
Online vs. On-Campus: An Analysis of Course Prices of U.S. Educational Institutions

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Abstract

Pricing online courses is an important issue for managing online education. This research note reports a statistical analysis of price differences between online courses and on-campus courses at 103 US educational institutions based on the data available on the Internet. The finding indicates that educational institutions set significantly lower prices of their online courses than that of on-campus courses, private educational institutions set significantly lower prices of their online courses than public institutions, and small institutions or large institutions set significantly lower prices for their online courses than medium-sized institutions.

Introduction

An educational institution must financially sustain, regardless of whether it is for-profit or not. Among many issues of online education management, a question worth discussion is whether online courses should charge more or less than traditional on-campus courses (WCET 2013). Online education involves costs of various technological supports (Gordon *et al.* 2009; Crawford *et al.* 2010; Sharma 2011). On the other hand, online courses can save costs of physical facilities. In fact, costs are not the only factor for educational institutions to consider in making strategic policies including pricing tuitions/fees for online courses (Cheng *et al.* 2002). As higher education has become a global competitive business (Kurre *et al.* 2012; Mazzarol and Soutar 2012), pricing educational products is a strategic tool for educational institutions to compete with each other.

To understand more on how educational institutions manage online courses, this study collects data of course prices from the Internet, and analyzes the data to answer the research question: *how educational institutions with both online and on-campus programs set prices for their online courses differently from that for on-campus courses*. Next section presents the research methodology and data sources. The subsequent sections discuss the findings and the limitation of the study. The final section summarizes the study.

Research Methodology

This survey study collected the data of prices of per credit hour in the two forms (i.e., online and on-campus) from 103 US educational institutions that are available on the Internet. All educational institutions surveyed in this study offer both online programs and regular on-campus programs. To address the research question, diversified types of educational

institutions were sampled for the survey. Specifically, the following five attributes of educational institutes were considered.

- Academic Class: Carnegie classification (Doctoral/Research, Master’s, Baccalaureate, etc.)
- Scale: Total student enrollment (Small, Midsized, Large);
- Funding Source: Public or Private;
- Online Course Administration: Registrar’s Office or Continuing Education (or others); and
- Program Level: Undergraduate or Graduate.

The major source of the values of these attributes of the sampled educational institutions was UnivSource (2015). Among the survey 103 sample elements of educational institutions, 81 sample elements contain complete values of the above five attributes, and 22 sample elements had missing values in some attributes but contained useful data of prices of courses in the two forms for the analysis. To utilize the limited data sample, slightly different numbers of sample elements were used in testing independent hypotheses. Table 1 shows the profile of the sample of this study.

Factor	Type	Number of Sample Elements (103 Institutions in total)
Academic Class (Carnegie Classification)	Doctoral/Research	36
	Master’s	40
	Baccalaureate and Others	27
Scale (Total Student Enrollment)	< 5,000	40
	5,000 – 15,000	29
	> 15,000	33
Funding Source	Public	58
	Private	45
Online Course Administration	Registrar’s Office	38
	Continuing Education (or others)	63
Program Level	Undergraduate	99
	Graduate	101

Table 1. Profile of Surveyed US Educational Institutions

Issues of online course pricing are important and complicated. The literature of issues of online course pricing is scarce. This study makes an initial attempt to test hypotheses of whether different types of educational institutions set the same prices for their online courses and on-campus courses. The data-based evidences might be helpful for administrators to understand more about how different types of educational institutions adopt different online course pricing strategies and practices. The null hypotheses are:

H01: Educational institutions set the same prices for their online courses and on-campus courses.

H02: Academic levels of educational institutions have no effect on setting the prices of the two forms of courses.

H03: Scale of educational institution has no effect on setting the prices of the two forms of

courses.

H04: *Funding-source of educational institution has no effect on setting the prices of the two forms of courses.*

H05: *Online course administration body has no effect on setting the prices of the two forms of courses.*

H06: *Program level has no effect on setting the prices of the two forms of courses.*

It is practically difficult to compare the prices at the level of individual course. Normally, the data available on the web sites of educational institutions show the regular prices per-credit-hour for courses in the two forms. Regular prices per-credit-hour were used for the analysis in this study. Paired *t*-test was used for testing H01, and regression was used for testing other five hypotheses.

Findings

The major findings are summarized as follows.

1. Overall, educational institutions set significantly lower prices of their online courses than that of on-campus courses, and H01 is rejected ($t_{185}=8.07, p<0.00001$). On average, the price of an online course could be about one-third less than the price of an on-campus course.
2. H02 is not rejected ($F_{1,82}=0.29, p<0.59$); that is, academic levels of educational institutions have no effect on setting the prices of the two forms of courses.
3. Scale of educational institution has a significant effect on setting the prices of the two forms of courses, and H03 is rejected ($F_{1,183}=446, p<0.00001$). Specifically, small institutions or large institutions set significantly lower prices for their online courses than medium-sized institutions.
4. Private educational institutions set significantly lower prices of online courses than public institutions, and H04 is rejected ($F_{1,184}=19.1, p<0.00001$).
5. H05 is not rejected ($F_{1,87}=1.92, p<0.17$); that is, online course administration body has no effect on setting the prices of the two forms of courses.
6. H06 is not rejected ($F_{1,183}=1.50, p<0.23$); that is, program level has no effect on setting the prices of the two forms of courses.

Limitations of the Study

The study has limitations in several aspects. First, only US educational institutions were surveyed. The findings might not be relevant to educational institutions in other countries, especially those with different social and economic systems. Second, the sample was rather small given the large population of educational institutions in the US. Thus, the margin of error could be considerable. Third, the data posted on the Internet may not be accurate. Fourth, more importantly, this survey study does not reveal deep strategic considerations for pricing online courses at these institutions. Interviews and questionnaires are certainly needed to gain more understanding of diversified strategies for pricing online courses. Clearly, this research note presents data-based evidences, and future studies are necessary to

investigate critical issues of online course pricing strategies and practices.

Summary

This research note reports an analysis of comparison of prices of online courses and prices of on-campus courses of undergraduate programs based on the data of 103 US educational institutions with diversified types. The findings indicate that educational institutions set significantly lower prices for their online courses than that for on-campus courses, private educational institutions set significantly lower prices for their online courses than public educational institutions, and small institutions or large institutions set significantly lower prices for their online courses than medium-sized institutions.

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