An Analysis of Factors which Led to the Dominance of Scholarship as Compared with Teaching and Outreach Activities in Land Grant Institutions.

Apr 77

Paper presented at the Adult Education Research Conference (Minneapolis, Minnesota, April 1977)

Academic Freedom; Changing Attitudes; *College Faculty; Community Involvement; *Educational History; Educational Practice; Educational Research; Extension Education; Faculty Promotion; Faculty Workload; Foreign Countries; Higher Education; *Land Grant Universities; *Noninstructional Responsibility; *Professional Recognition; Publications; Social Factors; Teacher Role; *Teaching; Teaching Conditions; Tenure

Germany; *United States

According to the author, service or outreach activities by faculty members at research oriented institutions, including land-grant ones, typically go unregarded, with the most highly esteemed effort being productive scholarship (through such endeavors as journal articles, papers, and research grants), teaching being of secondary importance. In this paper, the author analyzes the factors which established the dominance of scholarship in American higher education. Particular attention is paid to a 40-year period following the Civil War, when the nature and diversity of universities was becoming clear. Events in this century, leading up to World War I are also analyzed. The rhetoric which advocated service and practicality in courses is compared with emerging tendencies of faculty members to concentrate on discipline oriented research. Effects of the German university model and the emergence and recognition of scientific inquiry are examined. Particular attention is given to alienation of faculty members from a growing materialism in American society, with the intention of determining what effect, if any, this tendency had on outreach by faculty members. The search for themes in the post-Civil War period is tied to an examination of two land grant institutions—the Universities of Georgia and Illinois. (Author/SR)
An Analysis of Factors which led to the Dominance of Scholarship as Compared with Teaching and Outreach Activities in Land Grant Institutions.

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Summary: The dominance of scholarship in the reward system for faculty members at land grant institutions is a result of a post Civil War effort by professors to establish a respected professional identity comparable to their colleagues at German and other European institutions. Teaching and service appear to have suffered from guilt by association, both requiring practicality versus extensive opportunity for theory development or specialization in the growing number of academic disciplines. They also lacked the glamour and challenge which scholarship presented to higher education faculty members in the latter parts of the 19th and early 20th centuries. The dominance of scholarship as a reward criterion was reinforced by the evident desire of professors to control as much of their professional areas as was possible during a period when university management by non-academics and the public was growing.
INTRODUCTION

This paper begins, first with a presumption in higher education that originally motivated the investigative research that has taken place; and second, with an example from Sesame Street that has helped in the sorting of historical material reviewed in preparing this paper.

The presumption is that off-campus activities by faculty members at land grant, primarily research-oriented institutions have not been rewarded. When decisions related to pay, promotion, and tenure are made, "service", as part of the trinity of higher education functions generally is not recognized. Faculty members and administrators agree this is the truth. They also concur "service" is an important university function, but one not to be performed by faculty members seeking promotion and tenure, the established and valued indications of worth from their peers and employing institution.

What exists is well-known and certainly lamented by those responsible for off-campus activities as deans or directors of continuing education and extension. There also is some lament by faculty members who feel service is a legitimate professorial function, but hesitate to become involved because of the time it will take. primarily from research activities.

The why behind this situation is not all that clear. It is that why, or several of them, that this paper examines.

The Sesame Street example is drawn from the character, Sherlock Hemlock, supposedly the world's greatest detective. Sherlock Hemlock often ignores the obvious clues, in search of the more esoteric bits of evidence. The first part of the research for this paper brought to light the obvious. They led to a
contention that certain attitudes toward faculty performance had been fixed during the latter part of the 19th century, for a number of easily established reasons.

My colleagues who read the first paper, in effect, encouraged me to act more like Sherlock Hemlock and look for extra evidence and go beyond the rhetoric of higher education which sometimes blurs vision. The paper presented today hopefully responds to their suggestions, by analyzing the establishment and growth of a faculty reward system which generally excludes service.
At an earlier time, Thorstein Veblen pointed out how deeply-rooted any institution can become in what past situations produced:

Institutions are products of the past process, are adapted to past circumstances, and are, therefore, never in full accord with the requirements of the present.

As the image of service, and its perceived value are described, it is necessary to assess how traditions have influenced both. The historical material reviewed for this paper points away from the institution as the prime source of influence and toward faculty members who are largely responsible for the reward structure that exists today. It is easy to be attracted by the rhetoric which lists service as an equal with teaching and research, part of the three-fold purposes of most higher educational institutions.

Service is a tradition and the contributions of land grant institutions to their states and the nation have been and remain significant. The numbers of staff involved, the responses to requests from the public and the demonstrable accomplishments are all very impressive. But they should be held apart from and not mixed in with an examination of a faculty reward system which, in so many ways, is alien to the land grant philosophy.

In a similar fashion, the tendency to examine the growth of higher educational institutions, as institutions alone should be avoided. That does not mean neglecting the role played by colleges and universities in shaping the attitudes of their own faculty members and other like-minded colleagues. It does include
an examination of what went on internally with academic departments and comparable units to mold the attitudes of faculty members which grew to form the current tradition of reward for scholarly excellence.

The focus will be on the growth of attitudes during the fifty to sixty years following the Civil War. Of particular importance is what faculty members in a number of colleges and universities reacted to and reacted against. A second, and related, concern will be how academic communities grew and became informal organizations within their institutions, but not necessarily loyal to them. Third, there will be attention to the growing list of criteria by which faculty members measured themselves, their peers, and younger colleagues aspiring to acceptance. A fourth area of interest, although a bit peripheral, will be the connection between a reward system for faculty members and a growing concern for academic freedom and professional job security.

The material reviewed examines each of these areas, by looking at higher education from the Civil War through the mid 1920's. Each of the four foci will be analyzed separately and then drawn together. The drawing together serves to support the major contentions of this paper.

1. The research emphasis which grew after the Civil War reflected both the increase in knowledge, particularly in scientific areas, and the desire of faculty members to establish a level of academic professionalism and accompanying public respect which their German colleagues enjoyed.

2. The public demand for receipt of service from higher education, echoed by college and university presidents and emphasized by
philanthropists motivated faculty members toward an isolation from the public and attention to academic disciplines within their institutions.

3. The quality of students at the undergraduate and graduate levels further encouraged faculty members to conduct research and carry on other related activities which peers recognized and applauded.

4. There was little or no evidence that service to citizens in a state by faculty members from a land grant institution required the level of expertise, attention to the latest knowledge, or creative thinking which was esteemed by growing numbers of faculty members.

The traditions mentioned earlier took root after 1865. Before turning to that dynamic period following the Civil War, a summary of higher education in the ante-bellum period is presented to set the stage. The emphasis is on what faculty members did and didn't do, and how they were regarded and viewed themselves.
The attitudes of faculty members today have some of their roots in the academic environment which began to develop in the early years of the Republic. Education was restricted to a minority and was classically-oriented. An emphasis was placed on teaching, with a strong relationship between the young men seeking an education and their instructors, who usually were generalists.

The colleges of the pre Civil War era were designed to socialize a select few young men into a narrow few roles which required specialized preparation. James A. Garfield, as a relatively obscure Republican politician in 1872, made the following statement, indicating what he remembered most of the pre Civil War college environment:

The ideal college is Mark Hopkins on one end of a log and a student on the other.  

Frederick Rudolph described that setting as

...the small unpretentious institutions at which inspiring teaching molded young men of good character, rather than accomplished scholarship.  

The Brubacher and Rudy text clearly describes what college life included. It is in distinct contrast to directions taken after the Civil War.

- Clergy dominated many of the early established colleges.
- A single prescribed, classical curriculum existed, students attended classes together and were required to recite periodically for their instructors - specialization was very limited.
- There was much experimenting and thinking about, but little real curriculum reform until the 1840's at Brown University by Francis Wayland and the University of Michigan under Henry Tappan.
Until 1860, most students went into the clergy, law, medicine, or teaching— as one result, there was low regard for scientific fields versus the traditionally academic ones. Science and scientific research had little hold before the 1840's in this country.

Library facilities were extremely limited and students had restricted access to books other than those given to them as texts. The huge collections of Harvard and Columbia were yet to come.

The laboratory method of student experiments was tied to a pre-Civil War movement first promoted by Amos Easton at Rensselaer in New York State, which was practical and work-oriented.

Obviously, college was for a minority during the period through 1860. As mentioned at the beginning of this section, the focal point appeared to be molding gentlemen. A commentary on this emphasis was the failure at Cornell of the student work effort. Andrew D. White, Cornell's first president, "lamented" that much of the student work done in laying out that campus had to be redone by skilled workmen.

There is a one-sentence insight related to the work-practicality effort, by Brubacher and Rudy, which is important to the development of an inward-looking research-oriented faculty attitude after the Civil War.

Manual labor taught habits of industry, orderliness, and dependability, so it was urged. Doubtless, it is a tribute to this exception (of what students would gain through manual labor) that parents often sent indolent and shiftless sons to these colleges in the hopes that some of these virtues would rub off on them.
Scholarship was minimal and the recitation method probably limited the amount of creative thinking encouraged or done. Students were mediocre, perhaps indolent and shiftless, but certainly from more economically secure situations than their professors. Interest in scholarship and activities of a more theoretical nature can be traced, in part, to a reaction against the typical undergraduate student.

The growing attractiveness of research to American faculty members should be viewed in light of the position which European academics, particularly Germans, enjoyed. That attractiveness was increased by a number of post Civil War trends, which emphasized materialism and definitely anti-intellectual attitudes. Before turning to that, the impact of the Civil War on American society and higher education, as one small part, will be examined. Those changes led into the boom and growth which the country experienced after 1865. A partial list of those changes follows; all point toward the emphasis on material expansion.

1. The end of landed aristocracy of the southern plantation variety and the beginnings of a new aristocracy, who won respect for accomplishments in opening the frontier and building huge industrial empires, were two visible changes.

2. Industry began to grow in the North before the Civil War, but the War needs gave factories a new importance which was combined with an ever-enlarging network of railroads.

3. The momentum of the Industrial Revolution was on the increase.

4. A single strong nation emerged from the Civil War and, along with this new strength, international stature and respect.
5. Material wealth increased, the standard of living went up, and a formerly rural society was becoming increasingly urban.

6. A more democratic and open society was emerging, with great individual opportunities for achieving financial success as in the Rockefeller, Carnegie, Duke, Harriman, and Stanford cases.

The pre Civil War gentlemen's college was becoming inappropriate for the times. Practicality in courses, study and service to community in need of academic expertise would seem to be likely results. Both emerged. The first, practicality through a changed curriculum, increased academic specialization, and fostered the rise of professional colleges and schools. The second, service to community and state, was underlined by Federal legislation as an important university function. Neither seem to have as much influence as the research emphasis which gained credence and strength.

The pre Civil War faculty member was, according to Riesman and Jencks, an intellectual generalist. He may have taught a number of subjects, natural history, ethics and theology, while remaining a Latin or Greek scholar. In many ways, the professor emphasized character development of students and placed minimum weight on research or the creation of new knowledge.

Before 1865, the clerical dominance in higher education made college teaching more of a "calling" and less of a profession. After that point, the emergence of a professionalism rooted in scholarship and research becomes quite evident. At first glance, the changes may seem to point toward practicality and, as a consequence, greater service to a public which supported higher education.
A closer look leads to a conclusion that academic narrowness, which was fostered by the rise of science and technology, contributed to the growing research interest of so many faculty members. The principal changes to be explored helped faculty members join together with colleagues of like interests and begin to mold the criteria by which individual success and growth would be determined, and the successful recognized through promotion and tenure.

The principal changes which will be examined are:

1. The emergence of the elective system and expansion of the curriculum, to include a large number of pre-professional and practically-oriented courses and programs at the undergraduate and graduate levels.

2. The rise of science as a respected and attractive area of higher educational activity, especially as a result of the increased prestige of the German research university and German-trained professors.

3. The greater post Civil War visibility of higher education, which led to public demand for all-inclusive student training and preparation, in addition to larger student populations.

4. The turning inward of faculty members toward their own academic departments and research interests, as specialization joined with increased potential for scientific accomplishment.
Admittedly, these changes took place as the impact of the Morrill Act of 1862 and subsequent pieces of legislation were being felt. They established the right of the public to expect service from state land grant universities, but not that faculty members were to provide the bulk of those services or be rewarded for doing so. The next sections will expand on these directions.

Curricular Reform

Brubacher and Rudy describe four curricular innovations which, when analyzed, point out that both the specialized university and department-oriented professor were appearing in greater numbers:

1. The acceptance of a wide range and diversity in all subjects.
2. The rise of scientific and utilitarian courses to a prominence once enjoyed solely by the classics and the humanities.
3. The "speedy development" of subject-matter specializations and the departmentalization of the curriculum.
4. A "seemingly endless proliferation of courses." 7

Scientific disciplines were the leaders in this four-part expansion. The rapid growth of knowledge in the post-Civil War period, as compared with the pre-Civil War one opened the way for other disciplines. However, languages, other than Latin and Greek, and social sciences were achieving a new prominence as well.

These curricular reforms were accomplished along with the spread and strengthening of graduate degrees. The master's degree became an earned one
only after the Civil War; before that time, it could be obtained by paying a fee and waiting a specified length of time. Eastern institutions began the process of strengthening this graduate degree, and the growth of standards began.

The Morrill Acts of 1862 and 1890 did specify certain subject areas which land grant institutions were required to teach. These were in agriculture and the mechanic arts; the subject-matter fields for which federal appropriations could be used were more narrowly interpreted by the 1890 act. Scientific and classical studies were not excluded. Research does not indicate these acts and others to follow which were directed toward aspects of land grant institutions in any way influenced the growing research and scholarship orientation of faculty members.

The next section of this paper will show how science, scholarship, and the rise of a professional attitude grew in the post-Civil War period.

Science and Scholarship

The dominance of clergy in pre-Civil War higher education led to an anti-scientific or, at least, non-scientific approach to study. This is in contrast to a positive clerical attitude toward science and experimentation during the 17th and 18th centuries in this country. Scholarship and research conducted in Germany in both pure and applied scientific areas were being watched closely in the United States and emulated to a certain degree.

Science, scholarship, and professionalism appear to have grown in stages after 1865. There was a first period of increased scientific activity which lasted until the end of the 19th century. In the last years of the 19th century and into the 20th century, scholarship and professional activities gained momentum. It was during the latter years of the 19th century that academic
freedom and the rights of professors became an important concern.

Research methodology in the natural sciences and laboratory methods were encouraged. Libraries had to expand to meet the new demands, as did the once very limited laboratory facilities. There is a statement in support of the scientific method written in the best 19th century prose worth repeating here.

Science training would give the mind real discipline..., not the 'safe and elegant imbecility of classical learning.' It would replace the arid verbalisms and deductive analysis of an aristocratic, stratified society with the free, inductive inquiry and tangible observations of an advancing progressive social order.

There is another dimension to the attraction of the German research university. Except for Johns Hopkins and Catholic University, the strictly outlined German-based model developed in Europe was never adopted in this country. Yet, time and facilities to conduct scientific inquiry were being sought increasingly by faculty members. A force which propelled faculty members at the time and could have equally driven them from active involvement with their surrounding communities is described by Veysey.

This [intellectual] leadership, separating itself from orthodox evangelical piety and continuing to reject Jacksonian vulgarity, became receptive to European scientific and educational developments which might offer a counterweight to the cruder tendencies manifested in the surrounding society.9

It is in this period that scholarship as a valued professional enterprise began to emerge. Significant numbers of American professors attended European, particularly German, universities. In time, they came to dominate newly formed academic departments. According to Daniel Coit Gilman, those educated in Europe came away with a clear conception of a "university's scope." 10
They knew illustrious teaches on the Continent and the academic freedom these individuals received.

It is not difficult to see why American faculty members would strive to emulate the envied position of their European counterparts. The Europeans had status and respect, while professors in this country were received with skepticism, indifference, and even hostility.

Public Demand and Public Attitude

The post-Civil War period was one of great materialism. Those most recognized and esteemed made money, built factories, or started railroads. Higher education was not very popular. The general population largely was un- or ill-educated. Industrial leaders issued statements about the uselessness of too much education. These same industrialists, such as Andrew Carnegie, John D. Rockefeller, Leland Stanford, were later to endow universities, create foundations in support of their academic endeavors, and serve on their governing boards. At this time, however, men such as Carnegie were pointing out that

...college education...was fatal to success in the business domain.\[1\]

Similar feelings were prevalent at all the less prosperous levels of society. A decision to attend college was regarded as questionable. There was a positive fear of college in rural areas. If a decision to attend was regarded with misgivings, it is likely esteem for faculty members was equally low.

Scholarship and professionalism can be viewed as a response to popular feelings about faculty members. Professional societies began to appear in the
latter part of the 19th century. They fostered an identification with a discipline, rather than an institution. That identification grew as scientific and later social science disciplints expanded and diversified into more precise areas of scholarly specialization. These professional affiliations were a source of encouragement for intensive scholarship and inquiry. Minus clear societal rewards, either money or prestige, faculty members sought strength from their colleagues in similar fields across the country.

The influence of the German Ph.D. in the latter half of the 19th century added strength to the importance of research and scholarship by faculty members. Initially, this degree was of prime importance in demonstrating scholarly standing in the natural sciences. But this degree has expanded to become the mark of acceptance and respectability in all academic departments.

As a next step, faculty members began to develop criteria for judging the accomplishments of their colleagues and younger professors aspiring to recognition. The desire of faculty members to control professional entry came at a time when two other trends were emerging in higher education:

1. The growing impersonalization of management in large universities, particularly the land grant ones. Bureaucratic structures began to emerge and there was increasing distance between the presidents and trustees and individual faculty members. Faculty members' identification became department-centered, not institutional. This further increased the importance of scholarship, because an academic department came to be judged on the productivity of its individual faculty members, and sought national reputations.
2. **Presidents of universities had to seek more and more public support, submitting to popular demands for service from the state institution.** There is evidence that academics regarded these presidential efforts with ill-concealed disdain. As managerial experience became a factor in university operation, this disdain grew.

An essay on faculty tenure in a report by the Commission on Academic Tenure in Higher Education isolates why these two trends are so significant in the rise of a professional guild which enhanced scholarship as the single reward criterion. In the colonial and antebellum colleges, a religious or near religious *gemeinschaft* existed on the campus between president and faculty members.

Decision making authority vested in the president was more consensual than blatantly authoritative. In the latter part of the 19th century, this shared purpose disappeared. Presidents were chosen from among non-academics and resembled their counterparts in government and business more than faculty members.

New knowledge and scientific discoveries gave prestige to professors and led them to believe they represented the heart of the institution, not an administration which had only power.

Scholarship was reinforced by two other important factors: the temptation of faculty members to become involved in applied public service-oriented research; and the search for academic freedom. The relationship between the two, their influence on scholarship and reaction against service will be examined in the next section of this paper.
PUBLIC SERVICE SCHOLARSHIP AND ACADEMIC FREEDOM

At first, the two may seem to be independent variables. Research indicates, however, there is a tie which reinforces the scholarly proclivity of higher education faculty members.

Academic freedom has not always been a characteristic of American higher education. Prior to the Civil War, orthodoxy in teaching approach was very common. The character molding function of antebellum colleges and universities contributed to a less-than-flexible approach to faculty member conduct. Perhaps the religious orientation and communalism described earlier made this more palatable.

The German research-oriented university had a tradition of academic freedom. Americans who attended those institutions came back with glowing praise of that situation. American colleges and universities were just coming out of dominance by church groups and other special interests.

One dominating group came to replace the first one, however. That second group was made up of the very leaders of business and industry, as well as education, which many faculty members felt were emphasizing materialism to too great an extent. This second group of leaders attempted a series of very startling professorial dismissals at the end of the 19th century which aroused the lay and professional public in addition to the academic community. There was the case of President Andrews at Brown, Professor Ross at Stanford, and Professor Bemis at the University of Chicago under William Rainey Harper, to mention three of the most prominent.

In these cases and other well-known ones (Professor Ely at the University of Wisconsin who was not dismissed, and Professor Nearing at the
University of Pennsylvania, who was), faculty members' public pronouncements, research on sensitive topics and liberal positions taken were responsible for the threat of, or actual dismissal.

The lay boards began to view faculty members as employees of the institution, not scholars who were controlled by their guilds and would be responsible only to them. Faculty who knew personally the European academic freedom or had heard about it were very sensitive to the threat this new direction represented. In Germany, the professor was free to teach and publish the truth as he saw it, and he could do so without fear of losing his position.

At the end of the 19th and beginning of the 20th centuries, businessmen constituted two-thirds of college and university boards of trustees. Earlier in this paper, their general skepticism of higher education was described. That skepticism joined with a general dislike of liberal views enunciated by liberal professors and brought the whole question of academic freedom to say and do what to the fore, as a significant issue.

One result of the reaction to liberalism was a statement by Alton B. Parker, former judge of the New York Court of Appeals and later 1904 Democratic presidential candidate, who inquired concerning the responsibility of donors -

...granted that the professor should have freedom to express his views...why should not donors of the monies which support higher education also have freedom to determine the doctrines their bounties support?¹³

This was certainly not a popular opinion among academics and one to which Presidents William Rainey Harper at the University of Chicago, Charles William Eliot of Harvard, and Nicholas Murray Butler at Columbia took strong exception.
The issue of dismissal is one which the AAUP directed its attention toward in a 1915 report on academic freedom and academic tenure. The statements made are those of a guild emphasizing the rights of faculty members to judge their colleagues.

"...Every university or college teacher should be entitled before dismissal or demotion, to have a fair trial on those charges before a special or permanent committee chosen by the faculty senate council, or by the faculty, at large." 14

In this statement, AAUP held that those not... 

...trained for a scholar's duties (could intervene in cases involving ideas or the expression of ideas) without destroying, to the extent of their intervention, the essential nature of the university... 15

Guild autonomy was sought, realizing that lay control of the university was inevitable.

Service in the form of research on contemporary affairs directly confronted questions of academic freedom during this same period. Indeed, the movement to establish tenure came as a means of insuring against cavalier dismissal for unpopular views and/or research. Tenure was more important for the American professor than his European counterpart. There objectivity was established by staying clear of political biases and resisting the temptation to become involved in contemporary affairs.

The American academic relished contact with the society in which he lived. Jeffersonian influence on the role of higher education, the pragmatism of William James and John Dewey, and federal legislation which mandated practicality in courses and service to state are three important reasons for this attitude.
There were two obvious problems associated with the entry of academics into contemporary affairs. One is the question of role. Were academics involved speaking as citizens or professors? Had academic freedom allowed them protection to speak out on any and all issues with a security other citizens were not able to enjoy?

The second problem related to competency. From what perspective did a professor speak? His academic specialty was an area different from those where he had no more knowledge than any other layman. In theory, as President Lowell, of Harvard pointed out during World War I:

a. the professor speaking within his academic discipline is entitled to the cloak of academic freedom;

b. he should enjoy protection against loss of economic status as well because only so can society guarantee its crucial stake in his technical competence;

c. if he did not speak as a specialist, then he was entitled to no greater consideration than anyone exercising his civil liberties. 16

Neither public nor professors clearly understood or abided by this distinction. Intemperate statements made by professors tended to bring discredit on the institution, as well as the individual.

Although clear causal relationships have not yet been established, the repercussions on faculty members for too active involvement in public affairs may well have been responsible for the increased scholarly interest. And this scholarly interest, plus other factors related to the growth of knowledge contributed to a faculty member reward system which emphasized scholarship to the exclusion of both teaching and service.
The academic guild could reward scholarship through criteria which emphasized both the quantity and quality of effort. Reward for service meant entry into an area where the quality of the effort could not be judged easily nor its impact objectively appraised without moving into controversial public affairs areas.

Statements by leading commentators on higher education reinforced the importance of academic freedom and its impact on research quality. Robert Hutchins points out that -

...academic freedom is simply a way of saying that we get the best results in education and research if we leave their management to people who know something about them. Attempts on the part of the public to regulate the methods and content of education and to determine the objects of research are encroachments on academic freedom.

NEED FOR SERVICE - REWARD FOR SCHOLARSHIP

Both pure and applied research, as well as instructional programs, became an important, even a unique aspect of American higher education. The "Wisconsin Idea" characterizes an approach which land grant institutions continually have emphasized. Agricultural experiment stations, extension agents, and assistance to business, industry, and education are well-known parts of the service system.

The literature suggests that providing service was necessary, but not demanding. As mentioned earlier, loyalty to discipline has grown and increased in potency since the late 19th century. The single departure from this attitude is the willingness of certain faculty members to take on large or global problems. Particularly true in the social sciences, this has led to a preference for technical assistance, metropolitan surveys and defense projects - all involving large financial outlays and a measure of academic patronage. At the same time, a common recognition system which begins with the research-oriented Ph.D degree has emerged. Professional success has been equated with research quality, as defined by the guild of professors from the same discipline. This is one
area over which faculty members retain control, in the face of growing impersonalization, bureaucratization, and centralization of decision authority among presidents and boards of trustees.

And, as scholarship has become more precise, demands for service have increased, with its definition still unclear and relationship to the knowledge generation and transmission functions of a university unclear. Scholarship offers the potential for precision and as Frank Pinner indicates:

...definitions which yield criteria whereby service activities can be most clearly recognized (e.g., response to demands, restriction to narrow publics) can, if adopted, easily lead us to offer only routine advice and help, instead of innovations. And, we might end of documenting our high regard for our fellow citizens by giving them what we consider worthless, and keeping for our private edification, what we consider worthwhile.
Hutchins reinforced the importance of that feeling by emphasizing every profession requires for its continuous development the existence of centers of creative thought. If that creative thought disappears, professions degenerate into trades. Service and teaching were often seen as contributing to the trade, rather than the professional aspects of academic activity.

Conclusions

Both teaching and service appear to have suffered from guilt by association. They also lacked the glamour and the challenge which scholarship presented to higher education faculty members in the latter parts of the 19th and early 20th centuries.

The guilt by association seems to lie in the tie of teaching to a generally mediocre group of undergraduate and indeed graduate students. The post Civil War press for equality and practicality in education further tainted this educational function. Teaching also had few of the products which could have been measured or evaluated by peers, as a demonstration of research productivity or professionalism in a specialized field.

Service drew faculty members into a controversial public arena where citizens with scant patience for theory were waiting. The demand for practicality and immediate useability did not always allow faculty members to challenge the boundaries of knowledge and examine new areas of learning. There are exceptions, of course, and many valuable knowledge contributions have been made by faculty members at land grant institutions. Few, if any, have been recognized and rewarded through the traditional promotion and tenure structure.
One wonders what difference this reward structure has made to the quality of service provided by land grant institutions.

In 1946, James B. Conant wrote of the American University in the Atlantic Monthly. He pointed out American institutions of higher education upheld an ideal which has been termed, "characteristically American" - the urge to put knowledge to work for the public weal.19

Reports of accomplishments through service list discoveries as diverse as hybrid corn and anti-polio vaccine. Each year thousands of Americans have been furnished with specialized information and training.

Statements of scholars to the contrary, great services have been provided by American universities, with land grant institutions leading the way. In spite of opposition to the public support for postsecondary education, the service establishment has grown steadily in size and complexity.

In particular, the laboratory method has been used to provide knowledge to the public. Data and services have been developed. Special efforts were made in war time and periods of national need.

It would be simple conjecture to estimate what could have been if more faculty energy had been devoted to service, or outreach functions. Perhaps greater gains, perhaps not.

Today, there is increased public pressure on higher educational institutions to serve the state and nation. Service appears to be more credible today than in past years. Whether a reward structure established from among many forces outlined earlier in this paper can be modified to recognize quality outreach effort is another large question to be pursued in more detail as a next step.
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