Believers vs NonBelievers

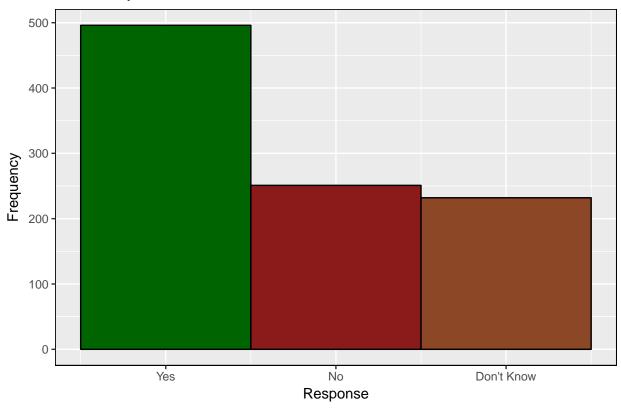
Elizabeth Hiroyasu October 14, 2017

Weighting the data

```
1
## 0.3785714 0.6214286
## 0.3357143 0.4051020 0.2591837
           1
## 0.2070031 0.7929969
                         2
             1
## 0.009193054 0.132788560 0.301327886 0.105209397 0.304392237 0.109295199
##
            7
## 0.012257406 0.025536261
##
        TRUE
                FALSE
## 0.4514811 0.5485189
##
       TRUE
                FALSE
## 0.2591837 0.7408163
                          latino college
      gender
                rural
## 0.2428571 1.2216327 0.3659938 0.4570378
## [1] "Raking converged in 18 iterations"
```

Believers vs NonBelievers

Do Grizzly Bears Exist in California

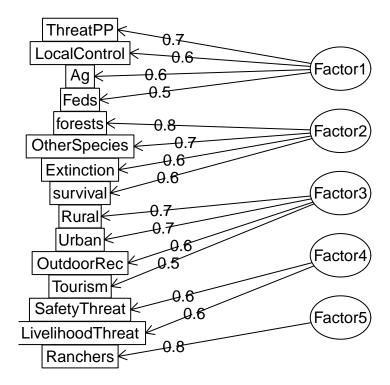


Factor analysis

Believers

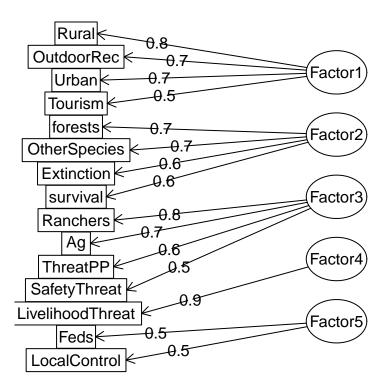
```
##
## factanal(x = believe_factor, factors = 5, scores = "Bartlett")
##
## Uniquenesses:
##
           survival
                               forests
                                            {\tt SafetyThreat} LivelihoodThreat
               0.573
##
                                 0.322
                                                   0.272
                                                                      0.334
##
             Tourism
                                  Feds
                                                ThreatPP
                                                              OtherSpecies
##
               0.535
                                 0.704
                                                   0.380
                                                                      0.410
##
         Extinction
                         LocalControl
                                                Ranchers
                                                                {\tt OutdoorRec}
                                                                      0.423
##
               0.588
                                 0.597
                                                   0.005
                                 Urban
##
                                                   Rural
                  Ag
##
               0.500
                                 0.365
                                                   0.325
##
## Loadings:
##
                     Factor1 Factor2 Factor3 Factor4 Factor5
## survival
                               0.553
                                       0.229 -0.244
                               0.758
                                       0.305
## forests
```

```
## SafetyThreat
                      0.544 -0.132
                                               0.630
                                                       0.134
## LivelihoodThreat
                      0.510
                            -0.121
                                      0.233
                                               0.577
## Tourism
                                      0.490
                              0.465
## Feds
                      0.508
                              0.160
## ThreatPP
                      0.745
                             -0.140
                                               0.152
                                                       0.146
## OtherSpecies
                              0.662
                                      0.388
## Extinction
                              0.602
                                      0.177
                                              -0.109
## LocalControl
                                      0.153
                                               0.119
                      0.589
                                                       0.113
## Ranchers
                      0.558
                             -0.166
                                     -0.144
                                               0.124
                                                       0.787
## OutdoorRec
                                      0.636
                              0.411
## Ag
                      0.573
                            -0.168
                                               0.207
                                                       0.315
## Urban
                      0.172
                              0.304
                                      0.714
## Rural
                      0.145
                              0.315
                                      0.742
##
##
                  Factor1 Factor2 Factor3 Factor4 Factor5
## SS loadings
                    2.419
                             2.398
                                      2.142
                                              0.907
                                                      0.799
## Proportion Var
                    0.161
                             0.160
                                      0.143
                                              0.060
                                                      0.053
                             0.321
                                              0.524
## Cumulative Var
                    0.161
                                      0.464
                                                      0.578
##
## Test of the hypothesis that 5 factors are sufficient.
## The chi square statistic is 68.33 on 40 degrees of freedom.
## The p-value is 0.00347
```



NonBelievers

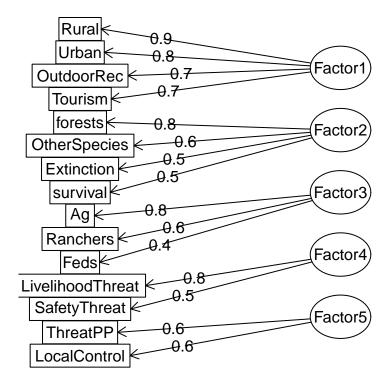
```
##
## Call:
## factanal(x = nonbelieve_factor, factors = 5, scores = "Bartlett")
## Uniquenesses:
##
          survival
                             forests
                                         SafetyThreat LivelihoodThreat
                               0.268
##
              0.587
                                                0.428
                                                                 0.005
##
           Tourism
                                Feds
                                             ThreatPP
                                                          OtherSpecies
##
              0.455
                               0.739
                                                0.329
                                                                 0.302
##
                                                            OutdoorRec
        Extinction
                       LocalControl
                                             Ranchers
##
              0.507
                               0.585
                                                0.280
                                                                 0.331
##
                               Urban
                                                Rural
                 Ag
##
                                                0.193
              0.372
                               0.484
##
## Loadings:
                    Factor1 Factor2 Factor3 Factor4 Factor5
##
## survival
                     0.158
                             0.577 -0.180
                                                     0.115
## forests
                     0.477
                             0.694 -0.114
## SafetyThreat
                    -0.151 -0.186
                                     0.490
                                             0.465
                                                     0.243
## LivelihoodThreat
                            -0.147
                                     0.246
                                            0.944
                                                     0.136
## Tourism
                     0.534
                             0.482 -0.133
## Feds
                                                     0.484
                                     0.111
## ThreatPP
                   -0.141 -0.220
                                     0.644
                                                     0.428
## OtherSpecies
                     0.406 0.683
                                    -0.175
                                                    -0.186
## Extinction
                     0.219
                             0.636
                                            -0.188
## LocalControl
                     0.121
                                     0.405
                                                     0.470
## Ranchers
                    -0.321 -0.146
                                    0.760
                                             0.118
## OutdoorRec
                     0.661 0.384 -0.243
                                                    -0.141
## Ag
                            -0.194
                                    0.730
                                                    0.133
                                            0.191
## Urban
                     0.661
                             0.268
## Rural
                     0.833 0.242 -0.186 -0.107
##
##
                  Factor1 Factor2 Factor3 Factor4 Factor5
                           2.369
## SS loadings
                    2.493
                                    2.195
                                            1.244
                                                    0.835
## Proportion Var
                    0.166
                            0.158
                                    0.146
                                            0.083
                                                    0.056
                                            0.553
## Cumulative Var
                    0.166
                            0.324
                                    0.470
                                                    0.609
## Test of the hypothesis that 5 factors are sufficient.
## The chi square statistic is 38.22 on 40 degrees of freedom.
## The p-value is 0.551
```



Don't Know

```
##
## Call:
## factanal(x = dontknow_factor, factors = 5, scores = "Bartlett")
##
  Uniquenesses:
                                           SafetyThreat LivelihoodThreat
##
           survival
                              forests
              0.629
                                 0.143
                                                  0.455
                                                                     0.212
##
##
            Tourism
                                 Feds
                                               ThreatPP
                                                             OtherSpecies
##
              0.445
                                0.776
                                                   0.330
                                                                     0.338
                         LocalControl
                                                               OutdoorRec
##
         Extinction
                                               Ranchers
##
              0.529
                                0.599
                                                  0.339
                                                                     0.400
##
                  Ag
                                Urban
                                                  Rural
##
              0.313
                                0.367
                                                   0.172
##
## Loadings:
##
                     Factor1 Factor2 Factor3 Factor4 Factor5
                              0.471
                                              -0.173 -0.221
## survival
                      0.266
## forests
                      0.447
                              0.792
                                      -0.161
## SafetyThreat
                     -0.255
                             -0.189
                                       0.377
                                               0.511
                                                        0.203
## LivelihoodThreat 0.147
                                       0.166
                                               0.845
                                                        0.139
## Tourism
                      0.662
                              0.326
## Feds
                                       0.424
                                                        0.169
```

```
## ThreatPP
                    -0.176 -0.197
                                      0.436
                                               0.215
                                                       0.603
## OtherSpecies
                      0.514
                              0.599
                                     -0.138
                                                      -0.135
                              0.501
## Extinction
                      0.313
                                              -0.337
## LocalControl
                                      0.221
                                                       0.584
## Ranchers
                    -0.334
                             -0.231
                                      0.592
                                               0.221
                                                       0.311
## OutdoorRec
                      0.680
                              0.357
                     -0.162
                            -0.219
                                      0.759
                                               0.160
                                                       0.107
## Ag
## Urban
                              0.223
                      0.757
## Rural
                      0.882
                              0.171
                                                      -0.119
##
##
                  Factor1 Factor2 Factor3 Factor4 Factor5
## SS loadings
                    3.151
                             1.960
                                     1.582
                                              1.266
                                                      0.993
                    0.210
                                              0.084
                                                      0.066
## Proportion Var
                             0.131
                                     0.105
## Cumulative Var
                    0.210
                             0.341
                                     0.446
                                              0.531
                                                      0.597
## Test of the hypothesis that 5 factors are sufficient.
## The chi square statistic is 43.41 on 40 degrees of freedom.
## The p-value is 0.328
```



Low Knowledge

```
##
## Call:
## factanal(x = lowknowledge_factor, factors = 5, scores = "Bartlett")
```

```
##
## Uniquenesses:
##
                                          SafetyThreat LivelihoodThreat
           survival
                              forests
##
              0.663
                                0.227
                                                  0.455
                                                                   0.055
##
            Tourism
                                 Feds
                                              ThreatPP
                                                            OtherSpecies
##
              0.445
                                0.854
                                                 0.334
                                                                   0.321
##
         Extinction
                        LocalControl
                                              Ranchers
                                                              OutdoorRec
                                                                   0.378
##
              0.521
                                0.629
                                                 0.282
##
                                Urban
                                                 Rural
                 Ag
##
              0.413
                                0.458
                                                 0.126
##
## Loadings:
                    Factor1 Factor2 Factor3 Factor4 Factor5
## survival
                     0.169
                              0.529
                                             -0.106
## forests
                     0.412
                              0.766
                                     -0.113
## SafetyThreat
                    -0.190 -0.227
                                      0.460
                                              0.461
                                                       0.181
## LivelihoodThreat
                             -0.127
                                      0.259
                                              0.924
## Tourism
                     0.553
                              0.467
                                                      -0.167
## Feds
                                      0.377
## ThreatPP
                    -0.168 -0.233
                                      0.740
                                              0.109
                                                       0.155
## OtherSpecies
                     0.419
                              0.678
                                     -0.209
## Extinction
                     0.223
                              0.606
                                             -0.234
## LocalControl
                                      0.600
## Ranchers
                    -0.327 -0.221
                                      0.547
                                              0.152
                                                       0.490
## OutdoorRec
                     0.636
                              0.432
                                     -0.104
                                                      -0.118
## Ag
                    -0.104 -0.228
                                      0.535
                                              0.176
                                                       0.455
## Urban
                     0.656
                              0.317
## Rural
                     0.886
                              0.252 -0.141
##
##
                  Factor1 Factor2 Factor3 Factor4 Factor5
## SS loadings
                    2.545
                             2.488
                                     2.013
                                             1.223
                                                      0.570
## Proportion Var
                    0.170
                             0.166
                                     0.134
                                             0.082
                                                      0.038
## Cumulative Var
                    0.170
                             0.336
                                     0.470
                                             0.551
                                                      0.589
##
## Test of the hypothesis that 5 factors are sufficient.
## The chi square statistic is 61.88 on 40 degrees of freedom.
```

The p-value is 0.0148

