

# Journal of Student Financial Aid

---

Volume 29 | Issue 2

Article 1

---

7-1-1999

## Taxonomy of Tuition Discounting

Ronald Gage Allan

Follow this and additional works at: <https://ir.library.louisville.edu/jsfa>

---

### Recommended Citation

Allan, Ronald Gage (1999) "Taxonomy of Tuition Discounting," *Journal of Student Financial Aid*: Vol. 29 : Iss. 2 , Article 1.  
Available at: <https://ir.library.louisville.edu/jsfa/vol29/iss2/1>

This Issue Article is brought to you for free and open access by ThinkIR: The University of Louisville's Institutional Repository. It has been accepted for inclusion in *Journal of Student Financial Aid* by an authorized administrator of ThinkIR: The University of Louisville's Institutional Repository. For more information, please contact [thinkir@louisville.edu](mailto:thinkir@louisville.edu).

# Taxonomy of Tuition Discounting

By Ronald Gage Allan

Ronald Gage Allan is Assistant to the Dean for Data and Research Services in the Office of Student Financial Services at Georgetown University in Washington, DC.

*A previous version of this paper has been published as a monograph by the Sallie Mae Education Institute in its Monograph Series.*

**T**uition discounting, the practice of permitting some students to pay less than full tuition, has risen markedly in profile in recent years, both inside and outside of academe. This increased visibility makes it important that colleges understand tuition discounting in order to facilitate more efficient revenue management and to provide credible information to a public demanding explanations for rising college costs.

Confusion permeates tuition discounting in both internal and external arenas. One source of confusion is that college administrators and policy analysts view the subject differently and tend to talk past each other when discussing it. Tuition discounting is also misunderstood by the public, in part because the higher education community does not discuss it with one voice.

The purpose of this paper is to contribute to the broader understanding of tuition discounting by providing clear definitions of its terms and an analysis of some of the associated issues. This paper will:

- review why tuition discounting issues are important;
- outline the sources of confusion;
- define the various types of tuition discounts, including related terms such as "gross and net tuition revenue" and "grossing up";
- present as historical background the manner in which tuition discounting was administered prior to the recent changes in the fund accounting rules;
- describe the impact of the new accounting rules, along with some of the pitfalls that mark the new regime;
- outline the different uses of tuition discounting by the three higher education groups that employ them; and
- apply the accumulated definitions to an analysis of some of the practical and political problems associated with tuition discounting.

## **A Brief Review of the Issues**

Historically, institutional tuition discounts were generally the financial aid of last resort, given to students after packages of federal work-study, grants and loans, and sometimes private supplementary loans, were offered. This is still true today, although the growth of so-called "merit aid" and "merit within need" has complicated the picture. If a college meets full need, or just wishes to provide further assistance, any residual aid is provided by waiving some or all of the student's tuition in the form of a grant. Tuition funded by gift and endowment funds and/or by the waiver of tuition owed is often referred to, and accounted for, as institutionally funded grant aid.

---

*“As college becomes more expensive, the families of ‘full-pay’ students are increasingly cognizant of the fact that they are subsidizing the students who demonstrate financial need.”*

---

There are two sets of issues in tuition discounting: those related to policy and those related to public relations. The policy issues have their origin in the relationship between tuition levels and families' ability to pay. In the past, tuition rates have risen rapidly, outpacing most measures of economic growth, inflation, and ability to pay (College Board, 1998). At the same time, most externally funded financial aid programs have grown more slowly than the cost of attending college. Many colleges have responded by increasing their awards of institutionally funded financial aid, which, for some colleges, is predominately the waiving of tuition.

Institutionally funded financial aid has supported access to higher education for many financially needy students. Likewise, tuition discounts have also encouraged participation of middle-class students from families who increasingly are unable or unwilling to pay the stated price of independent colleges. At colleges with declining applicant pools, these partial scholarship awards bring in additional students and net marginal revenues by providing students who receive the awards with the needed incentive to enroll.

Along with these desirable results, tuition discounting sometimes produces unwanted effects. As colleges increase the discount in their prices, their tuition revenue to fund educational programs decreases. As more funds are devoted to financial aid, gross tuition (tuition charged before discounts) must grow much more quickly to pay for program costs and overhead.

Several public relations issues arise as a result of increased tuition discounting. Recent articles in the popular press on college affordability (see Morganthau & Nayer, 1996; Larson, 1997) have raised public concern that many students are being priced out of the higher education market. As college becomes more expensive, the families of “full-pay” students are increasingly cognizant of the fact that they are subsidizing the students who demonstrate financial need.

These and other concerns about the rising cost of a college education led Congress to establish a National Commission on the Cost of Higher Education. The Commission was asked to determine the extent to which increases in institutional financial aid and tuition discounting have affected tuition increases. It studied the demographics of students receiving institutional aid, the extent to which such aid is used to attract students with limited need to particular institutions or major fields of study, and the extent to which federal financial aid, including loan aid, has been used to offset tuition increases. The Commission recommended that colleges and universities develop better consumer information about costs and prices, and improve accountability to the general public. As explaining financial issues to the public becomes more necessary, it is vital for the higher

education community to have a good understanding of the issues and an agreed-upon set of definitions for tuition discounting.

## Sources of Confusion

The confusion surrounding tuition discounting has several origins. One is the historic reluctance on the part of higher education to talk openly about its finances. Barry Munitz, Chancellor of the California State University System and a member of the National Commission on the Cost of Higher Education, stated: "A college's finances are very complicated and therefore hard to explain. But many college officials have also made it clear that they don't want the public to know where they get their money and how they spend it" (Burd, 1997). The reluctance of higher education officials to make financial information available to the public without the opportunity to interpret it is understandable, but growing public interest in the subject will require the higher education establishment to be more forthcoming.

A by-product of higher education's reluctance to discuss its finances openly is a tendency for observers, both inside and out, to confuse tuition discounts with the subsidies that all students receive, regardless of whether they are awarded tuition discounts. One of the services performed by the Commission in its report was to provide definitions of college "cost," "price," and "subsidy" (National Commission on the Cost of Higher Education, 1998). *Costs* are amounts institutions spend to provide education and related educational services to students. *Price* is the amount students and their families are charged and sometimes what they pay. *General subsidies* are the difference between the cost to the institution of providing an education and the amount actually charged to students. It is important to note that tuition discounts are reductions from the stated prices to students, not from the total cost to the college of providing their education.

A second source of confusion is that reasons for using tuition discounting vary by institution. Smaller, less selective colleges use it as a tool to achieve enrollment goals. Highly selective colleges that can reach their enrollment goals with students whose families are in a position to pay full tuition (admittedly a very small number of institutions) use tuition discounts to enhance the quality and diversity of their student bodies.

An element of "spin" imparted to the discussion by leaders of the more selective colleges adds to the confusion. For example, in a 1993 article in the *Brookings Review*, William Bowen and David Breneman suggest that highly selective schools are not really discounting tuition but rather are making an educational investment in the future of the nation. Such assertions may cause the uninformed, including many who work in higher education, to believe that their institutions are not actually "discounting tuition" in the sense of providing institution-

ally funded grants. Worse, knowledgeable members of the general public may come to suspect that higher education is attempting to pull the wool over their eyes by denying the existence of a practice they know exists.

One of the reasons that it is difficult for higher education to be forthcoming about tuition discounts and tuition discount rates is that different sectors of the higher education community use these concepts for different purposes, each employing slightly different definitions. Tuition discounting means one thing to college administrators: basically, foregone tuition revenue. It means something different to financial aid and admissions staff, students, and parents: the awarding of "college scholarships" and grants from other sources. Frequently in discussions of college and university finances, it is not clear which perspective is being used. This is an important consideration because these discussions often include the projection of future tuition revenue. If all participants in the discussion are not using the same definition of tuition discounting, or at least are aware of the differences in definitions, the disparities in the forecasts of net tuition revenue may yield invalid results.

## **Terms and Definitions**

The term *tuition discount* is used in this paper to represent generically all forms of revenue foregone by the institution, and/or the benefit derived by the student, when a college accepts less than full tuition in exchange for instruction. It should be noted that the term includes all forgivable charges to the student, specifically those charges for instruction known as "fees." Fees that cannot be forgiven, i.e., that must be funded in some fashion such as room and board, are not included. Therefore, in this article all references to "tuition" and "tuition discounting" include both tuition and forgivable fees.

Three specific definitions of tuition discounting are discussed in this article. Each has a different use and different users. Note that the definitions are successively broader, each containing all the elements of the previous definition plus additional elements. The three definitions are:

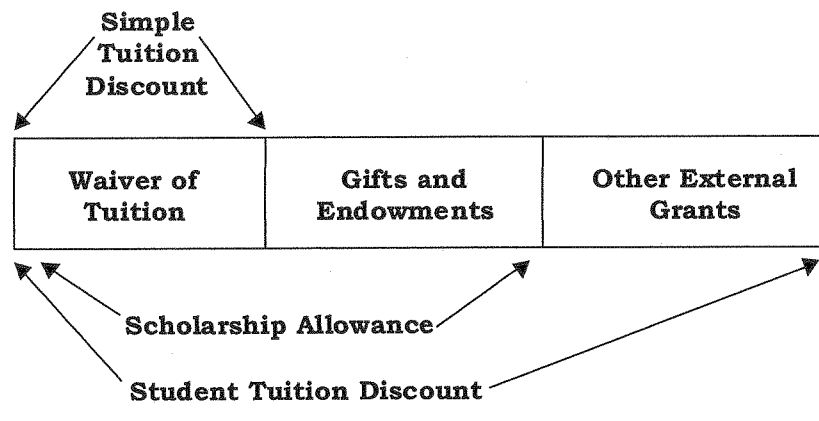
- Simple Tuition Discount
- Scholarship Allowance
- Student Tuition Discount

Diagram 1 depicts the relationship of these definitions to each other.

### *Simple Tuition Discount*

The *Simple Tuition Discount* consists solely of the waiver of all or a portion of the tuition due, usually in the form of a grant. It includes no funding from internal sources, such as gifts and endowments, or from external sources, such as Federal Pell Grants or Federal Supplemental Education Opportunity Grants (FSEOG). This type of tuition discount is most common at pri-

**DIAGRAM 1**  
**Tuition Discounts**



vate colleges with little or no endowment for student financial aid. Note that Simple Tuition Discounts include all forgiveness of a student's tuition whether the forgiveness takes the form of a waiver (the tuition is never charged to the student's account) or is given in the form of a grant (the tuition is charged to the student's account and paid for with an "institutional grant").

*Scholarship Allowance*

A more inclusive concept is the *Scholarship Allowance*, which consists of all institutionally funded financial aid, meaning Simple Tuition Discounts plus tuition payments funded by gifts and endowments, henceforth referred to as "Gifts and Endowments." This definition has been used by the National Association of College and University Business Officers (NACUBO) in its tuition discounting surveys, begun in 1991 (NACUBO, 1991), which monitor the increases and decreases of gross and net tuition vis-a-vis inflation rates, income levels of students and graduates and faculty salaries at different institutions. The Scholarship Allowance definition has also been included by the Financial Accounting Standards Board (FASB)<sup>1</sup> in its new rules for the reporting of tuition discounts on college and university financial statements. These new FASB rules are discussed in detail later in this article.

The Scholarship Allowance definition is based on an explicitly economic view of the institution. Financial analysts com-

<sup>1</sup> The rules followed by higher education for financial accounting and reporting are set by FASB for private institutions and by the Government Accounting Standards Board (GASB) for public institutions. Their authority derives from being recognized as the official standard-setting bodies by the Securities and Exchange Commission (SEC) and the American Institute of Certified Public Accountants (AICPA).

---

*“Tuition discounting sometimes produces unwanted effects. As colleges increase the discount in their prices, their tuition revenue to fund educational programs decreases.”*

---

bine Simple Tuition Discounts and tuition funded by Gifts and Endowments in a single definition because the operating and endowment funds are seen as a single financial entity. Money coming into a college's operating fund is regarded as fungible. When Gift and Endowment income that is restricted to financial aid is paid from the endowment fund into the operating fund, the college is permitted to spend, on other projects, operating fund money that would otherwise be spent on financial aid. Therefore, although in some respects counter-intuitive, the new FASB rules recognize Gifts and Endowments as income when it comes into the institution through gifts to, or earnings of, the endowment fund, rather than when it is paid into the operating fund as grants for tuition. Funds from truly external sources such as government grants are regarded as “pass-through” and are therefore considered non-fungible. The restrictions on these funds are such that the money cannot be spent on anything except the activity for which they are intended.

#### *Student Tuition Discount*

The *Student Tuition Discount*, is a broader concept than the Scholarship Allowance. Conceptually, Student Tuition Discounts include all tuition that students do not have to pay out of their own pockets, or by loans or work (“self-help,” in financial aid parlance). It includes Scholarship Allowances (Simple Tuition Discounts plus Gifts and Endowments) plus all external federal, state, and private grants and scholarships. The Student Tuition Discount is of interest to admissions directors and enrollment managers for recruiting purposes, and to other administrators concerned with the public relations aspects of higher education. It also is very important to students and their families.

#### *Gross and Net Tuition Revenues*

Gross tuition revenue and net tuition revenue are accounting terms that are closely related to tuition discounting. *Gross tuition revenue* is the revenue that would have been collected by the college had all its students paid the full tuition from their own pockets. It is computed by multiplying the published tuition price by the number of students enrolled, adjusted for any enrollment that is less than full time. *Net tuition revenue* is the actual revenue collected by the college. It is computed by subtracting from gross tuition revenue the sum of the tuition discounts given (using the Scholarship Allowance definition).

Until recently, the result of the failure to deduct tuition discounts from tuition revenues for accounting purposes was that institutional financial statements did not report the real net revenue the college was earning. This caused confusion, particularly at institutions where healthy tuition increases had unexpectedly little impact on institutional budgets. As a result, many analysts suggested that net tuition revenue should be used as the primary guide in the management of higher education

finances (Breneman, 1994, p. 50). The implementation of new financial accounting rules, FASB Rules 116 and 117, which will be discussed below, is an attempt to make the impact of tuition discounting much plainer on individual institutions' financial statements.

#### *Grossing Up*

Grossing up is another term often used in tuition discounting discussions. *Grossing up* refers to a procedure whereby funds that were never received, indeed never existed, are added to an institution's income statement and offset by the addition of an equal, and equally non-existent, amount of expenses such that the net total, or "bottom line," remains unchanged. The common practice of reporting gross tuition revenue on the college's income statement and tuition discounts as an "institutional aid expense" on its statement of expenses has been referred to as "grossing up tuition revenue." One of the purposes of the new FASB rules is to discourage this practice.

## **The Financial Reporting Revolution**

Before 1965 most student financial aid was provided by private sources external to the institution. Financial aid provided by the institution's own endowment fund was also regarded as an external source. Prior to the implementation of the new financial accounting rules, FASB 116 and 117, colleges treated their general or operating fund and their endowment fund as two separate entities. The operating fund was used, of course, to operate the college; tuition paid by students was paid into the operating fund. Scholarship aid given to the student in the form of gifts or grants from the endowment fund were paid into the operating fund as though they were paid by a third party on behalf of the student. Such gifts or grants were not regarded by college administrators as tuition discounts.

The impact of discounting tuition and fee revenue began to appear regularly in the management literature of higher education in the early 1990s after many industry analysts and economists began to focus on the actual net tuition and fee payments made by or on behalf of students (Hauptman, 1990; Breneman, 1993, chapter 3; and College Board, 1995). These analysts argued that the historical practice of reporting gross tuition and fees was misleading to financial statement users because it did not convey an accurate sense of institutional resource inflows and outflows. Moreover, the practice obscured the need for institutions to manage their net tuition and fee revenues, rather than their gross tuition (NACUBO, 1997).

Members of the audit community and standard-setting organizations also expressed concern over colleges accounting as an expense any tuition that was deliberately foregone (i.e., awards of institutional aid) (NACUBO, 1997). They suggested that it is inappropriate to "gross up" revenues and record offsetting expenses when such discounting does not meet gener-



ally accepted accounting procedures and definitions of revenues and expenses. As a result, in 1993 FASB issued new rules for fund accounting and the reporting of tuition discounts by private institutions of higher education.

NACUBO, in association with the American Institute of Certified Public Accountants, has developed guidance for the application of FASB Statements 116 and 117 (NACUBO 1997). Responding to FASB Statement 117, "Financial Statements of Not-for-Profit Organizations," the guidance requires that tuition discounts be displayed much more prominently on institutions' financial statements. The guidance suggests that net tuition and fee revenues be reported as a single line item in a Statement of Activities, or the gross revenue may be reported, provided that the Scholarship Allowance is displayed immediately beneath as a reduction of revenue (or contra-revenue). Additionally, the NACUBO guidance makes it clear that institutional student aid given to cover room and board is to be treated as an expense, not a tuition discount.

FASB Statement 116, "Accounting for Contributions Received and Contributions Made," removes the presumption of separateness of the income of an institution's endowment fund from its operating fund. The NACUBO guidance makes plain that income from endowments established to provide financial assistance to students are to be reported only once - as income from investments. When such resources are used to cover foregone tuition revenues, revenue should not be recognized a second time as gross tuition and the institution should not report this granting of institutional financial aid as an expense. The institution, rather, now records a "contra-revenue" to tuition to reflect the discount to the student of tuition and fees.

### **Discount Rates by Constituency**

Three principal groups within higher education use tuition discount rates, each with a slightly different definition. These groups might be called the Administrative Constituency, the Financial Constituency, and the Marketing Constituency (students are included in the Marketing Constituency). Table 1 outlines the three groups and the definition of the numerator of the discount rate ratio that is pertinent to each. All three have the same denominator: gross tuition revenue.

The memberships of the three constituencies are not necessarily mutually exclusive. Most who work in higher education administration wear several hats. It is not only possible, but probable, that an administrator such as the academic financial officer will share the concerns of the Financial Constituency in some circumstances and of the Administrative Constituency in other circumstances. This section attempts to define the three constituencies and the attributes, motivation and behavior that result from "where they sit." The reader should note that this may not be the case at all institutions.

**TABLE 1**  
**Tuition Discount Rate by Constituency**

*Rate = Numerator/Denominator*

Constituency	Numerator	Denominator
<b>Administrative</b> Institutional Discount Rate: President, Board of Directors, Provosts, Academic Finance Officers, Financial Aid Directors	<b>Simple Tuition Discount</b>	<b>Gross Tuition Revenue</b>
<b>Financial</b> FASB Definition: Treasurer, Financial Administrators, Auditors and Analysts	<b>Scholarship Allowances</b> (Simple Tuition Discount + Gifts and Endowments)	<b>Gross Tuition Revenue</b>
<b>Marketing</b> Student Definition: Admissions Directors, Enrollment Managers Public Relations, College Books	<b>Student Tuition Discount</b> (Scholarship Allowances + External Grants) Simple Tuition Discount + Gifts and Endowments + Federal Pell Grants + FSEOG Grants + Other External Scholarships	<b>Gross Tuition Revenue</b>

*Administrative Constituency*

The Administrative Constituency consists of boards of trustees, provosts, and others concerned with how much money is available to operate the institution, including money to raise and maintain faculty salaries and expand educational programs. To them, tuition paid from Gifts and Endowments is the same as tuition that is paid out of the student's pocket because in their capacity as administrators they are concerned with what funds they have to work with rather than from where the funds originate. The discount rate they manage is the one that tells them directly how much tuition revenue is being foregone. Accordingly, they plan and manage in terms of the Simple Tuition Discount.

*Financial Constituency*

The Financial Constituency includes financial officers, auditors and analysts responsible for rating institutions' bonds. They are interested in the financial health of the entire organization, including the endowment fund. Their tuition discount definition is the Scholarship Allowance which includes tuition payments made in the form of grants from gift and endowment funds, or money the college "pays itself," as well as the Simple Tuition Discount. The Scholarship Allowance concept has been used by some schools since the late 1980s for budgetary analysis and planning. A recent NACUBO survey reports average Scholar-

ship Allowance discount rates of 37.8% for freshmen and 31.3% for all undergraduates as of Fall 1997 (Lapovsky, 1998).

#### *Marketing Constituency*

The Marketing Constituency is interested in the tuition discount rate from the viewpoint of the student, or the Student Discount Rate as defined previously. Its constituents include admissions directors, enrollment managers, public relations officials and institutional research analysts responsible for survey responses for the numerous college guides.

Students are generally not concerned with whether their tuition is paid for by the institution, by gifts and endowments, or by government or external grants. They are only concerned with how much tuition must be paid through family contributions and self-help (loans and work). The average tuition discount rate, based on the student definition and published explicitly or implicitly in college books, helps students decide to which schools to apply. However, the average discount rate rarely applies to an individual student's situation.

### **Applying the Analysis to Policy and Public Relations Issues**

#### *The Virtues of Being Clear on the Definitions*

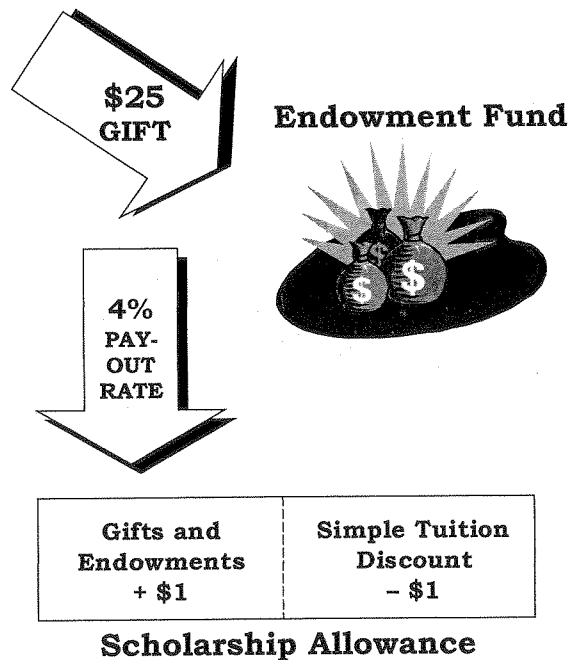
The preceding discussion of the terms, definitions, uses, and constituencies associated with tuition discounting is useful for analyzing some of the more subtle and complex policy and administrative issues in higher education. One such issue is the effect of tuition discounts on net tuition revenue. When total tuition discounts rise faster than the gross tuition rate, net tuition revenue declines. The pernicious effects of this "over-discounted" tuition may be mitigated if, at the same time, the portion of the Scholarship Allowance that is Gifts and Endowments increases at a rate fast enough to offset the revenue loss to the Administrative Constituency, represented by the increase in the Simple Tuition Discount. Although net tuition revenue is still declining, the Financial Constituency would likely be pleased because such a situation would imply that total income to the institution is rising due to increased gifts to the endowment fund.

A question frequently asked by members of the higher education community who are not knowledgeable about finances is: If almost everybody is getting some form of discount, why don't we just lower our tuition thereby giving everybody a discount? Wouldn't doing so have little effect on the bottom line? The answer is that, although reducing nominal tuition would have little or no effect on students receiving substantial grant aid, it would reduce the tuition received from those who pay the full price, usually the higher income students. Such a change would reduce net tuition revenue to the institution (see Breneman, 1994, p. 43, for an explanation of the mechanics of unfunded student aid; i.e., the Simple Tuition Discount).

*Reasons for Raising More Money for Financial Aid*

Analysis of tuition discounting issues provides some strong, practical reasons for raising additional gift money for student financial aid. As noted earlier, academic administrators in search of funds to improve program offerings or to provide faculty raises often eye covetously the foregone revenue from the Simple Tuition Discount. Highly selective schools that could fill their classes with full-pay students are particularly tempted to abandon full-need policies in their search for greater revenue. Before doing so, these administrators should consider the linkage between their endowment fund and the Simple Tuition Discount. Note that for every dollar added to the Gifts and Endowments portion of the Scholarship Allowance (see Diagram 2), the Simple Tuition Discount may be reduced by a dollar. This means that for institutions with an endowment fund payout rate of four percent (something of an industry standard), for every \$25 added to the endowment fund restricted to financial aid, the Simple Tuition Discount is decreased by a dollar a year. Moreover, it is decreased by a dollar a year in perpetuity. This implies that full-need schools might receive greater benefit from increasing the dollar value of that portion of their endowment funds restricted to financial aid than from eliminating their full-need policies.

**DIAGRAM 2**  
**Relationship of Endowment Fund to**  
**Simple Tuition Discount**



---

*“The reluctance of higher education officials to make financial information available to the public...is understandable, but growing public interest in the subject will require the higher education establishment to be more forthcoming.”*

---

The interests of different members of the Administrative Constituency are important here. Provosts and deans probably prefer to raise the money for new programs directly because they would then have control over its use and can be sure it is used for the purpose intended. However, academic finance officers may have a different view. To them, current gifts establishing programs that potentially will become popular and become difficult to cut, carry the risk of becoming “gifts that eat” after the donors tire of providing the annual funding. Finance officers might well prefer to see the equivalent amount of money given to the endowment fund, restricted to financial aid, where it reduces the Simple Tuition Discount, and increases the funds under their direction. Although the immediate effect is much less, it is permanent and moves the institution in the direction of financial aid independence.

The effect of increasing the portion of Scholarship Allowances funded by Gifts and Endowments is also important to those schools that use enrollment management techniques to maintain their student bodies. Currently, these decision-makers must choose whether to run their recruiting programs to maximize revenue, to maximize the number of students admitted, or to maximize the quality of their student bodies. As the portion of institutional student aid funded by Gifts and Endowments increases, the pressure to maximize revenue is reduced permitting other goals to be emphasized such as improving the quality of the student body.

#### *Explaining to the Public*

The primary public relations concern generated by tuition discounting is its potential for adding to the general public’s skepticism about higher education. Probably the most harmful effect of higher education’s reluctance to talk openly about its finances, including tuition discounting, is that often its own employees are not conversant with the issues. The public therefore hears a multiplicity of voices on the subject, each with a different view of the policy and functioning of the tuition discounting process. Understandably, the public reacts with skepticism.

The role of the Simple Tuition Discount within the Scholarship Allowance, arcane though it is, is important for developing a strategy for dealing with the growing presumption on the part of full-pay families that they are subject to a kind of Robin Hood practice: that money is being taken from them and given to needier students, i.e., that they are directly subsidizing the needy. It should be clear from the above discussion that there is no direct subsidy: tuition money is not being taken from full-pay students and given to students with need. Because portions of the tuition of students with need are foregone, the worst that can be said is that the full-pay students are indirectly subsidizing students with need. Even this assertion is mitigated when substantial portions of the Scholarship Allowance are funded

by Gifts and Endowments. As the portion of the Scholarship Allowance that is funded by Gifts and Endowments increases, the burden shifts from the indirect subsidy of the full-pay students (i.e., from those who don't necessarily wish to provide such support) to a direct subsidy by contributors to the institution's endowment fund (i.e., to those who have actively chosen to provide such support).

In the author's opinion, the light shown on tuition discounting by the new FASB rules is, on balance, a good thing. The new financial reporting regime is meant to give college administrators a more realistic view of the inflows and outflows of the institution's revenues, and thereby an opportunity to improve financial planning. And, if the information available to the public is accompanied by straightforward explanations, public skepticism should decrease.

**Acknowledgements** The author wishes to thank Jerry Davis, Lucie Lapovsky, Loren Loomis-Hubble, Patricia McWade, Dan Myers, Margaret Plimpton, John Reeves, Joseph A. Russo and an anonymous reviewer for helpful comments and suggestions. The author is solely responsible for any errors or omissions.

## References

- Allan, R.G. (1999, June). Tuition discounts, institutional student aid and scholarship allowances. (Sallie Mae Education Institute Monograph). Washington, DC: Sallie Mae Education Institute.
- 1998 Amendments to the Higher Education Act of 1965. (P.L. 105-244).
- Basch, D.L. (1996). Pricing differences among private colleges: The impact of discounting through college funded grants. Journal of Student Financial Aid, 26 (3), 41-58.
- Bowen, W.G., & Breneman, D.W. (1993). Student aid: Price discount or educational investment? Brookings Review, 11, 28-31.
- Breneman, D.W. (1994). Liberal arts colleges: thriving, surviving, or endangered? Washington, DC: Brookings Institution.
- Burd, S. (1997, November 28). Federal commission on the cost of college says it isn't so expensive after all. Chronicle of Higher Education, p. A33.
- College Board. (1995). Trends in student aid, 1985 to 1995. New York; Author.
- College Board. (1998). Trends in student aid, 1988 to 1998. New York; Author.
- Hauptman, A.M. (1990). The college tuition spiral. New York: Macmillan.
- Hopkins, D.S.P., & Massey, W. (1981). Planning models for colleges and universities. Stanford University Press.
- Larson, E. (1997, March 17). Why college costs too much. Time.
- Lapovsky, L. (1998, February). Wisdom needed. Business Officer, 17-24.
- Loomis-Hubbel, L., & Rush, S.C. (1992, Fall). The effects on tuition of institution-funded financial aid. Student Aid Transcript 5 (2), 4-8.

Loomis-Hubbel, L. (1995, February). Tuition discounting is on the rise. Business Officer, 27-31.

Morganthau, T., & Nayer, S. (1996, April 29). Those scary college costs. Newsweek.

National Association of College and University Business Officers. (1997). Accounting and reporting scholarship allowances to tuition and other fee revenues by higher education. (NACUBO Advisory Report No. 97-1). Washington, DC: Author.

National Commission on the Cost of Higher Education. (1998). Straight talk about college costs and prices. Washington, DC: American Institutes for Research.