# News of the Profession

## Academic Disciplines of Administrators at the Top Research Universities in the United States*

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The notion that there might be some relationship between one's academic discipline and ascent to positions of academic leadership at major research universities in this country was first presented to the author by Dr. Thomas L. Kennedy. Dr. Kennedy, Vice Provost for Instruction at Washington State University, agreed to meet with a visiting A.C.E. Fellow on October 17, 1985. During the discussion that ensued, Dr. Kennedy shared with the author his hypothesis that certain academic disciplines tend to predominate when one looks at administrators in higher education. His years of experience in the field had led him to posit his list of the "select six"—English, history, political science, chemistry, mathematics and physics.

Following that visit with Dr. Kennedy, I presented this hypothesis to leaders on other campuses for their assessment. Uniformly, the response was essentially, "Well, I never thought about it in those terms, but, now that you mention it, that does seem to hold true."

Based on those discussions, I decided to gather data directed toward evaluating that hypothesis as the Fellowship year project.

### Methods

A list of the top one hundred research universities in the United States was obtained from "The Chronicle of Higher Education."[1] The study was restricted to research universities due to their manageable number. It should be noted that the list of top research universities was based on federal allocations for research and development at the respective institutions and did not include private funding, although one might expect success in attracting private funding to mirror achievement in attracting federal funding.

The next issue to be resolved was what types of academic administrators should be included in the study. Certainly the chief executive officers (CEOs) and chief academic officers (CAOs) should be included. But are there other positions of leadership in academic institutions where a certain academic disciplinary background is not essential? Naturally, if one aspires to be a dean of nursing it would be quite advantageous to hold a degree in nursing. Nonetheless, there is one decanal position in academic institutions which, at least in theory, is open to indi-

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[1]Anon., "Fact-File: U.S. Funds for Colleges and Universities," *The Chronicle of Higher Education* 30:20 (June 19) 1985.



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viduals from a wide variety of disciplines—the position of dean of the graduate school. Hence, these three positions, chief executive officer, chief academic officer and graduate dean, were the positions included in the study.

On the surface this may appear to be a relatively straightforward process: merely find a directory listing the names of the individuals in these positions and then identify their academic disciplines. Not so. Given the variety of titles used in academe to indicate CEOs, e.g., is a chancellor head of a system as at the University of Texas or head of a campus as at the University of Kentucky, and CAOs, e.g., vice president for academic affairs versus provost versus dean of faculties, it became evident that there needed to be a way to be sure that individuals in positions of comparable responsibility were being compared. Thus, the numerical coding system of the Western Interstate Commission for Higher Education was adopted to assure comparison of university officials with similar positions.[2] Using the *1986 Higher Education Directory,*[3] I identified the names of CEOs, CAOs and graduate deans at the top one hundred research universities. In addition, listings for graduate deans were verified using *The Council of Graduate Schools in the United States 1985-86 Directory.*[4]

It should be noted that two institutions were discarded from the list of top one hundred institutions receiving federal funds—Woods Hole Oceanographic Institution and Puerto Rico Regional Colleges Administration. The former was deleted because it is not a traditional academic institution and the latter because it was included on the list of top one hundred due to the large amount of federal student financial aid received.

Classification of academic disciplines needed to be standardized as well. A categorization of disciplines used for the 1984 Carnegie Foundation survey was used.[5] This schema grouped academic disciplines into disciplinary categories, e.g., the disciplinary category Fine Arts included the academic disciplines of art, dramatics and speech, music, and other fine arts.

Once a master list of the top ninety-eight institutions had been compiled, the names of the individuals occupying the three administrative positions in focus here—CEO, CAO and graduate dean—were added to the list. A search was then made of *Who's Who in the United States,* the regional editions of *Who's Who,* and *Who's Who in Science* to determine the academic disciplines of the individuals in the study. Academic disciplines could be identified for all but eleven individuals in this fashion. For the remaining eleven, a personal letter was sent along with a postage-paid, pre-addressed return envelope requesting this information. In this fashion, academic disciplines were identified for all individuals for whom such information was sought.

## Results

For the ninety-eight institutions included in this study, the following numbers of individuals were found to occupy the respective positions:

Chief executive officers—98
Chief academic officers—92
Graduate deans—96

The reason for two of the three categories having fewer than ninety-eight officials in the respective positions is that at some institutions there is no CAO or graduate dean due to the organizational structure of the institution. Thus, for this study a total of 286 academic admin-

[2]Jones, D. P. and T. H. Drews, *A Manual for Budgeting and Accounting for Manpower Resources in Postsecondary Education,* Boulder, CO: Western Interstate Commission for Higher Education (1977).

[3]Torregrosa, C. H. (ed.), *1986 Higher Education Directory,* Washington, DC: Higher Education Publications, Inc. (1986).

[4]Anon., *The Council of Graduate Schools in the United States 1985-86 Directory,* Washington, DC: The Council of Graduate Schools in the United States (1985).

[5]Anon., "Fact-File: Who Faculty Members Are, and What They Think," *The Chronicle of Higher Education* 31:25 (December 18) 1985.

istrators at ninety-eight institutions were considered.

The academic disciplines of chief executive officers are tabulated in Table 1. The disciplines with the most individuals were:

First (10 individuals): Law, Medicine, Political Science/Government
Second (7 individuals): History
Third (5 individuals): Economics, English Language and Literature

The disciplinary categories with the highest incidence were:

First—Miscellaneous

**TABLE 1**
**Academic Disciplines of Chief Executive Officers**

| Discipline | Number | Percent |
|---|---|---|
| BIOLOGICAL SCIENCES | | |
| Bacteriology, molecular biology, virology or microbiology | 1 | 1.0 |
| Biology | 2 | 2.0 |
| Genetics | 1 | 1.0 |
| EDUCATION | | |
| Educational administration | 2 | 2.0 |
| General or other educational fields | 1 | 1.0 |
| ENGINEERING | | |
| Chemical engineering | 3 | 3.1 |
| Electrical engineering | 4 | 4.1 |
| General or other engineering | 2 | 2.0 |
| FINE ARTS | | |
| Music | 1 | 1.0 |
| HEALTH SCIENCES | | |
| Dentistry | 2 | 2.0 |
| Medicine | 10 | 10.2 |
| Veterinary Medicine | 1 | 1.0 |
| HUMANITIES | | |
| English language and literature | 5 | 5.1 |
| History | 7 | 7.1 |
| Philosophy | 3 | 3.1 |
| Religion or theology | 3 | 3.1 |
| PHYSICAL SCIENCES | | |
| Chemistry | 2 | 2.0 |
| Earth sciences including geology | 3 | 3.1 |
| Physics | 4 | 4.1 |
| SOCIAL SCIENCES | | |
| Economics | 5 | 5.1 |
| Political science or government | 10 | 10.2 |
| MISCELLANEOUS | | |
| Agriculture, forestry | 4 | 4.1 |
| Agricultural economics | 2 | 2.0 |
| Business, commerce and management | 2 | 2.0 |
| Computer science | 1 | 1.0 |
| Criminal justice | 1 | 1.0 |
| Extension administration | 1 | 1.0 |
| Law | 10 | 10.2 |
| Nutrition | 1 | 1.0 |
| Psychology | 3 | 3.1 |
| Speech communications | 1 | 1.0 |
| TOTAL | 98 | |



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Second—Humanities
Third—Social Sciences
Fourth—Health Sciences

The academic disciplines of chief academic officers are tabulated in Table 2. The most represented disciplines were:

First (10 individuals): Physics
Second (6 individuals): Mathematics/

**TABLE 2**
**Academic Disciplines of Chief Academic Officers**

| Discipline | Number | Percent |
|---|---|---|
| BIOLOGICAL SCIENCES | | |
| Bacteriology, molecular biology, virology or microbiology | 2 | 2.2 |
| Biochemistry | 1 | 1.1 |
| Biology | 2 | 2.2 |
| Botany | 1 | 1.1 |
| Physiology or anatomy | 2 | 2.2 |
| Genetics | 2 | 2.2 |
| EDUCATION | | |
| General or other educational fields | 1 | 1.1 |
| ENGINEERING | | |
| Chemical engineering | 2 | 2.2 |
| Electrical engineering | 3 | 3.3 |
| Mechanical engineering | 2 | 2.2 |
| FINE ARTS | | |
| Music | 1 | 1.1 |
| HEALTH SCIENCES | | |
| Medicine | 6 | 6.5 |
| Veterinary medicine | 1 | 1.1 |
| HUMANITIES | | |
| English language and literature | 4 | 4.3 |
| German language and literature | 1 | 1.1 |
| Other language and literature | 2 | 2.2 |
| History | 6 | 6.5 |
| Philosophy | 1 | 1.1 |
| PHYSICAL SCIENCES | | |
| Chemistry | 4 | 4.3 |
| Earth sciences including geology | 2 | 2.2 |
| Physics | 10 | 10.4 |
| SOCIAL SCIENCES | | |
| Anthropology and archaeology | 2 | 2.2 |
| Economics | 3 | 3.3 |
| Political science or government | 6 | 6.5 |
| Sociology | 1 | 1.1 |
| MISCELLANEOUS | | |
| Agriculture, forestry | 1 | 1.1 |
| Agricultural economics | 1 | 1.1 |
| American studies | 1 | 1.1 |
| Business, commerce and management | 1 | 1.1 |
| Classics | 2 | 2.2 |
| Home economics | 2 | 2.2 |
| Law | 4 | 4.3 |
| Linguistics | 1 | 1.1 |
| Mathematics or statistics | 6 | 6.5 |
| Psychology | 5 | 5.4 |
| TOTAL | 92 | |



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Statistics, Medicine, Political Science/ Government
Third (5 individuals): Psychology

The disciplinary categories with the highest incidence were Miscellaneous, Physical Sciences, Humanities, and Social Sciences, respectively.

For deans of graduate schools, the academic disciplines are presented in Table 3. The disciplines encountered most frequently were:

First (8 individuals): Bacteriology/Molecular Biology/Virology/Microbiology
Second (7 individuals): Physics

**TABLE 3**
**Academic Disciplines of Deans of Graduate Schools**

| Discipline | Number | Percent |
|---|---|---|
| BIOLOGICAL SCIENCES | | |
| Bacteriology, molecular biology, virology or microbiology | 8 | 8.3 |
| Biochemistry | 2 | 2.1 |
| Biology | 7 | 7.3 |
| Botany | 1 | 1.0 |
| Physiology or anatomy | 5 | 5.2 |
| Radiation biology | 1 | 1.0 |
| ENGINEERING | | |
| Civil engineering | 1 | 1.0 |
| Electrical engineering | 1 | 1.0 |
| Mechanical engineering | 3 | 3.1 |
| Nuclear engineering | 1 | 1.0 |
| FINE ARTS | | |
| Art history | 1 | 1.0 |
| HUMANITIES | | |
| English language and literature | 1 | 1.0 |
| German language and literature | 1 | 1.0 |
| Spanish language and literature | 1 | 1.0 |
| Other language and literature | 1 | 1.0 |
| History | 5 | 5.2 |
| Philosophy | 1 | 1.0 |
| Religion or theology | 1 | 1.0 |
| Other humanities | 1 | 1.0 |
| PHYSICAL SCIENCES | | |
| Chemistry | 4 | 4.2 |
| Earth sciences including geology | 4 | 4.2 |
| Physics | 7 | 7.3 |
| SOCIAL SCIENCES | | |
| Anthropology and archaeology | 2 | 2.1 |
| Economics | 5 | 5.2 |
| Political science or government | 5 | 5.2 |
| Sociology | 2 | 2.1 |
| MISCELLANEOUS | | |
| Agriculture, forestry | 1 | 1.0 |
| Classics | 1 | 1.0 |
| Environmental health | 1 | 1.0 |
| Geography | 3 | 3.1 |
| Linguistics | 3 | 3.1 |
| Mathematics or statistics | 5 | 5.2 |
| Pharmacology | 1 | 1.0 |
| Psychology | 6 | 6.3 |
| Speech pathology | 2 | 2.1 |
| Systems science | 1 | 1.0 |
| TOTAL | 96 | |



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Third (6 individuals): Psychology

By disciplinary category, the prevalence was *miscellaneous* and biological sciences, physical sciences, social sciences and humanities, respectively.

When the data for all three positions—CEO, CAO and graduate dean—are combined, the ranking of academic disciplines, irrespective of administrative position, can be seen. The disciplines with the most individuals in the three administrative positions are:

First (21 individuals): Physics, Political Science/Government
Second (18 individuals): History
Third (16 individuals): Medicine
Fourth (14 individuals): Law, Psychology

## Discussion

It is noteworthy that two of the three academic disciplines appearing most frequently for chief executive officers were professional disciplines—law and medicine. Some might argue that legal education, with its focus on analytical thinking and oral communication, would be excellent preparation for one serving as a CEO of an academic institution. Yet while reviewing the entries in *Who's Who,* in conjunction with this study it became evident that those trained in the law who serve as CEOs at academic institutions came from two diverse backgrounds: one group came from the ranks of legal educators, e.g., law professors and law deans, while another group had its roots not in the academy but in legal practice. These diverse backgrounds mean that lawyers may bring quite varied experiences to the CEO role.

On reflection, it may not be so surprising that physicians should appear frequently on the list. By definition the list includes the top research institutions in the U.S. as measured by federal research support. Because a substantial portion of the federal funds allocated for research are for biomedical research, one would expect to find some free-standing academic health centers, e.g., the University of California-San Francisco, Baylor College of Medicine, etc., on the list. Further, it is reasonable to expect such institutions to be headed by physicians. Yet this alone does not explain the frequency with which physicians appear on the list. Some institutions which have colleges of medicine are headed by physicians, e.g., University of North Carolina at Chapel Hill, Duke University, etc., but, most strikingly, at least one institution without a college of medicine has a physician as chief executive officer—Purdue University.

Other disciplines that showed up near the top in frequency among CEOs were political science/government, history and English, consistent with Thomas Kennedy's observations.

Physics, another discipline on Kennedy's list, was the most frequently appearing academic discipline for chief academic officers. Medicine was in the second category, consistent with the composition of the group of institutions being studied. Political science/government, another of Kennedy's "select six," was also in the second grouping. The disciplinary categories appearing most frequently, other than the catch-all "miscellaneous," were physical sciences, humanities, and social sciences, mirroring Kennedy's emphasis on academic disciplines from the arts and sciences.

Turning to the deans of graduate schools, the biological sciences were found most frequently followed by physics and psychology, respectively. In disciplinary categories other than the ubiquitous "miscellaneous," biological sciences, social sciences and humanities, respectively, appeared most frequently.

The domination by biological sciences at this level of academic administration is not surprising. A recent report from Britain indicated that "administrators with technical and scientific backgrounds (are replacing) those from the humanities and social sciences in top positions."[6] It was suggested that this "reflects the universities' growing desire to expand their programs in high technology and attract research support from private industry."[7]

[6]Walker, D., "Scientists Are Replacing Humanists as Top Administrators at British Universities," *The Chronicle of Higher Education* 31:35 (November 20) 1985.

[7]*Ibid.*

This trend abroad may be repeated here with the prevalence of physicists in the CAO slots and biological scientists in the graduate dean slots. In fact, it may be anticipated that the number of biological scientists at even higher levels of academe will increase due to their numbers currently in graduate deanships. One recent study found that "more often than not, deans are the first in line for promotion to academic vice-presidents."[8] Moreover, it is the graduate dean who has a perspective which often transcends traditional disciplinary and departmental boundaries.

### Limitations

A number of significant limitations exist for this study and must be taken into account when assessing the data presented here. First, academic discipline of the applicant is only one factor, and perhaps a less significant factor than might be inferred from this study, weighed by search committees and those who make decisions about appointments to major academic policy positions within institutions of higher education. Second, this project focused solely on research universities; any extrapolation to other types of educational institutions may well be tenuous at best. It might not be unexpected to anticipate that the disciplinary priorities of a liberal arts college might be quite different from those of a research university. Finally, the data presented here have been set forth in straightforward fashion. Extensive statistical testing of the data has not been conducted. Comparisons might be made of public institutions versus private, the scope of the institution—focused, e.g., an academic health center or an institution focused heavily on engineering, versus traditional, i.e., with a wide range of program offerings, or the size as determined by student enrollment figures.

[8]Watkins, B. T., "Typical Chief Academic Officer: He's 50, Earns $61,000, Has Been on the Job 5 Years, and Wants to Be a President," *The Chronicle of Higher Education* 31:21 (November 27) 1985.

### Conclusion

Several points of interest were found through this study. First, the prevalence of individuals with professional backgrounds in law or medicine at the CEO level was unanticipated. Reflection on the nature of the study group does, however, lead one to a conclusion that these backgrounds are not inconsistent with the types of institutions studied here. When individuals with those backgrounds are excluded, political science/government and history predominated among CEOs. For CAOs, physics and mathematics/statistics were dominant whereas for graduate school deans the biological sciences were dominant.

If one assumes that those currently holding CAO or decanal positions in graduate schools may well move up in the hierarchy of higher education, we can expect an even more technical/scientific orientation among the leaders of research universities. □

# Announcements

## Vinson Institute Project Receives National Award

The Carl Vinson Institute of Government's Constitution 200 Project and the project director are the recipients of two Constitutional Bicentennial leadership awards.

The awards were presented on May 14 at the Sixth Annual Jennings Randolph Forum in Washington, D.C., by the Council for Advancement of Citizenship and the Center for Civic Education. The Constitution 200 Project received a Bicentennial Leadership Award for its "significant contribution to the bicentennial of the U.S. Constitution." An individual award was presented to Mary Hepburn, administrator of the Vinson Institute's Governmental Education Division for "outstanding direction" of the project.

The Constitution 200 Project has conducted eight public assemblies in Georgia, Alabama, and South Carolina on



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