**Balance Table: College Athletic Rankings**

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Control Treatment Difference

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Academic Quality 0.515 0.466 0.049

Athletic Quality 0.424 0.551 -0.127\*

Near Big Market 0.360 0.700 -0.340\*\*\*

N 100

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*The treatment and control groups are not super similar. The schools in the control overall have higher (but not significantly higher) academic quality, significantly lower quality of athletic programs historically (difference of .127 on a scale of 0 - 1), and are significantly less likely to be located near a large metropolitan area. There is clearly some non-random selection in which schools end up ranked in the top 50. It seems likely that schools in the top 50 have higher athletic quality and are located near big markets (i.e. metropolitan areas).*

*There are definitely more factors at play influencing which schools end up in the control and which in the treatment, than the three outlined in the balance table. We don’t have a clear way of determining what all these variables are and adding them into our matching process. In this context, propensity score matching seems like a good option, as we just look at the propensity of each school to be selected into the treatment versus the control.*

**Simple Model of Rankings**

|  |  |
| --- | --- |
|  |  |
|  | Ranked 2017 |
|  |  |
| Academic Quality | -0.884 |
|  | (0.780) |
|  |  |
| Athletic Quality | 1.964\* |
|  | (0.806) |
|  |  |
| Near Big Market | 1.615\*\*\* |
|  | (0.459) |
|  |  |
| Constant | -1.378\* |
|  | (0.645) |
| *N* | 100 |

Standard errors in parentheses

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

**Stacked Histogram**

Chart, histogram

Description automatically generated

**Treatment effect of being ranked on alumni donations**

I wasn’t sure how to do this part. Here is what I thought might work:

ATT estimation with the Kernel Matching method with blocking: 541.35

*I think this average treatment effect means that propensity to be treated in 2017 increases alumni donations $541,350 overall in the year 2018.*

Regression: Propensity Score with Alumni Donations

|  |  |
| --- | --- |
|  |  |
|  | Alumni Donations 2018 |
| Propensity score | -2516.9 |
|  | (1771.5) |
|  |  |
| Near Big Market | 2073.6\*\* |
|  | (632.2) |
|  |  |
| Academic Quality | -452.5 |
|  | (334.2) |
|  |  |
| Athletic Quality | 1294.2 |
|  | (735.0) |
|  |  |
| Constant | 604.1 |
|  | (360.5) |
| *N* | 100 |

Standard errors in parentheses

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

Treatment-effects estimation (Estimator: propensity-score matching):

|  |  |
| --- | --- |
|  |  |
|  | Alumni Donations 2018 |
| ATE |  |
| Ranked 2017 | 519.0\*\*\* |
|  | (62.84) |
| *N* | 100 |

Standard errors in parentheses

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001