CLAS: Colby Liberal Arts Symposium

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Financial Crisis and Its Impact on Institutional College Financial Aid

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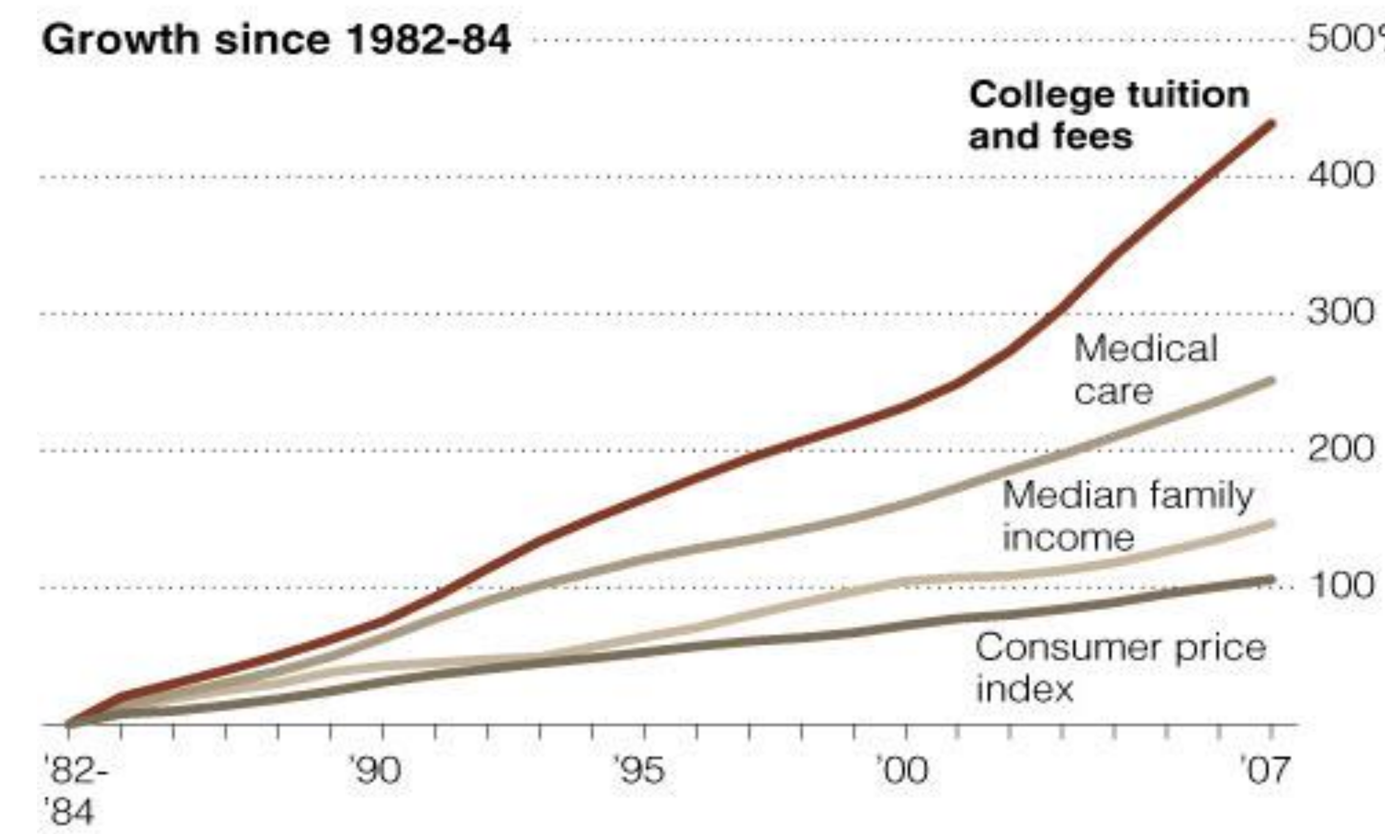
Abstract: According to Professor Ronald Ehrenberg of Cornell University, "for at least a century, tuition at selective private colleges and universities has risen annually by 2-3% more than the rate of inflation". It was not until the 1980's that college tuition growth finally exceeded the growth of median family income in America.[1] As college becomes more difficult to pay for, more undergraduate students have begun to rely on financial aid to pay for tuition. Consequently, about 75% of full-time undergraduate students in the U.S. receive some form of financial aid from colleges.[2] The countercyclical nature of the demand for student financial aid poses the question, how do colleges respond to the higher demand for institutional aid during times of financial crisis? The aim of our project is to analyze the association between the Great Recession of 2008-2009 and institutional aid giving in our sample of 40 private liberal arts colleges in the United States, nine of which are NESCAC. Factors that we observed are GDP, state unemployment rate, institutional endowment assets, institutional expenses, and enrollment. Though the results do not support our hypothesis, that the Great Recession had a negative shock on institutional aid giving, we discover that changes in endowment assets, enrollment, and college expenditure had an impact on the amount of institutional aid distributed by colleges in the sample.

Soaring College Tuitions

College tuition continues to outpace median family income and the cost of medical care, food and housing.



Source: "Measuring Up 2008," the National Center for Public Policy and Higher Education

THE NEW YORK TIMES

VARIABLES	Pooled Data	Pooled Data - NESCAC	Fixed Effects: College and Year
Unemployment	0.004 (-0.01)	-0.0009 (-0.01)	0.02 (-0.02)
Enroll	-0.0002*** (0.00)	-0.0002*** (0.00)	0.0002** (0.00)
Log(expn)	1.24*** (-0.10)	1.38*** (-0.10)	0.45*** (-0.15)
Log(endow)	-0.17*** (-0.04)	-0.18*** (-0.03)	0.05 (-0.09)
recessionXlogendow	0.01 (-0.03)	0.01 (-0.03)	0.0048 (-0.01)
Log(gdp)	1.84** (-0.77)	1.75** (-0.73)	
Recession	-0.21 (-0.57)	-0.22 (-0.52)	
NESCAC		-0.33*** -0.05	
Constant	-57.65** (-23.16)	-57.22*** (-21.85)	6.84** (-2.80)
Observations	320	320	320
R-squared	0.8	0.82	0.78

Robust standard errors in parentheses
***** p<0.01, ** p<0.05, * p<0.1**

CBB's Institutional Aid Over Time
(In millions of real dollars)

	2004	2005	2006	2007	2008	2009	2010	2011
Colby	16.81	17.85	18.51	17.81	19.41	20.17	19.90	22.01
Bates	15.53	15.86	15.69	16.21	18.44	19.84	19.58	23.61
Bowdoin	16.18	16.42	16.51	16.27	20.65	22.64	22.35	25.56

Data Analysis and Results:

For our research project we hypothesized that the Great Recession negatively impacted the amount of institutional financial aid distributed to students. Our results, however, tell a very different story. After controlling for college specific and year specific effects, we found that economic variables such as GDP and state unemployment rate were statistically insignificant, having no effect on predicted institutional aid. Additionally, being in the recession years was statistically insignificant in predicting institutional aid. Log of endowment assets, endowment assets being affected by economic conditions, was also statistically insignificant. The results imply that the nation's economic well-being is irrelevant to the amount of institutional aid allocated by colleges in our sample. Variables such as enrollment and log of expenses turned out to be statistically significant variables that had a predicted effect on institutional aid giving. The fixed effects model predicts that a one person increase in enrollment is related to a .02% increase in institutional aid, holding all other variables constant. This is an important finding as it suggests that as college enrollment increases, colleges increase the amount of institutional aid distributed. Although, it is possible that proportion of institutional aid that each student receives decreases because of additional students. In our model we also observed that a 1% increase in institutional expenses is related to a .45% increase in predicted institutional aid, holding all other variables in the model constant. This is a positive sign for students of the colleges in our sample, signifying that the increase in college expenses does not hinder the amount of institutional aid and actually pertains to its increase. Taken as a whole, our research has produced an interesting model that could help support the argument that recession itself is not a significant factor unlike other factors, such as college expenses and enrollment.

[1] **Ehrenburg, Ronald.** 2002. "Tuition Rising: Why College Costs So Much." <http://net.educause.edu/ir/library/pdf/ffp0005s.pdf>.

[2] "Financial Aid: FAQs." The College Board. <https://bigfuture.collegeboard.org/pay-for-college/financial-aid-101/financial-aid-faqs>.