Are Gold Plated Room & Board Charges Important Drivers of College Cost?

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By Robert B. Archibald and David H. Feldman

Colleges are developing a country club mentality that has little to do with acquiring knowledge and learning to think, says Leon Botstein, president of Bard College in Annandale-on-Hudson, New York.

``There should be a more Spartan aspect to education that is more conducive to learning,’’ says Botstein, 58, whose college will cost students an estimated $41,800 in the school year beginning this fall. ``You are looking at a culture driven by Hollywood and vulgarity, people who are more interested in hot tubs than in what goes on in the classroom. Are we spending on education or a cruise for entertainment?''

There is nothing like a juicy quote and a few pictures to get the conversation flowing, so we’ll begin with two images of dormitories on our own campus. One of the housing options available to William and Mary sophomores, juniors, and seniors is Old Dominion Hall. Figure 1 gives a schematic of the first floor of Old Dominion Hall. It was opened in 1927, and it had its most recent full renovation in 1974. Air conditioning was added with this renovation, but the basic footprint of the building was not changed. The typical floor in this three-storey building houses 40 students. There are two bathrooms per floor, so each one serves roughly 20 students. The building has kitchen facilities and lounges on all three floors.

Figure 1. Old Dominion Hall

Another option for the same students is Jamestown North. This building and its twin (Jamestown South) were opened to students in the fall of 2006. Figure 2 shows a
schematic of one of the four floors in Jamestown North. The typical floor houses 48 students and has 12 bathrooms, one bathroom for every 4 students. As well as lounges and kitchens on every floor, Jamestown North has reading rooms, a soundproof practice room, a workroom, a game room, laundry facilities, and individual room-controlled heating and air conditioning.

Leon Botstein wondered whether a Spartan approach is more conducive to learning. Well, Old Dominion is firmly built on the Spartan model. Jamestown North seems to draw a greater inspiration from Athens instead. The newer dorm has living spaces that allow for more privacy. Many fewer people share bathrooms. There is more common space – five lounges per floor compared to two – and a study room that doesn’t
exist in the older building. Students in Jamestown North also do not have to live with the temperature set by a thermostat governing the entire floor. The college does price dormitories differently – Jamestown North currently has a $430 premium per semester over Old Dominion – so no student is ‘forced’ into a higher priced space. In any case, there is an excess demand for most on-campus housing. Since the college does not let the price rise to clear the market, this necessitates a complex lottery system to determine who gets what space. The lottery system (which is common at universities) is evidence that schools do not exercise all the market power that they have, so they leave potential revenue on the table.

Like most schools, William & Mary is not shy about advertising its amenities to potential students and their families. The web page that advertises the college’s housing and dining options begins with “Wireless and Starbucks? Thomas Jefferson never had it this good.” In addition to touting the “awesome amenities” of the new Jamestown dormitories, the promotion includes such loaded language as “forget everything you think you know about college food,” followed by tantalizing descriptions of Brazilian roast pork, spicy arugula pasta or sushi prepared to order. Advertising of this sort is a double-edged public relations sword. Schools clearly want to impress potential students with their lifestyle offerings. But after descriptions like these, the college’s use of the term “spare no expense” would seem to confirm president Botstein’s worst fears about Hollywood and vulgarity.

What constitutes gold plating? Is the presence of arugula pasta and fresh sushi on the college menu a dead giveaway? On this aspect of the question we will remain steadfastly agnostic. Common descriptions of college campuses as country clubs and
playgrounds reflect a sense of aesthetic revulsion that the word vulgarity captures quite well. In addition it’s very easy to find alumni who marvel at modern dormitories and at the food services options available to today’s students, and who wonder as well if today’s students have it too good. These are questions of taste and of values where we fear to tread. On the other hand, there is a lot of good information available that allows us to say something about how the living costs at colleges and universities actually have evolved over time compared to the living costs off campus. Placing colleges and universities squarely in the context of the overall economy offers us a useful vantage point. It allows us to challenge some views about the college experience that have achieved iconic status in the popular discussion of college cost.

Let us start by putting room & board charges in the context of the whole price of a year of college for students who live on campus and who use the university food service. For our own school, an out-of-state student arriving in the late summer of 1960 would have faced a tuition bill of $722 and room & board expenses of $782. Room & board charges actually exceeded tuition. A similar student enrolling for the 2009-2010 academic year paid $30,964 in tuition, but only $9,018 in room & board charges, presuming they lived in an “average” dorm, but purchased the most extensive (and expensive) meal plan.

The national data tell a similar story. The points in Figure 3 are index numbers set equal to 1.00 in 1965. The entries tell us the increase in list-price tuition and fees and the increase in room and board relative to 1965. List price tuition and fees have increased by a factor of 22 (private) or 23 (public) between 1965 and 2007, while room and board charges have increased only by a factor of 10 or 11. If you want to look for a smoking gun that explains the rise in the list price of college attendance, you’ll find more powder burns
from tuition and fees than from room and board. And there is no meaningful difference between public and private universities in this regard.

Figure 3. Indexes of Tuition and Fees and Room and Board, Public and Private Universities, 1965-2007

A minority of students pays the full list price, so this comparison may understate the relative importance of rising room and board fees for the average student’s net price of attendance. If a student receives a sizeable institutional grant, room and board may indeed be the most important component of that student’s cost of attendance. But that is an artifact of how we allocate internal grants between tuition and fees on the one hand, and room and board on the other. For the student, the cost of attendance is the sum of tuition and fees plus room and board. In the data, and a good example is Table 7 in the College Board’s Trends in College Pricing 2009, discounting reduces the former and not the latter.
These data thus ignore the fact that the student is buying an aggregate product, and the allocation of the grant award among the two is only an accounting issue. For this reason we do not think it is sensible to compare \textit{net} tuition, as it is typically measured, with list price charges for room and board. Also, for students who do not receive any financial aid, the list price numbers are real prices.

Despite the fact that the costs of providing room and board have not increased as rapidly as list price tuition and fees, some people clearly think that they have gone up more than they should have. “Too much,” and “should have,” sound terribly subjective, but this doesn’t have to be the case. There are numerous price indexes that tell us what has happened to the price of comparable housing and food in the economy at large. If the price of college housing and college meal plans have risen much more than these price indexes suggest, perhaps the increases in dormitory and/or dining costs on campus have been excessive.

\textbf{Gold Plated Dormitories?}

We’ll start with housing. Figure 4 shows room charges at private universities deflated by the price index for rent of tenant-occupied non-farm dwellings. We have expressed room charges in 1965 dollars. This figure is designed so that an upward slope to the line means that room charges at college dormitories have gone up faster than the typical rent in the economy in general, and a decrease shows that room charges in college dormitories have gone up slower than the typical rent in the economy. College room charges have indeed risen more rapidly than the typical rent almost every year. Over the 1965 – 2006 time period covered by the data, the average year-to-year increase in room
charges at private universities is 6.46 percent. The average year-to-year increase in the price index for tenant-occupied non-farm dwellings is 4.37 percent. This difference causes the decided upward slope in Figure 4. As Figure 3 suggests, a corresponding diagram for room charges at public universities likely would tell a similar story.

Figure 4. Room Charges at Private Universities Deflated by the Price Index for Rent of Tenant-Occupied Nonfarm Dwellings, 1965 Dollars, 1965-2006

If you stop the analysis at this point, a reasonable person could be persuaded that this information nails down the case against colleges and universities? Dorm fees are going up faster than the nearest competitor in the private economy (apartment rents). And, since the dorm fees are just designed to cover costs, colleges and universities must be making dorms much too fancy. This conclusion is several steps too fast. We need to consider two important points.
First, there is a significant measurement issue involved in the comparison in Figure 4. The information on dormitory prices reported to the Department of Education is the charge for the typical room on campus. There is no attempt to correct for changes in the characteristics of the typical room. As new dorms are brought on line and old dorms are renovated – which adds amenities such as air conditioning, elevators, and extra lounges – the characteristics of the typical room change. Part of the increase in the charge for the typical room on campus reflects the increase in the quality of the room, and part of the increase in the charge reflects pure price increase.

The issue, of course, is whether or not the quality improvements in college dormitories are excessive or not, and you cannot know this by comparing the price increase of the “average” dorm experience to the price increase of the “average” apartment. The reason is that when these same types of quality improvements occur in the general housing stock, the government statisticians correct the data for the rent of tenant-occupied non-farm dwellings to account for the changes in quality. The only part of the increase in rents that is reflected in the price index is a measure of the pure price increase. The effect of the quality improvements on the price is eliminated. In the private market quality improvements generally are regarded with less suspicion, and the price index is designed to measure just pure price inflation.

Quality correcting a price series is a very difficult task, and there are those who think that the quality corrections are imperfect. Yet the numbers for apartment rents are quality corrected while the Department of Education numbers for dormitory charges are not. In plain language, if the square footage of the average apartment rises over time the price index will be scaled back to reflect the fact that the price increase is actually buying
you something of importance (more square feet of living space). The college dorm price is *not* scaled back to reflect quality improvement in dormitories, so the index of dorm prices automatically rises faster than the index of apartment rent. Apple meets orange. The mismatch between the two prices series distorts the comparison.

The lack of any correction for quality change in dormitory charges overstates the extent to which these charges are rising more rapidly than the overall rents in the larger economy. We cannot be sure how important this factor is, but clearly some of the increase in dormitory rents is caused by quality change, or we would not be talking about gold plating, and this part of the increase in rents should be eliminated before the data on dormitory rents are compared to a quality corrected price index of apartments. If we had sufficient information to quality correct the data on dormitory rents, we might find that they behaved very similarly to other *quality-adjusted* rents. At the very least, we can say that the line in Figure 4 would not have quite as steep an upward slope.

The second part of the story is related. We think that colleges and universities have increased the quality of their living options in an attempt to keep pace with what is happening to housing in general. Some will argue that this represents bad judgment on the part of colleges and universities; that the dormitory of the 1960s or 1970s should be just fine for today’s college student. The difficulty with this normative argument is that it ignores what has happened to the houses and apartments that today’s college students call home.

As economic growth has pushed up the standard of living the average size of houses and the amenities included in those houses have risen. In addition, the average size of a family has decreased. The result is that the average number of square feet of living
space per person has risen substantially. The amenities contained within this housing stock have also improved dramatically over the years. These changes put pressures on colleges and universities. There is a comfort zone that defines a range of acceptable college housing for a student, and this zone likely includes some territory that is lower in quality than the housing the student has at home. As the quality of the housing students come from and the quality of the off-campus housing options available to them go up, a college or university has to update its dormitories to keep students in their comfort zone. A school that kept the quality of its residential options stagnant would not be doing a good job. Unless it was isolated geographically (and willing to exercise its local monopoly), such a school eventually could have difficulty filling its dormitories, or its first year class.

The comparison can be made less abstract. There is a lot of evidence about the rising quality of the U.S. housing stock. Data from the Census Bureau on the average size of a newly constructed single-family house are startling. In 1973 the average size of newly constructed single family home was 1,660 square feet. In 2009 the average size was 2,438 square feet, so the average newly constructed house was almost fifty percent larger. At the same time the average household size was decreasing by almost half a person. Data from the Census Bureau indicate that the average household had 3.01 people in 1973 and that number had decreased to 2.57 in 2009. The result is that fewer people are living in the average house at the same time the average house is getting bigger. The effects are large. As a result of the increase in the size of houses and a decrease in the average household size, the average square footage of living space per person in a newly constructed house almost doubled, from 551.5 square feet in 1973 to 948.6 square feet in 2009.
There exists no real data on how basic amenities of dormitories have evolved over time, so we can’t really compare in any thorough way the quality upgrade in the market for homes and apartments to what has happened on college campuses. Nonetheless the simple anecdote of Jamestown North versus Old Dominion gives the flavor of such a comparison. The square footage of room and common space available to each student in Old Dominion with its 1920’s floor plan is roughly 214. A student with a lucky lottery number who chooses Jamestown North enjoys a more spacious 265 square feet per student. Besides being substantially less than what is available to the average single-family home dweller, this is not even as large a percentage change as in the market for newly constructed homes over the 1973-2009 time period.

Not only are new houses bigger in 2009 than they were in 1973, but they have more amenities. In 1973, 49 percent of the newly constructed single-family homes had central air conditioning. By 2009 that percentage had risen to 88 percent. In 1973, 22 percent of the newly constructed single-family homes had no garage or carport. By 2006 that percentage had decreased to 12 percent. Finally, in 1973 40 percent of the newly constructed single-family homes had 1.5 or fewer bathrooms. By 2009 that percentage had decreased to a mere 8 percent.

Of course the current statistics on newly constructed single-family homes overstates the change in the characteristics of the overall housing stock. Many people live in houses that are nowhere close to being new, just like many students live in dorms like Old Dominion. Yet the housing stock does turn over, and older dwellings are renovated. Concerning the turnover of the housing stock, data from the 2000 census of housing indicated that 51.3 percent of the total housing stock was constructed in 1970 or thereafter,
and 17 percent was constructed between 1990 and 2000. On average, the homes that
college students are coming today from are much more spacious, and much more lavishly
appointed than the homes their parents lived in when they went off to college.

One should never divorce what is taking place on college campuses from the
broader economic environment. The standard of living today for the average American is
substantially higher than in the recent past. Real income per capita in 2008, for instance,
was 2.8 times higher than in 1960. This difference is profound, and any understanding of
gold plating in college amenities that does not begin from that basic fact may easily
wander into finger-wagging moralizing.

The gold plating of college housing and dining options sometimes is presented as a
wasteful competitive arms race among schools. In this telling, each institution is
concerned primarily with its position in the Peterson’s Guide hierarchy and the absolute
quality of the service it provides is a side issue. Arms races are about relative position. If
falling behind, even by just a little, creates great damage then people in an arms race may
be willing to spend large amounts to stay where they are in the pecking order. An arms
race story would suggest that College A’s motive for improving its amenities is wholly
defensive, namely the fear that College B will improve its ranking at A’s expense. The
social value produced by all that spending may be quite low, yet the schools involved
simply cannot help themselves. A key part of an arm race story is the idea that a treaty that
halted the arms race would leave all parties better off, including the students who are the
ultimate consumer.

Again, we are skeptics. Our explanation for quality upgrading on college campuses
does not fit this format. We argue that the quality characteristics of college dormitories are
formed in large part by the expectations of students and their families. These expectations are driven by rising overall living standards in the economy. This is the same force that has also led to substantial improvements in the characteristics of the overall housing stock. People are free to believe that the same gold plating is at work in the rising quality of the average American house or apartment, but this moves us into the ethics of consumer choice and takes us far away from the rising cost of higher education. In many places college dormitories must compete with off-campus housing options, which have improved in response to market demand.

Dormitories do face competition with the dormitories at other colleges and universities, but this competition seems driven largely by consumer expectations and not by any arms race dynamics. We suspect that a treaty to call off improvements in college dormitories would not leave everyone better off, even if it succeeded in reducing dorm costs. The public may well value the potential dorm improvements more than the extra cost that they entail, and the rising quality available in the private market is strong evidence for that position. Even supposing such a treaty could be made to stand, the most likely outcome is that eventually colleges would have trouble filling their dormitories as students migrated off campus to housing options in their comfort zone. The real market for student housing is much more complex than the competition described by a positional arms race.

We cannot say that all amenities are warranted, or that no subset of the higher education market engages in socially costly amenity competitions that needlessly push up costs of attendance. Perhaps president Botstein’s Bard College is among the offenders. One cannot prove that there is no gold plating of dormitories. What we can be sure of is
that the comparison suggested by Figure 4 very much overstates any problem. There is no good evidence that the quality of dormitory rooms has increased any more rapidly than the quality of the overall housing stock. In the end, putting together the fact that charges for tuition and fees has risen much more rapidly than the room and board charges and the fact that much of the reason for increases in room charges can be traced to increases in quality expected by students, we see no reason to think that exorbitant charges for housing are a large part of the story of rising college cost.

**Gold Plated Meal Plans?**

We now turn to the case of arugula pasta and fresh sushi. Like most services, the price of a meal plan has risen faster than the overall inflation rate. Yet as in the case of housing, if we want a meaningful comparison we must relate meal charges at colleges and universities to their closest relation in the private market. Figure 5 shows board charges for private universities deflated by the price index for purchased meals and beverages. Again the story for meal charges at public universities would be very similar. While the line in Figure 4 for room charges was almost always upward sloping, the line in this figure shows periods of decrease as well as increase. Overall there is a small rise, so meal charges at schools did, on average, increase more rapidly than the price of purchased meals and beverages in the market. Still, the difference in the rate of increase was not large. The average year-to-year change in the price index for purchased meals and beverages was 4.66 percent from 1965 to 2006. This is just slightly lower than the average year-to-year change in meal charges at private universities of 5.02 percent.
As with housing, the difference may well be attributable to changes in the quality and variety of food service options available at colleges and universities. The authors survived college food services in the 1960s and 1970s, so we can speak with all the power of first-hand experience to the improvements in basic food quality. This change is not a bad thing. One of us (Feldman) will never forget pulling a substantially intact circulatory system out of his ‘chicken’ soup and nailing it contemptuously to the ‘suggestion board’ in the cafeteria. Gone are the days when unidentified hockey puck and boxes of meat graded ‘edible’ formed a substantial part of the caloric intake.

Yet the major changes in college dining probably have more to do with the increased set of options available to students. In the not too distant past, the number of choices available to students often was very limited. If you wanted to use your student
meal plan, you were restricted to what they happened to serve in the cafeteria or dining hall. Often that meant just one option in the dining hall and only two or three options in the cafeteria. One of us (Archibald) remembers his time as a ‘waiter’ in a small dining hall in a women’s dormitory. When the following evening was ‘liver night’ the students were polled to determine how many would show up … so much for options. Those days are long gone. Even students who attend fairly small institutions have many choices.

Increasing the variety available to students likely adds to cost, and this could easily explain the small difference between the rate of increase of college meal plans and the rate of increase in the national price index of purchased meals and beverages.

This is exactly the same issue we pointed out earlier when we compared dormitory charges with rents in the private market. The index for rent and the index for purchased meals and beverages are adjusted for quality change. The statisticians who track prices in the overall economy are attempting to measure the price of a constant quality bundle of services. On the other hand the data for meal charges at universities is not corrected for quality change. These data simply measure the price of purchasing a meal plan, and part of the price of a meal plan will reflect the costs of providing more options. If the price of meal plans had been corrected for quality change, the line in Figure 5 might not show any increase at all in college food costs relative to the national index for purchased meals.

There are other parallels to the discussion of housing. We argued that college housing at any particular school competes with college housing at other institutions, with the expectations of the students based on the housing they are coming from, and with the off-campus options that are available in their area. Meal plans have the same three
competitors. The decision to attend one college over another could be affected by a comparison of the quality of the food services, but that is likely to be very far down the list of concerns. And that competition likely has little to do with a wasteful positional arms race. Also, students probably have a comfort zone for food, and the competition is not just mom’s (or dad’s) cooking. The average family consumes a significant number of restaurant meals, so that forms part of the comparison that families make in deciding what is acceptable. Finally, college meal plans compete with off campus eating options. Colleges and universities have to keep their food attractive to their students, or they will all go off campus to eat. Few students will tell you that the meal plans at their school are beating the outside competition soundly. At most colleges and universities, the three big advantages that the college cafeterias have over the competition is the same advantage the dormitories have – location, location, location. These are big advantages, but they can be overcome if the quality of what is offered is too low.

**Conclusion: The Real Cost Drivers**

The message of figure 3 is that tuition and fees are more of a driver of the total list price of a year in college than are the ancillary expenses like room and board. Yet both are rising faster than inflation, and this allows us to make a broader point about college cost and price. Like higher education itself, housing and food plans are both services. Services tend to go up in price more rapidly than manufactured goods since productivity increases are harder to come by in most service industries. This is the well-known ‘cost disease’ phenomenon, and it afflicts housing and food services in the private sector as well as at colleges and universities. What we have argued is that in the case of room and
board, the “disease” is no more pernicious at colleges and universities than it is elsewhere in the economy.

Why then are the educational costs rising so much? This is an important topic we take up in our recent book, *Why Does College Cost so Much?* Here we will offer only the briefest summary. There is a technological trio of forces driving educational costs upward. The first is indeed cost disease, which we argue is the dominant long-term engine of cost growth in higher education and in most other personal services. All of the industries whose costs behave similarly to higher education are service industries, and this is not a coincidence.

The second technological force is actually the most important one in explaining why educational expenses have soared since the early 1980s. Beginning in the late 1970s the incomes of the well educated began to outtrace the incomes of the less well educated. The reasons for this are complex, and the literature is vast. But recent work by Claudia Goldin and Lawrence Katz (2008) offers perhaps the most persuasive general argument, and one rooted in technological change. As they tell the story, the rapid growth in wages of the highly educated results from a race between two forces, technological progress that pushes up the demand for highly educated labor, and educational attainment, which augments the supply. For much of the 20th century the race was won by supply, and by the middle of the century the college wage premium was at its low point. But starting in the late 1970s educational attainment stagnated, while the computer revolution continued the upward process of raising the demand for labor whose stock of human capital contained more and more years of formal schooling.
As a result, all service industries that use highly educated labor intensively began to experience rapid cost growth. Higher education is not unique in facing both cost disease and the rising cost of a highly educated work force. The same forces affect other important personal service industries, including dental services, legal services, and the services of hospitals and physicians, to name a few, all of which have experienced cost pressures very similar to the higher education industry.

The final force pushing up educational costs is the direct impact of new technology on what higher education actually produces. Technological change always has two possible effects on an industry. New techniques can reduce the cost of making the same old thing. Alternatively, new ways can improve the quality of what we do or they can make the product or service we provide different from the older version in ways that benefit the buyer. Technology has transformed many important services in recent years, including higher education and medicine. Technological changes in higher education have been largely cost increasing, driven by the needs of students and employers in the contemporary labor market. In plain language, our product is different today in important ways, and being up-to-date has raised cost.

There is an important difference between our earlier analysis of the evolution of room and board costs and what we have just said about the costs of providing the education itself. For room and board costs we clearly recognized that the quality of dormitory rooms and cafeteria meals have increased in demonstrable ways. We make a different and less expansive claim about the cost of the education colleges and universities provide. We do not argue that today’s education is better than what prior generations of students received, only that is it different in ways that make it more expensive to produce.
Today’s education uses advanced technology throughout the campus, not just in the complex laboratory equipment used in the sciences. A contemporary education also takes the IT consultants and qualified technicians needed to run and to maintain the university’s more complex systems and capital. This equipment and these systems are expensive to obtain and to maintain. Colleges and universities that ignore the changing world around them risk committing a form of educational malpractice. We make no claim that today’s graduates are better in some absolute sense than the graduates of the past. We remain steadfastly agnostic about the quality of the education provided. Our claim is only that providing a modern up-to-date education is more expensive.

**The Last Word**

In looking at how room and board expenses affect the average cost of attendance we have not uncovered any smoking guns. Charges for these important optional fees have indeed gone up somewhat more rapidly than the relevant price indexes for similar services in the broader economy. But when we recognize that the indexes for apartments and for food in the private economy are adjusted for changes in quality, most or all of that difference evaporates. There is not much to the idea that gold plating is a substantial force driving up room and board charges, unless one wishes to argue that modern apartments and contemporary restaurant services also are needlessly gold plated. That is a value judgment we steadfastly refuse to make.
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