1 Are You Teaching This Summer?

Academics believe deeply that the public does not understand the daily life of a university professor, a belief that is amplified by an innocent conversation starter at neighborhood social gatherings: "Are you teaching this summer?" University professors always seem to be busy in the summer, when classes are not in session and the most conspicuous activities on campus are related to landscaping. It is a question that betrays only an innocent fascination with a somewhat mysterious occupation. What an academic hears in the question is a hint that hours spent outside the classroom are hours not well spent: what else could justify that big summer paycheck? High school teachers "take the summer off" without pay to travel or perhaps to get a few more college credits toward an advanced degree. What in the world could a college professor do in the summer that would justify any pay at all? "Are you teaching this summer?" is the most annoying question that a professor can hear because there is no easy way to answer. It does not rank among the most important questions facing university professors today, but it is a window into academic life.

This is a book about the fate of American colleges and universities, institutions on a path to marginal roles in a much different world than they are designed for. The story of higher education begins with an understanding that it is not monolithic. It will make much of what I have to say about universities easier to understand if I explain a few things about academic life—what motivates academics, how they view each other, and most importantly, how they view anyone outside the university. The gears and levers of a modern university are hidden from public view by a curtain, and I want to help you peek behind it.

Behind the Curtain

The fate of American colleges and universities is in the hands of the people on the inside who pull the levers and turn the gears, and of those on the

outside who operate huge, interconnected networks of rules and systems. Virtually everyone involved in higher education is either a professor, a former professor, or an academic professional whose career has been carefully built in the service of professors. Much of what I describe in this book therefore hinges on university professors—the way they look at the world, how they are rewarded, and how their collective decisions are shaped by a culture that few outside academic life understand. Even highly educated professionals, who have spent years immersed in university studies, feel adrift in academic waters where titles and organization charts have little meaning, administrative boundaries are notoriously confusing, and primary loyalties are often to peers with no obvious connection to the institution.

If academic life is impenetrable to the layman, it is because universities are designed to be mysterious. The mystery begins with rituals that are especially forbidding to outsiders. Universities are by definition associated with rites of passage—passage from adolescence to adulthood, from apprentice to master. European universities were originally medieval and monastic, and American institutions inherited their traditions. They adopted rites of passage that were based on religious symbols and universal beliefs, a point that Kathleen Manning analyzes in her study of cultural symbolism in universities:

> Although most colleges in the United States are secular, the religious nature of institutional life remains firmly embedded in higher education.[1]

This influence is most obvious in the academic rituals like commencement ceremonies that involve scepters and other magical icons and imagery, monastic gowns and regalia, and the ritual intonation of passages that confer special status to conferees. An academic processional resembles nothing as much as monks solemnly filing into chapel for Mass. It is not accidental that literature is filled with deliberately blurred boundaries between religion, wizardry, and scholarship.

Symbolism masks the real nature—humanistic and materialistic—of modern universities, entities that produce and consume many billions of dollars annually. Modern universities are businesses—conglomerates and federations of fiercely competitive organizations run by smart, capable people with a remarkable ability to focus their attention on problems that are beyond the reach of most of society. But universities are not monolithic. The ideal of the university as a community of scholars has been effectively replaced over the last few decades by what former University of California President Clark Kerr called a *multiversity*—an enterprise that serves many

public and private constituents and balances the desires of many internal and external communities.[2]

Bands of Well-Chosen Professors

Perhaps the most significant force shaping Kerr's multiversity is research, so I want to begin by talking about the difference between a research university—that is, a university that hires and promotes faculty members based on their ability to conduct independent scholarly investigations—and other institutions. The idea of a research university is ancient. In the eleventh century, the first European universities in Bologna and Barcelona, Paris and Padua attracted professors like Galileo and Dante Alighieri, who were renowned for independent, original thought. They in turn attracted students who would be trained for independent discovery and analysis. The idea took hold throughout Europe.

The European ideal of a research university was largely ignored in the United States until the middle of the nineteenth century, when a former Yale College librarian named Daniel Coit Gilman seized on the idea of forming an American institution devoted to graduate instruction and research. In 1872, Gilman became president of the University of California, but the state legislature effectively blocked his efforts "to make a respectable and responsible institution of the University of California."[3] The founding in 1874 of a new, private university in Baltimore, based on the German model, gave Gilman the opportunity he desperately sought. In 1875, Gilman became the first president of Johns Hopkins, a university endowed by its namesake, a Quaker philanthropist. Hopkins's $7 million bequest to found a hospital and university was at the time the largest philanthropic gift ever.

The Johns Hopkins trustees settled on a university that would realize the scholarly ideal of an institution devoted to the *creation* of knowledge, and Daniel Gilman became the nation's most visible advocate for the role of pure university inquiry in society:

> First, it is the business of a university to advance knowledge. . . . [N]o history is so remote that it may be neglected; no law of mathematics is so hidden that it may not be sought out; no problem in respect to physics is so difficult that it must be shunned. No love of ease, no dread of labor, no fear of consequences, no desire for wealth will divert a band of well chosen professors from uniting their forces in the prosecution of study. Rather let me say that there are heroes and martyrs, prophets and apostles of learning as there are of religion. . . . By their labors, knowledge has been accumulated, intellectual capital has been acquired.[4]

Johns Hopkins University under Gilman's guiding hand was at the head of a crowd, and as more institutions embraced knowledge creation as a part of their mission, the well-chosen bands of professors acquired more influence over the day-to-day running of the university. But it was always a delicate, and sometimes confusing, balance—even for Johns Hopkins—between research and teaching the thousands of students who were pouring into colleges and universities and whose interests did not necessarily lie in the laboratory. The confusion would get more profound with the sudden appearance of dozens of new institutions. Some of the newcomers were small, privately funded schools with strong denominational ties and no real interest in original scholarship, but others, funded from public coffers, were distinctly American—inclusive, diverse, and accountable only to an ideal. None were modeled on their European forbears.

The Land Grant movement—beginning with the 1862 passage of the Morrill Act—meant that higher education in the United States was no longer reserved for the upper classes of society. Land grant colleges were created to address the nation's need for doctors, lawyers, clergy, engineers, and farmers. It would have been easy for institutions like Harvard and Johns Hopkins to adopt the European model, but not the open access promised by the Morrill Act:

> without excluding other scientific and classical studies and including military tactic, [land grant colleges are] to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.[5]

But, in fact, Harvard, Johns Hopkins, and the other private institutions of the Northeast joined Michigan, Cornell, and the newly chartered land grant colleges in embracing "liberal and practical education of the industrial classes." By the 1930s, led in part by immigration from German centers of learning, American scientists had established themselves in research universities, and institutions like MIT—under the leadership of Karl Compton, who pioneered cooperation between universities and the military—shed their "engineering school" personae for a new blend of engineering and science that would be equally at ease fighting wars and fueling economies. Professional schools of business, education, and law quickly adopted the methods and values of research: unfettered, quantitative inquiry, peer review, and independent societies clustered around the key problems as judged by the community. Medicine was easy to launch on this path because of the direct connection between medical innovation and wealth-generating products and services in health and medical fields. This was

another gift from Hopkins, who was as generous to the university teaching hospital as he was to the pure sciences.

The other event that irreversibly changed the nature of research universities was the creation of the National Science Foundation and the postwar growth in federal support of university research. In the closing days of World War II, a former MIT dean named Vannevar Bush was asked by President Franklin Roosevelt to make recommendations for the continued health of the American scientific enterprise that had been so critical in the war effort. Bush was at that time president of the Carnegie Institution, which awarded research grants to scientists. His recommendation was to set up a federal agency that would in effect create a public version of the Carnegie Institution. To Bush, this was not philanthropy, but rather a strategic investment in a national asset:

> Basic scientific research is scientific capital. Moreover, we cannot any longer depend upon Europe as a major source of this scientific capital. Clearly, more and better scientific research is essential to the achievement of our goal of full employment.
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> How do we increase this scientific capital? First, we must have plenty of men and women trained in science, for upon them depends both the creation of new knowledge and its application to practical purposes. Second, we must strengthen the centers of basic research, which are principally the colleges, universities, and research institutes. These institutions provide the environment which is most conducive to the creation of new scientific knowledge and least under pressure for immediate, tangible results. With some notable exceptions, most research in industry and Government involves application of existing scientific knowledge to practical problems. It is only the colleges, universities, and a few research institutes that devote most of their research efforts to expanding the frontiers of knowledge.[6]

Bush's recommendation led directly to the chartering of the National Science Foundation (NSF) and its unique system of unsolicited proposals and peer review. Today, NSF supports virtually all academic research in basic science and mathematics. It also led indirectly to a massive increase in government investment by other government agencies like the National Institutes of Health (NIH), the Defense Advanced Research Projects Agency (DARPA), and the Department of Energy (DOE) that today fund university research in the sciences, engineering, and information technology. At the end of the war, the federal government spent less than ten billion dollars (in 2000 dollars) for research and development, virtually none of which was for nonmilitary research. Sixty years later the government was spending more than a hundred and twenty billion dollars on research and development, forty-three billion of which was directed toward nonmilitary research.

Between 1953 and 2004, federal funding for basic scientific research—the kind supported by NSF—grew at an annual rate of 6.3 percent, nearly double the 3.3 percent average annual rate of growth of the economy as a whole.[7] Research universities adjusted their missions and priorities to accommodate their newfound wealth, but much of the burden of maintaining research operations fell on a new generation of university professors, who now had to raise money; staff, equip, and manage complex facilities; and mount marketing campaigns that could be used to justify such a large expenditure of public funds. These were highly skilled scientists who were also trained in the business of conducting research and, most important, in raising money to do it. Professors could no longer retreat to their ivory towers. A new kind of academic career was born: one that required salesmanship and management ability. It was not long before success or failure at a research university depended as much on these skills as on classroom performance or other scholarly pursuits. That was how professors were chosen.

It is no wonder that twentieth-century universities became market-focused, and nowhere did the economics of the marketplace figure more prominently than in how the bands of well-chosen professors were recruited and compensated. In order to attract and retain medical doctors, lawyers, and business school professors, universities had to offer both the freedom to practice and sufficient compensation to make academic life somewhat competitive with private sector jobs. By the same token, scientists and engineers who generated the bulk of the federal research funding could be lured away by other universities or by the many industries in which their work was highly valued. They generated income, and they demanded compensation that reflected their financial contribution.

The humanities and the arts took a back seat, and the financial stratification of universities began in earnest. By the 1990s, it was not uncommon to see yearly compensation for senior faculty in the most competitive fields top three hundred thousand dollars, effectively pricing top recruits out of the job market for small undergraduate institutions. Meanwhile, in the least sought-after disciplines, salaries stabilized at far less stratospheric levels—except for the occasional stars who could demand more—which enabled small, liberal arts colleges like St. Olaf College in Minnesota and Williams College in Massachusetts to assemble departments of mathematics, philosophy, and literature that rivaled the best research universities.

Salary differentials at major research universities became a source of campus tension. No university could maintain the fiction that it was a classless society of scholars—a band of professors—who pursued knowledge for its own sake and for whom compensation was as likely to occur in spiritual

form as in dollars. But it was just one of the inconsistencies of academic life that universities had to find a way to accommodate.

Inconsistent Institutions and Class Societies

By the time the Vietnam War exposed deep social divisions over free speech, academic freedom, and the role of federal research on college campuses, multiversities—with all their inconsistencies—had effectively replaced Gilman's ideal of an American version of the European research university:

> The multiversity is an inconsistent institution. It is not one community but several—the community of the undergraduate, and the community of the graduate; the community of the humanist, the community of the social scientist, and the community of the scientist; the communities of the professional schools. . . . Devoted to equality of opportunity, it is itself a class society."[8]

The jarring idea that a university is a *class society* is important to understanding academic culture. It helps explain one of the most curious aspects of academic life: the loyalty that a professor feels toward the community of specialists in his or her particular field of study. This loyalty oftentimes is a much stronger bond than institutional loyalty. Professional and academic societies, editorial boards, and honorific organizations allow professors within a class to associate with their peers. Professional societies are a meritocracy that exists apart from traditional university ranks and titles, sometimes bestowing honorary titles like *Fellow* to reward achievement that might otherwise be overlooked by a professor's employer.

Academic ranks stratify universities into classes. There are even classes of entry-level positions. A young faculty member armed with a new degree may be hired as an instructor or a postdoctoral fellow. Neither of these positions, however, is on a track to senior, tenured faculty status. Postdoctoral positions are pure research apprenticeships. After a fixed term of employment, the expectation is that a postdoc will move on to another laboratory or perhaps to a different kind of entry level job—maybe even to a tenure track position.

Instructors are members of the teaching class. They are frequently part-time employees hired to help smooth out normal enrollment fluctuations. Increasingly, however, instructors are permanent teaching staff with uncertain career prospects. At some institutions, instructors draw salaries but are not even covered by benefits like retirement or health care. They are among the most vulnerable staff members at the university.

The most desirable academic rank for a beginner is assistant professor, a probationary rank that cannot be occupied indefinitely. A successful

assistant professor can expect to eventually be promoted to associate professor and finally to full professor. At any of these ranks, additional distinction is possible. Yale University, for example, uses a portion of its endowment for a Gibbs Instructor. The Gibbs Instructor is usually a budding superstar who understands the limited nature of the appointment and is interested in using the relative freedom offered to Gibbs Instructors to begin a research career. Other endowments may be established to fund associate or full professors. These positions usually carry honorific titles like the "John Doe Professor of Economics," "University Professor," or "Distinguished Professor."

A Full Day's Work

Most people outside academia experience only one aspect of a college professor's professional life: classroom teaching. But because the vast majority of American colleges and universities are actually multiversities, classroom teaching occupies only a small fraction of a professor's workday. A typical day might also include scholarship, service activities, and an array of administrative and management tasks ranging from personnel and financial management to fundraising and university governance. These roles are not always equally balanced.

At top research universities, professors are often expected to "pay their own way"—that is, to construct a coherent research agenda that will attract not only graduate students but also the independent funding needed to support their research programs. In return, the university offers not only access to students and equipment but also the freedom to pursue wide-ranging lines of inquiry. This includes, in many cases, time away from campus to consult, lecture, or serve on boards of directors—all activities that may carry lucrative compensation above and beyond the salary paid by the university. Not surprisingly, professors at research universities tend to channel their scholarly activity into work that has economic benefits, either personal or institutional.

At undergraduate institutions—where research may not be required—professors are also expected to do scholarly work, but scholarship in the sciences and professions at a teaching university is often more difficult to fund from external sources. Rather than pursuing big-ticket independent research, professors are more motivated to integrate scholarship into classroom activities or research projects that can be successfully completed by undergraduates.

Part of a typical workday at any university is spent in the classroom, either teaching general education courses or teaching more advanced upper-

division courses to students majoring in the professor's field. Unlike secondary schools, in which a detailed curriculum is prescribed by a school board, a college curriculum reflects the desires and tastes of faculty members, so a course at one institution is likely to be different from the same course at another institution. This means that professors spend a good deal of time developing and maintaining unique course materials.

Students need to be mentored and advised, and letters of recommendation need to be written for graduating students applying for jobs or graduate school. In large lectures or courses with laboratories, professors also manage teams of graduate or undergraduate assistants and are often responsible for hiring, firing, and managing instructional budgets. If undergraduate research is a component of the curriculum, a professor may be required to supervise research projects, internships, and cooperative programs.

Research universities add an additional layer of complexity to classroom teaching. Besides teaching graduate courses and seminars and developing curricula for MS and PhD degrees, which frequently involves finding ways to incorporate cutting-edge research into advanced courses, faculty members at research institutions have to train future practitioners and researchers and direct graduate thesis work. They are also more directly involved in helping to find employment for their students. Not surprisingly, research universities cannot demand the same teaching loads as undergraduate institutions. Nevertheless, a three-course teaching load at a research university can easily require sixty or more hours of work per week.

Here is my version of a story—the heart of which is the disconnect between what a university is and what the public understands about universities—that virtually all college professors know from personal experience. My first academic appointment after I received my Ph.D. was at the University of Wisconsin in Milwaukee, a large urban campus picturesquely perched on the bluffs above Lake Michigan. My office was on the top floor of the tallest building on campus, and on a clear day I could see all the way to Port Washington, forty miles to the north.

State officials would often use the university system as an example of the misuse of public funds by an elite minority who were not being held properly accountable by elected officials. Senator William Proxmire came out of this tradition and became famous in the 1970s for his frequent "Golden Fleece Awards" that held federally funded scientific research up to public ridicule, based largely on carefully selected project titles that when taken out of context made little sense to the average voter.

During one of these periods, the university came under the high-profile scrutiny of a group of state legislators who wanted to know how the thirty

or so campuses of the Wisconsin system were spending the state's money. I was selected to be interviewed by a senator from one of the small northern towns on Lake Superior. He arrived at the appointed time, but things started out badly. The grandeur of the view from my office seemed to bother him, and he went out of his way to let me know it. He also let me know that public school teachers spent the entire day in the classroom, and that he expected the same from Wisconsin's public universities. He went on the attack: "How many hours do you teach?" I happened to be teaching two four-credit courses that semester, so I said "eight hours." "Eight hours!" he repeated, as he slapped his knee, jumped to his feet, and began pumping my hand. "You're the first man I've met around here who puts in a full day's work!" I didn't have the stomach to tell him that I meant eight hours per week, not eight hours per day.

Small wonder that the average professor feels adrift in a world where daily and weekly rhythms mark professional progress: customers acquired, products designed, money earned, hours worked. The beats that mark academic careers are not so conveniently spaced. Research conducted today may not be published for years, students taught will not be mature for decades, and milestones that mark institutional change are nearly imperceptible. A professor's workday is filled with several jobs, and any one of them could easily consume two or even three times the amount of the day that is allotted to it. Even the summer—when research proposals are being prepared to fund incoming students, research reports are written, and professional meetings are stacked from June to August—is not the season of long days and leisurely travel that neighbors imagine when they ask, "Are you teaching this summer?"