NPR Study

November 02, 2025

Items

Variable Names

Variable	Description
treatment	Binary indicator of whether a participant was randomly assigned to treatment condition (shown women feedback).
set_num	Indicator of which feedback set was shown (1 or 2, with different percentage values).
women_feedback	Binary indicator of whether women feedback was shown to participant.
women_count	Count of women selected across the three choices (0-3).
women_proportion	Proportion of women selected (DV: ranges from 0 to 1).
age_feedback	Binary indicator of whether age feedback was shown.
age_proportion	Proportion of experts under 50 years old selected.
location_feedback	Binary indicator of whether location feedback was shown.
location_proportion	Proportion of experts based on West Coast selected.
university_feedback	Binary indicator of whether university feedback was shown.
university_proportion	Proportion of experts working at a university selected.
choice-1 to choice-3	The selected AI experts
gender	Self-selected gender.
race	Self-selected race.
age	Self-entered age.
gender_code	Dummy code for gender (male = 1).
race_code	Dummy code for race (white = 1).

Demographics

```
## Excluded Participants: 488
```

```
##                         Percentage gender
## 1                            Woman  55.38
## 2                              Man  43.72
## 3                       Non-binary   0.90
## 4 Another gender not listed here:   0.00
```

```
##                           Percentage  Race
## 1 American Indian or Alaskan Native  0.80
## 2          Asian / Pacific Islander  7.24
## 3         Black or African American 13.17
## 4                 Hispanic / Latinx  6.53
## 5                 White / Caucasian 72.26
```

```
## # A tibble: 1 x 2
##   mean_age sd_age
##      <dbl>  <dbl>
## 1     43.8   13.3
```

```
## Treatment condition:  49.95 %
```

```
## Control condition:  50.05 %
```

```
## Set 1:  52.06 %
```

```
## Set 2:  47.94 %
```

```
## Mean proportion of women selected:  0.399
```

```
## SD proportion of women selected:  0.268
```

```
## # A tibble: 2 x 4
##   treatment  mean    sd     n
##       <dbl> <dbl> <dbl> <int>
## 1         0 0.337 0.251   499
## 2         1 0.462 0.270   498
```

```
##
##  Welch Two Sample t-test
##
## data:  women_proportion by treatment
## t = -7.5779, df = 989.63, p-value = 8.053e-14
## alternative hypothesis: true difference in means between group 0 and group 1 is not equal to 0
## 95 percent confidence interval:
##  -0.15758881 -0.09275928
## sample estimates:
## mean in group 0 mean in group 1
##       0.3366733       0.4618474
```

Primary Analysis

```r
# Primary model: Effect of treatment on proportion of women selected
# As preregistered: includes treatment (gender feedback) and Set1 indicator
r1 <- lm(women_proportion ~ treatment + set_num, data=d0)

# Display the summary with robust standard errors
robust_summary(r1)
```

```
##
## Call:
## lm(formula = women_proportion ~ treatment + set_num, data = d0)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.47377 -0.14043 -0.01474  0.19290  0.67433
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  0.30327    0.02644  11.470  < 2e-16 ***
## treatment    0.12569    0.01652   7.608 6.44e-14 ***
## set_num      0.02240    0.01656   1.353    0.176
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.2607 on 994 degrees of freedom
## Multiple R-squared:  0.05632,    Adjusted R-squared:  0.05442
## F-statistic: 29.66 on 2 and 994 DF,  p-value: 3.082e-13
```

```r
robust_confint(r1)
```

```
##                   2.5 %     97.5 %
## (Intercept)  0.25138581 0.35515915
## treatment    0.09327223 0.15811129
## set_num     -0.01009524 0.05489909
```

Robustness

```
##
## Call:
## lm(formula = women_proportion ~ women_feedback + age_feedback +
##     location_feedback + university_feedback - 1, data = d0)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.46888 -0.13555 -0.00334  0.19779  0.66333
##
## Coefficients:
##                     Estimate Std. Error t value Pr(>|t|)
## women_feedback       0.23526    0.01476  15.935  < 2e-16 ***
## age_feedback         0.12032    0.01892   6.361 3.05e-10 ***
## location_feedback    0.11329    0.01944   5.826 7.64e-09 ***
## university_feedback  0.10306    0.01662   6.202 8.17e-10 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.261 on 993 degrees of freedom
## Multiple R-squared:  0.7065, Adjusted R-squared:  0.7053
## F-statistic: 597.6 on 4 and 993 DF,  p-value: < 2.2e-16
```

```
##                          2.5 %    97.5 %
## women_feedback      0.20629253 0.2642358
## age_feedback        0.08320460 0.1574446
## location_feedback   0.07513442 0.1514474
## university_feedback 0.07044991 0.1356658
```

```
##
##
## Dropout Robustness Check (PREREGISTERED):
```

```
## ========================================
```

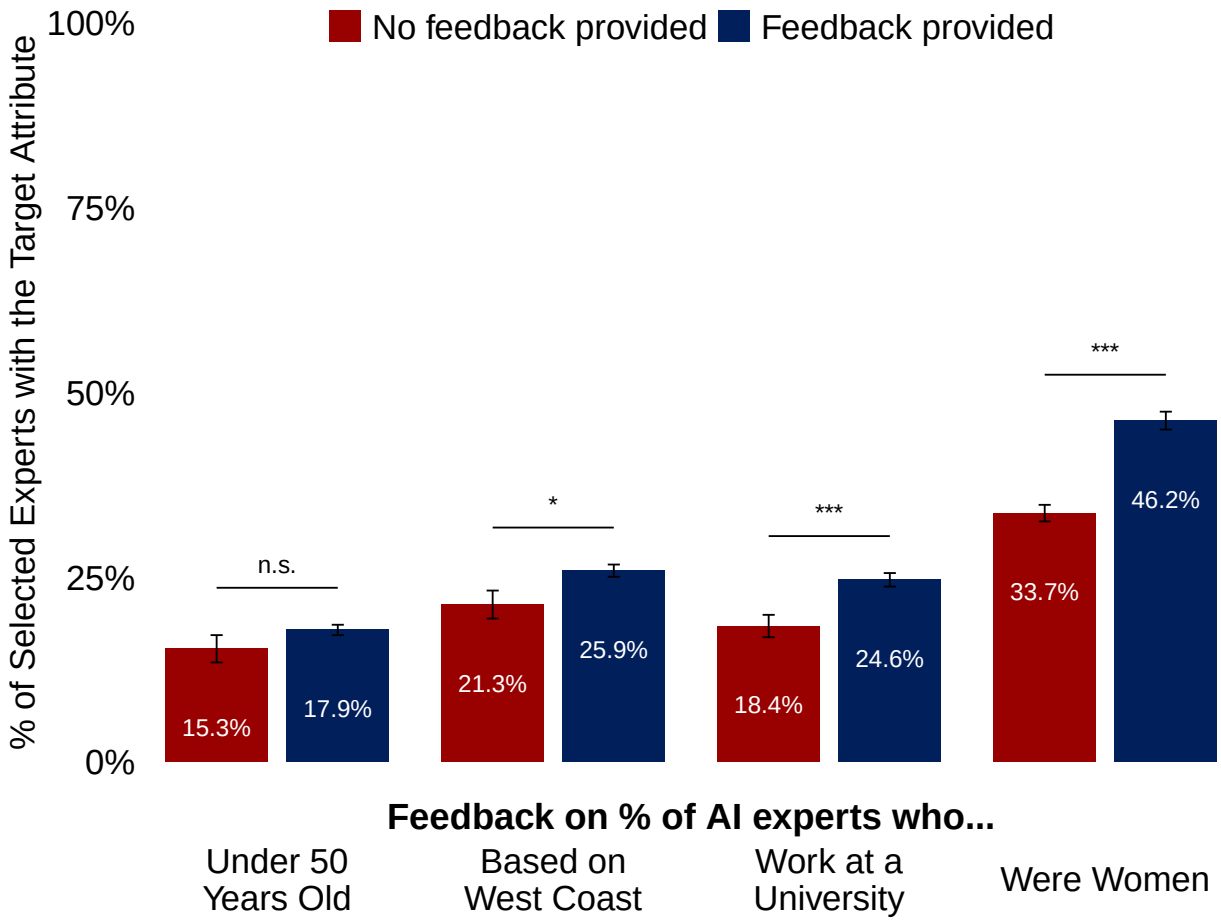
```
## No dropouts detected after condition assignment.
## All participants who were assigned to conditions completed their expert selections.
```

Secondary Analysis: Other Attributes

```
## Effect of age feedback:

##
## Call:
## lm(formula = age_proportion ~ age_feedback, data = d0)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -0.1787 -0.1787 -0.1532  0.1546  0.8213
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   0.15323    0.01854   8.265 4.43e-16 ***
## age_feedback  0.02547    0.01982   1.285    0.199
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.2071 on 995 degrees of freedom
## Multiple R-squared:  0.001648,   Adjusted R-squared:  0.0006449
## F-statistic: 1.643 on 1 and 995 DF,  p-value: 0.2002

##                    2.5 %     97.5 %
## (Intercept)   0.11684555 0.18960606
## age_feedback -0.01343174 0.06436845

##
## Effect of location feedback:

##
## Call:
## lm(formula = location_proportion ~ location_feedback, data = d0)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.25887 -0.25887  0.07446  0.07446  0.74113
##
## Coefficients:
##                   Estimate Std. Error t value Pr(>|t|)
## (Intercept)        0.21303    0.01901   11.21   <2e-16 ***
## location_feedback  0.04584    0.02074    2.21   0.0273 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.2406 on 995 degrees of freedom
## Multiple R-squared:  0.004186,   Adjusted R-squared:  0.003185
## F-statistic: 4.183 on 1 and 995 DF,  p-value: 0.04111

##                         2.5 %     97.5 %
## (Intercept)       0.175726146 0.25033902
## location_feedback 0.005133085 0.08654867
```

```
##
## Effect of university feedback:

##
## Call:
## lm(formula = university_proportion ~ university_feedback, data = d0)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.24647 -0.24647  0.08686  0.08686  0.81604
##
## Coefficients:
##                     Estimate Std. Error t value Pr(>|t|)
## (Intercept)          0.18396    0.01519  12.111  < 2e-16 ***
## university_feedback  0.06252    0.01774   3.523 0.000446 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.2481 on 995 degrees of freedom
## Multiple R-squared:  0.01153,    Adjusted R-squared:  0.01053
## F-statistic:  11.6 on 1 and 995 DF,  p-value: 0.0006851

##                         2.5 %     97.5 %
## (Intercept)         0.15414911 0.21376237
## university_feedback 0.02769668 0.09733716
```

Visualization



System of Simultaneous Equations

```
## Wald Tests for Cross-Equation Comparisons:

## ========================================

## Test 1: Women Feedback Effect vs. Age Feedback Effect

## --------------------------------------------------

## Linear hypothesis test (Theil's F test)
##
## Hypothesis:
## ageeq_age_feedback - womeneq_women_feedback = 0
##
## Model 1: restricted model
## Model 2: unrestricted_age
##
##   Res.Df Df      F    Pr(>F)
## 1   1985
## 2   1984  1 785.65 < 2.2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

##
##
## Test 2: Women Feedback Effect vs. Location Feedback Effect

## ------------------------------------------------------------

## Linear hypothesis test (Theil's F test)
##
## Hypothesis:
## locationeq_location_feedback - womeneq_women_feedback = 0
##
## Model 1: restricted model
## Model 2: unrestricted_location
##
##   Res.Df Df      F    Pr(>F)
## 1   1985
## 2   1984  1 285.21 < 2.2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

##
##
## Test 3: Women Feedback Effect vs. University Feedback Effect

## ------------------------------------------------------------
```

```
## Linear hypothesis test (Theil's F test)
##
## Hypothesis:
## universityeq_university_feedback - womeneq_women_feedback = 0
##
## Model 1: restricted model
## Model 2: unrestricted_university
##
##   Res.Df Df      F    Pr(>F)
## 1   1985
## 2   1984  1 342.51 < 2.2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

##
##
## Summary of Wald Tests:

## ======================

##                           Test F_Statistic P_Value Significant
##         Women vs. Age Feedback      785.65  <2e-16         Yes
##    Women vs. Location Feedback      285.21  <2e-16         Yes
##  Women vs. University Feedback      342.51  <2e-16         Yes
```