Supporting Information for

Measuring and Predicting Speed of Social Mobilization

Goodness of Fit

We calculated several metrics for the goodness of fit of the Cox proportional hazard model. The model had 44 degrees of freedom. All tests showed that the model was a better fit to the data than a null model

Metric	*Value*
Likelihood ratio test	998.2 (p<.0001)
Wald test	890.6 (p<.0001)
Score test	1108 (p<.0001)

Additionally, we calculated the concordance probability of the model, which compared the relative order of all pairs of participants in the empirical data versus the model. The concordance was 80.8%, a good probability.

Proportional Hazards Assumption Testing

The proportional hazards model makes the assumption that the hazard functions of different factor values are proportional across time. To check for violations to this assumption, we plotted the scaled Schoenfield residuals for all explanatory variables (below). The lack of linear trends for any of these residuals indicates that the proportional hazards assumption holds.

Beta(t) for Heard_From1
Beta(t) for Heard_From2
Beta(t) for Heard_From3
Beta(t) for Heard_From4
Beta(t) for Heard_From5
Beta(t) for Heard_From100
Beta(t) for Same_Heard_From_as_Recruiter
Beta(t) for Same_Heard_From_as_Recruiter
Beta(t) for Recruiter_Gendermale:Genderfem
Beta(t) for Recruiter_Genderfemale:Genderm
Beta(t) for Recruiter_Gendermale:Genderfem
Beta(t) for Recruiter_Genderfemale:Genderfem
0.023
1.2
5.5
14
Time

Beta(t) for Recruiter_Age1:Age1
Time
0.023
1.2
5.5
14
−400
−100
100

Beta(t) for Recruiter_Age2:Age1
Time
0.023
1.2
5.5
14
−500
−200
0
200

Beta(t) for Recruiter_Age3:Age1
Time
0.023
1.2
5.5
14
−400
−100
200

Beta(t) for Recruiter_Age1:Age2
Time
0.023
1.2
5.5
14
−40
0
40
80

Beta(t) for Recruiter_Age2:Age2
Time
0.023
1.2
5.5
14
−150
0
100

Beta(t) for Recruiter_Age3:Age2
Time
0.023
1.2
5.5
14
−150
0
100

Beta(t) for Recruiter_Age4:Age2
Time
0.023
1.2
5.5
14
−400
0
400
800

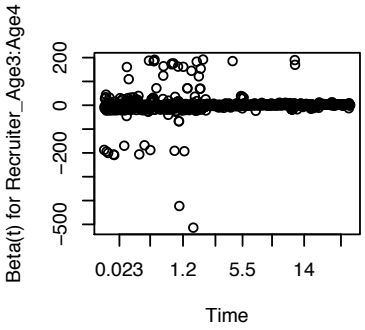
Beta(t) for Recruiter_Age1:Age3
Time
0.023
1.2
5.5
14
−200
200
600

Beta(t) for Recruiter_Age2:Age3
Time
0.023
1.2
5.5
14
−200
0
100

Beta(t) for Recruiter_Age3:Age3
Time
0.023
1.2
5.5
14
−200
0
100

Beta(t) for Recruiter_Age4:Age3
Time
0.023
1.2
5.5
14
−400
0
200

Beta(t) for Recruiter_Age2:Age4
Time
0.023
1.2
5.5
14
−500
−200
0
200


Beta(t) for Recruiter_Age3:Age4
200
0
−200
−500
0.023
1.2
5.5
14
Time