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Technology, Development

Introduction

Education is the development of the individual's mind, body and soul. The aim of education is thus increasing the mental ability through knowledge, understanding and analysis, improving the physical standards through a regimen of exercise and above all the spiritual uplift of the soul through the inculcation of good values. The importance of physical activities and sports is recognized well at the school level. Sports are believed to prepare an alert mind and also enhance the power of the brain. It is a general belief that in higher education physical training and sports is not all that important. At this level studies take the center-stage. This notion is not true which is evident from the participation in sports by the renowned universities. The success in sports increases the popularity of the college. Another important fact is that a good sports performance at the university level also produces a good impression with the employers. The corporate firms have their own sports team who play corporate matches. The corporate matches are not only the way to unwind and refresh it is also a way to increase the interconnections between the different related firms and create a healthy market atmosphere. All these facts have increased the importance of sports at the university level. In today's study we try to find out whether the performance of the college in major sports events increases its popularity among the aspiring students of higher education. We study how number of application for admission to a college is explained by the performance of the college in inter-university sporting events. We have of course taken control for other determinants of the number of applications that a college receives in any year.

Data

Our objective in this study is to find whether the number of applications that a college receives in a year is dependent on its sports performance or not. We also wish to find the extent to which college sports performance may influence its popularity among aspiring students. To find this dependence we need the data on the success rate of different colleges in various sports events. Apart from sports performance, we consider the other variables that determine the number of applications that a college may receive. One important variable in this respect is the student-faculty ratio. If the number of students per faculty member is small for a college it is believed that the quality of education imparted will be quite high as the faculties of less nuber of students to cater to give more attention to each one of them.

The performance of the students in the SAT is also an important determinant. If the college has more number of students with high SAT scores it is generally inferred that the college is preferred by good performers. So, the SAT scores in verbal skills and mathematics have been taken as control variables in our study. If the college gets more number of fresh students from the best high schools it gives an impression that the students of the best performing high schools prefer this college. This of course will have appositive impact on the number of applications. We have taken the data on the number of freshers who come from the top 25 high schools. Often the recent changes in the performance levels of the college have more influence on its reputation. We have also considered the changes in the performance as explanatory variables. We have used 23 variables in our study. There are 118 observations in all. The data has been obtained

from the data file provided with the Jeffrey M. Woolridge's (2009) book on econometrics.

Let us now provide the details of the data that we have used in our analysis.

- apps: number of applications for admission received by the college

- top25: the percentage of fresh students that come from the top 25 high schools in the region.

- ver500: this also a percentage figure. It shows the percentage of freshers who have a SAT verbal ability score of more than 500

- mth500: percentage of freshers who have a SAT maths score of more than 500

- stufac: the student-faculty ratio

- bowl: this variable takes a value = 1 if the college has won a bowling title the previoius year and 0 other wise. It is a dummy variable.

- btitle: This is also a dummy variable that takes the value = 1 if the college has won the basketball championship the previous year and 0 otherwise.

- finfour: This is again a dummy variable which equals 1 if the college team has reached the finals of the basketball championship in the last four years.

- lapps = log(apps)

- d93: this is a dummy variable. d93= 1 if the year of observation is 1993 and d93 = 0 if the year is not 1993.

- avg500 = (ver500 + mth500)/2

- cfinfour: change in finfour.

- clapps: change in lapps

- cstufac: change in stufac

- cbowl: change in bowl

- cavg500: change in avg500

- cbtitle: change in btitle

- lapps_1: lapps lagged

- ctop25: change in top25

- bball: this is a dummy variable which = 1 if the college has won a basket

ball title last year or had been in the finals of the basket ball tournaments in

the last four years.

- cbball: change in bball

Before stating the details about our models let us first study the summary statistics.

VariableObsMeanStd. Dev. MinMax

bowl118. 4576271. 500325801

btitle118. 1186441. 324748201

finfour118. 059322. 237233801

apps11810552. 254963. 74330323342

top250

ver5000

mth5000

stufac11815. 050853. 917629724

avg5000

The summary statistics shows that on an average about 10552 has been

received by the colleges in our review period. The maximum number of

applications received by any college are 23342 and the minimum number of

applications are 3303. The average student-faculty ratio is 15, the minimum being 7 and the maximum 24.

Models

The model specifications depend a lot on the availability of data. The data on the SAT scores were not available for all the years and applicants. Also the percentage of freshers coming from top 25 high schools also had a number of missing portions. We had to drop these variables from our model. We have taken the log(apps) as the dependent variable instead of apps as the variable has a number of outliers. We have taken the student-faculty ratio as the control variables. We have studied the effect of the performance in the basket ball tournaments.

The regression model is given below:

$Log(apps) = \beta_0 + \beta_1 stufac + \beta_2 bowl + \beta_3 btitle + \beta_4 finfour + \beta_5 bball + e$

Results

We have conducted a simple OLS regression of our model. The result is summarized in the following table:

The result has given us some interesting results. We can see that the student-faculty ratio has a negative and significant impact on the number of applications. The coefficient for stufac is -0. 022. This implies that a 1% fall in the student-faculty ratio produces a 2. 2% increase in the number of applications. The t value is -2. 04 indicating that the impact is significant enough. This result was as expected. If the student faculty ratio is low the quality of education imparted is supposed to be higher. So, the number of

applications increases. But the performance of the college in the sports events does not have any significant impact on the number of applications. Though the coefficients are positive the t stat is less than 2 for all the variables related to the sporting performance. The result implies that a very insignificant portion of the students might decide upon the college they want to take admission in on the basis of its performance in the inter-college tournaments.

Figure 1: Scatter Plot showing the relation between no. of applications and student-faculty ratio.

What we infer from the regression results is that the reputation of a college to the higher education aspirants does not depend on the performance of the college in the inter-college tournaments. Only a handful of students having an inclination towards games and sports may choose their higher education institution in the basis of the sporting activities of the college. So in case of higher education the quality of knowledge imparted is the deciding factor.

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