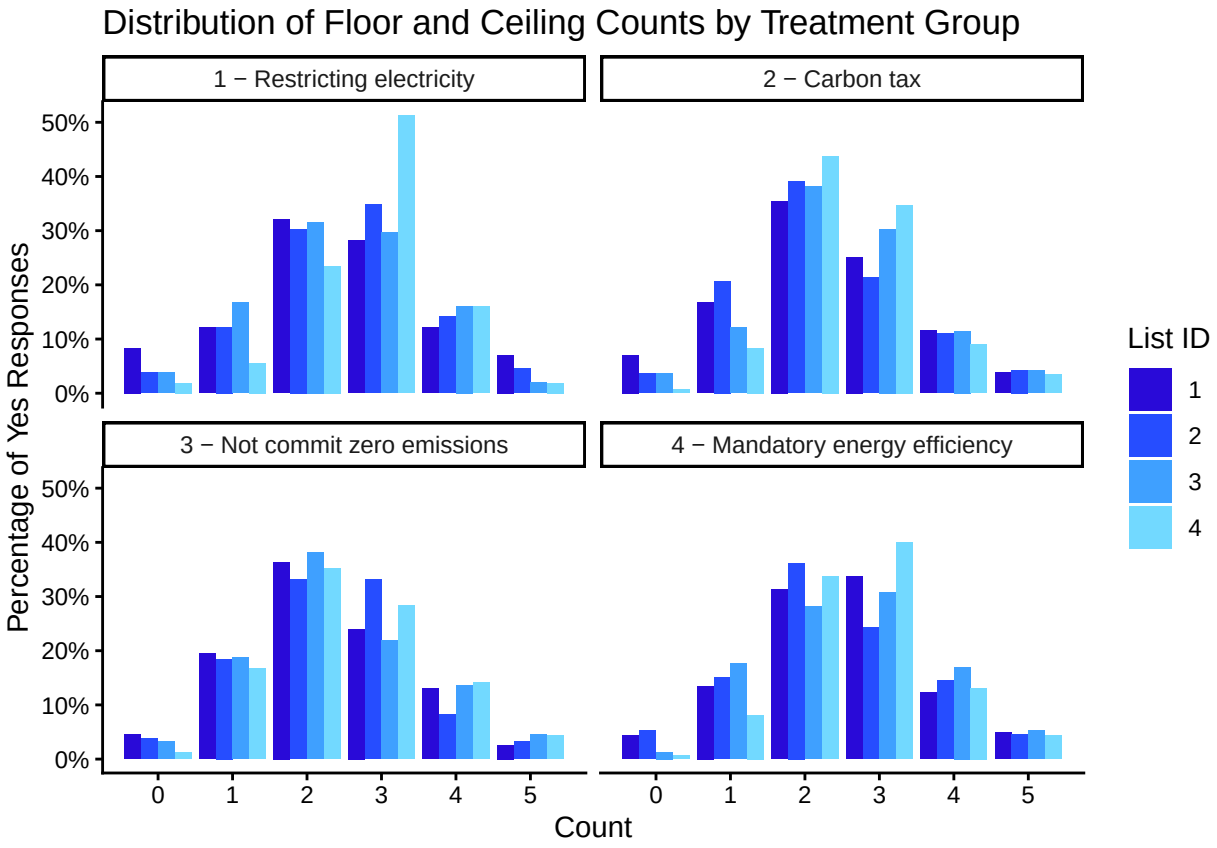
Summary of List Experiment

Validating the floor and ceiling of treatment groups

This step validates if the list experiment is working as intended. Selecting floor or ceiling counts (namely, 0 or 5) for the treatment groups will reveal the answer to the sensitive question. The below plot shows that the floor and ceiling all combined is around 10% of the total responses for each treatment group, which should be comparable to the existing literature if not lower.



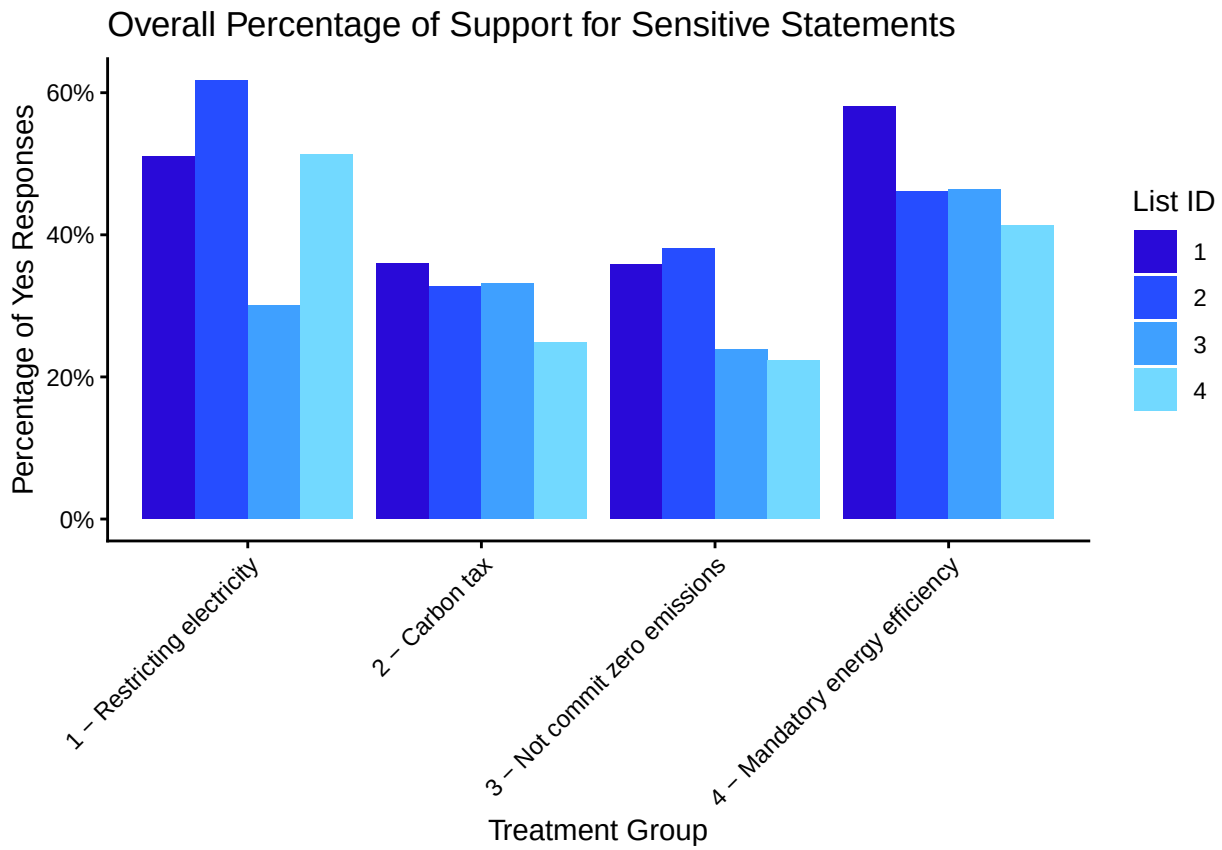
Overall percentage of support for sensitive statements

Below table shows the percentage of "yes" for each sensitive statement by control list:

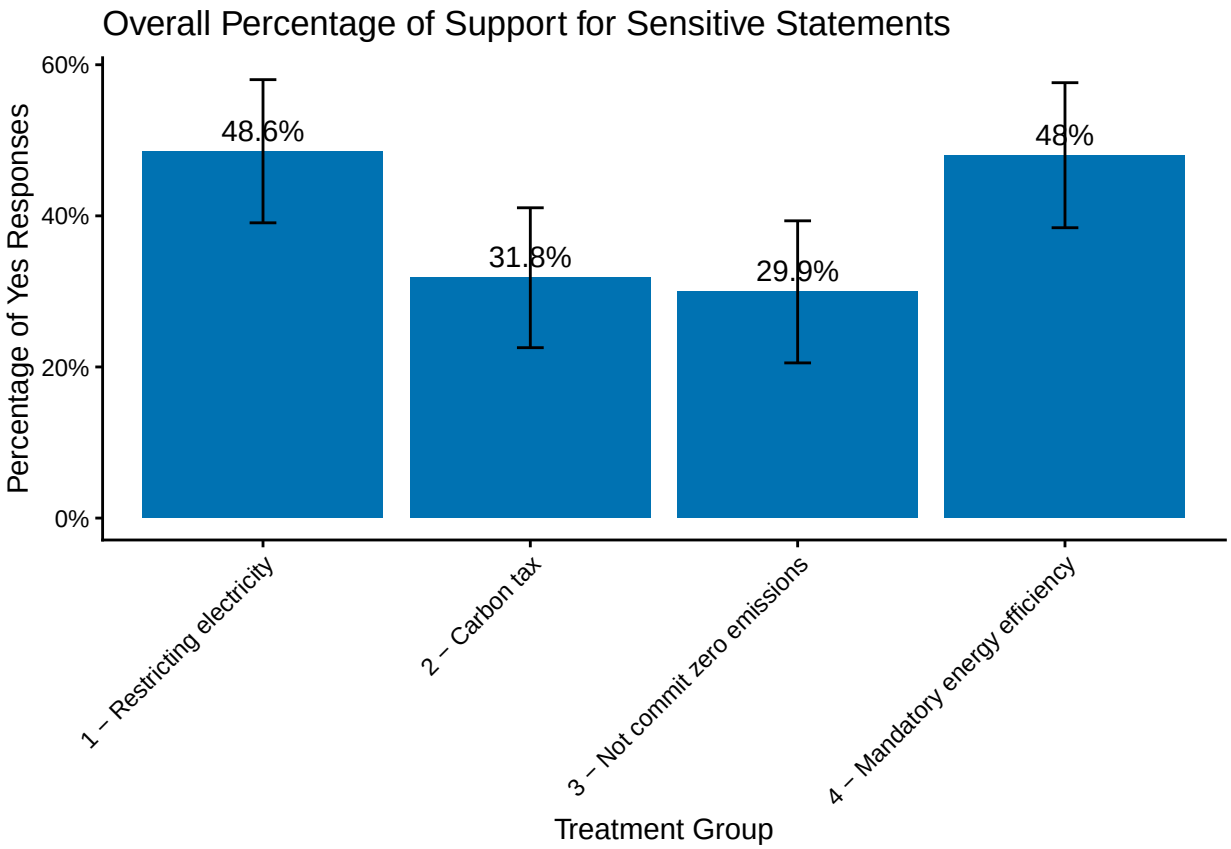
```
##                          treatment list_id      mean         sd
## 1      1 - Restricting electricity       1 0.5104881 0.10758364
## 2      1 - Restricting electricity       2 0.6170209 0.09722406
## 3      1 - Restricting electricity       3 0.3000848 0.10168917
## 4      1 - Restricting electricity       4 0.5130787 0.07911192
## 5                   2 - Carbon tax       1 0.3589855 0.10321752
## 6                   2 - Carbon tax       2 0.3267460 0.09632404
## 7                   2 - Carbon tax       3 0.3317285 0.09083030
```

```
## 8                    2 - Carbon tax       4 0.2486412 0.08504887
## 9    3 - Not commit zero emissions       1 0.3580804 0.09938556
## 10   3 - Not commit zero emissions       2 0.3805465 0.09210989
## 11   3 - Not commit zero emissions       3 0.2385630 0.09953159
## 12   3 - Not commit zero emissions       4 0.2232068 0.09282431
## 13 4 - Mandatory energy efficiency       1 0.5801750 0.10182590
## 14 4 - Mandatory energy efficiency       2 0.4606824 0.10286821
## 15 4 - Mandatory energy efficiency       3 0.4632472 0.10191623
## 16 4 - Mandatory energy efficiency       4 0.4133407 0.08451675
```

A plot of the above table. There appears to be some degrees of design effects, namely, the percentage of "yes" responses for the sensitive statements varies by the control list. However, there is not clear pattern that suggest a particular list more likely to get "yes" responses.



A plot of the average mean and 95% confidence level error bar for sensitive statement:



A intercept only model

The estimated probability of answering "yes" to the sensitive statements is the inverse logit of the coefficient. The below table shows the estimated probability of answering "yes" to the sensitive statements by control list. The results are consistent with the overall percentage of support for sensitive statements. The standard errors of the control list effects were calculated using the delta method.

```
##                       statement        control     Prob. coefficient         SE
## 1      Restricting electricity Control List 1 0.5107758  0.04311006 0.32628185
## 2      Restricting electricity Control List 2 0.6117795  0.45479856 0.39011905
## 3      Restricting electricity Control List 3 0.3139744 -0.78160360 0.42881446
## 4      Restricting electricity Control List 4 0.4487110 -0.20588017 0.51384565
## 5                   Carbon tax Control List 1 0.3792319 -0.49280952 0.36704356
## 6                   Carbon tax Control List 2 0.3468141 -0.63307292 0.36978341
## 7                   Carbon tax Control List 3 0.3466537 -0.63378114 0.38976732
## 8                   Carbon tax Control List 4 0.1987311 -1.39424411 0.48598837
## 9    Not commit zero emissions Control List 1 0.3699126 -0.53259173 0.39375179
## 10   Not commit zero emissions Control List 2 0.3761272 -0.50601894 0.41236653
## 11   Not commit zero emissions Control List 3 0.2978059 -0.85776815 0.37593594
## 12   Not commit zero emissions Control List 4 0.2466019 -1.11681839 0.39634986
## 13 Mandatory energy efficiency Control List 1 0.5750205  0.30236461 0.37024034
## 14 Mandatory energy efficiency Control List 2 0.4666670 -0.13352992 0.36215684
## 15 Mandatory energy efficiency Control List 3 0.4831090 -0.06758964 0.37222744
## 16 Mandatory energy efficiency Control List 4 0.3582989 -0.58275485 0.43341620
## 17     Restricting electricity        Average 0.4694397 -0.12239379 0.01882246
## 18                  Carbon tax        Average 0.3124958 -0.78847692 0.21014457
```

```
## 19   Not commit zero emissions        Average 0.3201028 -0.75329930 0.20303386
## 20 Mandatory energy efficiency        Average 0.4699419 -0.12037745 0.19740625
```

However, there seems to be some degree of design effects. Also, the design effects seems more pronounced for the sensitive statement 1, i.e., restricting electricity, than the others. The table below shows the p-value of the effect of control list on the probability of answering "yes" to the sensitive statements relative to each other. For example, the first row shows the effect of control list 1 minus the effect of control list 1, 2, 3, and 4 for each sensitive statement. The p-value is calculated using the delta method.

```
##                      statement   control_list vs. Control List 1, p-value
## 1      Restricting electricity Control List 1                          -
## 2      Restricting electricity Control List 2                 < 0.001***
## 3      Restricting electricity Control List 3                 < 0.001***
## 4      Restricting electricity Control List 4                 < 0.001***
## 5                   Carbon tax Control List 1                          -
## 6                   Carbon tax Control List 2                      0.783
## 7                   Carbon tax Control List 3                      0.794
## 8                   Carbon tax Control List 4                      0.139
## 9    Not commit zero emissions Control List 1                          -
## 10   Not commit zero emissions Control List 2                      0.959
## 11   Not commit zero emissions Control List 3                      0.544
## 12   Not commit zero emissions Control List 4                      0.337
## 13 Mandatory energy efficiency Control List 1                          -
## 14 Mandatory energy efficiency Control List 2                      0.445
## 15 Mandatory energy efficiency Control List 3                      0.497
## 16 Mandatory energy efficiency Control List 4                      0.113
##    vs. Control List 2, p-value vs. Control List 3, p-value
## 1                   < 0.001***                 < 0.001***
## 2                            -                 < 0.001***
## 3                   < 0.001***                          -
## 4                   < 0.001***                 < 0.001***
## 5                        0.783                      0.794
## 6                            -                      0.999
## 7                        0.999                          -
## 8                        0.238                      0.256
## 9                        0.959                      0.544
## 10                           -                      0.513
## 11                       0.513                          -
## 12                       0.317                      0.678
## 13                       0.445                      0.497
## 14                           -                      0.906
## 15                       0.906                          -
## 16                       0.432                      0.346
##    vs. Control List 4, p-value
## 1                   < 0.001***
## 2                   < 0.001***
## 3                   < 0.001***
## 4                            -
## 5                        0.139
## 6                        0.238
## 7                        0.256
## 8                            -
## 9                        0.337
## 10                       0.317
## 11                       0.678
```

```
## 12                          -
## 13                      0.113
## 14                      0.432
## 15                      0.346
## 16                          -
```

Principal Component Analysis Results

The following section presents the principal component analysis (PCA) results for the climate attitude questions (Q10 and Q12). We use ordinal PCA (ordPCA) from the ordPens package, which handles ordinal variables by optimally scaling them before computing principal components.

PCA for Q10 (Sustainable Behaviors)

Q10 measures the frequency of sustainable behaviors with 5-point scale (1 = Almost Always, 5 = Never).

```
##        Variable   PC1    PC2
## Q10_1     Q10_1 0.716  0.582
## Q10_2     Q10_2 0.814  0.372
## Q10_3     Q10_3 0.835  0.123
## Q10_4     Q10_4 0.865 -0.021
## Q10_5     Q10_5 0.797  0.076
## Q10_6     Q10_6 0.848 -0.103
## Q10_7     Q10_7 0.838 -0.231
## Q10_8     Q10_8 0.843 -0.154
## Q10_9     Q10_9 0.866 -0.088
## Q10_10   Q10_10 0.773  0.036
## Q10_11   Q10_11 0.869 -0.163
## Q10_12   Q10_12 0.861 -0.168
## Q10_13   Q10_13 0.839 -0.178
```

PCA for Q12 (Climate Change Beliefs)

Q12 measures climate change beliefs with 5-point scale (1 = Strongly agree, 5 = Strongly disagree).

```
##       Variable    PC1   PC2
## Q12_1    Q12_1  0.621 0.571
## Q12_2    Q12_2 -0.596 0.318
## Q12_3    Q12_3 -0.567 0.341
## Q12_4    Q12_4  0.688 0.331
## Q12_5    Q12_5  0.672 0.367
## Q12_6    Q12_6 -0.570 0.406
```

Variance Explained

```
##   Question Component Variance Explained (%)
## 1      Q10       PC1                  56.43
## 2      Q10       PC2                   4.35
## 3      Q12       PC1                  37.07
## 4      Q12       PC2                  11.90
```

Demographic Effects

Model using information treatment

```
##                       statement                 variable  coefficient        SE
## 1      Restricting electricity              (Intercept)  0.143852412 0.5830805
```

```
## 2      Restricting electricity       as.factor(list_id)2  0.472410623 0.5220837
## 3      Restricting electricity       as.factor(list_id)3 -0.810837945 0.5496857
## 4      Restricting electricity       as.factor(list_id)4 -0.086426114 0.6104463
## 5      Restricting electricity framing_effectconsequence -0.162295946 0.5968084
## 6      Restricting electricity   framing_effectMetOffice  0.008723764 0.5663349
## 7      Restricting electricity          framing_effectUN -0.737230966 0.6889059
## 8      Restricting electricity                 co2_value  0.025527179 0.1829441
## 9                   Carbon tax               (Intercept) -0.314339760 0.6237300
## 10                  Carbon tax       as.factor(list_id)2 -0.096687213 0.5409588
## 11                  Carbon tax       as.factor(list_id)3 -0.081491381 0.5400236
## 12                  Carbon tax       as.factor(list_id)4 -0.820199284 0.6337214
## 13                  Carbon tax framing_effectconsequence -0.076353888 0.6031979
## 14                  Carbon tax   framing_effectMetOffice  0.248227958 0.5472269
## 15                  Carbon tax          framing_effectUN  0.124471225 0.6204745
## 16                  Carbon tax                 co2_value -0.210387293 0.2093325
## 17   Not commit zero emissions               (Intercept) -0.355469155 0.5958775
## 18   Not commit zero emissions       as.factor(list_id)2  0.057763381 0.5590289
## 19   Not commit zero emissions       as.factor(list_id)3 -0.403839761 0.5557098
## 20   Not commit zero emissions       as.factor(list_id)4 -0.565598188 0.5498179
## 21   Not commit zero emissions framing_effectconsequence  0.138993319 0.5814990
## 22   Not commit zero emissions   framing_effectMetOffice  0.184667666 0.5139842
## 23   Not commit zero emissions          framing_effectUN  0.093743887 0.6080815
## 24   Not commit zero emissions                 co2_value -0.157669878 0.1721928
## 25 Mandatory energy efficiency               (Intercept)  0.289057764 0.6312974
## 26 Mandatory energy efficiency       as.factor(list_id)2 -0.454395080 0.5245945
## 27 Mandatory energy efficiency       as.factor(list_id)3 -0.372258127 0.5371030
## 28 Mandatory energy efficiency       as.factor(list_id)4 -0.813569280 0.6022336
## 29 Mandatory energy efficiency framing_effectconsequence  0.366958492 0.5921964
## 30 Mandatory energy efficiency   framing_effectMetOffice  0.081113272 0.5495788
## 31 Mandatory energy efficiency          framing_effectUN  0.483928595 0.5846447
## 32 Mandatory energy efficiency                 co2_value -0.125162350 0.1739478
##            p star
## 1  0.8051319
## 2  0.3655416
## 3  0.1401873
## 4  0.8874129
## 5  0.7856683
## 6  0.9877100
## 7  0.2845529
## 8  0.8890271
## 9  0.6142841
## 10 0.8581473
## 11 0.8800519
## 12 0.1955762
## 13 0.8992714
## 14 0.6501091
## 15 0.8410063
## 16 0.3148782
## 17 0.5508096
## 18 0.9177026
## 19 0.4674037
## 20 0.3036202
## 21 0.8110855
## 22 0.7193807
```

```
## 23 0.8774809
## 24 0.3598457
## 25 0.6470394
## 26 0.3863895
## 27 0.4882561
## 28 0.1767211
## 29 0.5354838
## 30 0.8826650
## 31 0.4078228
## 32 0.4718084
```

Climate Awareness, Q5

For this part, we planed to include both Q5 and Q7, but Q7 will result in singular matrix. For climate_important, Q5 >= 4, i.e., important or very important.

```
##                       statement             variable coefficient        SE
## 1      Restricting electricity          (Intercept) -0.65524613 0.4856761
## 2      Restricting electricity  as.factor(list_id)2  0.39956912 0.5253959
## 3      Restricting electricity  as.factor(list_id)3 -0.91682559 0.5719608
## 4      Restricting electricity  as.factor(list_id)4 -0.17542603 0.6961455
## 5      Restricting electricity climate_importantyes  0.98801383 0.4657548
## 6                   Carbon tax          (Intercept) -1.36836574 0.5615023
## 7                   Carbon tax  as.factor(list_id)2 -0.15126938 0.5426783
## 8                   Carbon tax  as.factor(list_id)3 -0.09780477 0.5697829
## 9                   Carbon tax  as.factor(list_id)4 -1.17901289 0.6380318
## 10                  Carbon tax climate_importantyes  1.18494080 0.5371761
## 11   Not commit zero emissions          (Intercept) -0.41736482 0.4918950
## 12   Not commit zero emissions  as.factor(list_id)2 -0.02515698 0.5695342
## 13   Not commit zero emissions  as.factor(list_id)3 -0.33596856 0.5408032
## 14   Not commit zero emissions  as.factor(list_id)4 -0.59466910 0.5598084
## 15   Not commit zero emissions climate_importantyes -0.18009303 0.4338537
## 16 Mandatory energy efficiency          (Intercept) -0.33725556 0.5137937
## 17 Mandatory energy efficiency  as.factor(list_id)2 -0.37328152 0.5303387
## 18 Mandatory energy efficiency  as.factor(list_id)3 -0.42220723 0.5420185
## 19 Mandatory energy efficiency  as.factor(list_id)4 -0.90851970 0.5971988
## 20 Mandatory energy efficiency climate_importantyes  0.84570322 0.4531154
##             p star
## 1  0.17729131
## 2  0.44694942
## 3  0.10894532
## 4  0.80104400
## 5  0.03389510   **
## 6  0.01481080   **
## 7  0.78043979
## 8  0.86371058
## 9  0.06461818    *
## 10 0.02739310   **
## 11 0.39616868
## 12 0.96476798
## 13 0.53444178
## 14 0.28811197
## 15 0.67806809
## 16 0.51156507
## 17 0.48152309
```

```
## 18 0.43600712
## 19 0.12818406
## 20 0.06198276    *
```

Climate Attitudes, First Principal Component of Q12

```
##                       statement            variable coefficient        SE
## 1      Restricting electricity         (Intercept)  0.04426806 0.3291147
## 2      Restricting electricity as.factor(list_id)2  0.43696710 0.5052746
## 3      Restricting electricity as.factor(list_id)3 -0.85373391 0.5436284
## 4      Restricting electricity as.factor(list_id)4 -0.26229795 0.6099979
## 5      Restricting electricity             Q12_PC1  0.01938051 0.1228659
## 6                   Carbon tax         (Intercept) -0.60503594 0.4117093
## 7                   Carbon tax as.factor(list_id)2 -0.14477647 0.5388347
## 8                   Carbon tax as.factor(list_id)3 -0.18745576 0.5568905
## 9                   Carbon tax as.factor(list_id)4 -0.76192882 0.6288474
## 10                  Carbon tax             Q12_PC1 -0.21406102 0.1707182
## 11   Not commit zero emissions         (Intercept) -0.69336209 0.4304301
## 12   Not commit zero emissions as.factor(list_id)2  0.02372272 0.6034149
## 13   Not commit zero emissions as.factor(list_id)3 -0.08840773 0.5703849
## 14   Not commit zero emissions as.factor(list_id)4 -0.58553591 0.5809146
## 15   Not commit zero emissions             Q12_PC1 -0.35850019 0.1553459
## 16 Mandatory energy efficiency         (Intercept)  0.28183963 0.3703445
## 17 Mandatory energy efficiency as.factor(list_id)2 -0.40238933 0.5200152
## 18 Mandatory energy efficiency as.factor(list_id)3 -0.38255751 0.5247836
## 19 Mandatory energy efficiency as.factor(list_id)4 -0.85886916 0.5731129
## 20 Mandatory energy efficiency             Q12_PC1 -0.02376833 0.1146017
##             p star
## 1  0.89300207
## 2  0.38714244
## 3  0.11631357
## 4  0.66719701
## 5  0.87466393
## 6  0.14167806
## 7  0.78817257
## 8  0.73640976
## 9  0.22565497
## 10 0.20988372
## 11 0.10721048
## 12 0.96863996
## 13 0.87682398
## 14 0.31347595
## 15 0.02101281   **
## 16 0.44664505
## 17 0.43904725
## 18 0.46601299
## 19 0.13397644
## 20 0.83569786
```

Climate Attitudes, First Principal Component of Q10

```
##                       statement            variable coefficient        SE
## 1      Restricting electricity         (Intercept)  0.01902803 0.35391163
## 2      Restricting electricity as.factor(list_id)2  0.41031970 0.54570123
## 3      Restricting electricity as.factor(list_id)3 -0.83393610 0.58212053
```

```
## 4      Restricting electricity as.factor(list_id)4 -0.10308374 0.68015509
## 5      Restricting electricity             Q10_PC1 -0.15704142 0.06782718
## 6                   Carbon tax         (Intercept) -0.18597560 0.43167768
## 7                   Carbon tax as.factor(list_id)2 -0.94826039 0.69059840
## 8                   Carbon tax as.factor(list_id)3 -0.34943134 0.63936988
## 9                   Carbon tax as.factor(list_id)4 -2.01351508 0.75112219
## 10                  Carbon tax             Q10_PC1 -0.35732380 0.08576400
## 11   Not commit zero emissions         (Intercept) -0.50160995 0.41942352
## 12   Not commit zero emissions as.factor(list_id)2 -0.05200241 0.60952157
## 13   Not commit zero emissions as.factor(list_id)3 -0.39592085 0.57289017
## 14   Not commit zero emissions as.factor(list_id)4 -0.76556778 0.59941330
## 15   Not commit zero emissions             Q10_PC1 -0.11624578 0.06576556
## 16 Mandatory energy efficiency         (Intercept)  0.44596729 0.41191764
## 17 Mandatory energy efficiency as.factor(list_id)2 -0.53984009 0.57022171
## 18 Mandatory energy efficiency as.factor(list_id)3 -0.71839724 0.58644405
## 19 Mandatory energy efficiency as.factor(list_id)4 -1.17003540 0.65254111
## 20 Mandatory energy efficiency             Q10_PC1 -0.17590796 0.06750053
##                p star
## 1  9.571225e-01
## 2  4.521035e-01
## 3  1.519770e-01
## 4  8.795346e-01
## 5  2.059558e-02   **
## 6  6.665989e-01
## 7  1.697214e-01
## 8  5.847054e-01
## 9  7.347366e-03  ***
## 10 3.095001e-05  ***
## 11 2.317157e-01
## 12 9.320096e-01
## 13 4.895066e-01
## 14 2.015334e-01
## 15 7.713142e-02    *
## 16 2.789588e-01
## 17 3.437817e-01
## 18 2.205731e-01
## 19 7.296577e-02    *
## 20 9.160020e-03  ***
```

Climate Attitudes, First Principal Components of Q12 and Q10

```
##                       statement            variable coefficient         SE
## 1      Restricting electricity         (Intercept)  0.03883589 0.36402864
## 2      Restricting electricity as.factor(list_id)2  0.43019717 0.54263672
## 3      Restricting electricity as.factor(list_id)3 -0.81406418 0.58747034
## 4      Restricting electricity as.factor(list_id)4 -0.11808889 0.69542018
## 5      Restricting electricity             Q12_PC1  0.11344109 0.14623988
## 6      Restricting electricity             Q10_PC1 -0.18246308 0.07542029
## 7                   Carbon tax         (Intercept) -0.20783020 0.44968241
## 8                   Carbon tax as.factor(list_id)2 -0.93602822 0.69372896
## 9                   Carbon tax as.factor(list_id)3 -0.33672064 0.64506955
## 10                  Carbon tax as.factor(list_id)4 -1.98627435 0.76712372
## 11                  Carbon tax             Q12_PC1 -0.04915802 0.17241437
## 12                  Carbon tax             Q10_PC1 -0.35706967 0.08774831
```

```
## 13   Not commit zero emissions         (Intercept) -0.60124025 0.45550172
## 14   Not commit zero emissions as.factor(list_id)2 -0.04478300 0.63933068
## 15   Not commit zero emissions as.factor(list_id)3 -0.18875442 0.59956809
## 16   Not commit zero emissions as.factor(list_id)4 -0.80695174 0.63733096
## 17   Not commit zero emissions             Q12_PC1 -0.32136352 0.15342918
## 18   Not commit zero emissions             Q10_PC1 -0.10120939 0.06786773
## 19 Mandatory energy efficiency         (Intercept)  0.43834858 0.41305379
## 20 Mandatory energy efficiency as.factor(list_id)2 -0.51089096 0.56849869
## 21 Mandatory energy efficiency as.factor(list_id)3 -0.70166807 0.59008643
## 22 Mandatory energy efficiency as.factor(list_id)4 -1.15230716 0.65282388
## 23 Mandatory energy efficiency             Q12_PC1  0.06300599 0.13176659
## 24 Mandatory energy efficiency             Q10_PC1 -0.19062839 0.07190190
##               p star
## 1  9.150400e-01
## 2  4.279000e-01
## 3  1.658351e-01
## 4  8.651600e-01
## 5  4.379148e-01
## 6  1.555111e-02   **
## 7  6.439586e-01
## 8  1.772500e-01
## 9  6.016764e-01
## 10 9.618550e-03  ***
## 11 7.755556e-01
## 12 4.716508e-05  ***
## 13 1.868512e-01
## 14 9.441565e-01
## 15 7.529004e-01
## 16 2.054621e-01
## 17 3.621192e-02   **
## 18 1.358896e-01
## 19 2.885815e-01
## 20 3.688301e-01
## 21 2.344028e-01
## 22 7.754497e-02    *
## 23 6.325338e-01
## 24 8.019951e-03  ***
```

Combined Model: First Principal Components of Q12, Q10 and Demographics

```
##                      statement               variable  coefficient         SE
## 1      Restricting electricity            (Intercept) -0.725845213 0.89129787
## 2      Restricting electricity    as.factor(list_id)2  0.546240066 0.61120461
## 3      Restricting electricity    as.factor(list_id)3 -0.866133605 0.66882281
## 4      Restricting electricity    as.factor(list_id)4  0.017284759 0.79427042
## 5      Restricting electricity                Q12_PC1  0.106289438 0.18405678
## 6      Restricting electricity                Q10_PC1 -0.220716958 0.10909472
## 7      Restricting electricity    where_liveRuralarea  0.042218592 0.84021589
## 8      Restricting electricity where_liveTownorsuburb -0.076137719 0.67388826
## 9      Restricting electricity               age35_54  1.436092998 0.68783777
## 10     Restricting electricity                 age55_  0.613660404 0.80235870
## 11     Restricting electricity             is_manyes -0.140177179 0.49907801
## 12     Restricting electricity    higher_educationyes -0.595043384 0.64322266
## 13     Restricting electricity           income20_30k  0.071369272 0.73908576
```

```
## 14     Restricting electricity           income30_40k -0.385051589 0.82665595
## 15     Restricting electricity             income40k_  0.719939083 0.76035384
## 16     Restricting electricity           income50_60k  2.369791223 1.24877499
## 17     Restricting electricity    incomenot_specified -0.692583663 1.25799699
## 18                 Carbon tax            (Intercept) -0.550222896 0.92416536
## 19                 Carbon tax    as.factor(list_id)2 -1.309082115 0.77578007
## 20                 Carbon tax    as.factor(list_id)3 -0.597543745 0.74263230
## 21                 Carbon tax    as.factor(list_id)4 -2.497983784 0.90613622
## 22                 Carbon tax                Q12_PC1  0.007963280 0.17711343
## 23                 Carbon tax                Q10_PC1 -0.382108842 0.10210525
## 24                 Carbon tax    where_liveRuralarea  0.471996900 0.85069203
## 25                 Carbon tax where_liveTownorsuburb -0.690483155 0.60490661
## 26                 Carbon tax               age35_54  0.875542436 0.66785961
## 27                 Carbon tax                 age55_  0.063063822 0.79442975
## 28                 Carbon tax              is_manyes -0.699154606 0.58886492
## 29                 Carbon tax    higher_educationyes -0.028373422 0.60937948
## 30                 Carbon tax           income20_30k  0.807722418 0.87181481
## 31                 Carbon tax           income30_40k  0.671411217 1.01572238
## 32                 Carbon tax             income40k_  1.507502110 0.93119488
## 33                 Carbon tax           income50_60k  0.828840828 1.07190789
## 34                 Carbon tax    incomenot_specified -0.991141807 1.38788167
## 35   Not commit zero emissions            (Intercept) -0.673341830 0.88675335
## 36   Not commit zero emissions    as.factor(list_id)2 -0.231735253 0.70481794
## 37   Not commit zero emissions    as.factor(list_id)3 -0.226525870 0.65539326
## 38   Not commit zero emissions    as.factor(list_id)4 -0.938537342 0.71545146
## 39   Not commit zero emissions                Q12_PC1 -0.346669733 0.15737223
## 40   Not commit zero emissions                Q10_PC1 -0.125681874 0.08089077
## 41   Not commit zero emissions    where_liveRuralarea  0.146994888 0.73857916
## 42   Not commit zero emissions where_liveTownorsuburb  0.193734795 0.55772259
## 43   Not commit zero emissions               age35_54  0.711568090 0.56927711
## 44   Not commit zero emissions                 age55_ -0.010332754 0.64356479
## 45   Not commit zero emissions              is_manyes  0.345494825 0.46904615
## 46   Not commit zero emissions    higher_educationyes  0.028938416 0.56092497
## 47   Not commit zero emissions           income20_30k  0.316917869 0.73266994
## 48   Not commit zero emissions           income30_40k -0.910265560 0.84912564
## 49   Not commit zero emissions             income40k_ -0.970416522 0.78138933
## 50   Not commit zero emissions           income50_60k  0.267232405 0.92146819
## 51   Not commit zero emissions    incomenot_specified -0.343785397 0.94179558
## 52 Mandatory energy efficiency            (Intercept)  0.424153956 0.93457771
## 53 Mandatory energy efficiency    as.factor(list_id)2 -0.784121948 0.66074122
## 54 Mandatory energy efficiency    as.factor(list_id)3 -0.745080819 0.63012532
## 55 Mandatory energy efficiency    as.factor(list_id)4 -1.404232091 0.75467631
## 56 Mandatory energy efficiency                Q12_PC1  0.083586112 0.14877673
## 57 Mandatory energy efficiency                Q10_PC1 -0.194180730 0.08673095
## 58 Mandatory energy efficiency    where_liveRuralarea  0.127210970 0.94535758
## 59 Mandatory energy efficiency where_liveTownorsuburb  0.276121331 0.56748830
## 60 Mandatory energy efficiency               age35_54  0.009346443 0.55300990
## 61 Mandatory energy efficiency                 age55_ -0.471637527 0.73218506
## 62 Mandatory energy efficiency              is_manyes  0.628475287 0.50658771
## 63 Mandatory energy efficiency    higher_educationyes -0.369527255 0.53203497
## 64 Mandatory energy efficiency           income20_30k  0.267440799 0.78390244
## 65 Mandatory energy efficiency           income30_40k -0.246366944 0.78863019
## 66 Mandatory energy efficiency             income40k_  0.140518601 0.73804033
## 67 Mandatory energy efficiency           income50_60k  0.266687854 0.90523610
```

```
## 68 Mandatory energy efficiency    incomenot_specified -1.581123765 1.33256549
##              p star
## 1  0.415433681
## 2  0.371476727
## 3  0.195316066
## 4  0.982637961
## 5  0.563614039
## 6  0.043055819   **
## 7  0.959925307
## 8  0.910044266
## 9  0.036812561   **
## 10 0.444378420
## 11 0.778808364
## 12 0.354915431
## 13 0.923072438
## 14 0.641362779
## 15 0.343716528
## 16 0.057736571    *
## 17 0.581945778
## 18 0.551594320
## 19 0.091518830    *
## 20 0.421033597
## 21 0.005838039  ***
## 22 0.964138019
## 23 0.000182341  ***
## 24 0.579004960
## 25 0.253674107
## 26 0.189868648
## 27 0.936728386
## 28 0.235112466
## 29 0.962862980
## 30 0.354194543
## 31 0.508600493
## 32 0.105470925
## 33 0.439381037
## 34 0.475140618
## 35 0.447652875
## 36 0.742316392
## 37 0.729618164
## 38 0.189583795
## 39 0.027604286   **
## 40 0.120250439
## 41 0.842244068
## 42 0.728315123
## 43 0.211317703
## 44 0.987190116
## 45 0.461371559
## 46 0.958854966
## 47 0.665340245
## 48 0.283718510
## 49 0.214269159
## 50 0.771810733
## 51 0.715087622
## 52 0.649939981
```

```
## 53 0.235333829
## 54 0.237034031
## 55 0.062785453    *
## 56 0.574236978
## 57 0.025163325   **
## 58 0.892956714
## 59 0.626564898
## 60 0.986515562
## 61 0.519477709
## 62 0.214751671
## 63 0.487334569
## 64 0.732978674
## 65 0.754737637
## 66 0.849000240
## 67 0.768294989
## 68 0.235414592
```