

DOCUMENT RESUME

ED 355 901

HE 026 344

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 TITLE Study Examines Price and Quality in Higher Education. Research in Brief.  
 INSTITUTION Office of Educational Research and Improvement (ED), Washington, DC.  
 REPORT NO IS-91-928  
 PUB DATE Mar 91  
 NOTE 4p.; For the complete report summarized here, see ED 326 146.  
 PUB TYPE Information Analyses (070)

EDRS PRICE MF01/PC01 Plus Postage.  
 DESCRIPTORS \*Educational Quality; Evaluation Methods; Higher Education; \*Institutional Characteristics; Institutional Research; \*Outcomes of Education; Private Colleges; School Holding Power; Selective Colleges; \*Student Costs; \*Tuition

ABSTRACT

This research brief summarizes the findings of a recently completed study entitled "Price and Quality in Higher Education," by Jeffrey L. Gilmore. The report examines "two unquestioned assumptions" now operating in American higher education: that there is a positive correlation between cost and quality in higher education and that colleges have a positive impact on student learning and progression toward a degree. Using data on 593 private liberal arts colleges from the 1985-86 academic year, the study first assesses the relationships between tuition and traditional measures of institutional quality: selectivity, reputation, financial and physical resources, curricular diversity, and student-faculty ratios. The study concluded that a significant, positive correlation exists between tuition and such indicators. However, the analysis also revealed a wide range of quality within each price class. An effort to measure the effects of institutional finances, characteristics, and program on students' education progress showed that although a combination of student and institutional characteristics explained more than 60 percent of college effectiveness in promoting students' educational progress, price alone had a significant direct effect on student outcomes. Price was found to have the second highest overall impact on college completion with student ability ranking first.

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## Study Examines Price and Quality in Higher Education

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# Research In Brief

Office of Educational Research and Improvement  
Christopher T. Cross, Assistant Secretary

U.S. Department of Education  
Lamar Alexander, Secretary

## Study Examines Price and Quality in Higher Education

Is the quality of a college reflected in the price it charges for tuition and fees? Can parents and students count on more costly institutions to provide a superior education, or does it pay to shop around? And are students who attend high-priced institutions more likely to earn a degree than those enrolled in less costly colleges and universities?

These and other questions are the focus of a recently completed study by Jeffrey L. Gilmore, a researcher at the U.S. Department of Education's Office of Educational Research and Improvement (OERI). The report, *Price and Quality in Higher Education*, examines "two unquestioned assumptions" now operating in American higher education—first, that there is a positive correlation between cost and quality in higher education and, second, that colleges have a positive impact on student learning and progression toward a degree.

### Does High Price Assure High Quality?

Using data on 593 private liberal arts colleges from the 1985-86 academic year, the study first assesses the relationships between tuition and such traditional measures of institutional quality as selectivity, reputation, financial and physical resources, curricular diversity, and student-faculty ratios. Concluding that a significant, positive correlation exists between tuition and 27 of 29 indicators, the author reports that more costly schools earn high marks in areas such as resources, selectivity, reputation, and student educational outcomes. However, faculty-student ratios and the number of remedial programs are not linked to high tuition rates.

But while the analysis indicates that higher priced institutions are *generally* superior, it also reveals a wide range of quality in each price class. Indeed, 31 percent of the colleges ran counter to the general trend, with some of the lowest priced colleges outperforming the costliest institutions in several areas and with some of the most expensive performing poorly. These findings, in turn, support two rather contradictory assumptions that parents and students frequently make about the relationship between price and quality. That is, while you may indeed "get what you pay for," one can also conclude that "it pays to shop around." What this means is that higher prices at one particular institution as compared to another, or at the same institution from one year to the next, may *not* represent real differences in institutional quality. Rather they may reflect

operational inefficiencies, marketing strategies, or a re-allocation of resources toward a goal unrelated to student outcomes.

Additional analyses reveal that some colleges with low endowments have high student prices but fail to deliver correspondingly high quality, services, financial aid, or student outcomes. Students at these institutions not only bear a greater share of their institution's total expenditures (64 percent versus 47.6 percent at more generously endowed institutions), but they also receive a smaller proportion of financial aid. The aid gap (the difference between tuition charges and student assistance) for students on aid at these less endowed institutions was \$2,308, compared with \$1,603 for students at the low-cost, high-performance schools.

Yet despite the "cost burden" and the "aid gap," application rates at these same institutions are 10 percentage points higher than those at less costly colleges. Such strong demand indicates, in turn, that prospective students and parents are either judging quality on the basis of price alone, or—since these colleges are significantly more likely to invest in physical plants over academic resources—on the basis of appearance. Thus, it seems that colleges which raise tuition beyond the inflation rate not only boost recruitment, but obtain pay-offs in enhanced revenues.

The study also suggests one possible basis for the apparent differences in performance among high- and low-cost institutions. The more expensive schools—even those capable of providing larger amounts of student aid—remain out of reach for less affluent students. As a result, these students tend to congregate in the less costly colleges, which not only have less revenues to spend on quality improvements, but which must set aside a greater part of their limited resources for student aid and remedial services.

### Does College Cost Affect Student Outcomes?

A second objective of the study was to measure the effects of institutional finances, characteristics, and programs on students' educational progress—a composite of freshman GPA, sophomore retention, and graduation rates. Interestingly, findings here show that although a combination of student and institutional characteristics explained more than 60 percent of college effec-

tiveness in promoting students' educational progress, price alone had a significant direct effect on student outcomes.

Indeed, price was found to have the second highest overall impact on college completion, with student ability ranking first. The study offers ample evidence that higher prices not only raise institutional prestige and revenues, but that paying a higher price may strengthen a student's psychological commitment to graduation.

The analyses also reveal that certain institutional characteristics may be more effective than others in promoting students' educational progress, with academic enrichment programs and student activities having the most positive impact. On the other hand, the percentage of faculty holding doctoral degrees had no significant effect on students' progress, and some factors were found to actually hinder attainment. Surprisingly, the percentage of full-time faculty was one such factor, and produced particularly negative results at less selective institutions. This indicates that a "faculty research culture" may not be beneficial to low-ability students.

Equally surprising, the study finds that faculty-student ratios were *not* a significant factor in students' educational progress, and it surmises that faculty members' unmeasurable, out-of-class interactions may hold the key. The frequency of such interactions may be linked to faculty teaching loads, dedication, and availability rather than to class ratios. This suggests that institutions could realize some cost savings through small increases in class size.

One of the most important findings is that at-risk students had poorer educational progress than others, even after controlling for ability. Older, part-time, and minority students show less educational progress, even

when their ability level is the same as traditional students. This seems to suggest that these students are not necessarily at risk just because they are unprepared, but that institutional factors may play a more important role than thought in their retention and graduation rates.

## Implications for College Administrators, Policymakers

These findings point to several ways that college administrators and policymakers can realign programs and reallocate resources to raise performance levels and reduce costs. Primary among them are the development and articulation of a clear vision of the institutional mission. Deciding whether the institution's primary business is research or teaching and determining who its clients are—for example, graduate school-bound overachievers or disadvantaged students seeking a better life—can provide leaders with reference points necessary for making critical decisions about such things as program diversity, resource allocation, and assessment criteria. Also, the elements identified here as having direct positive or negative effects on student outcomes are under direct administrative or faculty control and, thus, can be altered to further the institutional mission.

Jeffrey L. Gilmore, Writer  
Kathleen C. Price, Editor

*Price and Quality in Higher Education* is available for \$7 from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. When ordering, please include the stock number, 065-000-00436-4.

March 1991

IS 91-928

U.S. GOVERNMENT PRINTING OFFICE: 1991 O-864-818

United States  
Department of Education  
Washington, D.C. 20208-5570

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