

Bob Samuels' Report for the Little Hoover Commission

Here are the major points:

1. Already the UC Online Pilot Program has failed to meet most of its projections. Millions have been spent on marketing and course development, but only a few non-UC students have enrolled.
2. In fact, we have already driven down the costs of undergraduate instruction in the UC system through the use of large classes and non-tenured faculty; moving these classes online will not save money. The stress on online education is a distraction from the real cost drivers: administration, professional education, medical centers, athletics, sponsored research, and amenities.
3. If a professor teaches 4 courses and makes \$100,000 a year, the per student direct instructional cost for a class of 250 students is \$100; in the case of a non-tenured faculty member, the cost is \$40; online education will not lower these costs. Even if you eliminate all of the teachers, you still need to pay someone to design the courses, interact with the students, administer the program, and grade the papers. Online education is a recipe for administrative bloat.
4. Students have a hard time graduating on time because they are sometimes unprepared for university-level work, they are weeded out of high-demand majors, not enough of the right types of courses are offered, they need to work at jobs to pay for the total cost of education, they are alienated in large lecture classes, and courses are graded on a distributed curve (some students have to fail in this system).
5. We need a transparent accounting of the real cost drivers in the UC system.

1. The Real Cost Drivers in the UC system – My research on the UC budget shows that there has been a significant increase in recent years in high-paying jobs that have little if any connection to undergraduate instruction, and so the move to online education for undergraduate courses will not reduce the real cause for cost increases.

One way of examining a university's budget is to see how much employees are being paid, and how much their salaries are increasing. In order to pursue this analysis, I used a database (<http://ucpay.globl.org/>) containing the salaries of 240,000 people working in the University of California system in 2008. Since I had read that most of the raises in the UC system go to people making over \$200,000, I wanted to see who was making this much money, how large their raises were, and what jobs they did. First I divided these

employees into six basic groups: administrators and staff, athletic coaches, business school professors, medical faculty, law professors, and academic professors (those not teaching business, medicine, or law). These six categories accounted for over 95 percent of the salaries paid to all the members of the over \$200,000 club, which had a total gross pay of over \$1 billion in 2008 out of a total university payroll of \$9 billion. According to my analysis, the top group was medical faculty: in this cohort, 2,296 people were making a total of \$680 million in 2008. This same group in 2006 had 1,748 employees with total earnings of over \$502 million. In other words, over a period of just two years, UC added 550 new people from the medical field to the over \$200,000 club, and costs rose \$178 million.

Another big group of earners was the administrators and staff. In 2008 there were 397 staff and administrators in the over \$200,000 club, making a total of \$109 million. There were only 214 members of them in 2006, with a collective gross pay of \$58.8 million. This group and its combined salaries, then, almost doubled in just two years. The third biggest group, the academic professors outside of law, medicine, and business, also basically doubled its members and salaries: 415 academic professors in 2008 were making over \$200,000, for a collective gross pay of \$96.6 million; compared to 215 professors in 2006, earning \$49 million together.

The same doubling applied to the business school faculty, in 2008, there 372 of them were making more than \$200,000, for a collective gross pay of \$93 million; in 2006, there were 193 in this group, and their collective gross pay was \$46 million. The law professors did not manage to double their earnings, but they still did well: in 2008, there were 85 of them making over \$200,000, for a collective pay of \$21 million; in 2006, this same group consisted of 57 employees making a collective \$13 million. I want to note that during this time, the university claimed that faculty salaries in the UC system continued to fall beneath the national average. What was really happening was that there was an incredible increase of faculty salary inequality: the rich were getting richer and the poor were staying the same.

The final group I examined was the athletic coaches. In 2008, there were 24 coaches making over \$200,000, for a collective payout of \$12.8 million. In 2006 this same group had only 11 members, with collective earnings of over \$5 million. So athletic coaches in this highly paid category more than doubled their collective earnings in two years. What all of these statistics tell us is that UC does not just have a budget problem; it also has an out-of-control compensation problem for people at the top. Moreover, the people making over \$200,000 a year—just 1.5 percent of all university employees—made 11 percent of the total compensation paid by UC, and this group increased its wealth by close to 40 percent in just two years.

It is important to stress that virtually none of these top earners have any direct connection to undergraduate instruction, and none of them are unionized. Moreover, this high number of people making over \$200,000 drives up the pension costs and the university's unfunded liability, and it is hard to see how moving

classes online will reduce the cost of these highly paid faculty, coaches, and administrators. In fact, as I discuss below, more online courses will probably require more staff and central administration.

2. Administrative Bloat: One way of understanding how the population of administrators is expanding is to compare the rate of growth of different employee categories. For example, according to a 2008 UCLA Faculty Association report, “over the past decade, the numbers of Administrators in the UC almost doubled, while the number of faculty increased by 25%. The sharpest growth took place among Executives and Senior Managers: 114%. Because Administrators command high salaries and benefits, any increase in their number higher than the expected growth rate for the University results in high costs: rough estimates of the costs of carrying extra administrators at UC range around \$800 million.”

<http://www.uclafaculty.org/Admin.Growth.html> Not only, then, is the number of administrators growing at a much higher rate than the number of faculty, but these administrators have higher salaries. Therefore, when their numbers increase, their percentage of the overall budget increases even more, and online program tend to have an even higher percentage of administrators .

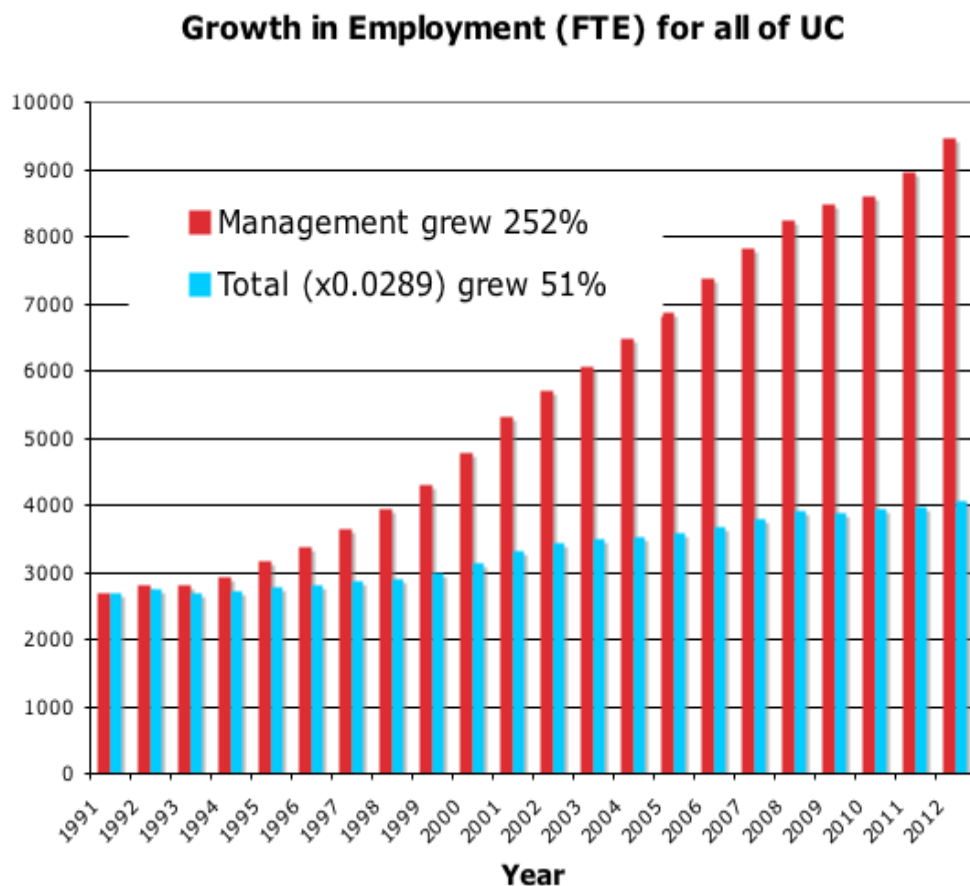
It is clear that one of the driving forces for the increase in student tuition is this rise of the administrative class, but we are still left with the question of how and why this group of employees continues to expand. To answer this question, Charles Schwartz, the retired UC Berkeley physics professor, examined employment data covering a ten-year period (1997– 2007),

<http://universityprobe.org/2011/03/new-data-on-management-growth-at-uc/#more-881> and he discovered some remarkable facts. He compared the rate of administrative growth in the UC system to the rate of growth at other universities: “In 2006, in public universities across the country, 49% of the professional full-time employees, excluding the medical school, were faculty members. At UC that percentage was about 25%.” The increase in the number and percentage of administrators really took off in the ten years between 1997 and 2007: “In 1997, there were almost 2 faculty to every Executive and Senior Manager; by 2007 the numbers are nearly the same for both groups, while the Middle Manager group steadily grows higher.” These statistics show that management is growing at double the rate of the faculty, and so although UC enrolled more students during this period, it had fewer people to teach them, but more people to manage the teachers and run the business.

In looking at what particular job categories grew the most, Schwartz discovered that computer analysts and budget analysts had the highest rates of growth: “Computer Programming & Analysis—from 2,084 to 4,325 for an increase of 108% and Administrative, Budget/Personnel Analysis from 4,692 to 10,793 for an increase of 130%.” It is interesting to note that this growing class of administrators includes people whose primary job is to produce and analyze data for other administrators. Of course, it is easy to reply that universities have become so complex and

diversified that one needs an army of bureaucrats to make sure that everyone is following state and federal laws, and all books are being balanced. Schwartz's response is to show that although the total number of employees increased by 38 percent during the period 1997–2007, the number of middle managers increased by over 100 percent. It is hard to imagine why the university needed so many more analysts to provide information and data to upper managers when the rest of the staff was not growing as rapidly. Once again, it is important to stress that a move to online courses will not help this problem and could make it much worse.

In fact, Charles Schwartz has recently updated his study of administration: “The following graph includes the newest official data: up to October 2012.



“This shows the continuing outsized growth of the management cadre (defined as the employees classified in Senior Management Group and Management & Senior Professionals): their numbers grew by 252% over the 21 year period while total employee numbers grew by a mere 51%. (The total number of employees shown in this graph is scaled down so that one can compare the relative growth, over time, of each population.)”

“For another comparison, the latest total number in this management category (SMG + MSP) is 9,457 FTE (full time equivalent employees) while the number of Regular Teaching Faculty is 8,657 FTE.”

“Similar graphs for each individual campus of the university system can be found [here](#) (.doc) or [here](#) (.pdf). For several campuses we note a mild decrease in the Management numbers in the past few years but then a new upward surge with the latest data.”

“Elsewhere I have written about the repeated requests for UC’s top officials to either justify this apparent bloat or to get rid of it; and their inability to do either. My previous estimate was that, if the apparent excess is not justifiable, then UC is wasting something like \$1 Billion per year.” <http://universityprobe.org/2013/01/uc-management-bloat-updated/>

While the UC system may be wasting up to a billion dollars on extra administration each year, the attention spent on the new online program hides one of the main cost drivers in the system.

3. The High Cost of Sponsored Research: According to a study done by the University of California Commission on the Future of the University and reported in the *San Francisco Chronicle*: “The University of California misses out on hundreds of millions of dollars each year that could be used to bolster campus budgets because it is too passive in recovering research-related costs as other universities do, a UC advisory group has found.”

“UC could gain \$300 million a year if it were more serious about demanding that grant providers shoulder more of the secondary costs of doing research, grants director Mary Croughan and UC Santa Barbara Chancellor Henry Yang, the advisory group's co-chairs, told the UC Commission on the Future this week.”

“This is real money - and it's costing our students,” UC President Mark Yudof told the commission after the presentation. “We're not aggressive enough in our cost recovery. We need more oomph.”

“UC wins about \$3.5 billion per year in research grants, of which \$780 million is for indirect costs. It's not nearly enough, Croughan reported. Research support actually costs \$1.5 billion per year, or \$720 million more than UC recovers.”
<http://www.sfgate.com/education/article/UC-Millions-lost-in-research-costs-from-grants-3185121.php#ixzz2HzirlztC>

In short, moving classes online will not help to make research more cost effective; in fact, if more professors stop teaching and instead concentrate on research, the cost of research will continue to go up.

4. Athletics: “Berkeley’s athletic department has no such deficit prohibition. Even as its \$70 million budget soared by 61 percent during the recession, it still managed to spend more than it had. Campus administrators helped out by handing the department \$13.7 million last year. Such subsidies average \$11 million per year, says a panel of eight faculty members and alumni donors whose report, released Monday, minced no words in describing the contrasting fortunes of Berkeley’s athletic and academic sides.”

Read more: <http://www.sfgate.com/education/article/UC-Berkeley-urged-to-slash-athletics-subsidy-3181887.php#ixzz2IvmDTcND>

Moving classes online will not affect this situation unless they also move the athletic competitions online.

5. High Cost of Online Instruction: In his article “**The Costs and Costing of Online Learning,**” ([http://php.auburn.edu/outreach/dl/pdfs/Costs and Costing of Networked Learning.pdf](http://php.auburn.edu/outreach/dl/pdfs/Costs_and_Costing_of_Networked_Learning.pdf)) Greville Rumble looks at the actual costs of using online courses at research universities. His main finding is that previous research on this topic failed to take into account all of the related expenses: “One of the problems with many of the studies now available is that they report the broad results, not the detail. It is therefore difficult to know what has been included and what excluded, and so whether the costings undertaken are comprehensive. Experience suggests, however, that all figures need to be treated with care. What does seem clear is that the costs of developing a course are being pushed up—and significantly so whenever media are used in a sophisticated way. If so, and if cost efficiency is an important consideration, then savings may need to be looked for in delivery.” Rumble here argues that one of the main cost drivers in online courses is the development of the class material.

In fact, his research shows that if universities want to produce a high-quality educational experience, they have to spend a great deal of money: “The high costs of developing internet courses are confirmed by Saba, who suggests that commercial software companies developing courses for online instruction or publishers are

spending at least \$500,000 to fully develop a multimedia course.” It is important to note that when universities present the cost of new online programs, they usually do not account for the initial costs of course development.

Rumble also believes that although these new programs are often used to save labor costs and faculty time, the opposite often happens: “A high proportion of the costs of developing materials is labor costs. All the research shows that it takes more academic time to develop media that will occupy a student for one hour, than it takes to develop a one-hour lecture—although how much more time is difficult to quantify. Sparkes reckoned that it took from 2 to 10 hours to prepare a lecture, from 1 to 10 hours to prepare a small group session, and from 3 to 10 hours to prepare a video-tape lecture; however, it took at least 50 to 100 academic hours to prepare a teaching text, 100 hours to prepare a television broadcast, 200 hours to develop computer-aided learning, and 300 hours to develop interactive materials—to which in all cases one needed to add the time of technical support staff.” There are thus a lot of hidden costs involved in developing online courses, and these expenses rarely show up in presentations on the cost-effectiveness of computer-mediated education.

Universities also sometimes underestimate the expenses related to delivering online courses: “In general none of the studies undertaken to date adequately factor in the costs of overheads. Although, the costs of putting in equipment directly associated with the projects (e.g., servers) are usually taken into account, as are the costs of software licenses, college operating budgets do not usually reflect the full costs of maintaining networked services.” It turns out that it is very hard to calculate the total cost of software licenses, network maintenance, and equipment for online programs, so universities simply make a guess and present it as a fact.

Furthermore, universities have a hard time predicting the number of staff and administrators they will need for a new online program: “Much depends on the context—the time spent agreeing that a group of enthusiasts can develop a project will be very different to that required to change an institution’s direction. Indeed, developing an IT [information technology] strategy is likely to be expensive.” One thing that we can be sure of is that the use of online courses drives up the cost of administration and staff while further squeezing instructional budgets.

6. UC's Costly Online Pilot Program. *The Chronicle of Higher Education* has written the following on the UC Pilot Program: "UC Online spent \$4.6-million on developing the project in the 2011-12 academic year, and expects to spend about \$7-million this year in additional development and marketing efforts, said Shelly Meron, a University of California spokeswoman. An 18-month contract with the course-management software company Blackboard took up a significant portion of that spending—\$4.3-million . . ." Thus, at the same moment that the university is facing reduced state funding and swelling enrollments, money that could be used to hire more teachers or house more classes is being sent to a private company to develop online course infrastructure. One has to wonder why the UC system could not have developed its own open source course programs and why the administration is bent on pursuing this high-cost strategy.

As reported in the press, as of January 2013, the UC had spent over \$5 million on its online pilot program, but only one non-UC student has completed a course (<http://www.sfgate.com/education/article/UC-online-courses-fail-to-lure-outsiders-4173639.php>). In contrast, the UC's business plan projects 3,000 non-UC students by the end of this year.

7. Faculty and UC Pilot Program - It is unclear who will teach the UC online courses. Governor Brown has proposed \$10 million for the UC budget to develop the online program, and this will help bail out the current failed program. President Yudof said at the last UC Regents meeting that UC wants to have each undergraduate student take at least four courses online in the next five years. With close to 200,000 undergrad students, this means quickly funding online spaces for 800,000 enrollments. The only way to reach this goal is to have massive classes with thousands of students, and it is still clear who will teach the courses and interact with the students.

Most discussions of the UC online program anticipate using graduate students as the main source for interaction for the online courses. In this model, a faculty member

would design and record a class, and it would be managed by grad students. One problem with this model is that grad students are expensive (you have to pay for their tuition, healthcare, stipends, salary, and their contract limits their workload), and many of these students, after earning their doctorates, cannot find jobs. Also, it is unclear if these students or even the professors know how to develop or teach online courses. One alternative would be to buy courses from an online provider, but this would go against most of the university's rules on course development and course approval. In any case, a major move to online courses would probably require a reduction of the number of professors, which could hurt the rankings and research of the system.

It is important to stress that the UC online program is not being driven by the faculty, and many faculty members have deep concerns regarding academic freedom, intellectual property, shared governance, tenure, educational quality, workload, and the integration of research and teaching. Furthermore, many faculty do not think online courses should be used to experiment on the students, and they do not believe the program will work if it is imposed from above. However, we do think that faculty should be incentivized to use technology to improve their courses and enhance student learning. We are also concerned about how the move to online courses will affect the use and staffing of the libraries and other support systems.

8. UC has already pushed down the cost of instruction. If a professor teaches 4 courses and makes \$100,000 a year, the per student direct instructional cost for a class of 250 students is \$100; in the case of a non-tenured faculty member (average salary of \$60,000 for 6 semester courses), the cost is \$40. In fact, one of the biggest instructional costs for large lecture classes is the employment of graduate students to teach the small discussion classes. Under the online model that UC is contemplating, large classes will be manned with graduate students to handle grading, office hours, and discussion groups. This use of grad student instructors will drive up costs because these students are regulated by a union contract with strict workload restrictions. Moreover, grad students are more expensive than non-tenured faculty since someone has to cover the costs of their tuition, expensive seminars, healthcare, and stipends. In short, the online model UC

is pursuing will drive up the costs of undergraduate instruction.