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Denison Gatehouse
Williams College
Williamstown, MA 01267

<http://www.williams.edu/wpehe>

“Grow” the College?
Why Bigger May Be Far From Better

Gordon C. Winston
Williams College

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ABSTRACT

This brief paper asks if the proposition that “growth is good” applies with equal force to private business and to private colleges and universities. An increasing appreciation of the fundamental differences in *economic* structure between business firms and academic institutions suggests that it’s easy to make costly mistakes if those differences are ignored and “expanded sales” may often be one of them. The most fundamental problem rests, simply, on the fact that since the price paid by a college’s customers covers only a fraction of the cost of providing their education, rather than yielding additional net revenues, enrollment expansion (other things equal) will generate additional uncompensated costs. Special circumstances can sometimes still justify increased enrollments, but they are circumstances very different from those facing a business firm.

“Grow” the College?

Why Bigger May Be Far From Better

Gordon C. Winston *

Williams College

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Ask anyone in business and they’ll tell you that growth is the essence of success. Where would Apple and Microsoft be if Steve Jobs had stayed in his garage and Bill Gates were still spending nights in the Harvard computer lab? So when they learn that far and away most of the growth in US higher education since the turn of the 20th Century has been in the public sector – it’s grown from 20% to nearly 70% of (expanding) enrollments – smart business people see that as lamentable evidence of the stodgy souls running private colleges who missed one opportunity after another and simply handed their market shares to (of all things) the public sector. That’s pretty inept.

But the conclusion that private colleges would be better off if they were bigger is usually 100% wrong. Indeed, it is lamentable evidence of just how little savvy business types understand about the economic realities of colleges and universities and evidence of why their well-honed business intuition and experience may serve them badly in dealing with these quite different organizations.

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The unique economic realities of colleges and universities can be summarized easily¹:

1 – In virtually all of higher education, the customer pays a price – tuition – that doesn't begin to cover costs. Nationally, the average student pays a third of his costs; in elite private schools it's still well under half; and in some of the best public universities, it's about a tenth. "Profits," in other words, are massively negative and the difference between price and cost is made up with charitable gifts and appropriations and returns on the college's wealth. So all students are given a subsidy, the difference between what they pay (net tuition) and what their education actually costs to produce.

2 - What counts in the competition for students, when push comes to shove, is the size of that subsidy. That's implicit in the *US News* rankings and all sorts of measures of quality. "Student subsidies" aren't some kind of arcane financial abstraction – they show up in the quality of a faculty, in class size, lab equipment, the maintenance of lawns and buildings, the availability of psychological and career counseling, food, the variety of courses and size of dorm rooms and average SATs and books in the library. The hierarchy - the familiar pecking order - rests largely on differences in student subsidy size.

Gerety, Al Goethals, Dave Zimmerman, John Chandler, Steve Sheppard, and Jon Bakija reduce my role nearly to that of scribe.

¹ My papers for the Cost Commission and in the *Journal of Economic Perspectives*, inter alia, elaborate on these characteristics at some length.

For private colleges, their ability to subsidize students comes from their wealth – net endowment and physical plant – and gifts. (For publics it comes from appropriations, too.) And since private school wealth is pretty well fixed, at least in the short term, more students mean less wealth per student, and therefore a lower place in the hierarchy.

So a most basic economic fact is that growth in enrollments at a private school will always reduce potential subsidy per student and risk its student appeal and its position in the pecking order.

3 - Compounding that, for any size and quality of applicant pool, taking more students means dipping deeper in the barrel of student quality. And since we all know that students educate students – that “peer effects” are very important to a college education – lower average student quality will reduce the quality of a school’s educational output.

So on all counts, expansion of a private college is likely to cost it position and quality – things that are valued above all. Growth is the wrong thing to do.

But there appears to be a hitch in my argument or its arithmetic – or in the sophistication of the management of some of the country’s leading private schools – because Princeton, Chicago, and Middlebury are all engaged in announced expansions of their undergraduate student bodies while Swarthmore and Bowdoin have recently looked at expansion very seriously.

And it turns out, after considering their various rationales for growth, that they have found some good reasons to expand – in some very specific circumstances – despite the validity of the arithmetic. Not surprisingly, they have also given a few pretty dicey reasons, too, to justify expanded enrollments. It's useful to look at both kinds of arguments.

One school wants to *improve* the academic quality of its entering class by making it larger. How can that make sense, given that it faces an applicant pool of finite size and quality? It does make sense if a large number of slots in each class are now committed to athletes or legacies or others whose academic qualifications are below those of the marginal applicants who are rejected.² So rather than lowering quality by dipping deeper into their applicant pool, for this school expansion would improve student quality by creating more room to go around their core of academically less capable commitments. To work in the long haul, of course, that rationale does require that some future discipline be imposed on athletic admits and legacies so the larger class won't become the reason to increase the number of academically weak students admitted in the future. That could put the school back where it is now, but with more people and all the disadvantages of expansion.

On a different tack, an exceptionally wealthy school among these argued that since (a) they're rich as hell and (b) they save a good deal of their non-tuition income each year (as have most wealthy private schools, of late), they don't need to reduce per-

student subsidies in order to have a larger student body – they need only save a bit less. So under these happy circumstances, expansion doesn't have to lower student subsidies and a school's standing in the hierarchy – if they're rich enough to give up nothing more than a little saving.³

Finally, that same wealthy school argued on grounds of mission and morality that they have a social obligation to use some of their generous saving and wealth to provide their excellent education to a larger number of people – to increase access to a highly subsidized and high quality education. (It would, I think, be a serious mistake to dismiss that argument with currently-fashionable cynicism.)

At another school, a different justification for expansion also focused on the applicant pool but with the argument that creating more, and less nerdy, alumni would, in the long run, give the school a more solid base of non-tuition support – the donations that pay most of the costs. That's a plausible if optimistic argument and it may work. But in the short run, of course, they're going to be under some pressure to maintain educational quality with less spending per student (and a smaller share of high-achieving nerds).

Finally, an argument for growth can rest more on cheerleading and hope than on analysis – and it, too, might work, though the risks appear to be higher. It's a business model that says “create the capacity on borrowed money and the customers will come to your door”. An immediate problem, of course, is that, unlike a business, each additional

² See, of course, Shulman and Bowen.

³ Which, clearly, will increase future competitive vulnerability to some extent.

student-customer pays a tuition that covers so small a part of his total costs that expansion doesn't generate revenues to pay the debts – quite the opposite. So it's not customers but donors who are needed, and it's not clear that an expansion of student numbers will *induce* more donations – not for the next 15 to 20 years, at any rate.

But, of course, enthusiastic growth might possibly appeal to current donors – including those business types who feel that growth defines success and that they want to support success. Paul Krugman, in his role as academic economist (rather than *New York Times* OpEd columnist) suggested that there can sometimes be a real economic payoff to sheer boosterism and new buildings and new programs and new energies can surely fuel new enthusiasm and maybe, with them, new donations, possibly enough new donations to subsidize the additional students.

The hard-edged arithmetic of expansion remains to raise the question of why more students have to be a factor in the pep rally, since expansion carries such high potential risks and expansion on borrowed money adds the risk that the payoff from increased donations won't come, or won't come in time to cover the debt. Again, if the customers paid a price that did cover their costs, generating net revenues as they do in businesses, there wouldn't be a problem. But for a college there is. And the recent failures of that upbeat and optimistic strategy – like Bradford College – should serve as sober warning that irrational exuberance may not have been confined to the stock market.

What about “economies of scale”? Isn’t there an argument, familiar in business, that being bigger will reduce per-student costs and offer more variety? For very small schools, the evidence is that growth might reduce unit costs, but that kind of cost reduction seems to run out of steam at pretty small enrollments. A slightly different form that argument often takes is that some academic departments are too small now but would become viable with a larger student body. And while that may be true, like the effort to get around the fixed admission commitment to athletes and legacies it really works only if there’s a way, after expansion, to prevent the establishment of *new* slightly-too-small departments that would, in turn, require more expansion of the student body to fully justify their existence. And so on. In other words, there’ll always be a marginal department whose existence might be more solidly justified by a larger student body, so attention to today’s marginal departments isn’t a very persuasive reason to expand without some way of limiting the establishment of new ones tomorrow.

Before asking about public colleges and universities, some caveats are needed.

Having dismissed economies of scale as a justification for expansion, it’s necessary to recognize them in the other direction since they do temper my student subsidy arithmetic. In the extreme, of course, it would recommend a student body of one. And a single student is clearly not the optimal size for a college or university even if it did mean that she would be getting a huge and truly maximized subsidy. Important though they are, there’s more to a college education than resources-per-student so that lone student wouldn’t be getting one.

Further, what's been said applies to those private colleges and universities that are operating at capacity while considering expansion. For them, more students mean more costs and, if educational quality is to be maintained, pretty much the same cost-per-student. In the jargon of Econ 101, a private school operating at capacity that wants to protect its educational quality, faces marginal and average costs that are much the same and well below the tuition a new student will bring in. That said, it's clear that for a school with excess capacity – where more students could be educated with little or no increase in faculty, classrooms, or dormitories, and no deterioration in educational quality – expansion, up to the limit of capacity, can make good sense. It is growth in a school's enrollment capacity that runs into the arithmetic of taxed resources and reduced student subsidies.

Finally, a school might chose to make a decision, starting from full capacity, intentionally (strategically) to reduce its educational quality – to increase student-faculty ratios, shift to less expensive instructors, crowd more students into existing space... – and expansion of enrollment would be an effective way to do that.

So, while *economically* the deck is stacked against growth of enrollment capacity in a private college or university, with very special circumstances – including extravagant wealth – it can make economic sense. However, private schools should be very wary of the assumption that growth is good. As is so often true, business logic can be more seductive than helpful.

What about *public* colleges and universities? Why can they expand with impunity? The quick answer has two parts: first, they often *have to* provide access to higher education because it's in their mission and their political support often rests on it; and therefore, second, they've typically been given the money to do it. In the extreme, public sector enrollments have been 'capitated' with appropriations fully adjusted to student numbers and if so, subsidies simply aren't reduced by taking in more students. (Indeed, some states are said to "overcapitate" to cover more than a student's subsidy, leaving schools with discretionary funds – a policy that clearly encourages enrollment growth.)

Private colleges and universities have been given neither the mandate nor the money to expand enrollments; instead, they've been left with very good reasons not to. So, wisely, they've protected their student subsidies and their institutional quality by limiting growth. Bad business, maybe, but good educational policy.

REFERENCES:

Schulte, Kate, and Robin Severud, "College Expansion: A Case Study of Three Schools," Williams College, A paper for Economics 357, May 1, 2000.

Shulman, James L. and William G. Bowen. *The Game of Life: College Sports and Educational Values*. Princeton: Princeton University Press; 2001.

Winston, Gordon C. "College Costs: Subsidies, Intuition, and Policy," Prepared for the National Commission on the Cost of Higher Education. *Straight Talk About College Costs and Prices*. Phoenix: The Oryx Press; 1998.

Winston, Gordon C., "Subsidies, Hierarchy and Peers: The Awkward Economics of Higher Education," *Journal of Economic Perspectives*, vol 13, No. 1, (Winter 1999), pp 13-36.