

Determination of Annual Increase in Educational and Related Course Enrollment Fees

Introduction

Establishing a policy for annually adjusting the charge for educational and related course enrollment fees requires the exercise of value judgments in order to choose from among many possible criteria. Historically, many public institutions of higher education have not attempted to develop explicit pricing policies until the financial pressures of the 1980s and early 1990s forced institutions to dramatically raise fees above normal rates of inflation. As costs escalated and exceeded annual increases in state appropriations and other sources of revenue, colleges and universities were forced to weigh the advantages of maintaining accessibility through low student fees against the erosion of quality associated with a stagnate or declining resource base. Many institutions chose quality over access and passed along the rising cost of operations to the consuming public through significant increases in fees.

In considering possible criteria for setting the annual increase in educational and related course enrollment fees, the Subcommittee reviewed the literature but found no single criteria generally recognized as appropriate. In brief, the literature suggests the following possible criteria.

1. **Proportional Cost Pricing.** On average, educational fees should recover “a fixed proportion of the real cost of an education.” This approach was advocated in the 1980s by the Missouri Coordinating Board for Higher Education and is currently in use in several other states. Use of this criterion requires a definition of the full cost of education and an agreement in regard to the proportion of the cost that should be covered by students and other sources of revenue, including state appropriations. This approach to adjusting fees acknowledges that the benefits of higher education are realized by both the individual and society as a whole.
2. **Externally Indexed Pricing.** Educational and related course enrollment fees should increase at the same rate as an established economic index (e.g., Consumer Price Index, Implicit Price Deflator for State and Local Government, Higher Education Price Index). Implementation of this criterion represents an effort to keep the “real price” of educational fees at a constant level over time. Since 1998, the University of Missouri has adjusted its educational and related course enrollment fees using this approach. For comments on the advantages and disadvantages of using various indices see Appendix A).

3. **Peer Pricing.** Increases in educational and related course enrollment fees should be determined by the rate of increase in fees of a peer group of higher educational institutions. Implementation of this criterion is based in part on the concept of staying competitive within a particularly target market.
4. **Value Added Pricing.** Educational and related course enrollment fees should be set, at least in part, to reflect the “expected market value of an education over the course of a student’s career.” Application of this approach is probably most applicable to first-professional programs (e.g., medicine, dentistry, veterinary medicine, law, optometry).
5. **Residual Pricing.** Anticipated expenditures should be determined; other sources of revenue should be estimated, including state funds; and, finally, educational and related course enrollment fees should be set to cover the difference between expected expenditures and other revenues. The public and many political leaders would argue that this has been the implicit policy of most institutions in higher education, particularly in the independent sector.
6. **Mandated Pricing.** Educational and related course enrollment fees should reflect “the explicit or institutionally perceived preferences of legislatures and public agencies.” Indeed, there are some states in which the state legislature prescribes the annual adjustment of student fees in public colleges and universities.

In setting the annual adjustment in educational and related course enrollment fees, the Subcommittee recognizes the importance of several goals and objectives in the University’s strategic plan that affect institutional pricing policies. One of the objectives of the strategic plan is to provide student access and appropriate assistance for all students who demonstrate the ability to benefit from the University’s programs. In doing so, the University must provide educational opportunity and compete effectively. Another objective of the strategic plan commits the University to provide quality educational programs that can achieve national recognition. A third critical objective focuses on the need to achieve cost efficiencies. These objectives provide ample context in which to consider appropriate policies for annually adjusting educational and related course enrollment fees. The Subcommittee does not recommend a single criterion, as has been used since 1998, for determining the annual increase in fees. The Subcommittee believes that the advantage of simplicity in a single criterion are far outweighed by the loss of flexibility implicit in such an approach and by the lack of clear evidence that any single criterion is superior to others.

Environmental Context for Considering Future Adjustments to Educational and Related Course Enrollment Fees

The University of Missouri operates within a state context in which there is an expectation by Missouri Coordinating Board for Higher Education, the General Assembly, and the Executive Branch that individual institutions should be reasonably priced. Specifically, the expectations are threefold.

1. With institutional commitment to cost containment strategies and continued strong financial support from the state, public institutions should commit to keeping student fees as low as possible, taking into account families' ability to pay and the mission of the institution, among other factors.
2. Pricing policies should be based on consensus regarding the proportional share of the cost of delivering instruction that the student and the state should each pay with similar or common missions, governance, and control.
3. Institutional pricing policies should be based on a publicly disseminated five-year funding plan that incorporates long-range projections of revenues (for example, tuition and fees, state appropriations, and local support) and expenditures (for example, salaries, financial aid budget, and physical plant maintenance and upgrades).

Historically and in the most recent few years, the University of Missouri has been responsive to the second and third expectations noted above. As early as the mid-1980s, the University attempted to maintain a pricing policy in which undergraduate students were expected to pay approximately one-third the cost of education with the state contributing two-thirds. During the 1993-97 period, when state funds stagnated and educational fees escalated ten percent per year, the cost-sharing ratio shifted and more of the cost of education began being assumed by students. By fiscal year 1998, students were paying approximately 38 percent of the cost of education. However, this ratio varies significantly by campus, ranging from as high as 47 percent to a low of 31 percent.

For the past two years, the University of Missouri has developed rolling five-year budget projections for each major component unit within the university system. These projections include estimates of revenues by source and expenditures by object of expense, including salaries and wages, staff benefits, and equipment and general operating expense. Within the context of these budget projections, educational and related course enrollment fees are assumed to grow at a rate of 3 percent annually.

Recommended Factors for Adjusting Educational and Course Related Enrollment Fees

The Subcommittee does not recommend a single criterion for annually adjusting educational and required fees. To do so limits the financial flexibility of the University and opens up unnecessary risks to its operations. Furthermore, the research literature does not reveal a single presence of superior or dominate criterion. The Subcommittee believes that wiser pricing decisions can be made if a multiple criterion approach is applied.

Accessibility

The Subcommittee recommends that annual adjustments to educational and course related fees take into consideration the ability to pay as reflected by appropriate economic measures of individual and family income growth as well as the actual out-of-pocket charges student pays after financial aid is applied to their course enrollment bill.

The University must ensure that its programs are both financially affordable and accessible to those wishing to enroll at one of its four campuses. Meeting these objectives

requires consideration of not only ability to pay but also of what the student actually pays after receiving financial aid. Ability to pay is reflected by growth in Missouri personal income, median family income, and other measures of economic growth in individual income and wealth. With regard to what the student actually pays there are two issues of concern – affordability and accessibility. Affordability focuses on what the student pays after grants and scholarships are applied to the student’s enrollment charges. Accessibility is concerned with what the student pays after *all financial aid* (e.g., grants, scholarships, loans, work study) is applied to the student’s enrollment charges. By taking loans and work study into consideration, the latter concept provides a sound measure of financial access to the University, even though loans must be repaid and compensation is received through student employment with the institution.

Maintain Quality Programs

The Subcommittee recommends that annual adjustments to educational and course related enrollment fees take into consideration the need to maintain and enhance program quality and in selected areas attain national recognition.

Continuous improvement in program and service quality is a hallmark of the University’s strategic plan and critical to the future success of the institution. To realize the University’s vision, as an eminent learner-centered research university, requires maintaining a resource base sufficient to promote quality at all academic levels. Garnering these resources, in turn, requires strategies for growing revenue from all resources, both public and private. This includes reasonable expectations of growth in student fees and state appropriations. Stagnation or decline in the contribution rate of any of these sources of income necessitates additional augmentation from others, including additional contribution from those consuming the institution’s programs and services.

Price Competitively

The Subcommittee recommends that annual adjustments to educational and course related enrollment fees take into consideration an annual comparison of UM fees to competitor and comparator groups of institutions, both within and outside the State of Missouri.

Pricing comparisons, both with competing and peer institutions are useful in two ways. They provide an assessment of fairness and also some indications as to whether the University’s fees are unacceptably out of line with competing institutions, particularly at the undergraduate level. However, these are global comparisons, and any attempt to match prices, or give such comparisons an equal weight with other criteria in setting fees, is giving too much significance to the data than is warranted, with the possible exception of selected professional programs.

Price Relative to Cost

The Subcommittee recommends that annual adjustments to educational and course related enrollment fees take into consideration the proportion of the cost of education to be covered by educational fees.

The Subcommittees believes there is value in examining the relationship between the educational fees and the cost of education. The ratio of educational fees to cost of education has

the virtues of being quantifiable and easily used in comparison. It brings the issue of sharing the cost of education between the student and the state to the forefront. In light of the fluctuation in state economic conditions and support for higher education, this measure can signal to the consuming public the extent to which prices will rise because of stagnate or limited growth in state support for higher education.

Within the context of this recommendation, it should be pointed out that the University could affect the price-cost ratio in two ways, either from the price side of the equation or from the cost side. Given the current attention in higher education on strategies for containing cost, the University would be well advised to make concerted efforts to control the growth in cost while continuing to provide the high quality education that students expect.

In addition to examining the proportion of the cost of education covered by educational fees, the University should also take note of two other ratios: the ratio of unrestricted student fee revenue to total unrestricted educational and general revenue and the relationship between increases in educational fees and the inflationary increases in University costs. These cost increases are reflected in the University's need to maintain competitive salaries, fund on-going plant maintenance and repair, address benefit inflationary increases, and maintain an adequate information technology infrastructure.

Appendix A

From an economic perspective, adjustments for inflationary growth in prices are typically accomplished through the use of a price index. A typical price index tracks the change in price of a representative market basket of goods and services over time. Changes in the price of the same quantity and quality of goods and services over time constitute inflation because more nominal dollars are required to obtain the same level of real goods and services.

Because a representative market basket of goods and services varies according to who is being represented, different price indices are calculated to measure the inflationary pressures encountered by different individuals or entities. For instance, the Bureau of Labor Statistics' Consumer Price Index (CPI) tracks changes in the prices of the typical household's purchases (e.g., food, housing, transportation, medical service, etc.), whereas the Producer Price Index (PPI) tracks changes in the prices of a typical organization's purchases (labor costs, raw materials, insurance, etc.).

From a methodological perspective, if a price index is to accurately reflect inflationary changes, the market basket it is predicated on must closely match the consumption patterns of the individual or entity of interest. This is true, not only of the types of goods and services purchased but also of the relative weights associated with each category of goods or services purchased. If the goods and services, and the relative weights are not representative of the individual or entity of interest, the price index will provide potentially misleading information on the inflationary pressures experienced by that individual or entity.

Economic Indices Applicable to Higher Education

There are three main price indices that could be used to account for the inflationary pressures experienced by institutions of higher education:

- *Consumer Price Index (CPI)* --- The CPI is produced by the U.S. Bureau of Labor Statistics (BLS). It measures average changes over time for a fixed market basket of goods and services purchased by the typical American consumer. The components of this market basket include food, clothing, shelter and fuels, transportation, medical services, and drugs. BLS publishes separate indices for four regions – Northeast, Midwest, South, and West, as well as specified metropolitan areas.

Advantages: The CPI is well known and frequently used to measure changes in consumer purchasing power.

Disadvantages: As BLS clearly explains, “the CPI is generally the best measure for adjusting payments to consumers when the intent is to allow them to purchase, at today's prices, the same market basket of consumer goods and services that they could purchase in an earlier reference period.” This means that the representative market basket of goods and services used to compute CPI is unrepresentative of the market basket of goods and

services purchased by colleges and universities. As a result, it would present a completely misleading picture of the inflationary pressures encountered by higher education.

- *Implicit Price Deflator for State and Local Government* --- Implicit Price Deflators for State and Local Government are produced by the U.S. Bureau of Economic Analysis (BEA) and WEFA. As part of its calculations of Gross Domestic Product, BEA produces a price index that tracks price changes in typical state and local government purchases. A similar index is produced by WEFA, a private firm. The WEFA index is currently used in some states when making budget recommendations for elementary and secondary education. Both indices are produced at the national level.

Advantages: The biggest advantage to the Implicit Price Deflator of State and Local Government is that it is a readily accepted measure of inflation for state government services, including public education.

Disadvantages: Because the Implicit Price Deflator for State and Local Government is predicated on the typical purchases of state and local governments generally across the nation, it is much like the CPI, in that it does not accurately reflect the market basket of goods and services purchased by institutions of higher education. In particular, it would be heavily weighted toward purchasing patterns for elementary and secondary education, public safety, public assistance, and transportation. As a result, it too would provide misleading information regarding the inflationary pressures encountered by public colleges and universities.

- *Higher Education Price Index (HEPI)* --- The HEPI is produced by Research Associates of Washington. It measures “the effect of inflation on the current operations of colleges and universities.” The primary components of the market basket of goods and services used to compute the HEPI are professional salaries, nonprofessional wages and salaries, fringe benefits, services, supplies and materials, equipment, library acquisitions, and utilities. The HEPI is produced only at a national level.

Advantages: Because the HEPI is predicated on a market basket of goods and services that is specific to higher education, it clearly is the most representative of the inflationary pressures encountered by institutions of higher education.

Disadvantages: An actual calculation of the HEPI has not been computed since 1998. For 1999 and 2000, Research Associates of Washington has estimated HEPI based on known historical relationships between CPI and HEPI. The historical trend in the index plus detailed trend data for each component of the index, has not been published since 1998. Research Associates of Washington has announced plans to publish a re-calculated index for FY2001. However, the future existence of the index is in question since the developer has announced publicly the intent to sell all property rights and data files to the index. The absence of actual calculated values for HEPI in the past two years and the questionable future of the index raises concern over the advisability of continuing to use HEPI as a measure of inflationary pressure on colleges and universities and the University of Missouri.

Historically, the University of Missouri System has adjusted its educational and related course enrollment fees annually for inflationary growth in the cost of operations. Beginning in FY1998, the annual inflationary adjustment was directly linked to yearly percentage changes in the HEPI. The justification for this policy decision was based on the rationale that indexing educational and related course enrollment fee increases to an acceptable price index would mitigate the potential for sporadic and unusually significant adjustments in course related enrollment fees. For fiscal years 1997 and 1998, the last two years in which the HEPI was formally calculated, the index increased 3.0% and 3.5% respectively. Estimates of the increase in HEPI for fiscal years 1999 and 2000, which are available from Research Associates of Washington, indicates inflation rates of 3.5% and 3.7% for the two respective years. As previously noted, the two year estimates are based on the most recent HEPI – CPI relationships.

In determining future year increases in educational fees, as predicated on fluctuations in HEPI, the University has used a five-year rolling average of percentage change in HEPI to estimate future increases in the index. Because the HEPI is a lagging indicator of future adjustments in educational fees, estimates of the increase in the index are required for two years. Using the methodology previously noted, estimates of HEPI for FY2001 and FY2002 are 3.3% and 3.4%, respectively.