How Do Changes in In-State Tuition Affect Changes in Undergraduate Enrollment, and Does This Relationship Differ Between Public and Private Institutions?

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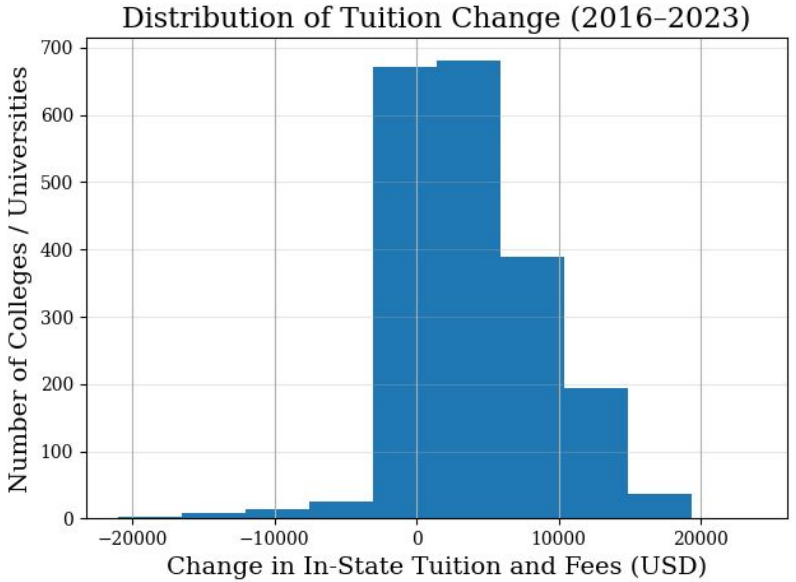
Comparing two years - 2016 and 2023

Null Hypothesis:

-There is no relationship between changes in tuition and enrollment & there is no difference between public and private institutions.

Alternative Hypothesis:

-There is a relationship between change in tuition and enrollment & there is a difference between public and private institutions.



$$\Delta\ Enroll = \beta_0 + \beta_1(\Delta Tuition) + \beta_2(Public) + \beta_3(\Delta Tuition \times Public) + \epsilon$$

Regression Results

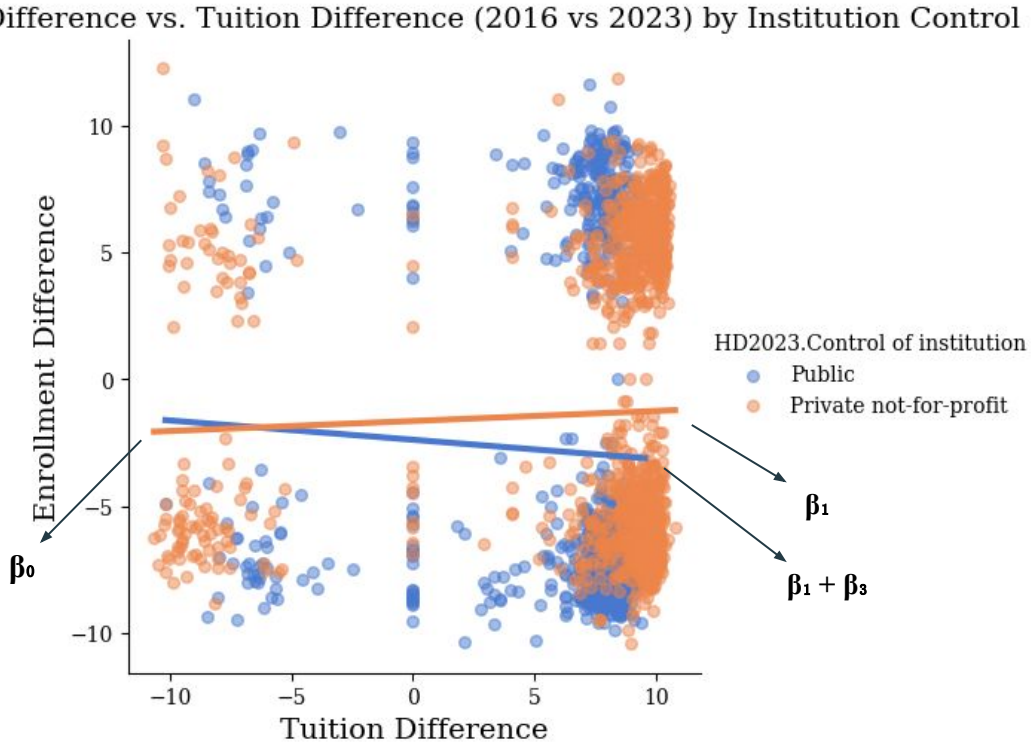
-Effect of tuition changes: p-value = 0.217

-Interaction term: p-value = 0.092
(β_3 Coefficient = -0.1157)

Conclusion:

-Overall, we cannot reject either null hypothesis given a threshold of $p < 0.05$

-However, our interaction term (p-value = 0.092) suggests there may be marginal evidence of public vs private slope difference.



Private institutions: y = -1.6488 + 0.0396x
Public institutions: y = -2.388 - 0.0761x