BENEFITS OF COLLEGE ATHLETIC SUCCESS: AN APPLICATION OF THE PROPENSITY SCORE DESIGN

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Abstract

This report attempts to estimate the effect that collegiate athletic success has on a college's donations, applications, acceptance rate, in-state enrollment, and incoming SAT scores. This is done by estimating the probability of winning games for different college football teams, and then conditioning on these probabilities appropriate propensity scores.

Introduction

The purpose of this study was to understand whether high spending on college athletics is at all justified in terms of the potential financial gains. Many colleges around the nation (Texas AM included), tend to invest extreme amounts of money into their sports programs while possibly neglecting other areas of investment. This study was conducted to see if this excessive spending yields greater gains in other areas like enrollment, donations, and attendance, which would ultimately justify this spending.

Data

The data comes from Covers.com and it covers all FBS games played between 1986 to 2009.

Methodology

This study uses data on all FBS games played between 1986 and 2009 and predicts the probability of winning each game for NCAA Division I-A football teams. These probabilities for winning and losing act as propensity scores which the authors use to match winning and losing teams based on observable characteristics. The authors then examine the effects of the each propensity score matched football team's on donations, applications, acceptance rates, enrollment, SAT scores, and academic reputation.

Findings

The findings showed a negative relationship between winning and the acceptance, and a positive relationship between winning and acceptance rates, donations, applications, enrollment, academic reputation, and incoming SAT scores.

Variable	Mean	Std Dev	N	Teams	First Year	Last Year
lag_seaso	5.8629	2.6478	1437	63	1987	2009
lag_seaso	4.5633	2.5079	923	53	1987	2009
lag_seaso	10.7536	0.7697	1437	63	1987	2009
lag_seaso	10.5092	0.9706	923	53	1987	2009
lag_exp_w	5.802354	1.9353	1437	63	1987	2009
lag_exp_w	4.6900	1.6901	923	53	1987	2009
alumni_of	3953265.6	3804502.0	495	54	1999	2009
alumni_of	694784.9	835979.0	430	48	1999	2009
alum_non	11604026.	14817450.	495	54	1999	2009
alum_non	1992362.3	3568827.9	430	48	1999	2009
alumni_to	27610042.	30875879.	1084	63	1990	2009
alumni_to	5358785.3	6751142.3	709	50	1990	2009
vse_alum_	0.1668	0.076725	1104	63	1990	2009
vse_alum_	0.1027	0.0610	733	51	1990	2009
usnews_a	3.498675	0.5373	679	62	1997	2008
usnews_a	2.7117	0.4311	365	43	1997	2008
applicant	16814.85	8043.26	480	63	1999	2007
applicant	9659.85	6402.50	360	51	1999	2007
acceptanc	66.6737	18.5061	1036	62	1988	2008
acceptanc	75.50811	15.7894	555	44	1988	2008
firsttime_	1037.781	591.267	886	63	1986	2008
firsttime_	461.083	524.520	612	53	1986	2008
first_time	2810.793	1536.963	886	63	1986	2008
first_time	2149.820	1073.133	612	53	1986	2008
sat_25	1101.093	103.255	431	62	1999	2007
sat_25	983.735	106.061	287	48	1999	2008

Figure: Enter Caption

Discussion

My findings indicate that increases in the probability of winning are related to positive increases in donations, in-state enrollment, applications, academic reputation, and incoming SAT scores while having a negative relationship with the acceptance rate.

Conclusions

This information can prove extremely useful to colleges who wish to grow their institutions and academic prominence as there is now clear data linking sports performance and many factors that colleges consider to be incredibly important. By utilizing this information, colleges can directly grow their size and incoming student body.