GenSamp: RESULTS

Gleb Furman 1 & James E. Pustejovsky 1

¹ University of Texas at Austin

GenSamp: RESULTS

Setup

Packages and Data

Organize Objects

```
## Joining, by = "DSID"
## Parsed with column specification:
## cols(
    vnames = col_character(),
##
    Variables = col_character(),
##
    Sub = col_character(),
##
##
    Category = col_character(),
     Type = col character()
##
## )
## Parsed with column specification:
## cols(
##
     vnames = col_character(),
    Variables = col_character(),
##
    Sub = col_character(),
##
     Category = col_character(),
##
    Type = col character()
##
## )
## Joining, by = "vnames"
```

Data Summary

Covaraite Statistics

'summarise()' ungrouping output (override with '.groups' argument)

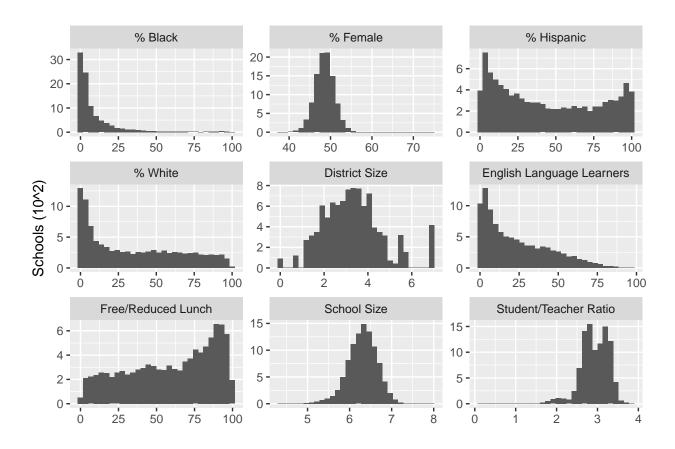
Joining, by = "vnames"

Joining, by = c("vnames", "Variables", "Sub", "Category", "Type")

Continuous variable distributions

Joining, by = "vnames"

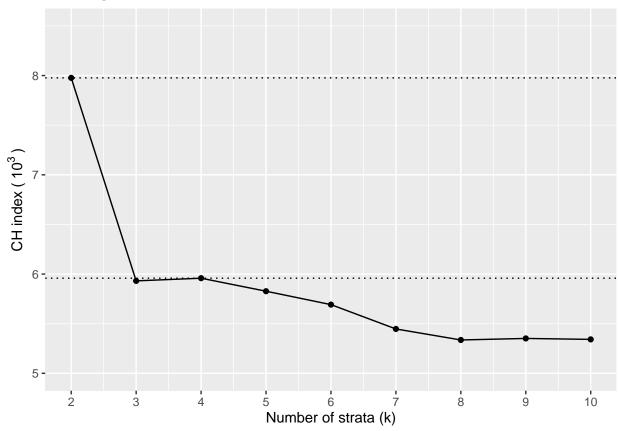
'stat_bin()' using 'bins = 30'. Pick better value with 'binwidth'.

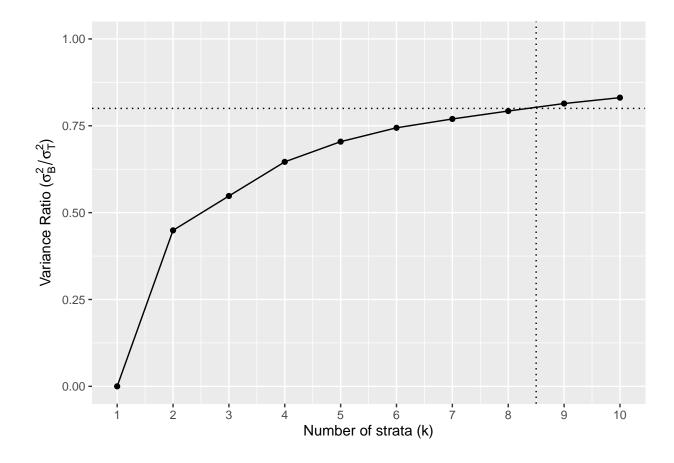


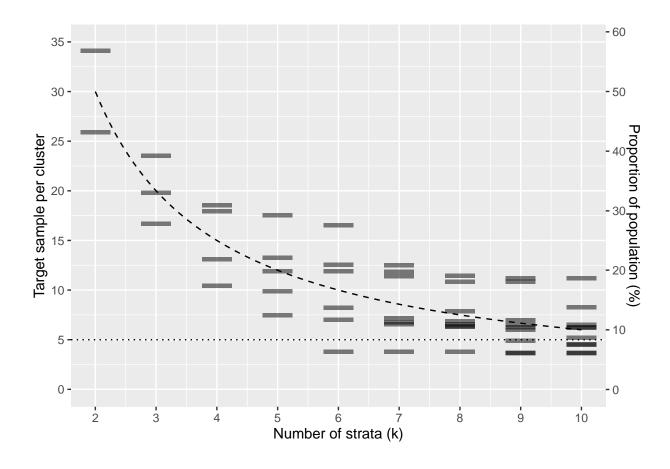
Methods Summary

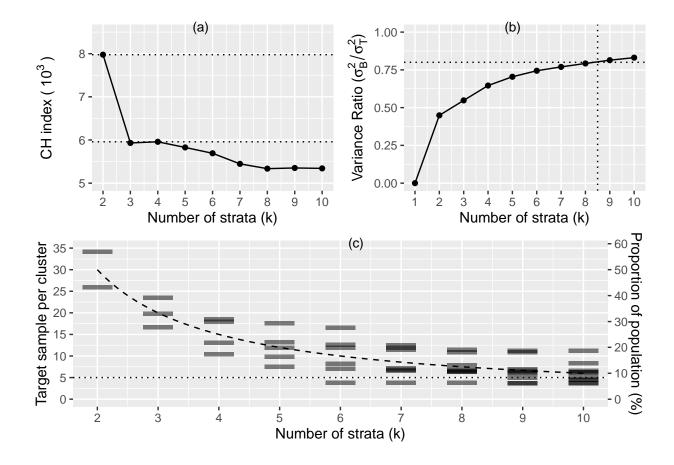
Cluster Analysis

Selecting k.







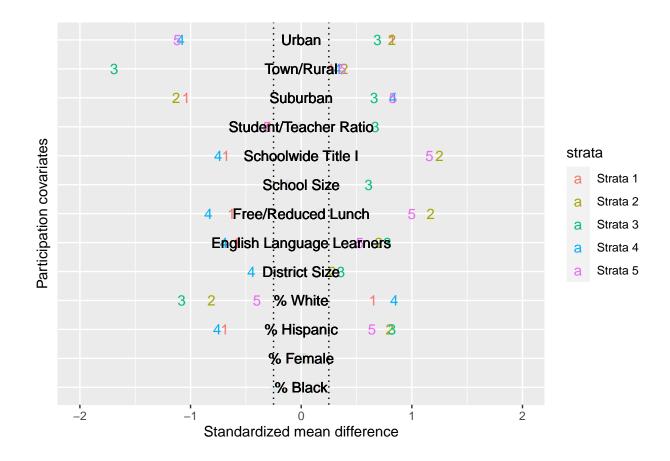


'summarise()' regrouping output by 'strata' (override with '.groups' argument)

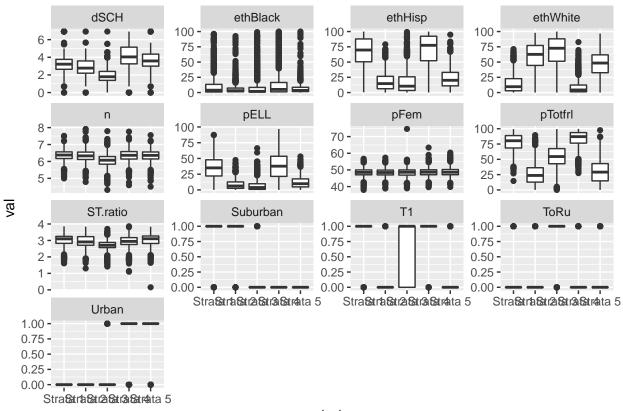
Joining, by = "var"

Joining, by = "vnames"

Warning: Using alpha for a discrete variable is not advised.



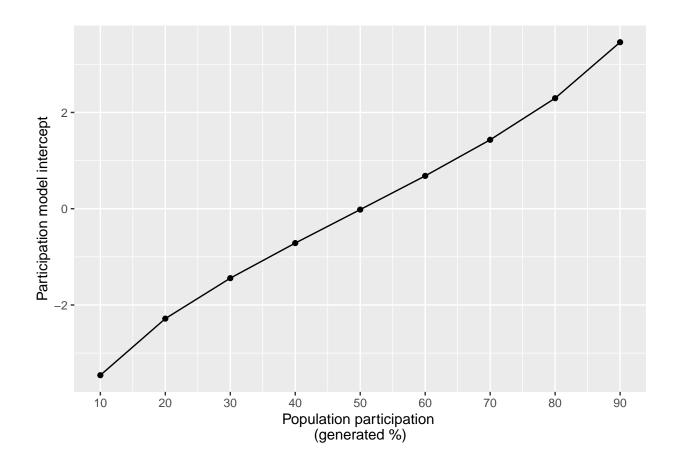
```
## Note: Using an external vector in selections is ambiguous.
## i Use 'all_of(covariates)' instead of 'covariates' to silence this message.
## i See <a href="https://tidyselect.r-lib.org/reference/faq-external-vector.html">https://tidyselect.r-lib.org/reference/faq-external-vector.html</a>.
## This message is displayed once per session.
```



strata

Participation Generating Model

log_odds	Variables	Sub	Category	Type
0.019	Schoolwide Title I	Status	School Data	Prop
0.374	School Size	Enrollment	School Data	Mean
0.081	Free/Reduced Lunch	Status	Student Data	Mean
0.433	Urban	Urbanicity	School Data	Prop
0.007	Suburban	Urbanicity	School Data	Prop
-0.403	Town/Rural	Urbanicity	School Data	Prop
-0.538	% White	Ethnicity	Student Data	Mean
0.291	% Black	Ethnicity	Student Data	Mean
0.395	% Hispanic	Ethnicity	Student Data	Mean
-0.019	% Female	Gender	Student Data	Mean
-0.101	Student/Teacher Ratio	Enrollment	School Data	Mean
0.520	District Size	District	School Data	Mean
0.412	English Language Learners	Status	Student Data	Mean



'stat_bin()' using 'bins = 30'. Pick better value with 'binwidth'.

Joining, by = "DSID"

Joining, by = "DSID"

Results

Generalizability

B Index.

'summarise()' regrouping output by 'sample_method', 'RR', 'Clustering' (override with

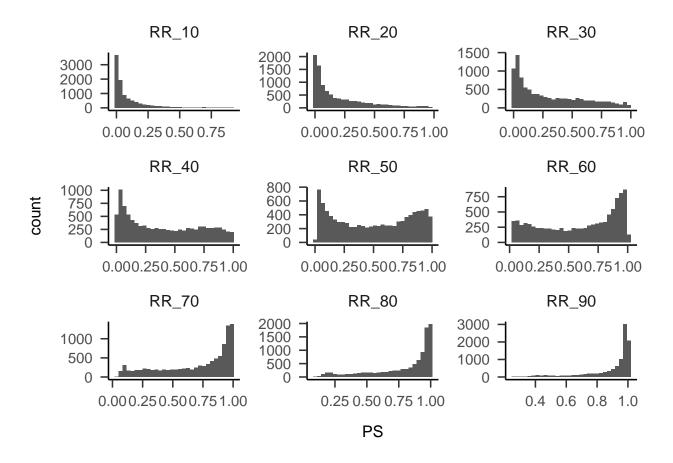


Figure 1. Distributions of Participation Propensity Scores

Standardized mean differences.

```
## Joining, by = "var"
```

'summarise()' regrouping output by 'sample_method', 'RR', 'var', 'Sampling' (override

```
## Joining, by = "vnames"
## Joining, by = "vnames"
```

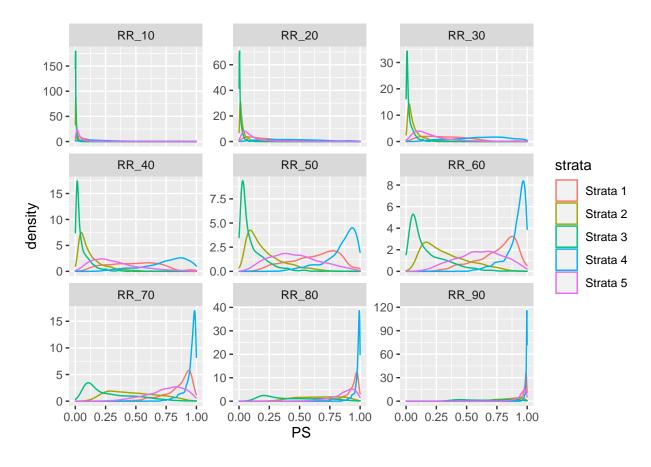
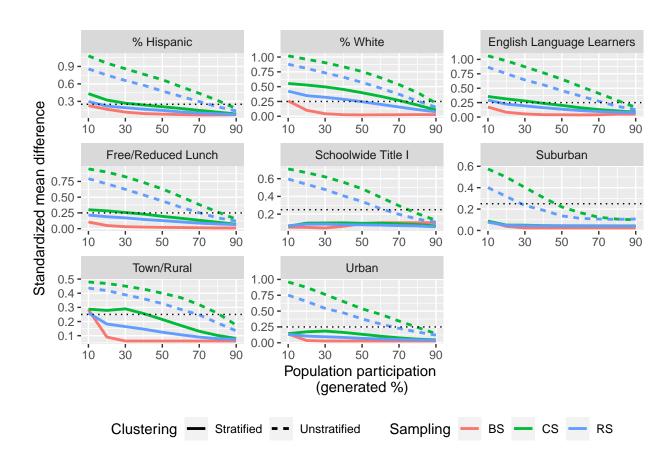


Figure 2. Distributions of Participation Propensity Scores



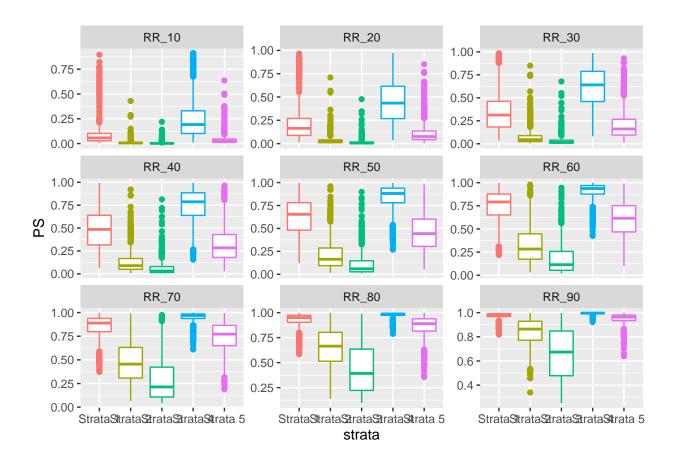
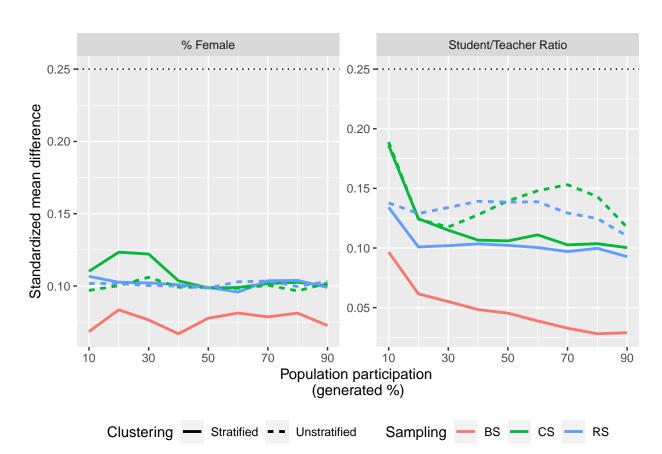


Figure 3. Distributions of Participation Propensity Scores



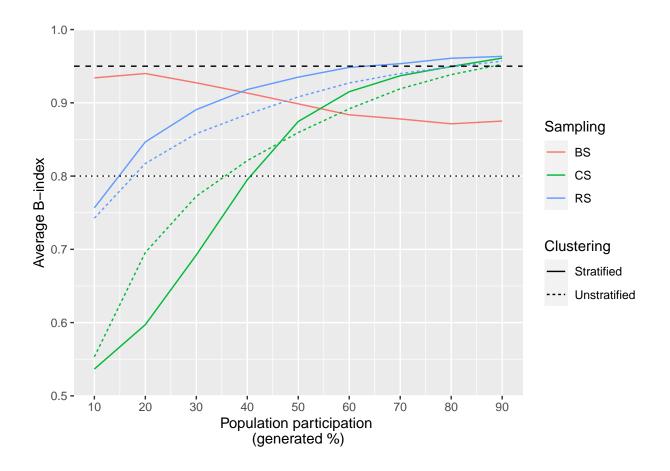


Figure 4. Averge B-Index

Examples for presentations

V-ratio and Log odds.

```
## 'summarise()' regrouping output by 'vnames', 'T.SS' (override with '.groups' argument
## 'summarise()' regrouping output by 'vnames' (override with '.groups' argument)
## Joining, by = "vnames"
## Joining, by = "vnames"
```

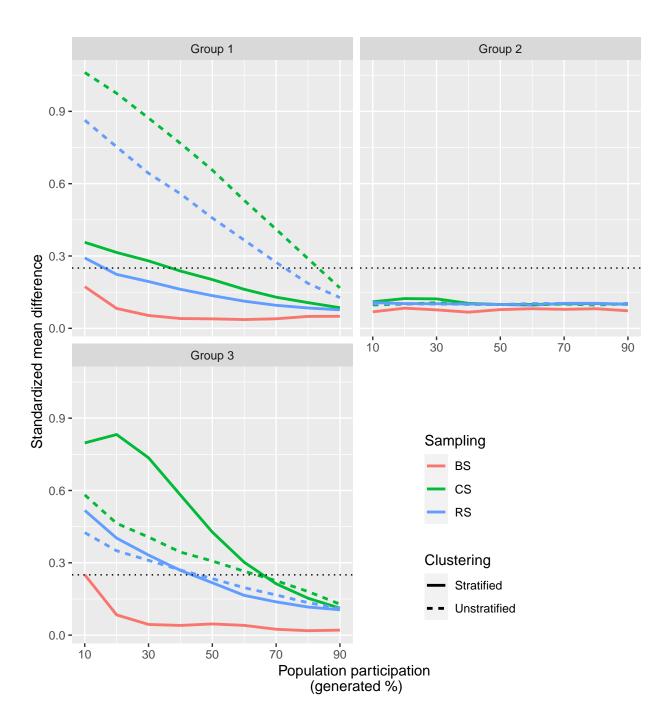
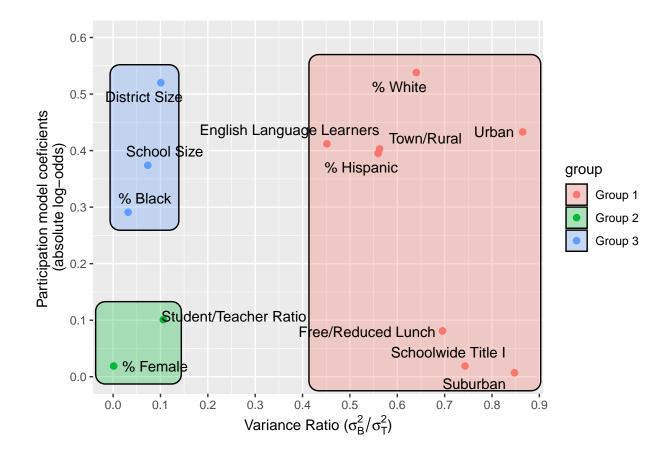


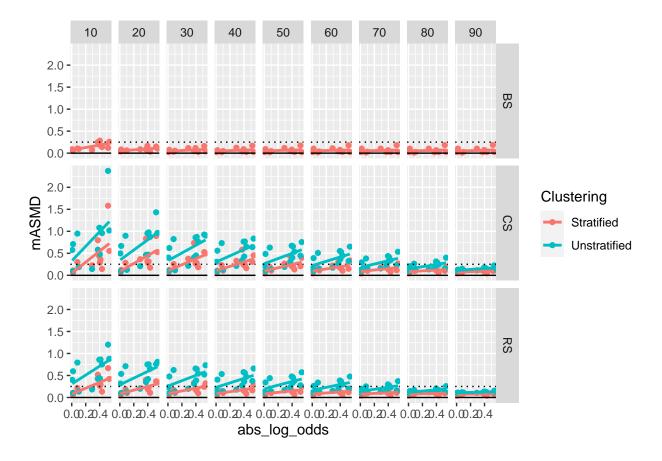
Figure 5. Average SMDs



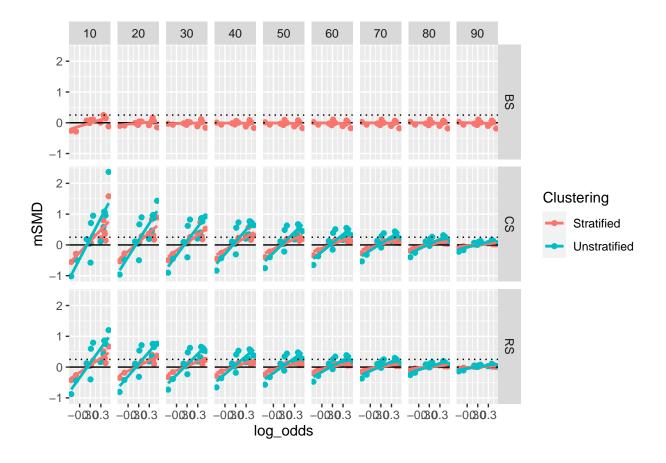
Test.

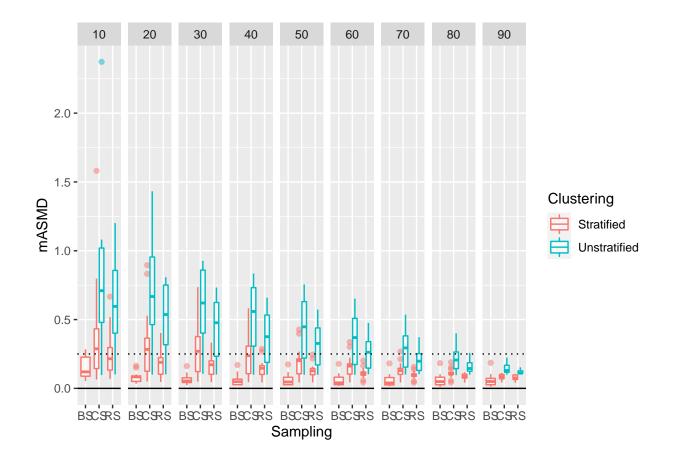
Joining, by = c("vnames", "log_odds")

'geom_smooth()' using formula 'y ~ x'



^{## &#}x27;geom_smooth()' using formula 'y ~ x'





Analysis of Variance Table

Model 1: mSMD ~ RR Model 2: mSMD ~ log_odds + vratio + RR Model 3: mSMD ~ log_odds * vratio * RR Res.Df RSS Df Sum of Sq F Pr(>F)

 $1\ 583\ 59.336$

Model 1 Model 2 Model 3

(Intercept) 0.24 *** 0.15 *** 0.11 *

(0.03) (0.03) (0.05)

RR -0.00 *** -0.00 *** -0.00

(0.00) (0.00) (0.00)

```
log_odds 0.61 *** 1.24 (0.03) (0.16)

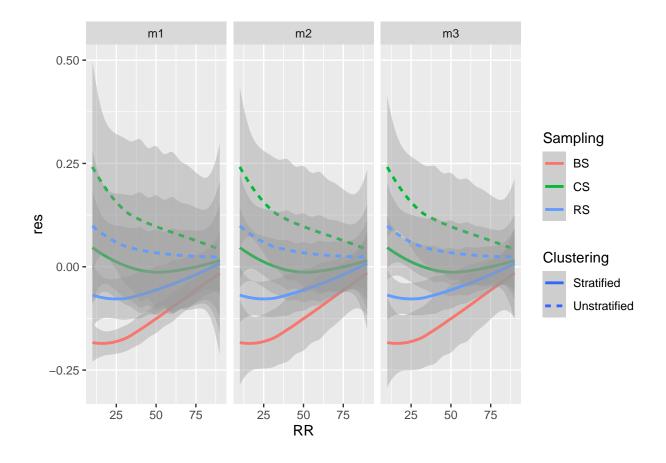
vratio 0.04 -0.02
(0.03) (0.08)
log_odds:vratio -0.00
(0.28)
log_odds:RR -0.02 (0.00)

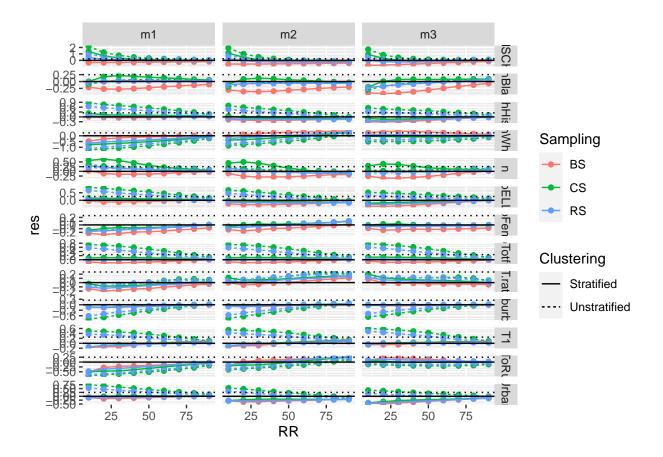
vratio:RR 0.00
(0.00)
log_odds:vratio:RR 0.01
(0.00)

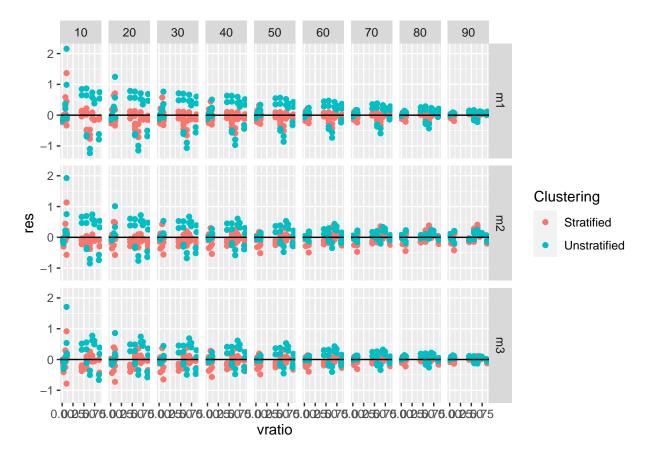
R^2 0.04 0.39 0.50

Adj. R^2 0.04 0.38 0.49

Num. obs. 585 585 585
```



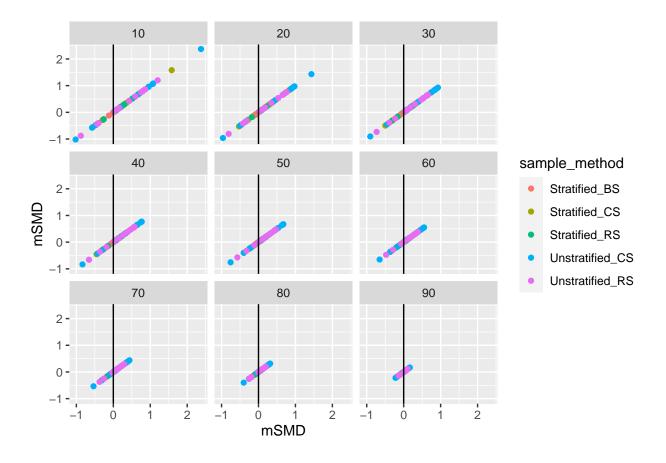


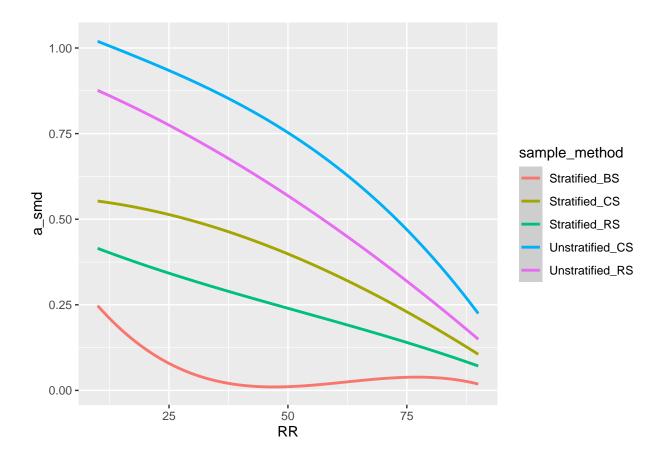


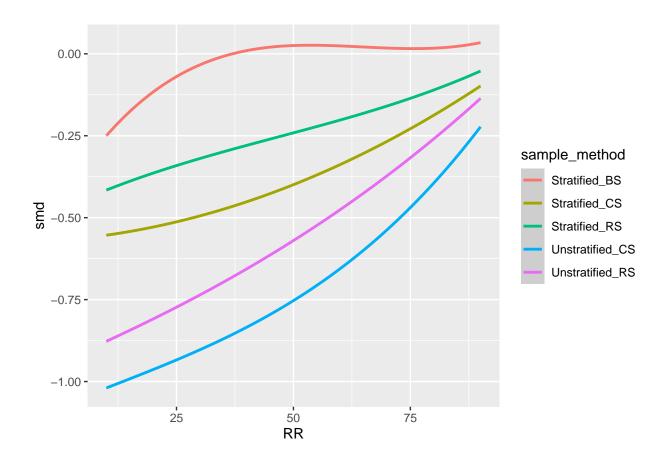
Test 2

Joining, by = "var"

'summarise()' regrouping output by 'sample_method', 'RR', 'var', 'Sampling' (override







Feasibility

Sampling Difficulty.

'summarise()' regrouping output by 'sample_method', 'RR', 'measure', 'Sampling', 'Clu

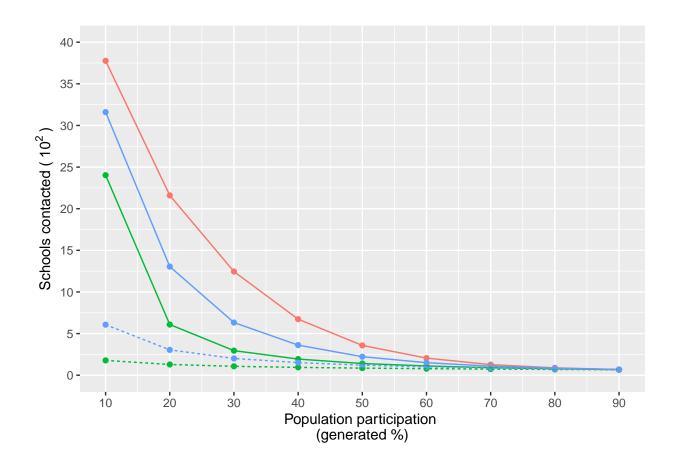
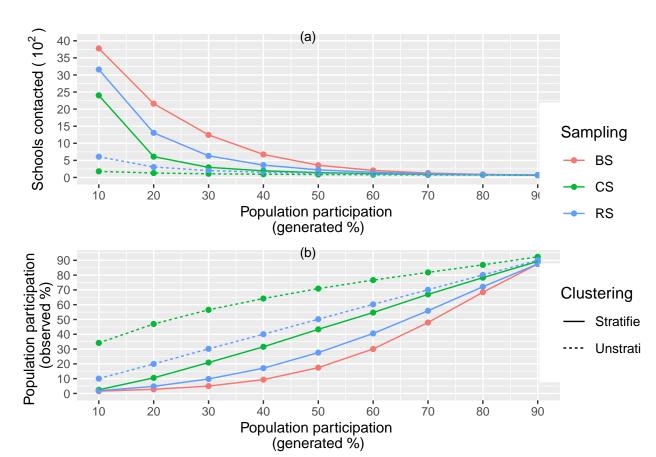


Figure 6. Schools Contacted



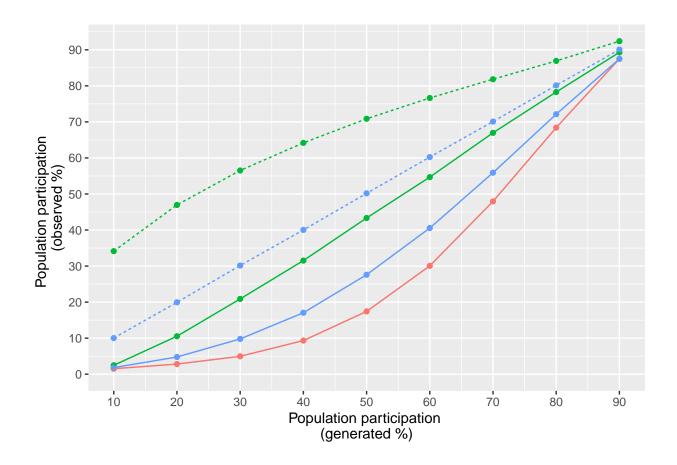


Figure 7. Sampling response rates

Relative Performance.

```
## Joining, by = c("RR", "measure", "K")
Gini Plot.
```

Joining, by = "DSID"

```
## Joining, by = "DSID"
```

- ## Joining, by = "DSID"

```
## Joining, by = "DSID"
## Warning: 'cols' is now required when using unnest().
## Please use 'cols = c(data)'
## 'summarise()' regrouping output by 'sample_method', 'Clustering', 'Sampling' (override)
```

Export Plots