# THIRD ANNUAL UCLA SURVEY OF BUSINESS SCHOOL COMPUTER USAGE:

## Issues Facing Business School Deans

August 1986

Jason L. Frand
Ephraim R. McLean

Graduate School of Management
University of California, Los Angeles

# THIRD ANNUAL UCLA SURVEY OF BUSINESS SCHOOL COMPUTER USAGE:

## Issues Facing Business School Deans

**August 1986**


**Jason L. Frand**

**Ephraim R. McLean**

Drs. Frand and McLean are both on the faculty of the UCLA Graduate School of Management. Dr. Frand is an Adjunct Assistant Professor and Director of GSM Computer Services. Dr. McLean is an Associate Professor, Chairman of the Computers and Information Systems area, and Director of the Computers and Information Systems Research Program.



The authors wish to thank GSM Visiting Associate Professor Lewis E. Leeburg and doctoral student Julia A. Britt for their invaluable assistance on this project. They also wish to thank the deans who responded to the survey for the time and thought they contributed in the completion of the questionnaire. This report is a tribute to their effort.



Computers and Information Systems Research Program
Graduate School of Management
University of California, Los Angeles

# Introduction

In 1984, and again in 1985, comprehensive surveys were conducted of the computing practices of business schools throughout the United States and Canada. In the first survey, 37 leading business schools were surveyed; for the second, all of the 241 schools currently accredited by the American Assembly of Collegiate Schools of Business (AACSB) were contacted. The response rates were 35 (95%) and 125 (57%) respectively. The results of these surveys are described in two reports, copies of which are available from the UCLA Graduate School of Management.[1]

As part of the second survey, which was a much expanded version of the first, respondents were asked to list (1) "the major factors driving you toward the expanded use of computers" and (2) "the major constraints or bottlenecks delaying the expanded use of computers." The most frequent responses to the first question were, in order, "faculty demand," "student demand," and to "improve quality of instruction." For the second question, the responses were "funding," "space limitations," and "lack of qualified faculty."

At each of the schools, the questionnaires were completed by individuals who had been designated by their deans to act as respondents. In analyzing these results, and in looking ahead to the administration of the next survey, the question arose as to whether these respondents, who were speaking *for* their deans, had the same perspective *as* their deans. In other words, would the deans of the business schools surveyed express the same concerns, and in the same order, as did the individuals who actually filled out the questionnaires?

This question is important for two reasons, one general and one specific. The general issue is related to one of the primary reasons for undertaking the survey in the first place, namely, "to provide deans and other policy makers with information they can use in making allocation decisions and program plans with regards to computing."[2] If the concerns of the respondents were substantially different from those of their deans, the survey results would be less useful to the intended audience than might otherwise be the case. In other words, the survey report might be providing the right answers to the wrong questions.

---

[1] Jason L. Frand, *First Annual Computing Survey of North American Business Schools,* UCLA Graduate School of Management, Los Angeles, (1984); and Jason L. Frand and Ephraim L. McLean, *Second Annual UCLA Survey of Business School Computer Usage,* UCLA Graduate School of Management, Los Angeles, (1985).

[2] Frand and McLean, *op. cit.*

The second, and more specific, concern had to do with the design of the survey instrument itself for the 1987 survey. If some of the questions on the current questionnaire were of little interest to deans, these questions could be candidates for shortening or elimination. Similarly, if there were areas of strong concern, which are only briefly covered at present, they could be expanded.

## 1986 Deans Survey

With these two objectives in mind, a short one-page questionnaire was sent to the deans of the schools in the 1985 survey. In all, 241 business school deans were mailed personalized letters explaining the purpose of the survey and enlisting their cooperation in filling out the accompanying questionnaires. Also enclosed was a copy of a shortened version of the results of the 1985 survey which had been published in the *Communications of the ACM*.[3] Of the 241 deans contacted, 114 responded (47%). Fifty-six of the schools responding had also participated in the 1985 survey and the remaining 58 had not. A majority of the schools were public institutions (72%). Table 1 lists 111 of the 114 schools that participated in the 1986 survey. Three schools could not be listed because their names were written illegibly on the questionnaire.

For the first and the third questions, relating to the top three general concerns and computer-specific concerns of deans, space was available for three short responses each. In most instances, the deans answered with a simple phrase or short sentence. However, when only a single word, such as "funding," was given, there was no way to know whether the response meant "*how* to acquire more" or "*where* to acquire more (e.g., legislatures, business, alumni)" or "how to *allocate* the existing funding", etc. Nevertheless, to the extent possible, the responses were categorized into major issues.

The second question asked for a description of how, if at all, computing related to the general issues of question one, and space was left for a paragraph of explanatory text. These responses were very specific to individual concerns, and thus could not be generalized enough for inclusion in this analysis.

---

[3] Jason L. Frand and Ephraim R. McLean, "Summary of the Second Annual UCLA Survey of Business School Computer Usage," *Communication of the ACM*, Vol. 29, No. 1, January 1986, pp. 12-18.

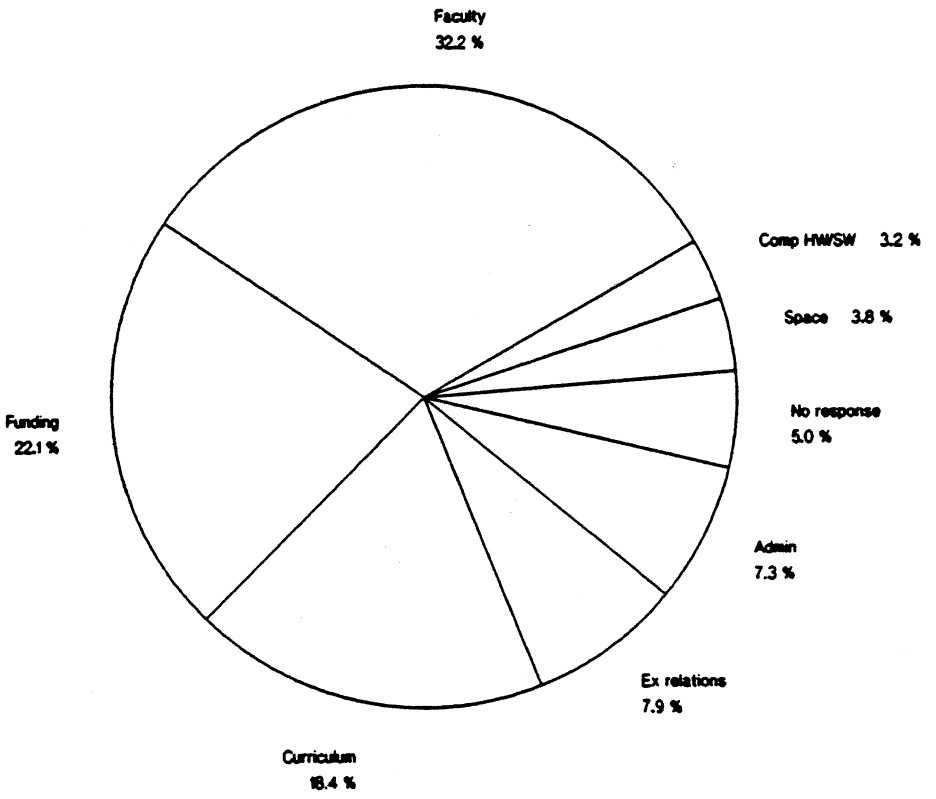
Table 1
**Participating Schools**

University of Akron
University of Alberta
Arizona State University
University of Arkansas
Arkansas State University
Babson College
Ball State University
University of Baltimore
Boston College
Bowling Green State University
Bradley University
University of Bridgeport
University of California, Los Angeles
California Polytechnic State University
California State University, Bakersfield
California State University, Chico
California State University, Fresno
California State University, Long Beach
California State University, Los Angeles
California State University, Northridge
Canisius College
University of Central Arkansas
University of Central Florida
University of Cincinnati
Cleveland State University
University of Dayton
University of Delaware
Duke University
East Carolina University
Eastern Washington University
Emory University
University of Florida
Florida International University
Fordham University
Fort Lewis College
George Washington University
Georgetown University
Georgia Southern College
University of Hawaii
University of Houston, Clear Lake City
University of Illinois, Chicago
University of Illinois, Champaign
University of Iowa
Kansas State University
Lehigh University
University of Louisville
Loyola Marymount University
Loyola University, Chicago
Loyola University, New Orleans
Marquette University
University of Maryland
Miami University
University of Michigan
Michigan State University
Middle Tennessee State University
Mississippi State University
University of Missouri, Columbia
Murray State University
University of Nebraska, Lincoln
University of New Mexico
University of New York
University of North Carolina, Chapel Hill
University of North Carolina, Greensboro
University of North Dakota
Northeast Louisiana University
Northeastern University
Northern Arizona University
University of Notre Dame
Ohio State University
University of Oklahoma
Oklahoma State University
University of Oregon
Oregon State University
Pacific Lutheran University
Pan American University
University of Pittsburgh
Purdue University
Rensselaer Polytechnic Institute
University of Rhode Island
University of Richmond
Rollins College
Rutgers-State University of New Jersey
Saint Cloud State University
St. Louis University
San Jose State University
Seton Hall University
University of South Alabama
University of South Florida
University of Southern California
Southern Illinois University, Carbondale
Southern Illinois University, Edwardsville
Stanford University
Syracuse University
Tennessee Technological University
University of Texas, San Antonio
Texas A and M University
Texas Technological University
Utah State University
Valdosta State University
Villanova University
University of Virginia
Virginia Polytechnic Institute
Wake Forest University
Wayne State University
Western Carolina University
Western Kentucky University
Winthrop College
University of Wisconsin, Eau Claire
University of Wisconsin, La Crosse
University of Wisconsin, Madison
University of Wisconsin, Oshkosh

## General Issues

Because computing is but one of the many issues currently facing deans, the first of the three questions on the 1986 questionnaire asked: "Please list the top three current *general* issues (not necessarily connected with computing) you face as dean in running your school." The major general issue categories are shown in Figure 1 and detailed in Table 2.

Figure 1:
**Business Schools General Issues**




Not surprisingly, the top three concerns, in terms of frequency of mention, were: (1) *faculty* (32.2%) with recruitment and retention the most common issue; (2) *funding* (22.2%) with fund raising and a general lack of funds cited most often; and (3) *curriculum and instruction* (18.4%) with curriculum development listed first. The other four were *external relations* (7.9%), *business school administration* (7.3%), *space* (3.8%), and *computer hardware and software* (3.2%).

Table 2

**General Issues Facing Business Schools**

**A Survey of 114 Deans**

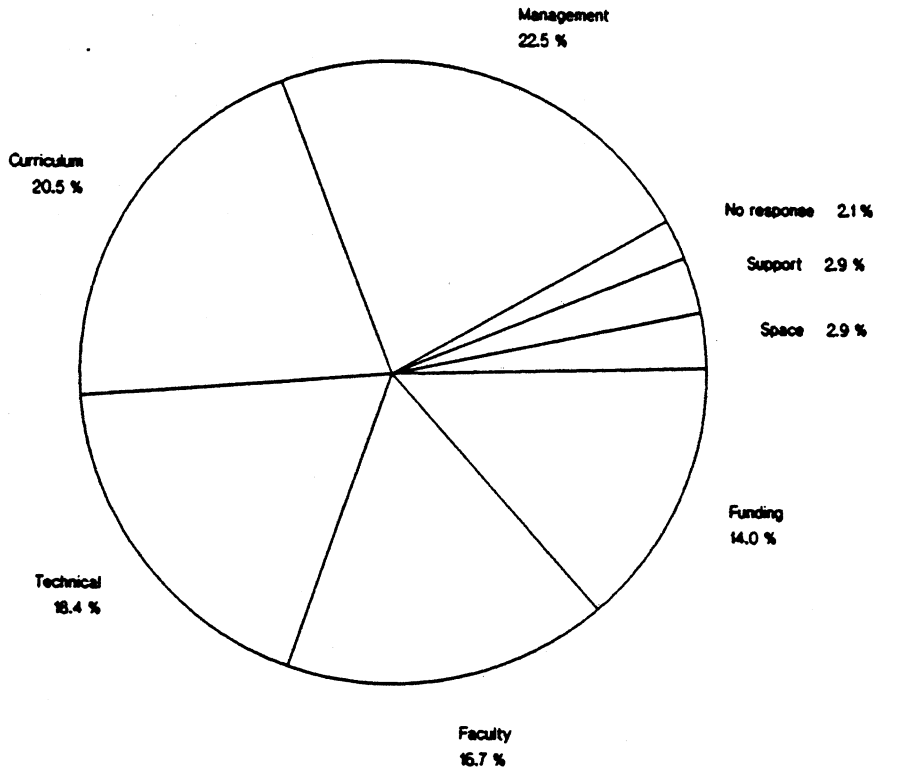
(3 issues per dean for a total of 342 responses)

| Percent of Total | No. of Times Mentioned | Issue or Concern |
|---|---|---|
| **32.2%** | **110** | **Faculty** |
| | 74 | – Recruitment and Retention |
| | 15 | – Salaries |
| | 13 | – Research Productivity |
| | 8 | – Development |
| **22.2%** | **76** | **Funding (money)** |
| | 53 | – Fund Raising (General lack of funds) |
| | 14 | – For Research Support |
| | 5 | – For Faculty Salaries |
| | 4 | – Declining State/Local Government Funding |
| **18.4%** | **63** | **Curriculum and Instruction** |
| | 26 | – Keeping the Curriculum Current/ New Curriculum Development |
| | 10 | – Teaching Quality and Effectiveness |
| | 10 | – Shifts in Enrollments/Decreased Demand |
| | 6 | – Using Computers in the Curriculum |
| | 6 | – Student Recruitment and Placement |
| | 5 | – Miscellaneous |
| **7.9%** | **27** | **External Relations** |
| | 13 | – With the University |
| | 13 | – With the Business Community |
| | 1 | – With the Legislature |
| **7.3%** | **25** | **Business School Administration** |
| | 6 | – Balancing the Goals of the School |
| | 5 | – Managing Academic Personnel |
| | 4 | – Staff Support |
| | 4 | – Accreditation |
| | 3 | – Information Systems for the School |
| | 3 | – Miscellaneous |
| **3.8%** | **13** | **Space** |
| | 13 | – Need for Adequate Space |
| **3.2%** | **11** | **Computer Hardware and Software** |
| | 11 | – Acquisistion, Upgrade, and Support |
| **5.0%** | **17** | **No Response** |
| | 17 | – Blank |

## Computing Issues

The third question on the survey asked: "Please list the top three current *computing* issues you feel are most important." The major computing issue categories are shown in Figure 2 and detailed in Table 3.

Figure 2:
**Business Schools Computer-Related Issues**




Here, two new issues came to the fore: *management or governance* of computing (22.5%) and *technical* computing issues (18.4%). The three items mentioned in the general question, *curriculum and instruction*, *faculty*, and *funding*, came in second (20.5%), fourth (16.7%), and fifth(14.0%) respectively on the computing-specific question.

From these specific computing-related issues, some areas are suggested where more detailed questions may be of assistance on future surveys. In particular, as may be seen in Table 3, the concern for "integrating computing into the curriculum" was the single most commonly mentioned item by the deans, with 45 responses.

Table 3

**Computer-Related Issues Facing Business Schools**

**A Survey of 114 Deans**

(3 issues per dean for a total of 342 responses)

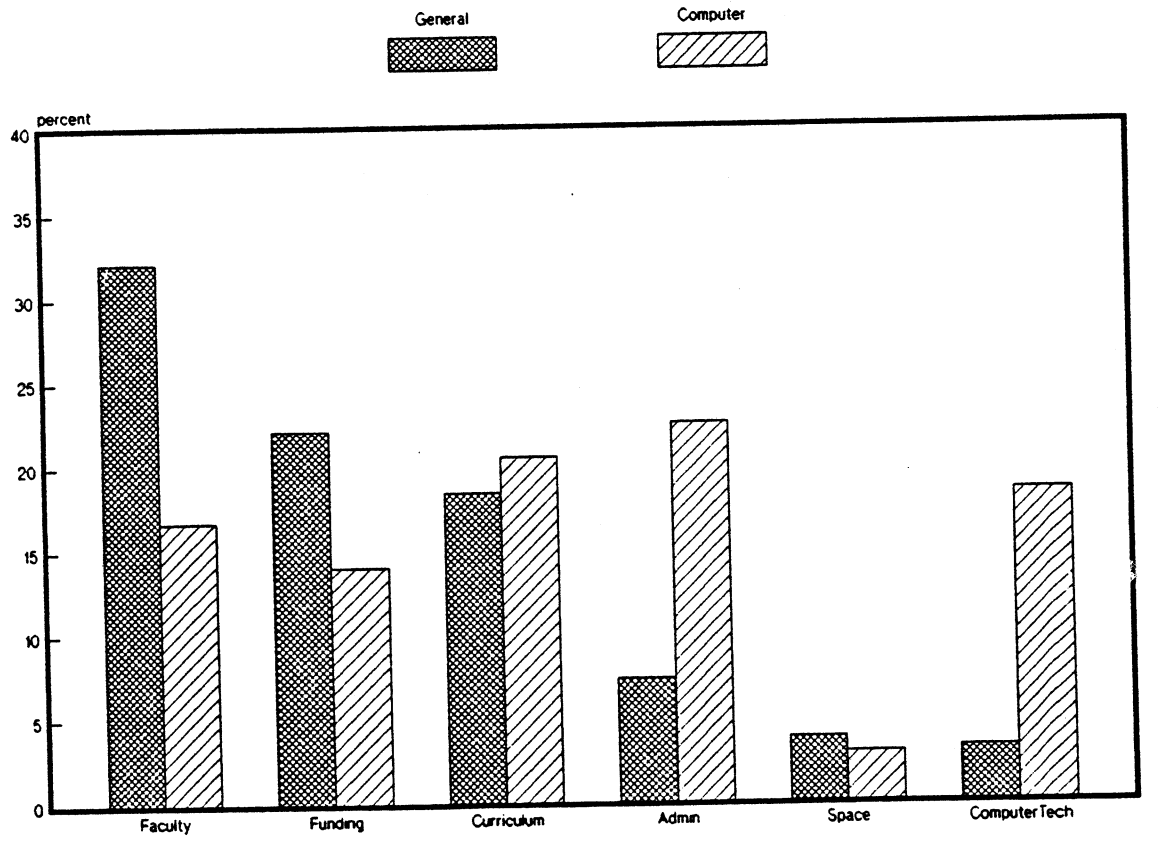
| Percent of Total | No. of Times Mentioned | Issue or Concern |
|---|---|---|
| **22.5%** | **77** | **Management or Governance** |
| | 29 | – Decreased Computer Access |
| | 17 | – Managing Technological Change |
| | 11 | – Policies for Managing Computing |
| | 8 | – Decreased Computer Access for Faculty |
| | 6 | – Administrative Use of Computers |
| | 6 | – Relations with Other Campus Computing |
| **20.5%** | **70** | **Curriculum and Instruction** |
| | 45 | – Integrating Computing into the Curriculum |
| | 9 | – Developing an MIS Major |
| | 5 | – Developing Computer Courses |
| | 4 | – Computer Literacy |
| | 7 | – Miscellaneous |
| **18.4%** | **63** | **Technical** |
| | 29 | – Acquiring Appropriate Hardware and Software |
| | 16 | – Networking and/or Integrating Systems |
| | 8 | – Systems Compatability and Standards |
| | 5 | – Software Licensing |
| | 3 | – Software Standards |
| | 2 | – Miscellaneous |
| **16.7%** | **57** | **Faculty** |
| | 36 | – Developing and Training in Computing |
| | 13 | – Recruiting MIS Faculty |
| | 8 | – Recruiting Other Qualified Faculty |
| **14.0%** | **48** | **Funding (money)** |
| | 29 | – Acquiring and Upgrading Hardware, Software, and Networking |
| | 10 | – Support (i.e., Staff, Equipment, etc.) for Computing Facilities |
| | 9 | – Maintenance of Computing Facilities |
| **2.9%** | **10** | **Computer Support Personnel** |
| | 6 | – Providing Support Staff |
| | 4 | – Recruiting Support Staff |
| **2.9%** | **10** | **Space** |
| | 10 | – Need for Space for Computers |
| **2.1%** | **7** | **No Response** |
| | 7 | – Blank |

This is obviously an area that needs more attention. Another area that merits similar expansion is "faculty development and training in computing" which had the next highest response rate, 36 responses.

## A Comparison of Issues

Although the general and computer-specific issues show some similar patterns, it is nevertheless useful to compare them. This comparison is shown in Figure 3. *Faculty*, *funding*, and *curriculum* are high in both lists, totaling 72.6% of the deans' general responses and 51.2% of their computer-related responses, respectively. It is in the areas of *administration* and *technical* that significant differences are most noticeable. They represent nearly half (40.9%) of the deans' computer-specific concerns, while being only 10.5% of the expanded set of the deans' general concerns. As experience is gained in these areas, their importance may lessen.

Figure 3:
**A Comparison of General and Computer-Related Issues**



## 1985 and 1986 Results Comparison

Returning to the 1985 survey, it is interesting to compare the responses to the two 1985 questions mentioned earlier with these 1986 deans' responses. Table 4 summarizes this comparison.

Table 4
**A Comparison Between**
**The 1985 Computing Survey and The 1986 Deans Survey**

| | 1985 Computing Survey | | 1986 Deans Survey | |
|---|---|---|---|---|
| | **Forces Driving Expansion** | **Major Constraints** | **General Issues** | **Computing Issues** |
| 1. | Faculty demand | Funding | Faculty | Computing management |
| 2. | Student demand | Space limitations | Funding | Curriculum and instruction |
| 3. | Quality of instruction | Lack of qualified faculty | Curriculum and instruction | Technical |

Although there is some shift in the ordering, the two lists are remarkably similar, which is perhaps not surprising and is certainly, from the standpoint of this research, reassuring. Faculty, funding, and instruction are obviously at the core of any dean's concern, and these same issues will continue to figure centrally when computing is introduced into business schools.

In summary, the survey turned out to have fairly predictable results. The respondents for the deans answered very similarly as did the deans themselves. Deans are concerned about quality faculty and quality programs and the ability to raise money to support each of these goals. As computing becomes a more central part of the business school environment, it will necessarily impact each of these areas.