During the years of sharp tuition increases in the 1980s, the role of student financial aid provided by institutions shifted from the need-based formulas that had prevailed into a new pattern, subsequently called “tuition discounting.” As a president of a private college during that time, one of the authors (Breneman) lived through the discomfort and analytical confusion that occurred during these transition years. The accounting systems colleges and universities used back then were a large part of the problem, for all enrolled students were treated on the revenue side as if they paid full tuition, while financial aid from both restricted and unrestricted funds was treated as an expense on the debit side of the ledger. The result was a false sense that financial aid could be controlled in just the same way as any other item of expenditure. This elementary confusion gave rise to endless discussion on many campuses about the “right” level of financial aid, and the growing fear that somehow it was becoming an uncontrollable, and dangerous, threat to institutional well-being.

A Theory of Tuition Discounting

Slowly, we grew to understand the interaction of tuition, financial aid, and enrollment. One key was to realize that colleges and universities do not readily change enrollment levels, thereby forcing all of the market adjustment onto prices. In other
words, the typical institution has a physical plant, faculty, and staff designed for a set number of students, which the institution seeks to enroll regardless of changing economic circumstances. Whereas in a profit-making firm, output levels as well as prices serve as adjustment mechanisms, institutions restrict themselves (except in extreme circumstances) to price changes as the main economic variable.

A second point is to recognize that each college or university has a certain amount of monopoly power in the sense that prospective students do not see institutions as fully interchangeable, as would be true in a commodity market. Consequently, each institution faces a downward-sloping demand curve, and can use that fact to its advantage, operating to varying degrees as a discriminating monopolist. The simple analytics of tuition discounting flow directly from these observations, as Figure 5-1 shows:

In this drawing, tuition is on the vertical axis, and enrollment on the horizontal axis. The institution is assumed to seek enrollment of $X_n$ students at price $T$; it finds that only $X_{fp}$ students will enroll at price $T$, leaving a gap of size $X_n - X_{fp}$. Rather than limit enrollment to $X_{fp}$, the institution begins selectively discounting its tuition, working down the demand curve until enrollment of $X_n$ is reached, with the last student enrolled paying price $c$. Total discounts amount to the area $abc$, net tuition revenue to the area $OTacX_n$, and the ratio of $abc$ to $OTbX_n$ equals the institution's discount rate.

Any number of elaborations can be added to this simple model; for example, a highly selective institution would actually face a demand curve shifted far to the right, such that it could enroll all full-pay students if it chose, rather than having to discount to fill the class. In this case, student aid can be viewed as an educational investment in quality and diversity, rather than as a price discount. For the highly selective institution, student aid reduces revenue, while for the less selective institution in figure 5-1, student aid increases revenue. For most institutions, the actual picture is a blend of these two extremes, with discounts serving both to help fill the class and to increase its quality and diversity; hence, the rise of merit aid, as opposed to need-based aid. Clearly, an institution is better off the further to the right the demand curve is, which explains the heavy outlays on recruiting tools designed to shift the demand curve for College A to the right.
A further implication of the simple model is that the institution can continue to increase its net tuition revenue up to the point where only one student pays full tuition, and the rest are discounted down the demand curve. (As we shall see in the next section, some institutions are approaching that point.) Furthermore, an institution can lose significant revenue if it does not understand its demand curve, in the sense that the optimal strategy is to know where each student is on the demand curve, thereby avoiding excessive discounts (i.e., awarding a student more than it would take to have him or her enroll). In recent years, several consulting firms have sprung up to assist colleges and universities in assessing their demand curves to ensure the most strategic use of financial aid.

Finally, figure 5-1 makes glaringly apparent the basic issue facing private higher education in aggregate: an excess supply of places in the entering classes relative to the ability or willingness of families to pay the posted price. Discounting is one way to fill those places; across the board price cuts is another.

What Does Tuition Mean?

In the years since this analysis was developed, institutions have continued discounting as the dominant strategy, and the purpose of our paper is to raise the question of whether things have gone too far, and whether a new, more macro type of analysis is required to understand the situation correctly. Furthermore, this paper begs the question of whether published tuition has become an irrelevant piece of information, and whether we need a fresh approach to pricing strategies in higher education. We do not have the answer to that question, but have noted that several institutions have taken the step of dropping their posted tuition prices, presumably for the purpose of drawing in new applicants, increasing enrollments, and raising net tuition revenue. We also note the growing use of “up front” scholarship offers, in which the college specifies a set of student characteristics which, if met, automatically qualifies the student for a grant. As parents learn more about college pricing practices, negotiations over net price take place with increasing frequency, as a financial aid offer from College A is used to bargain with College B. A level of cynicism infects this process, as the various metaphors in use suggest: airline ticket prices, automobile sticker prices, Robin Hood tactics, lotteries, casinos. Furthermore, the logic of discounting provides a rationale for steadily rising sticker prices, which create bad publicity and a growing hostility among the general public on the subject of college pricing. In short, there are clearly costs to higher education of continuing on the current path, but are there economically viable alternatives? In particular, has the process of discounting so blurred the supply curve that growing numbers of students and families may steer clear of the private sector out of confusion or uncertainty? Our hope is that discussion at the Forum Symposium in Aspen will probe these issues seriously.

The American Public Overestimates Tuition

Published tuitions have been increasing at colleges and universities in this country at a much
faster rate than inflation and the increase in personal income. According to a survey conducted by the American Council on Education, the American public perceives tuition as significantly higher than it actually is. For example, the public estimates tuition at public four-year institutions at $9,694, when it actually averages $3,111, and at four-year private institutions at $17,879, when it averages $13,664. Furthermore, the relationship between the published tuition price and what students actually pay, the net price, has been declining. Fewer students are paying the published price; institutional grants are becoming expected by many students. At most U.S. institutions, net tuition is increasing at a far slower rate than the published price would imply. So why are institutions pursuing pricing strategies that bring on the wrath of Congress and the popular press, while netting significantly less than the published increases?

Most Institutions Offer Merit Aid

The primary purpose of institutional aid used to be to enhance access to higher education for those without the financial resources to attend. Today, many institutions are providing institutional grants to shape their classes. Institutional aid has become a significant marketing device, and all but a few institutions offer financial aid based on criteria other than ability to pay.

A cursory review of the Web sites of the top 25 national liberal arts colleges and the top private national universities as defined by U.S. News & World Report reveals that many institutions include information on their merit based aid. A few excerpts are provided below:

Davidson College: While most financial aid is designated for students with demonstrated financial need, Davidson sets aside over $1 million in merit-based honors, awards and scholarships. Students receiving need-based packages also are eligible for merit-based aid. Davidson makes such awards to approximately 15% of each entering class without regard to financial need.

Washington and Lee University: All prospective students, including those whose family income would preclude University assistance based on need, might wish to give consideration to applying for one of the University’s numerous Honor Scholarships. These competitive awards, made without regard to family financial circumstances, are offered on the basis of academic and personal merit. The Honor Scholarships program is designed to recognize students with outstanding records in secondary school and to attract to the University young men and women who demonstrate unusual promise for future service and leadership.

Macalester College: Macalester awards a number of scholarships based strictly on academic merit, without regard to financial need. The minimum award is $3,000 for each of four years. No separate application is required, although Macalester National Merit Scholarships require students to designate Macalester as their first choice with the National Merit Corporation.

Duke University: Individuals, foundations, and
corporations have established and endowed a limited number of merit scholarships at Duke University to recognize outstanding students. Many of these scholarships are based solely upon achievement, while others consider financial need as a determining factor. The criteria for each scholarship have been determined by the benefactor.

No separate application is required for Duke University merit scholarships except for music scholarships. All applicants are considered for every appropriate scholarship. Students selected to receive a merit scholarship will be informed of the award in early April.

Merit aid has become nearly universal, although not yet among the nation’s top colleges. The trend among colleges is to make the awards without even requiring an application. Students are often automatically considered for awards based on the information contained in their applications, a policy undertaken by institutions trying to influence their yield rates positively. When used successfully, these awards are given to students who are unlikely to enroll at the institution without a financial incentive.

More recently, institutions have been experimenting with discounts to students who meet certain criteria. These awards are publicized in advance and are expected to have a positive impact on enrollment demand for the institution. Examples of this approach can be seen at the University of Rochester, which provides specific awards to children of alumni and to students who live in certain areas, and at Elmira College, which provides full tuition to all high school valedictorians and 75 percent of tuition to all salutatorians. These institutions are, in effect, publishing a discounted price up front for certain categories of students. Such strategies may both shift the demand curve as well as improve yield, while institutions that rely on the normal financial aid process are using aid primarily to improve yield.

A recent move has been the change in packaging strategies and need calculations by several top universities, including Princeton and Yale. These policies selectively deviate from the standard needs analysis and provide need-based aid to higher income students, more need-based aid to middle and lower income students, and better aid packages—more grants than loans—to selected categories of students. Several of these changes seem to be in response to the growth in merit awards being offered to middle income students at very high quality institutions, as well as to increased competition from the flagship public universities.

### A Look at Recent Data

To see the relationship between tuition, net tuition, and enrollment, we have used data from the NACUBO financial aid database for 1990 through 1997. This database contains information on 213 independent institutions. For this article, the database has been segmented to allow analysis and comparisons of the data on the Best institutions as ranked by U.S. News & World Report. Of the top 40 national liberal arts colleges, the database includes data on the 24 colleges listed below:

- Amherst
- Bard
- Barnard
- Bowdoin
The same method was used to identify the Best national universities, relying on U.S. News & World Report's identification of 48 institutions, of which 36 are private. The NACUBO data base includes the following 12 private universities from that group:

Brown
Cornell
Duke
Lehigh
Massachusetts Institute of Technology
New York University
Princeton
Rensselaer Polytechnic Institute
Syracuse

Tulane
University of Notre Dame
Worcester Polytechnic Institute

Figures 5-2a, 5-2b, and 5-2c show the average gross and net tuition at the Best liberal arts colleges (Best LA), the Best universities (Best Univ), and at the other 177 institutions (Other 177) in the data base. The average tuition at the Best institutions far exceeds the average tuition at the other independent institutions. In 1990, the average tuition at the Best liberal arts colleges was $14,868, at the Best universities, $14,449, and at the Other 177 independent institutions, $9,116. Tuition increased to $21,789 at the Best liberal arts colleges in 1997, to $21,282 at the Best universities, and to $14,177 at the Other 177 institutions:

Figures 5-2a and 5-2b
Gross Tuition and Net Tuition

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Net freshmen tuition, calculated by subtracting the average institutional grant to freshmen from published tuition, with institutional grants defined to include both endowed and unendowed funds, increased from $10,587 at the Best liberal arts colleges in 1990 to $15,386 in 1997; from $11,158 at the Best universities in 1990 to $15,548 at 1997, and from $6,700 at the Other 177 institutions in 1990 to $8,759 in 1997. The tuition discount is represented by the difference between the tuition and net tuition lines in the figure, and corresponds to area abc in figure 5-1.

Figure 5-3 shows that net tuition at the Best liberal arts colleges equaled 73 percent of the tuition at these institutions in 1990, and 70 percent in 1997. Net tuition as a percent of tuition reached a low at these institutions of 68 percent in 1996. In 1997, there was a significant reduction in the amount of freshmen aid awarded at many of these institutions. At the Best universities, net tuition equaled 77 percent of tuition in 1990 and has fallen to 73 percent in 1997. At these institutions, net tuition also reached a low of 72.4 percent of tuition in 1996. At the Other 177 institutions, there has been a steady decline in net tuition as a percent of tuition, from 73.5 percent in 1990 to 61.8 percent in 1997.

Figure 5-4 indicates that tuition has been increasing every year, but at a declining rate. Between 1990 and 1991, tuition increased an average of 9.02 percent at the Other 177 institutions while increasing 7.18 percent at Best liberal arts and 6.93 percent at Best universities. Each year since 1990, the tuition increases have been smaller, with increases of 5.11 percent at the Other 177 between 1996 and 1997, 4.36 percent at Best liberal arts, and 4.77 percent at Best universities. Prior to fall 1994, as many as nine of the Best institutions increased tuition more than 8 percent per year, but in the last two years, none has increased its tuition by more than 6.5 percent. Among the Other 177 institutions, the distribution of tuition increases looks similar, although a few, such as Muskingum, Bluefield, and Queens, have actually reduced tuition. None of the Best institutions in the database has decreased tuition during this period.

On the other hand, increases in net tuition have been much more erratic, although there have been positive increases each year (See figure 5-5). At the Other 177 institutions, the increase in net tuition has ranged from 42 percent of the tuition increase between 1991 and 1992, to 86 percent of the increase between 1992 and 1993. At Best liberal arts and Best universities, the increase in net tuition is much closer to the increase in the published price, and between 1996 and 1997, the increase in net tuition actually exceeded the increase in tuition. In order for net tuition per student
to increase at a greater rate than tuition, the amount of institutional financial aid needs to decline, which happens when an institution decreases its discount rate.

This result raises the following questions: Did the Best institutions reduce the economic diversity of their freshmen classes and reduce access to low-income students between 1996 and 1997? Did these institutions retrench on merit aid? The data do not reveal how this result was achieved or which students were affected, only that a significant change occurred. Figure 5-6 shows the relationship between increases in tuition and net tuition between 1990 and 1997. The Other 177 institutions increased tuition by 55.5 percent in the last eight years, but realized only 30.7 percent in net freshmen tuition. At the Best universities, tuition increased 47.2 percent, while net freshmen tuition increased 38.7 percent.

The Best liberal arts colleges came closest to realizing most of their increases, with tuition up 46.6 percent, and net tuition up 41.4 percent. The range of changes in net tuition is far greater than the changes in tuition, particularly among the other 177 institutions. Figure 5-7 compares the change in net tuition between 1996 and 1997 at the Best institutions and at the other 177 institutions. More than 30 percent of the Other 177 institutions had decreases in net tuition per student compared with only 5.6 percent of the Best institutions.
A decrease in net tuition per student is not a result that a college or university would usually try to achieve. This result could occur intentionally if an institution were trying to change the income profile of its student body to enhance economic diversity. More often it occurs inadvertently, when aid has been overawarded. This latter condition would seem to be the case here, as net tuition did increase significantly between 1996 and 1997. At the other institutions, results like this often occur as these institutions are using much of their aid to attract and shape the class—difficult strategies to implement. A question worth considering is how we can tell anything about the net price a student will pay when the published price increases smoothly, while the net price moves erratically.

Recent changes in net tuition per student at the Best institutions may be partially explained by increasing numbers of students who are accepted for early decision. Most students who are in need of significant financial aid packages will not apply for early decision because they want to shop for the best net price; as a result, a larger share of the class at the most competitive institutions is made up of financially able students.

Discounting Has Failed to Maintain Stable Enrollment

What is the relationship between changes in enrollment and in the number of freshmen receiving financial aid? Figure 5-8 provides information on percentage changes in enrollment for selected years in the Best 36 institutions. As a group, these institutions have experienced moderate increases in enrollment in all years except 1995, when there was a slight decrease. Individually, the range of enrollment changes for the freshman class is quite large, and when the data are analyzed by institution, there are significant changes in freshman enrollment from year to year. As the figure suggests, it is common for institutions to experience increases or decreases in a freshmen class of more than 8 percent from year
to year. The majority of the institutions tend to experience swings in freshmen enrollment between plus and minus four percent. These enrollment swings are far more pronounced at the Other 177 institutions. Figure 5-9 shows the percent of freshmen receiving institutional aid.

![Figure 5-9](image)

**Figure 5-9**
Freshmen Receiving Institutional Grants

At the Best liberal arts colleges, fewer than 50 percent of the freshmen receive institutional grants. The percent of freshmen at these institutions receiving institutional grants has increased only 10 percent, from 42.2 percent in 1990 to 46.6 percent in 1997. At the remaining institutions, the percent of students receiving grants has increased 25 percent during this same period, from 64.9 percent in 1990 to 81.4 percent in 1997.

Figures 5-10a, 5-10b, and 5-10c show how the distribution of freshmen receiving grants has shifted over time. Among the 36 Best liberal arts colleges and universities, it was not until 1993 that one of these institutions provided grants to more than 80 percent of its entering freshman class. In 1996, three of the Best institutions provided grants to more than 80 percent of the freshman class and in 1997 only two of these institutions did so. If we look at the Other 177 institutions in the NACUBO database, more than 66.7 percent of them provided grants to more than 80 percent of their entering freshmen classes in 1997, compared to only 28.8 percent in 1990.

**The Average Award Has Remained Stable Between 1990-97**

The average freshmen grant as a percent of tuition is significantly greater at the Best liberal arts colleges and somewhat greater at the Best universities than at the Other 177 institutions (See Figure 5-11). At the Best institutions, the average freshman grant as a percent of tuition has stayed relatively constant over this eight year period—64 percent of tuition at the Best liberal arts and 50 percent of tuition at the Best universities—while it has increased from 42 percent at the Other 177 institutions in 1990 to 47 percent in 1997.

![Figure 5-10a](image)

**Figure 5-10a**
Freshmen Receiving Institutional Grants 1990
Increases in the Discount Rate

The freshmen tuition discount rate is defined as the institutionally funded aid for freshmen from all sources divided by total freshmen tuition revenue, assuming all students paid full tuition.

Figure 5-12 shows that at the Best liberal arts colleges, the discount rate peaked in 1996 at 31.3 percent, then dropped to 29.6 percent in 1997. A similar, though not as pronounced, trend can be seen at the Best universities. On the other hand, the discount rate continues to climb at the Other 177 institutions, where it increased from 26.4 percent in 1990 to 38.2 percent in 1997. In 1990, the discount rate at the Other 177 institutions was similar to the rate at the Best institutions, while today it is about ten percentage points higher.

Another way to calculate the discount rate is by multiplying the average grant as a percentage of tuition by the percent of the class aided. This analysis shows how institutions can achieve the same discount rate with very different strategies of average award and percent of class aided.
At all institutions, the percent aided has increased, but the average grant as a percent of tuition has stayed constant at the Best institutions, while increasing at the others. The data show that the increase in the discount rate for the Other 177 is attributable primarily to the increase in the percent of the class aided, as well as to significant increases in non-need based aid. It is not clear whether need-based aid actually has been reduced at the Other 177 institutions. At the Best institutions, the discount rate decreased in 1997 for the first time in eight years, but it is not clear how we should interpret this result. How much of the increase in the discount rate at the Best institutions has been attributable to the increase in non-need based aid in this sector? Is this sector also reducing its need-based aid? What are the implications for access to private four year colleges and universities for the economically disadvantaged? Is a social good being accomplished by the increase in the discount rate at the Other 177 institutions, or are fewer dollars available for educational programs? In The Student Aid Game, McPherson and Shapiro note that if the merit awards are spreading the most talented students around to more institutions, and if better students raise the level of all students’ attainment, then some social good may be occurring. On the other hand, the merit awards may only be involving a competition for similar students among peer institutions.

Relation of Undergraduate to Freshmen Discount Rate

The undergraduate discount rate is institutional aid provided to all undergraduates from all sources divided by total undergraduate tuition revenue, assuming all students paid full tuition. (See Figure 5-13).

Figure 5-14 shows that at the Best institutions, the freshmen and undergraduate discount rates are quite close, usually within two percentage points of each other.

![Figure 5-13](image)

Undergraduate Discount Rate

![Figure 5-14](image)

Difference Between Freshmen and Undergraduate Discount Rate
At the Other 177 institutions, the freshmen discount rate is significantly higher than the undergraduate rate, meaning that more aid is awarded to freshmen than to upper-division students. Part of this difference is attributable to the sizable merit programs that many of these institutions have. Merit aid often is a fixed dollar amount for four years and requires that certain academic standards be met.

This policy results in a two-fold reduction in the discount rate to upper class students: First, aid as a percent of tuition decreases with increases in the tuition rate and, second, some students lose their awards. Some institutions also employ packaging strategies that require upper-division students to take on greater amounts of self-help, and some awards are made only for the freshmen year. These strategies do not seem to be employed by the Best institutions. Finally, the retention rate at the Best institutions is significantly higher than at the Other 177 institutions, and this may also affect the differences in discount rates.

Figure 5-15 demonstrates the lack of predictable relationships between tuition, net tuition, and enrollment. The data are taken from one of the top 10 liberal arts colleges as defined by U.S. News & World Report. A top ten institution was chosen to show that even at an institution that can fill its class without discounting, the swings in these critical variables are enormous from year to year, raising questions about the usefulness of the published price for parents and prospective students in predicting what they will actually pay, and for the institution in maintaining a stable financial equilibrium.

**Figure 5-15**
Changes in Critical Variables at One Liberal Arts College 1990-1997
Between 1990 and 1997, enrollment in the freshmen class at this institution ranged from increases as high as 16 percent to decreases of more than 20 percent. During this period, tuition increased steadily each year, although at declining rates; up 7.4 percent between 1990 and 1991, and about 4.5 percent per year since 1994. While tuition has increased steadily, net tuition per student has increased in all but one year, 1996, when it fell by 8 percent. Thus, the relationships among freshmen class size, tuition, and net tuition revenue are not correlated. During this same period, the discount rate declined by 15.5 percent between 1990 and 1991 and increased by 22.6 percent between 1995 and 1996. The percent of the freshmen class receiving institutional aid ranged from 42 percent to 53 percent of the class. The average freshmen grant declined in three of the eight years and thus declined significantly as a percent of tuition in these years. For example, between 1993 and 1994, the freshmen class fell by 20 percent while tuition increased by 4.5 percent, net tuition increased by 6.2 percent, and the discount rate fell by 3.3 percent. In addition, the percent of the freshmen class on grants decreased by 8.5 percent while the average freshmen grant increased by 10.5 percent.

The data in Figure 5-15 are meant to raise a variety of questions about the impact of pricing on the composition of the class in terms of size, quality, and economic diversity. The data also raise questions about the predictability of what a student will pay. Are these the results of applying a consistent set of policies with very different yields, or are they the result of experimentation with a variety of policies? Data like the above are even more common among the Other 177 institutions, which tend to have significantly smaller endowments than the Best institutions. As a consequence, deviations from year to year in net tuition revenues lead to significant fluctuations in available revenues.

Questions Raised by the Data

The information contained in figures 5-1 through 5-15 is intended to provide a context for discussion on what we are doing with pricing at our colleges and universities. Questions that occur to us include the following:

1. What is the impact of the growth in merit-based aid on student enrollment decisions? To what extent are students making decisions based on price rather than the best fit? How much of this aid is being used to keep marginal institutions open? How much is being used to change the distribution of the type of students at an institution?

2. To what extent is merit aid reducing available aid for students with need? Is access being reduced?

3. What is the impact of merit aid on resources available for programmatic expenditures at an institution?

4. Are we comfortable with the fact that published tuition is a price without much meaning at many institutions?

5. Do students and families have a positive preference for discounts as opposed to a lower posted price? Do families feel they are getting a bargain when price is discounted?
6. If a student attends a private institution where she is academically 25 percent above the average for that institution, that student will have a high probability of getting a merit offer. Is this good for institutions? For the student? For her classmates?

7. How is retention affected by students who are attending institutions primarily because of merit awards rather than best fit?

8. Are we comfortable that price negotiation has become a fact of life for colleges and universities?

9. Do these pricing strategies alter the competitive relationships between public and private institutions?

10. What are the implications of a significant change in the pricing structure of our industry? Can we speculate on its impact? Will many schools ultimately follow Muskingum's lead in lowering prices?

11. What effect, if any, will FASB 116 and 117 have on these relationships?

12. Are these pricing strategies, and the merit aid which institutions are awarding in larger amounts, providing a redistribution of academically talented students among a larger pool of institutions? If so, is that redistribution good for the institutions? For the students? For society?

Conclusion

As we began the research for this paper, it was not obvious that the effects of tuition discounting were as pronounced as we found. Indeed, we were surprised to discover that unpredictable relationships among published price, net price, net revenue, and enrollment levels are not limited to lower echelon institutions, but are also prevalent at more selective colleges and universities.

Part of the discussion is that these policies can produce effects that are simultaneously good, bad, and ugly. The use of these pricing policies has had many positive effects. Institutions have taken a far more dynamic view of enrollment management and in doing so have worked towards maximizing student body quality, tuition revenue, and (to some extent) access. But potential negative effects are of concern. Should we expect a loss of goodwill with the acceptance of price negotiation for higher education? Will current pricing policies make students believe higher education is more of a commodity than their providers would like? Can pricing continuums be carried too far, where students ultimately lose all notion of cost and demand falls as sticker shock prevails and access seems out of reach? If a college has traveled past diminishing returns, and is indeed disturbing potential demand by playing hide and seek with price, is there a rational path back?

What is clear is that all colleges and universities collect diminishing proportions of potential revenues as these policies are extended, and that an active debate of the issue is required.
Endnotes

1 See David W. Breneman, Liberal Arts Colleges: Thriving, Surviving, or Endangered? (Washington D.C.: The Brookings Institution, 1994) for a more detailed discussion of the issues raised in this paper.

2 Nor do colleges view students as interchangeable; the oft-used analogy to airline ticket pricing breaks down at this point, because colleges care who their customers are in ways that airlines do not.

3 For elaboration, see Breneman, op. cit., pp. 36-51.

