 0.0169 +       0.0211 *       0.0197 *       0.0206 *
##                               (0.0090)      (0.0090)      (0.0090)      (0.0090)
## Age (by 10 years, centered at 45) 0.0092 +       0.0077         0.0088 +       0.0082
##                               (0.0050)      (0.0050)      (0.0050)      (0.0050)
## University * Male             -0.0295 *      -0.0289 *      -0.0296 *      -0.0287 *
##                               (0.0143)      (0.0142)      (0.0142)      (0.0142)
## University * Age              -0.0014        0.0002        -0.0004        0.0000
##                               (0.0081)      (0.0081)      (0.0081)      (0.0081)
## University * Male * Age       0.0153         0.0139         0.0147         0.0145
##                               (0.0102)      (0.0102)      (0.0101)      (0.0102)
## Male * Age                   -0.0088        -0.0077        -0.0087        -0.0084
##                               (0.0069)      (0.0069)      (0.0069)      (0.0069)
## % of Life Residing Locally (zip) -0.0650 **      -0.0450 +      -0.0508 *      -0.0470 +
##                               (0.0250)      (0.0249)      (0.0250)      (0.0250)
## DID residence (zip)           -0.0102        (0.0075)      (0.0091)
##                               (0.0075)      (0.0075)      (0.0091)
## Foreigner % sqrt. (zip)       0.0107 *       (0.0054)      (0.0070)
##                               (0.0054)      (0.0054)      (0.0070)
## University % by 10% (zip)     0.0348 ***      (0.0042)      (0.0061)
##                               (0.0042)      (0.0042)      (0.0061)
## DID proportion (mun.)        -0.0187        (0.0133)      (0.0159)
##                               (0.0133)      (0.0133)      (0.0159)
## Foreigner % sqrt. (mun.)     0.0265 ***      0.0265 ***      0.0343 ***
##                               (0.0075)      (0.0075)      (0.0098)
## University % by 10% (mun.)   0.0407 ***      0.0407 ***      0.0166 +
##                               (0.0062)      (0.0062)      (0.0087)
## -----
## R^2                          0.0562         0.0664         0.0662         0.0685
## Adj. R^2                     0.0528         0.0627         0.0625         0.0644
## Num. obs.                    7827          7827          7827          7827
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1

```

MAIL: Outcome Model

Living in Local ZIP since at least age 15

```
mimo_10 <- lm(update(foreignsuff ~ ., basemod0m), data=mail[which(mail$age - mail$lvlen<=15),])
mimo_1A <- lm(update(foreignsuff ~ ., basemodAm), data=mail[which(mail$age - mail$lvlen<=15),])
mimo_1B <- lm(update(foreignsuff ~ ., basemodBm), data=mail[which(mail$age - mail$lvlen<=15),])
mimo_1C <- lm(update(foreignsuff ~ ., basemodCm), data=mail[which(mail$age - mail$lvlen<=15),])
screenreg(list(mimo_10,mimo_1A,mimo_1B,mimo_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(mimo_10,vcov.=vcovHC(mimo_10))[,2],
    coeftest(mimo_1A,vcov.=vcovHC(mimo_1A))[,2],
    coeftest(mimo_1B,vcov.=vcovHC(mimo_1B))[,2],
    coeftest(mimo_1C,vcov.=vcovHC(mimo_1C))[,2]),
  override.pvalues = list(coeftest(mimo_10,vcov.=vcovHC(mimo_10))[,4],
    coeftest(mimo_1A,vcov.=vcovHC(mimo_1A))[,4],
    coeftest(mimo_1B,vcov.=vcovHC(mimo_1B))[,4],
    coeftest(mimo_1C,vcov.=vcovHC(mimo_1C))[,4]),
  omit.coef = "(wave)",stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Base","ZIP","Municipality","Full"))
```

```
##
## =====
##                               Base      ZIP      Municipality  Full
## -----
## University education          0.0053    -0.0011     0.0003     -0.0077
##                               (0.1338)   (0.1346)   (0.1405)   (0.1361)
## Gender (male)                 -0.0427   -0.0421    -0.0435    -0.0420
##                               (0.0622)   (0.0633)   (0.0633)   (0.0647)
## Age (by 10 years, centered at 45) -0.0229   -0.0236    -0.0221    -0.0229
##                               (0.0289)   (0.0298)   (0.0296)   (0.0307)
## University * Male             -0.0827   -0.0792    -0.0843    -0.0755
##                               (0.1496)   (0.1498)   (0.1543)   (0.1495)
## University * Age              -0.0015     0.0008    -0.0055    -0.0051
##                               (0.0784)   (0.0782)   (0.0811)   (0.0758)
## University * Male * Age       -0.0184   -0.0237    -0.0160    -0.0205
##                               (0.0868)   (0.0864)   (0.0893)   (0.0851)
## Male * Age                    0.0303     0.0335     0.0306     0.0336
##                               (0.0357)   (0.0364)   (0.0361)   (0.0374)
## % of Life Residing Locally (zip) -0.1284   -0.1189    -0.1324    -0.1249
##                               (0.1822)   (0.1832)   (0.1849)   (0.1902)
## DID residence (zip)           -0.0492
##                               (0.0664)
## Foreigner % sqrt. (zip)       0.0250
##                               (0.0410)
## University % by 10% (zip)     0.0290
##                               (0.0463)
## DID proportion (mun.)         0.0157
##                               (0.1172)
## Foreigner % sqrt. (mun.)     0.0255
##                               (0.0721)
## University % by 10% (mun.)   -0.0051
##                               (0.0669)
```

```
## R^2                      0.0267      0.0310      0.0279      0.0333
## Adj. R^2                 -0.0142     -0.0260     -0.0293     -0.0402
## Num. obs.                199        199        199        199
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1
```

MAIL: Outcome Model 2

```
## Living in Local ZIP since at least age 15 ##
```

```
# require(nnet)
# mmo2_10 <- multinom(update(foreignsuff3x ~ ., basemod0), data=mail[which(mail$age - mail$lvlen<=15),])
# mmo2_1A <- multinom(update(foreignsuff3x ~ ., basemodA), data=mail[which(mail$age - mail$lvlen<=15),])
# mmo2_1B <- multinom(update(foreignsuff3x ~ ., basemodB), data=mail[which(mail$age - mail$lvlen<=15),])
# mmo2_1C <- multinom(update(foreignsuff3x ~ ., basemodC), data=mail[which(mail$age - mail$lvlen<=15),])

mail.mlogit <- dfidx(mail[which(mail$age - mail$lvlen<=15),],
  shape = "wide", choice = "foreignsuff3x")
levels(mail.mlogit$id2) <- c("Disagree","Neither","Agree")
mmo2_10 <- mlogit(outmod0m.mlogit, data=mail.mlogit, reflevel="Disagree")
mmo2_1A <- mlogit(outmodAm.mlogit, data=mail.mlogit, reflevel="Disagree")
mmo2_1B <- mlogit(outmodBm.mlogit, data=mail.mlogit, reflevel="Disagree")
mmo2_1C <- mlogit(outmodCm.mlogit, data=mail.mlogit, reflevel="Disagree")

screenreg(list(mmo2_10,mmo2_1A), digits = 4, # single.row = T,
  override.se = list(coeftest(mmo2_10,vcov=sandwich)[grep(":Neither",names(coef(mmo2_10))),2],
    coeftest(mmo2_10,vcov=sandwich)[grep(":Agree",names(coef(mmo2_10))),2],
    coeftest(mmo2_1A,vcov=sandwich)[grep(":Neither",names(coef(mmo2_1A))),2],
    coeftest(mmo2_1A,vcov=sandwich)[grep(":Agree",names(coef(mmo2_1A))),2]),
  override.pvalues = list(coeftest(mmo2_10,vcov=sandwich)[grep(":Neither",names(coef(mmo2_10))),4],
    coeftest(mmo2_10,vcov=sandwich)[grep(":Agree",names(coef(mmo2_10))),4],
    coeftest(mmo2_1A,vcov=sandwich)[grep(":Neither",names(coef(mmo2_1A))),4],
    coeftest(mmo2_1A,vcov=sandwich)[grep(":Agree",names(coef(mmo2_1A))),4]),
  beside = T,
  omit.coef = "(wave)",stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.model.names = c("Base: Neither","Base: Agree",
    "ZIP: Neither","ZIP: Agree"),
  custom.coef.map = vnmap)
```

```
##
## =====
##                               Base: Neither  Base: Agree  ZIP: Neither  ZIP: Agree
## -----
## University education          0.1088        -1.6221        0.1142        -1.6189
##                               (0.7689)      (1.1743)      (0.7657)      (1.1057)
## Age (by 10 years, centered at 45) 0.1283         0.0922        0.1408         0.1117
##                               (0.2191)      (0.1839)      (0.2215)      (0.1832)
## University * Male              0.1487         1.1528        0.1020         1.0696
##                               (0.8858)      (1.2673)      (0.8813)      (1.2150)
## University * Age              0.1483        -0.3160        0.1362        -0.3369
##                               (0.4161)      (0.5497)      (0.4225)      (0.5170)
## University * Male * Age       -0.1414         0.5556       -0.1074         0.5642
##                               (0.4784)      (0.6223)      (0.4837)      (0.5911)
```



```
## Male * Age                -0.1208      -0.3786      -0.1287      -0.3715
##                          (0.2627)      (0.2465)      (0.2669)      (0.2470)
## % of Life Residing Locally (zip)  0.8626      0.0160      0.7963      -0.0379
##                          (1.2584)      (1.3450)      (1.2557)      (1.3643)
## DID residence (zip)                0.4314      0.2208
##                          (0.4382)      (0.5296)
## Foreigner % sqrt. (zip)        -0.2632      0.1631
##                          (0.3198)      (0.3099)
## University % by 10% (zip)       -0.0614      0.0225
##                          (0.3031)      (0.3093)
## -----
## AIC                        457.8725      457.8725      467.3754      467.3754
## Log Likelihood             -210.9363     -210.9363     -209.6877     -209.6877
## Num. obs.                  199          199          199          199
## K                          3            3            3            3
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1
```

```
screenreg(list(mmo2_1B,mmo2_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(mmo2_1B,vcov=sandwich)[grep("Neither",names(coef(mmo2_1B))),2],
    coeftest(mmo2_1B,vcov=sandwich)[grep("Agree",names(coef(mmo2_1B))),2],
    coeftest(mmo2_1C,vcov=sandwich)[grep("Neither",names(coef(mmo2_1C))),2],
    coeftest(mmo2_1C,vcov=sandwich)[grep("Agree",names(coef(mmo2_1C))),2]),
  override.pvalues = list(coeftest(mmo2_1B,vcov=sandwich)[grep("Neither",names(coef(mmo2_1B))),4],
    coeftest(mmo2_1B,vcov=sandwich)[grep("Agree",names(coef(mmo2_1B))),4],
    coeftest(mmo2_1C,vcov=sandwich)[grep("Neither",names(coef(mmo2_1C))),4],
    coeftest(mmo2_1C,vcov=sandwich)[grep("Agree",names(coef(mmo2_1C))),4]),

  beside = T,
  omit.coef = "(wave)",stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Mun.: Neither","Mun.: Agree",
    "Full: Neither","Full: Agree"))
```

```
##
## =====
##                               Mun.: Neither  Mun.: Agree  Full: Neither  Full: Agree
## -----
## University education          0.0812      -1.6238      0.1724      -1.4900
##                          (0.7893)      (1.1895)      (0.7879)      (1.1848)
## Age (by 10 years, centered at 45)  0.1236      0.0957      0.1313      0.1151
##                          (0.2177)      (0.1856)      (0.2251)      (0.1844)
## University * Male              0.1631      1.1631      0.0639      1.0535
##                          (0.8900)      (1.2872)      (0.8894)      (1.2779)
## University * Age              0.2052     -0.3282      0.1980     -0.3675
##                          (0.4158)      (0.5703)      (0.4006)      (0.5829)
## University * Male * Age       -0.1739      0.5692     -0.1403      0.5907
##                          (0.4757)      (0.6385)      (0.4659)      (0.6454)
## Male * Age                    -0.1161     -0.3863     -0.1259     -0.3685
##                          (0.2595)      (0.2485)      (0.2699)      (0.2467)
## % of Life Residing Locally (zip)  0.9242      0.0014      0.7750     -0.0732
##                          (1.2735)      (1.3321)      (1.2976)      (1.3363)
## DID residence (zip)                0.7033      0.3284
##                          (0.5286)      (0.6035)
## Foreigner % sqrt. (zip)        -0.1966      0.4919
##                          (0.4525)      (0.4162)
```



```
## University % by 10% (zip)                                -0.2701      0.2821
##                                                         (0.4292)    (0.4301)
## DID proportion (mun.)                                -0.2239      0.1751      -0.7669      -0.2687
##                                                         (0.7515)    (0.8298)    (0.9087)    (0.9338)
## Foreigner % sqrt. (mun.)                            -0.1831      -0.0599      -0.0592      -0.5681
##                                                         (0.4956)    (0.5183)    (0.6956)    (0.6812)
## University % by 10% (mun.)                            0.2584      -0.1007      0.4692      -0.3363
##                                                         (0.4119)    (0.3889)    (0.5388)    (0.4958)
## -----
## AIC                                                    468.9033      468.9033      475.2584      475.2584
## Log Likelihood                                         -210.4516     -210.4516     -207.6292     -207.6292
## Num. obs.                                              199          199          199          199
## K                                                       3            3            3            3
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1
```

MAIL: Mediator Models

Knowledge

```
mmm01_10 <- lm(update(knowledge ~ ., basemod0m), data=mail[which(mail$age - mail$lvlen<=15),])
mmm01_1A <- lm(update(knowledge ~ ., basemodAm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm01_1B <- lm(update(knowledge ~ ., basemodBm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm01_1C <- lm(update(knowledge ~ ., basemodCm), data=mail[which(mail$age - mail$lvlen<=15),])
screenreg(list(mmm01_10,mmm01_1A,mmm01_1B,mmm01_1C), digits = 4, # single.row = T,
  override.se = list(coefest(mmm01_10,vcov.=vcovHC(mmm01_10))[,2],
    coefest(mmm01_1A,vcov.=vcovHC(mmm01_1A))[,2],
    coefest(mmm01_1B,vcov.=vcovHC(mmm01_1B))[,2],
    coefest(mmm01_1C,vcov.=vcovHC(mmm01_1C))[,2]),
  override.pvalues = list(coefest(mmm01_10,vcov.=vcovHC(mmm01_10))[,4],
    coefest(mmm01_1A,vcov.=vcovHC(mmm01_1A))[,4],
    coefest(mmm01_1B,vcov.=vcovHC(mmm01_1B))[,4],
    coefest(mmm01_1C,vcov.=vcovHC(mmm01_1C))[,4]),
  omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Base","ZIP","Municipality","Full"))
```

```
##
## =====
##                                     Base      ZIP      Municipality  Full
## -----
## University education              0.2138      0.2119      0.1992      0.1997
##                                   (0.1362)    (0.1453)    (0.1447)    (0.1481)
## Gender (male)                     -0.0142     -0.0146     -0.0146     -0.0158
##                                   (0.0596)    (0.0611)    (0.0608)    (0.0620)
## Age (by 10 years, centered at 45) -0.0263     -0.0247     -0.0248     -0.0244
##                                   (0.0281)    (0.0288)    (0.0286)    (0.0290)
## University * Male                  0.0122      0.0072      0.0095      0.0121
##                                   (0.1465)    (0.1546)    (0.1538)    (0.1576)
## University * Age                   0.0353      0.0324      0.0305      0.0314
##                                   (0.0704)    (0.0756)    (0.0751)    (0.0772)
## University * Male * Age            -0.0287     -0.0290     -0.0259     -0.0274
##                                   (0.0765)    (0.0817)    (0.0809)    (0.0830)
```

```
## Male * Age                0.0362    0.0379    0.0375    0.0371
##                          (0.0347)  (0.0353)  (0.0349)  (0.0359)
## % of Life Residing Locally (zip) 0.2451    0.2480    0.2402    0.2488
##                          (0.1619)  (0.1645)  (0.1646)  (0.1698)
## DID residence (zip)           -0.0052                -0.0171
##                          (0.0625)                (0.0665)
## Foreigner % sqrt. (zip)        0.0384                0.0235
##                          (0.0470)                (0.0631)
## University % by 10% (zip)      0.0113                -0.0006
##                          (0.0391)                (0.0540)
## DID proportion (mun.)                0.0186    0.0330
##                          (0.0976)    (0.1069)
## Foreigner % sqrt. (mun.)                0.0453    0.0224
##                          (0.0688)    (0.0908)
## University % by 10% (mun.)      0.0113    0.0121
##                          (0.0496)    (0.0652)
## -----
## R^2                        0.1151    0.1208    0.1215    0.1226
## Adj. R^2                   0.0778    0.0691    0.0698    0.0559
## Num. obs.                  199      199      199      199
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1
```

Ideology

```
mmm02_10 <- lm(update(ideology ~ ., basemod0m), data=mail[which(mail$age - mail$lvlen<=15),])
mmm02_1A <- lm(update(ideology ~ ., basemodAm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm02_1B <- lm(update(ideology ~ ., basemodBm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm02_1C <- lm(update(ideology ~ ., basemodCm), data=mail[which(mail$age - mail$lvlen<=15),])
screenreg(list(mmm02_10,mmm02_1A,mmm02_1B,mmm02_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(mmm02_10,vcov.=vcovHC(mmm02_10))[ ,2],
    coeftest(mmm02_1A,vcov.=vcovHC(mmm02_1A))[ ,2],
    coeftest(mmm02_1B,vcov.=vcovHC(mmm02_1B))[ ,2],
    coeftest(mmm02_1C,vcov.=vcovHC(mmm02_1C))[ ,2]),
  override.pvalues = list(coeftest(mmm02_10,vcov.=vcovHC(mmm02_10))[ ,4],
    coeftest(mmm02_1A,vcov.=vcovHC(mmm02_1A))[ ,4],
    coeftest(mmm02_1B,vcov.=vcovHC(mmm02_1B))[ ,4],
    coeftest(mmm02_1C,vcov.=vcovHC(mmm02_1C))[ ,4]),
  omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Base","ZIP","Municipality","Full"))
```

```
##
## =====
##                               Base        ZIP        Municipality  Full
## -----
## University education        -0.0643      -0.0713      -0.0548      -0.0460
##                               (0.0438)    (0.0477)    (0.0461)    (0.0458)
## Gender (male)               -0.0549      -0.0509      -0.0508      -0.0472
##                               (0.0371)    (0.0376)    (0.0373)    (0.0377)
## Age (by 10 years, centered at 45) 0.0401 **    0.0384 *    0.0394 **    0.0397 *
##                               (0.0148)    (0.0156)    (0.0151)    (0.0158)
## University * Male           0.0862        0.0921        0.0941        0.0873
##                               (0.0616)    (0.0653)    (0.0634)    (0.0638)
```

```

## University * Age          -0.1347 ***   -0.1294 ***   -0.1227 ***   -0.1237 ***
##                          (0.0184)      (0.0229)      (0.0216)      (0.0233)
## University * Male * Age   0.1326 ***    0.1296 ***    0.1273 ***    0.1255 ***
##                          (0.0304)      (0.0335)      (0.0320)      (0.0336)
## Male * Age                -0.0084      -0.0071      -0.0109      -0.0080
##                          (0.0205)      (0.0212)      (0.0208)      (0.0215)
## % of Life Residing Locally (zip) -0.1325   -0.1344   -0.1194   -0.1229
##                          (0.1068)      (0.1049)      (0.1037)      (0.1028)
## DID residence (zip)       -0.0187      -0.0008
##                          (0.0447)      (0.0494)
## Foreigner % sqrt. (zip)   -0.0358      0.0273
##                          (0.0281)      (0.0371)
## University % by 10% (zip) 0.0204      0.0406
##                          (0.0309)      (0.0360)
## DID proportion (mun.)     0.0000      -0.0178
##                          (0.0726)      (0.0834)
## Foreigner % sqrt. (mun.) -0.1062 *    -0.1307 *
##                          (0.0460)      (0.0604)
## University % by 10% (mun.) 0.0087      -0.0243
##                          (0.0390)      (0.0456)
## -----
## R^2                      0.1086      0.1191      0.1407      0.1515
## Adj. R^2                 0.0711      0.0673      0.0902      0.0869
## Num. obs.                199         199         199         199
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1

```

LDP - DPJ FT

```

mmm03_10 <- lm(update(ldpdpjft ~ ., basemod0m), data=mail[which(mail$age - mail$lvlen<=15),])
mmm03_1A <- lm(update(ldpdpjft ~ ., basemodAm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm03_1B <- lm(update(ldpdpjft ~ ., basemodBm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm03_1C <- lm(update(ldpdpjft ~ ., basemodCm), data=mail[which(mail$age - mail$lvlen<=15),])
screenreg(list(mmm03_10,mmm03_1A,mmm03_1B,mmm03_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(mmm03_10,vcov.=vcovHC(mmm03_10))[2],
    coeftest(mmm03_1A,vcov.=vcovHC(mmm03_1A))[2],
    coeftest(mmm03_1B,vcov.=vcovHC(mmm03_1B))[2],
    coeftest(mmm03_1C,vcov.=vcovHC(mmm03_1C))[2]),
  override.pvalues = list(coeftest(mmm03_10,vcov.=vcovHC(mmm03_10))[4],
    coeftest(mmm03_1A,vcov.=vcovHC(mmm03_1A))[4],
    coeftest(mmm03_1B,vcov.=vcovHC(mmm03_1B))[4],
    coeftest(mmm03_1C,vcov.=vcovHC(mmm03_1C))[4]),
  omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Base","ZIP","Municipality","Full"))

```

```

##
## =====
##                               Base      ZIP      Municipality  Full
## -----
## University education        -0.0859   -0.0929   -0.0818   -0.0737
##                               (0.0545)  (0.0625)  (0.0602)  (0.0613)
## Gender (male)                0.0060   0.0103   0.0086   0.0115
##                               (0.0263)  (0.0268)  (0.0267)  (0.0274)

```

```
## Age (by 10 years, centered at 45) -0.0016 -0.0023 -0.0033 -0.0031
## (0.0127) (0.0135) (0.0127) (0.0136)
## University * Male 0.1293 * 0.1313 + 0.1317 + 0.1230 +
## (0.0621) (0.0694) (0.0670) (0.0676)
## University * Age -0.0437 -0.0405 -0.0329 -0.0342
## (0.0319) (0.0373) (0.0345) (0.0353)
## University * Male * Age 0.0612 + 0.0598 0.0544 0.0552
## (0.0360) (0.0408) (0.0383) (0.0393)
## Male * Age -0.0093 -0.0078 -0.0087 -0.0072
## (0.0163) (0.0173) (0.0163) (0.0175)
## % of Life Residing Locally (zip) 0.1398 + 0.1355 + 0.1501 + 0.1404 +
## (0.0811) (0.0812) (0.0832) (0.0843)
## DID residence (zip) -0.0050 0.0290
## (0.0301) (0.0394)
## Foreigner % sqrt. (zip) -0.0251 0.0007
## (0.0187) (0.0272)
## University % by 10% (zip) 0.0202 0.0169
## (0.0191) (0.0309)
## DID proportion (mun.) -0.0556 -0.0900
## (0.0452) (0.0585)
## Foreigner % sqrt. (mun.) -0.0418 -0.0426
## (0.0295) (0.0413)
## University % by 10% (mun.) 0.0374 0.0231
## (0.0257) (0.0408)
## -----
## R^2 0.0598 0.0729 0.0844 0.0950
## Adj. R^2 0.0202 0.0183 0.0305 0.0261
## Num. obs. 199 199 199 199
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1
```

Favorability of South Korea

```
mmm04_10 <- lm(update(familiarityFT_KOR ~ ., basemod0m), data=mail[which(mail$age - mail$lvlen<=15),])
mmm04_1A <- lm(update(familiarityFT_KOR ~ ., basemodAm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm04_1B <- lm(update(familiarityFT_KOR ~ ., basemodBm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm04_1C <- lm(update(familiarityFT_KOR ~ ., basemodCm), data=mail[which(mail$age - mail$lvlen<=15),])
screenreg(list(mmm04_10,mmm04_1A,mmm04_1B,mmm04_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(mmm04_10,vcov.=vcovHC(mmm04_10))[,2],
    coeftest(mmm04_1A,vcov.=vcovHC(mmm04_1A))[,2],
    coeftest(mmm04_1B,vcov.=vcovHC(mmm04_1B))[,2],
    coeftest(mmm04_1C,vcov.=vcovHC(mmm04_1C))[,2]),
  override.pvalues = list(coeftest(mmm04_10,vcov.=vcovHC(mmm04_10))[,4],
    coeftest(mmm04_1A,vcov.=vcovHC(mmm04_1A))[,4],
    coeftest(mmm04_1B,vcov.=vcovHC(mmm04_1B))[,4],
    coeftest(mmm04_1C,vcov.=vcovHC(mmm04_1C))[,4]),
  omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Base","ZIP","Municipality","Full"))
```

```
##
## =====
## Base ZIP Municipality Full
## -----
```

```

## University education          -0.0295    -0.0402    -0.0290    -0.0409
##                               (0.1112)    (0.0995)    (0.1102)    (0.1012)
## Gender (male)                 -0.0555    -0.0505    -0.0523    -0.0494
##                               (0.0532)    (0.0542)    (0.0543)    (0.0553)
## Age (by 10 years, centered at 45) -0.0089    -0.0116    -0.0085    -0.0101
##                               (0.0242)    (0.0247)    (0.0249)    (0.0252)
## University * Male             0.0233     0.0330     0.0290     0.0368
##                               (0.1213)    (0.1105)    (0.1205)    (0.1122)
## University * Age             -0.0500    -0.0422    -0.0431    -0.0437
##                               (0.0612)    (0.0545)    (0.0602)    (0.0538)
## University * Male * Age       0.0821     0.0762     0.0799     0.0773
##                               (0.0668)    (0.0615)    (0.0664)    (0.0617)
## Male * Age                    0.0148     0.0175     0.0129     0.0164
##                               (0.0295)    (0.0305)    (0.0305)    (0.0313)
## % of Life Residing Locally (zip) -0.2059    -0.2042    -0.1978    -0.2010
##                               (0.1571)    (0.1631)    (0.1618)    (0.1686)
## DID residence (zip)           -0.0441
##                               (0.0533)
## Foreigner % sqrt. (zip)      -0.0381
##                               (0.0356)
## University % by 10% (zip)     0.0351
##                               (0.0299)
## DID proportion (mun.)        0.0204
##                               (0.0904)
## Foreigner % sqrt. (mun.)     -0.0703
##                               (0.0554)
## University % by 10% (mun.)   0.0075
##                               (0.0465)
## -----
## R^2                          0.0432     0.0552     0.0508     0.0588
## Adj. R^2                     0.0029    -0.0004    -0.0050    -0.0128
## Num. obs.                    199        199        199        199
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1

```

Favorability of China

```

mmm05_10 <- lm(update(familiarityFT_CHN ~ ., basemod0m), data=mail[which(mail$age - mail$lvlen<=15),])
mmm05_1A <- lm(update(familiarityFT_CHN ~ ., basemodAm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm05_1B <- lm(update(familiarityFT_CHN ~ ., basemodBm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm05_1C <- lm(update(familiarityFT_CHN ~ ., basemodCm), data=mail[which(mail$age - mail$lvlen<=15),])
screenreg(list(mmm05_10,mmm05_1A,mmm05_1B,mmm05_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(mmm05_10,vcov.=vcovHC(mmm05_10))[,2],
    coeftest(mmm05_1A,vcov.=vcovHC(mmm05_1A))[,2],
    coeftest(mmm05_1B,vcov.=vcovHC(mmm05_1B))[,2],
    coeftest(mmm05_1C,vcov.=vcovHC(mmm05_1C))[,2]),
  override.pvalues = list(coeftest(mmm05_10,vcov.=vcovHC(mmm05_10))[,4],
    coeftest(mmm05_1A,vcov.=vcovHC(mmm05_1A))[,4],
    coeftest(mmm05_1B,vcov.=vcovHC(mmm05_1B))[,4],
    coeftest(mmm05_1C,vcov.=vcovHC(mmm05_1C))[,4]),
  omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Base","ZIP","Municipality","Full"))

```

```
##
## =====
##               Base           ZIP           Municipality   Full
## -----
## University education           0.0614           0.0566           0.0709           0.0619
##                               (0.1195)          (0.1093)          (0.1171)          (0.1096)
## Gender (male)                 -0.0270          -0.0240          -0.0262          -0.0231
##                               (0.0428)          (0.0437)          (0.0437)          (0.0446)
## Age (by 10 years, centered at 45) -0.0001          -0.0024          -0.0009          -0.0025
##                               (0.0179)          (0.0181)          (0.0184)          (0.0183)
## University * Male             -0.0524          -0.0445          -0.0495          -0.0463
##                               (0.1263)          (0.1168)          (0.1237)          (0.1165)
## University * Age              -0.0313          -0.0255          -0.0274          -0.0286
##                               (0.0659)          (0.0595)          (0.0644)          (0.0585)
## University * Male * Age       0.0301           0.0270           0.0282           0.0279
##                               (0.0711)          (0.0657)          (0.0701)          (0.0649)
## Male * Age                    0.0218           0.0224           0.0206           0.0233
##                               (0.0235)          (0.0240)          (0.0242)          (0.0243)
## % of Life Residing Locally (zip) 0.0035           0.0029           0.0077          -0.0025
##                               (0.1198)          (0.1218)          (0.1226)          (0.1239)
## DID residence (zip)           -0.0213           -0.0269
##                               (0.0451)           (0.0554)
## Foreigner % sqrt. (zip)       -0.0408           -0.0375
##                               (0.0289)           (0.0400)
## University % by 10% (zip)      0.0131           0.0346
##                               (0.0272)           (0.0388)
## DID proportion (mun.)         -0.0040           0.0115
##                               (0.0739)           (0.0908)
## Foreigner % sqrt. (mun.)      -0.0419           -0.0011
##                               (0.0488)           (0.0666)
## University % by 10% (mun.)    -0.0085           -0.0362
##                               (0.0400)           (0.0524)
## -----
## R^2                           0.0357           0.0478           0.0431           0.0512
## Adj. R^2                      -0.0049          -0.0082          -0.0132          -0.0210
## Num. obs.                     199             199             199             199
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1
```

Favorability of USA

```
mmm06_10 <- lm(update(familiarityFT_USA ~ ., basemod0m), data=mail[which(mail$age - mail$lvlen<=15),])
mmm06_1A <- lm(update(familiarityFT_USA ~ ., basemodAm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm06_1B <- lm(update(familiarityFT_USA ~ ., basemodBm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm06_1C <- lm(update(familiarityFT_USA ~ ., basemodCm), data=mail[which(mail$age - mail$lvlen<=15),])
screenreg(list(mmm06_10,mmm06_1A,mmm06_1B,mmm06_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(mmm06_10,vcov.=vcovHC(mmm06_10))[,2],
    coeftest(mmm06_1A,vcov.=vcovHC(mmm06_1A))[,2],
    coeftest(mmm06_1B,vcov.=vcovHC(mmm06_1B))[,2],
    coeftest(mmm06_1C,vcov.=vcovHC(mmm06_1C))[,2]),
  override.pvalues = list(coeftest(mmm06_10,vcov.=vcovHC(mmm06_10))[,4],
    coeftest(mmm06_1A,vcov.=vcovHC(mmm06_1A))[,4],
    coeftest(mmm06_1B,vcov.=vcovHC(mmm06_1B))[,4],
```

```

      coeftest(mmm06_1C,vcov.=vcovHC(mmm06_1C))[,4]),
omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
custom.coef.map = vnmap,
custom.model.names = c("Base","ZIP","Municipality","Full"))

```

```

##
## =====
##                               Base          ZIP          Municipality  Full
## -----
## University education          0.0086          0.0066          0.0056          0.0027
##                               (0.0501)        (0.0494)        (0.0513)        (0.0527)
## Gender (male)                  0.0217          0.0216          0.0208          0.0206
##                               (0.0355)        (0.0361)        (0.0357)        (0.0365)
## Age (by 10 years, centered at 45) 0.0064          0.0065          0.0059          0.0057
##                               (0.0146)        (0.0143)        (0.0145)        (0.0146)
## University * Male              0.0379          0.0380          0.0346          0.0373
##                               (0.0622)        (0.0623)        (0.0629)        (0.0643)
## University * Age              -0.0511 *        -0.0511 *        -0.0522 *        -0.0520 *
##                               (0.0210)        (0.0207)        (0.0217)        (0.0222)
## University * Male * Age        0.0581 *        0.0564 +        0.0575 +        0.0569 +
##                               (0.0288)        (0.0294)        (0.0293)        (0.0301)
## Male * Age                    -0.0002          0.0010          0.0015          0.0017
##                               (0.0209)        (0.0212)        (0.0212)        (0.0215)
## % of Life Residing Locally (zip) -0.1033          -0.0995          -0.1054          -0.1035
##                               (0.1061)        (0.1044)        (0.1051)        (0.1056)
## DID residence (zip)           -0.0165          -0.0165          -0.0147
##                               (0.0404)        (0.0404)        (0.0465)
## Foreigner % sqrt. (zip)       0.0166          0.0166          -0.0009
##                               (0.0274)        (0.0274)        (0.0362)
## University % by 10% (zip)     0.0101          0.0101          0.0039
##                               (0.0227)        (0.0227)        (0.0292)
## DID proportion (mun.)         -0.0297          -0.0297          -0.0172
##                               (0.0675)        (0.0675)        (0.0780)
## Foreigner % sqrt. (mun.)      0.0385          0.0385          0.0403
##                               (0.0433)        (0.0433)        (0.0540)
## University % by 10% (mun.)    0.0144          0.0144          0.0115
##                               (0.0287)        (0.0287)        (0.0351)
## -----
## R^2                           0.0342          0.0372          0.0400          0.0405
## Adj. R^2                      -0.0065          -0.0194          -0.0165          -0.0325
## Num. obs.                     199             199             199             199
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1

```

Income

```

mmm07_10 <- lm(update(income ~ ., basemod0m), data=mail[which(mail$age - mail$lvlen<=15),])
mmm07_1A <- lm(update(income ~ ., basemodAm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm07_1B <- lm(update(income ~ ., basemodBm), data=mail[which(mail$age - mail$lvlen<=15),])
mmm07_1C <- lm(update(income ~ ., basemodCm), data=mail[which(mail$age - mail$lvlen<=15),])
screenreg(list(mmm07_10,mmm07_1A,mmm07_1B,mmm07_1C), digits = 4, # single.row = T,
  override.se = list(coeftest(mmm07_10,vcov.=vcovHC(mmm07_10))[,2],
    coeftest(mmm07_1A,vcov.=vcovHC(mmm07_1A))[,2],

```



```

      coeftest(mmm07_1B,vcov.=vcovHC(mmm07_1B))[,2],
      coeftest(mmm07_1C,vcov.=vcovHC(mmm07_1C))[,2]),
  override.pvalues = list(coeftest(mmm07_10,vcov.=vcovHC(mmm07_10))[,4],
      coeftest(mmm07_1A,vcov.=vcovHC(mmm07_1A))[,4],
      coeftest(mmm07_1B,vcov.=vcovHC(mmm07_1B))[,4],
      coeftest(mmm07_1C,vcov.=vcovHC(mmm07_1C))[,4]),
  omit.coef = "(wave)", stars = c(0.1,0.05,0.01,0.001), symbol = "+",
  custom.coef.map = vnmap,
  custom.model.names = c("Base","ZIP","Municipality","Full"))

```

```

##
## =====
##                               Base          ZIP          Municipality  Full
## -----
## University education          -0.0608      -0.0753      -0.0740      -0.0944
##                               (0.0858)      (0.1044)      (0.0933)      (0.1004)
## Gender (male)                  0.0576      0.0689      0.0614      0.0654
##                               (0.0551)      (0.0530)      (0.0545)      (0.0547)
## Age (by 10 years, centered at 45) -0.0408 +    -0.0425 +    -0.0438 +    -0.0447 +
##                               (0.0242)      (0.0222)      (0.0242)      (0.0233)
## University * Male              0.1228      0.1262      0.1309      0.1201
##                               (0.1029)      (0.1190)      (0.1084)      (0.1145)
## University * Age              -0.0540      -0.0459      -0.0371      -0.0427
##                               (0.0415)      (0.0516)      (0.0467)      (0.0502)
## University * Male * Age        0.1088 *      0.1087 +      0.0977 +      0.1116 +
##                               (0.0545)      (0.0631)      (0.0585)      (0.0606)
## Male * Age                    0.0103      0.0092      0.0134      0.0085
##                               (0.0318)      (0.0298)      (0.0324)      (0.0313)
## % of Life Residing Locally (zip) 0.0572      0.0402      0.0790      0.0731
##                               (0.1808)      (0.1752)      (0.1853)      (0.1835)
## DID residence (zip)              0.0174      0.0356
##                               (0.0684)      (0.0797)
## Foreigner % sqrt. (zip)        -0.0933 *      -0.1470 *
##                               (0.0459)      (0.0608)
## University % by 10% (zip)       0.0278      -0.0271
##                               (0.0410)      (0.0584)
## DID proportion (mun.)          -0.0615      -0.0769
##                               (0.1028)      (0.1221)
## Foreigner % sqrt. (mun.)       -0.0346      0.1156
##                               (0.0712)      (0.0892)
## University % by 10% (mun.)      0.0676      0.0912
##                               (0.0474)      (0.0653)
## -----
## R^2                            0.0868      0.1216      0.1007      0.1475
## Adj. R^2                       0.0409      0.0596      0.0373      0.0695
## Num. obs.                      168         168         168         168
## =====
## *** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1

```

Plotting


```

extout <- function(gender,ageset,sub=1) {

  if (gender=="Male") sifcct$gender <- sifcct$female
  if (gender=="Female") sifcct$gender <- sifcct$male
  sifcct$ageset <- (sifcct$age - ageset)/10

  if (sub==1) {
    modset <- lm(foreignsuff ~ edu2 * gender * ageset + lvpr + zip_did + sqrt(c10_sreg_fper) +
                  I(c10_sreg_edu_ugsP/10) + didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10) +
                  as.factor(wave), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),])
    subname = "Stayed"
  } else {
    modset <- lm(foreignsuff ~ edu2 * gender * ageset + lvpr + as.factor(wave),
                  data=sifcct[which(sifcct$age - sifcct$lvlen>=23),])
    subname = "Moved"
  }

  res <- c(gender,ageset,coef(modset)[2],
           coefci(modset, vcov=vcovHC(modset), level = 0.95)[2,],
           coefci(modset, vcov=vcovHC(modset), level = 0.90)[2,],
           coeftest(modset, vcov=vcovHC(modset))[2,c(2,4)],
           subname)
  names(res) <- c("gender","age","est","lci95","uci95","lci90","uci90","se","p","lv")

  return(res)
}

outdt0 <- rbind(extout("Female",25,1),
                extout("Female",35,1),
                extout("Female",45,1),
                extout("Female",55,1),
                extout("Female",65,1),
                extout("Male",25,1),
                extout("Male",35,1),
                extout("Male",45,1),
                extout("Male",55,1),
                extout("Male",65,1))
outdt0 <- as.data.frame(outdt0)
for(i in 2:9) outdt0[,i] <- as.numeric(outdt0[,i])
outdt0$gender <- factor(outdt0$gender, levels=unique(outdt0$gender))
summary(outdt0)

```

```

##      gender      age      est      lci95      uci95      lci90
## Female:5  Min.   :25  Min.   :-0.0625514  Min.   :-0.11568  Min.   :-0.009569  Min.   :-0.1071
## Male   :5  1st Qu.:35  1st Qu.: -0.0289301  1st Qu.: -0.05548  1st Qu.: -0.002376  1st Qu.: -0.0512
##          Median :45  Median :-0.0007147  Median :-0.03598  Median : 0.024121  Median :-0.0302
##          Mean   :45  Mean   :-0.0155266  Mean   :-0.04755  Mean   : 0.016493  Mean   :-0.0424
##          3rd Qu.:55  3rd Qu.: 0.0015798  3rd Qu.: -0.02615  3rd Qu.: 0.031033  3rd Qu.: -0.0216
##          Max.   :65  Max.    : 0.0018743  Max.    :-0.01882  Max.    : 0.037822  Max.    :-0.0155
##          uci90          se          p          lv
## Min.   :-0.017963  Min.   :0.01042  Min.   :0.01417  Length:10
## 1st Qu.: -0.006646  1st Qu.:0.01297  1st Qu.:0.05919  Class :character
## Median : 0.020491  Median :0.01579  Median :0.87686  Mode  :character

```

```
## Mean : 0.011344 Mean :0.01633 Mean :0.56376
## 3rd Qu.: 0.025778 3rd Qu.:0.01823 3rd Qu.:0.90307
## Max. : 0.032042 Max. :0.02710 Max. :0.93969
```

```
extout <- function(gender,ageset,sub=1) {

  if (gender=="Male") mail$gender <- mail$female
  if (gender=="Female") mail$gender <- mail$male
  mail$ageset <- (mail$age - ageset)/10

  if (sub==1) {
    modset <- lm(foreignsuff ~ edu2 * gender * ageset + lvpr + zip_did + sqrt(c10_sreg_fper) +
                  I(c10_sreg_edu_ugsP/10) + didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10),
                  data=mail[which(mail$age - mail$lvlen<=15),])
    subname = "Stayed"
  } else {
    modset <- lm(foreignsuff ~ edu2 * gender * ageset + lvpr,
                  data=mail[which(mail$age - mail$lvlen>=23),])
    subname = "Moved"
  }

  res <- c(gender,ageset,coef(modset)[2],
            coefci(modset, vcov=vcovHC(modset), level = 0.95)[2,],
            coefci(modset, vcov=vcovHC(modset), level = 0.90)[2,],
            coeftest(modset, vcov=vcovHC(modset))[2,c(2,4)],
            subname)
  names(res) <- c("gender","age","est","lci95","uci95","lci90","uci90","se","p","lv")

  return(res)
}

outdtm <- rbind(extout("Female",25,1),
                extout("Female",35,1),
                extout("Female",45,1),
                extout("Female",55,1),
                extout("Female",65,1),
                extout("Male",25,1),
                extout("Male",35,1),
                extout("Male",45,1),
                extout("Male",55,1),
                extout("Male",65,1))
outdtm <- as.data.frame(outdtm)
for(i in 2:9) outdtm[,i] <- as.numeric(outdtm[,i])
outdtm$gender <- factor(outdtm$gender, levels=unique(outdtm$gender))
summary(outdtm)
```

##	gender	age	est	lci95	uci95	lci90	
##	Female:5	Min. :25	Min. :-0.134364	Min. :-0.4846	Min. :0.05219	Min. :-0.4090	M
##	Male :5	1st Qu.:35	1st Qu.: -0.076821	1st Qu.: -0.3378	1st Qu.:0.08337	1st Qu.: -0.2969	1
##		Median :45	Median :-0.024958	Median :-0.2730	Median :0.22105	Median :-0.2382	M
##		Mean :45	Mean :-0.045444	Mean :-0.3023	Mean :0.21138	Mean :-0.2606	M
##		3rd Qu.:55	3rd Qu.: -0.008946	3rd Qu.: -0.2535	3rd Qu.:0.31036	3rd Qu.: -0.2164	3
##		Max. :65	Max. : 0.002503	Max. :-0.2255	Max. :0.44892	Max. :-0.1983	M
##	se		p	lv			

```

## Min.      :0.07305   Min.      :0.1841   Length:10
## 1st Qu.:0.09025   1st Qu.:0.3168   Class :character
## Median :0.12082   Median :0.8566   Mode  :character
## Mean    :0.13017   Mean    :0.6728
## 3rd Qu.:0.15733   3rd Qu.:0.9520
## Max.    :0.23659   Max.    :0.9879

outdt0$data <- "Online"
outdtm$data <- "Mail-in"

visdt <- rbind(outdt0,outdtm)
visdt$data <- factor(visdt$data, levels=c("Online","Mail-in"))

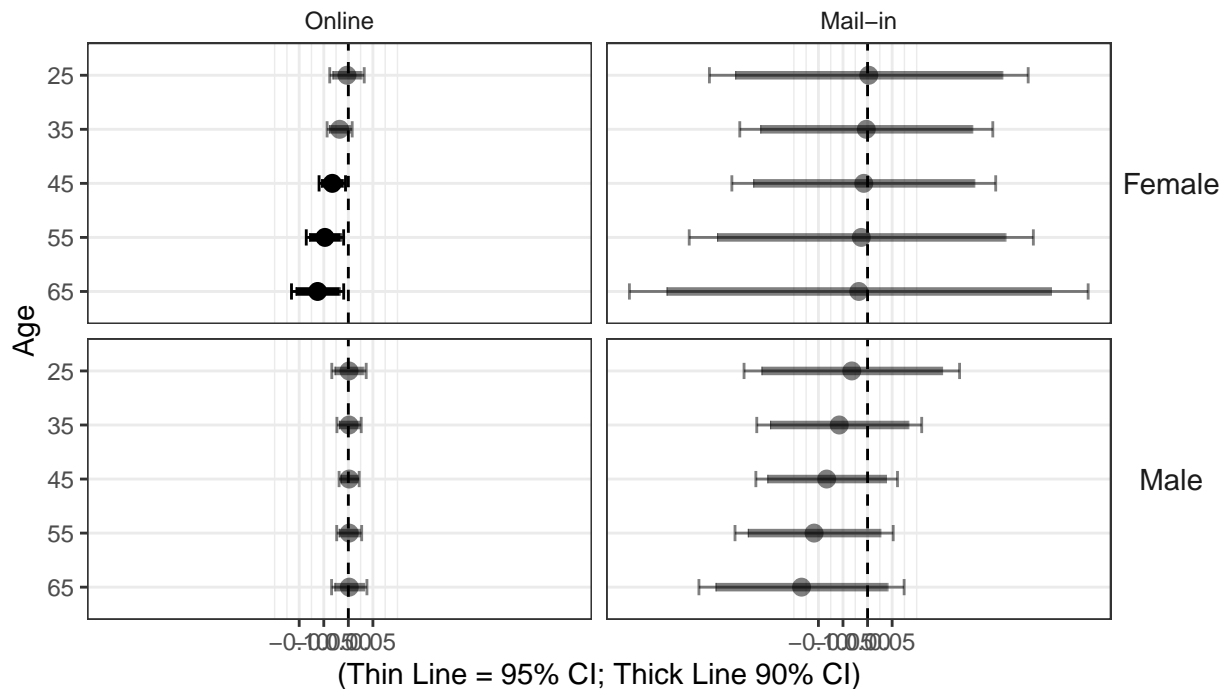
visdt$pstar <- factor(ifelse(visdt$p>=.1,"n.s.",ifelse(visdt$p>=.05,"p<.1","p<.05")),
                      levels = c("p<.05","p<.1","n.s."))

saveRDS(subset(visdt, data=="Mail-in"), paste0(projdir, "/out/visdt_mail_ols.rds"))

require(ggplot2)
p <- ggplot(visdt, aes(x=factor(age, levels=rev(names(table(age))))), y=est)) +
  geom_hline(aes(yintercept=0), linetype=2) +
  geom_errorbar(aes(ymin=lci95,ymax=uci95,colour="1",alpha=pstar),
               position=position_dodge(width=-0.7), size=0.5, width=0.3) +
  geom_errorbar(aes(ymin=lci90,ymax=uci90,colour="1",alpha=pstar),
               position=position_dodge(width=-0.7), size=1.5, width=0.0) +
  geom_point(aes(shape=lv, colour="1",alpha=pstar),
             position=position_dodge(width=-0.7), size=3) +
  facet_grid(gender ~ data) +
  scale_y_continuous(breaks = c(-0.1,-0.05,0.00,0.05)) +
  scale_shape_discrete(name="Change in residece after university") +
  scale_color_manual(name="Change in residece after university",values=rep("black", 1)) +
  scale_alpha_manual(name="Significance",values=c(1,0.5,0.2)) +
  ylab("(Thin Line = 95% CI; Thick Line 90% CI)") +
  xlab("Age") +
  labs(caption="Treatment: University education (1:attained, 0:not attained). Outcome: Agreement with g")
  coord_flip() + theme_bw() +
  theme(legend.position = "bottom",
        strip.text.x = element_text(size=9),
        strip.text.y = element_text(angle=0,size=11),
        strip.background = element_rect(fill=NA,color=NA),
        plot.caption = element_text(hjust=0),
        plot.subtitle = element_text(hjust=0.5))
p

## Warning: position_dodge requires non-overlapping x intervals
## Warning: position_dodge requires non-overlapping x intervals
## Warning: position_dodge requires non-overlapping x intervals
## Warning: position_dodge requires non-overlapping x intervals

```



Change in residence after university ● Stayed Significance ● p<.05 ● n.s. Change in residence after university

Treatment: University education (1:attained, 0:not attained). Outcome: Agreement with granting suffrage to people

```
ggsave(paste0(projdir, "/out/mailineffectplot.png"), p, width=8, height=5)
```

```
## Warning: position_dodge requires non-overlapping x intervals
```

```
## Warning: position_dodge requires non-overlapping x intervals
```

```
## Warning: position_dodge requires non-overlapping x intervals
```

```
## Warning: position_dodge requires non-overlapping x intervals
```

```
## Multinomial Logit ##
```

```
extout <- function(gender, ageset, sub=1) {
```

```
  if (gender=="Male") sifcct$gender <- sifcct$female
```

```
  if (gender=="Female") sifcct$gender <- sifcct$male
```

```
  sifcct$ageset <- (sifcct$age - ageset)/10
```

```
  if (sub==1) {
```

```
    # modset <- multinom(foreignsuff3x ~ edu2 * gender * ageset + lvpr + zip_did + sqrt(c10_sreg_fper) +
```

```
    # I(c10_sreg_edu_ugsP/10) + didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10) +
```

```
    # as.factor(wave), data=sifcct[which(sifcct$age - sifcct$lvlen<=15),],
```

```
    # Hess = TRUE)
```

```
    sifcct.mlogit.tmp <- dfidx(sifcct[which(sifcct$age - sifcct$lvlen<=15),],
```

```
    shape = "wide", choice = "foreignsuff3x")
```

```
    # levels(sifcct.mlogit.tmp$id2) <- c("Disagree", "Neither", "Agree")
```

```
    modset <- mlogit(foreignsuff3x ~ 0 | edu2 * gender * ageset + lvpr + zip_did + sqrt(c10_sreg_fper) +
```

```
    I(c10_sreg_edu_ugsP/10) + didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10) +
```

```

as.factor(wave), data=sifcct.mlogit.tmp, reflevel="Disagree")
  subname = "Stayed"
} else {
  # modset <- multinom(foreignsuff3x ~ edu2 * gender * ageset + lvpr + as.factor(wave),
  #                   data=sifcct[which(sifcct$age - sifcct$lvlen>=23),],
  #                   Hess = TRUE)
  sifcct.mlogit.tmp <- dfidx(sifcct[which(sifcct$age - sifcct$lvlen>=23),],
                           shape = "wide", choice = "foreignsuff3x")
  # levels(sifcct.mlogit.tmp$id2) <- c("Disagree", "Neither", "Agree")
  modset <- mlogit(foreignsuff3x ~ 0 | edu2 * gender * ageset + lvpr + as.factor(wave),
                  data=sifcct.mlogit.tmp, reflevel="Disagree")
  subname = "Moved"
}

# modres <- extract(modset)

# res <- c(gender, ageset, modres@coef[grep("^Agree: edu2$", modres@coef.names)],
#         modres@coef[grep("^Agree: edu2$", modres@coef.names)] - qnorm(0.975)*modres@se[grep("^Agree:
#         modres@coef[grep("^Agree: edu2$", modres@coef.names)] + qnorm(0.975)*modres@se[grep("^Agree:
#         modres@coef[grep("^Agree: edu2$", modres@coef.names)] - qnorm(0.95)*modres@se[grep("^Agree:
#         modres@coef[grep("^Agree: edu2$", modres@coef.names)] + qnorm(0.95)*modres@se[grep("^Agree:
#         modres@se[grep("^Agree: edu2$", modres@coef.names)],
#         modres@pvalues[grep("^Agree: edu2$", modres@coef.names)],
#         subname)
res <- c(gender, ageset, coef(modset)[3],
        coefci(modset, vcov=sandwich, level = 0.95)[3,],
        coefci(modset, vcov=sandwich, level = 0.90)[3,],
        coeftest(modset, vcov=sandwich)[3,c(2,4)],
        subname)

names(res) <- c("gender", "age", "est", "lci95", "uci95", "lci90", "uci90", "se", "p", "lv")

return(res)
}

outdt0 <- rbind(extout("Female", 25, 1),
               extout("Female", 35, 1),
               extout("Female", 45, 1),
               extout("Female", 55, 1),
               extout("Female", 65, 1),
               extout("Male", 25, 1),
               extout("Male", 35, 1),
               extout("Male", 45, 1),
               extout("Male", 55, 1),
               extout("Male", 65, 1))
outdt0 <- as.data.frame(outdt0)
for(i in 2:9) outdt0[,i] <- as.numeric(outdt0[,i])
outdt0$gender <- factor(outdt0$gender, levels=unique(outdt0$gender))
summary(outdt0)

```

##	gender	age	est	lci95	uci95	lci90
##	Female:5	Min. :25	Min. :-0.44832	Min. :-0.84560	Min. :-0.052650	Min. :-0.78171
##	Male :5	1st Qu.:35	1st Qu.: -0.19705	1st Qu.: -0.39904	1st Qu.: 0.004953	1st Qu.: -0.36656

```
##           Median :45      Median : 0.01565      Median :-0.24651      Median : 0.241227      Median :-0.20435
##           Mean    :45      Mean     :-0.06611      Mean     :-0.30558      Mean     : 0.173355      Mean     :-0.26707
##           3rd Qu.:55      3rd Qu.: 0.08526      3rd Qu.: -0.11455      3rd Qu.: 0.280028      3rd Qu.: -0.07653
##           Max.    :65      Max.     : 0.15257      Max.     :-0.05757      Max.     : 0.422067      Max.     :-0.03340
##      uci90              se              p              lv
## Min.    :-0.11494      Min.     :0.07668      Min.     :0.02017      Length:10
## 1st Qu.: -0.02753      1st Qu.:0.09837      1st Qu.:0.07434      Class :character
## Median : 0.21494      Median :0.11539      Median :0.24534      Mode  :character
## Mean    : 0.13485      Mean     :0.12216      Mean     :0.33148
## 3rd Qu.: 0.23890      3rd Qu.:0.13957      3rd Qu.:0.43096
## Max.    : 0.37873      Max.     :0.20266      Max.     :0.99087
```

```
extout <- function(gender,ageset,sub=1) {
```

```
  if (gender=="Male") mail$gender <- mail$female
  if (gender=="Female") mail$gender <- mail$male
  mail$ageset <- (mail$age - ageset)/10
```

```
  if (sub==1) {
```

```
    # modset <- multinom(foreignsuff3x ~ edu2 * gender * ageset + lvpr + zip_did + sqrt(c10_sreg_fper) +
    #                   I(c10_sreg_edu_ugsP/10) + didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10),
    #                   data=mail[which(mail$age - mail$lvlen<=15),],
    #                   Hess = TRUE)
```

```
    mail.mlogit.tmp <- dfidx(mail[which(mail$age - mail$lvlen<=15),],
                           shape = "wide", choice = "foreignsuff3x")
```

```
    # levels(mail.mlogit.tmp$id2) <- c("Disagree", "Neither", "Agree")
```

```
    modset <- mlogit(foreignsuff3x ~ 0 | edu2 * gender * ageset + lvpr + zip_did + sqrt(c10_sreg_fper) +
                    I(c10_sreg_edu_ugsP/10) + didper + sqrt(c10_mun_fper) + I(c10_mun_edu_ugsP/10),
                    data=mail.mlogit.tmp, reflevel="Disagree")
```

```
    subname = "Stayed"
```

```
  } else {
```

```
    # modset <- multinom(foreignsuff3x ~ edu2 * gender * ageset + lvpr,
    #                   data=mail[which(mail$age - mail$lvlen>=23),],
    #                   Hess = TRUE)
```

```
    mail.mlogit.tmp <- dfidx(mail[which(mail$age - mail$lvlen>=23),],
                           shape = "wide", choice = "foreignsuff3x")
```

```
    # levels(mail.mlogit.tmp$id2) <- c("Disagree", "Neither", "Agree")
```

```
    modset <- mlogit(foreignsuff3x ~ 0 | edu2 * gender * ageset + lvpr,
                    data=mail.mlogit.tmp, reflevel="Disagree")
```

```
    subname = "Moved"
```

```
  }
```

```
  # modres <- extract(modset)
```

```
  # res <- c(gender,ageset,modres@coef[grep("^Agree: edu2$",modres@coef.names)],
  #         modres@coef[grep("^Agree: edu2$",modres@coef.names)] - qnorm(0.975)*modres@se[grep("^Agree:
  #         modres@coef[grep("^Agree: edu2$",modres@coef.names)] + qnorm(0.975)*modres@se[grep("^Agree:
  #         modres@coef[grep("^Agree: edu2$",modres@coef.names)] - qnorm(0.95)*modres@se[grep("^Agree:
  #         modres@coef[grep("^Agree: edu2$",modres@coef.names)] + qnorm(0.95)*modres@se[grep("^Agree:
  #         modres@se[grep("^Agree: edu2$",modres@coef.names)],
  #         modres@pvalues[grep("^Agree: edu2$",modres@coef.names)],
  #         subname)
```

```
  res <- c(gender,ageset,coef(modset)[3],
          coefci(modset, vcov=sandwich, level = 0.95)[3,],
```

```

coefci(modset, vcov=sandwich, level = 0.90)[3,],
coeftest(modset, vcov=sandwich)[3,c(2,4)],
subname)

names(res) <- c("gender", "age", "est", "lci95", "uci95", "lci90", "uci90", "se", "p", "lv")

return(res)
}

outdtm <- rbind(extout("Female",25,1),
  extout("Female",35,1),
  extout("Female",45,1),
  extout("Female",55,1),
  extout("Female",65,1),
  extout("Male",25,1),
  extout("Male",35,1),
  extout("Male",45,1),
  extout("Male",55,1),
  extout("Male",65,1))
outdtm <- as.data.frame(outdtm)
for(i in 2:9) outdtm[,i] <- as.numeric(outdtm[,i])
outdtm$gender <- factor(outdtm$gender, levels=unique(outdtm$gender))
summary(outdtm)

##      gender      age      est      lci95      uci95      lci90      uci90
## Female:5  Min.   :25  Min.   :-0.5684  Min.   :-2.987  Min.   :0.6797  Min.   :-2.595  Min.
## Male   :5  1st Qu.:35  1st Qu.: -0.3373  1st Qu.: -1.762  1st Qu.:0.9037  1st Qu.: -1.469  1st Qu
##          Median :45  Median : -0.2075  Median : -1.590  Median :1.3569  Median : -1.367  Median
##          Mean   :45  Mean   : -0.2044  Mean   : -1.719  Mean   :1.3103  Mean   : -1.473  Mean
##          3rd Qu.:55  3rd Qu.: -0.1338  3rd Qu.: -1.357  3rd Qu.:1.5994  3rd Qu.: -1.163  3rd Qu
##          Max.   :65  Max.   : 0.2235  Max.   : -1.152  Max.   :2.2209  Max.   : -1.004  Max.
##          se                p                lv
## Min.   :0.4640  Min.   :0.5521  Length:10
## 1st Qu.:0.5785  1st Qu.:0.6192  Class :character
## Median :0.7616  Median :0.7236  Mode  :character
## Mean   :0.7673  Mean   :0.7329
## 3rd Qu.:0.9151  3rd Qu.:0.8266
## Max.   :1.2253  Max.   :0.9750

outdt0$data <- "Online"
outdtm$data <- "Mail-in"

visdt <- rbind(outdt0, outdtm)
visdt$data <- factor(visdt$data, levels=c("Online", "Mail-in"))

visdt$pstar <- factor(ifelse(visdt$p >= .1, "n.s.", ifelse(visdt$p >= .05, "p<.1", "p<.05")),
  levels = c("p<.05", "p<.1", "n.s."))

saveRDS(subset(visdt, data=="Mail-in"), paste0(projdir, "/out/visdt_mail_multinom.rds"))

require(ggplot2)
p <- ggplot(visdt, aes(x=factor(age, levels=rev(names(table(age))))), y=est)) +
  geom_hline(aes(yintercept=0), linetype=2) +

```

```

geom_errorbar(aes(ymin=lci95,ymax=uci95,colour="1",alpha=pstar),
              position=position_dodge(width=-0.7), size=0.5, width=0.3) +
geom_errorbar(aes(ymin=lci90,ymax=uci90,colour="1",alpha=pstar),
              position=position_dodge(width=-0.7), size=1.5, width=0.0) +
geom_point(aes(shape=lv, colour="1",alpha=pstar),
           position=position_dodge(width=-0.7), size=3) +
facet_grid(gender ~ data) +
#scale_y_continuous(breaks = c(-0.1,-0.05,0.00,0.05)) +
scale_shape_discrete(name="Change in residece after university") +
scale_color_manual(name="Change in residece after university",values=rep("black", 1)) +
scale_alpha_manual(name="Significance",values=c(1,0.5,0.2)) +
ylab("(Thin Line = 95% CI; Thick Line 90% CI)") +
xlab("Age") +
labs(caption="Treatment: University education (1:attained, 0:not attained). Outcome: Agreement with g
coord_flip() + theme_bw() +
theme(legend.position = "bottom",
      strip.text.x = element_text(size=9),
      strip.text.y = element_text(angle=0,size=11),
      strip.background = element_rect(fill=NA,color=NA),
      plot.caption = element_text(hjust=0),
      plot.subtitle = element_text(hjust=0.5))

```

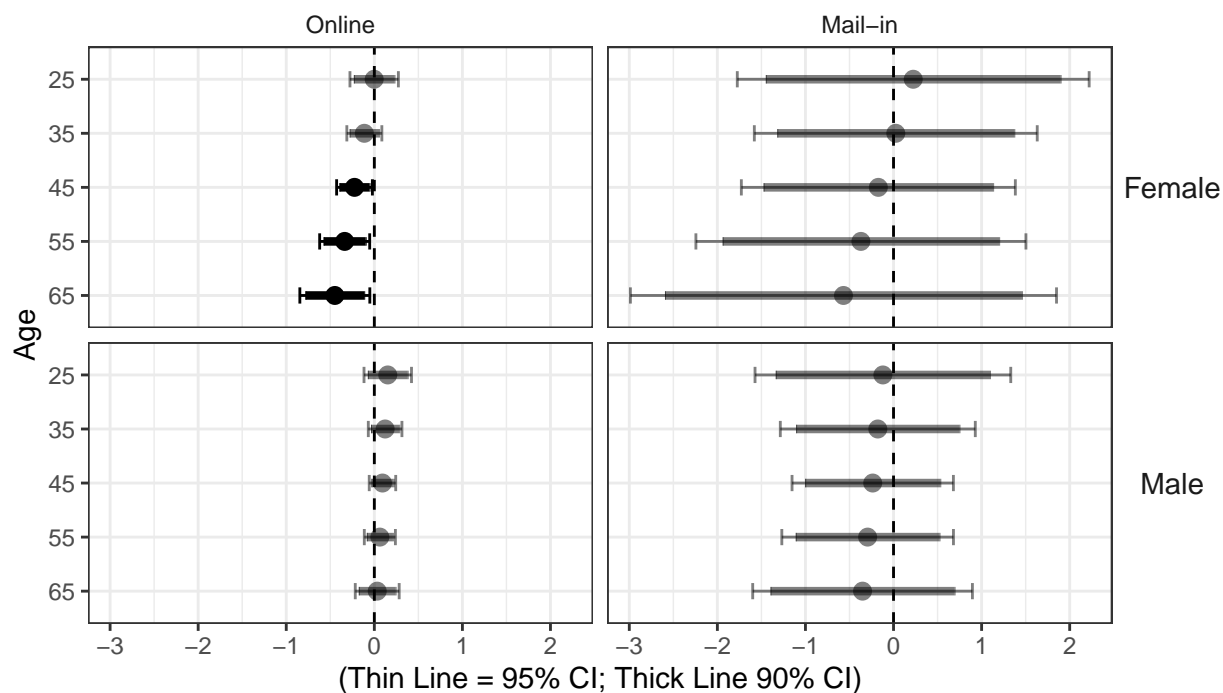
p

Warning: position_dodge requires non-overlapping x intervals

Warning: position_dodge requires non-overlapping x intervals

Warning: position_dodge requires non-overlapping x intervals

Warning: position_dodge requires non-overlapping x intervals



Change in residence after university ● Stayed Significance ● p<.05 ● n.s. Change in residence after university

Treatment: University education (1:attained, 0:not attained). Outcome: Agreement with granting suffrage to people

```
ggsave(paste0(projdir, "/out/mailineffectplot_multinom.png"), p, width=8, height=5)
```

```
## Warning: position_dodge requires non-overlapping x intervals
```

```
## Warning: position_dodge requires non-overlapping x intervals
```

```
## Warning: position_dodge requires non-overlapping x intervals
```

```
## Warning: position_dodge requires non-overlapping x intervals
```

Save Image

```
save.image(file=paste0(projdir, "/out/heavy/analysis_1_original_mail_v5.RData"))
```