Is the Business Model of Higher Education Broken?

David W. Breneman

Overview

In recent years, numerous industries in the United States have struggled with failing business models. The examples are numerous: automobile manufacturers, newspapers, electronics manufacturing, textiles, clothing, shoes, and airlines, to name but a few. Recently, the business model concept has been applied to non-profit organizations as well. The topic for this debate is whether, and to what extent, the business model of higher education is indeed broken, or unsustainable, in its current form.

When that concept is applied to for-profit industries, the focus is primarily on the survival of firms in the industry. In most such cases, there is limited public interest in preventing firms from failing, as new suppliers, often with lower production costs or new technologies, enter the marketplace, displacing older industries and providing consumers with newer, often better, products. Non-profit higher education differs from the case of for-profit firms, however, in that a public interest exists in the education of our citizens, not only for careers but for civic and community leadership. Both public and non-profit private institutions of higher education, and their students, receive billions of dollars in public subsidies to ensure adequate investment in the nation’s human capital. For institutions charged with broad public purposes, many would argue that the concept of a broken business model must be enlarged to consider how well these broader purposes are being achieved. Even if the majority of institutions manage to survive, it is possible that in so doing they may fail to accomplish the public purposes for which they were founded and have been supported historically.

In addition to providing educational opportunity for all citizens able to benefit, the nation also relies on higher education for developing new knowledge and sharing that knowledge through

1 University Professor and Newton and Rita Meyers Professor in Economics of Education, University of Virginia.
2 Recent exceptions to this rule would be large banks and related financial institutions, deemed “too large to fail,” as their demise would have crippled the nation’s financial system.
3 A growing for-profit sector of higher education also exists, currently enrolling about seven percent of students in postsecondary education. These institutions receive indirect subsidies through federal financial aid to their students. Their special case will be discussed subsequently.
education, public service, and supporting economic development. Our debate topic must, therefore, consider not just the solvency of the providers but also their ability to meet these vital social responsibilities. This paper discusses the financial and organizational challenges confronting the higher education industry, and threats to its ability to perform effectively. Those who assert that the business model is broken argue that shifts in the way higher education is financed render it increasingly unaffordable to many students, and that institutional incentives toward increased status and prestige distort internal resource allocation in wasteful and inefficient ways. Others argue that the benefits of higher education accrue primarily to the recipient, and thus it is desirable (and efficient) for students to pay a higher share of the cost, borrowing if necessary to make that investment. The next section provides information relevant to these positions, followed by key “pro” and “con” arguments on the topic.

Background
Many of us aged 60 or more remember when tuition in public higher education was extremely low, or even non-existent, as state governments provided the bulk of operating support for state colleges and universities. That pattern of high state support, and low (or no) tuition, began to change in the 1980s, as the state share of institutional budgets began a secular decline that continues to this day, although with some ebb and flow corresponding to the business cycle. Measured in constant (2008) dollars per full-time equivalent (FTE) student, state support in public institutions in 1985 was $7,269; in 2005, that number had fallen to $6,445, a drop of 11.3 percent. Institutions responded to the declining share of state support by seeking funds from other sources, including philanthropy and research support, but the primary source they could directly increase was tuition. Over the same time period noted above, net tuition revenue (gross tuition and fees minus state and institutional aid and tuition waivers) climbed from approximately 22 to 36 percent of public institution educational revenues (the sum of state appropriations plus tuition). The College Board reports in its 2009 publication on college costs that public four-year in-state tuition and fees average $7,020 and that total expenses for a residential student for one academic year averages $19,388. (The comparable figure for private four-year schools is $39,028.) At these rates, students and families are looking at a sticker price of roughly $80,000 for a public four-year degree, and nearly $160,000 for a private four-year degree, a sharp and dramatic increase in prices from the world of 30 years ago.

---

6 Ibid., p. 22.
7 http://www.trends-collegeboard.com/college_pricing/1_2_total_student_budgets.html?expandable=0
8 These figures are before any financial aid that students might receive, although such aid is increasingly loans, not grants.
The National Center on Public Policy and Higher Education has examined college affordability in a somewhat different fashion. Figure 1 compares the growth in current dollar prices of tuition and fees to the growth of median family income and to a variety of other spending categories.\(^9\) While median family income in the period 1982 – 2006 rose by 147 percent, college tuition and fees soared by 439 percent, outstripping all of the other expenditure categories listed. The Center then compared net college costs (tuition, room and board minus financial aid) at public four-year and two-year colleges to median family incomes by quintile, lowest to highest, as shown in Table 1. In the relatively short time period from 1999 to 2007, public four-year costs jumped from 39 to 55 percent of the median income of the lowest income quintile families, an indication of how rapidly college costs are outstripping ability to pay.

Table 1:

<table>
<thead>
<tr>
<th>At public four-year colleges and universities</th>
<th>1999-2000</th>
<th>2007-2008</th>
<th>% increased</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest income quintile</td>
<td>39%</td>
<td>55%</td>
<td>16%</td>
</tr>
<tr>
<td>Lower-middle income quintile</td>
<td>23%</td>
<td>33%</td>
<td>10%</td>
</tr>
<tr>
<td>Middle income quintile</td>
<td>18%</td>
<td>25%</td>
<td>7%</td>
</tr>
</tbody>
</table>

What we have witnessed, therefore, over the past several decades has been a steady shifting of the costs of public higher education from the general taxpayer to the student and family. Public institutional leaders initially decried this trend, but as state government budgets have slipped further and further into structural deficit, many college leaders have given up hope that the country will ever return to a time of significantly higher state support and lower tuition. Talk of privatization of higher education is now often heard, and although somewhat exaggerated, that term certainly appears to describe the direction that finance is taking. The concern, obviously, is that rising prices, even when offset to some degree by financial aid, will discourage many low and middle income young people from considering college a realistic option, thereby lowering our national educational level, reducing future economic growth, and undermining the promise of equal educational opportunity.

Coupled with this concern is the claim that higher education cannot (or will not) control its cost increases, and thus the production cost of higher education (not the same as tuition) also rises at rates above the Consumer Price Index (CPI). As a consequence, some argue that in the face of declining state support, colleges have chosen to pass on costs to students rather than seek operating efficiencies to reduce costs. It has also been argued that the growth of federal student aid, in the form of Pell Grants and Guaranteed Student Loans, has contributed to rising tuitions, either by analogy to the third-party payer argument applied to medical costs, or by arguing simply that the existence of financing has enabled the colleges to raise prices sharply. Economists have made two principal arguments to explain why educational costs increase at 2-3 percent above the rate of inflation annually. The first argument, put forward by William Baumol and William Bowen, is that the very nature of educational production, essentially a handicraft activity, precludes productivity gains, but wages of faculty nonetheless rise, resulting in a steady increase in the unit cost of production. The second argument, advanced by

---

11 Christopher C. Morphew and Peter D. Eckel (eds.), Privatizing the Public University (Baltimore: The Johns Hopkins University Press, 2009). The University of Virginia, for example, is often referred to as a “privately financed public university.”
12 The argument was first developed in William Baumol and William Bowen, Performing Arts: The Economic Dilemma (New York: Twentieth Century Fund, 1966), and extended to higher education. See
Howard Bowen, is that higher education has an endless array of worthy activities seeking support, and thus institutional leaders raise all the money they can, and spend it all on these valued activities. Under this argument, the only way to reduce cost is to reduce revenue, for the institutions are constrained only by the non-profit requirement that costs not exceed revenues. A related argument is that higher education is a “position” good in that its value to the recipient is a function of its scarcity at the highest levels of quality and prestige, and thus ambitious students will pay virtually any price to attend a highly selective college or university. Another way of stating this point is that a handful of highly selective institutions face a virtually price-inelastic demand curve, coupled with heavy demand for places, so that one might wonder, for example, why Princeton’s tuition is not higher than it already is. These price-leaders, by this argument, provide an umbrella over the entire price structure, and allow other institutions to settle in at somewhat lower levels, sheltered by the higher prices of the leading institutions.

For those students who do enroll, a shockingly large percentage, close to one out of every two, will fail to complete the bachelor’s degree. Thus, even if a student gains access to higher education, a problem remains with poor completion rates. Compared with other developed countries belonging to the Organization for Economic Cooperation and Development (OECD), the U.S. has slipped to 15th in college completion, just as we have slipped to 7th place among OECD nations in the percentage of young adults (18-24) enrolled in college. These international comparisons indicate that the performance of our “system” of higher education has declined relative to peer countries, and that we have lost the first-mover advantage that we had for a generation in developing mass higher education before other countries. Many of them have caught up and are surpassing us now on these key measures of educational attainment.

A final point to mention in this brief background section is the growing concern many knowledgeable observers have about the financial future of the public research university. It is unclear whether states will be able to provide the resources that they did in earlier days to keep their public research universities competitive with the best private universities and, increasingly, with rapidly advancing research universities abroad. While the principal focus of this debate will be on student access and completion, our ability as a nation to remain competitive in scientific and engineering research is key to our economic future, and we no longer have as dominant a position as we did in the latter half of the previous century.


Arguments Supporting the Proposition
A key argument supporting the debate proposition is found implicitly in Figure 1, for it seems implausible that the divergent growth trends of tuition vs. median family income can be sustained. Economist Herb Stein famously proposed Stein’s Law in the 1980s: “If something cannot go on forever, it will stop.” A reasonable argument, therefore, is that colleges and universities will be unable to continue raising tuition at the rates of the last two decades without pricing hundreds of thousands of students out of the market. Various estimates have been made of the price and income elasticity of demand for higher education, and the research clearly indicates that the laws of economics are not overcome in this instance. Higher price, all else equal, means lower demand. While many efforts at the state, federal, philanthropic, and institutional levels have been made to cushion price increases for many students, the fact remains that higher education absorbs a growing portion of most family incomes. The effects of this changing pattern of finance include increased student borrowing and higher debt burdens, longer hours spent working for pay while enrolled, increased part-time attendance, and lower completion rates. While it is impossible to state with precision how many potential students will not enroll because of current and prospective pricing policies, we know that many students and families are reluctant to borrow heavily for something as uncertain and risky as higher education, a factor particularly true of families without prior experience in higher education. Such families make up a growing portion of the relevant population going forward, which puts the current financial model increasingly at odds with much of the population meant to be served.

A related aspect of this argument about diminished opportunity is the behavior of institutions, which even with increased tuition, still face budgetary problems. Increasingly, public colleges and universities have been cutting enrollments in response to sharp drops in state support. Many campuses are also cutting course sections and course offerings, making it difficult for students to enroll in courses needed to graduate on time. Growing use of adjunct, part-time faculty is widespread, as a budgetary move to save money, but often at the expense of quality and consistency of instruction. Student support services, such as counseling and advising, have been scaled back at many institutions, thus reducing the resources that can help student retention. All of these institutional adaptations to declining budgets mean that even at current growth rates, tuition has not been able fully to offset the decline in state support, another sign of a failing business model.

The privatization discussion earlier needs to be qualified by noting that only a handful of highly selective public flagship universities can hope to succeed at becoming “privately financed public universities,” and even for that handful, the potential is limited. A small number of state universities have significant endowments and a history of raising private money successfully in large amounts; similarly, a very small number of state universities have the capacity to raise

17http://www.google.com/search?client=safari&rls=en&q=cuts+in+university+enrollment&ie=UTF-8&oe=UTF-8
tuition to private market levels, typically in professional schools such as Law and Business. For the vast majority of public two-year and four-year institutions, however, these sources of revenue are pipe dreams at best. Privatization is simply not a serious option for maintaining a strong and effective public higher education system, and thus the attempt to move in that direction for most institutions is not a viable business model.

A word should be said about the several hundred private, non-profit colleges and universities that collectively enroll over 20 percent of all students in the U.S. A relatively small number of these institutions have sizable endowments and excess demand for enrollment, but most have modest endowments, are heavily dependent upon tuition, and struggle annually to fill their entering classes. Analysts have been forecasting the demise of hundreds of these small undergraduate colleges for years, but they have proved to be remarkably resilient and innovative in finding ways to survive. They have, for example, altered curricular offerings rapidly in response to shifting student interests, and have become expert at price discrimination, using financial aid as a tool for enrollment management. Each year a few of these small colleges close their doors, or merge with a stronger, nearby institution, but they are not “too big or too important to fail,” and policymakers are not likely to intervene to save those that falter financially. A handful of closures does not imply that the private sector business model is broken; however, their need to attract students from higher income families means that many of them will be unable to enroll substantial numbers of low-income, first-generation college students in future years. As such, from a national, policy perspective, their business model limits their ability to serve the broader public purposes of access and opportunity.

While much of the discussion has centered on the search for new and increased revenues, one might also note that a business model can be broken if the institutions are unable to innovate and alter their production processes as a way to lower costs while sustaining quality. Higher education is not known for organizational flexibility and adaptability, and the tendency of most colleges and universities when confronted with recessions and reduced support has been to cut costs temporarily through pay and hiring freezest, reduced travel, buying fewer books for the library, and so forth, while waiting for things to get better. Few institutional leaders have undertaken the hard tasks of rethinking the university strategically and systematically reallocating resources to permanently lower costs. This “hunker down and pray for better times” approach has worked during past recessions, but it may not work as well going forward. In their recent report on U.S. higher education, Moody’s Investors Service comments that: “Given their reduced resources, colleges and universities will need to consider a fundamental restructuring of their business models to regain financial stability. Responses like freezing hiring, furloughing faculty members, and suspending capital projects are all short-term

---

19 College and university behavior may have inspired the observation that: “Hope is not a strategy.”
solutions.” Given that few leaders have demonstrated the ability to make such fundamental changes, one might argue that the business model is broken, or at best, highly vulnerable to extended periods of economic decline.

From the narrow perspective of institutional survival, the business model of higher education is not broken. Few institutions, public or private, are likely to close in coming years, and the social need for higher education will increase, not diminish. From the perspective of meeting the public purposes of access, opportunity, affordability, completion, and international competitiveness, however, one can make a strong case that our methods of financing and organizing higher education are not well aligned with our national needs. In that sense, the business model is definitely broken.

Arguments Opposing the Proposition
A key argument against the debate proposition is simply to point to current enrollment levels in higher education, which have never been higher, at 18.2 million students in 2007. Furthermore, enrollment rates of recent high school graduates have not dropped, as one might have expected if the debate proposition were accurate: “The rate of college enrollment immediately after high school completion increased from 49 percent in 1972 to 67 percent by 1997, but has since fluctuated between 62 and 69 percent.” If the business model were broken, numbers such as these would not be possible. Effective demand for higher education has not declined, and these figures demonstrate that students are finding a way to pay for college.

A central part of the argument that the business model is broken is based on the assumption that affordability has been severely compromised by rising tuition. The National Center for Public Policy and Higher Education, in its biennial report on state performance, Measuring Up grades 49 of the 50 states with F’s on affordability, and yet millions of students are still enrolling. An economist might argue that there can be no true affordability problem provided students do not face credit constraints that limit access to loan capital. The argument (analogous to that made for the social benefits of perfectly competitive markets) is that students can calculate the increased income they will earn with a college degree, and thus will be motivated to invest in themselves via borrowing so long as the rate of return is positive. Like so many other theoretical models, the kernel of truth in this position is swamped by numerous limitations on such rational calculations in the real world. Future earnings are uncertain and subject to wide variation, students may be unable to predict their success in an academic environment, many students and parents are risk-averse and reluctant to borrow, time horizons are often shorter than required by the investment model, and credit constraints do exist in the

---

22 http://nces.ed.gov/fastfacts/display.asp?id=51
student loan market. Nonetheless, the argument has the merit of highlighting two distinct ways to view affordability—as investment, in which case current income is irrelevant, or as a purchase analogous to consumption, in which current income is highly relevant. Most economists would argue strongly for the investment approach, but interestingly, the needs-analysis system built into federal, state, and private student financial aid programs encourages the consumption view of affordability. *(Measuring Up* also uses that view, relating college costs to family income.) All of this is to argue that defining affordability is far from simple, but ignoring the investment dimension overstates the problem.

One might also argue with the belief that the U.S. needs to increase the number of college graduates substantially over the next decade or so. If the market needs more graduates, then wage differentials between high school and college graduates will increase, thereby sending a signal to potential students that enrolling in college is a wise investment. So long as the financial rate of return on a college degree exceeds the interest charged for student loans, then the market can be expected to function effectively in determining the “right” number of college graduates.

A further argument is that low (or no) tuition is a highly inefficient way to subsidize higher education enrollments. The shift since the 1980s has been from a low tuition, high appropriation model to a high tuition, high student aid model. By concentrating financial aid on individual students based on financial need, subsidy dollars are allocated more efficiently than by providing across-the-board subsidies to all students regardless of income, as the older model did. The low-tuition model, it is argued, effectively awards a scholarship to all students enrolled, regardless of income, an allocation policy that few would adopt in designing an efficient scholarship program. Thus, the new model is designed to use subsidy dollars to get the most bang for the buck. Students from wealthy families are able to pay the higher tuition, and thus the low tuition of the old model was simply a dead-weight loss in that it did not influence their enrollment behavior. The epic battle in the early 1970s over federal student aid, and whether it should be directed to students or to institutions, hinged on a similar consideration, and was decided in favor of direct grants to students, based on financial need.

Two further issues have been proposed as threats to traditional higher education and its business model. First, might not technology and the digital revolution have a negative impact on universities similar to that experienced by the newspaper industry? Might not on-line learning systematically replace face-to-face teaching and learning in the classroom? Might not entire introductory courses be developed on-line and used as substitutes for faculty-taught courses?

---

24 See the paper by William Zumeta, “Does the U.S. Need More College Graduates to Remain a World Class Economic Power?,” prepared for the first debate in this Miller Center series, for discussion of labor-market needs for college graduates.

25 Some analysts argue, however, that as costs are shifted to students and families and as these costs increase more rapidly than family income, middle class families demand a larger share of financial aid, resulting in tuition tax credits, state and institutional merit aid, and more borrowing, thus offsetting some of the of the benefits of the need-based approach.
courses at many institutions? While it is true that technology is having an impact on the education process of both traditional universities and for-profit providers, the results thus far are decidedly mixed, both educationally and financially. Hybrid courses that involve a mix of on-line and face-to-face instruction are growing in use, and may represent the most promising direction for future development, but the wholesale replacement of faculty, or the erosion of markets for traditional instruction, have not yet occurred, and seem unlikely to happen. Pure on-line programs seem most effective for older, part-time adult students, who can work at home one course at a time; for younger students, the benefits of living on campus as a full-time student retains considerable appeal. Steadily increasing costs of residential higher education, however, might induce some shift to on-line programs, but most observers think this effect, if it occurs, will be modest.

Another perceived threat to traditional higher education has arisen in the last decade or so in the form of regionally accredited, degree granting, for-profit institutions, with the University of Phoenix as the poster child for that movement. Indeed, during the current recession, the for-profit sector has generally continued to grow and perform well on the stock exchanges, while traditional institutions have suffered significant revenue loss. Some of the early claims about the impact of the for-profit sector appear, in retrospect, to have been linked to the false belief that they were all, and only, on-line providers, and that digital technology would erode face-to-face instruction, as discussed above. Subsequent research has indicated that they are significant niche players, and particularly successful with older, adult students, a group largely ignored by many traditional universities. As such, they compete with some universities that rely on the adult market, but there is little evidence that they will become a viable substitute for most students. In general, they appear to extend the market for higher education to populations who otherwise might not enroll at all.

Concluding Observation

The arguments supporting the debate proposition stress the social functions of higher education and the belief that, even if most colleges and universities survive, their accomplishments under the evolving business model will be much less than a just and progressive society needs from its institutions. The arguments opposing the proposition stress the value of increased market orientation for higher education and the sense that the evolving business model is designed to produce an efficient allocation of resources. To a degree, the different perspectives can be viewed as representing the age-old tradeoff between equity and efficiency, but that would oversimplify matters. The first position includes an efficiency concern that the nation runs a risk of under-investing in higher education relative to economic needs, while the second position suggests that if subsidies are accurately targeted on the needy, social justice is thereby served. We leave it to our debaters to sort through these tangled issues.