The University of California, the world’s greatest institution of higher education, is facing a crisis. It is a financial crisis; it is also a moral and political crisis. It seems that the future must lead in only one of two alternative directions: either to the collapse of UC’s great reputation as a premier research institution; or to the abandonment of UC’s public mission, being open to all eligible students regardless of their financial status.

We talk often about privatization: and right there is the crux of what that word means. Private universities select their undergraduate students as an exercise in exclusivity; we public universities do it based on inclusivity. Right there is the moral and political issue of institutional purpose. The question is often put as a choice: Do you want to preserve Quality (which means research excellence) or do you want to preserve Access (which means open to all qualified students)? Are those two goals in competition? Can’t we achieve both?

It really is about money. But it also requires that everyone who cares about this story (this history in the making) learn in some detail about the financial aspects of this choice. This is not a simple subject; and the people usually in charge of the financial management of the University are not to be trusted.

This lesson starts to study the accounting system of UC (and all other research universities). This is a subject full of mysteries and surprises.

Let’s start with one page of the annual accounting report called “Campus Financial Schedules”, which may be found at http://www.universityofcalifornia.edu/finreports/.

First, we look at Schedule 12-C (http://socrates.berkeley.edu/~schwrtz/Seminar/08sch12c.pdf), which shows Expenditures of Current Funds (for 2007-08) by Fund Source and by Campus.

A common idea is to ask how much of the total funding comes from the State of California. So we divide the “General Funds” number by the “Total” number.

For Berkeley, that ratio is 491/1652 = 30%. For UCLA it is 625/3734 = 17%.

How do you understand the considerable difference in those two numbers? It has something to do with the Medical School – which LA has and Berkeley does not have. The denominator (the Total funding) at UCLA is over twice what it is at Berkeley. This may be seen by noting the entry for “Sales and Services of Medical Centers” and also the entry for “Sales and Services for Educational Activities”, which happens to be an accounting euphemism for the clinical (outpatient) medical practice activity associated with every Medical School. Many of the Medical School faculty are practicing doctors; they see patients, collect money for that service, and that is a business conducted by the University. So we learn to be careful about asking the simple question: What fraction of our money comes from the state?
Next, let’s look at Schedule 12-B (http://socrates.berkeley.edu/~schwrtz/Seminar/08sch12b.pdf), which shows the expenditure data, by function. Here we see, for each campus, the expenditure broken down according to the Uniform Classification Category: Instruction, Research, Public Service, etc. Here, again, you see the big entry for Medical Centers at UCLA but not at Berkeley. But look at the other categories. Research is noticeably larger at UCLA: that probably is due to the Medical Schools and their large amounts of research funding from the NIH. But also notice that Instruction and Academic Support are about twice as big at UCLA as they are at Berkeley. Why is that? It turns out that that is how the money from the clinical practice is reported. There are office and clerical expenses, which happen to be accounted for as “Academic Support”; and then there is the huge amount of money paid out to the Medical School faculty, under the Clinical Compensation Plans, which happens to be recorded as an expenditure for “Instruction.”

What we are learning here is that the university bookkeeping system is full of boobytraps for the unwary. The numbers are perfect; what the numbers mean must always be open to questioning. The examples I have cited above are not abstract quibbles; some of the most respected data resources and some of the most respected researchers in the field of financing for higher education have been mislead by thinking that something called “expenditure for instruction” really meant what it seemed to mean.

When we look at the budget documents coming from the UC administration, there is a separation of the Health Sciences from the General Campuses; so the particular problem I described above is not our main concern here. Something more mysterious is now ready for our attention; it goes by the name of Departmental Research.

To learn about this, let us look at the UC Accounting Manual, Section u-751-17 (http://socrates.berkeley.edu/~schwrtz/Seminar/u-751-17.pdf), which gives us the formal definition of what is to be counted as Expenditures for Instruction. There you see that the accounting category “Instruction” includes “departmental research and public service that are not separately budgeted.” What is that? and Why is it counted as a cost of Instruction rather than a cost of Research?

To get a bit more input on this question, let me quote something from UC’s official budget. In the chapter headed General Campus Instruction, we read this.

**Instructional Program Overview**

The general campus Instruction and Research (I&R) budget includes direct instructional resources associated with schools and colleges located on the nine UC general campuses.

…

Major budget elements and their proportions of the general campus I&R base budget are: faculty and teaching assistant salaries and benefits, 58%; instructional support, 37%, which includes salaries and benefits of instructional support staff such as laboratory assistants, supervisory, clerical, and technical personnel, some academic administrators, and some costs of instructional department supplies; and funds for instructional equipment replacement and technology, 5%.
Did you figure that out? Faculty salaries – the whole of faculty academic salaries – is part of “Instruction”, in both the budget and in the accounting, even though we know that the faculty at a research university are hired for and perform at both teaching and research.

Let me show a picture that depicts this arrangement. Most of this is perfectly familiar to all faculty members at any research university.

### Basic Financial Picture of the Research University

<table>
<thead>
<tr>
<th>Work of Regular Faculty</th>
<th>Sources of Money</th>
<th>Work of Other Academics</th>
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<td>UG Teaching</td>
<td>State Appropriations &amp; Student Fees, Tuition</td>
<td>Teaching by Lecturers &amp; Grad Students</td>
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<td>Grad Teaching</td>
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<td>Research</td>
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<tr>
<td>(Academic Year)</td>
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- **I** = “Instruction”
- **R** = “Research”

Other Costs: Libraries, Facilities, Administration, Student Services

That box in the upper left corner plus the one in the upper right, that is the I&R bundle: it covers all of undergraduate education and graduate education and faculty research throughout the academic year. But it is recorded simply as “Instruction”.

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This is the universal and long-established bookkeeping habit maintained by NACUBO – the National Association of College and University Business Officers. It has serious consequences.

In 2002, NACUBO issued a report telling Colleges and Universities how to calculate and inform the public about their Cost of Delivering Undergraduate Education (<http://socrates.berkeley.edu/~schwartz/Seminar/NACUBO2002.pdf>). They acknowledged (page 27) that “Several alternative proposals were considered, but NACUBO concluded that all departmental research costs should remain within instruction and student services.” They did some surveys with their methodology and reported (page 33), “NACUBO found that at almost every participating institution, the cost of providing the programs and services that were part of undergraduate education exceeded the price charged to students and their families in the form of tuition and related fees.”

**See How Research Universities Describe Their Costs and Tuition Rates**

Average Expenditure for Education is $17,390 per student (2007-08);
Student Fees, net of financial aid, cover 30% of this.
-- *University of California*

The money the university collects from tuition ($34,800 in 2007-08) covers only about 60% of the costs of educating an undergraduate.
-- *Stanford University*

Tuition and fees will increase to $36,390 (in 2008-09); however, this figure represents less than half of what it costs MIT to educate an undergraduate.
-- *Massachusetts Institute of Technology*

These statements are all based on using that NACUBO methodology for calculating the Cost of Education. It is all very misleading. Some might even call it a fraud.

Now we know what “Departmental Research” means. Somebody has to pay for the everyday research work that the faculty do. This work is the very heart of what a research university is all about but there is no separate provision for this work in the standard way we construct our budgets. So, we’ll just bury that cost under the heading of “Instruction” and pass it on to whoever is paying the tuition. Certainly, faculty research does make some contribution to undergraduate education; but to put ALL of that cost on the bills of undergraduate students is just wrong.

Can one do a more honest job? Can one sensibly dis-aggregate the cost of Undergraduate Education from that big bundle? That will be our subject for next week.