

# **The Direction of Higher Education**

## **The Power Structure and Social Networks Governing the American Research University System**

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*"There was a time not so long ago when any inquiry into the relations of our universities to social forces was regarded as improper. It was assumed that institutions higher learning operate in a realm of disinterested scholarship far above the play of social forces. It was assumed further that members of the boards of trustees, when they sit in conference on education policy, dissociate themselves from their interest as private citizens and become guardians of universal truth. Today no thoughtful student of education would support his view. Yet we have had very few scholarly studies of that uniquely American institution, the lay board of trustees, which links the university to society and generally has the final word on matters of large policy. Such studies are particularly necessary in an age like the present when the balance of social forces is undergoing profound change. Clearly the time has come for directing the attention of both educators and citizens to the question of the reconstruction of this institution. The inherited pattern, with its limitation of membership almost wholly to a small segment of the population obviously requires modification..."*

- George S. Counts - 1947

## **Introduction**

The continuing transformation of the modern American university system, with its trends toward increasingly technical educations, its focus on science and technology as economic and social tools, the growth of corporate and military funding in science and technology research, commercialization of university resources like new knowledge, the conception of the student body as a market of consumers; all of this and more is reducible to the subordination of the university as an institution to the needs of the traditional spheres of power in modern society.

Universities have always been the concerns of the powerful. Early American colleges were institutions of cultural and ideological power that specialized less in economic and technological advancements of knowledge, and more toward the creation of upper class cohesiveness and convention. The rise of the university in the late 19th century, along with the rise of modern science and technology as the main propellants of industrial production have led universities toward closer integration with the material economic concerns of the power system. The production of ideology and the polished upper class individual have not been especially important products of the university for nearly a century, but new knowledge (applied physical and organizational knowledge) and the endless production of technologies and new frontiers of expansion for the global economic system have only gained in importance.

Knowledge, and the knowledgeable person, the technocrat, scientist, capable worker, or entrepreneur, the things which the university has evolved to produce in ample amounts, are central to economic expansion, and military dominance in the modern world system. This fact is not static. The conventional spheres of power in the world system, economic might, military strength, and the ideologies that support them are more and more dependent on new kinds of knowledge and the people who use that knowledge toward the goal of greater wealth and power. As dependence on the universities' products grow in qualitative ways, beyond the central importance that presently exists, we should only expect to see a further subordination, and, for lack of a better word, incorporation of the university system and its key products into the current power structure for more critical and far reaching goals.

Given the purposes of the university, one of which is to create new knowledge, it is important to understand what kinds of knowledge universities are creating, for what ends, and why. What kinds of people and ideas are the nation's universities producing?

To help understand exactly what kinds of knowledge and for what purposes knowledge is increasingly being produced we need to understand the dynamics of the university as part of the larger social system in America. This requires that we understand how decisions are made regarding the resources and organization of the American university system. How are decisions regarding everything from budget cuts to faculty and staff workforce composition, and other decisions affecting the whole institutional system made?

One way of understanding the decision making process is to look closely at who it is that controls the positions of decision making power in the university. To look at the directors of the university system in America is to look at the center of the corporate and military-industrial power structure.

Therefore, this study is an introduction to a social group; the university directorate who hold the positions of power, and make the important choices that will affect the future of the university and everything it produces. The power structure, at the top of which they reside, is dependent on the university system's current products and future form. To discern what the university is becoming, and toward what ends its resources are to be put we need to first look at the men and women, the CEOs, generals, corporate directors, capitalists, politicians, and technology evangelists that are currently in control.

And, as George Counts wrote in 1947, because an equally profound transformation of higher education in America is, has been, and will continue to be upon us, it is important that we study the composition of university boards to understand who it is that exercises control over these amazing and indispensable institutions, no matter what our common goals will be.

### **Directorships and Direction**

There are two meanings of the word 'direction' that need to be made clear from the start if we are to understand the directorate as a distinct social group within the power structure. Because this essay is concerned with power, specifically the power to determine the present and future of higher education in the United States, direction should be thought of as a position and an exertion of power by individuals and the groups they represent over large units of labor, resources, and capital.

Legally integrated units of labor and capital are corporations in the strictest sense of the word. The modern business corporation has become synonymous with the everyday use of the word corporation primarily because it embodies the corporate form of organizing in its purest sense, but also because business corporations far outnumber the other varieties of legally incorporated power. A university is also a corporation in this strict sense, and its directors are the trustees, regents, or overseers.

Directorship as a position is one of great power. The many uses to which the title "director" is put can explain the position's importance in more detail. For instance, the director of a symphony, who stands above the sea of instruments to direct the tempo and exchange amongst many performers is in position to exercise control over the totality of a musical performance. A film director dictates a film's production to the degree they see fit, controlling action, camera angles, light, sound, and the suspension of reality itself to produce the desired cinematic effects resulting in a movie. But neither is in control of every detail. In fact, the direction they provide is usually more concerned with the integration of all parts smoothly and purposefully. Nonetheless, it is still a concentrated form of decision making power that affects the totality of the people, resources, and end goal.

Direction is by definition the power of the many, and the resources of the whole, put toward the purposes that the small elite of the directorate see fit. The director controls the actions and resources of the many, and is him or herself beholden to the direction and power of few others. The inverse of the directorate is the reality of power which most persons are familiar with; the subordinate worker, student, citizen, and soldier. Persons occupying these positions in the power structure more often take directions, orders, and receive the effects of decision making power exercised from above. The life sphere of the director on the other hand is quite different. It involves decision making on a daily basis that will change the course of history, decisions that will alter the lives of thousands, and decisions that will lead to entire concrete futures out of the realm of possibilities that is the present.

Direction as an exercise of power is part of the larger picture of a complex society composed of competing interests, struggling with one another, sometimes forging coalitions, sometimes striking and protesting, always working, lobbying, buying, selling, and scheming to attain the few tightly held positions of power, be they the chief executive office of the United States, the title 'chairman of the board' of the Ford Motor Company, or the 26 seats that make up the Regents of the University of California. To attain the offices and positions granted with the vast powers of direction it is necessary to have resources, connections, and a degree of power from the start. For these reasons, those who already have power are always more likely to maintain and win in contests for the positions of direction. In fact, the struggles over most directorates of public and private power are usually contentions between competing groups of elites and the affluent coalitions they bring together.

### **Direction of Universities**

As it relates to institutions of higher education and scientific research, direction refers to the activities of the 'trustees' or 'regents', who are by definition members of the board of directors of the corporate entity known as the modern research university. Being a director of the university, the 'trustee', 'regent', or 'overseer' (the specific title given to members of university boards varies by institution) fulfills the same basic obligations as the director of any corporation, be it public or private, non-profit or for-profit.

Directors of American colleges and universities manage the institution's finances and treasury, make senior level executive and managerial appointments, decide and deal with the external relationships between the institution and governments, other universities, and the realm of business. University directors also decide upon most of the major internal policies which govern the school and its multitudes of subunits (campuses, centers, institutes, programs and laboratories). In short, the university director exercises control over the multitudes of resources and people who make up the modern university, organizing them, funding, and directing from above to achieve what is most often called in official documents the "University Master Plan" or "Long Range Plan".

University directors do not exercise anything remotely close to total control over the institution, especially concerning academic programs. Rather, the directors of higher education lead the institution from the macro level. But it is precisely these macro changes and decisions made by the directorate that when translated from immediate policy and pragmatism, into future realities, end up changing the most minute details of any institution.

Direction is always a process that incorporates and synthesizes the multiple visions of the directors into a coherent goal or future for the institution which they govern. It is a kind of idealizing into the future, and execution of the practical activities in the present to create that envisioned future. For example, the directors of a modern day transnational corporation might desire a world in which everyone consumes their product. In achieving this goal they will organize the body of the corporation, its employees, capital, and operations, into a design towards that end. The directors of a nation state, the president and ruling political coalition, might desire to maintain military preeminence over all other nations. To meet that goal the people and resources of the nation will be fashioned so that they can be mobilized to meet this decision from above. The same kind of practice of envisioning the desired future and directing it from positions of great power happens in all corporate entities including universities. Although this essay deals with the direction of higher education, the direction of all institutions and organizations at all levels should remain in question because the relations of power between the nation state, the corporation, the university, and the non-governmental organization remain inextricably interrelated.

The core questions of this study are concerned with the directors of the American research university: Who are they? What common attributes do they share as individuals? And what common biographical backgrounds do they have? To answer this question we need to look into the economic lives of these individuals, their interlocking positions of power, as well as their political activities, and in the process elucidate the wider social network that is the American power elite.

Implicitly it should follow that we ask; in what direction are universities evolving? What might be the end goal envisioned by the directors of our institutions of higher learning? This is not to simply repeat what they have said or written about the governance of the modern university, but rather to look at the directors as a cohesive group, what do they have in common?, and what might be in their interests regarding the future of higher education. Thus the two key questions: Who directs, and in what

direction?

This essay incorporates fresh empirical data with the existing literature on modern universities to help determine who the directors of our nation's institutions of higher learning are, and to raise the long term questions about the direction and future of higher education in the United States. Toward what ends are our nation's institutions of higher learning being put? Who is shaping the university of tomorrow? What kinds of knowledge are we producing? These are urgent questions, because, as is, under the present system of university governance, the future of higher education will be determined for the most part by the directors.

### **Who Directs, and In What direction?**

The directors of the modern research university system in the United States are on average; wealthy; also directors of large business corporations; often engaged in regional, state, and national politics through financial campaign contributions; usually serve on the boards of multiple non-profit public policy organizations, think tanks, and foreign policy groups; are board members of industry trade groups and industry lobbies and policy organizations; have backgrounds or current affiliations with federal and state government offices and commissions; make large philanthropic donations to charities, schools, and foundations; and are part of an elite social network that will hereafter be referred to as the university directorate.

The university directorate are part of a larger social network in the United States that has been identified as the power elite, or the upper class, but common to any name given to this social group, they remain a distinct portion of the American population that owns the majority of the nation's wealth, and exerts a vastly disproportionate share of power on virtually all aspects of everyday life. C. Wright Mills deemed this slender percentile of the population "the power elite," who can be;

*"Conceived [of] as members of the top social stratum, as a set of groups whose members know one another, see one another socially and at business, and so, in making decisions, take one another into account." Furthering this explanation, Mills states, "The elite, according to this conception, feel themselves to be, and are felt by others to be, the inner circle of 'the upper social classes'. They form a more or less compact social and psychological entity; they have become self-conscious members of a social class."(1).*

The core of Mills' thesis, which has only gained validity since it was first published is that power in the United States is not delegated in the democratic manner which is commonly professed. Decisions concerning national priorities, industrial planning, commerce, employment, healthcare, and specific to this study, higher education, are the results of negotiations between different constituencies and socio-economic classes, but by far, there exists a power elite with the wealth and organizational ability to shape the outcomes of issues more than any other segment or coalition of the larger population. In reality, decision making is the prerogative of the few, and it is through the finite positions of directorship that this power is wielded.

This concentrated power in business and politics would be of little value if the American elite existed as an atomized class with little common interest or conception of self. But there is an extraordinary degree of convention within the networks of the power elite on all manner of social issues. G. William Domhoff's studies on the power elite are some of the best works exploring the cohesive networks of the upper class in contemporary America. (2). Domhoff uses evidence of interlocking directorates, co-membership in civic and public policy organizations, common memberships in elite social clubs and institutions, as well as the elite schools from kindergarten to college that put the wealthiest of Americans in contact with one another at a young age. These contacts last a lifetime and constitute the foundations of the social psychology of the American power elite. The elite know one another through business, but also through recreation, education, and civic participation, they know one another as partners or peers, even rivals, and therefore constitute a social class set apart from the majority of America. Nevertheless, the most distinct aspects of the elite as a social class are not found in the institutions that form their social networks. What most clearly defines the elite as a social class is their ownership of the majority of the nation's wealth, and the immense decision making power they exercise on a daily basis as the directors of our corporations, universities, foundations, political parties, and the largest non-profits.

The ability of the power elite to literally make history by means of their hugely disproportionate strength in the political process is due in most part to the nature of the power system. Power, as Hanna Arendt defined it, is the aggregate of the people. (3) Power is what results from the coordinated action of the many when they mobilize and work with the material objects of economy, and society. The present power system is structured, however, by a decision making process whereby the directors, in competition and cooperation with one another, make decisions for the many. Decisions to mobilize large pools of labor, and resources are made not by the multitudes that act on these decisions, but rather by the few elites who reside in the positions of directorship.

Taking into account the levels of wealth inequality and the scale and impacts of decision making in global corporate capitalism, it is possible that in contemporary America, real power is concentrated in fewer hands than ever before. This ascendancy in the strength of the few over and in command of the power of the multitudes (directorship) is synonymous with corporate organization, capitalism, industrialism, and in its purest form, the military model of organization. The scope of power exercised by the directorate is far beyond any historical system, with the intentional and unintentional results of their decision making power affecting the most mundane aspects of every day life (work, education, ecology, climate, health) on a global scale.

As it relates to the university, power and organization are more difficult to muster, but no less in operation. The popular analogy of the university as a system of powerful feudal states warring with one another over resources certainly has a ring of truth, but much of the recent history of higher education is one of centralizing power and authority in the office of the President and the Board of Trustees as educational institutions become more important to institutions of economic, military, and ideological power.

Dependence on the university by business corporations and the military now necessitates clear and strong shared directorates between these respective organizations. Each is organized in concert with the others as much as possible. The power of university faculties in determining the structure and priorities of the institution is still a force, but the empowerment of the directors and administrators is clearly growing, as are the goals and priorities they associate with. This will in turn engender an empowerment of their allies within university faculties as the current workforces of these institutions transform.

However, to start at square one, to begin to make some sense of the changing university and its new purposes, the best starting point is to look at the individuals who now occupy the directorates of the expanded power structure that solidly includes the university system with the business world, and the agencies of military-industrial strength.

### **Past Studies on the Composition of University Boards and Trustees**

Probably the best single study to look at trustees of American universities as a cohesive group is Hubert Beck's 1947 book "The Men Who Control Our Universities." (4) Beck's survey, a predecessor this study in many ways, collected data on the directors of the nation's 30 most prestigious universities including descriptions like; occupation, income, business offices and directorships, age, sex, residence, and other miscellaneous data suggesting a common social and economic orientation among these trustees. The total number of trustees for which data was gathered was a staggering 734 individual. Beck's conclusion, nearly identical this study's, is that the boards of the American research university system are primarily composed of the wealthiest strata, usually directors of one or more major business corporations, very few of whom hold advanced degrees in the arts or sciences, and fewer who have made their careers in academia. Under Beck's analysis, the US university system has been under the solid direction of the power elite since at least the mid point of the 20th century.

Beck's data on the occupational distributions of the trustees he surveyed shows that the vast majority are businessmen, bankers, financiers, and manufacturers. Table A-1, adapted from Beck, shows the percent of trustees with occupations as directors and senior level managers in business corporations.

Occupation	% All Universities	% Private	% Public
Proprietors, Managers & Officials	47.4	51.5	39
Businessmen	41.5	47.4	29.4
Bankers & Financiers	15.4	18.4	9.1
Manufacturers	11.8	12.8	9.9
Professionals	49.2	47.5	52.7
Lawyers	23.6	17.1	36.9

Table A-1

Table A-2 adapted from Beck represents the interlocking directorates of his sample of 734 trustees from the 30 most prestigious US universities. According to Beck, approximately half of the four hundred largest corporations in America had at least one or more trustees on their board of directors or in their employ at the time of his study.

Type of Business	Number of Business Orgs	% of Business Orgs having 1 or more trustees on their board or as an executive officer	# of major offices or directorships held by 734 university trustees
All	400	49	386
Financial	200	46	187
Commercial Banks	102	55	110
Public Utilities	96	52	104
Rail Roads	52	54	56
Power Companies	39	49	36
Communications	5	60	12
Other			
Oil Companies	21	29	6
Steel Companies	10	60	9

Table A-2

The composition of university boards in 1947 is clearly dominated by members of corporate America. Beck also adds onto this structural evidence several sections on the gender, wealth, and age to give a more rounded picture of the university directorate. By his measurement, the trustees of the American university system of the middle of the 20th century were elder white wealthy men with extensive positions of power and ownership over the largest business corporations in the United States.

Other studies of the university directorate include Scott Nearing's collection of data from 143 large American colleges and universities published in 1917 as, "Who's Who Among College Trustees?" (5) Nearing's survey on the occupations of several thousand trustees led him to conclude that;

*"The college and university boards are almost completely dominated by merchants, manufacturers, capitalists, corporation officials, bankers, doctors, lawyers, educators, and ministers."* (Ibid)

Nearing put special emphasis on the first five - merchants, manufacturers, capitalist, corporate officials, and bankers - who accounted for nearly 4/5 of the university

trustees he focused on. And while his conclusion is very familiar to Beck's survey, as well as the data collected in this study, by 1947 the numbers of clergy present on university boards had dropped precipitously, whereas today the number of clergy present on the top fifty research university boards of directors can be counted on one hand.

This rise of Businessmen and fall of clergy in the compositions of university boards was charted over the seven decade period from 1860 to 1930 by Earl McGrath in a study published in the Educational Record. (6) According to McGrath's numbers, the percentage of trustees who were clergymen in 1860 was 39%. By 1930 this majority share had fallen to 7%. Concomitantly, the percentage of trustees who were businessmen which was 23% in 1860 rose to 32% in 1930. The most drastic rise of any occupational category onto the boards of trustees for the American college system were bankers, who only represented 5% of the board memberships in 1860, but came to occupy 20% by 1930. McGrath observed that in 1930 no trustee was classified as a laborer or mechanic, and only a few in any decade were engineers or housewives. In conclusion, McGrath states;

*"In so far as the institutions selected represent other similar institutions, the control of higher education in America, both public and private, has been placed in the hands of a small group of the population, namely financiers and businessmen."* (Ibid)

### **The Corporation and the University: Interlocking Directorates and the Decision Making Process**

Surveying the similarities of the directorate of the nation's fifty largest research universities one cannot help but notice the strong representation of corporate interest, personified in the director, who sits on both the corporate board and the university board. It is common for professors and students alike to point out "corporate control" over universities through the interlocking directorates of university trustees and major corporations.

Disdain for the businessman's control over university operations was articulated early and with much force by Thorsten Veblen in his essay, "The Higher Learning in America: A Memorandum on the Conduct of Universities by Businessmen." (7). It is equally common for this kind of commentary to be dismissed as irrational and wrong by trustees and administrators alike. No doubt Veblen's own perspective on the relations of business and the university was met with scorn by the proponents of the earlier version of the bureaucratic system he disdained. Not much in that respect has changed to this date. Few would argue, however, that the influence of business and the military-industrial enterprise are anything as muted and dilute in the modern research university than they were in the universities of Veblen's day.

Dereck Bok, the former president of Harvard dismisses the claim of corporate control over higher education saying that, *"it is one thing to note the effects of the economy on academic institutions and quite another to imagine a plot on the part of business leaders to bend universities to their corporate purposes."* (8). He admits that the influence of wealth and

business on the university is great, but that the university remains a thoroughly independent and plural body. Bok believes that the cause of what he calls "commercialization" in the university is due to a more dynamic process emanating from multiple actors, and has as its engine the changing US economy that is becoming knowledge based and service oriented. For Bok, the notion that increasingly vocational educations, corporate funding and access to university science, and the larger shift of the university's resources toward specific expansionary economic goals is part of a whole social transformation in America with no specific groups organizing it, and no specific groups to profit from it. Bok points out that while the trend is clearly an emergence of economic goals to put the university's resources toward, there remain many participants and protagonists in the university pushing for this commercialization. They include professors, students (soon to be employees), and society at large, in addition to the business leaders that control the university boards.

Those opposing Bok's characterization of the power structure of the modern university counter that if instead of asking what do some faculty gain from the commercial university, what do some students gain, what do some segments of society gain, if we ask what do all of the power elite stand to gain as a social class from the commodified university, we will again be pressed to ask what is the motor of change in higher education? In Bok's analysis, the presence of any faculty members and students whose power and freedom might be expanded in the "commercialized" university is evidence against the claim that the university directorate, are the propelling force of commodification in science and education.

Bok remains firm that the commercialization of education is a diffuse phenomenon. Furthermore, he explains the ascendancy of the business elite on the university boards as a matter public service rather than the emergence of and solidification of class interests and expanding power into new social territories previously of little interest and importance to the power elite. For Bok, the corporate executives, lawyers, and wealthy investors who now reside on the boards of Harvard, the University of Texas, etc., are doing so out of a benign commitment to public service, and because they are the most competent to manage the university's complex finances and operations.

However, what Bok leaves unstated is that the interlocking structures of power in America that include corporate directorships, government office, and the military establishment, also include the directorates of the nation's research university system. If as most economist and social theorist now believe, the United States' economy is becoming more knowledge based, control over the university will become of even more concern to the power elite. The traditional spheres of great power, corporate business, state politics, and the military establishment are increasingly reliant on the national university system. Therefore the university's importance is only growing within the power structure. As part of this still emerging importance, the power elite of the three traditional spheres have quickly become the very same directorate of the fourth sphere of power, the research university system. This effectively guarantees a structural control over the kinds of knowledge and the kinds of students the university will produce.

But this debate about the motivations and causes of economic ends taking primacy over university resources is premature. First we would do well to determine, as matter of

fact, who it is that occupies the positions of decision making power over the nation's university research system.

### The University Directorate in 2004

As part of an effort to gain a picture of the present directorate of the national research university system, this study contains a database of the directors of the 50 largest universities in the United States. (9) The data was collected over a period of five months beginning in the fall of 2003. Major sources of information included official university web sites, university magazines and newspapers (including alumni publications, student papers, and public affairs/press releases). Information on the interlocking directorates of each individual was gained through several online databases including Forbes', and Hoovers', but much of the information was also collected from current biographies posted on corporate websites as well as reference materials like "Standard and Poor's Register: Directors and Executives 2003". Another rich source of information was found in the Bizjournal and its local affiliates, in both online and print editions. Literally tens of thousands of websites and documents were searched for information related to the board positions and executive jobs currently held by the university directorate.

**Appendix A.** contains a list of the directors of the fifty largest research universities in the nation. The universities are organized in rough order starting with the largest expenditures in dollars on research in the year 2001. Every individual on each university's board of directors is listed by name (in whatever order they were listed by the university's web site), with any present or immediate past positions of directorship or senior executive level position in a business corporation, law firm, or other for profit entity listed on the second line below. Past affiliations with corporations and businesses are on the second line in parenthesis, and the third line contains random biographical data on memberships and positions in government and civil society. For instance:

#### **Director X**

Current Corporate Affiliations

(Past Corporate Affiliations)

Random biographical information and memberships in non-profit organizations

The lists contains 1807 individuals who make up the core of the nation's research university directorate. This list represents the elite of the directorate of the nation's research university system, therefore, it also represents the nation's corporate, political, and military-industrial elite through interlocking positions of power, and the formal social networks that connect the decision makers through numerous other institutions.

These 1807 individuals direct the resources of 50 university systems, totaling at the very least 20.7 billion of dollars in scientific research in 2001. The endowments of these university systems account for a combined total well over \$100 billion dollars. (10) Larger still are the investment funds of these universities that if combined would spill into the hundreds of billions of dollars range. The University of California alone invests

approximately \$54 billion dollars in hundreds of corporate stocks, mutual funds, capital funds, and indexes, all overseen by its directors. The University of Texas, which at the behest of its regents spun its investments into the first privately managed investment corporation for a public university (11), currently works with a liquidity of \$14.8 billion under management.

In terms of the labor pools over which these 1807 individuals preside are millions of staff, hundreds of thousands of faculty, and hundreds of thousands of graduate students. This aggregate of people is for all intent and purpose, the core of the nation's scientific and scholarly community. Therefore broad changes that affect their workplaces and positions, affect the national intellectual landscape, and the nation's gross scientific and technological products.

Finally, there are the millions of students for whom the decisions of the university directorate affect everything from tuition and university access, to the range of possibilities and pursuits in higher education. This body or constituency of the university system that dwarfs all other placeholders represents the workforce of the future and the core mission of the university system.

### **Corporate Power and University Direction**

**In terms of corporate power over the university, there is no clearer possible proof than the interlocking directorates that bind these 1807 individuals to both universities and business corporations.** Through interlocking positions of power, these 1807 university trustees, regents, and overseers, represent a minimum of 2887 different corporations, banks, law firms, and businesses. This amounts to 1.6 corporations for every university trustee. This massive representation of corporate officers and directors on the boards of the top 50 US research universities is a near model of the political economy that is the American power elite. Of the business entities represented, nearly every sector of the US economy is present, including banking and finance at the top, and industrial manufacturing, petroleum and energy, high technology, military-industrial and aerospace, mining, textiles, agriculture, food retail, media, transportation, communications, and real estate only to name a few.

Of the 2887 corporations represented there is clearly an elite of the elite. The best represented corporations are large US based multinationals, with multiple directors on the boards of multiple prestigious universities. Approximately half of the Fortune 500 (Fortune Magazine's ranking of the 500 largest US corporations) are represented on the boards of the top 50 research universities through their directors and executive officers. Of the 50 largest corporations in America, 41 have direct representation on the boards of the university directorate through their directors and executive officers.

**Appendix B** [excel file download] is a matrix illustrating the connections between the 2887 corporations represented, and the boards of the fifty largest research universities, through an interlocking directorate of one or more board members. Corporations are listed in order of their number of connections to universities, and then in alphabetical order. Column AZ shows the total of interlockers between individual corporations and all universities. Accordingly, there are 3543 different interlockers between all 2887

corporations and the 50 universities. Clearly, many corporations find representation through their directors on more than one university board. This is most often due to several different board members of a corporation holding seats on several different university boards, but there are also a few cases of especially powerful individuals with directorships in multiple corporations, and/or seats on the boards of multiple universities. For instance, individuals like Thomas Everhart, a trustee of Harvard and the California Institute of Technology who also serves on the boards of Agilent Technologies, Raytheon, General Motors Corp., Hewlett Packard, and Saint-Gobain Corporation among others, making him an exemplar conduit of power between and among both corporations and universities.

The top ranked corporations in terms of representation on one or more of the 50 university boards are JP Morgan Chase with 26, Goldman Sachs Group with 16, and the New York Stock Exchange with 11. AT&T, BCM Technologies, Bear Stearns Companies, Citigroup, Mercantile Bancshares Corporation, Motorola, and NASDAQ round out the top ten with 7 interlockers at one or more universities. The next eight corporations each hold 6 directorates in the university system, the next eleven holding 5 interlocking directorates, the next twenty-nine possessing 4 interlocking directorates, and finally, the next 62 corporations holding 3 interlocking positions of directorship. Table 1 simplifies this data below.

Number of Corporations (Rank(s))	Number of Interlocking Directorates with Universities
1 (1)	26
1 (2)	16
1 (3)	11
7 (4 - 10)	7
8 (11 - 18)	6
11 (19- 29)	5
30 (30 - 59)	4
63 (60 - 122)	3
262 (123 - 384)	2
2503 (385 - 2887)	1

Table 1

### The Upper Echelons

The individuals who tie together the nation's most powerful corporations and the American research university system constitute a higher circle than even the majority of the university directorate can be said to belong to. The decision making power vested in these individuals is enormous by any measure. The level of inner-connectivity of the social networks which they form is also enormous. It is hard to draw the line on the highest circle of the university directorate, but for the purposes of this study, the line

has been drawn at the 128 individuals from the original sample of 1807 who occupy positions on the 18 best represented corporations (ranked by total interlocking directorates with universities). These eighteen corporations from which the upper echelon has been sliced are those with 6 or more directors linking the business corporation to the university board. As of 2003/2004 they are:

1. JP Morgan Chase & Co.
2. Goldman Sachs
3. New York Stock Exchange
4. AT&T
5. BCM Technologies
6. Bear Stearns Companies Inc.
7. Citigroup
8. Mercantile Bancshares Corporation
9. Motorola
10. NASDAQ
11. Avery Dennison Corporation
12. Bank of America
13. Bank One Corporation
14. Baxter International
15. General Motors Corp.
16. IBM
17. Marathon Oil Corporation
18. Northern Trust Corporation

However, while drawing the line at the 18 corporations with six or more interlocking directorates to the university system, the 128 individuals who link these 18 corporations to the universities also occupy board positions at least 24 other corporations in the top 50 (these have fewer than 6 interlocking directorates with the university system). They are:

19. Agilent Technologies
20. Boeing Corp.
21. Boston Scientific Corporation
22. Exxon Mobil Corporation
23. Freddie Mac
24. Hewlett Packard
25. Ralston Purina Co.
26. Tribune Company
27. Verizon Communications
28. Morgan Stanley & Co.
29. Abbott Laboratories
30. Aon Inc.
31. BlackRock Inc.
32. Comcast Corporation
33. CSX Corporation
34. Delta Airlines
35. E.I. Du Pont de Nemours

36. Edison International
37. Estee Lauder Companies
38. Fannie Mae
39. H.J. Heinz Company
40. Hasbro Inc.
41. Henry Crown & Co.
42. Intel Corp.
43. Northern Trust Corporation

These best represented corporations are mostly fortune 500 firms with seven of the top ten representing the financial industry. The trustees who link these corporations to the university system are some of the wealthiest and most powerful individuals in the nation. **Appendix C** is a matrix delineating the connections between these 128 individuals through the corporations they control, the universities they govern, as well as a selected number of civic and governmental organizations they share memberships in. Among these civic and governmental organizations are groups like the US Chamber of Commerce, the Business Roundtable, various think tanks and policy organizations, industry lobbies, foundations and NGOs, business school visitor boards, and government commissions and positions. These organizations have been selected to show an even greater level of connectivity among the university directorate than is evident in their interlocking directorates that control the corporate and university spheres of power. These non-governmental organizations have also been chosen because they once again demonstrate the directorate's decision making power through the positions of direction that they occupy.

**Appendix D** contains a comprehensive list of the best represented corporations, along with the names of the directors who connect them to a specific university. The list contains every corporation with three or more interlocking directorates with the university system.

When run through UCINET (12) using the affiliations command and mapping the results with Netdraw the matrix in Appendix C gives a visual representation of the inner-connectivity of the highest circles of the university directorate. These 128 individuals not only sit on the same corporate boards and govern the same universities as trustees and regents, but they also hold memberships and positions in some of the most powerful non-profit organizations in the country. Together, they constitute a cohesive social network bound through relationships on the boards of large business corporations, and through the power they wield as the directors of the nation's research university system. Concomitant with their interest, they form, serve, and exercise power through the influential and well financed non-governmental organizations to which they belong.

Another distinguishing attribute of these individuals, one that can be generalized to the wider 1807 individuals of the national university directorate, is their influence in regional, state, and national politics through campaign contributions. As persons of significant wealth, power, and prestige, they are involved in politics as a very fact of life. Their corporations depend on the access and policy which campaign contributions buy, and the social system on which their wealth is built and power enhanced further

relies on a strong presence in all things political. **Appendix E** [Word Doc. download] contains a record of political contributions from the 128 individuals in the uppermost echelon of the university directorate. (13) Judging from the data, most of the university directorate makes contributions at all levels of politics, from local elections to the presidency of the United States. Indeed, many of the directorate are generous benefactors of state governors who in turn appoint them as regents if it is a board position on a state university they seek. In this respect the boards of the larger state schools are battlegrounds between the democratic and republican parties, between liberal and conservative ideology about what education should be, and how we should govern higher education.

## Conclusion

Higher Education in the United States is undergoing a quickening period in its organization and purposive evolution. The trends discussed in the introduction - commodification, corporate and military dominance in scientific research, privatization of the university, etc., are increasingly important aspects that define the purposes of universities and higher education.

The individuals in positions of directorship, the people who will make decisions regarding the restructuring of higher education in America, and to act and react to the changing nature of higher education, are, for the most part a homogenous body. They are on average wealthy, directors of large business corporations, involved in regional and national politics as campaign financiers, members and directors of powerful non-governmental organizations, and members of an elite social network that is composed of the traditional spheres of power; corporate business, the military, and national politics.

The current trends in higher education stand to benefit this elite group more than any other subgroup within American society. Therefore it should come as no surprise that they occupy the majority of the board positions in the university system. Commodification, privatization, and access and control over knowledge production can only empower business corporations and the state branches which fund scientific research for specific purposes like profit and military power. Making a consumer market of the student body by further privatizing university plants and services will first and foremost benefit those in positions to profit. Guiding higher education toward technocratic ends, de-funding state systems and unprofitable excesses like fine arts and classical studies, raising tuition to decrease state subsidization of education, all of this and more, while it may benefit some segments of the university community, and while it may promise specific advantages over different models of university organization, most assuredly stands to benefit the socio-economic class that not coincidentally happens to be firmly in control of the current and future direction of higher education.

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