Science Before Profit: De-privatize the Labs Now

By Dr. Jeff Calvin

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In May 2000 a classified computer disc went missing at the Los Alamos National Laboratory. After an extensive search and investigation conducted by the FBI, the missing disc turned up a few weeks later behind a halfway copy machine.

For many members of Congress, this incident was the last straw in what was perceived as a long history of the University of California’s (UC’s) mismanagement of the nation’s national security laboratories. Los Alamos and its sister lab in California, the Lawrence Livermore National Laboratory, particularly with respect to safety and security. There was then no stopping the free-market ideologues, who were wedded to the dubious notion that the solution to all problems is free-market competition; language was added to the FY04 Energy and Water Appropriations bill to put the management contracts for all the Department of Energy (DOE) national labs up for competitive bidding. Then, the DOE’s National Nuclear Security Administration (NNSA) wrote the Requests For Proposals for both Labs so that only bids from a specially constituted corporate entity, a Limited Liability Company, would be considered. UC, which had managed both Labs since their founding (1942 for Los Alamos, 1952 for Lawrence Livermore) as a public service to the nation, and had received only a modest management fee, was now barred from even competing as a public entity.

NNSA is the National Nuclear Security Administration, a separately organized agency within the U.S. DOE.

Despite the numerous warnings sounded by many scientists that privatization of the Labs would jeopardize their scientific and national security missions, the contract bidding went forward. In June 2006 Los Alamos was turned over to a new corporate entity, basically an offshoot of the Bechtel Corporation joined in partnership with UC and a couple of other large corporations. In October 2007, essentially the same corporate entity took over Lawrence Livermore, frustrating the original intent of Congress to inject free-market competition into the overall enterprise. Two new layers of management were brought in and a new corporate structure imposed, at increased overhead cost. Each new company receives a management fee up to tens of millions of dollars per year, many times the $7M fee UC earned. Operating costs increased by more than $100M per year because the Labs were now subject to state taxes from which UC, as a public entity, had been exempt. Taken together, the two new management contracts added approximately an additional $400M per year to the Labs’ operating costs over and above what they were under UC management. The question to be addressed is whether or not this added cost has added value to the Labs’ missions.

The Los Alamos and Lawrence Livermore Labs are both large multi-disciplinary scientific research organizations with the mission of doing science in the national interest. Their major role as DOE Defense Programs Labs includes maintaining a nuclear weapons “deterrent capability” for the United States in the absence of nuclear testing. Additional missions include developing non-proliferation and counter-terrorism technologies, pursuing energy research — especially fusion energy — and global climate change research. The success of the Labs’ missions depends entirely on the credibility of their science enterprise. As any good scientist knows, good science can be done only in an environment that not only supports, but encourages, free and open inquiry and discussion. Such an environment is difficult to maintain in a hierarchical corporate management structure that is motivated primarily by profit in a distorted market construct.

The mission of the Labs is primarily in the assessment, certification, and design capability role. Most of the work of maintaining the nuclear deterrent is done at the DOE production complex and by DoD and its contractors.

Effects on Science

The most direct way for managers to squelch open debate and discussion is by withdrawing project funding from an “offending” employee. This happens with dizzying frequency. It happens not always or even mostly because of actual project funding cutbacks. The employee who loses his or her project funding is placed in a very precarious situation, often tasked with a new assignment to find another funded assignment, and then given an unsatisfactory performance appraisal evaluation for failure to find another funded project. These unfortunate employees who find themselves “between assignments” often do have difficulty finding another assignment, because they are often unfairly stigmatized as poor performers, not “team players.” Data compiled by University Professional and Technical Employees show that the number of employees at Lawrence Livermore partly or fully in this state of limbo was approximately constant at 100-150 over several years prior to the management transition. Data has been unavailable since the transition, for reasons explained below, but anecdotal evidence suggests little change in the total numbers. Of course, these numbers do not include the scientists and engineers who are assigned “make work” projects way below their skill.
Worse, the privatization has been a setback for recruitment and retention. This is mainly because the "social compact" has been broken by the privatization. Scientists were attracted to establish careers at the Labs, giving up prospects of tenure in academia or greater pay and bonuses and stock options in industry, by the promise of job security and retirement security. Job security came with status as a UC employee; the California State Constitution grants all public employees, including UC employees, an effective "property right" to their jobs. The Higher Education Employer-Employee Relations Act guarantees that this right cannot be taken away without "just cause" and due process. Further, the generous UC pension plan guaranteed retirement security. Thus, people could come to the Labs and expect to build a solid, lifelong career doing good science in the national interest. They gave up the hopes of the million-dollar salaries and perks that often come with a for-profit structure, but in trade, they joined with the hopes of not having to worry about either job security or retirement security.

All of that disappeared with the privatization. New employees do not get any pension, only access to a privately managed 401k. Even though the new companies allege to have more-or-less preserved due process protections for dismissals, the stricter "just cause" standard is gone, and the companies can change the due process policies at any time, without being constrained by labor laws that protect public-sector employees. As a result, fewer young people are coming in to postdoctoral positions at the Labs (usually the first step in a career in science these days). At the other end of science careers, senior experienced technical employees have left at an accelerated rate. The 2008 layoffs at Lawrence Livermore targeted mostly older employees, sparking the largest age-discrimination lawsuit in DOE history, involving more than 100 plaintiffs. These trends in recruitment and retention alone will undoubtedly have an adverse long-term effect on the science enterprise at the Labs.
management gets to evaluate their own performance, which effectively means that they decide their own performance bonuses. Further, top executives are no longer constrained by what DOE is willing to pay in their total compensation. The top executives at both Labs receive bonuses, special retirement deals not available to other employees, car allowances, and other perquisites that were simply not available when UC managed the Labs. At Lawrence Livermore, the top executive who came in from Bechtel gets a base salary about twice that of the Lab Director. Thus, the Labs are now experiencing what has been common in the corporate world, but up until now has been unknown at the Labs: bloated executive compensation.

All of this is to say that UC always did a good job in managing the Labs and their scientific enterprise. Many of the management practices summarized above that are inimical to doing good science happened under UC’s watch, too. The relevant question is whether or not things are better or worse since the transition to a private-for-profit monopoly management. I have tried to make a case here that things are indeed much worse, but it is difficult to know for sure. This is because employees and the public no longer have access to information that was previously readily available via the California Public Records Act. Information on salaries, budgets, spending, hiring — virtually all aspects of how the Labs are being managed — is now company proprietary. Openness and transparency is arguably our biggest problem with privatization.

The private entities LLNS, LLC at Livermore and LANS, LLC at Los Alamos both share the same Board of Governors, led by the same person, a UC Regent. With NNSA’s award of both labs to the same governing entity, there is no competition to provide balance, so that the taxpayer cost per benefit has skyrocketed. Further, the new entity is not a public corporation with shareholders and open conference calls. This serves to minimize accountability and openness.

This is why the upcoming study by the National Academy of Sciences (NAS) is very important. The FY 2010 National Defense Authorization Act includes language that mandates an NAS study of the effects of the contract transition on the Labs’ science and national security missions. Congress is unlikely to make any changes without the cover provided by a comprehensive and authoritative investigation of the facts by the NAS. I have no doubt that, were the NAS to ask the right questions, with diligent pursuit of supportable, documented answers, they will conclude as I have that Congress must act to de-privatize.

Even with an NAS study, change is going to be extremely difficult to achieve. This is because the privatization of the Labs is just a small part of a much broader trend that has been underway in this country for many years: the corporatization of university science and the defunding of public education. While state legislatures everywhere are cutting education budgets, public universities are taking more and more money from corporations, much of it directed to individual researchers to do research in support of product development. It has become much cheaper for corporations to put their research dollars into university labs than to fund and maintain their own corporate research labs.

This change in the business and funding model for public universities has the longer-term consequence of making undergraduate education more expensive and less accessible, not to mention the adverse effect on basic science. The recent 32% rise in student fees at UC is just the latest manifestation of this trend. The problem is not unique to California. Almost all states are experiencing the same problem, to greater or lesser degree, but in California, students, staff, faculty, and the public are beginning to push back. There is a growing realization that change is needed, and that change has to be de-privatization and the return of public universities to their original mission of public education and public service.

For this change to happen, however, a broader base of support for change needs to be built. The entire scientific community can and must take the lead on building public support for change. Nothing less than the integrity of our science and the future of our nation’s economy is at stake.