```r
#########################
# Regression
#########################

government_hires <- all_govt_hiring %>%
  mutate(month = 1:n()) %>%
  pivot_longer(cols = c(hires_n_nj, hires_n_ct), names_to = "state", values_to = "hires") %>%
  mutate(after_policy = as.numeric(START_DATE >= "2023-10-01"),
         treated = if_else(state == 'hires_n_nj', 1, 0))

did_model <- lm(hires ~  treated * month, data = government_hires)
summary(did_model)
```

```
##
## Call:
## lm(formula = hires ~ treated * month, data = government_hires)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -178.79  -41.37  -11.98   26.81  381.68
##
## Coefficients:
##                Estimate Std. Error t value Pr(>|t|)
## (Intercept)    60.83279   23.91496   2.544   0.0123 *
## treated       218.05902   33.82086   6.447  2.6e-09 ***
## month          -0.09614    0.67081  -0.143   0.8863
## treated:month  -0.20550    0.94866  -0.217   0.8289
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 92.24 on 118 degrees of freedom
## Multiple R-squared:  0.5768, Adjusted R-squared:  0.5661
## F-statistic: 53.62 on 3 and 118 DF,  p-value: < 2.2e-16
```

```r
did_model2 <- lm(hires ~  treated + after_policy + treated*after_policy, data = government_hires)
summary(did_model2)
```

```
##
## Call:
## lm(formula = hires ~ treated + after_policy + treated * after_policy,
##     data = government_hires)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -168.96  -38.52  -12.27   23.58  367.04
##
## Coefficients:
##                       Estimate Std. Error t value Pr(>|t|)
## (Intercept)              60.77      11.59   5.242 7.07e-07 ***
## treated                 219.19      16.40  13.368  < 2e-16 ***
## after_policy            -44.52      45.28  -0.983   0.3274
## treated:after_policy   -114.44      64.03  -1.787   0.0765 .
```

```
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 87.53 on 118 degrees of freedom
## Multiple R-squared:  0.619,  Adjusted R-squared:  0.6093
## F-statistic: 63.89 on 3 and 118 DF,  p-value: < 2.2e-16
```

```
government_hires_sa <- all_hiringSeasonAdj_df %>%
  mutate(month = 1:n()) %>%
  pivot_longer(cols = c(aa_nj_season_adj_hires, aa_ct_season_adj_hires), names_to = "state", values_to =
  mutate(after_policy = as.numeric(year >= "2023-10-01"),
         treated = if_else(state == 'aa_nj_season_adj_hires', 1, 0))

did_model_sa <- lm(hires ~  treated * month, data = government_hires_sa)
summary(did_model_sa)
```

```
##
## Call:
## lm(formula = hires ~ treated * month, data = government_hires_sa)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -146.903  -17.345    0.841   22.978  111.499
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept)    62.6115    11.3171   5.532 1.93e-07 ***
## treated       217.4084    16.0048  13.584  < 2e-16 ***
## month          -0.1626     0.3174  -0.512    0.610
## treated:month  -0.2067     0.4489  -0.460    0.646
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 43.65 on 118 degrees of freedom
## Multiple R-squared:  0.8582, Adjusted R-squared:  0.8546
## F-statistic: 238.1 on 3 and 118 DF,  p-value: < 2.2e-16
```

```
did_model_sa2 <- lm(hires ~  treated + after_policy + treated*after_policy, data = government_hires_sa)
summary(did_model_sa2)
```

```
##
## Call:
## lm(formula = hires ~ treated + after_policy + treated * after_policy,
##     data = government_hires_sa)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -127.879  -12.463    1.948   15.189   98.648
##
## Coefficients:
##                      Estimate Std. Error t value Pr(>|t|)
## (Intercept)            60.084      4.715  12.743  < 2e-16 ***
## treated               217.647      6.668  32.639  < 2e-16 ***
```

```
## after_policy          -38.317     18.413  -2.081 0.039607 *
## treated:after_policy -101.342     26.041  -3.892 0.000165 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 35.6 on 118 degrees of freedom
## Multiple R-squared:  0.9057, Adjusted R-squared:  0.9033
## F-statistic: 377.8 on 3 and 118 DF,  p-value: < 2.2e-16

##
## Please cite as:

##  Hlavac, Marek (2022). stargazer: Well-Formatted Regression and Summary Statistics Tables.

##  R package version 5.2.3. https://CRAN.R-project.org/package=stargazer
```

% Table created by stargazer v.5.2.3 by Marek Hlavac, Social Policy Institute. E-mail: marek.hlavac at gmail.com % Date and time: Thu, May 16, 2024 - 14:24:00

Table 1:

	Dependent variable:	
	hires	
	(1)	(2)
treated	219.193***	217.647***
	(16.396)	(6.668)
after_policy	−44.522	−38.317**
	(45.276)	(18.413)
treated:after_policy	−114.443*	−101.342***
	(64.030)	(26.041)
Constant	60.772***	60.084***
	(11.594)	(4.715)
Observations	122	122
R^2	0.619	0.906
Adjusted R^2	0.609	0.903
Residual Std. Error (df = 118)	87.533	35.599
F Statistic (df = 3; 118)	63.892***	377.787***
Note:	*p<0.1; **p<0.05; ***p<0.01	

Call: lm(formula = hires ~ treated * month, data = government_hires)

Residuals: Min 1Q Median 3Q Max -162.41 -41.90 -15.85 23.66 372.82

Coefficients: Estimate Std. Error t value Pr(>|t|)
(Intercept) 76.9189 31.4743 2.444 0.0171 *
treated 268.2568 44.5114 6.027 7.03e-08 *** month -0.9218 1.4441 -0.638 0.5254
treated:month -2.4587 2.0423 -1.204 0.2327
— Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 93.79 on 70 degrees of freedom Multiple R-squared: 0.6092, Adjusted R-squared: 0.5924 F-statistic: 36.37 on 3 and 70 DF, p-value: 2.786e-14

Call: lm(formula = hires ~ treated + after_policy + treated * after_policy, data = government_hires)

Residuals: Min 1Q Median 3Q Max -166.33 -38.64 -10.83 25.69 346.67

Coefficients: Estimate Std. Error t value Pr(>|t|)
(Intercept) 64.64 15.35 4.210 7.46e-05 ***treated 235.70 21.71 10.856 < 2e-16*** after_policy -48.39 46.69 -1.036 0.3036
treated:after_policy -130.95 66.03 -1.983 0.0513 .
— Signif. codes: 0 '*' ***0.001*** '*' *0.01* '' 0.05 '.' 0.1 ' ' 1

Residual standard error: 88.19 on 70 degrees of freedom Multiple R-squared: 0.6544, Adjusted R-squared: 0.6396 F-statistic: 44.19 on 3 and 70 DF, p-value: 3.884e-16

Call: lm(formula = hires ~ treated * month, data = government_hires_sa)

Residuals: Min 1Q Median 3Q Max -102.432 -17.107 3.512 22.510 89.947

Coefficients: Estimate Std. Error t value Pr(>|t|)
(Intercept) 79.2302 13.3630 5.929 1.04e-07 ***treated 269.5988 18.8981 14.266 < 2e-16*** month -1.0886 0.6131 -1.775 0.08018 .
treated:month -2.5818 0.8671 -2.978 0.00399 ** — Signif. codes: 0 '*' ***0.001*** '*' *0.01* '' 0.05 '.' 0.1 ' ' 1

Residual standard error: 39.82 on 70 degrees of freedom Multiple R-squared: 0.8965, Adjusted R-squared: 0.8921 F-statistic: 202.2 on 3 and 70 DF, p-value: < 2.2e-16

Call: lm(formula = hires ~ treated + after_policy + treated * after_policy, data = government_hires_sa)

Residuals: Min 1Q Median 3Q Max -146.332 -8.575 0.947 15.958 80.195

Coefficients: Estimate Std. Error t value Pr(>|t|)
(Intercept) 63.006 5.795 10.873 < 2e-16 ***treated 233.179 8.195 28.454 < 2e-16*** after_policy -41.238 17.624 -2.340 0.0221 *
treated:after_policy -116.874 24.924 -4.689 1.31e-05 *** — Signif. codes: 0 '*' ***0.001*** '*' *0.01* '' 0.05 '.' 0.1 ' ' 1

Residual standard error: 33.29 on 70 degrees of freedom Multiple R-squared: 0.9277, Adjusted R-squared: 0.9246 F-statistic: 299.3 on 3 and 70 DF, p-value: < 2.2e-16

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$$Y_{it} = \beta_0 + \beta_1 \text{Treatment}_i + \beta_2 \text{Post}_t + \beta_3 (\text{Treatment}_i \times \text{Post}_t) + \epsilon_{it} \quad (1)$$

Table 2:

	Dependent variable:	
	hires	
	(1)	(2)
treated	235.697***	233.179***
	(21.712)	(8.195)
after_policy	−48.386	−41.238**
	(46.693)	(17.624)
treated:after_policy	−130.947*	−116.874***
	(66.034)	(24.924)
Constant	64.636***	63.006***
	(15.353)	(5.795)
Observations	74	74
R^2	0.654	0.928
Adjusted R^2	0.640	0.925
Residual Std. Error (df = 70)	88.194	33.288
F Statistic (df = 3; 70)	44.186***	299.339***
Note:	*p<0.1; **p<0.05; ***p<0.01	

Table 3:

FALSE