



Oxford Education Assessment Centre

Yanhong Li and Gordon Stanley

Introduction

Grade inflation has been a hot topic in the public media for many years, yet only a handful of empirical researches have been carried out to unravel the grading problems in the higher education sector. Also the results of existing research on grade inflation are far from robust. It was therefore decided to carry out this study. A balanced panel data, which contains 276 courses were extracted from a university information database in the UK. The DEA Malmquist index and its components were computed for every course from 2000 to 2006 to identify the trend in grade inflation and grade compression.

Methodology

1. DEA Malmquist Index Analysis

$$M_{t,t+1}(y^{t+1}, x^{t+1}, y^t, x^t) = \frac{D^t(y^t, x^t)}{D^{t+1}(y^{t+1}, x^{t+1})} \times \left[\frac{D^{t+1}(y_{t+1}, x_{t+1})}{D^t(y^{t+1}, x^{t+1})} \times \frac{D^{t+1}(y^t, x^t)}{D^t(y^t, x^t)} \right]^{1/2}$$

DEA Malmquist index: M

Efficiency change index: the first part of ratio in the equation.

Technical change index: the second part of ratio in the equation.

2. Inputs and Output variables:

(i) Y_1 : GAP (grade average point)

(ii) Y_2 : Percent of A+B plus

(i) x_1 : Percent of home students ;

(ii) x_2 : Percent of female students;

(iii) x_3 : Percent of mature students (21 years or older) ;

(iv) x_4 : Average tariff score .

Year	GPA			% of A plus B+		
	Effch index	Techch index	Malmquist Index	Effch index	Techch index	Malmquist Index
2000	---	---	---	---	---	---
2001	1.062	0.972	1.033	1.119	0.919	1.028
2002	1.075	0.917	0.985	1.034	0.982	1.016
2003	0.824	1.179	0.972	0.693	1.356	0.939
2004	1.162	0.864	1.004	1.241	0.81	1.005
2005	0.956	1.078	1.031	1.037	1.015	1.053
2006	1.021	0.988	1.009	0.986	1.067	1.052
Average	1.011	0.995	1.005	1.003	1.012	1.015

	% of A plus B+		
	Effch index	Techch index	Malmquist index
Applied	0.994	1.035	1.028
Art & Humanities	1.039	1.013	1.053
Business	1.010	0.999	1.008
Medicine aliened	0.996	0.983	0.979
Science	0.997	1.029	1.028
Social-science	1.028	1.005	1.033
Ext. body	1.006	1.014	1.020
none-ext. body	1.010	1.014	1.025

	GPA		
	Effch index	Techch index	Malmquist Index
Applied	1.000	1.015	1.014
Art & Humanities	1.025	0.999	1.024
Business	1.019	0.978	0.997
Medicine aliened	1.004	0.977	0.982
Science	0.995	1.010	1.005
Social-science	1.035	0.986	1.021
Ext. body	1.011	0.997	1.008
none-ext. body	1.013	0.996	1.008

Conclusion

The result of this study suggested that :

- (1) Overall there is evidence of grade inflation and grade compression;
- (2) Effch and Techch both have a positive effect on grade compression, but for grade inflation only Effch has positive effect on it;
- (3) The external examination body does not have much effect on grade results;
- (4) Humanity and Social science subjects, referred as "soft" subjects, experienced a larger grade increase than that of Science, Math and Technology subjects.