## $PS12_Fillmore$

## benjaminpaynefillmore

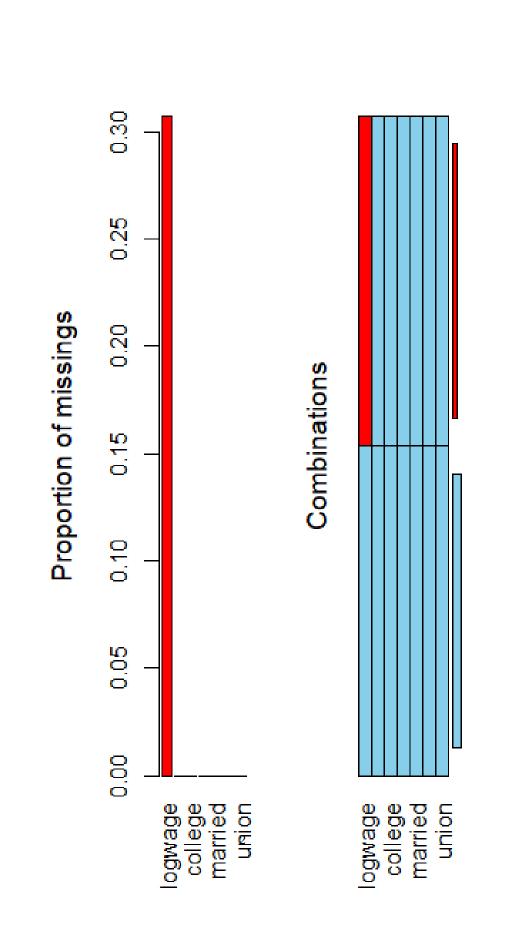
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## 1 Main

I would say logwage is mcar, as there seems to be no consistency between why the data points are missing, and this missing-ness does not seem to carryover into the related rows.

From these models, the cleaned Heckman model is far and away the most accurate regarding Beta1. I could not include it in my modelsummary(), but I've attached its output below as well.

No, deleting out the relationship between married  $\,$  kids on our dependent variable would compromise the model, I'd assume



	Model 1	Model 2
(Intercept)	0.891	1.202
	(0.112)	(0.076)
hgc	0.058	0.035
	(0.009)	(0.006)
union1	0.068	0.021
	(0.073)	(0.045)
college1	-0.079	-0.124
	(0.106)	(0.048)
exper	0.016	0.003
	(0.006)	(0.004)
Num.Obs.	1545	2229
R2	0.032	0.016
R2 Adj.	0.029	0.014
AIC	3190.2	3815.6
BIC	3222.3	3849.9
Log.Lik.	-1589.113	-1901.820
F	12.600	9.162

all

```
Tobit 2 model (sample selection model)
2-step Heckman / heckit estimation
2229 observations (684 censored and 1545 observed)
16 free parameters (df = 2214)
Probit selection equation:
            Estimate Std. Error t value Pr(>|t|)
                       1.11124 18.495 < 2e-16 ***
0.06627 -16.655 < 2e-16 ***
(Intercept) 20.55276
hgc
            -1.10366
                       0.21334 -5.219 1.97e-07 ***
            -1.11334
union1
college1
            -0.56499
                       0.22736 -2.485
                                        0.013 *
                       0.03011 -16.788 < 2e-16 ***
exper
            -0.50551
                       0.16220 -14.027 < 2e-16 ***
            -2.27529
married1
            0.49540
kids
                       0.11443 4.329 1.56e-05 ***
Outcome equation:
            Estimate Std. Error t value Pr(>|t|)
                                   3.662 0.000256 ***
(Intercept) 0.446456
                      0.121902
                                  9.344 < 2e-16 ***
            0.091461
                        0.009789
hgc
                                  2.206 0.027507 *
union1
            0.185728
                        0.084203
college1
            0.091996
                        0.100138
                                  0.919 0.358357
                                 4.494 7.34e-06 ***
            0.054162
                        0.012051
I(exper^2) -0.001802
                       0.001094 -1.646 0.099828 .
Multiple R-Squared:0.0919,
                                Adjusted R-Squared:0.0883
  Error terms:
              Estimate Std. Error t value Pr(>|t|)
                                            <2e-16 ***
invMillsRatio -0.69455
                         0.06036 -11.51
              0.69571
sigma
                               NΔ
                                       NΔ
                                                NA
rho
              -0.99833
                               NA
                                       NA
                                                NA
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```