

# Phase 3: Final Model

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Run the libraries and load the data

**Step 1: Run Final Models for H1 and H2**

**Step 2: Predicted Probabilities and CI intervals for H1 and H2**

Probability of trusting the 2020 Presidential vote count Logit Model Equation

$$P(\text{Trust Vote Count}) = \frac{1}{1 + e^{-(\beta_0 + \beta_1 \cdot \text{Age} + \beta_2 \cdot \text{Gender} + \beta_3 \cdot \text{Party ID} + \beta_4 \cdot \text{Education Level})}}$$

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
0.02876	0.13220	0.19019	0.18578	0.24662	0.28799

Logit Predicted Probability Results	
Statistic	Value
Average Difference in Predicted Probability	0.1858

Table 1: Logit Regression Results Trust in Vote Accuracy by Perception of Misinfo on FB

	(1)
Intercept	−0.344 (0.237) (0.147)
Perception of Misinformation on Facebook	0.296*** (0.041) ( $<0.001$ )
Age	0.315*** (0.045) ( $<0.001$ )
Education Level	0.416*** (0.041) ( $<0.001$ )
Party ID	−1.546*** (0.048) ( $<0.001$ )
Gender (1 = Female)	−0.359*** (0.085) ( $<0.001$ )
Num.Obs.	3883
AIC	3702.7
BIC	3740.3
Log.Lik.	−1845.367
F	220.378
RMSE	0.39
+ p \num{< 0.1}, * p \num{< 0.05}, ** p \num{< 0.01}, *** p \num{< 0.001}	

Table 2: Logit Regression Results Trust in Vote Accuracy by Exposure to Political News on FB

	(1)
Intercept	0.576** (0.209) (0.006)
Exposure to Political News on Facebook	0.054 (0.034) (0.110)
Age	0.330*** (0.045) ( $<0.001$ )
Education Level	0.443*** (0.041) ( $<0.001$ )
Party ID	-1.565*** (0.048) ( $<0.001$ )
Gender (1 = Female)	-0.390*** (0.084) ( $<0.001$ )
Num.Obs.	3883
AIC	3754.3
BIC	3791.9
Log.Lik.	-1871.162
F	218.980
RMSE	0.39
+ p \num{< 0.1}, * p \num{< 0.05}, ** p \num{< 0.01}, *** p \num{< 0.001}	

Call:

```
glm(formula = trust_vote ~ perception_misinfo + age + profile_educ5 +  
     party_id + gender, family = binomial(link = "logit"), data = d)
```

Coefficients:

	Estimate	Std. Error	z value	Pr(> z )
(Intercept)	-0.34365	0.23675	-1.452	0.147
perception_misinfo	0.29637	0.04074	7.274	3.49e-13 ***
age	0.31470	0.04509	6.979	2.98e-12 ***
profile_educ5	0.41557	0.04113	10.104	< 2e-16 ***
party_id	-1.54569	0.04840	-31.934	< 2e-16 ***
gender	-0.35936	0.08494	-4.231	2.33e-05 ***

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Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 5378.3 on 3882 degrees of freedom

Residual deviance: 3690.7 on 3877 degrees of freedom

AIC: 3702.7

Number of Fisher Scoring iterations: 4

	(Intercept)	perception_misinfo	age	profile_educ5	party_id
coefs	-0.3436550	0.2963725	0.3146991	0.4155747	-1.545693
	-0.3548709	0.2971342	0.3171464	0.4152098	-1.544677
	gender				
coefs	-0.3593625				
	-0.3576462				

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
0.1076	0.1696	0.1859	0.1861	0.2021	0.2555

[[1]]

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
0.4601	0.4784	0.4822	0.4823	0.4867	0.5015

[[2]]

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
0.2935	0.3351	0.3482	0.3478	0.3605	0.4110

[[3]]

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
0.5039	0.5281	0.5340	0.5340	0.5399	0.5606

[[4]]

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
0.1076	0.1696	0.1859	0.1861	0.2021	0.2555

Simulated data Logit Model Summary			
Statistic	Lower 95% CI	Mean	Upper 95% CI
Baseline Predicted Probability (p_mean)	0.470	0.482	0.494
Perception of Misinfo on FB = 1	0.308	0.348	0.384
Perception of Misinfo on FB = 5	0.516	0.534	0.551
Average Effect of Perception of Misinformation	0.140	0.186	0.234

