```
> logistic_model1

Call:  glm(formula = value ~ PriceMin5 + Price0 + Price2 + All.RES +
    wind + solar + hydro + biomass + Slovak + Can.Change + No.change,
    family = "binomial", data = data)

Coefficients:
(Intercept)    PriceMin5       Price0       Price2      All.RES         wind        solar        hydro      biomass       Slovak   Can.Change    No.change
     0.2628       2.9303      -0.5643      -0.8535       1.0147       0.1921       1.3213       0.6389           NA       0.5800       0.3868       0.1435

Degrees of Freedom: 2687 Total (i.e. Null);  2677 Residual
Null Deviance:      3726
Residual Deviance: 3582         AIC: 3604
> summary(logistic_model1)$coefficients
              Estimate Std. Error   z value     Pr(>|z|)
(Intercept)  0.2628022 0.06407868  4.101243 4.109370e-05
PriceMin5    2.9303260 0.48157320  6.084903 1.165622e-09
Price0      -0.5643186 0.15610629 -3.614964 3.003896e-04
Price2      -0.8535282 0.18956217 -4.502630 6.711780e-06
All.RES      1.0146952 0.17197344  5.900302 3.628371e-09
wind         0.1920888 0.15546814  1.235551 2.166257e-01
solar        1.3212998 0.16103963  8.204811 2.309531e-16
hydro        0.6388507 0.14645349  4.362141 1.287959e-05
Slovak       0.5799955 0.06464910  8.971439 2.926644e-19
Can.Change   0.3867773 0.05706504  6.777833 1.219917e-11
No.change    0.1434824 0.05419085  2.647724 8.103571e-03
```

```
> logistic_model4

Call:  glm(formula = value ~ PriceMin5 + Price0 + Price2 + All.RES +
    wind + solar + hydro + biomass + Slovak + Can.Change + No.change +
    Gender_f * PriceMin5 + Gender_f * Price0 + Gender_f * Price2 +
    Gender_f * All.RES + Gender_f * wind + Gender_f * solar +
    Gender_f * hydro + Gender_f * biomass + Gender_f * Slovak +
    Gender_f * Can.Change + Gender_f * No.change, family = "binomial",
    data = data)

Coefficients:
        (Intercept)            PriceMin5               Price0               Price2              All.RES                 wind                solar
           0.299966             3.222455            -0.691965            -0.902220             1.060742             0.098565             1.339328
              hydro              biomass                Slovak           Can.Change           No.change             Gender_f    PriceMin5:Gender_f
           0.738830                   NA             0.528135             0.345805             0.224739            -0.086134            -0.658308
    Price0:Gender_f      Price2:Gender_f     All.RES:Gender_f        wind:Gender_f       solar:Gender_f       hydro:Gender_f     biomass:Gender_f
           0.304070             0.104094            -0.088589             0.232363            -0.005984            -0.234918                   NA
    Slovak:Gender_f  Can.Change:Gender_f   No.change:Gender_f
           0.148027             0.117512            -0.200435

Degrees of Freedom: 2687 Total (i.e. Null);  2666 Residual
Null Deviance:      3726
Residual Deviance: 3560         AIC: 3604
> summary(logistic_model4)$coefficients
                      Estimate Std. Error    z value     Pr(>|z|)
(Intercept)         0.299966173 0.08300996  3.6136166 3.019555e-04
PriceMin5           3.222454518 0.62468886  5.1584952 2.489425e-07
Price0             -0.691964516 0.20316879 -3.4058604 6.595590e-04
Price2             -0.902220240 0.24503271 -3.6820401 2.313750e-04
All.RES             1.060741509 0.22195217  4.7791445 1.760426e-06
wind                0.098564939 0.20216819  0.4875393 6.258762e-01
solar               1.339328287 0.20792381  6.4414379 1.183469e-10
hydro               0.738830319 0.19054211  3.8775172 1.055279e-04
Slovak              0.528134800 0.08308777  6.3563481 2.066065e-10
Can.Change          0.345804521 0.07357173  4.7002362 2.598608e-06
No.change           0.224738846 0.07053548  3.1861817 1.441640e-03
Gender_f           -0.086133869 0.13144006 -0.6553091 5.122687e-01
PriceMin5:Gender_f -0.658307536 0.98595775 -0.6676833 5.043358e-01
Price0:Gender_f     0.304069537 0.31921826  0.9525443 3.408210e-01
Price2:Gender_f     0.104094134 0.38868378  0.2678119 7.888441e-01
All.RES:Gender_f   -0.088588628 0.35354437 -0.2505729 8.021444e-01
wind:Gender_f       0.232363430 0.31851708  0.7295164 4.656858e-01
solar:Gender_f     -0.005984227 0.33111777 -0.0180728 9.855808e-01
hydro:Gender_f     -0.234917545 0.29916609 -0.7852412 4.323122e-01
Slovak:Gender_f     0.148027307 0.13355275  1.1083809 2.676974e-01
Can.Change:Gender_f 0.117512065 0.11779717  0.9975797 3.184832e-01
No.change:Gender_f -0.200435190 0.11078539 -1.8092205 7.041676e-02
```

```
> summary(males_model)$coefficients
               Estimate Std. Error    z value     Pr(>|z|)
(Intercept)  0.29996617 0.08300996  3.6136166 3.019555e-04
PriceMin5    3.22245452 0.62468886  5.1584952 2.489425e-07
Price0      -0.69196452 0.20316879 -3.4058604 6.595590e-04
Price2      -0.90222024 0.24503271 -3.6820401 2.313750e-04
All.RES      1.06074151 0.22195217  4.7791445 1.760426e-06
wind         0.09856494 0.20216819  0.4875393 6.258762e-01
solar        1.33932829 0.20792381  6.4414379 1.183469e-10
hydro        0.73883032 0.19054211  3.8775172 1.055279e-04
Slovak       0.52813480 0.08308777  6.3563481 2.066065e-10
Can.Change   0.34580452 0.07357173  4.7002362 2.598608e-06
No.change    0.22473885 0.07053548  3.1861817 1.441640e-03
> summary(females_model)$coefficients
               Estimate Std. Error    z value     Pr(>|z|)
(Intercept)  0.21383230 0.10191092  2.0982276 3.588504e-02
PriceMin5    2.56414698 0.76280831  3.3614566 7.753255e-04
Price0      -0.38789498 0.24621686 -1.5754201 1.151595e-01
Price2      -0.79812611 0.30171850 -2.6452674 8.162640e-03
All.RES      0.97215288 0.27519239  3.5326299 4.114480e-04
wind         0.33092837 0.24613238  1.3445137 1.787823e-01
solar        1.33334406 0.25769491  5.1741187 2.289892e-07
hydro        0.50391277 0.23063836  2.1848611 2.889903e-02
Slovak       0.67616211 0.10455983  6.4667482 1.001343e-10
Can.Change   0.46331659 0.09199659  5.0362366 4.747736e-07
No.change    0.02430366 0.08542920  0.2844889 7.760358e-01
>
```

```
> mixed_model <- glmer(value ~ PriceMin5 + Price0 + Price2 + All.RES + wind + solar + hydro + biomass + Slovak + Can.Change + No.change + (1|Gender_f), data = data,
amily = 'binomial')
fixed-effect model matrix is rank deficient so dropping 1 column / coefficient
boundary (singular) fit: see help('isSingular')
> coef(mixed_model)$Gender_f
  (Intercept) PriceMin5     Price0     Price2  All.RES      wind  solar     hydro    Slovak Can.Change No.change
0   0.2628022  2.930326 -0.5643186 -0.8535282 1.014695 0.1920888 1.3213 0.6388507 0.5799955  0.3867773 0.1434824
1   0.2628022  2.930326 -0.5643186 -0.8535282 1.014695 0.1920888 1.3213 0.6388507 0.5799955  0.3867773 0.1434824
> summary(mixed_model)
Generalized linear mixed model fit by maximum likelihood (Laplace Approximation) ['glmerMod']
 Family: binomial  ( logit )
Formula: value ~ PriceMin5 + Price0 + Price2 + All.RES + wind + solar +      hydro + biomass + Slovak + Can.Change + No.change + (1 |      Gender_f)
   Data: data

     AIC      BIC   logLik deviance df.resid
  3606.2   3677.0  -1791.1   3582.2     2676

Scaled residuals:
     Min       1Q   Median       3Q      Max
-1.56433 -1.00032  0.02507  0.94113  1.69747

Random effects:
 Groups   Name        Variance Std.Dev.
 Gender_f (Intercept) 0        0
Number of obs: 2688, groups:  Gender_f, 2

Fixed effects:
            Estimate Std. Error z value Pr(>|z|)
(Intercept)  0.26280    0.06407   4.102 4.10e-05 ***
PriceMin5    2.93033    0.48142   6.087 1.15e-09 ***
Price0      -0.56432    0.15607  -3.616 0.000299 ***
Price2      -0.85353    0.18951  -4.504 6.67e-06 ***
All.RES      1.01470    0.17193   5.902 3.60e-09 ***
wind         0.19209    0.15544   1.236 0.216557
solar        1.32130    0.16101   8.207 2.28e-16 ***
hydro        0.63885    0.14643   4.363 1.28e-05 ***
Slovak       0.58000    0.06464   8.972  < 2e-16 ***
Can.Change   0.38678    0.05706   6.778 1.22e-11 ***
No.change    0.14348    0.05419   2.648 0.008101 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Correlation of Fixed Effects:
           (Intr) PrcMn5 Price0 Price2 Al.RES wind   solar  hydro  Slovak Cn.Chn
PriceMin5   0.746
Price0     -0.675 -0.874
Price2     -0.635 -0.920  0.693
All.RES     0.566  0.837 -0.650 -0.805
wind        0.622  0.703 -0.656 -0.658  0.440
solar       0.614  0.805 -0.691 -0.672  0.632  0.428
hydro       0.572  0.765 -0.746 -0.672  0.569  0.434  0.537
Slovak      0.208  0.498 -0.319 -0.511  0.543  0.110  0.447  0.333
Can.Change  0.080  0.213  0.014 -0.274  0.166  0.076  0.229  0.069  0.592
No.change   0.210  0.380 -0.287 -0.452  0.260  0.273  0.228  0.125  0.413  0.371
fit warnings:
fixed-effect model matrix is rank deficient so dropping 1 column / coefficient
```

```
> library(survival)
> resultsCLM <- clogit(value ~ PriceMin5 + Price0 + Price2 + All.RES + wind + solar + hydro + biomass + Slovak + Can.Change + No.change + strata(ResponseId), data =
ata)
> summary(resultsCLM)
Call:
coxph(formula = Surv(rep(1, 2688L), value) ~ PriceMin5 + Price0 +
    Price2 + All.RES + wind + solar + hydro + biomass + Slovak +
    Can.Change + No.change + strata(ResponseId), data = data,
    method = "exact")

  n= 2688, number of events= 1344

               coef exp(coef) se(coef)      z Pr(>|z|)
PriceMin5   2.80498  16.52672  0.47091  5.956 2.58e-09 ***
Price0     -0.53962   0.58297  0.15268 -3.534 0.000409 ***
Price2     -0.81694   0.44178  0.18544 -4.405 1.06e-05 ***
All.RES     0.97112   2.64091  0.16826  5.772 7.86e-09 ***
wind        0.18278   1.20055  0.15216  1.201 0.229643
solar       1.26565   3.54540  0.15750  8.036 9.28e-16 ***
hydro       0.61154   1.84327  0.14330  4.267 1.98e-05 ***
biomass          NA        NA  0.00000     NA       NA
Slovak      0.55580   1.74334  0.06327  8.784  < 2e-16 ***
Can.Change  0.37097   1.44914  0.05590  6.637 3.21e-11 ***
No.change   0.13738   1.14726  0.05302  2.591 0.009569 **
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

           exp(coef) exp(-coef) lower .95 upper .95
PriceMin5    16.5267    0.06051    6.5667   41.5936
Price0        0.5830    1.71535    0.4322    0.7863
Price2        0.4418    2.26355    0.3072    0.6354
All.RES       2.6409    0.37866    1.8990    3.6726
wind          1.2006    0.83295    0.8910    1.6177
solar         3.5454    0.28206    2.6038    4.8276
hydro         1.8433    0.54251    1.3919    2.4410
biomass           NA         NA        NA        NA
Slovak        1.7433    0.57361    1.5400    1.9735
Can.Change    1.4491    0.69006    1.2988    1.6169
No.change     1.1473    0.87164    1.0340    1.2729

Concordance= 0.63  (se = 0.012 )
Likelihood ratio test= 138.2  on 10 df,   p=<2e-16
Wald test            = 127.9  on 10 df,   p=<2e-16
Score (logrank) test = 134.7  on 10 df,   p=<2e-16
```

```
> resultsCLM
Call:
clogit(value ~ PriceMin5 + Price0 + Price2 + All.RES + wind +
    solar + hydro + biomass + Slovak + Can.Change + No.change +
    strata(ResponseId), data = data)

               coef exp(coef) se(coef)      z        p
PriceMin5   2.80498  16.52672  0.47091  5.956 2.58e-09
Price0     -0.53962   0.58297  0.15268 -3.534 0.000409
Price2     -0.81694   0.44178  0.18544 -4.405 1.06e-05
All.RES     0.97112   2.64091  0.16826  5.772 7.86e-09
wind        0.18278   1.20055  0.15216  1.201 0.229643
solar       1.26565   3.54540  0.15750  8.036 9.28e-16
hydro       0.61154   1.84327  0.14330  4.267 1.98e-05
biomass          NA        NA  0.00000     NA       NA
Slovak      0.55580   1.74334  0.06327  8.784  < 2e-16
Can.Change  0.37097   1.44914  0.05590  6.637 3.21e-11
No.change   0.13738   1.14726  0.05302  2.591 0.009569

Likelihood ratio test=138.2  on 10 df, p=< 2.2e-16
n= 2688, number of events= 1344
>
```

Choice Model: value

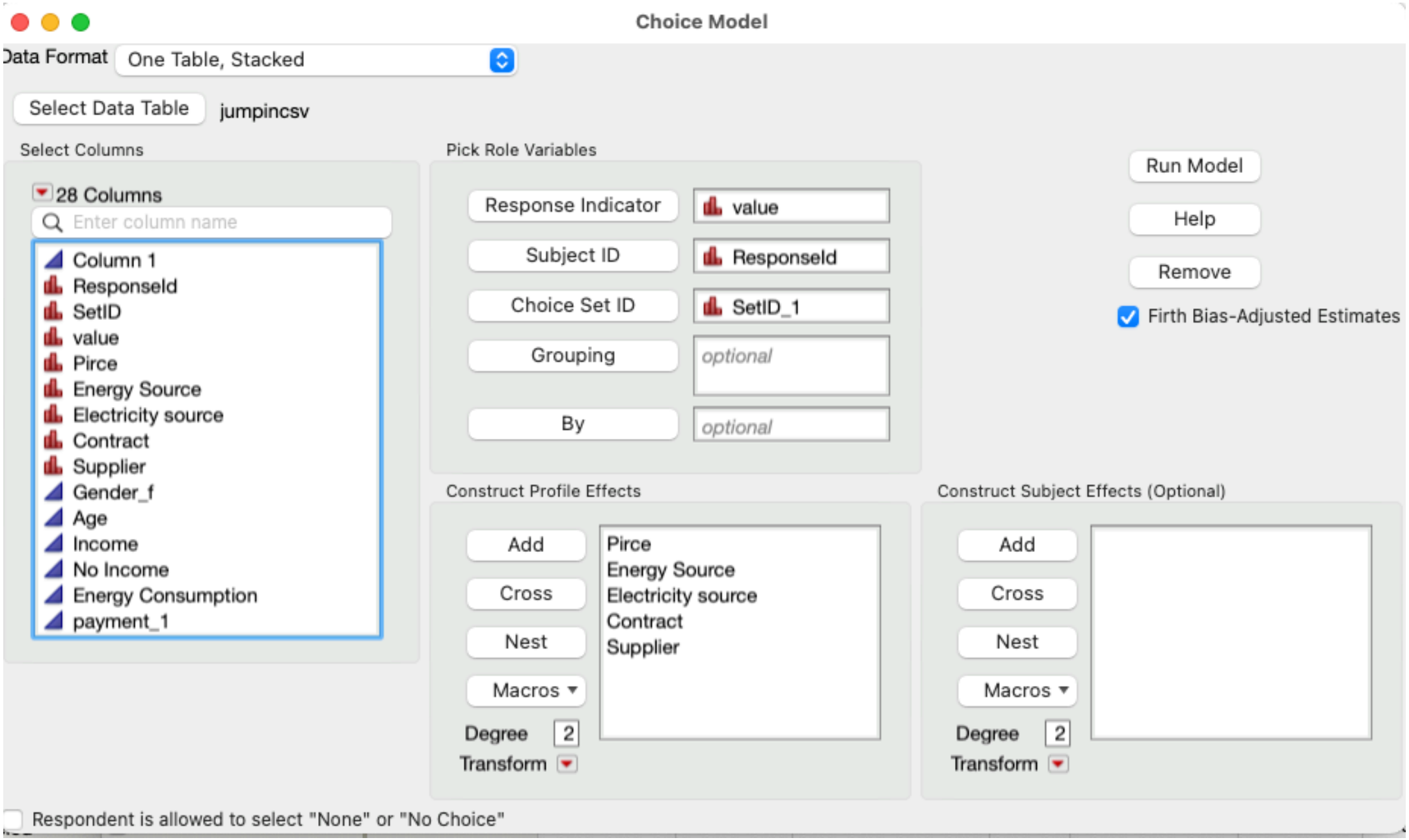
Parameter Estimates

Term	Estimate	Std Error
Pirce[US$5.00]	-175.448854	865218.8518
Pirce[US$2.00]	-175.151354	865218.8518
Pirce[US$0.00]	-174.801338	865218.8518
Energy Source[All RES]	116.954900	576812.5678
Energy Source[biomass]	116.164048	576812.5678
Energy Source[hydro]	116.630684	576812.5678
Energy Source[solar]	117.004560	576812.5678
Energy Source[wind]	116.605895	576812.5678
Electricity source[Local]	0.412738	0.0674
Contract[Can change]	0.258841	0.0531
Supplier[No chagne]	0.199032	0.0658

AICc	1794.8673
BIC	1851.9065
-2*LogLikelihood	1772.6691
-2*Firth LogLikelihood	1747.7623

Failed: Cannot Decrease Objective Function

Firth Bias-Adjusted Estimates


Choice Model
Data Format
One Table, Stacked
Select Data Table
jumpincsv
Select Columns
28 Columns
Enter column name
Column 1
ResponseId
SetID
value
Pirce
Energy Source
Electricity source
Contract
Supplier
Gender_f
Age
Income
No Income
Energy Consumption
payment_1
Pick Role Variables
Response Indicator
value
Subject ID
ResponseId
Choice Set ID
SetID_1
Grouping
optional
By
optional
Run Model
Help
Remove
Firth Bias-Adjusted Estimates
Construct Profile Effects
Add
Cross
Nest
Macros
Degree
2
Transform
Pirce
Energy Source
Electricity source
Contract
Supplier
Construct Subject Effects (Optional)
Add
Cross
Nest
Macros
Degree
2
Transform
Respondent is allowed to select "None" or "No Choice"