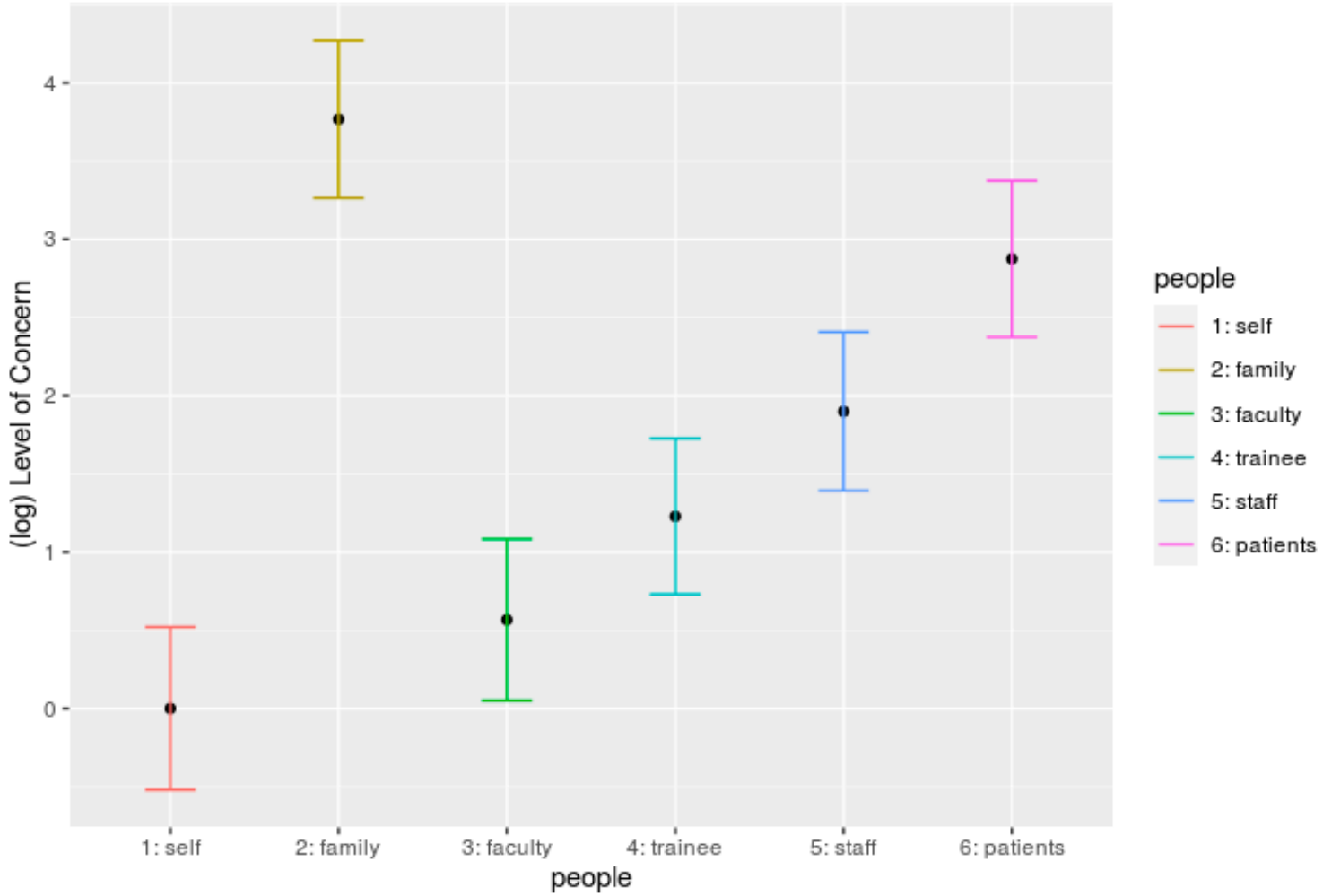
Learn to Rank Level of Concern (Q5)



Probabilities of Caring Most for Certain People (Ignore ties, Q5)

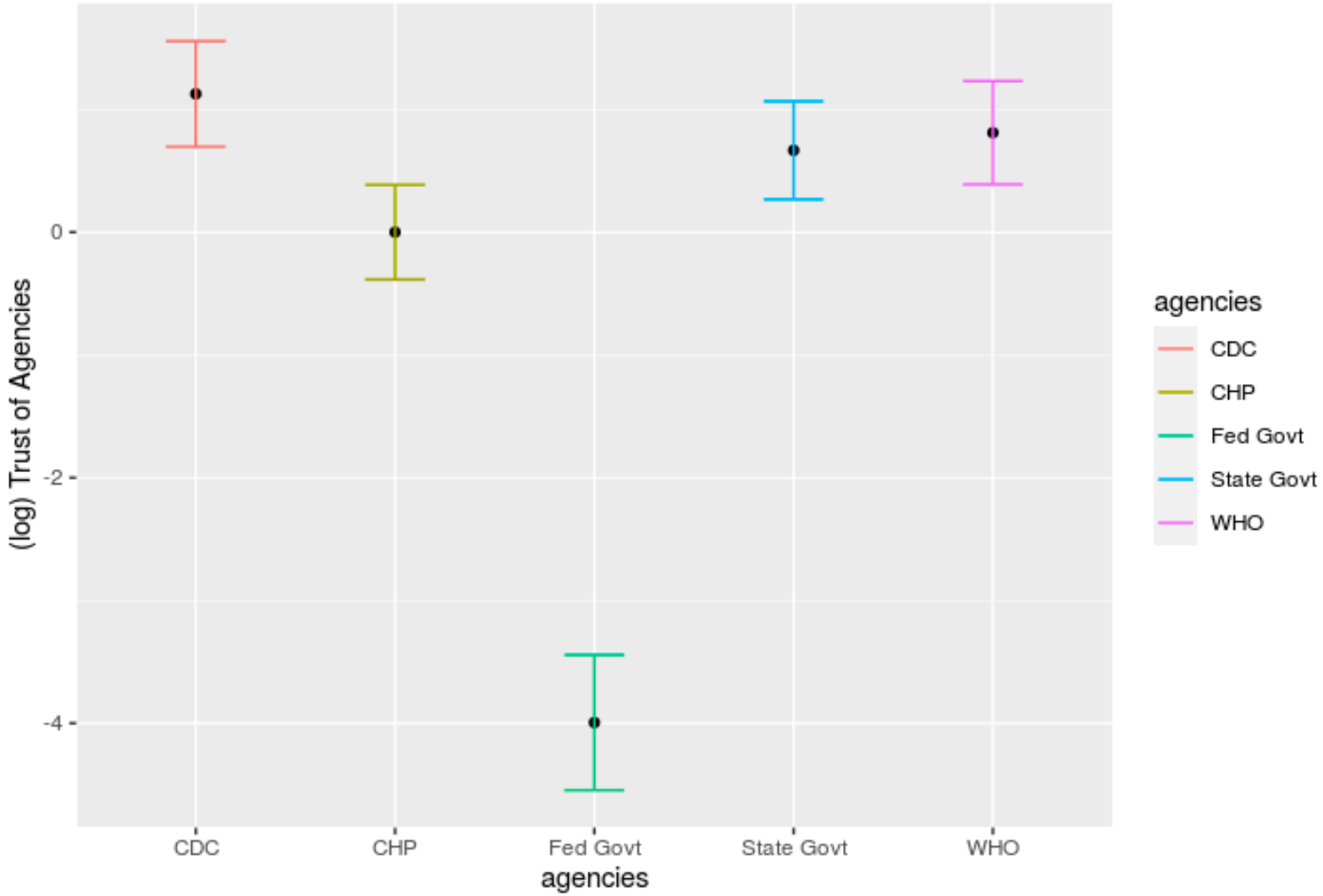
	estimate	SE	quasiSE	quasiVar	people
x.Q5_1_rank	0.0000000	0.0000000	0.2656585	0.07057445	1: self
x.Q5_2_rank	3.7678625	0.3788369	0.2567934	0.06594286	2: family
x.Q5_3_rank	0.5667601	0.3564381	0.2636450	0.06950866	3: faculty
x.Q5_4_rank	1.2283149	0.3627563	0.2545145	0.06477761	4: trainee
x.Q5_5_rank	1.8995043	0.3768758	0.2588832	0.06702049	5: staff
x.Q5_6_rank	2.8746573	0.3760499	0.2550473	0.06504911	6: patients

```
> coef(rank_model_q5, log = FALSE)
x.Q5_1_rank x.Q5_2_rank x.Q5_3_rank x.Q5_4_rank x.Q5_5_rank x.Q5_6_rank        tie2
 0.01353777  0.58601559  0.02386097  0.04623785  0.09046727  0.23988055  1.56849699
       tie3        tie4        tie5        tie6
 1.95181204  4.00927736 10.58162630 95.95961607
```

Model Summary Rankings Q5

```
Call: PlackettLuce(rankings = rank_table_q5[, 1:6], weights = rank_table_q5$freq)

Coefficients:
            Estimate Std. Error z value Pr(>|z|)
x.Q5_1_rank   0.0000         NA      NA       NA
x.Q5_2_rank   3.7679     0.3788   9.946  < 2e-16 ***
x.Q5_3_rank   0.5668     0.3564   1.590 0.111820
x.Q5_4_rank   1.2283     0.3628   3.386 0.000709 ***
x.Q5_5_rank   1.8995     0.3769   5.040 4.65e-07 ***
x.Q5_6_rank   2.8747     0.3760   7.644 2.10e-14 ***
tie2          0.4501     0.1690   2.664 0.007726 **
tie3          0.6688     0.2007   3.332 0.000863 ***
tie4          1.3886     0.2128   6.525 6.81e-11 ***
tie5          2.3591     0.2271  10.390  < 2e-16 ***
tie6          4.5639     0.2256  20.227  < 2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual deviance:  2936.9 on 22608 degrees of freedom
AIC:  2956.9
Number of iterations: 88
```

Learn to Rank Trust in Agencies (Q8)



Probabilities of Trusting Agency Most(Ignore ties, Q8)

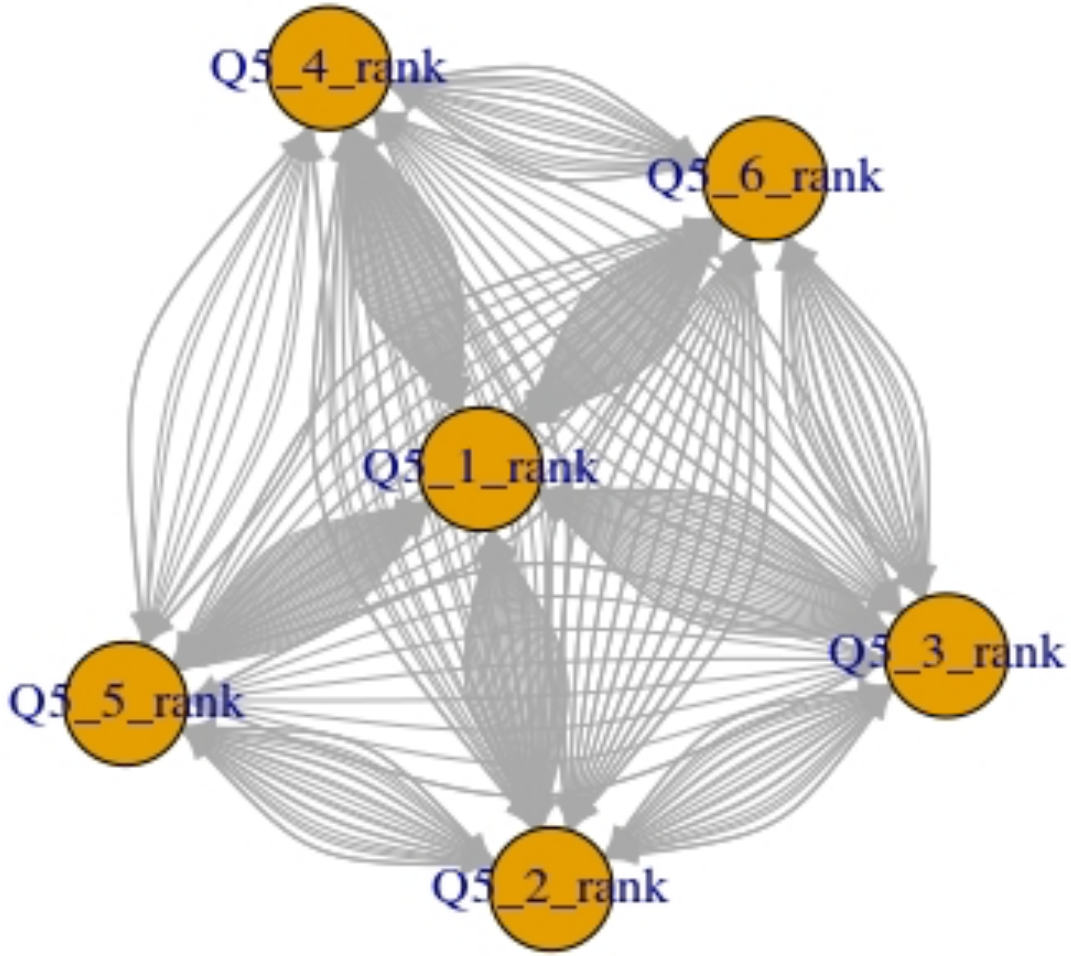
	estimate	SE	quasiSE	quasiVar	agencies
x.Q8_1_rank	0.0000000	0.0000000	0.1968815	0.03876232	CHP
x.Q8_2_rank	-1.2030972	0.2654774	0.1985886	0.03943742	UPMC
x.Q8_3_rank	0.6662848	0.2857418	0.2036606	0.04147766	State Govt
x.Q8_4_rank	1.1263385	0.3000232	0.2193804	0.04812774	CDC
x.Q8_5_rank	-3.9948146	0.3441040	0.2811931	0.07906953	Fed Govt
x.Q8_6_rank	0.8100265	0.2995221	0.2145558	0.04603418	WHO

```
> coef(rank_model_q8, log = FALSE)
 x.Q8_1_rank  x.Q8_2_rank  x.Q8_3_rank  x.Q8_4_rank  x.Q8_5_rank  x.Q8_6_rank         tie2
 0.116306469  0.034922507  0.226447571  0.358728972  0.002141302  0.261453178  2.139036554
        tie3         tie4         tie5         tie6
 2.495054449  2.575069850  7.478449996 26.409403107
```

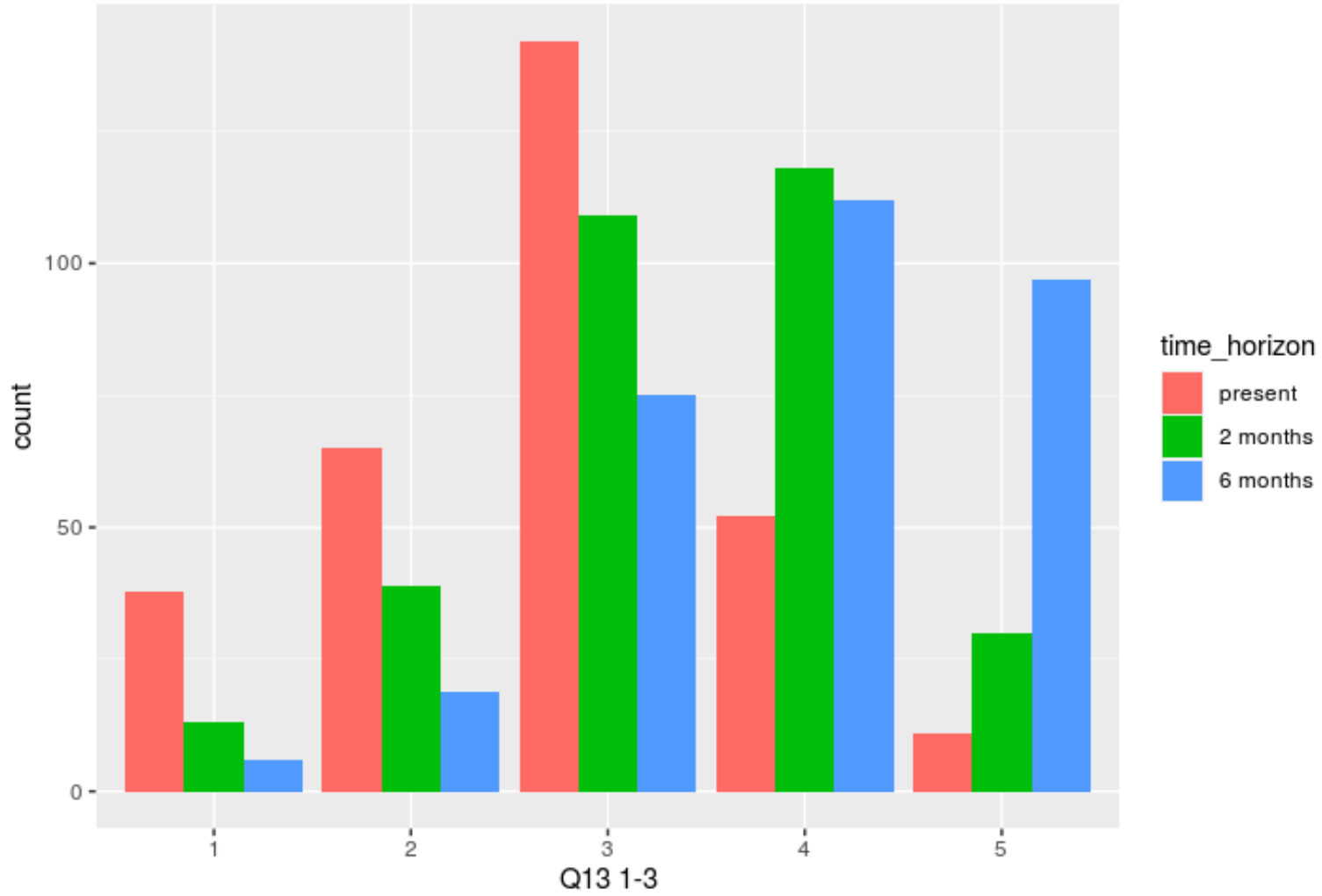
Model Summary Rankings Q8

```
Call: PlackettLuce(rankings = rank_table_q8[, 1:6], weights = rank_table_q8$freq)

Coefficients:
            Estimate Std. Error z value Pr(>|z|)
x.Q8_1_rank   0.0000         NA      NA       NA
x.Q8_2_rank  -1.2031     0.2655  -4.532 5.85e-06 ***
x.Q8_3_rank   0.6663     0.2857   2.332 0.019713 *
x.Q8_4_rank   1.1263     0.3000   3.754 0.000174 ***
x.Q8_5_rank  -3.9948     0.3441 -11.609  < 2e-16 ***
x.Q8_6_rank   0.8100     0.2995   2.704 0.006843 **
tie2          0.7604     0.1327   5.732 9.93e-09 ***
tie3          0.9143     0.1634   5.594 2.22e-08 ***
tie4          0.9459     0.1949   4.854 1.21e-06 ***
tie5          2.0120     0.2045   9.837  < 2e-16 ***
tie6          3.2737     0.2426  13.496  < 2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual deviance:  3430.5 on 22798 degrees of freedom
AIC:  3450.5
Number of iterations: 67
```

Graph Analysis of Rankings



Change in Perceptions (Q13_1 to Q13_3)



Friedman Results (Q13_1 to Q13_3)

- Friedman rank sum test data:
  - balance and time_horizon and id Friedman
  - chi-squared = 344.67, df = 2, p-value < 2.2e-16

- Kendall's coefficient of concordance Wt data: XT
- Kendall chi-squared = 344.67, df = 2, subjects = 3, raters = 308,
- p-value < 2.2e-16
- alternative hypothesis: Wt is greater 0 sample estimates: Wt 0.5595354

Pairwise tests (Q13)

- Between all levels, p-value <2*e-16 (all pairwise differences are significant)