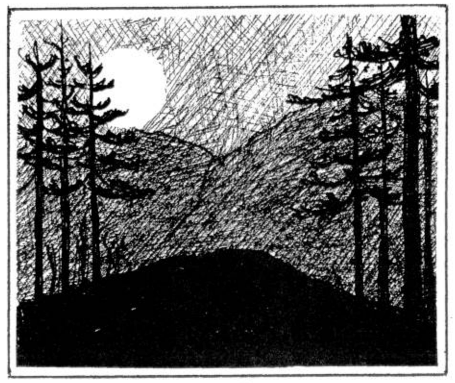
nearby bushes were black bears! They were standing upright and moving in time to the music. Tillie gasped, and Tolly quickly took a generous swallow of mountain dew. But as Americans everywhere in 1914, they kept right on dancing to Alexander's Ragtime Band.

The dancing bears seemed to mean no harm, and their graceful moves suggested to Tillie that they might enjoy one of the square-dance rhythms. Before long, the four dancers had joined in a kind of square, and the Taylors noticed that four more bears were watching intently nearby.

But then, just after an "Allemande left," the unexpected happened. The night breezes had caused a dark cloud to shut out the moonlight. It was pitch dark! The music played on. But Tillie Taylor suddenly realized that she was apart from the others, with only her partner, a heavy-breathing bear! She nearly panicked and screamed, but coming from hardy Mulberry stock, she collected her wits. Enough light came through for her to spot the drawstring bag nearby.

Tillie quickly opened the bag and offered a crab-apple honey cake to her eager partner, — readily accepted and gobbled down. Then she handed the whole bag-full to the grateful bear, who stopped dancing and sat down to enjoy Mother Mulberry's tasty cakes. Unable to see Tolly anywhere, Tillie quietly walked back to where the horse-and-buggy were, climbed into the buggy, – and fainted!

Tolly Taylor did not have such an easy time of it. The sudden darkness had left him swaying in the company of a large male bear. The ragtime tune finally stopped, and there was an awkward silence, neither partner knowing



quite what to say. The bear seemed eager to continue dancing. Tolly's eyes had adjusted more quickly to the darkness, being accustomed to roaming the familiar coal mines. He spotted the brown jug, took a quick swallow, and sighed with obvious pleasure. The bear caught the idea and readily accepted the jug handed to him. The bear took two or three long drinks, giving Tolly time to rewind the victrola.

Tolly had meant to put on a lively Sousa march, start the bears marching, and then quickly slip away. But in the semi-darkness, the record he'd picked up turned out to be Victor Herbert's melodic favorite, Kiss Me Again. The large male bear, by now enjoying the glow of good corn whiskey, opted for some close dancing with Tolly in the bear costume. It was a time for hard decisions!

Tolly Taylor had retrieved the brown jug from the bear just before their romantic waltz began. He also noted a steep drop-off at one edge of the knoll, working his way toward the edge as they danced. The large bear was in seventh heaven, dancing with his eyes closed.

At just the right moment, the dark cloud passed and the full moonlight shone upon Tolly and the bear. When the bear turned his head to gaze romantically at the moon, Tolly did not falter. Swinging the heavy jug with all of his young strength, Tolly bashed the back of the bear's head, a forceful blow! Down the steep slope tumbled the bear, striking some sharp rocks at the bottom, where he lay, motionless.

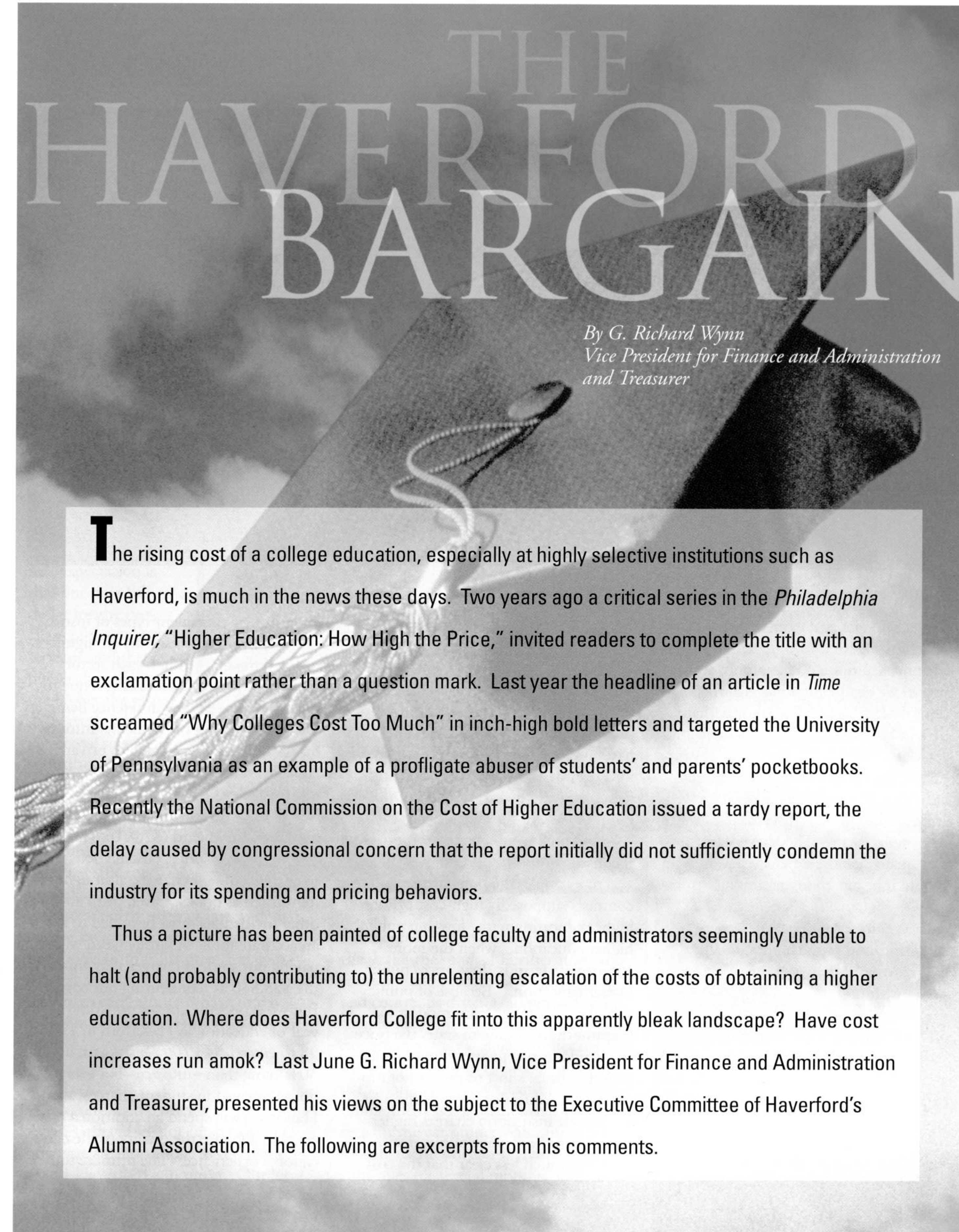
Tolly wasted no time. He threw the cracked jug after the fallen bear, picked up the precious victrola, and ran straight to the horse-and-buggy. When they were half way out of the Camp Creek area, Tillie opened her eyes, and then strangely smiled; "I've had this vision!" was all she said.

But what about the poor, romantic bear? As it happened, his mate – carrying the calico bag – arrived to find him stunned and bleeding, but not seriously injured. A few of Mother Mulberry's honey cakes seemed to revive the large male bear. He again began to feel romantic, and the two bears wandered off, leaving behind only the cracked jug and the drawstring bag.

At home the next morning, when F. Tolliver Taylor awoke, he found that his wife, Matilda, had been up for an hour or so, working with her paintbrush and easel. "What about your vision?," Tolly asked sleepily. Tillie smiled warmly at her husband. "Thank you for an unforgettable night!", she replied. "It was so romantically beautiful I had to keep it forever in memory."

Tillie turned the easel so Tolly could see her work of art. "But Tolly," she cautioned, – "please don't tell anyone their names!"

This story and others by Daniel K. Miller '44 appear in his recent book, "Wings For Flight and Freedom," a collection that includes verses, essays, philosophy and fantasy. Miller retired in 1981 after a long career with the DuPont company. Creative writing and collecting old popular piano sheet music are his major interests. He and his wife, Ellie, enjoy their three grown children and six grandchildren. A companion volume is his book "Where Angel-Glow and Torchlight Blend."



THE HAVERFORD BARGAIN

By G. Richard Wynn
Vice President for Finance and Administration and Treasurer

The rising cost of a college education, especially at highly selective institutions such as Haverford, is much in the news these days. Two years ago a critical series in the *Philadelphia Inquirer,* "Higher Education: How High the Price," invited readers to complete the title with an exclamation point rather than a question mark. Last year the headline of an article in *Time* screamed "Why Colleges Cost Too Much" in inch-high bold letters and targeted the University of Pennsylvania as an example of a profligate abuser of students' and parents' pocketbooks. Recently the National Commission on the Cost of Higher Education issued a tardy report, the delay caused by congressional concern that the report initially did not sufficiently condemn the industry for its spending and pricing behaviors.

Thus a picture has been painted of college faculty and administrators seemingly unable to halt (and probably contributing to) the unrelenting escalation of the costs of obtaining a higher education. Where does Haverford College fit into this apparently bleak landscape? Have cost increases run amok? Last June G. Richard Wynn, Vice President for Finance and Administration and Treasurer, presented his views on the subject to the Executive Committee of Haverford's Alumni Association. The following are excerpts from his comments.

DENNIS MCDONALD

Let me state at the outset that I do not think we need to be defensive about the price (tuition and fees, room and board) we charge for a Haverford education. In fact, I will argue shortly that I believe Haverford College is a bargain.

Many people are prepared to pay top dollar for quality in the goods and services they purchase, whether it be a well-crafted automobile, a fine meal, or the best medical care. They have learned that quality can be expensive. Why should it be any different among institutions of higher education? Liberal arts colleges offer a unique form of personalized education of the highest quality, and Haverford is among the first rank of such institutions. Our highly interactive, labor-intensive instructional programs supported by the latest, costly technologies cannot be offered inexpensively. We should not be embarrassed to expect our students and their families to pay for the quality received when they are purchasing what is likely to be the most critical service of their lifetimes.

But there is much more to the story.

❖

The *price* students and parents are asked to pay is often confused with the *cost* of providing a higher education. This is a natural confusion, because what Haverford regards as its "price" (tuition and fees, room and board) is seen from the point of view of the consumer as the "cost" of buying a higher education. But the distinction is important.

For example, the popular press often contrasts supposedly high-cost private higher education with "low-*cost* public higher education," when the more appropriate term is "low-*priced* public higher education." Because of public subsidies that range from modest to mammoth from state to state, the price that students pay to attend public institutions falls far short of the cost of providing that education. While the average private institution charges higher prices than the average public institution, it is much less clear that the cost structures of equivalent types of institutions within the two sectors are significantly different. Rather, each sector relies on differing sources of revenue to meet its costs, the key difference being the heavy reliance of public institutions on tax dollars not available to private colleges and universities.

In 1997-98 Haverford is charging $28,810 for tuition and fees ($21,740) and room and board ($7,070). This $28,810 is our "price," usually referred to as total student charges, although items such as books, travel, pizza and other incidentals must be added to reach an accurate total. A family faced with paying our student charges may think of the $28,810 as representing our costs. But we expect the cost of providing a year of education at Haverford in 1997-98 to exceed *$43,100 per* student, a full 50% more than our price. For every dollar received in student charges, Haverford will spend an additional fifty cents to enhance the quality of the educational experience. The primary source of these supplemental funds is the generosity of Haverford's alumni and friends, through annual giving revenues and through revenues flowing from our endowment (which itself is the legacy of past giving).

This point is worth some reflection. Where else in our economy is the consumer asked to pay only two-thirds of the true costs of a valued good or service? Most of the examples that come to mind are in the not-for-profit sector, where annual giving and endowments subsidize various cultural and social service activities. However, this sector accounts for less than 10% of our national economy. The normal expectation is that one pays full dollar for the purchase of goods and services, and the higher the quality, the higher the price.

Haverford's supplemental spending subsidizes all of our students. In addition, to ensure that we are accessible to and enroll the most qualified students regardless of family resources, nearly 40% of our students receive financial assistance (a discount from Haverford's "list price," in commercial terms). This effectively lowers the price many students have to pay; for them, Haverford is an even greater bargain.

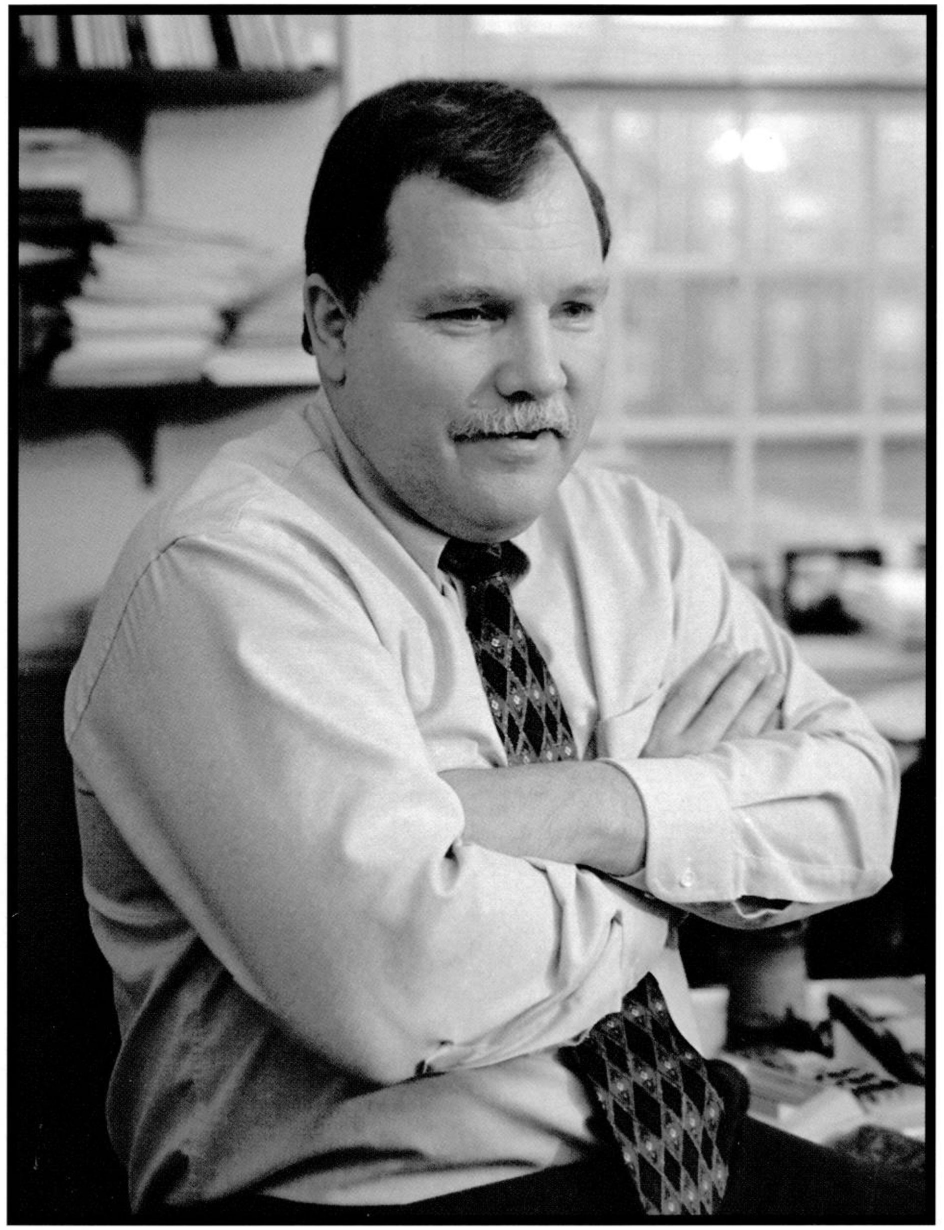
Fiscal Year	Total Student Charges	Total Cost Per Student	Additional Spending for Every Dollar of Student Charges	Endowment Revenues as % of Total Educational Expenditures
1997-98	**28,810**	**43,149**	**0.50**	**22.9%**
1996-97	27,700	40,599	0.47	21.1
1995-96	26,625	40,599	0.47	20.7
1994-95	25,250	36,599	0.45	20.0
1993-94	23,950	34,332	0.43	17.7
1992-93	**22,825**	**31,891**	**0.40**	**15.1**
1991-92	21,550	30,630	0.42	15.1
1990-91	20,150	28,233	0.40	15.0
1989-90	18,600	26,392	0.42	15.3
1988-89	17,075	24,369	0.43	16.3
1987-88	**15,825**	**21,651**	**0.37**	**14.9**

▲ **Thanks primarily to the successful capital campaign earlier this decade which added significantly to the endowment, Haverford today is spending an additional $0.50 for every $1.00 of student charges compared to $0.37 just ten years ago.**

❖

To contrast the pricing of goods and services offered by not-for-profits, let's purchase an automobile as though it were a Haverford education. Our local Volvo dealer does not advertise commercially, but we find him through a trade magazine and word-of-mouth recommendations. We visit the dealership with our 17-year-old daughter, planning to buy her a car priced at $28,000.

Rather than being subjected to the high-pressure tactics used to sell as many cars as possible, we are informed that the dealer has only a limited number of cars to sell. Our daughter is told that before being allowed to buy a car, she must pass a difficult, certified driving test and send the dealer the results. Furthermore, she must present a record of accident-free and courteous driving, accompanied by statements from experienced drivers who can attest to the excellence of her driving skills. Membership in SADD and participation in roadway clean-ups are recommended, as is evidence that she will care for the car properly and use it for socially useful purposes. The courtship continues for several months, and we



RUSTY KENNEDY

G. Richard Wynn, Vice President for Finance and Administration and Treasurer

wait to hear if the Volvo dealer will sell her the car.

Finally the day arrives, and with it the good news that our daughter has been selected for car ownership. But it is accompanied by a surprise from the dealer: we understood we were buying a $28,000 car, but in fact the one offered cost $43,000 to produce! The $15,000 difference, which we are *not* asked to pay, moves us into a much higher range of quality. But there is more. The dealer inquires if we can afford to pay the $28,000. If it should happen that $28,000 is a bit pricey for our family income level, he will discount the price our daughter is expected to pay! We learn that the dealer selects owners for his cars based on the excellence of the driving skills and personal characteristics of all who wish to buy, rather than basing his choices only on the ability to pay.

Everyone who is successful in purchasing a car from this Volvo dealership receives a $15,000 subsidy. And 40% then receive even deeper discounts against the $28,000 price tag, some of those discounts covering nearly the full price of the car. Even though we are in the market for a very expensive car, we are not surprised to learn that the dealer has many more people lining up to purchase than he has cars available to sell. (We also are not surprised when later we are invited by this eccentric dealer to donate money to his dealership so that he can continue to offer his cars to those with need. How else can this guy stay in business?)

❖

Do I appear to be putting off a discussion of Haverford's cost structure? I certainly will not suggest that Haverford does not attempt to control costs; *we do.* One of the legacies of financial distress suffered by the College in the late 1960s and early 1970s is that relative to our competition we run a lean operation.

To support this point, it may be helpful to refer to the *U.S.News & World Report* ranking of colleges and universities, that annual exercise in statistical manipulation which is much criticized by those whom it ranks. However much we might wish the survey would disappear, it is here to stay, and it does include an interesting comparison for Haverford. In last fall's survey Haverford was ranked 6th among the national liberal arts colleges. On the six descriptive characteristics used by *U.S.News* such as reputation, student selectivity, and faculty resources, Haverford ranked from 3rd to 10th nationally, with one exception. We were only 19th on "Financial Resources," which dragged down our overall ranking.

And how are "Financial Resources" measured? By the simple technique of taking expenditures of various types and dividing them by the number of students. The more spent per student, the *higher* the ranking. Thus Haverford is down-graded because it spends *less* per student than its primary competitors. While castigating higher education for out-of-control cost escalation, *U.S.News* rewards generously in its rankings those colleges that spend the most. I would argue that the magazine has it quite backward, that Haverford should receive a higher ranking for *doing more with less.* Clearly in earning the overall 6th ranking we are accomplishing more educationally while spending much less than others. Should not Haverford receive credit for its greater efficiency, for being an *over-achiever* in utilizing its available resources?

Once again, Haverford is a bargain, in this case relative to its competitors.

❖

Why are Haverford's costs lower than colleges of comparable academic quality? I will tackle this key question first by discussing the expenditure (cost) side of our operating budget, and then turn to how our revenues affect costs.

I suggested earlier that Haverford is a "lean" operation. We know from surveys that in many cases we function with fewer employees per student than do our primary competitors. This can be a source of financial strength, but also potentially academic weakness. It may signify that we operate more efficiently in traditional economic terms than our competition. But it also indicates that we offer fewer services, which can compromise the very quality we strive to attain. Our student-faculty ratio is higher than those of most other highly selective liberal arts colleges, imposing a greater burden on our faculty. We also have demanding service expectations for some thinly-staffed administrative and academic support departments. Any financial advantage this "efficiency" provides may be far more than offset by the extent to which these factors undercut the quality of teaching and scholarship, our primary mission.

Haverford also lacks a number of the amenities offered by our competitors. External critics have likened college campuses to country clubs, complete with air-conditioned dormitories, palatial dining centers, lavish swimming pools and

	Overall Rank	Reputation Rank	Graduation Rank	Faculty Resources Rank	Selectivity Rank	Financial Resources Rank	Alumni Giving Rank
Swarthmore	1	1	3	2	1	1	6
Amherst	2	1	1	8	3	7	1
Wellesley	3t	4	15	8	8	2	8
Williams	3t	1	2	28	6	6	3
Pomona	5	5	7	6	2	9	20
Haverford	**6**	**8**	**3**	**8**	**3**	**19**	**10**
Carleton	7	5	9	22	13	25	5
Bowdoin	8t	5	7	54	12	14	21
Bryn Mawr	8t	12	23	4	19	4	21
Claremont McKenna	8t	15	23	22	8	12	10
Davidson	8t	12	12	28	6	23	10
Middlebury	8t	15	15	19	10	5	27
Washington & Lee	8t	21	9	2	3	33	14

Haverford ranked sixth overall in the latest *U.S. News & World Report* survey of national liberal arts colleges despite spending less per student than many of its competitors (as indicated by its 19th ranking for Financial Resources).

exercise facilities. Clearly we are not the prototype of such a campus (many prospective students finish their campus visit assuming that we have a swimming pool, but just didn't include it on the tour!). We are blessed with a campus of unparalleled beauty, but it is the *quality* of our setting and facilities rather than the *extent* of them that we emphasize to our applicants.

One must be careful not to present an overly grim picture of the resources available at Haverford. Ninety-nine percent of institutions of higher education would be delighted to trade their resources for ours, especially our faculty and student body, our endowment, and our campus. However, we compete with the other 1% of institutions for our faculty and students, and that 1% sets lofty and expensive standards for Haverford to emulate. A primary driver of our costs is competition from more wealthy peers, forcing Haverford to attempt to match the highest compensation levels, generous financial aid packages, most extensive facilities, and new, expensive technologies.

We could back away from this competition, reduce our aspirations, and accept the consequences of lessened quality. In doing so we would become less of a bargain.

❖

A different approach to understanding the cost structures of institutions of higher education, and not-for-profit organizations in general, shifts the focus to the revenue side of the ledger. The late Howard Bowen, economist and college president, observed that such organizations are not always well described by conventional economic theory, which postulates that the profit motive compels firms to reduce costs to remain competitive. Rather, Bowen suggested in his "revenue theory of cost," a not-for-profit's costs often are determined by the revenues available to it, at least in the short and intermediate term.

In brief outline, Bowen's theory begins with the assumption that lacking a "bottom line" profit motive, our dominant goal becomes educational excellence. Second, in the quest for excellence, there are few limits to the money an institution will spend to enhance its educational offerings. Even the richest institutions have as many unmet wants as do the most impoverished; thus we read about financial difficulties occurring at such bastions of wealth as Ivy League institutions. Third, each institution will raise all the dollars it can possibly generate; the most wealthy have the largest fund drives. Fourth, each institution spends almost all that it raises; only the most affluent can afford to divert some of the giving to their endowments, which in turn generate additional spendable resources in perpetuity. The rich get richer.

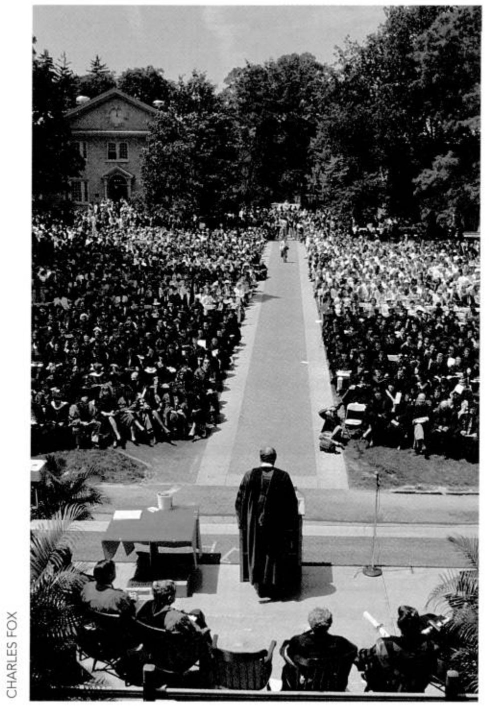
A primary driver of our costs is competition from more wealthy peers, forcing Haverford to attempt to match the highest compensation levels, generous financial aid packages, most extensive facilities, and new, expensive technologies.

The cumulative effect of these four points is toward ever increasing expenditures. Unit costs are determined not by changes in efficiency but by changes in available resources. Bowen did not intend his theory to imply that higher education and other not-for-profits are needlessly inefficient, that there is no concern for holding down costs. Rather, he was demonstrating that classical economic theory with its emphasis on minimizing costs does not always apply, that there are other factors at work which pressure such institutions toward increased spending.

Bowen's theory helps to explain a puzzling behavior of such institutions. Why don't those colleges and universities with the largest endowments use their vast resources to hold down the tuition charged their students? In fact, those with the largest endowments also charge the highest prices. Data for the 1996-97 fiscal year reveal that Swarthmore had available a full $12,700 per student more to spend from endowment revenues than did Haverford. Yet Swarthmore also raised more per student in annual giving, and asked its students to pay more in total student charges.

It is critical that such increased spending results in even greater quality in the good or service being provided by a not-for-profit institution. If Haverford is the bargain that I claim it to be, it must sustain itself over the long run not just by carefully controlling the costs of its educational offerings, but by the continuous enhancement of the quality of those offerings.

If Haverford is the bargain that I claim it to be, it must sustain itself over the long run not just by carefully controlling the costs of its educational offerings, but by the continuous enhancement of the quality of those offerings.


CHARLES FOX

❖

Shifting back to expenditures, what might we foresee looking toward the future? There has been much talk in the popular press recently about the need for higher education to cut costs by increasing its productivity. Traditionally formulated, productivity increases if changes in outputs (e.g., cars, computers) increase more rapidly than changes in the inputs (labor, capital) used to produce those outputs.

Can Haverford improve its academic productivity, and thereby lower costs, as do many other organizations? Not easily, and not without sacrificing quality. A basic economic problem facing Haverford and other labor-intensive service industries is referred to in some circles as the "cost disease." Increases in the costs of the labor and capital inputs for a particular service translate almost directly into increases in the prices charged for that service.

A classic example is a string quartet. How does one improve the productivity of such a labor-intensive group? By having them play faster? Down-sizing the cellist? No, one has to employ four musicians, and when they are paid more from one year to the next, the resultant increase in costs is translated into increases in the prices one must pay to enjoy their services. Typically, the better the sound produced by the quartet, the higher the price of the tickets.

A similar story unfolds in higher education, where faculty play the critical role in the educational process. To retain the very best faculty, we must be prepared to pay (ever increasing) competitive salaries, and in the absence of productivity improvements, our prices will rise. How can we improve productivity (and reduce costs) in a Haverford class of 20 students taught by a single teacher? Increase the number of students taught by that teacher, i.e., raise the student-faculty ratio? We might be able to add a single student to the 20 without significant harm. What about adding five? Doubling the size of the class? At some point we will lessen the quality of the educational experience. And if this year we "increase productivity" by doubling the class size to 40, what do we do next year to improve productivity again? All this runs directly counter to the kind of personalized, interactive instruction which lies at the heart of a Haverford education. Peter Drucker may prove to be correct in his prediction that electronically-based distance education is the wave of the future. If so, Haverford College will be on the last surfboard out.

❖

In some industries a solution to the "cost disease" has been to increase the amount of another key input: capital. In agriculture, infusions of capital (machinery, fertilizers) have led to spectacular improvements in the productivity of the American farmer. Can we productively apply more capital in higher education? Yes and no. Yes, higher education is increasingly becoming a capital-absorbing (even intensive) service industry. No, the greater use of capital has rarely led to increases in productivity.

Part of the explanation lies in the nature of outputs in higher education. In multi-purpose universities, it may be difficult to isolate distinctive and singular outputs. The case is less complicated for a liberal arts college such as Haverford, where in economic terms our "output" essentially is 275 to 300 graduates annually. We are not particularly interested in expanding the size of our student body; we are much more concerned about increasing the quality of our output than increasing its quantity.

While Haverford's output is relatively fixed, there has been an explosion in the application of sophisticated instructional and research technology inputs. But in making these costly capital investments, we are unlikely to increase productivity as traditionally measured. Rather, these investments help us to improve the quality of the educational experience for our students. Capital expenditures do not enable us to "produce" more students, but are translated into improvements in the quality of the human capital embodied in our graduates.

For example, in conjunction with Bryn Mawr and Swarthmore, we replaced the traditional card catalog in Magill Library with an electronic system. The capital costs exceeded several million dollars; the annual operating costs exceed $100,000. No additional students will graduate from Haverford as a

MICHAEL WIRTZ

result of this investment; the College's productivity will not increase. But our students and faculty have found the vast resources of our three libraries much more accessible. Their time is being saved, under-utilized materials are being discovered, and the educational process has improved markedly. And yet next spring we still will graduate only 275 seniors.

There are other examples of such quality-enhancing capital investments, such as Haverford's campus-wide computer network installed at the cost of several million dollars. We dare not fail to make such capital investments. Knowledge is expanding exponentially, as is the ability to access and utilize information. To provide a first rate educational experience that will prepare our students for life in the 21st century, we must address the expanding capital needs of our dynamic industry.

While our productivity as traditionally measured may not improve, our capital costs and hence our prices will continue to increase more rapidly than general inflation rates. And so we are left vulnerable to those critics who would examine only our price increases, rather than the enhanced quality of the educational processes and experiences by which our students learn.

I began and conclude by emphasizing the quality of the education which Haverford offers to its students. I have suggested a number of fundamental economic factors that combine to exert upward pressure on our cost structure, despite our continuing efforts to control expenditure increases. Will these factors lead Haverford to price itself out of the range of its own graduates, its alumni body? I think not; in fact, I believe that the College will become even more of a bargain in the future. While there is little doubt that the College will become more expensive, the ever-improving, high quality of the distinctive education offered at Haverford will provide even greater value for its graduates in the years ahead.

G. Richard Wynn has been Haverford's Vice President for Finance and Administration and Treasurer since 1985. Many of the ideas touched on briefly here are covered more comprehensively in the General Programs course he teaches periodically, The Economics and Financing of Higher Education.

31 **M. Jastrow Levin** writes, "My wife, Alexandra (Zan) Lee Levin, the author of six biographies and over a hundred articles in historical journals and papers, died February 20, 1997."

33 Reunion questions?

Contact: **David L. Wilson**
3300 Darby Road, Apt. 2209
Haverford, PA 19041
610-642-1179

Mrs. **E Theodore Bachmann** writes, "I have been able to complete Ted's book *The United Lutheran Church in America, 1918-1962.* It was published by Fortress Press and featured at the Lutheran Church in America Assembly in Philadelphia in August."

Wilbert B. Smith writes, "My wife and I continue to generally enjoy our life at the Applewood retirement community in Amherst. Various ailments and age have slowed us down considerably. We have done occasional paintings and participate in some activities here and in church. I collected signatures for Common Cause to demand that Congress do something about campaign finance reform."

35 **Ernest M. Evans** writes, "Enjoyed meeting President Tritton at **Buster Alvord's** '44 home (attended by 60+ grads now living in Seattle) in September. Found him quite exhilarating."

Rowland G. Skinner writes, "With wife, Delma, visited New England Islands by ship, toured Maine Coast by bus, and visited Civil War battles sites west of the Mississippi, Missouri, Kansas, Arkansas, and Louisiana on guided tour."

36 **Robert M. Hutchinson** writes, "We have moved as close to the campus as we could manage: The Quadrangle. Connie (Mrs. Ellis) Curley is one of the original residents here."

37 For news of **Steve Cary,** see note on **Liz Oppenheimer** '85.

38 Reunion questions?

Contact: **Samuel R. Evans**
736 East 3rd St.
Bloomsburg, PA 17815-2015
717-784-0876

Charles Ebersol writes, "Peggie, who has Alzheimer's Disease, and I intend and expect to attend our 1938 sixtieth reunion festivities in May 1998 and greatly look forward to visiting with classmates and all others who attend. I am still practicing law in Torrington with my son **Charles R. Jr.** '74. We sold our home in Litchfield this year after moving into a condominium, also in Litchfield. We had over 36 happy years at our home which we had built in 1959 and 1960. We are blessed to have two sons and six grandchildren within a ten mile radius – all doing well."

Walt Edmundson writes, "I retired in 1972 as Medical Director, U.S. Public Health Service. That and research were the centers of my life. I've authored more than 50 articles and one book and enjoyed three children, all graduates of the University of South Florida. My wife, nurse Genevieve, and I earned liberal arts degrees at Florida International University in 1974! The last years have been both eventful and boring. My wife and I have been battling her emphysema. Since she requires constant oxygen our activities have been very limited. I have developed muscular degeneration in both eyes and am legally blind. My most satisfying crafts learned during my retirement, calligraphy and cloisonné, have gone by the boards. I am now a full-time nurse aide. The most exciting and meaningful experience was our fiftieth anniversary in 1993 and the photograph of our whole family, most of whom unshackled themselves from their computers to attend. So far only one great-grandchild, Zachary Walter Thomas, but we keep hope alive. With this advice to all who will listen: Don't smoke!"

39 **John Hallahan** writes, "After enjoying the practice of internal medicine for more than 30 some years and serving as the founding director of medicine of Riddle Memorial Hospital until my retirement in 1978, I have been able to concentrate on study of the biological specimens I have been privileged to collect on our independent expeditions to such places as Patagonia, New Guinea, Falkland Islands, Madagascar, Africa, South Korea, China, Taiwan, Brazil, Antarctica as well as the North American Continent and on top of Mauna Loa in a blizzard. Free, annual lectures have been given on these expeditions to scientific societies e.g. The Philadelphia Mineral Society, Delaware County Institute of Science, and at retirement communities for more than 40 years. I also published a 500-page autobiography in 1997."

John J. Jaquette writes, "1997 was the year of the eye for me. A cataract operation in March was not really a success. The new lens got inserted but pieces of the old went into the back of the eye. This eventually lead to glaucoma which required another surgery in October with lots of doctor visits. A complication followed that second surgery but finally I am seeing well enough to drive and play golf, though the latter is poor."

Charles Rankin writes, "Moira and I enjoyed two performances in early August, 1997, at the New Shakespeare's Globe Theater in London. 1997 was the first season. We saw *A Winter's Tale* and *Henry V.*"

William H.G. Warner writes, "Still practicing law and working with the PA Bar Association Pro Bono program."

40 **John A. Duncan** writes, "My son David was in the VA Hospital. Had two surgeries, the first 15 hours, 2 days later a second, 10 hours. Thank God he is up and walking around. He has 5 blood clots across a broken collar bone and down his left arm. I spent a week with **Chud Wolfinger** last May when I attended MGS annual conference at Valley Forge. He treated me to the best, including the McConnell's at Chuddy's Club. George Gillen and wife couldn't make it. Chuddy still into most everything!"

Alexander C. Hering writes, "At 80, still golfing, but retired from tennis (knees). Sally and I enjoyed a trip to Normandy and Paris in September (arriving one day after