

tableA1

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```
library(tidyverse)
```

```
## -- Attaching packages ----- tidyverse
```

```
## v ggplot2 3.1.1      v purrr  0.3.2
## v tibble  2.1.1      v dplyr  0.8.0.1
## v tidyr   0.8.3      v stringr 1.4.0
## v readr   1.3.1      v forcats 0.4.0
```

```
## -- Conflicts ----- tidyverse
```

```
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()     masks stats::lag()
```

```
library(yardstick)
```

```
## For binary classification, the first factor level is assumed to be the event.
## Set the global option `yardstick.event_first` to `FALSE` to change this.
```

```
##
## Attaching package: 'yardstick'
```

```
## The following object is masked from 'package:readr':
##
##      spec
```

```
library(ggplot2)
library(mosaic)
```

```
## Loading required package: lattice
```

```
## Loading required package: ggformula
```

```
## Loading required package: ggstance
```

```
##
## Attaching package: 'ggstance'
```

```
## The following objects are masked from 'package:ggplot2':
##
##      geom_errorbarh, GeomErrorbarh
```

```

##
## New to ggformula? Try the tutorials:
##   learnr::run_tutorial("introduction", package = "ggformula")
##   learnr::run_tutorial("refining", package = "ggformula")

## Loading required package: mosaicData

## Loading required package: Matrix

##
## Attaching package: 'Matrix'

## The following object is masked from 'package:tidyr':
##
##   expand

##
## The 'mosaic' package masks several functions from core packages in order to add
## additional features. The original behavior of these functions should not be affected by this.
##
## Note: If you use the Matrix package, be sure to load it BEFORE loading mosaic.

##
## Attaching package: 'mosaic'

## The following object is masked from 'package:Matrix':
##
##   mean

## The following objects are masked from 'package:dplyr':
##
##   count, do, tally

## The following object is masked from 'package:purrr':
##
##   cross

## The following object is masked from 'package:ggplot2':
##
##   stat

## The following objects are masked from 'package:stats':
##
##   binom.test, cor, cor.test, cov, fivenum, IQR, median,
##   prop.test, quantile, sd, t.test, var

## The following objects are masked from 'package:base':
##
##   max, mean, min, prod, range, sample, sum

```

```
library(stargazer)
```

```
##
```

```
## Please cite as:
```

```
## Hlavac, Marek (2018). stargazer: Well-Formatted Regression and Summary Statistics Tables.
```

```
## R package version 5.2.2. https://CRAN.R-project.org/package=stargazer
```

```
require(Stat2Data)
```

```
## Loading required package: Stat2Data
```

```
library(scales)
```

```
##
```

```
## Attaching package: 'scales'
```

```
## The following object is masked from 'package:mosaic':
```

```
##
```

```
##     rescale
```

```
## The following object is masked from 'package:purrr':
```

```
##
```

```
##     discard
```

```
## The following object is masked from 'package:readr':
```

```
##
```

```
##     col_factor
```

```
library(readr)
```

```
library(rms)
```

```
## Loading required package: Hmisc
```

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

```
## Loading required package: Formula
```

```
##
```

```
## Attaching package: 'Hmisc'
```

```
## The following objects are masked from 'package:dplyr':
```

```
##
```

```
##     src, summarize
```

```
## The following objects are masked from 'package:base':
```

```
##
```

```
##     format.pval, units
```

```
## Loading required package: SparseM
```

```
##
```

```
## Attaching package: 'SparseM'
```

```
## The following object is masked from 'package:base':
```

```
##
```

```
##      backsolve
```

```
library(pastecs)
```

```
##
```

```
## Attaching package: 'pastecs'
```

```
## The following object is masked from 'package:rms':
```

```
##
```

```
##      specs
```

```
## The following objects are masked from 'package:dplyr':
```

```
##
```

```
##      first, last
```

```
## The following object is masked from 'package:tidyr':
```

```
##
```

```
##      extract
```

```
library(tidyr)
```

```
library(stats)
```

```
#
```

```
# grpffc<-read.csv("Dyadic.csv")%>%
```

```
#   mutate(idgroup = ifelse(samegroup==1,grpId, NA))%>%
```

```
#   group_by(idgroup)%>%
```

```
#   mutate(grpFFcl = ifelse(samegroup==0, NA, mean(frfamcl)))
```

```
#
```

```
# grpffc<-aggregate(grpFFcl~idgroup,grpffc,mean,na.action = na.omit)
```

```
library(haven)
```

```
vector<- read.csv("Data/tablea1_edit.csv")
```

```
grp<-read_dta("Data/grpFFcl.dta")
```

```
#
```

```
# vector<-merge(vector,grpffc, by = "idgroup", all.x=TRUE)
```

```
tablea1<-merge(vector,grp,by = "idgroup")
```

```
glimpse(tablea1)
```

```
## Observations: 527
```

```
## Variables: 84
```

```
## $ idgroup      <int> 101, 102, 103, 104, 105, 106, 108, 112, 113, 20...
```

```
## $ pdefault     <dbl> 0.00000000, 0.00000000, 0.00000000, 0.50000000,...
```

```

## $ grpmem      <int> 2, 5, 5, 4, 3, 2, 2, 2, 2, 2, 3, 2, 2, 3, 7, 2,...
## $ gch2        <dbl> 4.000000, 5.600000, 3.800000, 5.500000, 5.000000...
## $ gfem        <dbl> 0.5000000, 1.0000000, 0.8000000, 1.0000000, 1.0...
## $ gage        <dbl> 37.50000, 37.40000, 48.80000, 37.00000, 34.6666...
## $ gurb        <dbl> 0.00000000, 0.40000001, 0.40000001, 0.00000000,...
## $ gysch       <dbl> 4.000000, 3.400000, 1.800000, 1.750000, 5.33333...
## $ gmar        <dbl> 0.0000000, 0.8000000, 1.0000000, 0.2500000, 0.3...
## $ glcons      <dbl> 11.75510, 12.20400, 12.09186, 11.54951, 12.7259...
## $ ghhsz       <dbl> 7.500000, 8.200000, 5.600000, 5.250000, 6.66666...
## $ municode    <int> 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 2,...
## $ grpFFcl.x   <dbl> 0.00000000, 0.00000000, 0.00000000, 0.50000000,...
## $ X_merge     <int> 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,...
## $ ffclmem     <dbl> 0.0000000, 0.0000000, 0.0000000, 2.0000000, 1.0...
## $ X_Imunicode_2 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 1, 1, 1,...
## $ X_Imunicode_3 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_4 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_5 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_6 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_7 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_8 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_9 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_10 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_11 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_12 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_13 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_14 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_15 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_16 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_17 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_18 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_19 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_20 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_21 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_22 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_23 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_24 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_25 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_26 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_27 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_28 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_29 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_30 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_31 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_32 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_33 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_34 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_35 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_36 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_37 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_38 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_39 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_40 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_41 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...
## $ X_Imunicode_42 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,...

```

```
## $ X_Imunicode_43 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_44 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_45 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_46 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_48 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_49 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_50 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_51 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_52 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_53 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_54 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_55 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_56 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_57 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_58 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_59 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_60 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_61 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_62 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_63 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_64 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_65 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_66 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_67 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_68 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_69 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ X_Imunicode_70 <int> 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, ...
## $ grpFFcl.y <dbl> 0.00000000, 0.00000000, 0.00000000, 0.50000000, ...
```

```
library(miceadds)
```

```
## Loading required package: mice
```

```
##
```

```
## Attaching package: 'mice'
```

```
## The following object is masked from 'package:tidyr':
```

```
##
```

```
## complete
```

```
## The following objects are masked from 'package:base':
```

```
##
```

```
## cbind, rbind
```

```
## * miceadds 3.2-48 (2019-04-15 18:10:29)
```

```
model_formula1 <- as.formula(pdefault ~ grpFFcl.y+grpmem+gch2+gfem+gage+gurb+gysch+gmar+glcons+ghhsz+f
```

```
tablea1_1<-tablea1%>%
```

```
  filter(grpmem<=3)
```

```
coll<-lm(model_formula1,data =tablea1_1)
```

```
summary(coll)
```

```
##
## Call:
## lm(formula = model_formula1, data = tablea1_1)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.46642 -0.07658 -0.01621  0.02913  0.76091
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   -0.2165667   0.4555008   -0.475  0.635035
## grpFFcl.y     -0.0624102   0.0378415   -1.649  0.100811
## grpmem         0.0273806   0.0275181    0.995  0.321049
## gch2           0.0083651   0.0128780    0.650  0.516791
## gfem           0.1174818   0.0535091    2.196  0.029382 *
## gage          -0.0003984   0.0017813   -0.224  0.823294
## gurb           0.0449588   0.0509338    0.883  0.378561
## gysch          -0.0102512   0.0068856   -1.489  0.138266
## gmar           0.0105882   0.0544607    0.194  0.846063
## glcons         0.0028576   0.0358827    0.080  0.936613
## ghhsz          0.0008183   0.0061735    0.133  0.894692
## factor(municode)2  0.1715592   0.1009287    1.700  0.090866 .
## factor(municode)3  0.0375589   0.1978264    0.190  0.849631
## factor(municode)4  0.0131959   0.1962864    0.067  0.946474
## factor(municode)7  0.0291452   0.1488140    0.196  0.844945
## factor(municode)8  0.0802479   0.1114679    0.720  0.472493
## factor(municode)9  0.0530335   0.1270932    0.417  0.676962
## factor(municode)12 0.0278568   0.1217015    0.229  0.819206
## factor(municode)13 0.1477317   0.0986888    1.497  0.136131
## factor(municode)14 0.2570272   0.1308380    1.964  0.050990 .
## factor(municode)15 0.1060043   0.1070745    0.990  0.323479
## factor(municode)16 0.1518933   0.1137454    1.335  0.183411
## factor(municode)17 -0.0080260   0.1082212   -0.074  0.940962
## factor(municode)18 -0.0125894   0.1049605   -0.120  0.904659
## factor(municode)19  0.1153174   0.0953808    1.209  0.228214
## factor(municode)21 -0.0248975   0.1309099   -0.190  0.849373
## factor(municode)22  0.1548560   0.1475816    1.049  0.295428
## factor(municode)23  0.2418959   0.1503894    1.608  0.109457
## factor(municode)24 -0.0438073   0.1959834   -0.224  0.823376
## factor(municode)25  0.0070296   0.2004985    0.035  0.972070
## factor(municode)26  0.2223791   0.1283331    1.733  0.084811 .
## factor(municode)27 -0.0603830   0.1974396   -0.306  0.760081
## factor(municode)28  0.0170089   0.1043612    0.163  0.870713
## factor(municode)29  0.5311701   0.1529657    3.472  0.000643 ***
## factor(municode)30 -0.0069139   0.1972058   -0.035  0.972071
## factor(municode)31  0.1232115   0.1117541    1.103  0.271682
## factor(municode)32  0.0351890   0.1153638    0.305  0.760693
## factor(municode)33  0.2853508   0.1201968    2.374  0.018631 *
## factor(municode)34  0.0626740   0.1132893    0.553  0.580788
## factor(municode)35  0.0268237   0.0980466    0.274  0.784715
## factor(municode)36 -0.0052903   0.1482356   -0.036  0.971570
## factor(municode)37 -0.0183033   0.1474288   -0.124  0.901333
## factor(municode)38 -0.0022931   0.1001565   -0.023  0.981759
## factor(municode)39 -0.0014422   0.0957567   -0.015  0.988000
```

```
## factor(municode)42 0.2185242 0.1104614 1.978 0.049397 *
## factor(municode)43 0.0361927 0.1996531 0.181 0.856350
## factor(municode)44 0.1966385 0.1290414 1.524 0.129275
## factor(municode)45 0.0718870 0.1485203 0.484 0.628950
## factor(municode)46 0.0674929 0.1999877 0.337 0.736138
## factor(municode)49 0.1411744 0.1223136 1.154 0.249923
## factor(municode)51 0.0206337 0.1982295 0.104 0.917212
## factor(municode)52 0.0500621 0.0997486 0.502 0.616353
## factor(municode)53 0.0192603 0.0997165 0.193 0.847055
## factor(municode)54 0.0815625 0.2031665 0.401 0.688553
## factor(municode)55 0.2590258 0.1287613 2.012 0.045721 *
## factor(municode)56 0.1206778 0.2043733 0.590 0.555599
## factor(municode)57 -0.0193634 0.1951414 -0.099 0.921066
## factor(municode)58 0.0910020 0.1237348 0.735 0.463001
## factor(municode)59 0.5240169 0.1473421 3.556 0.000479 ***
## factor(municode)60 0.0076112 0.1075338 0.071 0.943651
## factor(municode)61 0.1821367 0.0976996 1.864 0.063888 .
## factor(municode)62 0.1421501 0.0996678 1.426 0.155503
## factor(municode)64 -0.0056883 0.1139484 -0.050 0.960241
## factor(municode)65 0.1361291 0.0965656 1.410 0.160324
## factor(municode)66 -0.0236455 0.1480521 -0.160 0.873285
## factor(municode)67 0.0007582 0.1184537 0.006 0.994900
## factor(municode)69 -0.0214154 0.1296474 -0.165 0.868983
## factor(municode)70 0.0052732 0.1973383 0.027 0.978711
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.1767 on 183 degrees of freedom
## Multiple R-squared:  0.3365, Adjusted R-squared:  0.09355
## F-statistic: 1.385 on 67 and 183 DF, p-value: 0.04654
```

```
model_formula2 <- as.formula(pdefault ~grpFFcl.y+grpmem+gch2+gfem+gage+gurb+gysch+gmar+glcons+ghhsz+fac
col2<-lm(data =tablea1,model_formula2)
summary(col2)
```

```
##
## Call:
## lm(formula = model_formula2, data = tablea1)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.24310 -0.08174 -0.03479  0.01436  0.83302
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    0.2122738   0.3119069   0.681   0.4965
## grpFFcl.y     -0.0338286   0.0286059  -1.183   0.2376
## grpmem         0.0005928   0.0041425   0.143   0.8863
## gch2           0.0117270   0.0086458   1.356   0.1757
## gfem           0.0324310   0.0370426   0.876   0.3818
## gage          -0.0004668   0.0012393  -0.377   0.7066
## gurb           0.0308964   0.0311689   0.991   0.3221
## gysch          -0.0100903   0.0047960  -2.104   0.0359 *
```


## gmar	-0.0014639	0.0353503	-0.041	0.9670
## glcons	-0.0188466	0.0254081	-0.742	0.4586
## ghhsz	0.0042574	0.0044168	0.964	0.3356
## factor(municode)2	0.1366071	0.0812526	1.681	0.0934 .
## factor(municode)3	0.0243813	0.1769484	0.138	0.8905
## factor(municode)4	-0.0347339	0.1296423	-0.268	0.7889
## factor(municode)5	0.0267615	0.1802474	0.148	0.8820
## factor(municode)6	0.0539341	0.0903526	0.597	0.5509
## factor(municode)7	0.0139967	0.0875683	0.160	0.8731
## factor(municode)8	0.0260133	0.0847500	0.307	0.7590
## factor(municode)9	-0.0248831	0.0876449	-0.284	0.7766
## factor(municode)10	0.2621798	0.1345028	1.949	0.0519 .
## factor(municode)11	-0.0107610	0.0805169	-0.134	0.8937
## factor(municode)12	-0.0129935	0.0953179	-0.136	0.8916
## factor(municode)13	0.1131706	0.0760320	1.488	0.1373
## factor(municode)14	0.0683483	0.0826191	0.827	0.4085
## factor(municode)15	0.0356723	0.0781562	0.456	0.6483
## factor(municode)16	0.1498882	0.0830893	1.804	0.0719 .
## factor(municode)17	0.0008847	0.0806807	0.011	0.9913
## factor(municode)18	-0.0289844	0.0750820	-0.386	0.6997
## factor(municode)19	0.0428082	0.0720517	0.594	0.5527
## factor(municode)20	-0.0239542	0.0920813	-0.260	0.7949
## factor(municode)21	-0.0135695	0.0947585	-0.143	0.8862
## factor(municode)22	0.0483230	0.0933443	0.518	0.6049
## factor(municode)23	0.0911588	0.0831532	1.096	0.2735
## factor(municode)24	0.0190452	0.1028316	0.185	0.8532
## factor(municode)25	-0.0164859	0.1151997	-0.143	0.8863
## factor(municode)26	0.2094032	0.0846007	2.475	0.0137 *
## factor(municode)27	0.1427430	0.0967985	1.475	0.1410
## factor(municode)28	-0.0306530	0.0852284	-0.360	0.7193
## factor(municode)29	0.1615995	0.0855197	1.890	0.0595 .
## factor(municode)30	0.0014577	0.1120042	0.013	0.9896
## factor(municode)31	0.0694625	0.0764795	0.908	0.3642
## factor(municode)32	0.0182938	0.0848715	0.216	0.8294
## factor(municode)33	0.1509369	0.0880895	1.713	0.0873 .
## factor(municode)34	-0.0131486	0.0909538	-0.145	0.8851
## factor(municode)35	-0.0249515	0.0755732	-0.330	0.7414
## factor(municode)36	0.0088542	0.0947683	0.093	0.9256
## factor(municode)37	-0.0383900	0.0860879	-0.446	0.6559
## factor(municode)38	0.0443598	0.0733447	0.605	0.5456
## factor(municode)39	0.0055079	0.0705522	0.078	0.9378
## factor(municode)40	0.0722735	0.0834605	0.866	0.3870
## factor(municode)41	0.0283336	0.0867348	0.327	0.7441
## factor(municode)42	0.1244944	0.0743803	1.674	0.0949 .
## factor(municode)43	0.1083798	0.0802233	1.351	0.1774
## factor(municode)44	0.1264859	0.1001164	1.263	0.2071
## factor(municode)45	0.0078760	0.1306894	0.060	0.9520
## factor(municode)46	0.0076510	0.1129556	0.068	0.9460
## factor(municode)48	0.0076334	0.1062152	0.072	0.9427
## factor(municode)49	0.0996951	0.0965044	1.033	0.3021
## factor(municode)50	-0.0187441	0.1033118	-0.181	0.8561
## factor(municode)51	-0.0213106	0.1076983	-0.198	0.8432
## factor(municode)52	0.0078684	0.0744762	0.106	0.9159
## factor(municode)53	0.0008312	0.0727682	0.011	0.9909

```
## factor(municode)54 0.0404322 0.0800316 0.505 0.6137
## factor(municode)55 0.0752159 0.0774285 0.971 0.3319
## factor(municode)56 -0.0021270 0.0874468 -0.024 0.9806
## factor(municode)57 0.0327639 0.0886655 0.370 0.7119
## factor(municode)58 0.0291362 0.0890539 0.327 0.7437
## factor(municode)59 0.1144200 0.0750576 1.524 0.1281
## factor(municode)60 -0.0220926 0.0772889 -0.286 0.7751
## factor(municode)61 0.1434760 0.0761947 1.883 0.0603
## factor(municode)62 0.0824139 0.0755337 1.091 0.2758
## factor(municode)63 0.0403010 0.2289392 0.176 0.8603
## factor(municode)64 0.0293957 0.0771194 0.381 0.7033
## factor(municode)65 0.0464929 0.0725451 0.641 0.5219
## factor(municode)66 0.0380346 0.0888638 0.428 0.6689
## factor(municode)67 0.0426065 0.0697440 0.611 0.5416
## factor(municode)68 0.0097386 0.1346812 0.072 0.9424
## factor(municode)69 0.0509721 0.0826545 0.617 0.5378
## factor(municode)70 0.1223414 0.0880622 1.389 0.1654
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.1642 on 447 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared:  0.1619, Adjusted R-squared:  0.01568
## F-statistic: 1.107 on 78 and 447 DF, p-value: 0.2631
```

```
tablea1<-tablea1%>%
  mutate(ffclmem=grpFFcl.y*grpmem)
model_formula3 <- as.formula(pdefault ~ grpFFcl.y+grpmem+ffclmem+gch2+gfem+gage+gurb+gysch+gmar+glcons)

col3<-lm(data =tablea1,model_formula3)
summary(col3)
```

```
##
## Call:
## lm(formula = model_formula3, data = tablea1)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.23998 -0.08005 -0.03467  0.02062  0.83373
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    0.2181786  0.3108352   0.702   0.4831
## grpFFcl.y     -0.1549915  0.0661038  -2.345   0.0195 *
## grpmem        -0.0044132  0.0048076  -0.918   0.3591
## ffclmem        0.0390186  0.0192066   2.032   0.0428 *
## gch2           0.0110044  0.0086231   1.276   0.2026
## gfem           0.0311405  0.0369191   0.843   0.3994
## gage          -0.0004352  0.0012351  -0.352   0.7248
## gurb           0.0210558  0.0314359   0.670   0.5033
## gysch         -0.0100987  0.0047793  -2.113   0.0352 *
## gmar          -0.0042317  0.0352536  -0.120   0.9045
## glcons        -0.0176105  0.0253270  -0.695   0.4872
## ghhsz          0.0043301  0.0044016   0.984   0.3258
```

```

## factor(municode)2  0.1552675  0.0814893  1.905  0.0574 .
## factor(municode)3  0.0167082  0.1763731  0.095  0.9246
## factor(municode)4 -0.0352434  0.1291915 -0.273  0.7851
## factor(municode)5  0.0580216  0.1802781  0.322  0.7477
## factor(municode)6  0.0584966  0.0900662  0.649  0.5164
## factor(municode)7  0.0218575  0.0873494  0.250  0.8025
## factor(municode)8  0.0231052  0.0844672  0.274  0.7846
## factor(municode)9 -0.0256844  0.0873408 -0.294  0.7688
## factor(municode)10 0.2598695  0.1340396  1.939  0.0532 .
## factor(municode)11 -0.0068127  0.0802602 -0.085  0.9324
## factor(municode)12 -0.0079449  0.0950187 -0.084  0.9334
## factor(municode)13 0.1081286  0.0758080  1.426  0.1545
## factor(municode)14 0.0721960  0.0823534  0.877  0.3811
## factor(municode)15 0.0362087  0.0778846  0.465  0.6422
## factor(municode)16 0.1508657  0.0828016  1.822  0.0691 .
## factor(municode)17 -0.0018670  0.0804114 -0.023  0.9815
## factor(municode)18 -0.0294368  0.0748211 -0.393  0.6942
## factor(municode)19 0.0435090  0.0718018  0.606  0.5449
## factor(municode)20 -0.0537252  0.0929237 -0.578  0.5634
## factor(municode)21 -0.0147031  0.0944304 -0.156  0.8763
## factor(municode)22 0.0526092  0.0930435  0.565  0.5721
## factor(municode)23 0.0965305  0.0829060  1.164  0.2449
## factor(municode)24 0.0161672  0.1024836  0.158  0.8747
## factor(municode)25 -0.0114695  0.1148254 -0.100  0.9205
## factor(municode)26 0.2041440  0.0843461  2.420  0.0159 *
## factor(municode)27 0.1212417  0.0970405  1.249  0.2122
## factor(municode)28 -0.0260230  0.0849624 -0.306  0.7595
## factor(municode)29 0.1644083  0.0852333  1.929  0.0544 .
## factor(municode)30 0.0036943  0.1116199  0.033  0.9736
## factor(municode)31 0.0672162  0.0762214  0.882  0.3783
## factor(municode)32 0.0105624  0.0846617  0.125  0.9008
## factor(municode)33 0.1554196  0.0878107  1.770  0.0774 .
## factor(municode)34 0.0008947  0.0909005  0.010  0.9922
## factor(municode)35 -0.0236316  0.0753131 -0.314  0.7538
## factor(municode)36 0.0006968  0.0945239  0.007  0.9941
## factor(municode)37 -0.0246186  0.0860558 -0.286  0.7750
## factor(municode)38 0.0433490  0.0730912  0.593  0.5534
## factor(municode)39 0.0118898  0.0703768  0.169  0.8659
## factor(municode)40 0.0827166  0.0833288  0.993  0.3214
## factor(municode)41 0.0364395  0.0865250  0.421  0.6739
## factor(municode)42 0.1284848  0.0741475  1.733  0.0838 .
## factor(municode)43 0.1095049  0.0799461  1.370  0.1715
## factor(municode)44 0.1281873  0.0997715  1.285  0.1995
## factor(municode)45 0.0001393  0.1302903  0.001  0.9991
## factor(municode)46 0.0156653  0.1126317  0.139  0.8894
## factor(municode)48 0.0038366  0.1058621  0.036  0.9711
## factor(municode)49 0.0960964  0.0961849  0.999  0.3183
## factor(municode)50 -0.0424211  0.1036099 -0.409  0.6824
## factor(municode)51 -0.0307614  0.1074243 -0.286  0.7747
## factor(municode)52 0.0124632  0.0742515  0.168  0.8668
## factor(municode)53 -0.0014882  0.0725240 -0.021  0.9836
## factor(municode)54 0.0415266  0.0797550  0.521  0.6029
## factor(municode)55 0.0711395  0.0771851  0.922  0.3572
## factor(municode)56 -0.0024453  0.0871427 -0.028  0.9776

```

```

## factor(municode)57 0.0341221 0.0883595 0.386 0.6996
## factor(municode)58 0.0299047 0.0887449 0.337 0.7363
## factor(municode)59 0.1198461 0.0748441 1.601 0.1100
## factor(municode)60 -0.0171286 0.0770587 -0.222 0.8242
## factor(municode)61 0.1439461 0.0759299 1.896 0.0586
## factor(municode)62 0.0812839 0.0752730 1.080 0.2808
## factor(municode)63 0.2183196 0.2443926 0.893 0.3722
## factor(municode)64 0.0281091 0.0768537 0.366 0.7147
## factor(municode)65 0.0508748 0.0723248 0.703 0.4822
## factor(municode)66 0.0352096 0.0885656 0.398 0.6911
## factor(municode)67 0.0221765 0.0702251 0.316 0.7523
## factor(municode)68 0.0482056 0.1355417 0.356 0.7223
## factor(municode)69 0.0440147 0.0824381 0.534 0.5937
## factor(municode)70 0.1279072 0.0877986 1.457 0.1459
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.1636 on 446 degrees of freedom
## (1 observation deleted due to missingness)
## Multiple R-squared:  0.1696, Adjusted R-squared:  0.02252
## F-statistic: 1.153 on 79 and 446 DF, p-value: 0.19

model_formula_var <- as.formula(pdefault ~ grpFFcl.y+grpmem+ffclmem+gch2+gfem+gage+gurb+gysch+gmar+glcons)

col_var<-lm(model_formula_var,data =tablea1_1)
summary(col_var)

##
## Call:
## lm(formula = model_formula_var, data = tablea1_1)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.17327 -0.09639 -0.05618 -0.00161  0.92709
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) -0.1195456  0.3855299  -0.310   0.7568
## grpFFcl.y   -0.1343074  0.1670291  -0.804   0.4221
## grpmem       0.0248618  0.0267365   0.930   0.3534
## ffclmem      0.0270602  0.0657341   0.412   0.6810
## gch2         0.0124168  0.0117753   1.054   0.2927
## gfem         0.0508206  0.0456864   1.112   0.2671
## gage        -0.0004322  0.0016122  -0.268   0.7889
## gurb         0.0797695  0.0345871   2.306   0.0219 *
## gysch        -0.0134089  0.0061192  -2.191   0.0294 *
## gmar         -0.0468562  0.0482950  -0.970   0.3329
## glcons       0.0077302  0.0296361   0.261   0.7944
## ghhsz        0.0042320  0.0053183   0.796   0.4270
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.1819 on 239 degrees of freedom
## Multiple R-squared:  0.0811, Adjusted R-squared:  0.03881

```

```
## F-statistic: 1.918 on 11 and 239 DF, p-value: 0.03787
```

```
library(stargazer)
stargazer(col1,col2,col3,type = "html", column.labels = c("Groups of 2 or 3","All groups"), column.sepa
```

```
##
## <table style="text-align:center"><caption><strong>Table A1: Group-level analysis of defections: Deper
## <tr><td colspan="4" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left".
## <tr><td></td><td colspan="3" style="border-bottom: 1px solid black"></td></tr>
## <tr><td style="text-align:left"></td><td colspan="3">Proportion of members that default</td></tr>
## <tr><td style="text-align:left"></td><td>Groups of 2 or 3</td><td colspan="2">All groups</td></tr>
## <tr><td style="text-align:left"></td><td>(1)</td><td>(2)</td><td>(3)</td></tr>
## <tr><td colspan="4" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left".
## <tr><td style="text-align:left"></td><td>(0.038)</td><td>(0.029)</td><td>(0.066)</td></tr>
## <tr><td style="text-align:left"></td><td>(0.027)</td><td>0.001</td><td>-0.001</td></tr>
## <tr><td style="text-align:left"></td><td>(0.028)</td><td>(0.004)</td><td>(0.005)</td></tr>
## <tr><td style="text-align:left"></td><td>[1] x [2]</td><td></td><td></td><td>0.039<sup>***</sup></td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>(0.019)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>0.008</td><td>0.012</td><td>0.011</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>(0.013)</td><td>(0.009)</td><td>(0.009)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>0.117<sup>***</sup></td><td>0.032</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>(0.054)</td><td>(0.037)</td><td>(0.037)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>-0.0004</td><td>-0.0005</td><td>-0.0004</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>(0.002)</td><td>(0.001)</td><td>(0.001)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>0.045</td><td>0.031</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>(0.051)</td><td>(0.031)</td><td>(0.031)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>-0.010</td><td>-0.010<sup>***</sup></td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>(0.007)</td><td>(0.005)</td><td>(0.005)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>0.011</td><td>-0.001</td><td>-0.004</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>(0.054)</td><td>(0.035)</td><td>(0.035)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>0.003</td><td>-0.019</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>(0.036)</td><td>(0.025)</td><td>(0.025)</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>0.001</td><td>0.004</td><td>0.004</td></tr>
## <tr><td style="text-align:left"></td><td></td><td></td><td></td><td>(0.006)</td><td>(0.004)</td><td>(0.004)</td></tr>
## <tr><td colspan="4" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left".
## <tr><td style="text-align:left"></td><td>Observations</td><td>251</td><td>526</td><td>526</td></tr>
## <tr><td colspan="4" style="border-bottom: 1px solid black"></td></tr><tr><td style="text-align:left".
## <tr><td style="text-align:left"></td><td colspan="3" style="text-align:left">Linear regression coeff
## </table>
```

```
out
```