Dummy variable: LARGEST surge in passengers flying into the country, with post-treatment

```{r did}

#Treatment is any year after the largest percentage increase in a country's air traffic, given it is over 300%

#Flag when maximum and >= 3

clean\_data <- FULLSET %>%

group\_by(Country.Name) %>%

mutate(flag = ifelse((percent\_increase\_pass >= 100 & percent\_increase\_pass == max(percent\_increase\_pass)), TRUE, FALSE))

clean\_data <- clean\_data %>%

arrange(Country.Name, year) %>%

group\_by(Country.Name) %>%

mutate(flag = ifelse((Country.Name == lag(Country.Name) & (flag == TRUE | lag(flag, default = FALSE) == TRUE)), TRUE, flag)) %>%

mutate(flag = ifelse(cumsum(flag) > 0, TRUE, FALSE)) %>%

mutate(flag = ifelse(is.na(flag), TRUE, flag))

#we can set all NAs to 1, because it will not flag anything if the first instance of this country is treatment, and there are no other NAs produced.

clean\_data <- clean\_data %>%

mutate(treatment = as.integer(flag))

#Post-treatment variable: number of years since the largest increase

clean\_data <- clean\_data %>%

group\_by(Country.Name) %>%

mutate(post\_treatment = cumsum(flag))

#DiD linear regression

did\_model <- lm(data=clean\_data, ln\_FDI ~ ln\_battle\_fatalities +

ln\_GDP + ln\_battle\_fatalities \* treatment + **post\_treatment**)

# bring in covars: `GDP, PPP (constant 2017 international $)` and

# interaction term with battle fatalities and the treatment

#view results checking the interaction term

summary(did\_model)

```

A screenshot of a computer code

Description automatically generated

Note: taking out the post\_treatment term makes treatment become significant at the 5% level:

A screenshot of a computer

Description automatically generated