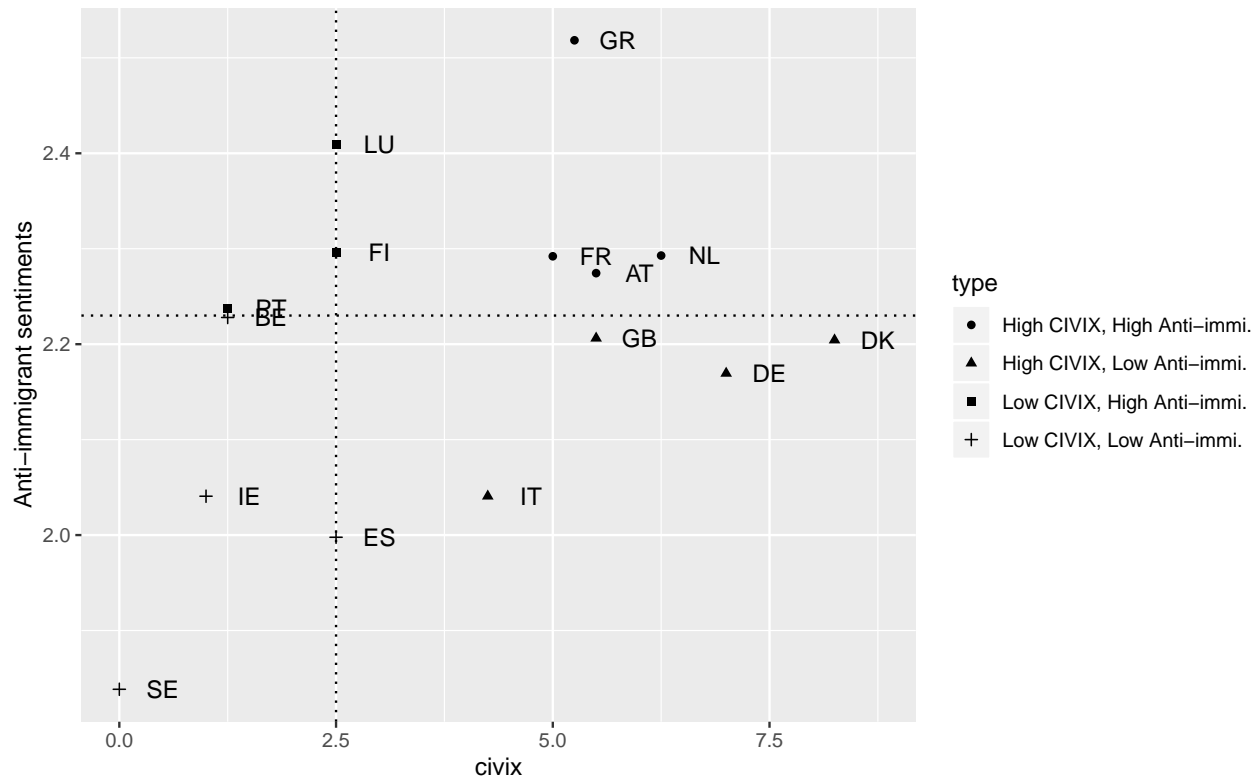


Anti-immigrant and CIVIX

Yuan-Ning Chu

1/24/2020



Two-by-two table

```
summary(ess_raw$anti1)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##      1.745   2.115   2.228   2.230   2.293   2.813
```

```
t1 = ess_h.tenyr %>% group_by(cntry) %>% filter(anti1 > 2.230)
table(t1$cntry) # high CIVIX high anti-immigrant sentiments
```

```
##
##  AT  FR  GR  NL
## 128 155 350 170
```

```
t1.5 = ess_h.tenyr %>% group_by(cntry) %>% filter(anti1 <= 2.230)
table(t1.5$cntry)
```

```
##
## DE DK GB IT
## 285 107 368 16

t2 = ess_l.tenyr %>% group_by(cntry) %>% filter(anti1 > 2.230)
table(t2$cntry) # low CIVIX high anti-immigrant sentiments

##
## FI LU PT
## 88 278 242

t3 = ess_l.tenyr %>% group_by(cntry) %>% filter(anti1 <= 2.230)
table(t3$cntry) # low CIVIX low anti-immigrant sentiments

##
## BE ES IE SE
## 216 530 690 177
```

Interactions

Political Interests

```
summary(ess_tenyr$polintr) # political interests

##      Min. 1st Qu.  Median      Mean 3rd Qu.     Max.      NA's
##      1.000   2.000   3.000   2.777   4.000   4.000        25

summary(ess_tenyr$poli.gap) # gap with native citizens

##      Min. 1st Qu.  Median      Mean 3rd Qu.     Max.      NA's
##     -2.0314 -0.5194  0.2885  0.1875  1.0166  1.6829        25

##
## Call:
## lm(formula = polintr ~ agea + ethnic + female + edu + eubirth +
##      citizen + civix.d * anti1, data = ess_tenyr)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
##     -2.3542  -0.6139   0.0004   0.7160   2.0532
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   3.351414   0.303194  11.054 < 2e-16 ***
## agea         -0.008771   0.001541  -5.691 1.40e-08 ***
## ethnic         0.058932   0.039753   1.482  0.1383
## female         0.180686   0.034601   5.222 1.90e-07 ***
## edu          -0.178749   0.011851 -15.083 < 2e-16 ***
## eubirth       -0.109506   0.043643  -2.509  0.0122 *
## citizen      -0.086737   0.041509  -2.090  0.0367 *
## civix.d       -3.509722   0.552743  -6.350 2.51e-10 ***
## anti1          0.136018   0.138943   0.979  0.3277
## civix.d:anti1  1.473913   0.246523   5.979 2.54e-09 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
## Residual standard error: 0.9051 on 2766 degrees of freedom
## (2336 observations deleted due to missingness)
## Multiple R-squared: 0.139, Adjusted R-squared: 0.1362
## F-statistic: 49.62 on 9 and 2766 DF, p-value: < 2.2e-16

##
## Call:
## lm(formula = poli.gap ~ agea + ethnic + female + edu + eubirth +
##     citizen + civix.d * anti1, data = ess_teny)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.54699 -0.59625 -0.01503  0.69041  2.11359
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   1.136861   0.301126   3.775 0.000163 ***
## agea          -0.008942   0.001531  -5.841 5.79e-09 ***
## ethnic         0.080930   0.039482   2.050 0.040479 *
## female        0.180771   0.034365   5.260 1.55e-07 ***
## edu           -0.166053   0.011770 -14.108 < 2e-16 ***
## eubirth       -0.056800   0.043345  -1.310 0.190171
## citizen       -0.067151   0.041226  -1.629 0.103461
## civix.d       -0.714869   0.548974  -1.302 0.192959
## anti1         -0.113152   0.137996  -0.820 0.412304
## civix.d:anti1  0.317662   0.244842   1.297 0.194596
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

##
## Residual standard error: 0.899 on 2766 degrees of freedom
## (2336 observations deleted due to missingness)
## Multiple R-squared: 0.1017, Adjusted R-squared: 0.09878
## F-statistic: 34.79 on 9 and 2766 DF, p-value: < 2.2e-16
```

```
library(broom)
```

```
pred.hh.1 = polintr.1 %>%
  broom::augment(newdata = dat.hh, predict = "response") %>%
  mutate(upper = .fitted + 1.96 * .se.fit,
         lower = .fitted - 1.96 * .se.fit,
         group = "hh") %>%
  dplyr::select(.fitted, upper, lower, group)
```

```
pred.hl.1 = polintr.1 %>%
  broom::augment(newdata = dat.hl, predict = "response") %>%
  mutate(upper = .fitted + 1.96 * .se.fit,
         lower = .fitted - 1.96 * .se.fit,
         group = "hl") %>%
  dplyr::select(.fitted, upper, lower, group)
```

```
pred.lh.1 = polintr.1 %>%
  broom::augment(newdata = dat.lh, predict = "response") %>%
  mutate(upper = .fitted + 1.96 * .se.fit,
         lower = .fitted - 1.96 * .se.fit,
```

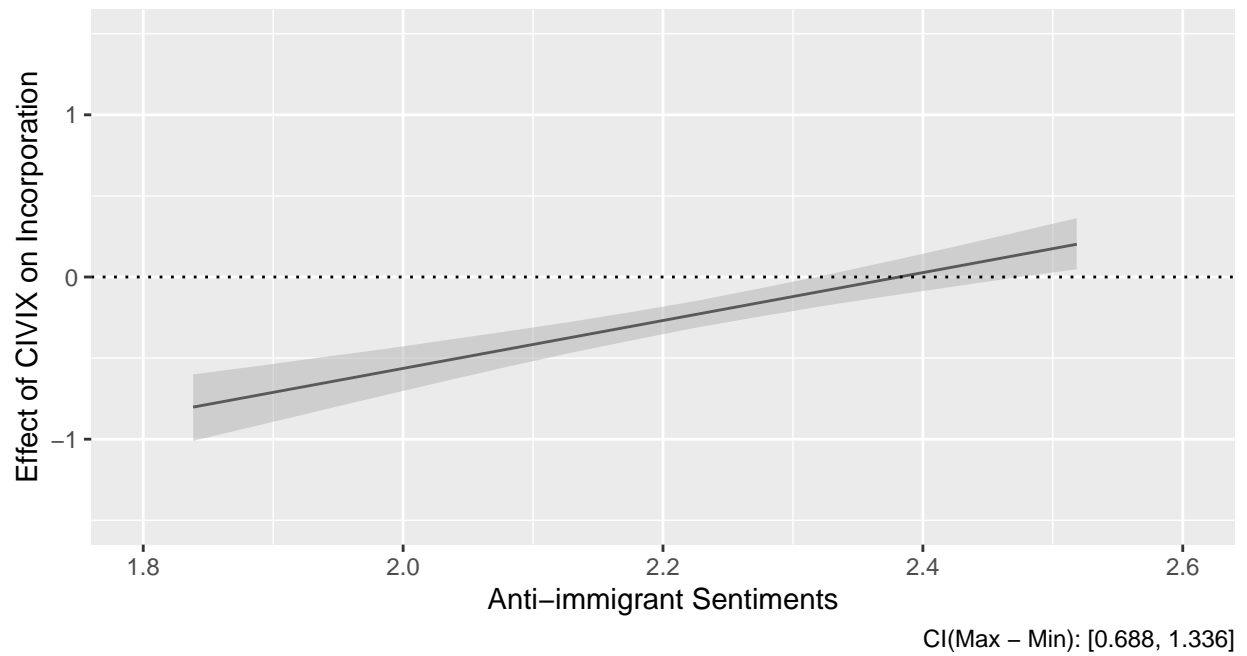


Figure 1: Effect of CIVIX conditional on Anti-immigrant Sentiments: Interests in Politics (Abs. Level)

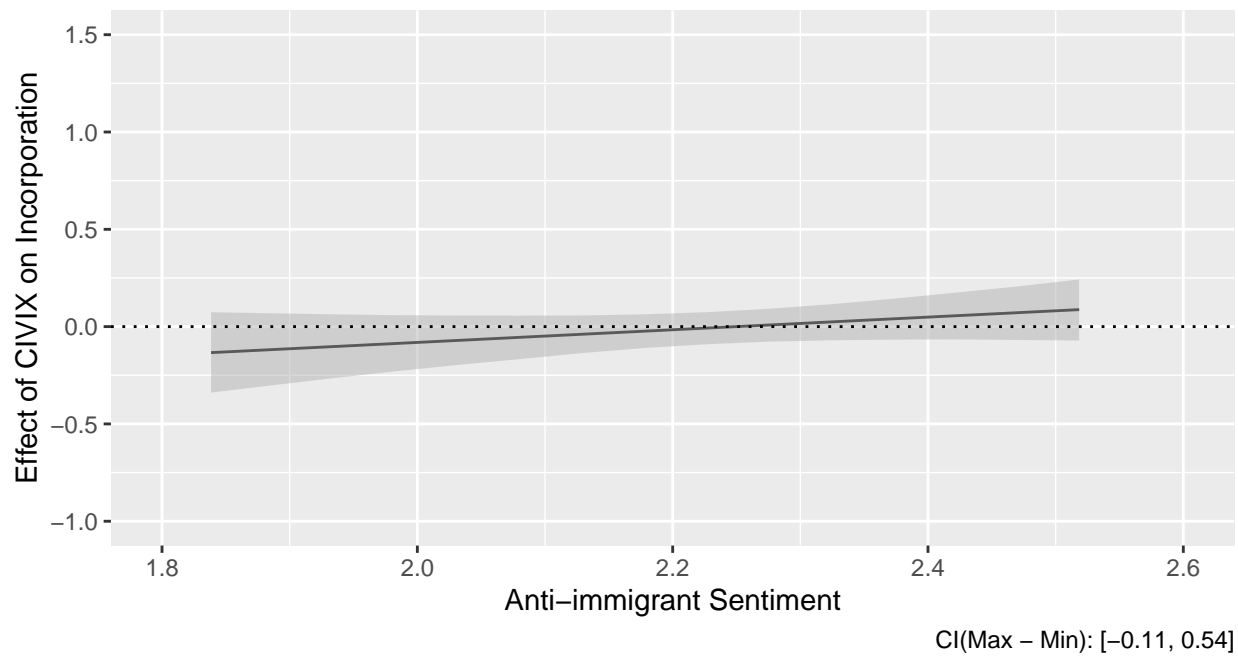


Figure 2: Effect of CIVIX conditional on Anti-immigrant Sentiments: Interests in Politics (Gap w/Natives)

```

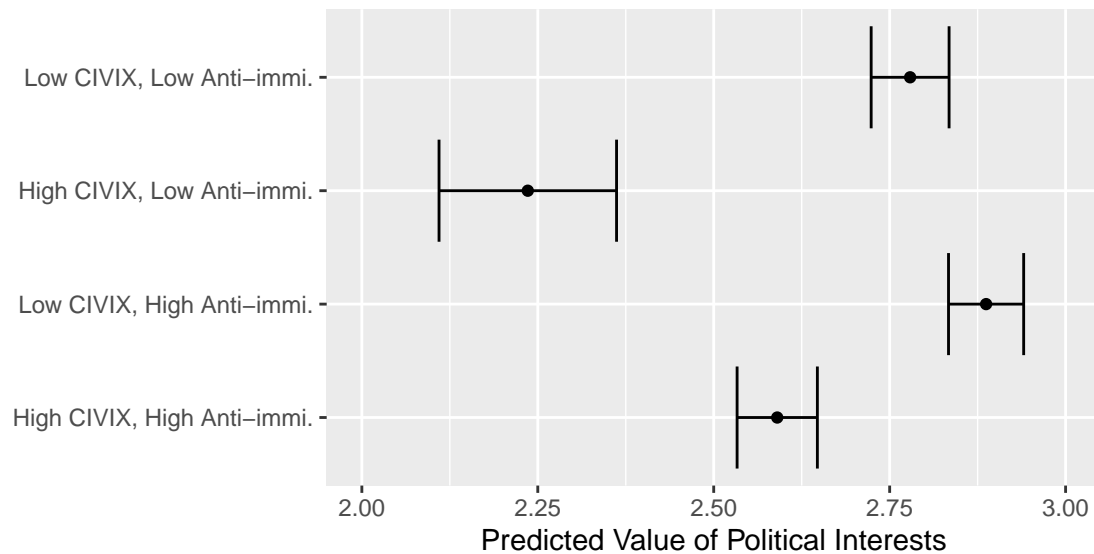
      group = "lh") %>%
dplyr::select(.fitted, upper, lower, group)

pred.ll.1 = polintr.1 %>%
  broom::augment(newdata = dat.ll, predict = "response") %>%
  mutate(upper = .fitted + 1.96 * .se.fit,
         lower = .fitted - 1.96 * .se.fit,
         group = "ll") %>%
  dplyr::select(.fitted, upper, lower, group)

pred.1 = rbind(pred.hh.1, pred.hl.1, pred.lh.1, pred.ll.1)
pred.1 = pred.1 %>% mutate(group = c('High CIVIX, High Anti-immi.', 'High CIVIX, Low Anti-immi.', 'Low CIVIX, High Anti-immi.', 'Low CIVIX, Low Anti-immi.'))
pred.1 = pred.1 %>% mutate(group = factor(group, levels = c('High CIVIX, High Anti-immi.', 'High CIVIX, Low Anti-immi.', 'Low CIVIX, High Anti-immi.', 'Low CIVIX, Low Anti-immi.')))

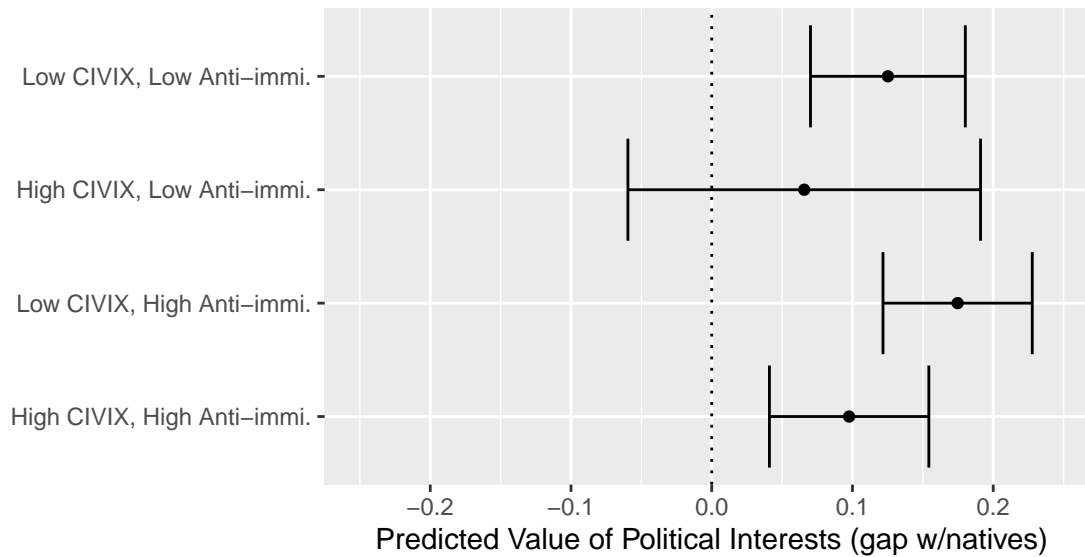
ggplot(data = pred.1) +
  geom_errorbarh(aes(y = group, xmax = upper, xmin = lower)) +
  geom_point(aes(y = group, x = .fitted)) +
  xlim(2,3) +
  xlab("Predicted Value of Political Interests") +
  ylab("")

```



```
ggsave("pred.polintr.1.jpeg")
```

```
## Saving 6 x 3 in image
```



```
## Saving 6 x 3 in image
```

Politics as Complicated

```
summary(ess_tenyr$polcmpl) # absolute level
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.     NA's
##      1.000  2.000   3.000   3.217  4.000   5.000   1278
```

```
summary(ess_tenyr$polcmpl.gap) # gap w/natives
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.     NA's
##     -2.5385 -0.8931 -0.0183  0.1163  0.9817  2.1278   1278
```

```
##
```

```
## Call:
```

```
## lm(formula = polcmpl ~ agea + ethnic + female + edu + eubirth +
##      citizen + civix.d * anti1, data = ess_tenyr)
```

```
##
```

```
## Residuals:
```

```
## <Labelled double>: Politics too complicated to understand
```

```
##      Min      1Q   Median      3Q      Max
##     -2.99501 -0.77775 -0.07347  0.90112  2.54846
```

```
##
```

```
## Labels:
```

```
## value      label
##      1      Never
##      2      Seldom
##      3 Occasionally
##      4      Regularly
##      5      Frequently
## NA(b)      Refusal
## NA(c)      Don't know
## NA(d)      No answer
```

```
##
```

```
## Coefficients:
```

```

##           Estimate Std. Error t value Pr(>|t|)
## (Intercept)   4.167697   0.389014  10.713 < 2e-16 ***
## agea         -0.004589   0.001975  -2.324 0.020220 *
## ethnic        0.203903   0.051271   3.977 7.17e-05 ***
## female        0.353034   0.044304   7.968 2.36e-15 ***
## edu          -0.187768   0.015429 -12.170 < 2e-16 ***
## eubirth       -0.224765   0.055492  -4.050 5.26e-05 ***
## citizen       -0.017574   0.052867  -0.332 0.739598
## civix.d       -2.682822   0.710817  -3.774 0.000164 ***
## anti1         -0.154095   0.177924  -0.866 0.386530
## civix.d:anti1  1.181250   0.317100   3.725 0.000199 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.14 on 2673 degrees of freedom
## (2429 observations deleted due to missingness)
## Multiple R-squared:  0.1093, Adjusted R-squared:  0.1063
## F-statistic: 36.46 on 9 and 2673 DF, p-value: < 2.2e-16
##
## Call:
## lm(formula = polcmpl.gap ~ agea + ethnic + female + edu + eubirth +
##     citizen + civix.d * anti1, data = ess_teny)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -3.11924 -0.79431 -0.05813  0.89975  2.61607
##
## Coefficients:
##           Estimate Std. Error t value Pr(>|t|)
## (Intercept)   1.148140   0.390454   2.941  0.00330 **
## agea         -0.004892   0.001982  -2.468  0.01364 *
## ethnic        0.210370   0.051461   4.088 4.48e-05 ***
## female        0.343061   0.044468   7.715 1.70e-14 ***
## edu          -0.180616   0.015486 -11.663 < 2e-16 ***
## eubirth       -0.174615   0.055697  -3.135  0.00174 **
## citizen       -0.026910   0.053063  -0.507  0.61211
## civix.d       -1.277479   0.713450  -1.791  0.07348 .
## anti1         -0.199799   0.178583  -1.119  0.26332
## civix.d:anti1  0.531964   0.318274   1.671  0.09476 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.144 on 2673 degrees of freedom
## (2429 observations deleted due to missingness)
## Multiple R-squared:  0.09322, Adjusted R-squared:  0.09017
## F-statistic: 30.53 on 9 and 2673 DF, p-value: < 2.2e-16

```

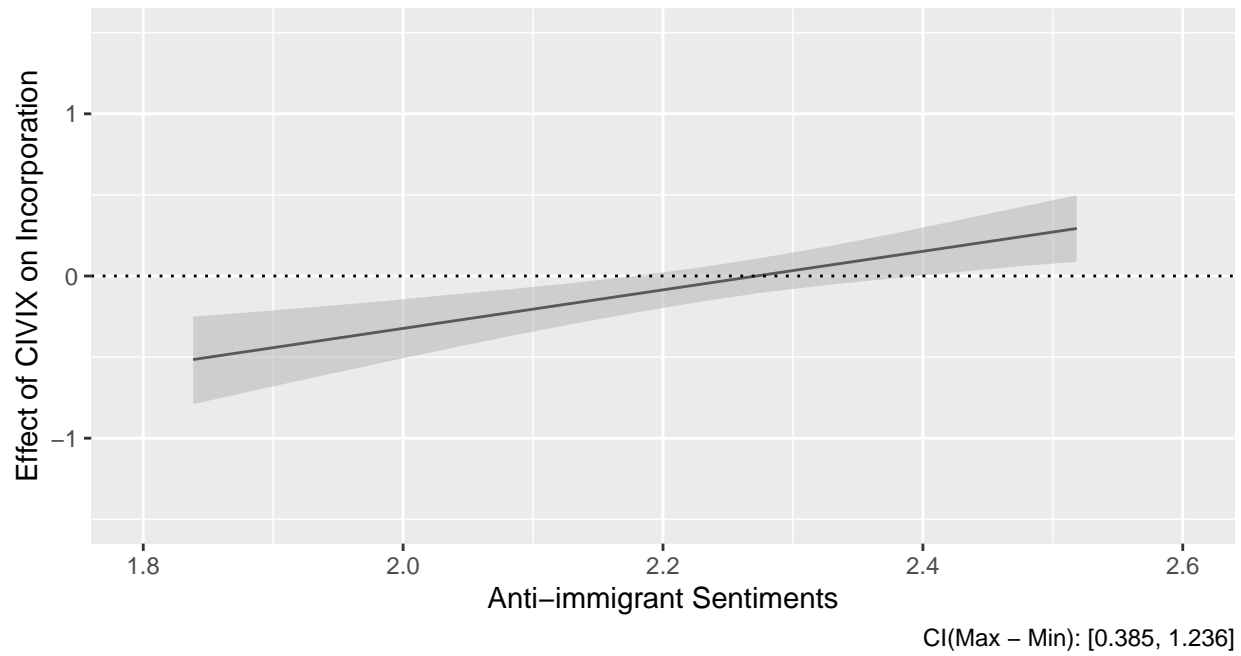


Figure 3: Effect of CIVIX conditional on Anti-immigrant Sentiments: Politics as Complicated (Abs. Level)

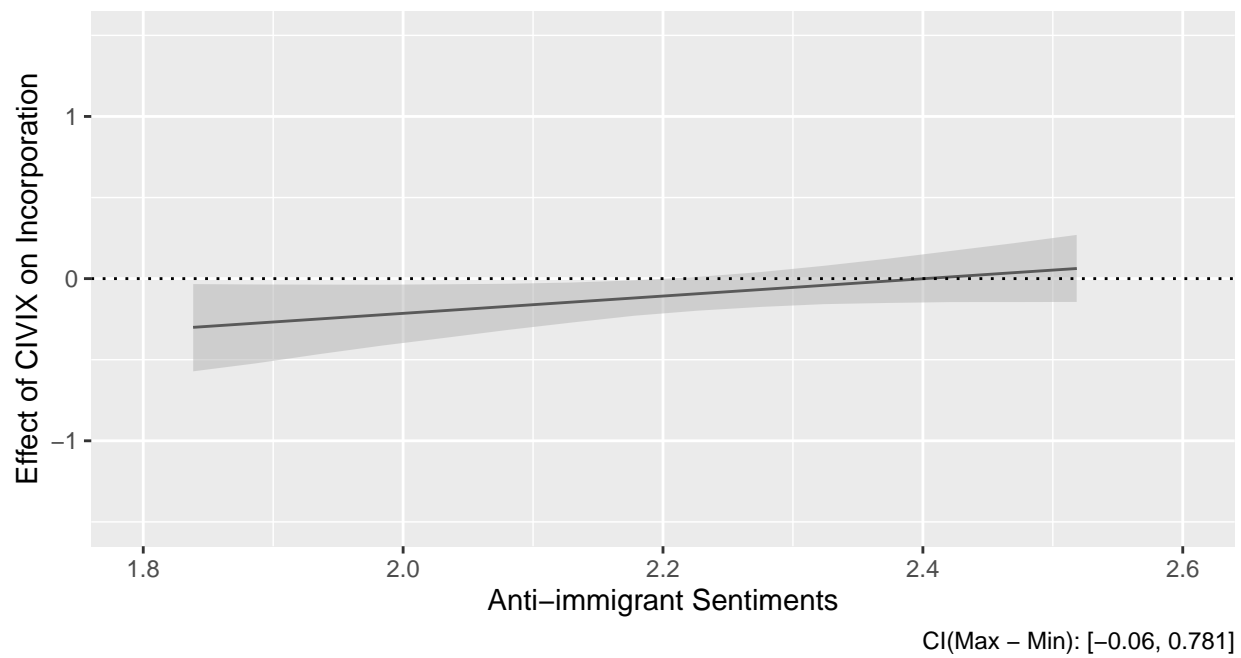
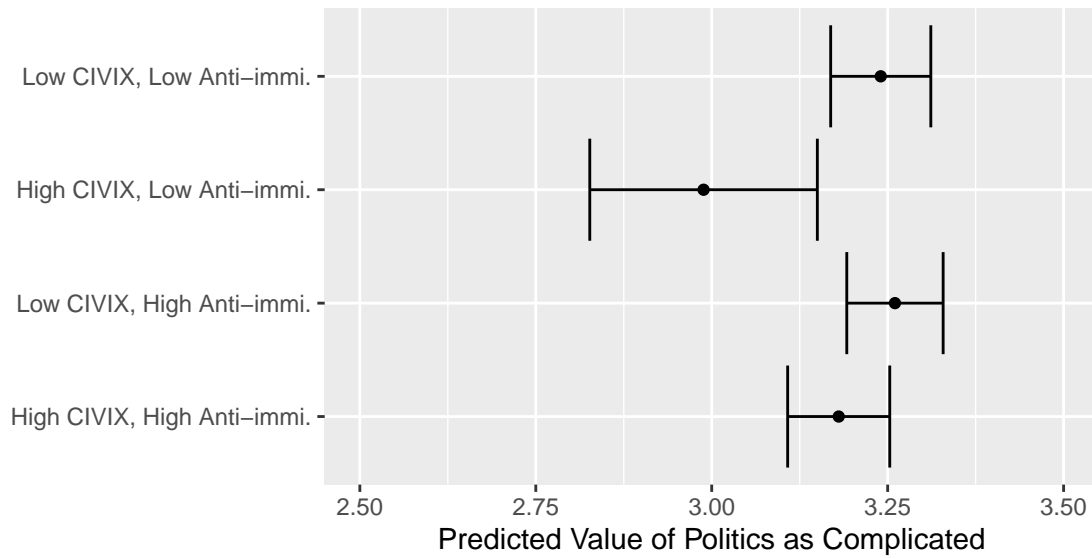
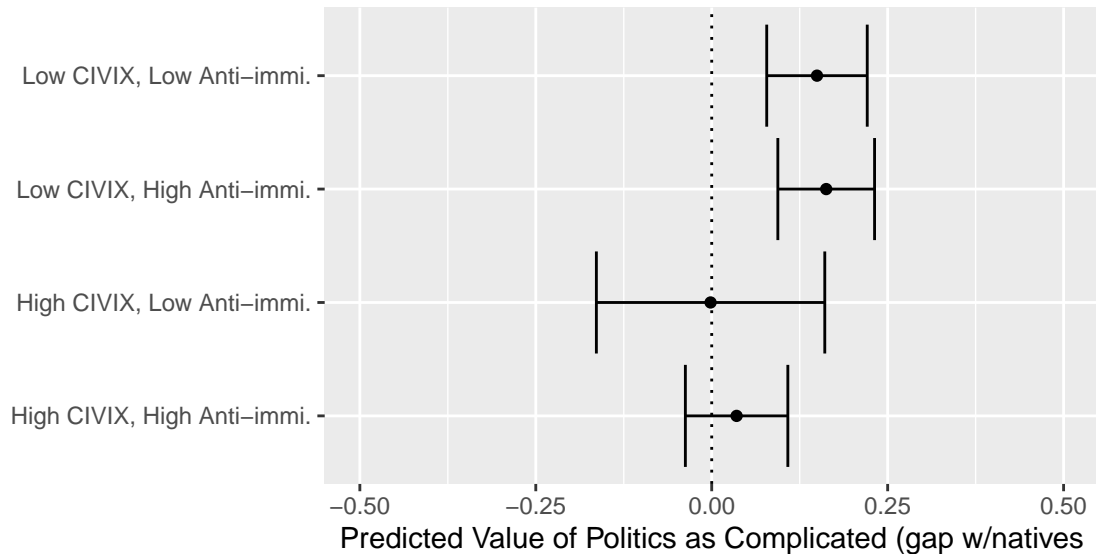


Figure 4: Effect of CIVIX conditional on Anti-immigrant Sentiments: Politics as Complicated (Gap w/Natives)



Saving 6 x 3 in image



Saving 6 x 3 in image

Difficulty in making political decisions

```
summary(ess_tenyr$poldcs) # absolute level
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.   NA's
##      1.000  3.000  3.000  3.258  4.000  5.000  1291
```

```
summary(ess_tenyr$poldcs.gap)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.   NA's
##     -2.5302 -0.5302  0.0595  0.1824  0.9531  2.3333  1291
```

```
##
```

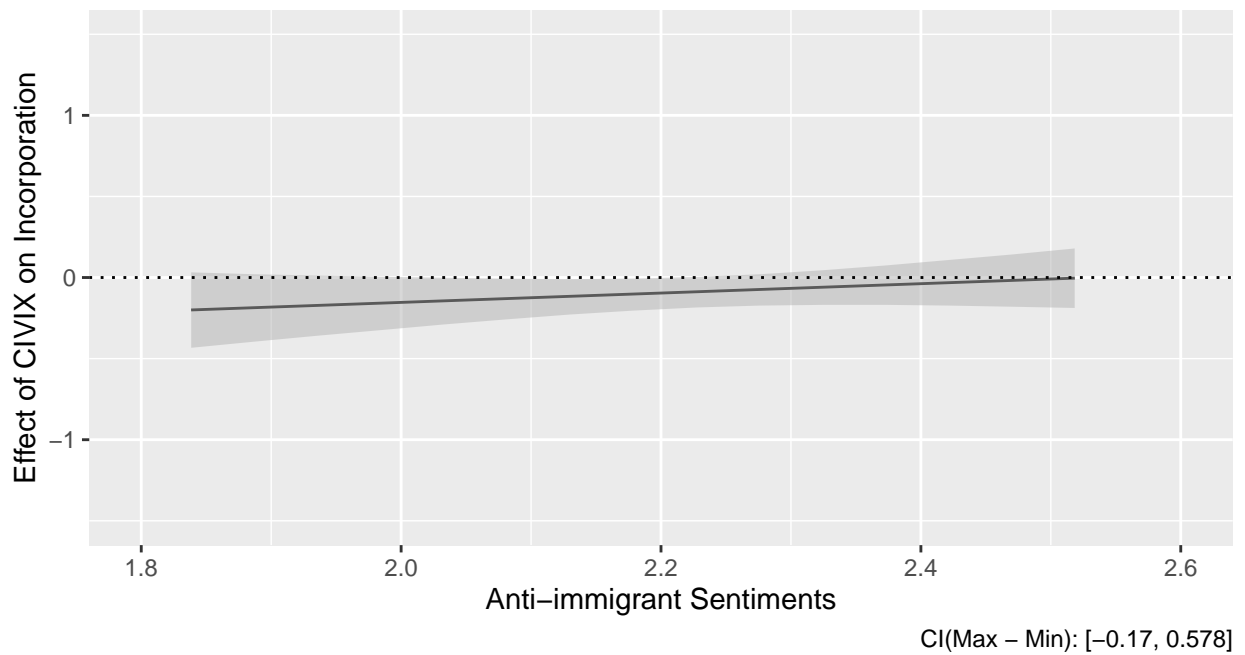
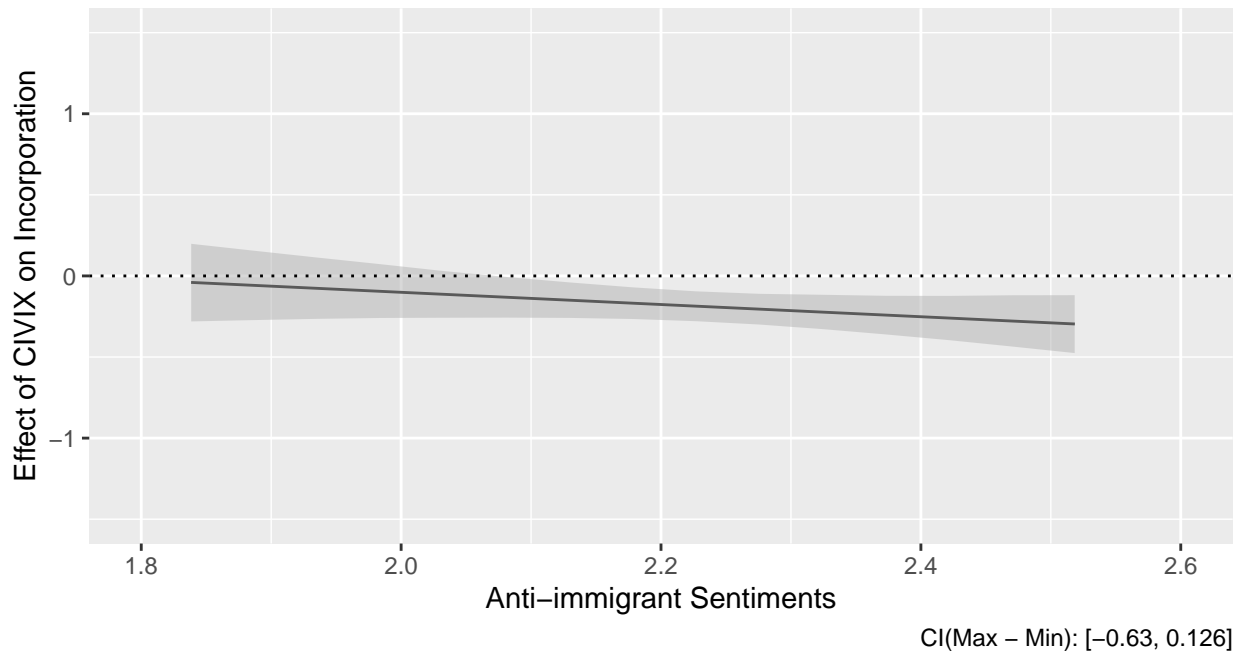
```
## Call:
```

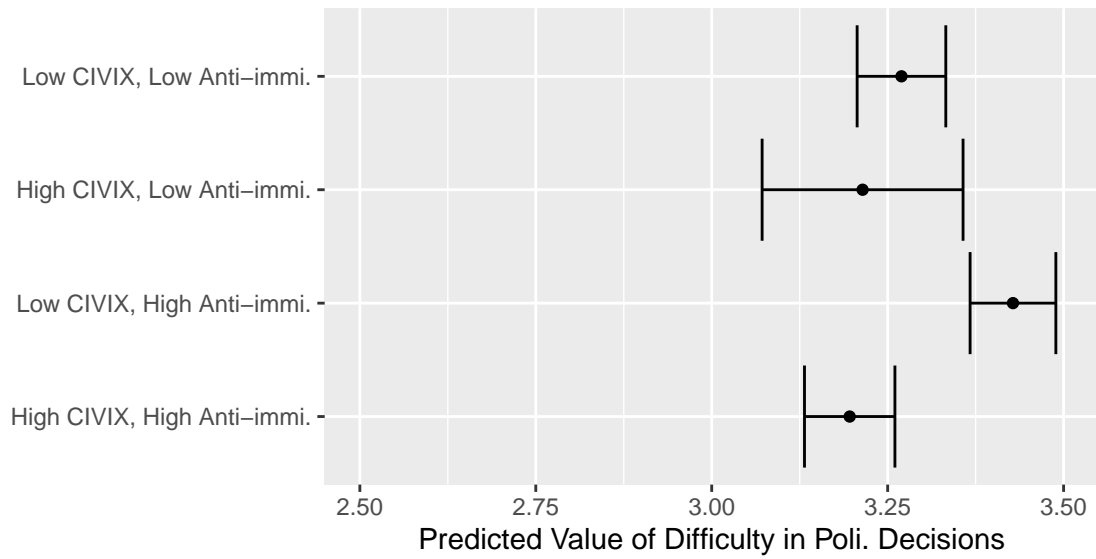
```

## lm(formula = poldcs ~ agea + ethnic + female + edu + eubirth +
##   citizen + civix.d * anti1, data = ess_tenyr)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -3.04326 -0.70539  0.03178  0.73437  2.48159
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   3.106346   0.345708   8.985 < 2e-16 ***
## agea         -0.005143   0.001747  -2.944  0.00327 **
## ethnic         0.098463   0.045295   2.174  0.02981 *
## female        0.268092   0.039282   6.825 1.09e-11 ***
## edu          -0.186884   0.013707 -13.634 < 2e-16 ***
## eubirth       -0.281419   0.049344  -5.703 1.31e-08 ***
## citizen       -0.075401   0.046949  -1.606  0.10839
## civix.d        0.653695   0.628026   1.041  0.29803
## anti1         0.446678   0.158276   2.822  0.00481 **
## civix.d:anti1 -0.377149   0.280235  -1.346  0.17847
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.008 on 2660 degrees of freedom
## (2442 observations deleted due to missingness)
## Multiple R-squared:  0.1167, Adjusted R-squared:  0.1137
## F-statistic: 39.05 on 9 and 2660 DF,  p-value: < 2.2e-16
##
## Call:
## lm(formula = poldcs.gap ~ agea + ethnic + female + edu + eubirth +
##   citizen + civix.d * anti1, data = ess_tenyr)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -3.1938 -0.6838  0.0294  0.7201  2.4805
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   0.812312   0.347482   2.338  0.01948 *
## agea         -0.004778   0.001756  -2.721  0.00655 **
## ethnic         0.110954   0.045528   2.437  0.01487 *
## female        0.263074   0.039483   6.663 3.25e-11 ***
## edu          -0.177740   0.013777 -12.901 < 2e-16 ***
## eubirth       -0.267064   0.049597  -5.385 7.89e-08 ***
## citizen       -0.085354   0.047190  -1.809  0.07061 .
## civix.d       -0.729072   0.631249  -1.155  0.24821
## anti1         0.035988   0.159088   0.226  0.82105
## civix.d:anti1  0.288092   0.281673   1.023  0.30650
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.013 on 2660 degrees of freedom
## (2442 observations deleted due to missingness)
## Multiple R-squared:  0.1068, Adjusted R-squared:  0.1038

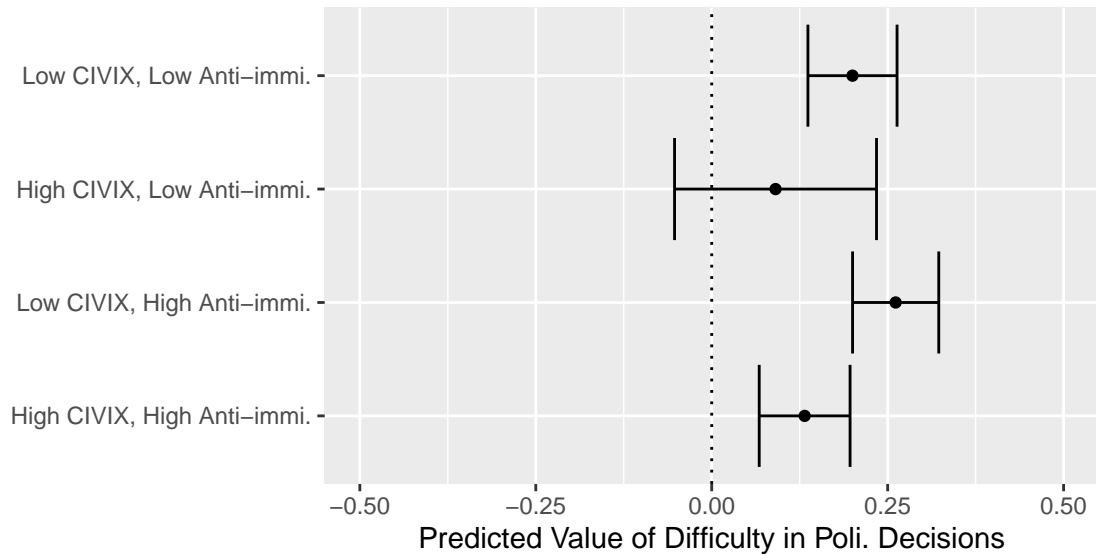
```

F-statistic: 35.36 on 9 and 2660 DF, p-value: < 2.2e-16





Saving 6 x 3 in image



Saving 6 x 3 in image

Employment status

```
summary(ess_tenyr$employ)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##  0.0000  1.0000  1.0000  0.9098  1.0000  1.0000
```

```
summary(ess_tenyr$employ.gap)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
## -0.98621  0.03096  0.05172 -0.02994  0.08309  0.10860
```

```
##
```

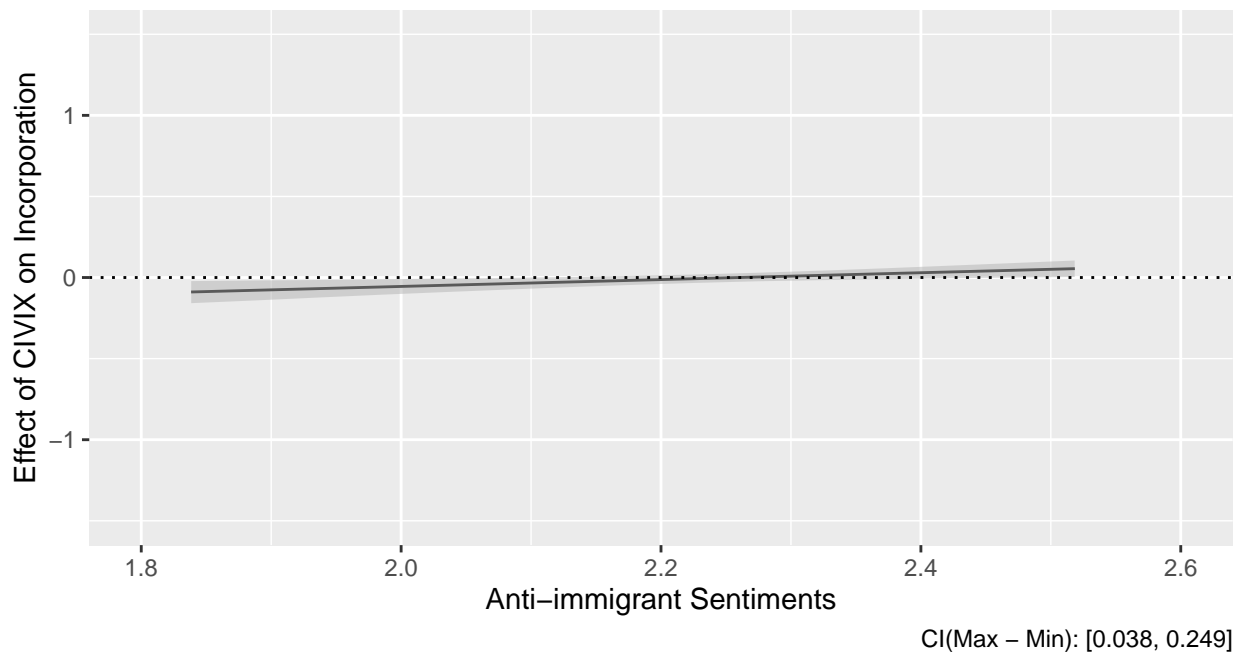
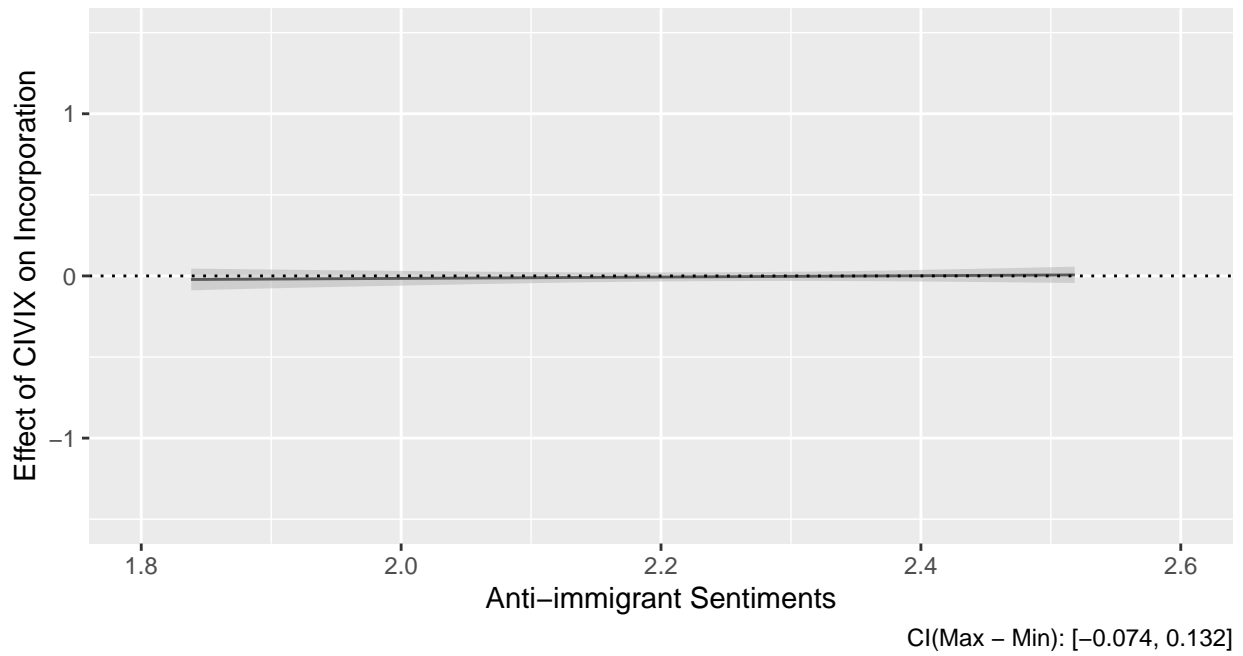
```
## Call:
```

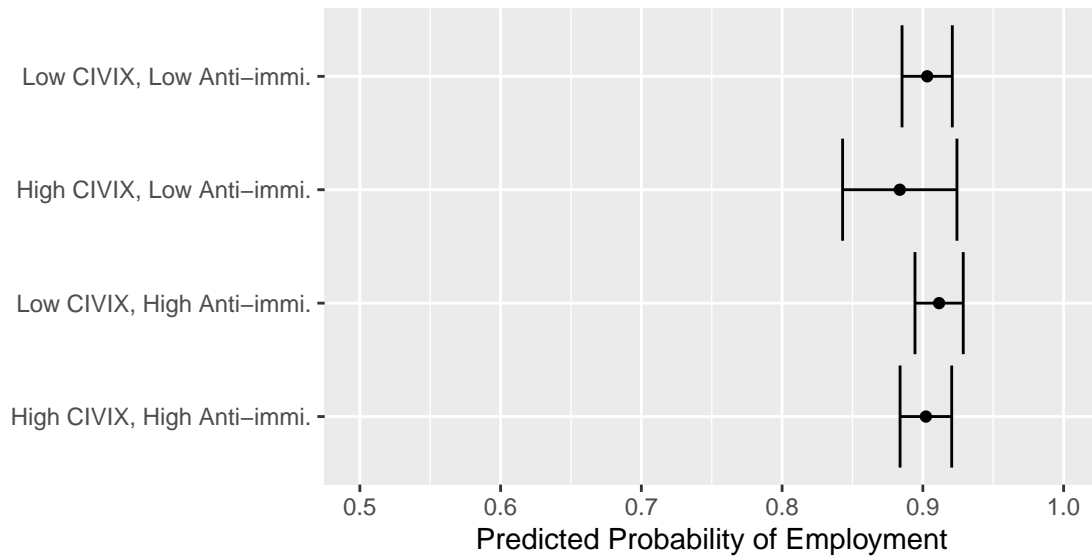
```

## lm(formula = employ ~ agea + ethnic + female + edu + eubirth +
##   citizen + civix.d * anti1, data = ess_tenyr)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.94448  0.07417  0.09577  0.10482  0.13199
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   0.8358217   0.0975451   8.569  <2e-16 ***
## agea          0.0002027   0.0004960   0.409   0.6828
## ethnic        0.0017392   0.0127904   0.136   0.8918
## female        0.0083786   0.0111380   0.752   0.4520
## edu           0.0018815   0.0038104   0.494   0.6215
## eubirth       0.0283556   0.0140560   2.017   0.0438 *
## citizen      -0.0079295   0.0133650  -0.593   0.5530
## civix.d      -0.0985625   0.1779378  -0.554   0.5797
## anti1         0.0220244   0.0446840   0.493   0.6221
## civix.d:anti1  0.0417044   0.0793456   0.526   0.5992
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.2919 on 2777 degrees of freedom
## (2325 observations deleted due to missingness)
## Multiple R-squared:  0.003032, Adjusted R-squared:  -0.0001993
## F-statistic: 0.9383 on 9 and 2777 DF, p-value: 0.4902
##
## Call:
## lm(formula = employ.gap ~ agea + ethnic + female + edu + eubirth +
##   citizen + civix.d * anti1, data = ess_tenyr)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.98430  0.06692  0.09162  0.10907  0.15571
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   0.1712604   0.0974197   1.758   0.07886 .
## agea          0.0002882   0.0004954   0.582   0.56076
## ethnic        0.0010113   0.0127740   0.079   0.93690
## female        0.0090933   0.0111237   0.817   0.41373
## edu           0.0013797   0.0038055   0.363   0.71697
## eubirth       0.0186137   0.0140379   1.326   0.18496
## citizen      -0.0092840   0.0133478  -0.696   0.48677
## civix.d      -0.4779313   0.1777091  -2.689   0.00720 **
## anti1        -0.1019547   0.0446265  -2.285   0.02241 *
## civix.d:anti1  0.2113625   0.0792435   2.667   0.00769 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.2915 on 2777 degrees of freedom
## (2325 observations deleted due to missingness)
## Multiple R-squared:  0.004409, Adjusted R-squared:  0.001182

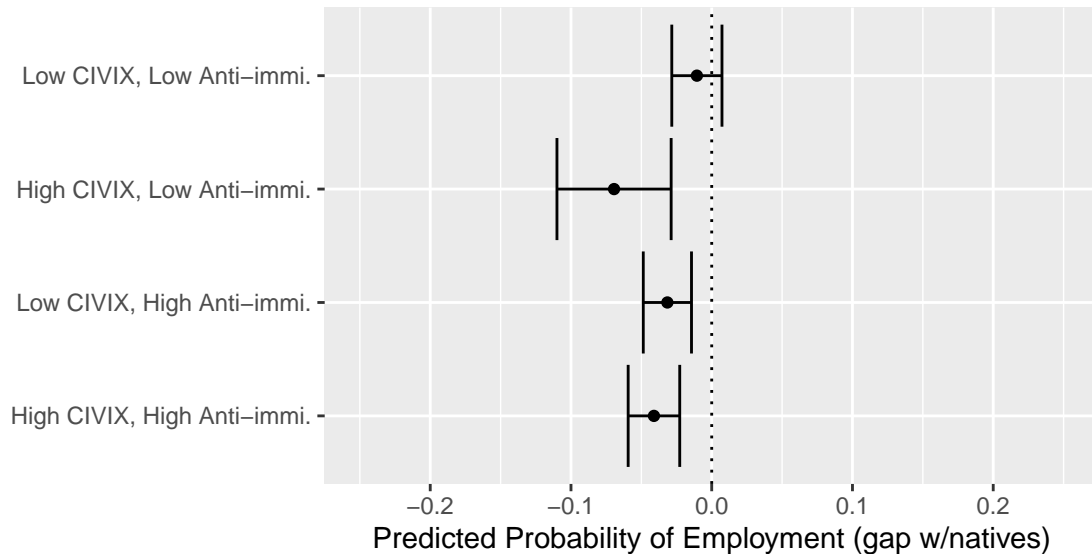
```

F-statistic: 1.366 on 9 and 2777 DF, p-value: 0.1977





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People being fair

```
summary(ess_tenyr$pplfair)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.   NA's
##  0.000  4.000   5.000   5.471  7.000  10.000    85
```

```
summary(ess_tenyr$pplfair.gap)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.   NA's
## -6.65164 -1.39759 -0.18475  0.01949  1.60241  5.52512    85
```

```
##
```

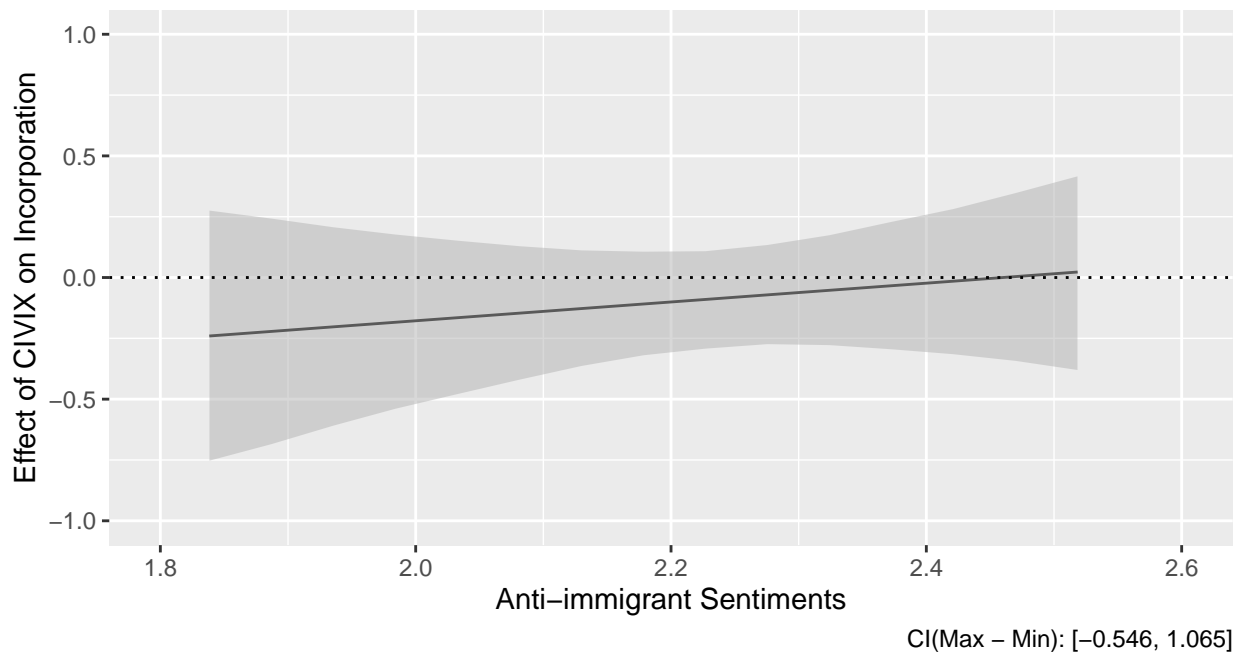
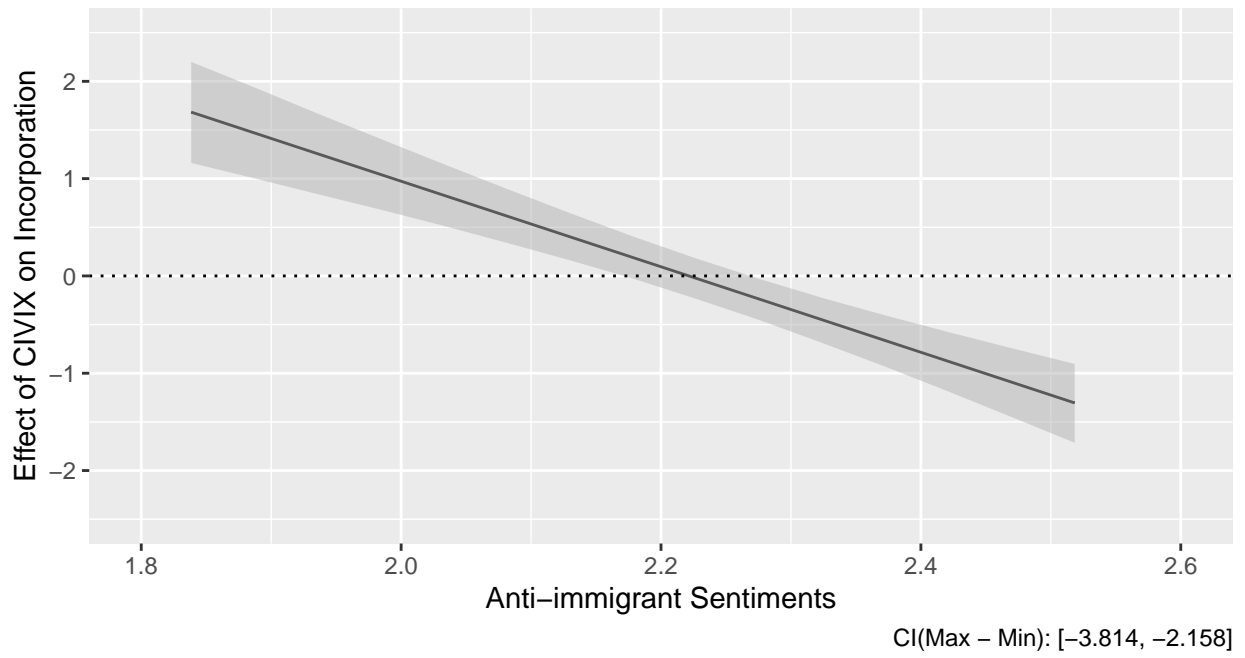
```
## Call:
```

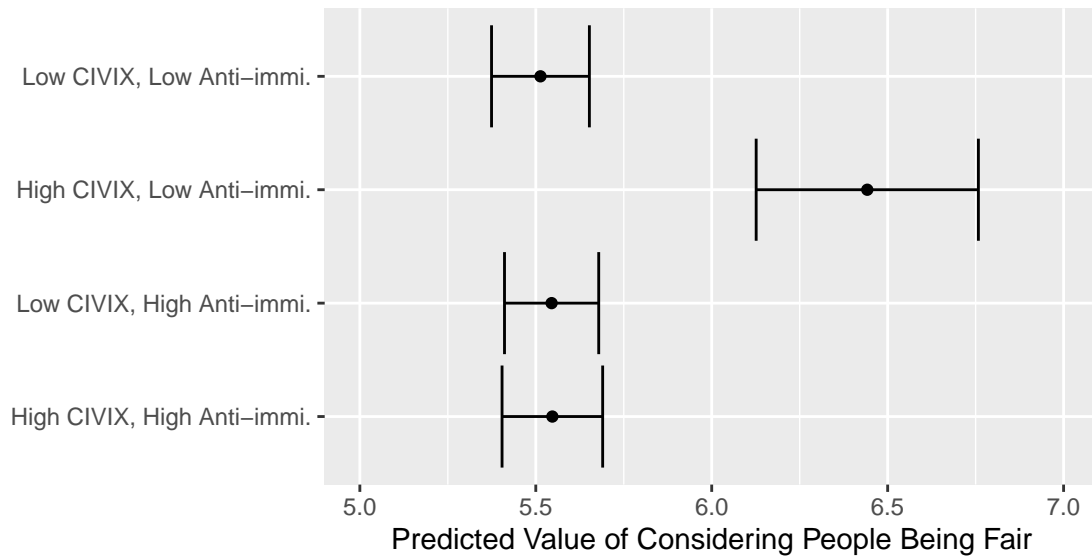
```

## lm(formula = pplfair ~ agea + ethnic + female + edu + eubirth +
##   citizen + civix.d * anti1, data = ess_tenyr)
##
## Residuals:
##   Min       1Q   Median       3Q      Max
## -6.1585 -1.4082 -0.0629  1.6316  5.3124
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   4.032790   0.761091   5.299 1.26e-07 ***
## agea          0.007391   0.003874   1.908  0.0565 .
## ethnic       -0.149090   0.099700  -1.495  0.1349
## female       -0.005742   0.086730  -0.066  0.9472
## edu          0.159696   0.029707   5.376 8.27e-08 ***
## eubirth       0.080449   0.109509   0.735  0.4626
## citizen      -0.011583   0.103984  -0.111  0.9113
## civix.d       9.729616   1.381159   7.045 2.35e-12 ***
## anti1         0.353935   0.348372   1.016  0.3097
## civix.d:anti1 -4.379808   0.615903  -7.111 1.46e-12 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.256 on 2735 degrees of freedom
## (2367 observations deleted due to missingness)
## Multiple R-squared:  0.04445,    Adjusted R-squared:  0.04131
## F-statistic: 14.14 on 9 and 2735 DF,  p-value: < 2.2e-16
##
## Call:
## lm(formula = pplfair.gap ~ agea + ethnic + female + edu + eubirth +
##   citizen + civix.d * anti1, data = ess_tenyr)
##
## Residuals:
##   Min       1Q   Median       3Q      Max
## -7.2377 -1.3558 -0.0664  1.5870  5.3493
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  -2.134677   0.750838  -2.843  0.0045 **
## agea          0.006851   0.003822   1.792  0.0732 .
## ethnic       -0.204047   0.098357  -2.075  0.0381 *
## female       -0.032251   0.085562  -0.377  0.7063
## edu          0.138481   0.029307   4.725 2.41e-06 ***
## eubirth      -0.004984   0.108034  -0.046  0.9632
## citizen      -0.016408   0.102584  -0.160  0.8729
## civix.d      -0.945454   1.362555  -0.694  0.4878
## anti1         0.741023   0.343679   2.156  0.0312 *
## civix.d:anti1  0.383104   0.607607   0.631  0.5284
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.226 on 2735 degrees of freedom
## (2367 observations deleted due to missingness)
## Multiple R-squared:  0.01532,    Adjusted R-squared:  0.01208

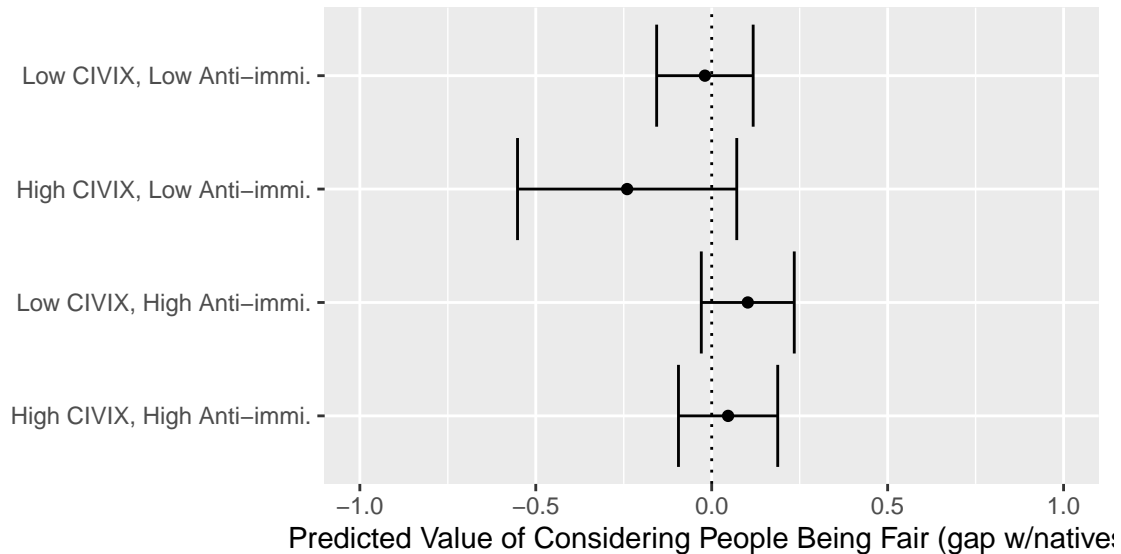
```


F-statistic: 4.728 on 9 and 2735 DF, p-value: 2.928e-06





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Saving 6 x 3 in image

General Trust

```
summary(ess_tenyr$ppltrst) # 0 as can't be too careful, 10 as most people can be trusted
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.   NA's
##      0.000  4.000   5.000   5.142  7.000  10.000    39
```

```
summary(ess_tenyr$ppltrst.gap)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.   NA's
## -6.51471 -1.35000  0.01163  0.11122  1.75828  6.28016    39
```

```
##
```

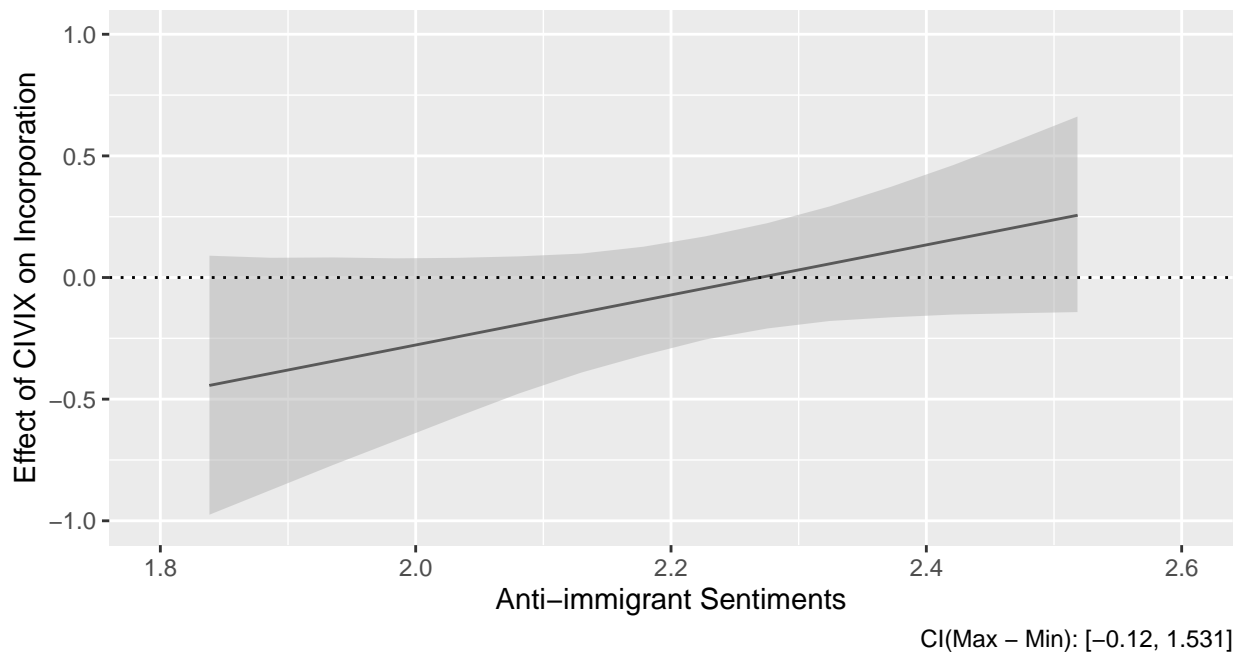
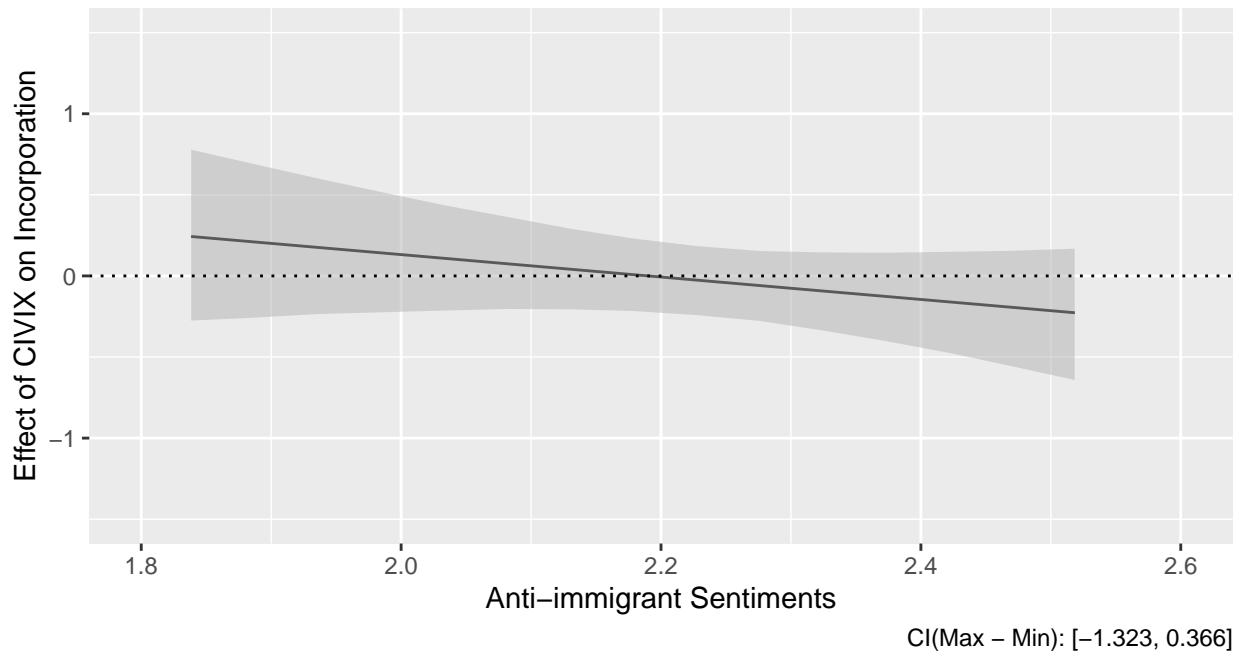
```
## Call:
```

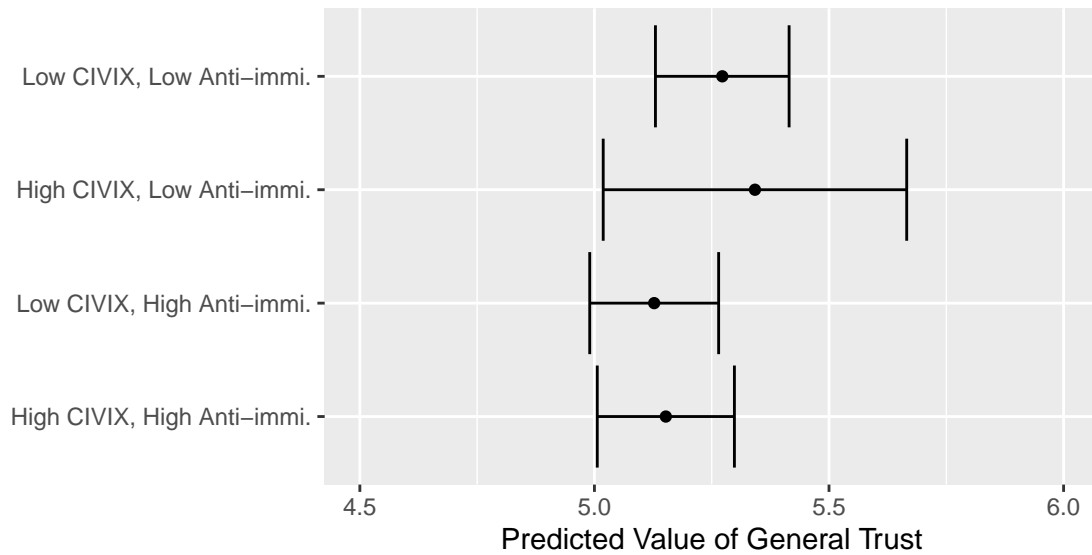
```

## lm(formula = ppltrst ~ agea + ethnic + female + edu + eubirth +
##   citizen + civix.d * anti1, data = ess_tenyr)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -6.1770 -1.5349  0.0699  1.6883  5.6742
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   4.918200   0.781069   6.297 3.52e-10 ***
## agea          0.012889   0.003958   3.257 0.00114 **
## ethnic       -0.034076   0.101948  -0.334 0.73822
## female       -0.237590   0.088837  -2.674 0.00753 **
## edu          0.196995   0.030433   6.473 1.13e-10 ***
## eubirth       0.216591   0.112345   1.928 0.05397 .
## citizen      -0.075441   0.106533  -0.708 0.47891
## civix.d       1.504549   1.419181   1.060 0.28917
## anti1        -0.332986   0.357864  -0.930 0.35220
## civix.d:anti1 -0.686414   0.633006  -1.084 0.27829
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.321 on 2758 degrees of freedom
## (2344 observations deleted due to missingness)
## Multiple R-squared:  0.03145,    Adjusted R-squared:  0.02829
## F-statistic: 9.952 on 9 and 2758 DF,  p-value: 3.645e-15
##
## Call:
## lm(formula = ppltrst.gap ~ agea + ethnic + female + edu + eubirth +
##   citizen + civix.d * anti1, data = ess_tenyr)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -7.3910 -1.5434  0.0775  1.6543  6.1931
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  -2.541268   0.774313  -3.282 0.00104 **
## agea          0.011996   0.003923   3.057 0.00225 **
## ethnic       -0.127427   0.101067  -1.261 0.20748
## female       -0.257744   0.088069  -2.927 0.00345 **
## edu          0.168242   0.030170   5.576 2.69e-08 ***
## eubirth       0.061100   0.111373   0.549 0.58332
## citizen      -0.033912   0.105611  -0.321 0.74816
## civix.d      -2.317424   1.406907  -1.647 0.09964 .
## anti1         0.884118   0.354769   2.492 0.01276 *
## civix.d:anti1  1.020324   0.627531   1.626 0.10408
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.301 on 2758 degrees of freedom
## (2344 observations deleted due to missingness)
## Multiple R-squared:  0.02718,    Adjusted R-squared:  0.02401

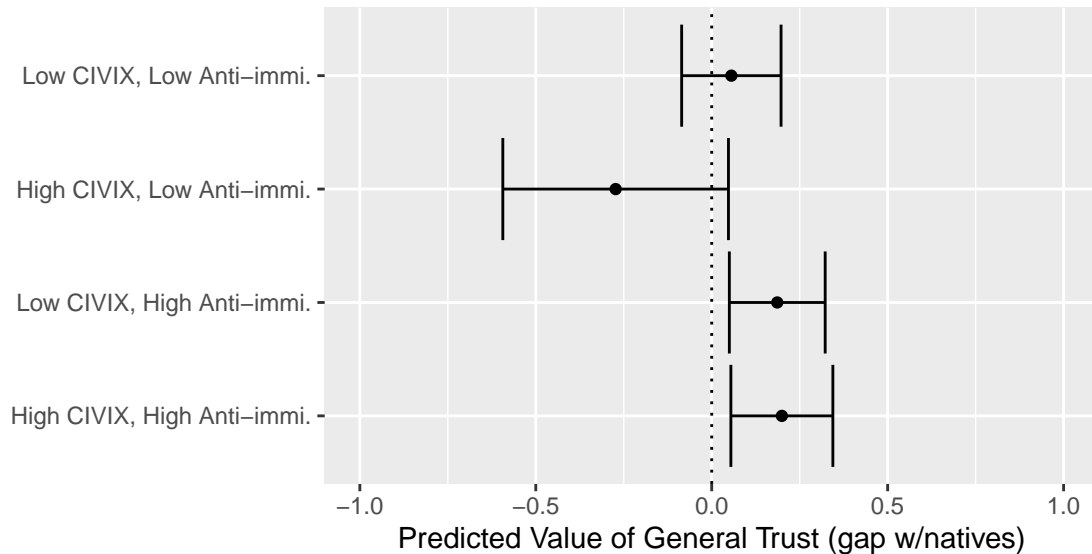
```

F-statistic: 8.563 on 9 and 2758 DF, p-value: 9.562e-13





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Saving 6 x 3 in image

Income level

```
summary(ess_tenyr$hinctnt)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.   NA's
##  0.8333  3.0000  5.0000  4.9889  7.0000 10.0000  1407
```

```
summary(ess_tenyr$hinctnt.gap)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.   NA's
## -5.8511 -2.0102 -0.4969 -0.3709  1.2333  6.0104  1407
```

```
##
```

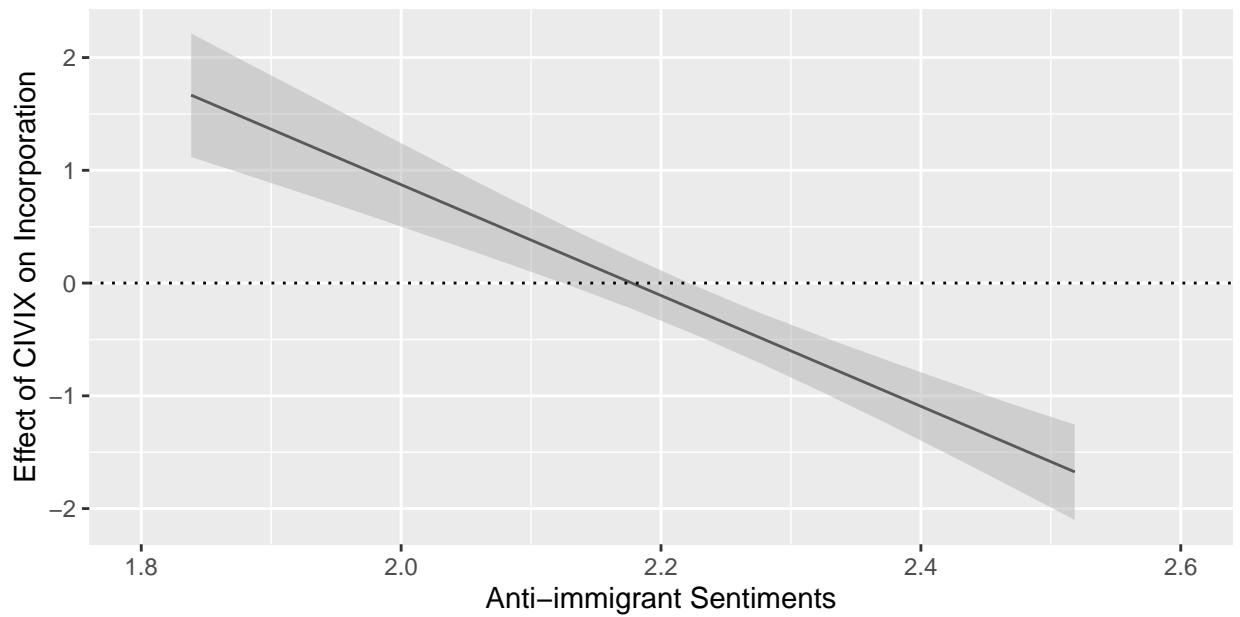
```
## Call:
```

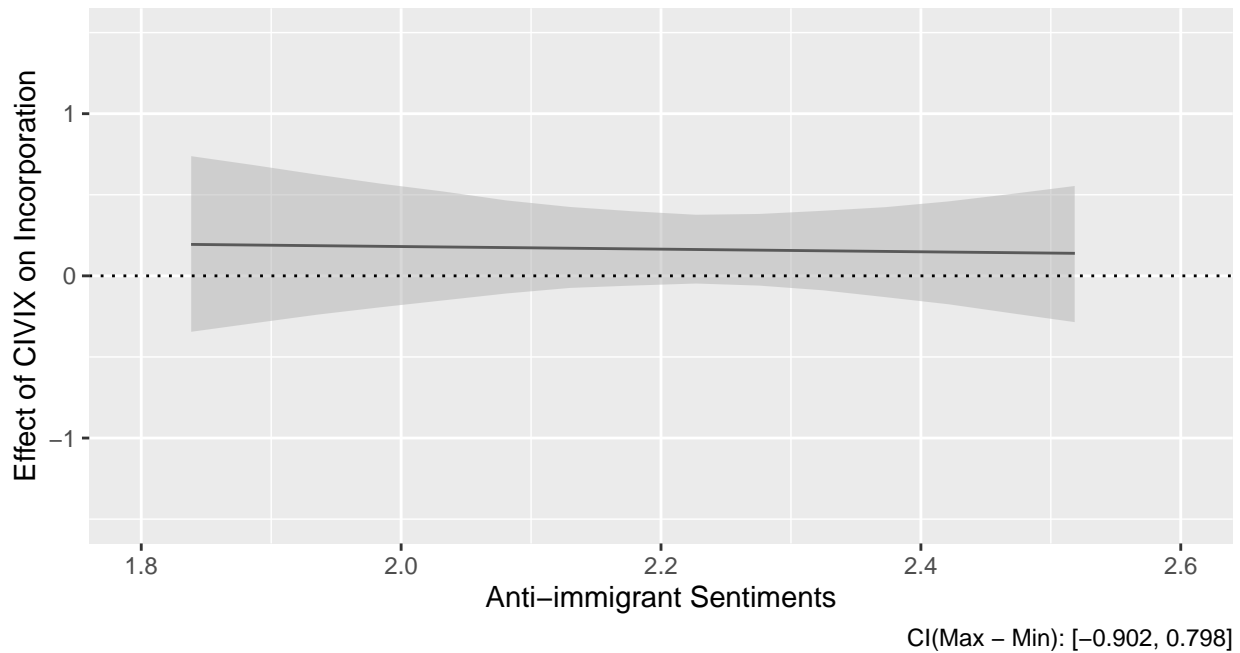
```

## lm(formula = hinctnt ~ agea + ethnic + female + edu + eubirth +
##   citizen + civix.d * anti1, data = ess_tenyr)
##
## Residuals:
## <Labelled double>: Household's total net income, all sources
##   Min      1Q  Median      3Q      Max
## -5.3703 -1.3666 -0.1447  1.3382  5.9948
##
## Labels:
##   value      label
##     1         J
##     2         R
##     3         C
##     4         M
##     5         F
##     6         S
##     7         K
##     8         P
##     9         D
##    10         H
##    11         U
##    12         N
## NA(b)      Refusal
## NA(c) Don't know
## NA(d) No answer
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  -0.130298   0.799734  -0.163  0.87059
## agea          0.008400   0.004209   1.996  0.04612 *
## ethnic       -0.281353   0.104137  -2.702  0.00696 **
## female       -0.170677   0.091443  -1.866  0.06212 .
## edu          0.377324   0.031365  12.030 < 2e-16 ***
## eubirth       0.813813   0.115681   7.035 2.72e-12 ***
## citizen       0.111267   0.110671   1.005  0.31483
## civix.d      10.657007   1.457375   7.312 3.77e-13 ***
## anti1         1.745880   0.367064   4.756 2.11e-06 ***
## civix.d:anti1 -4.894436   0.650890  -7.520 8.24e-14 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.039 on 2004 degrees of freedom
## (3098 observations deleted due to missingness)
## Multiple R-squared:  0.1617, Adjusted R-squared:  0.1579
## F-statistic: 42.95 on 9 and 2004 DF,  p-value: < 2.2e-16
##
## Call:
## lm(formula = hinctnt.gap ~ agea + ethnic + female + edu + eubirth +
##   citizen + civix.d * anti1, data = ess_tenyr)
##
## Residuals:
##   Min      1Q  Median      3Q      Max
## -5.303 -1.287 -0.157  1.294  6.345

```

```
##
## Coefficients:
##           Estimate Std. Error t value Pr(>|t|)
## (Intercept) -1.971847   0.783795  -2.516  0.01195 *
## agea         0.008627   0.004125   2.091  0.03664 *
## ethnic      -0.329409   0.102062  -3.228  0.00127 **
## female      -0.176812   0.089621  -1.973  0.04865 *
## edu          0.366884   0.030740  11.935 < 2e-16 ***
## eubirth      0.609186   0.113375   5.373 8.64e-08 ***
## citizen      0.149699   0.108466   1.380  0.16769
## civix.d      0.343255   1.428330   0.240  0.81011
## anti1        0.051065   0.359749   0.142  0.88714
## civix.d:anti1 -0.080838   0.637918  -0.127  0.89917
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.998 on 2004 degrees of freedom
## (3098 observations deleted due to missingness)
## Multiple R-squared:  0.1081, Adjusted R-squared:  0.1041
## F-statistic: 26.98 on 9 and 2004 DF,  p-value: < 2.2e-16
```





Subjective Financial Status

```
summary(ess_tenyr$hincfel)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.   NA's
##  1.000  2.000  2.000  2.202  3.000  4.000   120
```

```
summary(ess_tenyr$hincfel.gap)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.   NA's
## -2.34211 -0.65651  0.07872  0.14518  0.90367  2.43568   120
```

```
##
```

```
## Call:
```

```
## lm(formula = hincfel ~ agea + ethnic + female + edu + eubirth +
##      citizen + civix.d * anti1, data = ess_tenyr)
```

```
##
```

```
## Residuals:
```

```
##      Min       1Q   Median       3Q      Max
## -2.04750 -0.57527 -0.08774  0.56305  2.52745
```

```
##
```

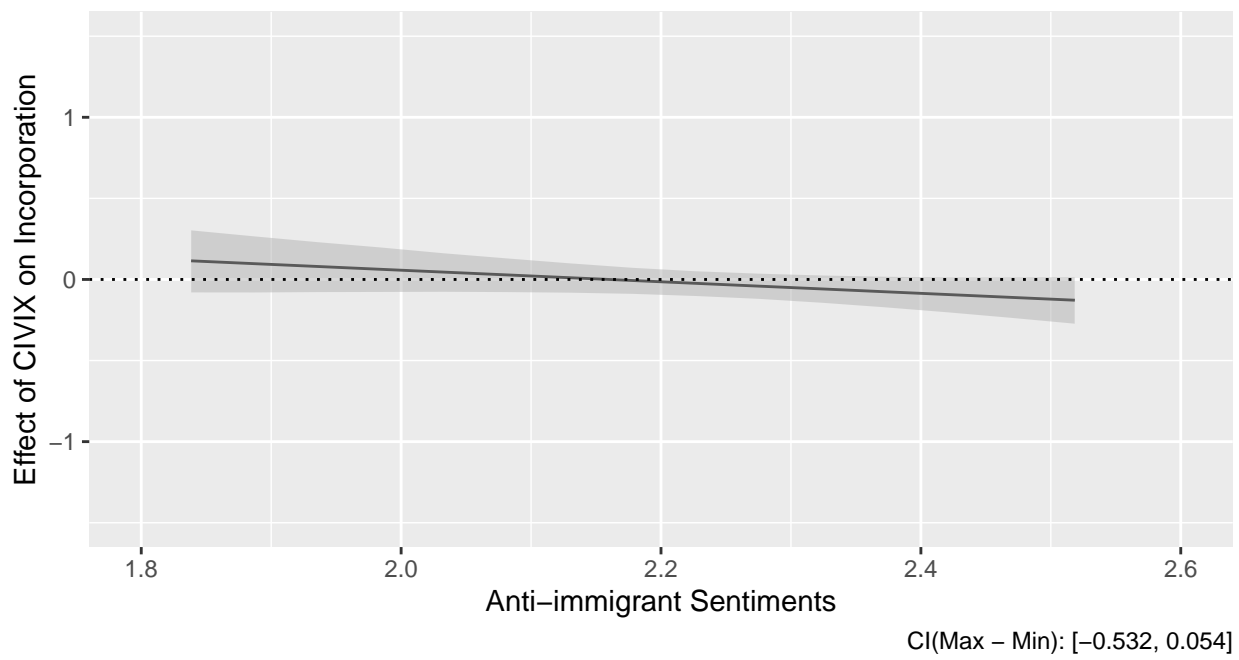
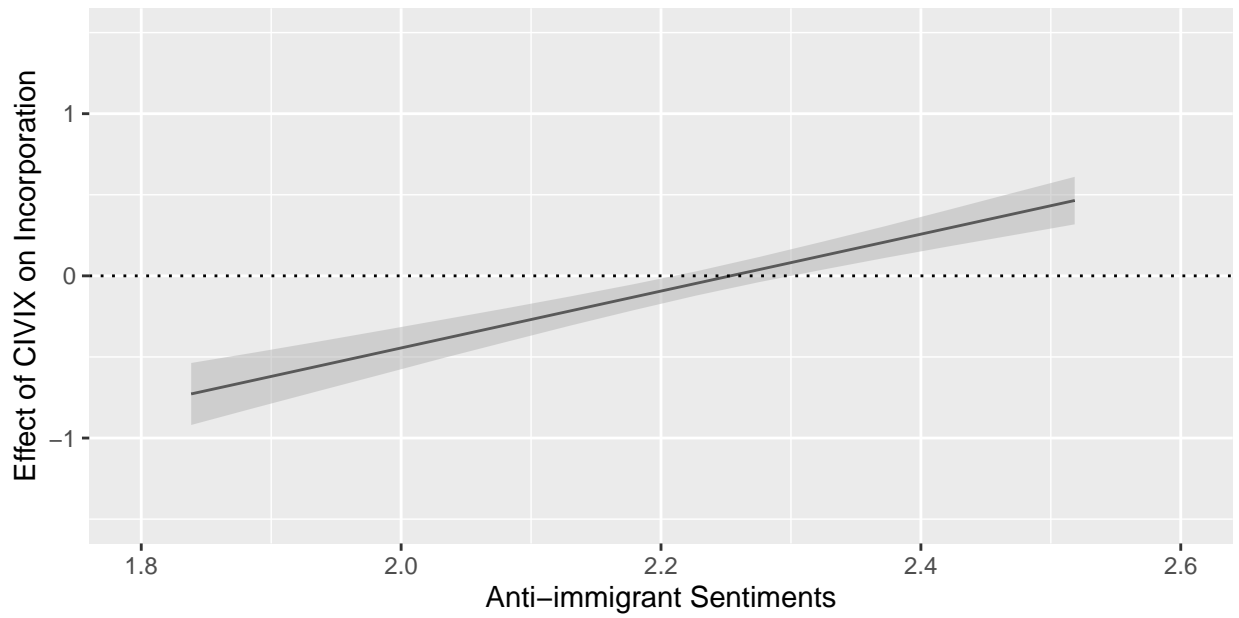
```
## Coefficients:
```

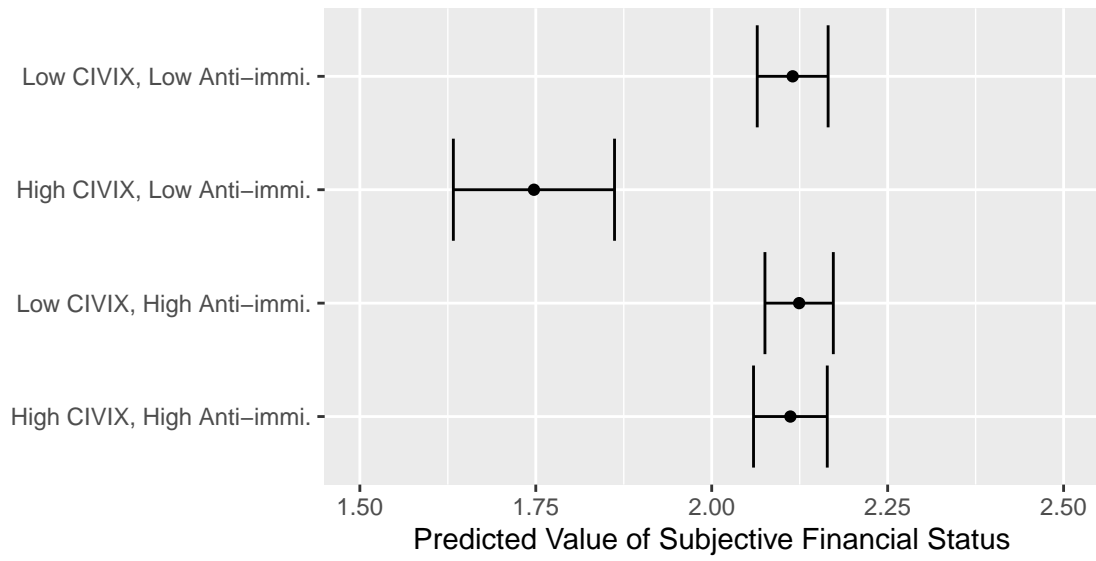
```
##      Estimate Std. Error t value Pr(>|t|)
## (Intercept)  2.352990   0.276028   8.524 < 2e-16 ***
## agea         0.002580   0.001417   1.821  0.0688 .
## ethnic       0.226028   0.036411   6.208 6.20e-10 ***
## female       0.013362   0.031646   0.422  0.6729
## edu         -0.139462   0.010846 -12.859 < 2e-16 ***
## eubirth      -0.380721   0.039956  -9.528 < 2e-16 ***
## citizen      0.005188   0.038147   0.136  0.8918
## civix.d     -3.949437   0.501660  -7.873 4.98e-15 ***
## anti1        0.084767   0.126409   0.671  0.5025
## civix.d:anti1 1.752596   0.223785   7.832 6.86e-15 ***
```



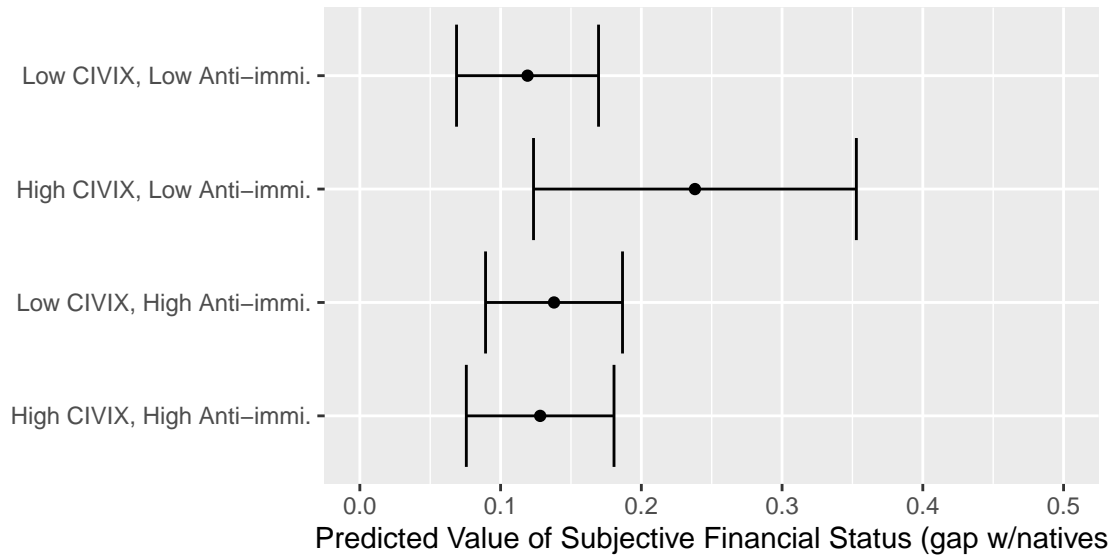
```
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8186 on 2703 degrees of freedom
## (2399 observations deleted due to missingness)
## Multiple R-squared:  0.1735, Adjusted R-squared:  0.1707
## F-statistic: 63.04 on 9 and 2703 DF,  p-value: < 2.2e-16

##
## Call:
## lm(formula = hincfel.gap ~ agea + ethnic + female + edu + eubirth +
##     citizen + civix.d * anti1, data = ess_teny)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.09689 -0.58889 -0.06794  0.50447  2.52671
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   0.314506   0.276421   1.138   0.2553
## agea           0.002403   0.001419   1.693   0.0905 .
## ethnic         0.249169   0.036462   6.834 1.02e-11 ***
## female         0.010613   0.031691   0.335   0.7377
## edu            -0.129147   0.010861 -11.891 < 2e-16 ***
## eubirth        -0.263569   0.040013  -6.587 5.37e-11 ***
## citizen        -0.026651   0.038201  -0.698   0.4855
## civix.d         0.772592   0.502374   1.538   0.1242
## anti1          0.078630   0.126589   0.621   0.5346
## civix.d:anti1 -0.357570   0.224103  -1.596   0.1107
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8198 on 2703 degrees of freedom
## (2399 observations deleted due to missingness)
## Multiple R-squared:  0.1033, Adjusted R-squared:  0.1003
## F-statistic: 34.61 on 9 and 2703 DF,  p-value: < 2.2e-16
```





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Saving 6 x 3 in image