With financial difficulties facing many universities, some faculty members feel the urge to take a critical look into their own institution's audited financial reports and see what they can learn.

The impulse is admirable, but some guidance is needed before you enter such unfamiliar territory. Having spent some time looking at such things at my own institution (the University of California, which provides an enormous amount of financial data online), I must warn about the dreadful pitfalls awaiting any newcomer.

When you wade into those financial reports, you should understand that the numbers are invariably correct. What you need to be skeptical about are the words and labels attached to the numbers. There is, of course, a large amount of jargon. For example, if you wanted to find out how much money is spent on administration and management, you might start with "institutional support," which covers high-level administration on the campus; then there is "academic administration," (a subcategory of "academic support"), which covers the deans' offices; and then there are lower levels of administrative services buried in every other category.

It turns out that the trickiest category is the one you would think faculty members understand the best: expenditures for "instruction." Let me show you some data for my
own university, looking at its two most famous campuses. This chart comes from page eight of the latest UC Annual Financial Report.

**Operating Expenses by Function, 2010-11 ($ in Millions)**

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Instruction</th>
<th>Research</th>
<th>Medical Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC Berkeley</td>
<td>$2,026</td>
<td>$ 566</td>
<td>$ 533</td>
<td>0</td>
</tr>
<tr>
<td>UC Los Angeles</td>
<td>$4,563</td>
<td>$1,240</td>
<td>$ 702</td>
<td>$1,285</td>
</tr>
</tbody>
</table>

UCLA has a medical school and associated hospitals; Berkeley doesn't. That mostly explains the large difference in total expenditures between the two institutions. Otherwise, one thinks of the two campuses as quite comparable in size and academic quality. So why is there such a disparity in the expenditures for instruction? The answer is not easy to find by simply reading the audited financial report.

The answer starts to appear when you search more detailed financial reports (the best resource at my university is called Campus Financial Schedules) and find tables relating revenues to expenditures. For UCLA there is a contribution of $530 million for instruction that comes from "sales and services of educational activities."

What is that? It turns out that faculty members in the medical school not only teach and carry out research but are also doctors who treat patients. That activity, called "clinical practice," is a lucrative business that is conducted by the university. In the accounting system, such revenues are lumped into the category "sales and services of educational activities." Part of that money is used to cover costs of the clinical practice (offices, supplies, personnel); and a large part of it is paid out to the medical faculty members on top of their regular academic salaries. It just happens that the accounting system lumps all of those payments to faculty members under the heading of "expenditures for instruction." Who knew?

Does that have any troublesome consequences? Yes. There is a famous national repository for detailed data on the nation's colleges and universities: the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS). One of the things you can get from that lovely online source is the per-student expenditure for instruction, for any college or university, in any year. And if you look up that data for Berkeley and UCLA, you will find that the latter amount is twice as big as the former. IPEDS uses data supplied by the individual campuses, the very same data that I mentioned above. Nobody seems to be aware of how misleading those numbers can be if the campus you ask about happens to be in the medical-services business. (By the way, not all campuses with medical enterprises use the same accounting procedures I described.) IPEDS is seriously distorted.

Suppose you manage to get away from that problem of hidden medical money. An even more insidious trap lies behind the standard published numbers on "expenditures for
 That is the problem that goes by the weird name of "departmental research." You can find a glossary at the IPEDS Web site where they recite the definition:

"INSTRUCTION: A functional expense category that includes expenses of the ... instructional divisions of the institution and expenses for departmental research and public service that are not separately budgeted. Includes ..."

What is "departmental research"? It is all of the scholarly work that professors do during the academic year supported by their regular academic salaries. As an expense category, it also includes the costs of departmental staff members who may assist the professors in that research activity while they are paid from general academic support budgets. Maybe you have heard the phrase "I&R Budget"? That is readily understood by most academics at any research university as the budget allotment to cover all the work that professors are hired to perform throughout the academic year, along with departmental support for that work.

Even though we know that research is a (the) most important part of what professors are hired for at a research university, all of the money in that "I&R Budget" is accounted for as an "expenditure for instruction" in the official financial reports of the university. That is the standard accounting practice—established long ago and maintained since by the National Association of College and University Business Officers—and it's not the result of carelessness or mere bookkeeping convenience. It is a deliberate scheme to hide important facts about how our greatest universities spend their money.

Several years ago NACUBO convened a top-level committee to develop a uniform "Methodology for Identifying the Costs of Delivering Undergraduate Education." They were responding to a 1998 report from the National Commission on the Cost of Higher Education, "calling on the nation's colleges and universities to increase their public accountability and to develop better consumer information about costs and prices." NACUBO's report, titled, "Explaining College Costs," was released in February 2002. Basically, its formula was: Each college or university campus should total its annual expenditures for instruction plus student services, add an appropriate amount of overhead cost, and then divide that figure by the total number of students enrolled. Mirabile dictu, it turned out that when that formula was applied in a number of test cases it showed that students were not being overcharged for their education; in fact, they were being generously subsidized (page 33).

In its deliberations, the NACUBO committee paid special attention to several complex issues. One was departmental research, and here is what the panel concluded (page 27): "Several alternative proposals were considered, but NACUBO concluded that all departmental research costs should remain within instruction and student services."

Now, I am certainly aware that faculty research can make some contribution to undergraduate teaching. But it is preposterous to assert that all of that cost at a research university should be charged onto the tuition bills of undergraduates.
Nevertheless, that is exactly what is done. The annual budget approved by the Regents of the University of California regularly features a bar graph showing the "per-student cost of education" over several years, stressing how the state contribution has decreased and student-fee contribution has risen. In 2007, the caption read that student fees covered 29 percent of that cost; the most recent version says that student fees now cover 49 percent. I have complained that those numbers are seriously misleading because university officials have bundled the full cost of the faculty's academic research in their calculation of the instructional costs. The official reply is that they, like everyone else, calculate according to NACUBO's rules.

I have done my own calculation, disaggregating the I&R bundle with the help of data from a faculty time-use study. My calculation says that, as of 2007, undergraduate tuition covered 100 percent (not 29 percent) of the average cost for the university to provide undergraduate education. Scaling up to today's data on student fees at UC, I would estimate that our undergraduates are being charged something like 160 percent of what it actually costs the university to provide their education.

While there is room to argue over the details of my calculation, there can be no denying that the accepted method for calculating the per-student "cost of delivering undergraduate education" is not just a little bit misleading—it is a big lie. I'm aiming that accusation not just at my own institution but at all research universities, both private and public. This ought to be a scandal—and some day it will be, yet none of the respectable leaders of higher education have been willing to face up to it.

Aside from the grossly false information being given out by the research universities to students and their families (and to taxpayers and their representatives in government), academe's distorted accounting habits poison the efforts of well-meaning scholars who rely on such data sources as IPEDS to conduct quantitative studies of our industry.

Returning to the mission of the individual faculty member who wants to learn more about your university's finances, let me offer this advice: Don't rely on the institution's official financial reports. Transparency is not to be found there. Make up your own list of questions, and ask the top officials for answers that are specific and verifiable.

Of course, that sort of inquiry will not make friends for you at the upper levels, so gather a group of concerned colleagues (and perhaps some students) and make this a collective search for enlightenment.

Charles Schwartz is professor emeritus of physics at the University of California at Berkeley. More of his writings on these topics are available at http://socrates.berkeley.edu/~schwrtz/Transparency101.pdf and http://socrates.berkeley.edu/~schwrtz/TopicCost.html.