

The Business of Higher Ed

Prices and costs of a college education

BY BETTY JOYCE NASH

West Virginia Wesleyan University froze tuition and fees for the current academic year, the second time in four years the school in Buckhannon has done so. The sticker price with room and board comes close to \$30,000. The college, like most institutions, offers discounts on tuition and fees for students who qualify.

College sticker prices have outstripped inflation for three decades. High prices can deter access and completion, especially for students whose parents never went to college, like many at West Virginia Wesleyan. Located in the middle of Appalachia, most of its 1,400 students receive some financial help; 30 percent qualify for federal need-based Pell grants.

The sheepskin typically brings benefits — wiser lifetime choices and better lifetime earnings. Demand for higher education has increased, spurred by public subsidies, including those for student loans made by private and government lenders. (Until the credit crisis, unsubsidized private student loans were also widely available.) But stagnant graduation rates and middle-class incomes, rising prices, and now reduced student lending have renewed conversations about how institutions use resources and how transparent their finances are.

Education Economics

Nationwide, the published in-state price of attending a public institution went up by an inflation-adjusted 6.5 percent in 2009-2010 over the previous year, and the privates went up by 4.4 percent. But that doesn't tell the whole story. Net prices — which factor in financial aid and tax breaks — crept up, on average, by 2 percent in the current academic year 2009-1010, but fell between 2005 and 2009.

The difference between published prices and net prices make analysis of college costs difficult. For instance, one of the fastest-growing budget items for institutions is financial aid, especially for private schools. On average, tuition and fees account for about two-thirds of money families spend to send a student to a private, four-year college, and a third at a four-year public, according to the College Board's 2009 "Trends in College Pricing."

Because education retains the centuries-old model of students and teacher in a classroom, labor costs keep prices high. When other firms substitute capital for labor, output improves and wages do too. Real wages rise as fast as productivity. But in personal service industries such as higher education and other "craft professions," wages may rise without the productivity shift. The phenomenon is known as "cost disease." By way of example, economists William G. Bowen and William Baumol explained that a quartet takes the same length of time and number of musicians to perform

a concerto as it did centuries ago. Yet the wages of the musicians increase because they, like professors, have opportunities elsewhere in the market where productivity is actually rising.

Another possible explanation: Revenues may dictate spending. Without shareholders to demand efficiency, institutions spend whatever funds they raise or receive to achieve a break-even budget. This "revenue theory of costs" may apply to nonprofits like colleges. If the buyers of a college education paid the total freight, costs might be contained through price competition. But because education consumers are subsidized, there's the potential for revenues to drive costs.

Higher education institutions also suffer from a "principal-agent" problem. The agents are the faculty, staff, administration, and governing boards who manage money on behalf of the principals, the students, parents, and taxpayers. The agents may decide on the level of overhead expenses that may or may not benefit principals, says Bob Martin, an economist at Centre College in Danville, Ky.

Martin notes that "bundling" in higher education has added to cost — services previously not included such as spiffier accommodations, gourmet food, travel opportunities, and entertainment options. Such amenities enhance a school's reputation. Since *U.S. News and World Report* began to rank colleges in 1983, competition among schools has intensified. The more money that an institution spends per pupil, on average, the higher its rank, although the magazine doesn't count spending on dorms, sports, or hospitals. Some observers suggest the ensuing competition has contributed to an arms race of sorts.

"There's been a huge emphasis on the *U.S. News* ratings," says Patrick Callan of the National Center for Public Policy and Higher Education. "Almost everything there is an input that you can buy. You can even buy students with financial aid."

Productivity Logjam

Public universities are shifting costs to families to make up for declining state subsidies even as enrollment has increased.

Although the price of a college education is rising, the graduation rates are similar to the 1970s. The success rate after four years of attendance in 2007 was 36 percent; five years, 53 percent; and six years, 57 percent. The numbers capture full-time, first-time bachelor's or equivalent degree seekers, according to the National Center for Education Statistics.

Growing enrollments are also affecting costs. Between 1997 and 2007, enrollment grew by 26 percent. This largely reflects increases in the number of 18- to 24-year-olds in the

United States. The proportion of that population enrolled in college increased by 2 percent. Yet state tax appropriations per student this year fell by 12 percent in inflation-adjusted terms compared to a decade earlier. State general fund appropriations have fallen in South Carolina, for instance, from 15 percent in 1999-2000 to about 10 percent in 2008-2009.

As public subsidies decrease, tuition costs tend to rise. One growing expense is not only salaries but also benefits, says Jane Wellman of the Delta Cost Project, funded by the Lumina Foundation for Education in Indianapolis. Especially for public institutions. "For a while, when the state retirement systems were making money hand over fist, they started giving away more generous benefit packages." After adjusting for inflation, average benefit expenditures for full-time instructional faculty on nine-month contracts grew by 80 percent from 1977-1978 to 2006-2007.

Administration costs are rising too. "It's hard to know whether it's the lawyer you had to hire, or increased campus security because of legitimate needs to increase campus security," Wellman notes. "They also have to spend more money on legal stuff; that's the world we live in."

The expenditures may be desirable — for instance, hiring professional counselors to work with undergraduates can benefit those students. "The problem is the patterns are not examined and they occur without people being aware of them," Wellman says.

The Delta Cost Project bundles student services and instruction in its data and shows declines relative to increased spending on overhead and administration. And for those institutions that compete for students on the residential character, "they would all say there's been an arms race to add those enhancements," she notes.

To cope with the cost of instruction, more nonprofit institutions have started online classes. Virginia Tech's Math Emporium, "a learning center for the study of mathematics," accommodates more than 500 students at a time, 24 hours a day, seven days a week. The University of North Carolina at Chapel Hill will offer Spanish 101 exclusively online starting in spring of 2010. Traditional instruction for the typical 250-student enrollment would cost about \$80,000, according to Larry King, who chairs the romance language department. The online course cost is estimated at about \$50,000.

While eventually these enterprises may break "the productivity logjam," most students are educated the old-fashioned way — in a classroom by a professor at a board, stimulating inquiry, and issuing grades. "We're still in the early stages of this," says University of Virginia economist David Breneman. "To the best of my knowledge there is no documentation that somehow you will eliminate the need for more faculty." For better or worse, online learning sooner or later may change the model among nonprofit institutions as it has among for-profit schools.

However large an institution's labor costs, spending on faculty is not going up, Wellman notes. The share of spending devoted to instruction (which includes labor) declined by 1.4 percent to 63 percent from 1996 through 2006 in public

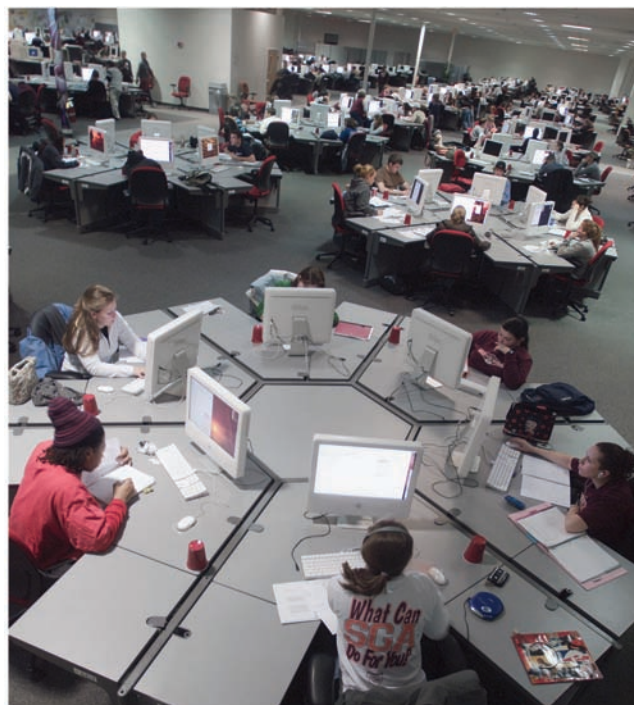
research universities. Institutions reduced instructional spending per student between 1995 and 2006 but increased, by similar amounts, spending on administrative support and student services.

The percent of tenured faculty has also dropped. About half of full-time faculty was tenured in 2005-2006, according to the Digest of Education Statistics, a decline from 56 percent in 1993-1994. Spending on faculty is a minority of total spending in most institutions, and it's been declining for the past two decades, according to the Delta Cost Project.

The American Association of University Professors has found that between 1976 and 2005, the number of full-time, tenured and tenure-track faculty had grown by a scant 17 percent. Meanwhile, the number of full-time nonfaculty professionals has more than tripled, an increase of 281 percent. Full-time, nontenure track faculty grew by about 200 percent. The number of administrators doubled over that time.

At the same time, tuition prices have grown faster than education and general spending per student. This further suggests that public and private schools are depending more on tuition to pay for other functions such as research.

Effects vary by institution and year. The University of Virginia's state appropriations have been cut four times in the last one-and-a-half years, Breneman says. "Frankly, we're not making all that up in tuition." Endowment earnings have fallen and there's been little hiring, so the economic cost of production is possibly stagnant or falling. But long term, production costs trend upward. "We know the production cost considerably exceeds the price even in the private sector."



Virginia Tech students can take certain math classes 24/7 on 531 computers at the Math Emporium. Tech inaugurated the online learning center in 1997 to cope with growing enrollments.

Increasing prices also highlight the differential pricing that occurs in higher education. Many students at private schools don't pay the sticker price. State schools can bring in more revenue by enrolling nonresident students who pay more than twice as much as residents. And professional schools of law and business at the University of Virginia and other top public institutions can raise tuition to market rates.

Tracking Costs

Kevin Carey, policy director of Education Sector, a think tank funded in part by the Bill and Melinda Gates Foundation, ticks off myriad tax incentives postsecondary institutions receive either directly or indirectly: tax breaks for individuals with children in college, nonprofit status that allows them to pay no taxes on endowment earnings or property, plus subsidized loans and grants. Such subsidies and barriers to entry likely contribute to the cost problem.

Colleges and universities say, on average, students pay much less than the full cost of their education. But the student share is rising. By 2006, students at public research universities were covering close to half their educational costs, up from about 39 percent four years earlier. Shares of educational costs covered by tuition increased more slowly in private schools. Research by the Delta Project shows that students who pay full price, on average, pay close to the full cost.

Some courses of study are more expensive than others, even though all undergraduates may pay the same tuition. Biology and chemistry cost more than English. And then there are freshmen classes: How much could it cost for an adjunct to teach a 300-person lecture without receiving health or retirement benefits? "There's no way that's not profitable," Carey says. "But they don't organize their finances in a way that would make that evident. They get money from a lot of different sources, spend money on a lot of different things, tend not to link revenues and expenditures in a way that allows you to calculate which are profitable and which aren't."

The traditional four-year residential experience is a shrinking share of the market, according to Guilbert Hentschke of the University of Southern California School of Education. But the market is exploding, so the "numbers in the category are pretty robust." He has studied for-profit colleges and universities (FPCUs). The for-profits cultivate customers in a demographic group who need a career, and might not attend a traditional institution. They deploy the model into different labor markets. And they're flexible. If there's no demand for a class, then they won't offer it. The FPCUs offer instruction without athletics, and they're not invested in real estate. They also centralize curricula.

Nonprofits must cope with expenses beyond their control, such as state and federally mandated rules, but they are also not likely to use infrastructure in a way that would enhance productivity or to consolidate purchasing power. At West Virginia Wesleyan, Bob Skinner says, the college walks a "tightrope that all small colleges especially in rural areas walk." They make money when they rent out facilities in the summer, and their president is "notorious for negotiating the best rates when she travels."

There are ways to lower the total costs students pay and perhaps increase efficiency. For instance, an estimated 25 percent of additional cost is incurred because students take more classes than are necessary to graduate.

Keeping the Education Advantage

The success of the United States over time will depend on human capital, and that will require educating a bigger proportion of the population. Jobs require more skills than ever; it typically takes more schooling just to maintain a standard of living, never mind improve it. "Just being willing to work hard in jobs doesn't do it anymore," says Hentschke.

Some of the very elements that make it hard to penetrate higher education finance in the United States may be the same ones that make the system the envy of the world. For instance, the decentralized market structure makes standardization of any kind difficult, even though schools abide by appropriate accounting rules. And while the scramble for student and faculty talent drives up costs for universities (and leads to differential pricing), it also contributes to vigorous efforts to be the best.

Institutions' numbers, diverse funding streams, and autonomy create healthy competition, according to a working paper by Duke University public policy and economics professor Charles Clotfelter. The United States has held a "first-mover advantage" in higher education for more than half a century, and has attracted global talent. But the financial crisis may jeopardize that standing as it affects government spending and endowments, and college prices. Other countries are catching up. The U.S. share of higher education enrollments worldwide fell from 29 percent in 1970 to 12 percent in 2006. Its share of science and engineering doctorates is also likely to fall.

Getting first-generation students to college is a big deal, particularly in Appalachia. And encouraging them to study science and math is a good idea too. West Virginia Wesleyan just opened a new science research center, funded in part with \$6.5 million in grants through U.S. Sen. Robert Byrd's office. "That's the first time we've seen that kind of money," Skinner says. The research center, it is hoped, will continue to pay for future generations. **RF**

READINGS

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