

Academic Council Special Committee on the National Labs (ACSCONL)

THE ACSCONL SURVEY OF UC SENATE FACULTY REGARDING THE NATIONAL LABORATORIES

(Endorsed by the Academic Council, July 21, 2004)

Executive Summary

Between May 3 and May 14, 2004, the Academic Council Special Committee on the National Labs conducted an electronic survey of UC Senate faculty on whether or not UC should compete for the contracts to continue to manage the Los Alamos National Labs (LANL) and the Lawrence Livermore National Labs (LLNL). A total of 3,271 faculty (26% of those invited to participate) completed the survey and voted by more than a 3-1 majority to compete for both laboratories. Specifically, 67% of the faculty favored competition, 21% opposed UC competing, and 13% declined to express an opinion. These results were remarkably independent of the faculty member's gender, level of appointment, and academic field. Those favoring competition did so mainly because of the quality of the unclassified research conducted at the labs and the benefits to UC faculty and students of research collaborations with the labs. The main reason cited by those opposing competition is the fundamental incompatibility of the missions of UC and of the laboratories. About 9% of the faculty favored competing for LLNL but not for LANL, with a substantially higher percentage from Northern campuses holding that view. In addition, faculty expressed the following views about these two labs:

- An overwhelming majority of faculty (90%) felt that the quality of science and technology should be the main factor in judging the management of the labs.
- The Academic Senate should have a role in lab oversight, and UC faculty should provide input to personnel processes at the laboratories.
- UC should not turn over business, safety, and security functions to industrial partners.
- Manufacturing nuclear weapons components at LANL is an inappropriate activity for UC to manage.
- There should be more funds for UC-laboratory research collaborations.
- To the greatest extent possible, academic freedom should be preserved at the labs.
- UC should strive to influence national policies related to the labs.

This faculty poll followed a series of town hall meetings held on most campuses as well as the wide dissemination of eleven white papers providing background information about the two laboratories.¹

I. INTRODUCTION AND BACKGROUND

For more than fifty years, the University of California has managed three multi-disciplinary national laboratories on behalf of the U.S. government. In 1931, the predecessor to the Lawrence Berkeley National Laboratory (LBNL) was created as an on-campus research center by Nobel prize-winning physicist E. O. Lawrence. In 1943, the U.S. Army contracted with the University

¹ <http://www.universityofcalifornia.edu/senate/committees/council/acskonl/reports.html>

to administer the Los Alamos laboratory in New Mexico, where the first atomic bombs were designed and built under the leadership of UC physicist Robert Oppenheimer. In 1952, a second weapons-design laboratory was established at Livermore and later named for Lawrence.

The contracts for managing these three laboratories were previously reviewed and renewed by the two signatories, the University and the U.S. government, every five years. Following several highly publicized allegations regarding security and business practices at the Los Alamos National Labs, followed by the dismissal of two whistleblowers at the lab, the Secretary of Energy, Spencer Abraham, announced in the spring of 2003 his intention to compete the contract to manage LANL. Subsequently, Congressional legislation mandated that the contracts of all labs whose contracts had not been bid for the last 50 years would be opened to competitive bidding, including those for LANL, LLNL and LBNL.

In response to this changing situation, the Academic Council formed a special committee dealing with the national labs to replace its laboratory subcommittee of the University Committee on Research Policy, which had recently issued its own report assuming that DOE would simply offer to renew its contracts with UC.² This new committee, called the Academic Council Special Committee on the National Labs (ACSCONL) began operation in the spring of 2003. Because the Lawrence Berkeley National Labs does not do classified research and because its mission is so closely coupled to the Berkeley campus, ACSCONL soon decided that competing for the LBNL contract is not a controversial decision that the faculty was likely to question.

The Academic Council's charge to this special committee included an assessment of faculty views regarding the forthcoming competition. During the fall of 2003, the DOE indicated that a request for proposals for LANL might be issued the following summer. Since the Regents of the University of California would have the final decision on whether to compete, the Regents might have had to make a final decision before the fall of 2004. Because ACSCONL wished to assess and report faculty views prior to any Regental decision, the committee decided to poll the faculty during the late spring, even though the RFP would not have been issued by that time. Because it is the UC faculty who provide the scientific expertise to manage the labs, the peer review used to evaluate the laboratories, and the high scholarly standards to which the labs must adhere, the committee felt that the Senate views had to be provided in a timely fashion for consideration by the Board of Regents. Both the Academic Council and the Academic Assembly (the representative legislative arm of the Senate) endorsed the notion of polling the faculty regarding these labs.

II. RECENT HISTORY OF SENATE VOTES

During earlier contract renewal discussions, the Senate had conducted mail ballots of its membership regarding whether or not to continue UC management of the labs. These votes occurred on individual campuses and were counted and recorded on each campus.

² <http://www.universityofcalifornia.edu/senate/committees/ucorp/doesubcommittee.pdf>

In 1990, eight of the nine campuses conducted mail ballots. A total of 4,791 ballots were received on all campuses. The results, which showed strong opposition to continuing management were:

Table 1 – 1990 Senate Divisional Mail Ballots

Favoring continued management	Opposed to continued management
1,702	3,089
36%	64%

By 1996, when the contracts were next up for renewal, the situation had changed dramatically. Only six campuses participated in this mail ballot, and there were 2,519 votes cast. The cumulative results were:

Table 2 – 1996 Senate Division Mail Ballots

Favoring continued management	Opposed to continued management
1,524	995
61%	39%

In 1996, the San Francisco campus did not hold a mail ballot and did not take a divisional position on this issue. UCLA discussed the issue at their Legislative Assembly meeting, but because of the absence of a quorum, they could neither take a vote nor schedule a mail ballot. Santa Cruz held no mail ballot, but at its divisional senate meeting, UCSC voted for continued lab management by a vote of 30-16-1.

III. HOW THE 2004 POLL WAS CONDUCTED

In view of the large number of UC Senate members (14,654), ACSCONL decided to conduct an electronic poll of the faculty instead of using the traditional mail ballot. An electronic poll would guarantee that faculty on all campuses would have an opportunity to participate in this expression of opinion. In addition, an electronic vote is less expensive to conduct. More importantly, such a poll allows one to ask several questions of respondents, with quick aggregation of the results, thus yielding information about the nuances of faculty opinion. The main downside of an electronic poll is that, with electronic mail, we could not reach all Senate members. Using lists obtained from each of the divisional senate offices³, we were able to obtain email addresses for 12,804 Senate members, which constitute 87.4% of the entire membership. Presumably, most of the members for whom we had no email addresses were emeriti faculty.

ACSCONL spent several months constructing the survey ballot.⁴ In formulating the questions being posed to faculty, we consulted with an expert on polling, UCB political science Professor Laura Stoker, whose help was much appreciated. UCSF kindly agreed to conduct the poll for the systemwide Senate.

³ In the future, it is our hope to use a database-driven email list for Senate members. This is currently under development.

⁴ See http://www.universityofcalifornia.edu/senate/committees/council/acscnl/labsurvey_sample.pdf

Prior to the poll, ACSCONL engaged in an extensive effort to inform faculty about the issues related to the possible competition for LANL and LLNL. We wrote eleven white papers, each dealing with some aspect of the University's relationship with the laboratories. These white papers were sent out for review by several interested parties, and after comments were received, we revised and posted the white papers on the Senate's web page.⁵ We actually monitored the number of hits to this web page, and learned that there were substantial increases in the number of visits to this page after each of the three reminders sent out to UC faculty urging them to vote.

In addition to the white papers, several divisions of the Academic Senate organized town hall meetings on the campuses so that faculty could better inform themselves about issues relating to the labs. Such meetings took place at Santa Barbara, Los Angeles, Berkeley, Davis, and San Diego. Several of these meetings were videotaped, and along with two other debates held on the Berkeley campus, these videos were linked on our web page. We also included links to online discussion forums from two of the campuses. In addition, advance warning of this vote was included in two issues of the *Senate Source*, the Academic Senate's online newsletter.

The actual vote was held between May 3 and May 14, 2004. The vote began with an electronic mail message from Senate Chair Lawrence Pitts to all 12,804 Senate members for whom we had addresses. Each email contained a link unique to that individual. By following this link a faculty member was led to a web page containing the ballot. The faculty member's responses were recorded only when the voter clicked the final "submit" button. A faculty member could not vote twice. Any attempt to do so would lead to a polite message that multiple voting is not allowed. Chair Pitts subsequently sent out two reminders to only those faculty who had not yet voted. As mentioned earlier, we noticed a distinct increase in the number of hits to the page containing our white papers just after each of the three messages from Chair Pitts.

Since this is the first time that the Senate has attempted a systemwide electronic poll, it is perhaps not surprising that we encountered several difficulties:

- As stated earlier, we had electronic mail addresses for only 87.4% of the 14,654 known Senate members. For this vote, we could offer no alternative method of voting to those we could not contact.
- Several faculty had difficulty accessing the web link contained in their notification email. Senate staff at UCSF and at the systemwide office were able to resolve almost all of these difficulties.
- The email programs of many faculty misidentified the emails from Chair Pitts as spam or unsolicited mass emails. This is not terribly surprising since the messages went out to thousands of faculty in one burst. As a result, the senate offices on the individual campuses sent out messages to all faculty members urging those with spam filters to look for the electronic poll in their trash folders. This action limited the

⁵ See footnote 1.

number of complaints we received that Senate members had not received the email notification.

- By far, the most serious problem we encountered was that the first email notification from Chair Pitts was not received at all by UC Santa Barbara Senate members. When we discovered this anomaly two days into the poll, we sent a second message to all faculty at UCSB. This time only a handful of messages got through. After checking the email address list, the logs at UCSB and the logs at Zoomerang, the polling firm used for this survey, we were unable to quickly identify the problem. Fortunately, the UCSB Senate office has a sophisticated web site, and they were able to conduct the poll and send out the emails from the Senate office. As a result, UCSB faculty had a less user-friendly procedure and three fewer days to vote than the rest of the UC system, and their participation rate was consequently lower. The cause of the failure of UCSB to receive our emails is still under investigation a month later.

IV. RESULTS OF THE SURVEY

The survey results were available soon after the survey closed. By the time of the Regents meeting on May 19, Senate Chair Pitts and Vice Chair George Blumenthal were able to present the results to the Regents Committee on Oversight of the National Labs.⁶ The main results appear below in Table 3.

Table 3 – Vote Totals by Campus

Campus	Invites	Partial	Complete	Bid	No Bid	No Opinion
UCB	2103	47	536	335	133	57
UCD	2089	54	475	331	87	55
UCI	1207	38	364	236	59	66
UCLA	2761	61	666	472	105	84
UCM/OP	40	4	24	22	0	1
UCR	693	21	214	138	47	27
UCSD	1471	42	415	279	78	53
UCSF	982	25	272	172	51	46
UCSB	944	16	137	77	53	7
UCSC	514	18	168	99	52	16
TOTAL	12,804	326	3271	2161	665	412
		3%	26%	67%	21%	13%

As Table 3 shows, a total of 3,271 senate members submitted completed ballots, for a participation rate of 26%. In addition, 326 individuals (3%) visited the ballot web site but did not click the final submit button. The main result here is that by more than a 3-1 margin, UC Senate members favor competing for continued management of the national labs. Including those who expressed no opinion, two-thirds of all voting faculty members favored

⁶ The press release is at <http://www.universityofcalifornia.edu/senate/committees/council/acsonl/labpoll.pdf>

competition for the labs. This is a much more favorable view of the labs than was expressed in either the 1990 or 1996 votes.

The above table also shows how the various campuses voted. We aggregated the Senate vote from the Office of the President with the vote from the Merced faculty to avoid individuals' votes from being identified. The campuses with the most favorable attitude towards competition were UCLA and UC Davis. The least favorable were UCSB and UCSC, but even at these two campuses, a strong majority of faculty members favored competing for management of the labs.

As a part of the faculty poll, we asked voters to identify their title, their field, and their gender. Consequently, we were able to test whether faculty opinion about the competition depends on any of those factors. The results are in Table 4:

Table 4 – How Faculty Opinions Depend on Gender, Field and Rank

	BID	NO BID	UNSURE
Females	426 66%	162 25%	59 9%
Males	1662 67%	478 19%	341 14%
Social Science	303 65%	104 22%	60 13%
Humanities/Arts	229 65%	88 25%	38 11%
Professional School	520 69%	147 20%	82 11%
Science/Engineering	1052 66%	306 19%	224 14%
Assistant Professor	339 68%	133 27%	28 6%
Associate Professor	333 70%	89 19%	54 11%
Professor	1413 67%	419 20%	290 14%

The results shown in Table 4 are remarkably independent of any of those factors. Women favor competing at about the same rate that men do. The only gender difference is that the other women are slightly more decisively negative than are the men. This is not a statistically strong result. Similarly, there is also very little difference based upon the professorial rank of

the respondent. The most interesting result here is that attitudes toward bidding on the labs seems independent of academic field. Faculty in the social sciences, arts, and humanities favor competing for the labs at almost the same rate as faculty in sciences and engineering. In fact, the strongest support for competition comes from faculty from professional schools.

In order to assess the feelings of Senate members toward each of the two weapons labs, we also asked whether faculty favored bidding for one, both or neither laboratory.

Table 5 – Preference for Los Alamos versus Livermore Labs

	Submit bids to continue to manage both labs	Submit a bid only for Los Alamos	Submit a bid only for Lawrence Livermore	Submit no bid for either laboratory.
Northern Campuses	853 62%	9 1%	182 13%	333 24%
Southern Campuses	1216 72%	21 1%	91 5%	350 21%
Total UC	2069 68%	30 1%	273 9%	683 22%

As Table 5 indicates, there is a slight preference for competing for Livermore over Los Alamos National Labs. Although 68% of the respondents favor competing for both labs, 9% of the faculty favor competing for only Livermore. Only one percent favor only Los Alamos. When we break this down by geographic location of the campus, a full 13% of Northern California faculty members favor competing only for Livermore. This difference may be due to both the proximity of Livermore and the large number of research collaborations between

Livermore and the various UC campus. Still, one should keep in mind that the vast majority of faculty favor competing for both labs.

As a part of the ACSCONL poll, we asked faculty to check all of the reasons that they voted as they did. The menu of reasons and the results are shown in Table 6. Each voter had a different choice of reasons depending on whether they had favored competing, opposed competing, or wished to express no opinion.

Table 6 – Reasons Cited for Voting Preference

Responses from those IN FAVOR of bidding		
Management of the laboratories is an historic obligation of public service that UC should uphold	1385	64%
The importance of national security and the condition of the US nuclear stockpile requires the best scientific underpinning possible, which is a capability of UC management.	1375	64%
The benefits to the nation of the nonclassified research conducted at the laboratories are worth of UC leadership	1738	80%
The benefits to UC faculty and students in regard to opportunities for research collaboration are highly valuable.	1742	81%
Separation of laboratory personnel from the UC retirement system could weaken benefits to UC faculty	469	22%
The UC name enhances the laboratories’ efforts to recruit the best scientists and other employees.	1253	58%
Responses from those OPPOSED to bidding		
The missions of the laboratories are fundamentally incompatible with the mission of UC.	539	81%
The complexity of the management arrangements among UC, the federal government, and the laboratories are such that successful, reliable trouble-free management will always be unattainable.	251	38%
Given the 60-year history of UC’s management of the laboratories as a public service to the nation, UC should not be required to bid to retain the management contracts.	76	11%
Collaborations between UC faculty and students and the laboratories can occur without UC being the labs’ manager.	313	47%
Management of the laboratories requires inordinate attention from the Office of the President that should be directed toward management of the campuses.	290	44%
The UC name and reputation are devalued by their association with the laboratories.	344	52%
Responses from those who declined to express a preference		
I am not well enough informed to offer advice.	338	82%
The decision to bid or not has no personal or professional impact on me.	103	25%
I don’t believe the Regents will respect faculty opinion.	39	9%
I am not interested in these issues.	15	4%

The vast majority of those favoring competition cited both the value of UC’s contribution to important unclassified research at the labs as well as the value to UC students and faculty of collaboration with the labs. Less frequently cited (by just under 2/3 of the positive votes) were UC’s historic public service obligation and the importance of UC management to national security and stockpile stewardship. Few faculty expressed concerns about the health of the UC retirement system if the labs separate from UC.

Among those opposing competition for the labs, the overwhelming majority (81%) cited the fundamental incompatibility between the mission of the labs and the mission of UC. Interestingly, few faculty said that given 60 years of automatic contract renewals, UC should just refuse to compete at all.

For those who expressed no opinion about the competition, the vast majority felt ill informed about the issues. Others felt that they had no professional stake in the outcome.

We also asked a series of questions about the nature of UC management of the labs and the circumstances within which it might continue successfully. We allowed faculty to reply with a variety of responses ranging from strongly agree to strongly disagree.⁷ We show the results in Table 7 below. The main results of these questions are the following:

- The overwhelming majority of faculty (90%) believe that the quality of science and technology at the laboratories should be the main factor in judging the quality of the labs.
- By approximately a 2-1 margin, Senate members oppose delegating the business, security, safety, and environmental aspects of lab management to an industrial partner. However, some sort of partnership seems to be envisioned by DOE in its decision to compete the management of the labs.
- There is very strong support for the Academic Senate playing an oversight role in the management of the laboratories. More than two-thirds of faculty support this.
- More than two thirds of the faculty also believe that UC faculty should play a role in the hiring and the advancement of key technical staff at the laboratories.
- By more than a 2-1 margin, the faculty do not believe that UC should oversee the manufacturing of nuclear weapons components, such as plutonium pits, at the labs. Only a quarter of the faculty would support UC's management of such manufacturing. This opinion occurs despite the strong support for stockpile stewardship at the labs.
- There is also very strong support for increased funding to support mutual UC-laboratory scientific collaborations.
- Well over two-thirds of the faculty (or a 3.5 to 1 margin) favor some form of academic freedom for researchers at the labs, despite the fact that roughly half the work done there is classified. Faculty strongly support the right to “speak truth to power.”
- About two-thirds of the faculty believe that UC has an obligation to use its expertise to influence national policy rather than just implement the national research policies at the labs. They oppose UC taking a passive role with regard to national priorities.
- A majority of faculty favor managing the labs as a matter of public service without reaping a profit from the management fees.

⁷ For purely technical reasons based upon the allowed formatting of the polling software, we were unable to formulate the questions in the “forced choice” format preferred by experienced pollsters.

Table 7 – Other Questions About the Labs

	--	-	?	+	++
In weighing criteria for judging the bids, and for subsequently judging how well the labs are managed, the DOE should give highest priority to the quality of the science and technology at the labs.	102 3%	51 2%	149 5%	544 17%	2303 73%
Responsibility for security, environmental health and safety, and business practices at the labs should be delegated to industry business partners.	897 29%	599 19%	831 26%	546 17%	265 8%
The Academic Senate should not have any role in UC oversight of management of the laboratories.	1302 41%	808 26%	534 17%	265 8%	234 7%
UC faculty should provide input to the personnel process at the laboratories concerning appointments and critical advancements.	170 5%	291 9%	519 17%	1133 36%	1016 32%
Along with the longstanding responsibility of LANL to design nuclear weapons, the recent undertaking of manufacturing some nuclear weapons components is an appropriate activity.	1211 39%	529 17%	611 20%	496 16%	286 9%
Funds available for the support of mutual UC-laboratory research collaborations should be increased significantly from the present status.	231 7%	208 7%	940 30%	868 28%	876 28%
Free and open inquiry and the independence that allows one to “speak truth to power” are not important considerations in the national labs, where much of the research is classified, and many of the research goals are mandated by the federal government.	1469 47%	688 22%	380 12%	397 13%	195 6%
The appropriate role of the national laboratories is to implement policy that has been determined by Congress, whatever that policy may be, and UC should have no particular responsibility or opportunity to influence national policies related to the labs.	1138 36%	992 32%	356 11%	427 14%	215 7%
UC management should continue to be offered as a matter of public service, on a “no-cost/no gain” basis (i.e., not for profit).	462 15%	485 15%	559 18%	889 28%	742 24%

- Strongly Disagree
- Somewhat Disagree
- ? Don't know/Unsure
- + Somewhat Agree
- ++ Strongly Agree

V. CONCLUDING REMARKS

This was a first of its kind electronic poll of the entire UC Senate faculty. The 26% participation rate of faculty who were surveyed was more than enough to obtain statistically meaningful results, although we certainly can hope for higher participation in the future. The

main result is that by a 3-1 margin, UC Senate faculty favor competing for the National Labs and that this support broadly cuts across the various campuses, demographic groups of faculty, and fields of study. Should circumstances change before the Regents must decide whether to bid, the Senate is now in a position to poll the faculty again should that seem desirable.

Respectfully submitted,

Academic Council Subcommittee on the National Labs⁸

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Lawrence Pitts, UCSF
Richard Goodman, UCLA (deceased)
Cliff Brunk, UCLA
Janis Ingham, UCSB
Robert Powell, UCB
Lovell (Tu) Jarvis, UCD
Henry Abarbanel, UCSD
Gregg Herken, UCM

⁸ The committee would like to express its appreciation to Maria Bertero-Barcelo, who ably staffed this committee and to Elizabeth Langdon-Gray, Judy Dang, and Tamara Maimon from the UCSF Divisional Senate Office for their tremendous help in conducting the survey. We also wish to express our appreciation to our colleague on the committee, Dick Goodman, who sadly passed away while this survey was being planned.