

Sample Reuse

Jianhui Gao

2023-06-27

Recovery Rate

Table 1: **Number of genome-wide significant SNPs recovered by standard and SynSurr GWAS across increasing ablation of the target phenotype.** The oracle method establishes the number of genome-wide significant (GWS) variants ($p < 5 \times 10^{-8}$) that would be identified in the absence of missingness. Missingness was introduced by ablating 25%, 50%, 75%, and 90% of the target phenotypes. Standard and SynSurr GWAS were performed on each of the ablated data sets.

Missing Rate (%)	Height				FEV1			
	n_{obs}	Oracle	Standard	SynSurr	n_{obs}	Oracle	Standard	SynSurr
25	262,105	7,177	4,896(68.22%)	5,169(72.02%)	231,388	974	546(56.06%)	673(69.09%)
50	174,737	7,177	2,742(38.21%)	3,319(46.24%)	154,259	974	278(28.54%)	476(48.87%)
75	87,368	7,177	834(11.62%)	1,325(18.46%)	77,129	974	60(6.16%)	238(24.43%)
90	34,947	7,177	192(2.68%)	320(4.46%)	30,852	974	0(0%)	60(6.16%)

False Discovery Rate

Table 2: **False positive discoveries of the standard GWAS and the SynSurr GWAS across various missing rates.** The false positive discovery was rate defined as the number of SNPs that are significant in the standard or SynSurr GWAS, but not in the oracle GWAS.

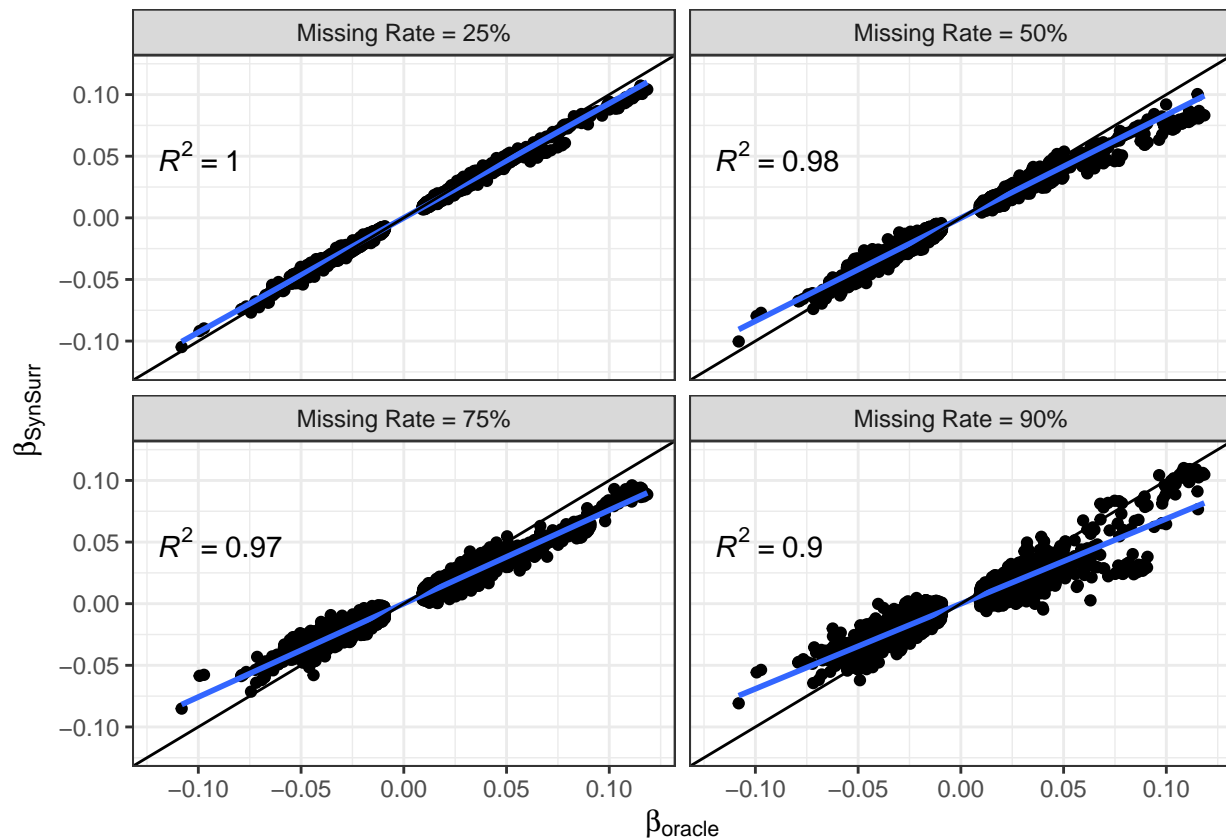
Missing Rate(%)	Height		FEV1	
	Standard	SynSurr	Standard	SynSurr
25	75(0.017%)	82(0.018%)	19(0.004%)	80(0.018%)
50	18(0.004%)	27(0.006%)	6(0.001%)	101(0.023%)
75	1(0%)	4(0%)	0(0%)	80(0.018%)
90	0(0%)	1(0%)	0(0%)	14(0.003%)

Effect Size Estimate

Height

```
##  
## Attaching package: 'dplyr'  
  
## The following objects are masked from 'package:stats':  
##  
## filter, lag
```

```
## The following objects are masked from 'package:base':
##
## intersect, setdiff, setequal, union
## Warning: The dot-dot notation (`..rr.label..`) was deprecated in ggplot2 3.4.0.
## i Please use `after_stat(rr.label)` instead.
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was
## generated.
## `geom_smooth()` using formula = 'y ~ x'
```



FEV1

```
## `geom_smooth()` using formula = 'y ~ x'
```

