

Time trends between vaccination coverage and voting patterns  
before and during the COVID-19 pandemic: analysis of COVID-19  
and flu surveys in the United States

Figures 1 (A,B,C), supplementary figure S1

Minttu Rönkä

2022-Aug-23

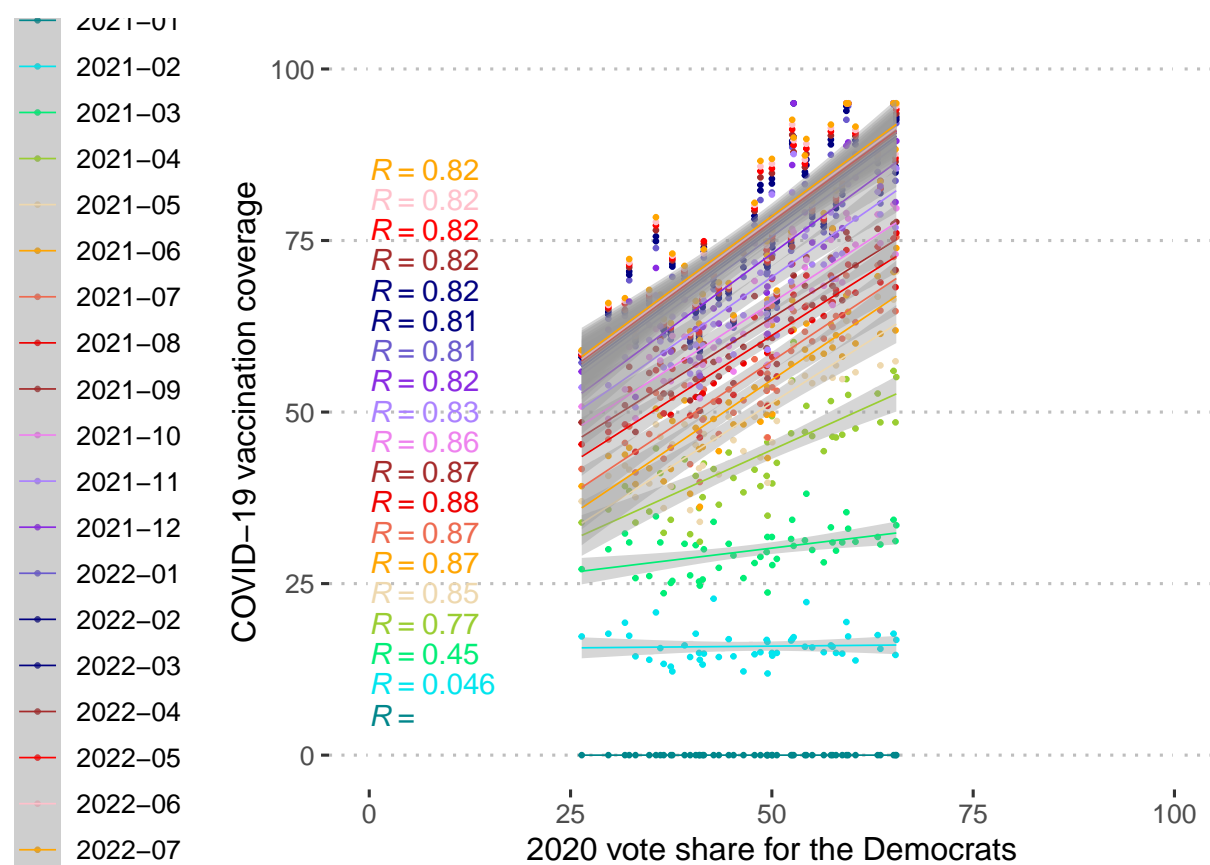
## |

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**FIGURE 1 A**

Comparison of correlation coefficient across state-level COVID-19 vaccination estimates by month. We have omitted Washington D.C. as an outlier. Pearson correlation coefficient ( $R$ ) shown by month in panels A,C,D, and as a bar plot in panel B.

```
## pdf
## 2
```



**FIGURE 1 B**

Comparison of correlation coefficient across state-level COVID-19 vaccination estimates by month. We have omitted Washington D.C. as an outlier. Pearson correlation coefficient (R) shown by month in panels A,C,D, and as a bar plot in panel B.

```
## pdf
## 2
```

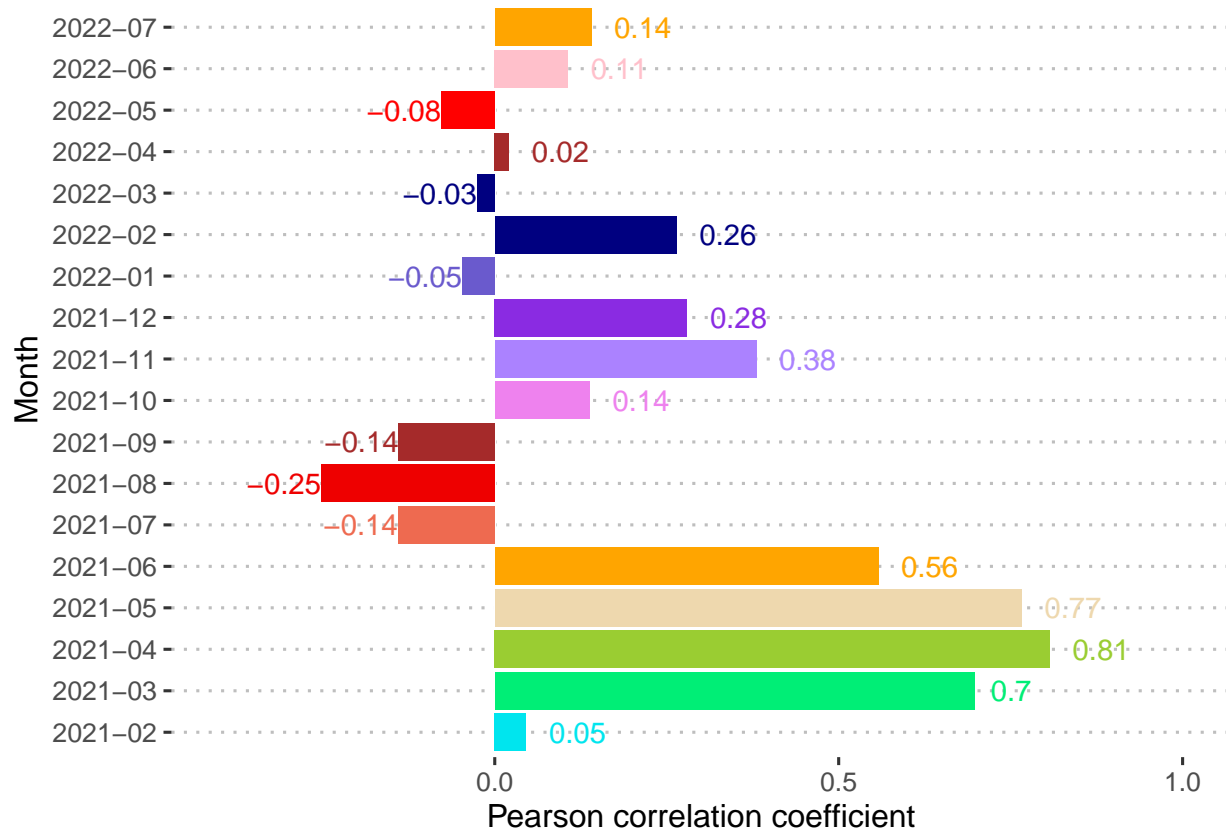
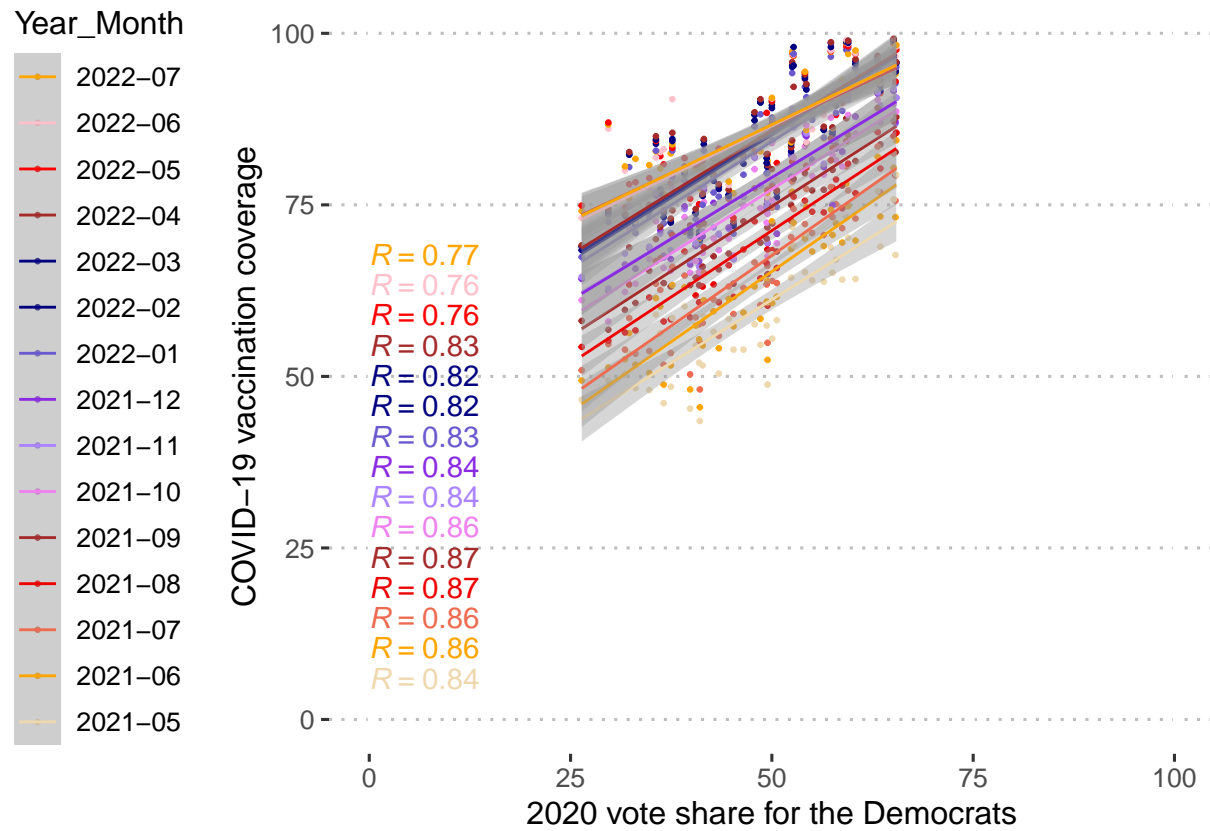


FIGURE 1 C

Comparison of correlation coefficient across state-level COVID-19 vaccination estimates by month. We have omitted Washington D.C. as an outlier. Pearson correlation coefficient (R) shown by month in panels A,C,D, and as a bar plot in panel B.

## pdf  
## 2



- Obtain linear predictions by month for CDC surveillance data on COVID-19 vaccination

```
## [1] "CDC linear regression by month"

## Call: lmList(formula = est ~ vote_perc | Year_Month, data = fits_cdc)
## Coefficients:
##           (Intercept)  vote_perc
## 2021-01      0.00000 0.00000000
## 2021-02     15.37410 0.01022975
## 2021-03     23.06154 0.14220749
## 2021-04     18.08692 0.52797035
## 2021-05     14.18807 0.74302507
## 2021-06     15.18415 0.78998952
## 2021-07     18.45237 0.77933354
## 2021-08     23.78716 0.74744731
## 2021-09     26.93554 0.73645271
## 2021-10     28.12858 0.75588817
## 2021-11     29.02353 0.81323388
## 2021-12     30.01635 0.86144055
## 2022-01     32.88226 0.85422991
## 2022-02     33.33506 0.86352243
## 2022-03     33.83155 0.86154114
## 2022-04     34.23549 0.86246512
## 2022-05     34.74122 0.85982879
## 2022-06     34.91616 0.86379279
## 2022-07     35.23545 0.86624002
##
## Degrees of freedom: 950 total; 912 residual
## Residual standard error: 5.212079
```

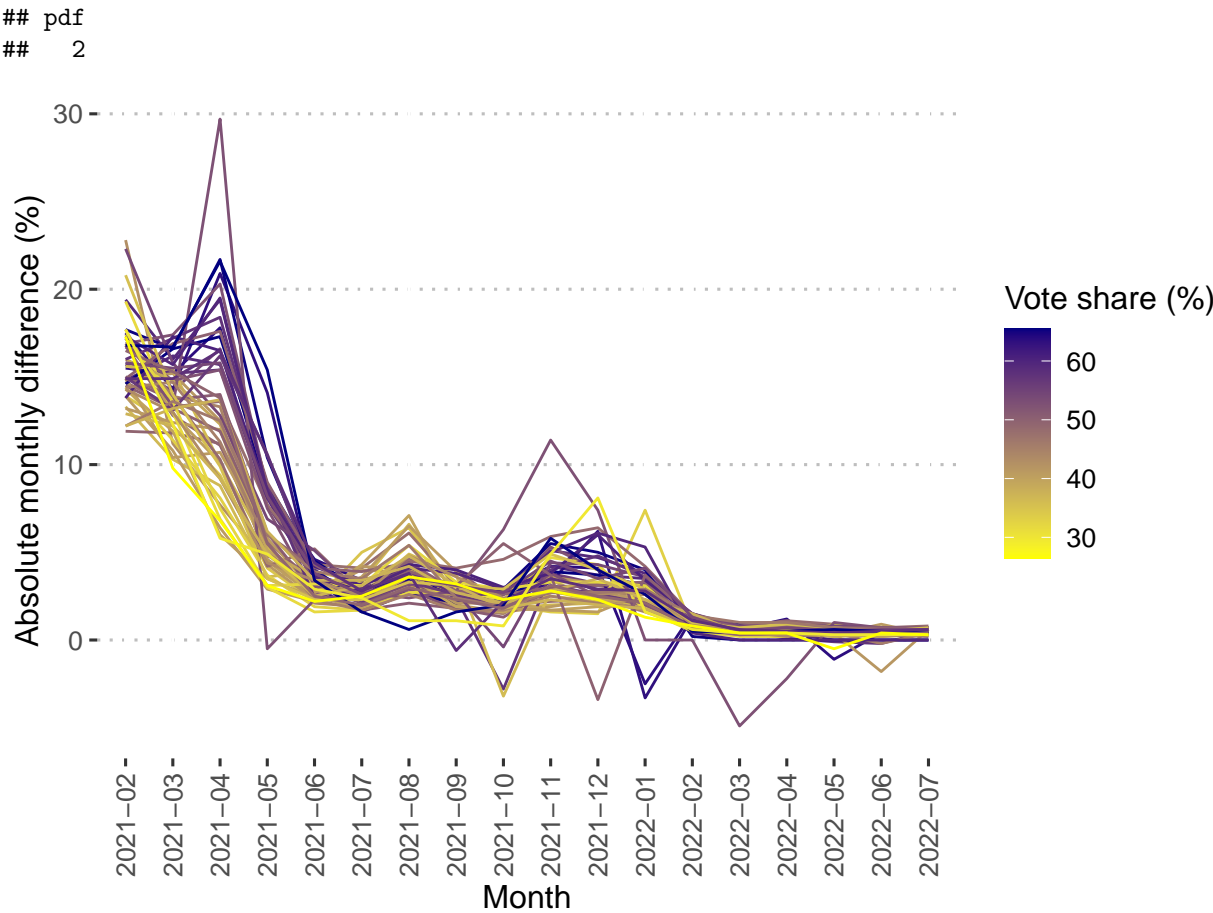
- Obtain linear predictions by month for NIS-ACM data on COVID-19 vaccination

```
## [1] "ACM linear regression by month"

## Call: lmList(formula = est ~ vote_perc | Year_Month, data = fits_acm)
## Coefficients:
##           (Intercept) vote_perc
## 2021-05      24.39477 0.7357979
## 2021-06      24.35642 0.8184988
## 2021-07      26.57460 0.8208853
## 2021-08      32.52826 0.7744296
## 2021-09      36.99269 0.7558020
## 2021-10      39.90069 0.7472894
## 2021-11      43.39027 0.7123253
## 2021-12      43.16916 0.7162485
## 2022-01      47.13533 0.7424535
## 2022-02      48.50980 0.7344762
## 2022-03      48.91790 0.7326292
## 2022-04      49.55444 0.7258245
## 2022-05      59.08928 0.5479233
## 2022-06      57.66459 0.5765367
## 2022-07      58.60594 0.5614960
##
## Degrees of freedom: 750 total; 720 residual
## Residual standard error: 4.971968
```

SUPPLEMENTAL FIGURE S1

Absolute monthly difference in COVID-19 vaccination coverage, compared at state-level to previous month. Shading represents 2020 vote share for the Democrats. Data: CDC Surveillance



Footnote The data are presented as they were reported, and no data cleaning were done to adjust for potential reporting changes and/or errors; e.g. reductions in population level vaccination coverage observed for some states.