

The Economics of Cost, Price and Quality  
in U.S. Higher Education

Michael S. McPherson and Gordon C. Winston

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Michael S. McPherson

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Gordon C. Winston

Williams College

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## I. Introduction

The “cost-quality” quandary in American higher education is, to simplify somewhat, really two problems. On one hand is the problem many states are struggling with of raising the quality of undergraduate instruction at state-run institutions. At these institutions, cost to the buyer is not a major issue because state operating subsidies keep tuition relatively low. And the major issues regarding resource costs in public higher education center more on expensive research facilities than on the cost of undergraduate teaching. On the other hand is the problem that at elite private colleges and (some) universities, where the intensity of commitment to high quality in undergraduate teaching has traditionally been highest, costs to the buyer seem to be going through the roof.

A natural link between these two problems is suggested by the role tuition revenues play in the finances of these two sets of institutions. At public institutions, tuition from students is a relatively unimportant source of revenue, and the incentive to respond to the market by teaching well is correspondingly attenuated. Unless tuition policy changes radically, the problem for states is to figure out ways to provide other incentives to public universities and colleges<sup>1</sup> to teach well. At private colleges and universities one source of rapid cost increases facing students is the heavy dependence of these institutions on tuition. And this for two reasons. First, when revenues are needed, higher tuitions are the most obvious source private institutions have to get them. Second, and more surprisingly, the

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<sup>1</sup> Hereafter, for the sake of economy of expression, we will use the labels “college” and “university” interchangeably, except where the context makes clear otherwise.

great attention to student demands and preferences at private colleges may cause them to raise tuitions faster because it pays for costly items that either provide or symbolize quality and because high tuition may itself be a signal of quality .

To make it a slogan: quality is a problem in public higher education because student demands matter too little, and cost is a problem in private higher education because student demands matter too much.

This proposition, however much it needs to be qualified and complicated, may provide a useful starting point for exploring some issues about quality and cost in higher education. The following essay takes up these questions more from the standpoint of private than of public colleges, and especially of elite private colleges, partly because they are what we know more about and partly because the current concern about costs in higher education focuses so heavily on that small but influential group of schools. Issues about quality and cost in public higher education are certainly worthy of more attention than we have managed to give them here.

After a preliminary attempt to sort out the various meanings the terms “cost” and “quality” assume in higher education, we take up some issues about problems of cost and pricing in contexts where reliable information about quality is hard to come by. We then examine some special issues that arise from the practice in higher education of charging different prices to different customers through the vehicle of financial aid. We conclude by raising a number of issues about federal policy that are, we hope, illuminated by this analysis.

## II. Unpacking the notion of “quality”

### A. Quality and heterogeneity

There may be some goods and services which can meaningfully and unambiguously be ranked from “best” to “worst”, but the services of higher education institutions are surely not among them. Products that can be so ranked are generally quite homogeneous, and can be ranked along a single, measurable dimension, such as chemical purity or butterfat content.

But colleges and universities are too various in their missions and clienteles for any single dimensional ranking to make much sense. In fact, it is important to notice that this heterogeneity is of more than one kind.

First, most colleges and universities are “multi-product firms”, aiming to provide more than one, and often many, kinds of services. The large state university, with its concerns for undergraduate, graduate, and professional teaching, for pure and applied research, for public service, for semi-professional athletics, and so on, is the clearest example, but even simpler institutions like community colleges or liberal arts colleges have multiple objectives.

Second, even if we focus on a single broadly defined function -- say the improvement of students’ writing skills -- institutions differ dramatically in the clienteles they serve. A team of instructors who are superbly well qualified to improve the writing performance of students who have completed four years of honors level English in high school may be thoroughly inept at teaching basic grammar and usage to students with poor high school training, and conversely. A high quality education for a particular group of students is one that is well adapted to their needs and capacities, thus frustrating any notion of a single scale of quality.

The closest we can get to a fully unambiguous quality ranking is to focus separately on groups of schools with similar missions and similar clienteles -- or, where schools have multiple missions or clienteles, to try to compare their components separately.

B. Quality and value

Another “cut” on the quality issue requires distinguishing these questions:

1. “How well does a college do with the resources it's got?”; vs.
2. “How great are this college's resources?”

Back in the 1970's, we tended to think that the Volkswagen Beetle was a very high quality car in the former sense, while the Mercedes or the BMW was plainly a “better” car than the Volkswagen from the latter point of view. Various American car companies at the same time devoted themselves to showing that simply putting a lot of resources into a car was not enough to ensure high quality in either of these senses. Question 1 is often thought of as the question whether a product or service provides “good value for the money”.

It should be possible, at least in principle, to answer this “value for the money” question for schools that expend about the same amount of resources per student, provided that they have similar clienteles and missions. Similarly, if schools are at least roughly equal in cost-effectiveness (and have similar missions and clienteles), but differ substantially in the resources they make available per student, it should be possible to compare those schools in terms of question 2. Thus, one would expect the school that was deploying more resources to have smaller classes, better dormitory furniture, a more industrious or learned faculty and

the like.

It is of course no easy matter to compare the cost-effectiveness of schools that deploy different amounts of resources -- especially since in reality there are always some differences in clientele and mission to deal with as well. Putting those aside, it may be meaningful to say that one school, which "costs" society more, is, in "absolute" terms, higher in quality than another less expensive school. But is the extra expenditure worth it -- does the more expensive school provide as good or better "value for the money"? To answer this requires some sort of judgment about what the added quality is "worth", a judgment on which different actors may disagree.

C. Quality and the eye of the beholder

Still another complication in judging quality arises from the fact that, even holding constant mission, clientele, and resources per student, quality may be judged differently by different constituencies that matter to a college or university. Parents may feel differently about heavy "homework" assignments than students do; alumni may have a distinctive view of what good teaching is; the public at large may have a stake in educating students for citizenship which is not felt so acutely by other constituencies; faculty often have a distinctive view of their institution's mission and central concerns. A full list of groups with a stake in a college's or university's conduct would surely include, among others: students, parents, alumni, faculty, staff, trustees or governing board members, legislators, and citizens. What quality is depends on how you perceive and why you care about a college.

D. Student quality and institutional quality

A final complication in thinking about college quality is the interplay between the quality of the students and the quality of the school. In general, one of the things students

care about most in choosing a school is the quality of the students. The evidence, not too surprisingly, is that the typical student wants to attend a school where his or her classmates will be somewhat, but not too much, more accomplished than he or she is (Lit-ten, 1991). Doubtless this is partly a matter of reputation -- the job market prospects of a student, for example, are to some degree influenced by the average quality of her classmates -- but there is a real educational point to this preference too, Students learn from their colleagues, and it is quite plausible that a student will typically learn most from peers who are near him or her in capacities and accomplishment -- and perhaps preferably a little above.

Students function, then, both as consumers of education and as inputs to one another's education. This complicates thinking about educational quality considerably. Thus, a school which held constant the quality and amount of all its other resources and improved the quality of its student body somewhat -- say by replacing a few of its weakest students with a few high achievers -- would thereby become, in a perfectly objective sense, a better institution for most of its students. At the same time, the change would improve the reputation of the school and demand for its services, thus likely making it easier for the school to improve the quality of its other resources as well.

This institutional interest in admitting high quality students is compatible with the substantial meritocratic component in American ideas about distributing higher education, which implies that more able students should receive more expensive educations. Both the strong demand for the services of institutions that serve high ability students and this disposition to provide such students with better educational resources result in the familiar fact that, by and large, more selective institutions provide more costly educations. This

complicates the task of disentangling the quality of the educational resources an institution provides from the quality of the clients who receive them.<sup>2</sup>

It would be possible to imagine a higher education system which systematically devoted more resources to less well qualified students, perhaps out of a desire to use the educational system to compensate for social disadvantages, or out of a sense that the most able students can learn pretty well on their own and from each other.<sup>3</sup> Contemplating such a system brings out the ambiguity inherent in notions of what constitutes a “good” college, since presumably in such a system the better paid and more effective teachers, the smaller classes, and the more comfortable dormitories would be found at the schools which were “easiest” to get into. Conceivably, such a system could produce bizarre incentive effects, as students might underperform to get into a “better” school.

Whatever the merits of such a system, it would clearly be quite different from the one we have now, in which a hierarchy of institutions ranked by resources per student, subsidy per student, and academic performance of students would all (with significant exceptions) be quite similar. A bit of evidence on this point is provided by Table 1, reproduced from Lee, 1987, which shows measures of expenditures per student and total subsidy per student in higher education according to the ability ranking of students.

E. Cost and quality

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<sup>2</sup> For a more extended treatment of these complicated issues, see (McPherson and Schapiro, **1990**)

<sup>3</sup> It is not clear that society’s resources are best spent on remediation at the level of higher education; there is reason to suspect that early intervention, before primary school, is more productive.

**a**

We might pull together these different aspects of the notion of quality by considering some alternative interpretations of the complaint that the most expensive colleges and universities cost too much -- referring here to the resource costs of the institutions rather than their price. There are at least these possible interpretations:

1. These institutions simply waste resources: they could produce exactly the quantity and quality of educational services they do now while using fewer resources.
2. These schools spend too much money on items that, while desired by some constituencies, are not "genuinely" educationally valuable; such frills add to the cost of education without providing comparable benefits.
3. Too much money is spent on the education of the most able students relative to what is spent on others. Society should find ways to redirect resources from this "elite" education to the education of lower achieving students in other higher education institutions.
4. Too much money is spent on higher education altogether. Fewer resources should be devoted to the education of both more able and less able students in higher education, and the freed resources should be devoted to other social uses that have higher priority.

Only the first of these possibilities conforms unambiguously to an economist's

understanding of “waste”. In every other case, the implied changes would reduce the “cost” of the most expensive colleges and universities only by reducing their “quality”, at least according to the values of some participants. The last three possible interpretations all raise questions about educational priorities, whether among the diverse educational missions and constituencies colleges serve, between institutions serving different categories of students, or between higher education and other social concerns.

### III. Unpacking the concept of cost

Despite its prominence in recent debate, the notion of “the cost of a year of college education” is fraught with ambiguity. Indeed, the complications seem no less pervasive than those surrounding the idea of the quality of higher education. Some of the ambiguity about costs is due to the degree to which colleges and universities fail to follow our intuitive and usually accurate ideas about economic transactions between buyers and sellers; some ambiguity comes from our embedding in the pricing of higher education social objectives antithetical to the profit motive; and some comes from curious and arcane traditions of college and university accounting that distort their own sense of their own costs.

#### A. Whose Cost, The Buyer’s or The Producer’s?

The distinction between a product’s price -- the cost to the buyer -- and its production costs -- the cost to the producer -- is a familiar one. But the twists and turns that distinction takes in higher education are not familiar and intuition, schooled in ordinary commercial transactions, can be seriously misleading. In commercial transactions, there is typically not much difference between price and production costs -- an oft-extolled virtue of a competitive

economy. When monopolistic elements intrude, to be sure, price can exceed average production costs and, indeed, that is the rationale of the antitrust policies which are intended to eliminate such distortions.

But in higher education, in sharp contrast, prices often differ from production costs markedly, behaving quite unlike those of commercial markets. Our natural analogy fails. The price of a year of Williams education, to take a handy example, is currently \$20,760 while per student production costs measured on a current services basis are on the order of \$34,000. Prices in higher education are not only typically lower than production costs -- the opposite of monopoly -- but it is not uncommon for production cost to be one and a half to two times the price. Though our example refers to a well endowed and expensive private college, it is not at all atypical of that influential group of colleges and universities. At public colleges and universities, it is rare for tuition revenues to cover as much as 30% of operating costs, and they often cover much less.

So in colleges and universities, a substantial part of the costs of production are not passed on to the consumers in the prices they pay. Instead, these institutions use endowment income, current gifts and grants, and public revenues from taxpayers -- in quite different proportions depending on institution type -- to reduce the price charged the student. There are, of course, quite widely shared social motives for doing this. The point to be made here is simply that the contrast between the market institutions of higher education and the commercial markets we're more familiar with is fundamental: in higher education production

costs are higher than price, and often by a very great margin.<sup>4</sup>

A dynamic parallel to the unique cost/price relationship of higher education derives from the fact that changes in prices need not be closely related to changes in costs. For profit-seeking enterprises, the markup between price and cost is generally set by market conditions, so that changes in price and production cost are closely linked. The intervention of gifts, public appropriations and endowment income introduce more discretion for colleges. Particularly for private institutions that hold endowments in trust, there is a need to plan for a distant future -- the obverse of the way their current fortunes are dependent on a distant past. One of the principal advantages of an endowment, in fact, is the capacity it gives a university to de-link expenditures and prices in the short run, helping to avoid stop/start patterns of financing that sometimes disrupt poorly endowed or public institutions. It is striking to notice that the capitalized value of the stream of revenues major state universities receive from their legislatures would be equivalent to an awesomely large endowment, but the inflexibility and uncertainty of that payment stream make it much less valuable than an endowment of equivalent amount.

Generously endowed private universities have in principle the flexibility to gear their tuition pricing decisions to their judgment of current market conditions, while tailoring their expenditure decisions to other forces like curricular need and trends in faculty labor costs. In practice, the ability of such institutions to raise substantial revenue from tuition and save the proceeds is more doubtful, given the internal pressures to spend whatever money is

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<sup>4</sup> For a more thorough analysis of the wealth-equivalence of such income streams, see Bradburd and Mann, 1991.

available.

#### B. Price and Sticker Price -- the Effect of Financial Aid

Even the novel relationship between price and production costs found in higher education (and some other non-profits) is complicated further by the injection of strong social and institutional objectives into pricing policy. For many colleges and universities, "the price" is only a sticker price, systematically adjusted for individual students according to their individual characteristics -- traditionally, academic or athletic performance and family income. Since most institutions have at least some sources of subsidy that hold price below average production cost, the typical situation is that no student pays a price equal to the full cost of his or her education and many students -- over fifty percent at some of the most expensive private institutions -- don't pay even that subsidized price, paying, instead, a price lowered by scholarship grants and subsidized loans.

The motives and consequences of these "discounts" will come in for further discussion below. Here it is sufficient to note that colleges justify expenditure on both need and merit based aid partly on social grounds, of equity or of reward for excellence, and partly on grounds of institutional self interest. Merit awards attract able or fleet footed students who add to the institution's prestige, while need based aid contributes to goals of diversity and social justice by lowering the price to those who are less able to pay -- the classic strategy of a price discriminating monopolist. Those institutions that could not fill their classes with students paying the sticker price may, like the airlines, gain more in revenue by selling some seats at a discount than by leaving them empty.

### C. Resource Costs and Money Costs

For neither student nor college is all cost captured by money cost -- even the actual money price, adjusted for financial aid, won't typically describe all of the costs of going to college, while even the accounted production costs won't typically describe all of the costs of producing that education. By going to college, the student sacrifices earnings that are often considerable in comparison to the price; meanwhile, the institution leaves out of its cost accounts significant parts of the resource costs of its education.

#### 1. Sacrificed student earnings

Students give up potential earnings when they go to college full time, and even part time study at night school may carry a cost in lost leisure or earning opportunity. These are the "opportunity costs" of economic theory that aren't included in the money costs of education but are nonetheless very real and play an often crucial role in student decisions. So even the fully aided student who pays a zero price to go to school may incur significant opportunity costs if his absence from the workforce deprives him or his family of essential earnings. Because the magnitude of these opportunity costs depends solely on what else the student would be doing if he or she weren't in school, it is, at one and the same time, important, idiosyncratic, and hard to measure.

#### 2. Capital costs and depreciation

The institution's money costs fail to reflect real resource costs for quite different

reasons, though “opportunity cost” again plays a central role. Capital costs plague the dubious traditions of college accounting. Colleges and universities own massive amounts of physical capital in the form of buildings, equipment, land, and facilities. Though reported values of that capital stock have their problems, a reasonable rule of thumb might be that for every dollar of operating cost, there are six to eight dollars of physical capital; so a school with a \$50 million yearly operating budget may work with \$300400 million of physical capital.

But if that capital stock is owned by the institution, the services it yields never show up as a cost of producing the education. Two comparisons may convey the depth of that anomaly.

Some colleges own most of their capital stocks; some colleges rent theirs. (Rented capital is a fact of life especially at large urban institutions that are squeezed for on-campus space.) Yet that difference in ownership clearly can't matter to the real resource costs of producing an education -- in two otherwise identical schools, students take their classes inside heated buildings, walk on paved sidewalks, live in dry rooms, and so on. Yet the conventions of college accounting would show that the college that owns its own capital incurs much lower costs than the college that rents its capital. Rent payments include normal depreciation -- wearing out -- of the capital stock and rents include as well the opportunity cost of putting those buildings to another use, reflecting their real resource value. But little of that would show up on the books of the school that owned its own capital.<sup>5</sup> It would, despite its being identical to the other in all real respects, appear to be more efficient,

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<sup>5</sup> Repair and renovation costs would typically appear and they would be included, too, in a rental charge.

producing the same education at a lower cost.

The other useful illustration involves a slightly greater leap of imagination to a college that owned not only its buildings and grounds, but its faculty and staff. In that slave system, our present college accounting conventions would happily show that the faculty and staff carried no costs excepting, analogous to maintenance and repair, those of feeding, clothing, housing and medical care. All else -- all the productive value of their services that we now include as a central component in the cost of higher education -- would be considered to be free.

The assumption of college accounting is that what is owned by the institution has no value and carries none other than direct costs -- the opportunity costs of those resources, physical or human slave resources, are ignored.

Note that there are two distortions here in the way capital costs are accounted. One is the fact that no costs are routinely recognized for the regular wearing out of the capital stock - colleges don't depreciate their capital. The other is the fact that the value of capital resources in alternative uses is routinely ignored. Although there is some movement in college accounting to recognize depreciation costs, the substantially larger opportunity costs of capital are likely to continue to be ignored. Together, these two cost components represent a significant underaccounting of the real resource costs of higher education. For Williams, as one example that is amply endowed with buildings and resources, recognition of capital costs adds almost fifty percent to total costs read straight from the operating budget -- cost per student goes from \$34 to roughly \$49 thousand per year.

### 3. Wealth and Debt

Colleges and universities are increasingly going into debt -- typically their borrowing is available for and used to finance capital projects, but given the fungability of resources, college borrowing raises broader questions than that restriction might imply. Induced by government grants of tax exempt status for their bonds, colleges and universities have run up significant debt. Although recent changes in the tax law curtail tax subsidies for such borrowing at private institutions, it is not clear that, having acquired the habit, schools will stop borrowing as a result.

Increased indebtedness is not obviously related to costs -- indeed a major incentive to borrow has been the revenues earned by "interest arbitrage" when institutions can take out loans at lower rates than they earn in their portfolios -- but it is highly relevant to the gap between cost and price. Prudent accounting practice endorses, apparently, a university's issuing debt in amounts as much as one third the value of the endowment. Yet traditionally, such institutions issued no debt at all. Two consequences would seem to follow from such massive debt issue. An "endowment illusion" appears evident even at this stage -- the tendency to think of endowments as if they still represented the unencumbered wealth they once were when, in fact, they are increasingly offset by outstanding debts. Institutions will think themselves quite wealthy on the basis of their gross endowments when much of that wealth is cancelled by offsetting debt. The business concept of net worth, rather than gross endowment, has become relevant. Yet universities and colleges seem rarely to think in net worth terms, and indeed we have been unable to discover published data on universities' net worth despite frequent reports -- lists, tables, rankings -- of gross endowment. Debt service at

public institutions may in a similar way represent an inadequately recognized encumbrance on future revenue streams, Along with this illusion of wealth come declining returns on gross endowment -- though return on net worth may rise owing to interest arbitrage, it will be increasingly diluted by debt service.

A happy consequence of increased indebtedness is that it appears to be inducing at least a sporadic and partial recognition of the costs of capital services. So Stanford, for one, is including in its operating budget a charge for debt service on any building built with borrowed money. Though they don't yet recognize the same real resource costs for buildings built with their own gift or endowment money, what they're doing is clearly the entering wedge -- it seems unlikely that they will long live with the anomaly of having two identical operations housed in identical buildings in one of which operating costs do and in the other don't include the costs of capital. As that uncomfortable anomaly is eliminated, recognition of capital costs may well become general. In the meantime, tax exempt debt issue has the power significantly to alter the relationship between price and costs of higher education.

#### **IV. Pricing and Quality with Imperfect Information**

##### **A. Price, Quality, and Imperfect Information: Economists' Insights**

Looked at as a product that is for sale in a market, one leading characteristic of a college education is that its quality is hard to judge. Higher education shares this characteristic with a good many other goods and services, among them medical and legal services, electronic equipment, and scholarly papers. In the last two decades, economists have examined with much more care the implications for the functioning of markets of the fact

that information about the quality of products is often scarce, unreliable and costly. Although the economic work has tended to focus on consumer goods marketed by profit-seeking firms, it is instructive to review some of the leading ideas that have emerged from the economics literature.

A good starting point is the distinction between “experience” and “inspection” goods. The quality of inspection goods can be easily observed by the buyer -- some foodstuffs and many items of clothing come close to being pure inspection goods. But many consumption items can only be adequately judged by experience -- books must be read, restaurant meals must be eaten, cars must be driven for years, and so on. For some such goods, the experience can be gained at low cost -- unfortunately for the Coca-Cola company, it was easy enough to find out what the “New Coke” tasted like -- but for others experience takes time and the opportunity for repeat purchases is rare. Trial and error is a risky way to select either a heart surgeon or a college education.

Both buyers and sellers have incentives to overcome the information gap that exists for experience goods; but unfortunately the market also generates incentives that interfere with the free flow of information. Producers of a new high quality car have incentives to advertise its exceptional performance and reliability. Unfortunately, producers of a new low quality car have incentives to make exactly the same claims. Because enforcement of rules against misleading advertising claims is itself costly and unreliable (after all, no one knows for some years how reliable a new car will prove to be), it is very hard for a firm to make a credible advertisement of its product’s special virtues. Intelligent consumers will be skeptical about all advertising claims, There is a symmetrical problem on the consumer side. A seller

could say, “you try the product, and pay me what it is worth”; the buyer then has an incentive to understate the value of the product.

Both buyers and sellers will look for ways to reduce buyers' uncertainty about product quality. Buyers will talk with their friends, and pay for the services of agencies and magazines that provide disinterested information about products. Sellers will offer legally enforceable warranties. These strategies, however, although they can often reduce, cannot usually eliminate uncertainties. Products can be guaranteed against certain objectively observable defects, but a guarantee that a product will provide a consumer with a high level of satisfaction will suffer from the problem noted above: consumers will have an incentive to report themselves unsatisfied. The generation of information from independent agencies is impeded by the fact that good information is costly to acquire and is itself hard to sell at its true value: how do you get those who value the information to pay you for it, rather than borrow a friend's copy of Consumer Reports? Because such information is a public good, the market will tend to produce too little of it. Government agencies may step in to add to the flow of information, as much consumer protection legislation tries to do, but government action must be limited to objective and verifiable information, while it is often more intangible or subjective aspects of a commodity that matter most to consumers. Current government interest in “increased accountability” in higher education, however, may well include elements of both.

When the provision of such “direct” information about product quality is inadequate, buyers are likely to seek, and producers will try to provide indirect or symbolic indicators of product quality. One of the most fascinating developments in modern economics has

involved the systematic exploration of the implications of such quality indicators for the performance of markets in which information is imperfect. The phenomenon is familiar: firms advertise their longevity, their prestigious customers, their size. None of these provides direct evidence about product quality, but all these items speak indirectly to the quality of the firm's performance: it has had enough satisfied customers to stay in business for eighty years or to grow large, or to pass inspection from the (presumably demanding) agents of (say) the Queen of England.

Other symbolic expressions of a firm's reliability may be more subtle. Firms selling high quality products may worry inordinately about insignificant details of a product's finish or packaging. Buyers may care little about these details as such, but are likely to respond to the signal such care sends about the firm's approach: if they care that much about the quality of the printing on the package, surely they must care also about the quality of the parts in the motor. More generally, most experience goods have some features that are open to inspection: the looks of a car, the leather on the chairs in a lawyer's waiting room, or the manicure of a lawn on a college campus. Firms will attend to those as a signal of their willingness to attend to more substantial matters.

Such signalling, however, poses an obvious risk to consumers. It's easy enough to put a real turkey of a camera in a fancy box: why should consumers put any more faith in these signals than in the puffery of advertising claims? Several economists have offered an ingenious reply to this query. Suppose the "signal" or quality indicator is itself costly to produce. By investing in the signal, the firm is, in effect, saying, "we believe in this product. We are willing to spend money to get you to try the product once, or anyway to induce you to

give it a very close inspection. If the product is a turkey, we won't get many repeat purchases, and/or survive many close inspections. If we expected that result, it wouldn't pay us to invest in the signal." The signal, precisely because it is expensive to produce, has a kind of self-validating quality.

Philip Nelson has applied this notion tellingly to the familiar phenomenon of "content-free" advertising. When Pepsi pays Michael Jackson or Michael J. Fox millions of dollars to make a commercial, the only information that commercial conveys is that Pepsi believes its product is worth spending millions of dollars to advertise. If they expected the product to flop, they wouldn't throw away money on the ads. What Veblen called "conspicuous waste" thus may serve an economic function in an information poor environment: spending lavishly on the package really does testify to the quality of what's inside. Locating your shop in a high rent district, running a newspaper ad that is mostly "white space", having the waiters outnumber the customers -- all these may be ways of signalling that the product is so good you can afford to invest lavishly in making it available to people.<sup>6</sup>

Another important signal or quality indicator is the price of the product itself. In a well functioning market, one would expect better quality versions of a product to sell for a higher

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<sup>6</sup> Plainly, this signalling function is likely to be only part of the explanation for some of these phenomena, The high rent district is a convenient place to shop, and diners enjoy close attention from waiters.

An important subtlety in Nelson's analysis is that neither the firms nor the customers need to be aware of the signalling function for it to work. Customers will find that buying heavily advertised products "works" and firms that produce high quality products will find that it pays to advertise, while producers of low quality products will find it doesn't pay to advertise. The practices can sustain themselves even if both the firms and the consumers have quite other ideas about what is going on.

price. Given the costliness or unavailability of adequate direct information, it may be quite reasonable for buyers to judge quality by the price. The producer of a high quality product may consciously stress its costliness as a mark of its quality. However, the preceding analysis suggests a serious problem here. Charging a high price is not an expensive signal to send. What is to prevent sellers of low quality products from sending a misleading signal by charging a high price?

It's easiest to see the answer to this question by turning it around. What prevents a seller who has been marketing a high quality product at a high price from dropping the quality, thereby reducing costs and adding to profit? The answer lies in the negative impact this action would have on future sales. The high price is in effect a "promise" of high quality; failure to keep the promise will harm the firm's reputation and hence reduce repeat purchases and produce negative "word of mouth" advertising. (A firm that knew it was going out of business would have an incentive to shortchange its customers in its closing months; the resulting customer suspicion is one reason firms tend to keep news of plans to close down quiet.)

Returning now to the original question, we can see that a low quality producer can gain in the short run by charging a misleadingly high price only at long run cost to its reputation. Even reverting to the former low price may not restore customer loyalty, since customers may anticipate a further quality reduction. The "fly by night" strategy of overpricing and underperforming may work if it is possible to pull up stakes easily and reestablish the business in a new location. It won't work well if there are large setup and shutdown costs in the business, or if buyers are sufficiently alert to look to other reputational indicators, such as

length of time in the business, in selecting the producers they deal with.

Thus a firm in a stable market which raises its price in order to signal an improvement in quality is going to have to make good on the signal, by investing the added revenues in providing a better product. In markets that function this way, it is rational for consumers to judge quality by price and rational for producers to set price according to quality.

These signalling mechanisms all represent imperfect responses to the problem of costly and inadequate information about product quality. "Image" advertising and other "conspicuous waste" use up resources without providing any direct benefits. Firms will devote more attention to aspects of product quality that are easily observed than they would if information on all aspects of the product were easy to get. When buyers judge quality by price, high quality products will tend to sell at a premium compared to the price that would be charged with perfect information.<sup>7</sup> All of these strategies may be vulnerable to exploitation by opportunistic sellers, who succeed in "faking" the relevant signals.

Yet, while these market oriented solutions are imperfect, it is not clear that any perfect solution to costly information exists. To outlaw image advertising or other conspicuous waste would, for example, deprive consumers of one more or less reliable source of information on product quality. To combat the phenomenon of judging quality by price through a scheme of

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<sup>7</sup> A firm producing a high quality product is in effect making an investment in reputation: it maintains high quality now so that it will have strong sales in the future. If the firm did not expect a positive return -- a premium -- on this investment in reputation, it would not undertake it. It can be shown that the more information poor is the environment in which the firm operates, the larger the premium that must be paid to encourage firms to keep quality high. (Shapiro, 1983).

price control that prevented charging a premium for high quality products would eliminate the incentive for high price producers to maintain high quality. (See note 8). If information were perfect, of course, these problems wouldn't arise, but wishing for perfect information is not an effective policy.

## B. Pricing and Quality in the Higher Education Marketplace

It's our sense that these developments in the economic theory of markets with imperfect information offer useful insights about recent developments in the higher education marketplace. At the same time, they help us to recognize some important features of higher education which depart from the assumptions that lie behind the economists' models.

### 1. Applying the pricing/reputation framework

It requires no argument to show that college education is a service whose quality is hard for the inexperienced consumer to judge. It is also apparent that both colleges and students have invested in a number of the strategies for coping with this uncertainty which we have just surveyed. The publication of "guides to colleges" has become a significant industry, as families turn to independent sources for information about college quality. Colleges have engaged in increasingly explicit and extensive marketing activities, intended to provide consumers with information that will influence their choices. Also increasing, we would suggest, are activities by colleges and universities intended to offer "signals" of high quality to prospective customers.

The signalling we have in mind involves both various forms of "image" advertising and

an increase in various categories of expenditure that serve to signal quality indirectly to buyers who have limited access to reliable direct information about quality. Colleges have devoted increasingly substantial resources to improving the presentation of the materials they mail to prospective customers. More extensive (and quite expensive) use of full color reproductions in catalogs and viewbooks, the development of differentiated information packets to students with different backgrounds and interests, investments in yield parties and cultivation of alumni networks -- to be sure, each of these conveys some information about the institution, but each also carries an important indirect message. That message is : we believe that if you look hard at this place, you will be impressed, and we are willing to put substantial money behind that belief.

A similar kind of signalling may be involved in the choice of on-campus investments. As noted above, some aspects of the educational enterprise are very hard to learn about except through experience, while others are more or less available to inspection. Investment in the latter provides some direct information about the quality of the school, but also serves the purpose of signalling that the school has the confidence to put substantial resources behind those aspects of the enterprise that most attract students. These investments wouldn't be worthwhile if other aspects of the institution proved disappointing once students were on scene.

Colleges seem to be paying substantial attention to presenting their campuses well in these respects. One would expect considerable attention to the quality and appearance of grounds and physical plant, as well as investments in architecturally striking buildings, devoted to activities whose benefits students can readily grasp. Theaters, athletic facilities,

computer centers, museums and the like would rank high on a list of such facilities, and prestigious colleges and universities have been energetic in developing such facilities in recent years.

Investment in marketing efforts and more generally in “presentation” of the institution has, we believe, grown markedly in recent years, especially among the more prestigious private institutions. The economic analysis suggests some reasons why that should be so. One key point is that the mechanisms for signalling quality are all aimed principally at attracting new or poorly informed customers. For a variety of reasons, “elite” colleges and universities have been making strenuous efforts in the last decade to broaden their clientele. One important reason for this broadening has been a concern for diversity; to make the institution known and attractive to students of ethnic and social backgrounds that have not been well represented at these schools. Elite institutions, like others, have also been quite concerned about the decline and significant geographical shifts in the college age population. Strenuous marketing efforts have aimed to increase the fraction of the college age population applying to these institutions, as a way of countering the shrinkage of the pool. Anxiety about competing effectively with high quality public institutions has also played a role.

A second relevant factor is that colleges and universities have become more dependent on students as a source of revenue. Federal support for research and graduate education has lagged since the early 1970's, while the federal money that is available has increasingly been channeled through students as student aid. In the states, the picture is more mixed, but many states have suffered financial reverses that have reduced the relative contribution of state appropriations to public university and college revenues. At the same

time, a relatively strong economy through much of the 1980's, particularly for upper middle and upper income families, increased the attractions of a high price/high quality marketing strategy. The economic reversals of the early 1990's have certainly caused colleges to rethink that strategy.

With heightened marketing efforts across a wider range of student groups, high cost colleges and universities have become much less "cozy" places than they were before World War II. In the "old days" there was a much clearer understanding about what sort of people (i.e, mainly upper class white men -- or upper class white women at the "Seven Sisters") went to the elite colleges, and in those circles, information about these institutions was relatively easily gotten, from parents and friends who had gone to these schools. In attempting to communicate with a larger and more diverse clientele, these institutions must necessarily adopt techniques that are more impersonal. Among groups where they are not well known, these institutions must also anticipate that their claims will be treated more skeptically. Simply saying you are good may no longer be enough: you have to demonstrate it in visible, albeit symbolic ways, to a clientele that is literally as well as figuratively from Missouri.

It is difficult to judge how much such demonstration efforts have actually contributed to cost increases. It does seem clear, though, that these efforts have contributed to an atmosphere in which quality is more closely identified with visible, and often expensive, symbols of quality.

This brings us, finally, to the notion of judging quality by price. Such an indirect quality signal is likely to be more important in a marketplace that contains more potential

customers who lack other sources of reliable information on institutional quality. One good way for a college to send a strong signal that it is a high quality place is to make sure its price is not below the price of schools that are lower in quality.

A university may in fact succeed in the short run in improving its reputation for quality simply by raising its price. But unless the university validates that signal by supplying a quality level that matches the price, it is likely to suffer in the longer run. Both word of mouth and repeat business (from particular families or particular high schools) will suffer if the quality claim implied by the price is not credible. A marketplace in which schools are struggling to attract an increasingly diverse student body from a declining pool of students -- and in which information about quality is scarce -- seems likely to exhibit both rising prices and rising quality.

The success of that strategy may rest on an environment of considerable affluence. In more stringent times, a reputation for quality can abruptly become a reputation for extravagance.

## 2. Problems with viewing education as a reputational good

This economic framework helps us to understand and, in some measure, to sympathize with the efforts of schools to polish their images and pay more attention to some relatively superficial aspects of their operation which are, nonetheless, important in communicating in an information-poor environment. Yet there are also ways in which a recognition of the "reputation" game can make for uneasiness. Two points stand out.

First, the economic analysis here pays no attention to the variety of quality concepts which are relevant in higher education. “Quality” in economic models of consumer goods markets is simply understood as whatever dimensions of the product consumers value; it may be associated with durability or reliability or convenience but it is ultimately understood in a purely subjective way, as whatever consumers care about.

But “quality” in higher education includes perspectives beyond those of the student and her family. As noted earlier, quality may be differently defined by faculty, alumni, public officials, and other interested parties. Indeed, one of the reasons that higher education institutions are accorded not-for-profit status is precisely in order to recognize that there is more to the “business” of higher education than pleasing the paying “customers”. Increased attention to the marketing of the institution to potential students (and, in another context, to potential donors) means increasing the weight of that constituency in university decision-making.

It is easy to see that choices faculty might wish to make, particularly regarding curriculum and program, could conflict with the institution’s marketing aims. Indeed, this could be true even of choices that would in fact be in the long run interest of students. This needn’t imply that students are short-sighted or Philistine: it is important to remember that they are selecting a college in the midst of a bewildering variety of choices about which, inevitably, they know relatively little. Strong, simple signals are very important.

It is worth underlining what we are not saying here. Schools that are responding to market pressures to supply a high price/high quality/high prestige product are very likely

doing exactly that. As we have argued, economic pressures will tend to make schools that charge high prices “deliver the goods” by providing “quality” commensurate with the price. In dynamic terms, if a college adds a couple of percentage points to its rate of tuition increase, that college is likely to use the added resources to develop a new program or facility or improve an existing one. If the college simply wastes those resources, spending them on items that don’t matter to students or parents, the cumulative effect of such price increases will be to make the college less competitive. The difficulty is that this is quality as judged by the consumer -- and indeed it will be especially those aspects of quality that are easiest for the consumer to observe and judge. The trouble is that these aspects of quality may not be those that other persons interested in higher education would regard as the most important.

A second point is that the quality of a higher education should be understood relative to the needs and capacities of the particular student. As noted earlier, the “best” school for a given student may not be the “best” school, simply. This is true only to a much more limited extent of most of the consumer goods economists have in mind with price/quality models. Although clearly there are variations with individual need and circumstance, there is a fairly clear sense in which (ability to pay aside) a BMW simply is a better car than a Chevy Nova, and almost anybody would be better off with the former car. However, there are plainly students for whom a Harvard or a Williams education is simply ill-suited.

This, unfortunately, is quite a difficult signal to send in a noisy and confusing marketplace. The symbols of high quality which are easy for students to grasp don’t lend themselves to neat differentiation along dimensions of student need and capacity: high prices, attractive campuses, splashy athletic facilities, and the like are features which would attract

almost any student. The fact that the “best” institutions in terms of rich physical resources also tend to attract the “best” students and therefore to provide the “best” career prospects provides further encouragement to a uni-dimensional ranking of schools that makes much less sense than a similar ranking for cars or television sets.

## V. Costs and subsidies in higher education

Unlike commercial products, as we noted above, most college educations are priced below cost. This practice reflects a social judgment -- or, better, the cumulative effect of a variety of judgments by social groups -- that the purposes of college education are not best served by making its supply maximally dependent on “the market”. The effect of the subsidies provided to higher education institutions is to give those who run them more discretion about whom to admit, what to teach, and what prices to charge than they otherwise would **have**.<sup>8</sup> Much of the subsidy takes the form of contributions to operating costs, either through public appropriations or through the income generated by private gifts and grants. In addition to such generalized aid, further awards are made to individual students on the basis of their characteristics or those of their families, reducing the price for them below even the sticker price. These two kinds of aid carry several implications for costs, pricing and quality in higher education.

### A. Subsidies and Generalized Aid

It is possible for colleges and universities to charge a sticker price that doesn't cover

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<sup>8</sup> Colleges and universities might encounter legal difficulties with their expenditures on student aid if they were profit-seeking institutions. For their selective discounting policies might be judged to be price discrimination -- imagine if a used car dealer required you to fill out a form detailing your income and assets before he would tell you what the car would cost you.

costs because of institutional subsidies. This is what makes the production and sale of higher education so different from those in conventional transactions. Public institutions are directly subsidized by current taxpayers while private subsidies are based on voluntary gifts (encouraged or discouraged by tax laws), present and past. Though subsidies to public institutions may reflect a consensus among the voters, it remains that the tax subsidies are inherently coercive transfers from the public to students. In private colleges and universities, past gifts to endowment or physical plant yield current returns in the form of income and capital services. All together, these subsidies to the institutions allow current students to pay less than the costs of their education.

The issue of coercive tax support of public higher education has been much studied with considerable emphasis on the redistributive effects of general tax support of a present and potential elite (Hansen and Weisbrod, 1969). But the role of private endowments has, until quite recently, attracted much less analytical attention despite the central role endowment and gift based subsidies have played in the production of the highest quality -- at least, most costly -- colleges and universities in the United States. In the past two years, however, both Henry Hansmann at Yale (Hansmann, 1990) and William Massy at Stanford (Massy, 1990) have addressed the question "why endowments?" And while the issue is now firmly on the agenda, neither of their analyses has captured what seems to be the essential aspect of endowments -- that they are a device by which the elite of one generation subsidize the education of the elite of the next. And while the role of endowments is worth understanding in its own right, that understanding is given urgency by current federal threats to tax endowment income.

Our premises are two, and probably quite unexceptionable: that costly, resource intensive education better serves to develop the talents of superior students, and that those students are typically more successful than most students with that success reflected, on the average, in higher lifetime incomes.

What appears, then, to be happening is that a very expensive high quality education is provided at a lowered price to the superior students of one generation through an implicit loan from the preceding generation which is to be repaid by subsequent (consequent?) increases in earnings. So a large endowment permits the sale of very high quality education at low current prices to a highly selected (“quantity rationed”) young elite whose subsequently superior performance carries with it higher average incomes that are then voluntarily shared, in repayment of that implicit loan with the next generation of elite through maintaining and expanding the endowments of these institutions. It is an “intergenerational aid program” among an elite leadership.<sup>9</sup>

This means of finance has two critical consequences for the operation of high cost, highly selective institutions. First, were any generation to pay the full costs of its own

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<sup>9</sup> At a somewhat more parochial level, and with more baggage, it often asserted that an institution will maximize long term income if it keeps current tuition charges lower than its students are willing to pay, thereby increasing the implicit loan to them, increasing, in turn, their sense of future obligation and hence their future contributions. While that hypothesis has not, to our knowledge, been tested (though it seems it easily could be), it has been offered as an explanation for less-than-market levels of tuition and, especially, as a warning to those who would charge a sticker price that was all its market would bear.

A different implication of this hypothesis is that as the proportion of current costs covered by explicit loans is increased, subsequently successful students will view the repayment of those loans as fully satisfying their obligation to the institution and hence to future generations. Those effects could clearly be estimated with difficulty but with considerable value.

expensive education, ability to pay would play a larger role in determining who attends, and selectivity on academic and other indices of promise would be less. Second, if the high cost institutions had to cover their full costs from tuition, their education offerings would likely be lowered in cost and quality. Any particular student and his or her family has to view the investment in high quality education as risky: there is considerable uncertainty about any one individual's own future success. From society's standpoint, however, that risk is effectively pooled in the admission of a highly selected student body to highly selective schools. The general subsidy to these highly selected youth, then, provides an incentive to keep the quality of education provided to the most able high school graduates high, and to make ability to pay count for less and "merit" (as judged by the various qualities that secure admission to a selective institution) to count for more in admission to high cost schools. Among the reasons for emphasis on promoting racial and ethnic diversity in the highly selective colleges and universities is a desire to ensure that the social and professional leadership positions to which these schools provide entry are open to a wider range of the nation's populace.

An analogous argument can be (and indeed has been<sup>10</sup>) advanced regarding education at "flagship" public universities. These institutions were created with the idea in mind of broadening access to higher education, more for a technical than for a professional and social elite. Selectivity was traditionally provided more by a rigorous "flunk-out" policy than by selective admissions, although a number of states now follow a California model of selective admissions to the top tier of state institutions. Prices have been kept low by state operating subsidies, financed through taxes. This subsidy can be interpreted in intergenerational terms if one views the higher taxes paid by graduates of the state's

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10 Freeman, 1973.

institutions as providing the revenues that finance the operating subsidies. This, of course, stretches the point compared to private university subsidies, where alumni of a particular institution generally provide the bulk of the donations to that institution.

#### B. Merit, Equity, and Aid to Individual Students

Generalized aid, whether from tax revenues to public institutions or from gifts and endowment income in private institutions, is augmented by further reductions in price based on the characteristics of individual students or their families -- traditionally on academic, athletic, or artistic performance, or on family income. The criteria on the basis of which this individual aid is granted have become a source of contention in higher education, one that is of special importance among the high cost and highly selective colleges and universities we've been discussing. It involves a conflict between student performance ("merit") and family income ("need"). It is a conflict that, we will argue, is more apparent than real, though it is more dangerous for that fact.

The dominant criterion used in the past thirty years for the granting of individual aid in selective colleges has been, with few exceptions, need or ability to pay, as judged primarily by family income and wealth. This is true in both public and private higher education, although the higher tuition levels in private colleges make need-based aid a much larger budget item at those schools. Combined with strict admissions standards and the fact that the more selective institutions tend to have more resources to devote to their students, the policy of need-based aid has tended to produce a "meritocracy" -- the "best" education in the nation has been made available to the "best" students in the nation without regard to their

parents' ability to pay for that education.<sup>11</sup>

The best of US education, of course, is pricey. As noted above, it costs in the neighborhood of \$50,000 to produce one year of a Williams or Harvard or Swarthmore education, and undergraduate education at the most prestigious public institutions, such as the University of California at Berkeley education is quite costly as well. But, even though the student who pays the highest published sticker price pays only a fraction of that cost at many institutions that still leaves a very large bill for the student or her family. The current disagreement centers on which characteristics should be considered in giving further discounts to individual students.

Both need and merit criteria have immediate appeal. Need-based aid satisfies our deeply ingrained desire for economic justice -- that deserving young people are offered similar opportunities, regardless of their parents' financial success or lack of it. It is the essence of American "equal opportunity." On the other hand, merit-based aid appeals to our deeply ingrained desire to build on the best, rewarding talent and effort and perseverance, and reaping the social benefits of preparing talented people for important economic and social responsibilities.

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11 Two important qualifications to this statement need to be registered. First, the "best" students here are those with the strongest academic credentials at the time they graduate from high school. The educational opportunities and home environments of students from different social and economic backgrounds differ enormously. Hence, the process that determines who will turn out to have strong qualifications for attendance at a highly selective college is not itself meritocratic. Second, even among selective institutions only a handful follow a policy that combines "need-blind" admission with a policy of "full-need" financing. The rest either deny admission to some students because they would require too much aid or admit some students without offering them enough aid to make the institution affordable.

Merit-based aid has the additional appeal, always included in pragmatic discussions of aid policy, but rarely in discussions of principle, that the quality of an institution's students plays a very large role in determining the quality of the education it offers -- both in the minds of the consuming public and in fact. So any institution that wants to improve (or protect) the quality of its educational product is sorely tempted to use merit-based aid in order to make the price of its education selectively lower for the most desirable students -- to "buy" good students, if you will, in recognition of their central role in determining how good the school is and is perceived to be.

And there's the rub. The outcome of that parochial temptation is, in the language of game theory, a nearly classic Prisoners' Dilemma.<sup>12</sup> It is in the best interests of any individual school to use its limited financial aid resources to lure the best students away from a competing school. If it can improve its student quality, it will improve its reputation and its educational quality. To put the same thing the other way around, if its competitors are trying to bid away a school's best students, the quality of its own education will fall unless it retaliates. Those aren't idle possibilities, but concrete results of competitive merit-aid bidding for good students.

A strong institutional self interest is served by merit-based aid. Against this is usually

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<sup>12</sup>The DA has two prisoners on a misdemeanor, but can convict either on a major felony if the other confesses. If one confesses and the other does not, the "squealer" goes free, and his unfortunate partner gets 10 years. If both confess, they get 5 years each. The misdemeanor gives them just six months each. A little thought will show that, no matter what Prisoner A does, Prisoner B is better off confessing (if A confesses, B cuts his term from 10 years to 5 by also confessing; if A stays mum, B can walk by ratting him out). The same incentives apply to B. Selfish individualists then both confess (the DA is too smart to let them talk to each other and cut a deal) and go up the river for 5 years. Whereas, if they thought of the larger (i.e., their partner's) interest, they could each get out after six months.

set the rather fragile defense of need-based aid, that it is more just. It appears that the choice is hard -- merit-based aid rewards individual accomplishment and educates a deserving elite while need-based aid serves compelling interests of justice and equity.

But this is wrong. Consider all the elite, high quality colleges and universities together. They have stuck, with some wavering, to need-based aid. What has that policy produced? It has produced both equity of access to the best and most costly education and the reward, recognition and efficiency of meritocratic selection. The best, most able students are admitted to the "best" institutions without regard to their financial abilities. For this set of institutions, taken as a whole, two quite different policies determine who goes and who doesn't -- admissions policies and aid policies. Only the best students are admitted to these schools -- that's the merit component, embedded in admissions policy -- and among those good students, only the most needy are given financial aid -- that's the equitable component, embedded in financial aid policy. Collectively, the limited aid resources have maximum impact on both quality and equity.

What's going on, of course, is that when all these schools are considered together, there are two different policies to accomplish the two different goals of equity and excellence. When one school is considered alone, aid policy has to carry the burden of both objectives. And it can't.

To see this clearly, it's helpful to take the perspective of someone at one of these institutions. If we try to jockey for position using our limited financial aid resources to bid the best students away from competitors, and they use their limited aid resources to counter our

seductive offers, we'll wind up using our aid resources, collectively limited, in a bidding war for the best students without regard to their financial need. The end result, it is easy to see, would be a set of elite schools peopled by students who are either very very good, absorbing a lot of aid dollars whether they need them or not, or students who can pay the sticker price in full. Those who lose out are the students who are very good but can't afford the sticker price of these schools -- students who are now heavily represented in the elite colleges but who'll not be there if we've spent our aid funds on those who can well afford to pay the price.

Alternatively, it can be recognized that our very strong urge to equity is being served now along with recognition of merit. Thus a "pure need-based aid program" is pure need-based only from the perspective of a single institution. Among all such institutions, it is both a need- and a merit-based program.

Take a simple example. There are five rich and five poor students who want to go to Stanford and Williams. All are highly qualified, but three -- two rich and one poor -- are clearly the best. There are some other rich kids out there, but they're not nearly as good as any of these ten. The five poor kids need \$5,000 each to be able to go to either school; the five rich students can pay the full \$20,000 sticker price. Together, Stanford and Williams have \$25,000 available for financial aid.

Under the need-based aid system, all ten wind up at Stanford or Williams -- the \$25,000 financial aid budget is given to the five poor kids at \$5,000 each, so they can go; the five rich kids pay the full \$20,000 sticker price, even though two of them are real hot shots. But with the bidding war inherent in a merit-based system, all \$25,000 of available aid funds

are spent on the three hot shots, two rich and one poor. Nothing is left for the four highly qualified poor students, So they settle for an institution that is less suited to their aptitudes while Stanford and Williams fill up their class with the marginally qualified rich students who can afford to pay the price.

Under a need-based system, all ten of the best students can go to the best colleges; five are rich, five are poor. Under a merit-based system, nine out of ten at Stanford and Williams are rich, including four who are marginally qualified rich kids, while four much better qualified poor kids are denied access.

The moral of the story, of course, is that among the elite colleges, bidding against each other for merit students won't increase their number but will increase the amount of aid that goes to students who don't need it, leaving -- since aid funds are inevitably limited -- less for well qualified students who do. Some individual schools may improve the quality of their students, at least for a time, but at the social cost of denying high quality education to high quality students who can't afford it.

The temptations of this myopia -- of institutional chauvinism -- are strong and, unfortunately, they're supported by some appealingly principled-sounding arguments. The Stanford faculty, looking at its own admissions policies, is said to have taken umbrage at the fact that Stanford rewards one kind of merit handsomely -- through liberal aid to quarterbacks and breaststrokes and point guards -- while it still rejects academic/intellectual merit as a basis for aid. What is the sense of that in an institution dedicated to academic and intellectual values? Another apparently high road to the low road of the Prisoners' Dilemma is the

argument that schools that agree on aid awards for individual students were "colluding in restraint of free, competitive trade," breaking the nation's anti-trust laws.

What the first of these arguments does, of course, is simply argue that a university should look out for its own parochial interests in increasing its own student quality without regard to what that myopia does to the broader community or society. The other, anti-trust, argument has the same tinge of rationalizing an anti-social self-interest. It is, indeed, against US law for firms to collude to fix prices. But that law exists because it is widely believed -- for reasons routinely rehearsed in Economics 101 -- that such behavior harms society in significant ways when engaged in by profit making firms. What is markedly different here is that colleges are not profit making firms and their "collusive" behavior protects the use of limited resources for unexceptionably valuable social purposes. Unlike profit making firms, non-profit institutions typically charge prices that are less than production costs; unlike profit making firms, collusion assures that we further lower our prices, in concert, to reach only the socially most deserving students. A government dedicated to society's best interests certainly should not apply the private firm concept of collusion to the universities' effort to make superior education available to students who can't afford it.

The issues become more tangled when one considers the problem of no-need merit scholarships at institutions that are not at the top of the "pecking order". Recent years have seen more intensive efforts by less selective private institutions to lure some students from the "elite" colleges through merit awards, and increasing attempts by state systems and institutions to encourage more high achieving students to attend home state institutions. In each of these cases there is obviously a "prisoners' dilemma" aspect to the situation, when

one considers each such institution or system against its close competitors. Thus, regarding state systems, there is a clear irrationality if, say, New Jersey's merit awards lure students home from the University of Virginia, while Virginia's merit awards pull Virginia students home from Rutgers. And regional private institutions may similarly find themselves drawing down scarce aid funds simply in order to move students around among essentially similar institutions.

Things are more complicated, though, if the merit awards serve in part the purpose of moving some students from more elite to less elite institutions. The institutions offering the awards (whether public or private) presumably believe that adding some more high achieving students to their mix will improve both the educational quality and the "image" of the institution, and it is difficult to know how to judge whether the gain to students at the less elite institution will exceed the negative educational impact at the more elite institution resulting from the loss of one of its powerful students. The less elite institution could add an equity argument: because the generalized aid subsidy per student is typically larger at a more selective institution, if both students limit their aid awards to measured need, the student will get a larger subsidy at the more selective institution.<sup>13</sup> No-need awards could then be said to even the competition. One could even describe the no-need award as a "payment" to the student for the educational benefits she will provide for her classmates.

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<sup>13</sup> A numerical example may help. Suppose the more selective school, Institution A, charges \$15,000 and has a resource cost per student of \$30,000. Institution B, less selective and less well endowed, charges \$12,000 and costs \$25,000. The student and his family can pay \$10,000. Then at Institution A a need-based system would provide the student with \$5,000 in individual aid plus a \$15,000 generalized subsidy. At institution B the need-based award would be \$2,000 and the generalized subsidy \$13,000. Hence at A the student gets a total subsidy under a needs-based system of \$20,000, and at institution B just \$5000. B could argue that a \$5000 no-need award, on top of the \$2000 need-based grant would just even things up.

It seems plausible that, in moderate doses, the use of no-need awards at institutions of moderate selectivity could do more good than harm from society's perspective. However, competitive forces make moderate doses of non-need based aid hard to sustain. Institutions higher up the "pecking order" will find it hard to resist responding to "raids" from other institutions; while institutions at any particular level in the pecking order are likely to find it necessary to respond to their peers. Since more selective institutions tend to have "deeper pockets", wholesale no-need competition would likely result in very little net movement of students among classes of institutions, but with a sharp drop in the prices paid by high ability students with low or no need. If the drain of resources into no-need aid comes at the expense of need-based aid, needy students of widely varying ability would find their college going opportunities curtailed.

There is certainly room for debate about whether society spends too much or too little on the higher education of the highest achieving students compared to lower achievers, as well as on whether the degree of stratification of college students by academic achievement is too large or too small. However, no-need awards are at best a limited and risky instrument for modifying those distributions in desirable ways.

#### C. Student aid and price restraint

Has the increasing reliance of many colleges on student aid discounts contributed to the rapid price increases of the 1980's? A good deal of ink has been spilled on the notion that federal student aid has stimulated colleges and universities to raise their prices rapidly. This is a dubious argument at best, but a different kind of argument, having to do with

institutions' own use of resources for student subsidy, may have more bite.

The federal aid argument is simple to state: if the federal government is willing to pay a certain fraction of college costs, colleges can capture more federal revenue by raising their prices. Because a (presumably substantial) part of the increase will be borne by federal payments rather than by families, the market provides little discouragement to this kind of activity.

There are two obvious difficulties with this argument. First, it is simply not the case that a typical college -- certainly not the high cost colleges that have borne the brunt of this attack -- can get much extra federal aid by raising price. Unlike the arrangements that hold for much medical insurance (including, until recent reforms, the federal medicare program) federal student aid programs do not commit the government to picking up a certain fraction of costs. In most cases a student's Pell grant is determined by his or her family income, and will not rise if the student attends a costlier school. The "campus based" programs which pass money to schools to be spent on student aid were in principle designed to give more money to schools that had bigger aid budgets, and those aid budgets do tend to rise with tuition, but in fact funding for those programs has fallen consistently below the thresholds where raising tuition could generate extra dollars. It is true that some middle income students can qualify for bigger guaranteed student loans at more costly schools, but the amounts of subsidy involved make it very unlikely that this is an important factor.

The second, quite simple, point is that in the 1980's when costs went up fast, federal student aid didn't, while in the 1970's when student aid went up fast, costs didn't. In fact, it is

much more plausible that the many institutions which have experienced declines in the share of their expenses covered by student aid revenue in the 1980's have raised tuition in part to finance some of those student aid expenses themselves.

There is, however, a quite different route through which the practice of discounting tuition through student aid probably does contribute to lessened price restraint in higher education. Typically when an institution has extensive need-based student aid, aid awards to needy students automatically go up to offset tuition increases. If an institution can afford to practice "full need" financing, those students who lack the ability to pay are in effect held harmless from tuition increases. This makes it easier for schools to raise tuition in part because it seems -- and indeed is -- morally less troubling to raise tuition if you insulate those who cannot afford the increase from its effects. But it is also a straightforward matter of economics that those who are more likely to resist price increases are those who have less ability to pay, and this fact exerts a restraining influence on pricing. Thus in many markets the middle class customers perform the service for more affluent customers of keeping prices lower than they would otherwise be, since, if everyone pays the same price, the price has to be geared to capture enough of the less affluent customers. If more sellers had the capacity to charge different prices to different customers, we would expect the more affluent customers to pay more than they do now, and the less affluent ones to pay less.<sup>14</sup>

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<sup>14</sup> This doesn't happen more frequently partly because price discrimination is illegal. Probably at least as important as the legal prohibition is the technical difficulty of discriminating in the sale of products that can be resold. If camera stores charged affluent customers more, low income people would be hired to buy cameras for wealthy people. Services like medicine, education, and transportation are easier to police against such resale practices, and price discrimination is more common in those industries.

## VI. Some Policy Oriented Questions

How do the analytical perspectives developed above bear on thinking about national policies toward higher education cost and quality, especially at the federal level? We attack this issue through posing for discussion a number of policy oriented questions. After first asking what the problem or problems are, we consider first possible strategies for direct federal intervention to control higher education prices and costs and then indirect means the federal government might employ to influence cost, quality, and prices.

### 1. Is the "best" of American higher education too good?

Few critics of American higher education would put the point this bluntly, but the question is surely worth asking. It emerges most forcefully with public reactions to high cost/high selectivity colleges. Can it really be the case that any college education is worth \$200,000 -- a fair estimate of the cost of the resources supplied by a college like Williams to an average undergraduate? It's worth noting that the analogous question is now being asked about medical care -- an area that has also long been exempt from such queries.

It's not clear by what standard such a question can be posed for higher education. Certainly a market test, combining the willingness of families to pay with the willingness of donors to give, suggests that such educations are seen by their purchasers and supporters as worth the price. They obtain a wide range of benefits from their investment in college, from improved job skills to valuable social contacts, from cultural enrichment to opportunities to participate in athletic programs. Donors presumably gain satisfaction from contributing to these activities and from being made to feel part of the college or university enterprise.

It's natural to want to duck the hard question about whether these institutions are too good by transforming it. Perhaps these colleges and universities could supply precisely the same range of services at lower costs through becoming more efficient. Or perhaps their costs should be covered differently -- say by spending more out of the endowment to lower the cost to families of present education at the expense of higher prices or reduced quality for future generations. However one answers these questions, the more basic question is also worth keeping in focus: perhaps these very expensive colleges and universities really are "over the top" in the quality and variety of services they attempt to provide.

But if this really were the case, wouldn't the market let us know? Our earlier discussion suggests two reasons why the market here may not be a fully adequate means of settling on quality levels in elite higher education. First, the student cost of this kind of education is heavily subsidized, partly by governments but mainly by donors. If students and their families had to bear the full costs of this education, they would be likely to search harder for bargains, and thereby induce cost (and quality) cutting pressures. These pressures would be further increased if need-based student aid were reduced, since that would increase the price sensitivity of an important segment of the market.

This partial insulation of higher education from the market is a product of conscious social policy; public funds and encouragement to private donations are provided because it is thought that families would underspend on higher education without such support, and because it is thought that educational priorities within colleges and universities should not be too much dictated by the market. But it then becomes essentially a political and social judgment how intense or lavish this education should become: there is no magic to the levels

of resource use at which we have arrived. Perhaps the only thing to be said is that those who genuinely think these colleges are too good should make some effort to say precisely what they should do less well as a way of saving money, and be prepared to defend that judgment against constituencies for whom those disfavored items are a high priority.

The second weakness of the market solution stems from the “signalling” phenomenon discussed earlier. Poverty of information about college quality encourages institutions to invest in visible, and costly, symbols of quality, one of which is a high price. This is, it is important to stress, not an unchecked process: if the symbols don’t correspond to what students discover when they arrive on campus, that word will eventually spread. Still, the importance of signalling in an environment where schools are trying to broaden their client base has a dynamic which bears a certain analogy to the arms race. Each institution may wind up spending more than it wants -- indeed charging more than it wants -- to offset the signalling efforts of other schools.

To see the problem, imagine a university that believed it could deliver a better product, from students’ point of view, at lower cost, through reorganizing in some ways and dispensing with some conspicuous expenditures that had little more than cosmetic value. How does this university get the message out? Surely an announcement that you are cutting price, getting rid of three club sports and two interdisciplinary programs, and replacing your IBM computer facility with two mini’s, is likely to send the wrong signal. Saying that you are taking these steps not because you are desperate for students but because you see ways to improve the institution’s quality by refining its focus won’t cut much ice -- because that is precisely what an institution that was desperate for students would say. The competitive

dynamic in an information poor environment clearly has aspects that bias institutions toward higher costs and prices.

2. Has the cost/price spiral spun itself out?

The forces generating a cost/price spiral are not unlimited and signs of their slowdown have, in the 1990's become amply evident.

First, and quite importantly, the intense marketing efforts of elite colleges and universities are closely connected with two current developments: an urgent desire to recruit a more diverse student body and a concern to offset the demographic implications of the "baby bust". The baby bust will end in a few more years, and familiarity with elite higher education among minority and disadvantaged groups is growing rapidly. Efforts to signal quality are most intense when trying to reach new clienteles (just as new brands get substantially more advertising than established brands); it's reasonable to suppose that as leading institutions become more completely known in the national market, and as the echo of the baby boom approaches, these pressures for higher cost will ease.

Second, quality consciousness appears to be turning to cost consciousness among important segments of the public that higher education wants to reach. Something like this happened -- albeit temporarily -- in the automobile market after the oil price hike changed public views about transportation. The two kinds of conditions that have generated such a reaction in higher education appear to be, first, developments in the national economy that have made families more reluctant to pay top dollar for education and, second, a growing

suspicion among students and families that the most expensive features of elite higher education are badly overrated. The political rhetoric that has nurtured this worry has not encouraged families to distinguish between extravagance and those features that are the essence of high quality education.

3. Should the federal government attempt to dictate higher education prices?

One policy option the federal government could consider in its worries about college costs is simply imposing price ceilings or cost ceilings on colleges and universities. Few observers have advocated anything so drastic, but it may clarify issues to pose the matter directly. Such action might also raise constitutional questions, which we are incompetent to judge, but, those worries aside, is this approach at all feasible or attractive?

The idea of the federal government literally stipulating prices and/or expenditure levels for the more than 3500 non-profit and public colleges and universities is prima facie absurd. Besides posing enormous bureaucratic difficulties, such a step would fly in the face of traditions of decentralization and pluralism in American higher education.

Two alternatives to this blunderbuss approach are not so categorically unworkable. One would be to legislate maximum rates of increase in costs or prices for all institutions. Any such action always raises complications regarding measurement -- which expenditures count; are prices per credit hour or per semester; and so on. Any price control system sets up incentives for sellers to do the accounting in ways that evade the intent of the controls; although not serious in the short run, such distortions become cumulatively more distorting as time goes on.

A more serious problem is that controls that were tight enough to be binding on either price or cost would involve the federal government quite deeply in the setting of educational priorities for the nation's institutions. Either expenditure or price controls would make it very hard for individual institutions to change their missions and programs substantially, unless there were a system in place for providing approved exceptions to the limitations. But any board empowered to rule on such exceptions would in effect have the authority to determine the directions of change in program and mission for all the colleges and universities in the United States. If price controls extended to public higher education, the federal government would play a key role in determining the sharing of costs between state governments and students, a role few would find desirable.

A second strategy, and one that would likely be more politically popular, would simply be to regulate the costs or prices of the most expensive colleges and universities. A simple version of this regulation would be to say, for example, that no college or university whose total charges (tuition, room and board) exceeded, say, \$15,000 could raise its charges by more than, say, 1% per year above inflation. Imposing such regulations would compel these institutions either to cut back on quality improvements, find ways to become more efficient, or draw down their endowments more rapidly, or most likely, produce some combination of the three.

This approach is vulnerable to several strong objections. First, this approach would make the federal government the ultimate arbiter of the question whether the "best" of

American higher education is “too good”. In a pluralist society, it is not at all clear that we want a univocal federal answer to that question. Second, for many high cost institutions, undergraduate education is only one of many activities they undertake, and one that has to struggle for resources and attention with the rest. If the revenues from that activity are curtailed, while others such as graduate education, research and consulting are not, there is likely to be a disproportionate withdrawal of energy and resources from the constrained activity. This might produce a sharper decline in the effectiveness of these institutions’ undergraduate efforts than anyone would prefer. Finally, the approach would be a kind of sumptuary legislation with strong paternalistic overtones. If families and private donors want to sustain an educational enterprise at a rather luxurious level, why should they be prevented from doing so? It is hard to imagine federal efforts to regulate the prices of luxury cars or boats, yet even the most costly higher education seems less extravagant than those.

4. Should we restrict federal aid to high cost colleges?

This last point suggests a more limited direct federal response to high cost education: to deny or limit federal student aid to those who elect to attend the highest cost institutions. The argument here would be, “It’s fine if some family wants to spend their own money for Maserati-class education, but I’m darned if my tax dollars should support it.”

This outlook has, plainly, a certain intuitive appeal. The appeal is partly grounded in the belief that low income students qualify for much more federal aid by attending high cost institution. As we noted above, this belief is largely spurious. The fact is that it costs the federal government very little, if any, more to support a student at a high cost, highly selective

institution than at most other schools. The bulk of the aid received by needy students at high cost institutions is in the form of institutional discounts and grants, rather than federal support.

Indeed, denial of federal support for education at high cost institutions would likely result in more rather than less governmental expenditure on the education of the affected students. For many of these students would likely enroll instead in state run institutions, where state appropriations cover a substantial fraction of costs.

Such a strategy of denying federal aid to high cost places also is in conflict with the unique role graduates of these institutions play (for better or worse) in our society. As we noted earlier, the need-based aid strategy has served to keep these highly selective institutions open to all students regardless of their ability to pay, and this has helped to improve access to influential social and economic positions for students from a variety of social and economic backgrounds. This process could be substantially set back by a refusal to provide federal support to students at high cost institutions.

The hope in such a proposal might be, not that these schools would become inaccessible to low income students, but rather that the schools would respond to these rules by containing their own costs. The fact is, however, that federal student aid support is a relatively small income item at the most expensive institutions, and its threatened loss would not be an overwhelming consideration in the policies of these institutions.

5. Can we improve the flow of information to students and parents about college quality?

If direct federal intervention to control college and university costs and prices seems unpromising, are there steps the federal government could take to create an environment in which better decisions about cost and quality would be made.

If potential consumers of higher education were perfectly informed about the characteristics and the long run benefits of attendance at particular higher education institutions, many of the difficulties that concern us would evaporate. "Judging quality by price" would cease to be an issue, as would the whole range of marketing and signalling efforts colleges and universities engage in. Perfect information is, of course, a daydream, but even improved information could be an important aid.

Better direct information about what colleges had to offer would reduce the emphasis on "indirect" information and allow colleges to concentrate more on conveying subtler messages concerning the particular characteristics of their programs.

Both because it is difficult for schools to convey accurate information about themselves and their competitors in a credible way, and because the production of information is a public good, there is plainly in principle a role for the federal government in certifying educational quality and disseminating information about educational alternatives. Perhaps the kind of information that would be most useful is that which would help students gauge the "fit" between their needs and capacities and what different schools have to offer. Such information would encourage families to make educational choices less on the grounds of overall institutional prestige and more on the basis of how well a school serves a given student.

Unfortunately, it is far from clear what practical steps can be taken to advance this goal. Markets for commercial products suffer from the same difficulty. Certain minimal characteristics of a product can be established through regulatory and certification processes: the medicine is very likely not to kill you, the car's wheels hardly ever fall off. But the kind of information that really matters in the choice between products -- or between educational institutions -- is extremely subtle, and in the case of higher education varies from one individual to another. The problem is especially difficult in the current context because the concern about costs centers on the most expensive institutions, These are not schools for which the usual accrediting processes, or even suitably tuned-up versions of those, will reveal anything of interest. Neither are "objective" quantitative measurements, of the kind the "assessment" movement is attempting to popularize, likely to prove illuminating for the relatively subtle differences on which the choice among such schools depends.

Nor is it unreasonable to worry that government efforts at dissemination of information might do more harm than good if their measures are inaccurate or if they provide information on so small a part of the overall picture -- like the current call for crime statistics on campuses -- that they are misleading.

It might be more useful to attempt to improve the channels of information colleges and students rely on now. Thus, efforts, such as those that the College Board has undertaken, to improve the preparation and knowledge base of high school guidance counselors could be helpful. Perhaps ironically, another measure that might help is to search for ways to accelerate and extend the marketing efforts of the colleges themselves. To some degree, the present situation is a "disequilibrium" in which colleges are trying to become better known

among clienteles that have traditionally been poorly informed about them. After these schools achieve more success in these efforts, it's reasonable to suppose that these intense marketing efforts will ease off, with some consequent easing in efforts to demonstrate high quality in costly ways. It's not clear what the federal role may be in stimulating such efforts. However, local, regional and consortia<sup>1</sup> efforts to sponsor college fairs and encourage other forms of information exchange may be of use in this regard.

6. Should we reduce colleges' and universities' dependence on the market?

In the last decade, college and university finance has become more dependent on student payments as a revenue source. Declines in research expenditures as a share of revenues, weak economies in some states, and most recently changes in tax law that in several ways reduce the degree of tax subsidy for higher education have contributed to this trend. These trends tend to increase the weight attached to student preferences in decisions about college and university resource allocation, and increase the pressure on colleges to undertake expenditures that signal high quality to students.

The argument here can be generalized. Burton Weisbrod has recently examined models in which non-profit institutions engage in some activities they find intrinsically satisfying, and others which they undertake in order to generate revenues. The larger the contributions to institutional revenues made by "autonomous" sources not linked to these revenue raising activities, the more the institution concentrates its resources on the activities it most cares about. Weisbrod has argued that the relative reduction in autonomous revenue

sources has increased colleges' commitment of resources to "revenue producers" like "creative financing schemes", souvenir stores and the like (much to the displeasure of the small business community), In the same vein, one could regard the educational services provided by colleges as including some that they (where "they" might be regarded as the faculty and the administration) intrinsically value and some that they undertake essentially as "revenue raisers" which serve to attract paying student customers. Teaching American history might fall in the first category while conducting "yield" parties or recruiting high powered student athletes might fall in the latter. A greater dependence on student tuition will tend to increase institutions' emphasis on the latter kinds of activities.

A policy response would be to provide more "general purpose" subsidies to institutions which are not closely linked to their performance in recruiting students. Such subsidies might either be provided directly or through increased encouragement to private donations. This would tend to increase the influence of faculty and administrators (and possibly trustees) relative to other constituencies in determining internal resource allocation.

There is an important weakness in this strategy, beyond the point that it costs money. In effect, the assumption is that the "institution" will care more about and have a clearer view of educational quality than students and parents do. This may be true of some institutions, but the faculty and administrators at other institutions may have objectives they rank much higher than effective undergraduate instruction. Given autonomous control over resources, they may not be at all inclined to allocate them toward undergraduates, but would instead use them to support, for example, research and graduate instruction.<sup>15</sup>

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<sup>15</sup> Compare Estelle James (1978).

In effect this is a fair picture of the dilemma that faces legislatures in many states, where the objectives of public institutions are very much oriented toward professional prestige, and any discretionary resources go toward prestige enhancing activities like research. It has proved very difficult to design effective incentives to encourage attention to undergraduate teaching. The fact that most private institutions are strongly dependent on tuition revenues provides an important incentive for effective teaching.

7. Should we encourage colleges and universities to collude on price?

We noted earlier that some of the pressure for higher prices and for “conspicuous expenditure” at high cost private institutions is the result of competitive pressures: a desire to provide assurance of high quality in a market where reliable information is scarce. Such “quality” competition has, like the closely related competition for high quality students through merit scholarships discussed above, an important Prisoners’ Dilemma aspect. This phenomenon has been widely noted in commercial markets, where, for example, high advertising expenditures for a particular brand of cosmetics may serve mainly to offset the impact of advertising for other brands. Both producers and buyers might be better off if the producers could agree to de-escalate the conflict. But explicit agreement on pricing, product, and advertising strategies runs afoul of the anti-trust laws. Most economists would probably agree that in commercial contexts the general policy of encouraging competition is justified, despite the fact that on occasions competitive action leads to some waste of resources.

David Breneman has suggested that college pricing and provision of new programs

suffers from an excess of competition.. As President of Kalamazoo, he felt he could not afford to moderate his institution's rate of price increase unless other high quality mid-Western institutions did the same. To cut the rate of price increase unilaterally would have risked sending a signal that Kalamazoo was in trouble; at the same time the resultant slowed growth of revenues would have impeded Kalamazoo's ability to add interesting new features to its programs while its competitors continued to do so. On the other hand, if all the midwestern private liberal arts colleges had moved in concert to keep prices in check, none of them would have suffered a relative disadvantage.

There is a delicious irony here: the suggestion is that "a conspiracy in restraint of trade" could be used as a vehicle for keeping prices down -- not what our economics textbooks or our experience with the OPEC cartel would lead us to expect. A couple of considerations make this more plausible than it might seem at first glance. First, "quality" competition is an expensive and demanding proposition for colleges and universities. For colleges to collude in keeping prices down while keeping expenditures up would indeed fly in the face of economic logic; but the proposition is that colleges would forego some expensive building and programmatic changes at the same time they exercised more price restraint. This is a more reasonable prospect for the institutions to contemplate. Second, these are not profit-seeking institutions. More collusion on price and program quality would mean, in effect, a reduction of the influence of the student market compared to that of other constituencies in determining institutional priorities. In this respect encouraging greater collusion on price would have similar effects to providing colleges with more "autonomous" revenue.

The approach would have the same drawbacks as well. In the first place, the quality

improvements that would be foregone through a policy of price restraint would be at least in part a genuine loss from the standpoint of buyers of higher education. Whether consumers would value their dollar savings more than the loss in development of new “wrinkles” at the institutions they or their children attend is a difficult judgment to make. More seriously, the appeal of this proposal depends on the assumption that the other constituencies at the institutions in question -- principally faculty and administration -- in some sense have the “best interests” of the students at heart. But easing the pressure of the student market is likely to have quite different effects at different types of institutions. While it may be plausible that liberal arts colleges would take advantage of collusion on price and quality in ways students and parents would approve of, other sorts of institutions might devalue student interests substantially without competitive pressures.

Despite these drawbacks, it may well be that encouragement of more agreement among groups of comparable institutions on policies toward pricing, marketing, and development of new programs would be worthwhile. Explicit agreements on price and marketing strategies would certainly provoke nervousness in light of the current Justice Department investigation. While it might not seem reasonable to have higher education join baseball as an institution with a blanket exemption from the anti-trust laws, some more limited protection to encourage agreements on price restraint and certain other kinds of coordinated action might well become an attractive public policy.

## **VII. Conclusion**

This paper has been offered in a spirit of exploration. Its purpose has been both to clarify and to complicate; to make distinctions involving cost and quality in higher education,

but also to warn against too much precision in debate where there is less in fact. "Quality" is a word, and a goal, with many meanings; even "cost", a term which has the ring of hard facts and bottom lines, turns out to be a much more ambiguous and multi-faceted notion in higher education than may at first appear.

The tools we have used - and, more important, the perspective and framing of the issues - are those of an economist, with an economist's emphasis on imperfect information and efficiency, on pricing and equity, and also an economist's concern with public policy. Nationally, these are issues central to higher education that are yet deeply unsettled at the beginning of the 1990's; sorting them out will require a good grasp of the economist's perspective and a great deal besides. We hope our contribution to that enterprise will prove to be of some value.

## References

Bradburd, Ralph and Duncan Mann, "Wealth in Higher Education Institutions," unpublished, 1991.

Breneman, David W. "The Truth about College Tuition," Washington Post, March 15, 1988.

Freeman, Richard B. "On Mythical Effects of Public Subsidization of Higher Education: Social Benefits and Regressive Income Redistribution," in Lewis C. Solmon and Paul Taubman, eds, Does College Matter? Some Evidence on the Impacts of Higher Education. New York: Academic Press, 1973.

Hansen, W. Lee and Burton Weisbrod, Benefits, Costs and Finance of Public Higher Education. Chicago: Markham, 1969.

Hansmann, Henry. "Why Do Universities Have Endowments?" Journal of Legal Studies 19 (January 1990), pp. 3-42.

James, Estelle. "Product Mix and Cost Disaggregation: A Reinterpretation of the Economics of Higher Education." Journal of Human Resources, vol.13 (Spring 1978), pp. 157-186.

Massy, William F. Endowment: Perspectives, Policies and Management. Washington, DC: Association of Governing Boards, 1990.

McPherson, Michael and Schapiro, Morton. Selective Admission and the Public Interest. New York: College Board Press, 1990.

Shapiro, Carl. "Optimal Pricing of Experience Goods." Bell Journal of Economics, 14 (Autumn 1983) pp. 497-507.

Weisbrod, Burton, The Nonprofit Economy. Cambridge, Mass: Harvard University Press, 1988.