This paper suggests that contemporary educational historians have failed to appreciate the extent to which the institutional response to industrialism was actively induced by the financial hegemony of the new corporate elite and simultaneously advanced by the emerging authority of the central state. Further, it argues that progressive era higher education reforms should be viewed as part of a broader corporate reconstruction movement that worked in partnership with central state managers to implement a corporate liberal agenda. The approach challenges state capacity theory by suggesting that a weak state organization was highly effective in facilitating reform precisely because it furthered institutional tendencies that were already being induced by private capital allocations in higher education. Contains 112 references.

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CORPORATE LIBERALISM, FINANCE HEGEMONY, AND CENTRAL STATE INTERVENTION IN THE RECONSTRUCTION OF AMERICAN HIGHER EDUCATION

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ABSTRACT

Corporate Liberalism, Finance Hegemony, and Central State Intervention in the Reconstruction of American Higher Education

The paper argues that progressive era higher education reforms should be viewed as part of a broader corporate reconstruction movement that worked in partnership with central state managers to implement a corporate liberal agenda. The approach challenges state capacity theory by suggesting that a weak state organization was highly effective in facilitating reform precisely because it furthered institutional tendencies that were already being induced by private capital allocations in higher education.
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The origins of the American university system are generally traced to a reform cycle that began in the late 1890s and culminated in the 1920s when most colleges and universities adopted institutional structures, faculty routines, and financial systems that approximated those of a modern corporation. As contemporary educational historians have rewritten the saga of higher education reform, the institutional changes which swept through colleges during this formative period have come to be viewed as a virtually inevitable functional response to the demands of political and economic modernization. The underlying historiographic theme of "modernization theory" is that as higher institutions expanded in size, internal diversity, and organizational complexity, university presidents responded with the only feasible administrative alternative that could restore effective control and economic efficiency to educational institutions. Indeed, Laurence Veysey's classic rendition of this scenario concludes that a corporate-type of bureaucratic administration became "essential" if higher institutions were to avoid educational confusion and fiscal insolvency, while adjusting to the cultural, economic, and political demands placed on them by industrial society.

The objective of this paper is to suggest, first, that contemporary educational historians have failed to appreciate the
extent to which the institutional response to industrialism was actively induced by the financial hegemony of the new corporate elite and simultaneously advanced by the emerging authority of the central state. In this regard, I argue that the transformation of American higher education should be viewed historiographically as part of a broader "corporate reconstruction movement" that worked in partnership with central state managers to implement a "corporate liberal" agenda.³ Second, such an approach challenges the recent literature on state theory which almost universally dismisses corporate liberal theory for "exaggerating the capacity and willingness of corporate leaders to reform society."⁴

In contrast, proponents of the "new statist perspective" maintain that capitalists inherently lack the political capacity to pursue classwide interests in national politics, or argue that most large corporations oppose the extension of governmental authority, even when state "rationalization strategies" are ostensibly pursued in the long-term interests of business.⁵ The result is state rationalization strategies must often surmount business opposition so that social engineering and economic planning can succeed only in policy sectors where the state is both strong and autonomous.⁶ In this respect, a central theme of the new statist literature is that social policy innovations and institutional reforms typically emerge from "within the state" as initiatives formulated by government experts and state managers seeking to maximize their autonomous institutional powers and their own career interests.⁷ The opportunities to initiate
innovation or reform normally occur during periods of declining "business confidence" or "economic crisis" when public support for such initiatives is likely to be at its highest. Moreover, state-initiated reforms are likely to be technically more effective than proposals from "outside the state," since government experts and career state managers can better design policies linked to the administrative capacities of the implementing agency.

In the case of American higher education, rising costs and the slowness of most institutions to modernize curricula did result in declining business confidence. This decline was evident in a great deal of carping about "inefficiency" by businessmen and demands for a more "practical" curriculum. However, the generalized decline in business confidence resulted in nothing but unconstructive potshots and anti-intellectual broadsides until a network of policy planning organizations emerged as centers of business leadership. Equally important, in this case, declining business confidence did not lead to private "disinvestment" in higher education, but instead motivated a conscious policy of utilizing direct selective investment to induce institutional reorganizations. In this manner, the planning network's allocation of "educational capital" acted as a form of centralized planning that was capable of providing broad coordination to otherwise decentralized processes of administrative decision-making. It should be emphasized that despite their nominally "private" character, the planning network's capital allocations de facto established an industrial
and social policy in higher education. Moreover, rather than opposing a governmental role, declining business confidence in American higher education prompted aggressive lobbying for the regulation of educational development and for greater central state intervention. The response by state managers was to forge an asymmetrical state-capital partnership in which capital was acknowledged to be leading the way in higher education reform.

**Financial Hegemony and The Policy Planning Network**

Until after the Second World War, most colleges and universities in the United States were private non-profit corporations. A combination of individual benefactions and endowment income were the main source of revenue for all but a very few public institutions. Endowments were at best built up sporadically through occasional philanthropic bequests, while annual contributions were painfully extracted from individual alumni and sponsoring church congregations. In effect, these sources of revenue constituted the "capital market" for higher education.

However, beginning in the early twentieth century, the main source of private benefactions began to shift from individuals and church congregations to an emerging network of private charitable foundations. The two most important educational foundations were the the General Education Board (GEB), founded in 1903 by John D. Rockefeller, and the Carnegie Foundation for the Advancement of Teaching (CFAT), founded in 1906 by Andrew Carnegie. The General Education Board was originally endowed to
study and promote education in the southern states though, in 1905, Rockefeller extended the original authorization to include "promoting the endowment of institutions of higher learning throughout the United States." The Carnegie Foundation was nominally endowed as the first pension fund for professors teaching in private non-denominational colleges and universities, although its charter also authorized the board of trustees to undertake initiatives perceived as "incidental but necessary" to the administration of the pension fund.

There is a strong tendency among educational historians to view the foundations simply as private charities which, as Roger Geiger has recently argued, had "little discernible impact" on the development of American higher education. Yet, viewed in the context of the corporate reconstruction movement, the two foundations are classic examples of corporate liberal reform organizations. The corporate reconstruction movement actually proceeded in several spheres of American society at once, although the multiplicity of activities conceptualized as "corporate liberalism" shared a common agenda, organizational strategy, and political tactics.

The overarching corporate liberal agenda was to extend and deepen "the corporate principle" of organization to social, cultural, and political activities in such a way as to construct a socially efficient "capitalist system." Techniques of scientific management once pioneered in large industrial corporations were applied to an ever wider array of American institutions. Yet, G. William Domhoff has shown that corporate
reformers were acutely aware that progress in securing their aims was not likely to be uniform in every area, nor would success likely proceed at the same pace in different geographic locales. Consequently, they adopted an organizational strategy which relied on networks of single-issue organizations all linked to a common "clearinghouse." The responsibility of the clearinghouse in each policy network was to conduct "scientific" studies of various institutions, use the results to build public support for reform recommendations, and to lobby for the adoption and implementation of reform proposals, especially through state executive agencies, departments, and bureaus. 18

On this point, adherents of the statist perspective have challenged corporate liberal theory with the claim that these reform organizations consisted mainly of middle-class liberals and academic policy experts. Hence, one of the central historiographic disputes in the on-going corporate liberal/statist debate has centered on the analytic distinction between the role of businessmen and policy experts in liberal reform. 19 Yet, a positional analysis of the educational foundations suggests a situation which is empirically far more complex that this dichotomy suggests, but more importantly calls into question the very basis of the distinction.

The members of the new educational foundations consistently emerge as individuals who were businessman/educator/technical expert, or some other permutation of the same three characteristics. The collective result is a series of organizational actors better described by Gramsci's concept of an
organic intelligentsia who, as a power elite, acted as the "leadership group or operating arm of the ruling class." In this respect, Henry Pritchett, the president of the Carnegie Foundation from its founding until 1930, illustrates the archetype of a corporate intellectual; a professional engineer, a director for the Atchison, Topeka, and Santa Fe Railroad, and the former president of M.I.T.

From 1906 to 1929, 80% of the Carnegie Foundation's executive committee served as directors or executive officers in a major financial or industrial corporation. However, one-half of the same executive committee members also held a post-graduate degree, (usually in engineering, education, or law), and fully three-quarters had some experience as college or university administrators. The credentials of the CFAT executive committee lend exemplary support to Domhoff's caveat that "it is an empirical mistake to downgrade the amount of expertise located within the upper class." Similarly, from 1903 to 1929, 49% of the GEB members were primarily corporate officers and directors, 12% were lawyers (most of whom also served as corporate directors or officers), while 33% were "educators" that by design frequently sat as executive officers in other educational foundations. In fact, a system of interlocking directorates was instituted by formal agreement between the General Education Board, the Southern Education Board, the Peabody Education Fund, and the Slater Fund. The objective was to secure "harmony of purpose and unity" in their separate operations. In a similar
arrangement, GEB agreed to share and exchange information with the Carnegie Foundation in order to avoid duplication.\textsuperscript{23}

The resulting entity was a coordinated policy planning network, anchored to America's largest industrial corporations and financial institutions. This network, as David N. Smith has observed, played a decisive role in organizing and promoting the corporate liberal agenda by serving as intermediate organizations through which the needs of big capital were "systematically built into the structure of higher education during the early years of the century."\textsuperscript{24} In this specific instance, CFAT and GEB served as the central clearinghouses on higher education reform, each exercising financial hegemony in its own particular way.

The Corporate Ideal in American Higher Education

Henry Pritchett, the president of the Carnegie Foundation, understood from the outset that the "incidental but necessary" clause in the foundation's charter would authorize them to scrutinize higher institutions applying for membership in Carnegie pension system. CFAT members concluded early in their deliberations that higher institutions were "inefficient" and the higher education generally was in a state of "confusion."\textsuperscript{25} The resulting conviction was that higher institutions needed to undergo the same kind of rationalization and consolidation process that had generated the modern corporation a decade earlier.\textsuperscript{26}

Hence, in early 1909, the foundation's executive committee asked Frederick Taylor to conduct "an economic study of
education" that would contribute to the "efficient standardization" of American higher institutions. Taylor recommended Morris L. Cooke, a young mechanical engineer, who was a well-known protege and personal friend of Taylor's. The following year, Cooke completed the study, entitled Academic and Industrial Efficiency. Pritchett described the engineering survey as a response to "the criticisms of American colleges and universities made during the past few years by businessmen." The report's central aim was to develop the conceptual tools for making "an estimate of the cost and the output both in teaching and research." Cooke assumed that the principles of scientific management were "more or less applicable in the college field," but he found that a major obstacle to applying these principles lay in how educational corporations most differed from business corporations. In business, profits and the rate of return on capital always provided a bottom line for measuring industrial efficiency. However, there was no comparable measure of academic efficiency because colleges and universities were not directly organized to yield a profit. Thus, Cooke suggested that the next best measure of academic efficiency would be a standardized statistical concept which he called the "student-hour." Cooke's report suggested that if colleges and universities were to adopt the unit as a national standard, it would be possible to calculate comparative faculty workloads, the cost of instruction per student-hour, and ultimately the comparative rate of academic efficiency for individual professors, courses,
fields, departments, and universities. Thus, a social average of academic efficiency could be calculated once enough comparative data was collected throughout the country. Furthermore, Cooke noted that by measuring academic efficiency, administrators would eventually be able to tailor individual salaries to teaching efficiency and research productivity. This would allow the most efficient or productive professors to migrate towards higher salaries and, hence, institute pressures toward the development of a competitive national labor market in academia. In addition, Cooke recommended using salary inducements to encourage specialization in teaching and research as a way to further enhance academic productivity and to create an academic production process organized around interchangeable standardized parts (i.e., faculty). This restructuring of the academic production process would then facilitate market flexibility by making it easier to introduce technical innovations (e.g., new fields) and to replace depreciated human capital. Moreover, when coupled to the new elective system, faculty specialization would enable universities to rapidly adjust their product lines (i.e., students and research) to meet changing market demands through the addition, upgrading, or elimination of specific faculty lines.

However, the problem of academic efficiency could not be resolved solely through an increase in the productivity of variable capital (i.e., labor costs) but also required more productive utilization of fixed capital (i.e., plant and equipment). Cooke conducted plant utilization surveys at
Williams College and Columbia University and concluded that plant utilization was far below its optimum capacity (i.e., classrooms were often sitting empty). More importantly, if extrapolated to a national scale such findings indicated an excess of academic plant capacity in the country. Thus, Cooke recommended centralized administration of all physical plant mainly so that capital expenses and maintenance costs could be supervised by a central accounting office and charged off to individual departments based on time-utilization. The costs of fixed capital could then be integrated into measurements of efficiency for individual courses, professors, fields, and departments.

Cooke acknowledged that with the adoption of these administrative standards "it will undoubtedly follow that certain institutions will drop certain lines of work which are done at too high a relative expense." Likewise, inefficient institutions would have to be merged for economies of scale or simply driven out of business.

Cooke's report contributed to these changes by compiling extensive tables, charts, accounting forms, illustrations, and explanations designed to assist administrators in implementing the new policies. What would soon become the new "Carnegie movement" received a further impetus when CFAT, acting on Cooke's report, issued its Standard Forms for Financial Reports of Colleges, Universities, and Technical Schools. Institutions that applied for membership in the CFAT pension system were required to use the standardized forms and, by implication, to adopt the organizational procedures and accounting routines that made it
possible to collect the necessary data. Pritchett emphasized the importance of adopting the new CFAT guidelines by warning that: "No college which refuses to do this deserves to be entrusted with money."\(^{35}\)

The General Education Board complemented CFAT's initiative by maintaining a staff of field representatives that were sent to any campus requesting assistance with administrative reorganization and managerial development. However, by 1913, the requests for on-site assistance were so numerous that the GEB found it impossible to assist them all one by one. Thus, in 1915, GEB arranged for Trevor Arnett, chief auditor of the Chicago Great Western Railway, to publish a nuts and bolts handbook for college financial officers entitled, *College and University Finance*. By 1924, the foundation had distributed roughly eight copies for every college and university in the country. Yet, the demand for on-site assistance continued to be so great that in 1922 GEB agreed to aid another one-hundred colleges with administrative reorganization.\(^{36}\)

However, the rationalization of university administration was only one component in a more comprehensive plan for creating an American university system. CFAT trustees often lamented the fact that "education was not touched by the Constitution" and thus had "no guidance from the central government looking toward unifying and coordinating the separate State systems." Likewise, they were concerned that "private initiative in the field of education has been both unguided and unrestrained by supervision on the part of State governments."\(^{37}\) Indeed, by the turn of the
century, every level of government, as well as competing religious, private, and political interests were all involved in the field of higher education. The CFAT board of trustees concluded that "underlying all other causes which tend to confusion in higher education is the fundamental one that American colleges have in the past been conducted as separate units, not as factors in a general educational system." John D. Rockefeller shared this sentiment and charged GEB with an explicit mandate "to promote a comprehensive system of higher education in the United States." Frederick T. Gates, GEB's president explained that the Rockefeller endowment was "not merely to encourage higher education in the United States, but is mainly to contribute, as far as may be, toward reducing our higher education to something like an orderly and comprehensive system, to discourage unnecessary duplication and waste, and to encourage economy and efficiency."

The Strategy of Perpendicular Development

As policy planning organizations, CFAT and GEB were unique in their capacity to offer direct financial inducements to colleges and universities that complied with their demands for standardization. Access to the CFAT pension fund was a rarity at the time and its availability translated into a powerful material incentive that could be used by the administrators of select institutions to attract prominent faculty from around the country. Thus, it helped promote the development of a national
labor market, while providing a competitive advantage to institutional members of the Carnegie pension system.

GEB engaged in similar activities which reinforced the actions of the Carnegie Foundation. GEB members agreed with the CFAT trustees that "political, local, denominational, and purely personal factors have too often proved determinative" in the founding of higher institutions. The board concluded, as Cooke had done, that too many "superfluous institutions" were draining resources away from "the nutrition of those really needed." In addition, GEB decided that the rural geographical location of many colleges, as well as regional population migration, had left many institutions disadvantageously situated to compete in a national education market; yet, they continued to drain scarce educational capital out of the system.40

CFAT trustees and GEB members were convinced that if excess market capacity was a problem, then inefficient competitors would have to be driven out of the market, while a process of "unnatural" selection could be utilized to further promote administrative rationalization. The key to the foundations' strategy involved the use of capital allocations (i.e., pensions, plant construction, and endowment building) to influence which universities survived and which ones did not; that is to selectively monopolize access to educational capital. The foundations managed to achieve their main objective by elevating selected institutions into a higher educational oligopoly, much as finance capitalists were doing with railroads, oil, steel, utilities, and other industries at the same time. From their
strategic positions in the capital allocation market they could set developmental trends and minimum standards for the entire nation.

Abraham Flexner, a GEB staff member, observes that the board consciously pursued a plan which members called "the strategy of emulation and perpendicular development." The strategy hinged on using financial inducements to show selected constituencies of local businessmen, alumni, university and government officials what could be achieved by participating in the board's standardization movement. The GEB would build an institution's endowment, erect classrooms, purchase laboratory equipment, build medical schools, and reorganize administrative structures. This "perpendicular development" of strategic institutions raised their visibility, enhanced the reputation of the foundation, and created "lighthouse" campuses. GEB officials would then publicize the results so as stimulate "the emulation" of persons laboring under similar difficulties or aspiring towards similar goals. Thus, strategically deployed, the foundation's enormous resources set in motion a spirit of emulation between states, denominations, and individual institutions. Moreover, once set in motion, emulation stimulated additional philanthropy by local businesses, alumni, and legislatures who then saw the economic and political benefits of a strong college or university that was administered efficiently. Consequently, Clyde Furst, the CFAT secretary during most of this period, pointed out that both foundations could be "of great service to universities and colleges...by causing funds to flow in their direction."
The implementation of a perpendicular development strategy is evident in the actual distribution of foundation expenditures. Between 1902 and 1934, the nine largest foundations (mostly those in the Carnegie-GEB group) appropriated $339 million in grants to higher educational institutions. Seventy-three percent of this amount went to twenty institutions.\textsuperscript{43} The five largest foundations directed eighty-six percent of their disbursements to only thirty-six institutions from 1923 to 1929 among a total of almost 1000 higher institutions in the United States.\textsuperscript{44} As a result, Ernest Hollis's 1938 study of educational philanthropy found "little doubt that foundations have been highly successful in applying their policies of concentration."\textsuperscript{45} More to the point, the importance of concentrated capital allocations in shaping American higher education led Frederick Rudolph to conclude that "philanthropic foundations became an apparent or hidden presence on every American campus."\textsuperscript{46}

The key to the strategy of perpendicular development is that the resulting stratification of institutional prestige exerted further structural pressures toward systematization and a functional division of labor. The costs of funding competitive research, journals, professional associations, hospitals, laboratories, and libraries became so expensive that the vast majority of institutions could simply not compete in scholarship or graduate education with the research universities being created through the foundations' largesse. As this gap widened, foundation officials were well aware that competitive market forces and the search for institutional survival would lead other
colleges to either drop out of the competition, to consolidate, or to find their own local specialized market niche within the emerging system. Furthermore, as this system developed, there is ample empirical evidence to document that higher institutions became more "efficient"; that is, teaching productivity steadily increased as real faculty salaries declined.

**Private Investment or Social Policy?**

Governing boards and university presidents generally welcomed the rationalization movement as a solution to the burgeoning fiscal crisis that finally consumed American higher education during the 1920s. While the American Association of University Professors and the National Education Association sounded nominal alarms, most faculty were willing to accept corporate reforms in exchange for pensions, bigger offices, and new laboratories. Similarly, church associations found that secular financial inducements carried more weight with their lay trustees and faculty than a sense of religious mission. Thus, the foundations encountered no serious obstacles to the direct implementation of their educational policies so long as they dealt exclusively with private institutions.

However, the foundations recognized that public institutions would soon be the centers of university education in most of the country, particularly in midwestern, western, and southern States. Consequently, as their activities moved south and west, foundations adopted the same strategy of building on strength and "set before themselves the ideal of a strong
Institution crowning the state system of education. In most states, the execution of this corporate ideal meant targeting the urban state universities for financial assistance and administrative reform. On the other hand, CFAT trustees concluded that most of the independent land-grant colleges were "not of academic grade" and, therefore, were inclined to see them function as agricultural trade schools despite their legislative authorization to provide a liberal education for the agricultural and industrial classes.

Hence, the effort to extend rationalization and systematization strategies to public institutions often ignited a "class struggle" in these states over the control and curriculum of higher education. Nevertheless, the historiography of that class struggle conformed to a distinctively Beardian model in which declining agricultural classes were pitted against Northeastern and urban business reformers. Organized labor was simply a non-actor through the entire process, since the American Federation of Labor saw nothing at stake for its members in higher education and was far more preoccupied with the development of universal public high schools and vocational education.

Thus, as pale gestures to a waning Populist revolt, the Governor of Texas and the Nebraska legislature both rejected affiliation with the Carnegie pension system. Yet, despite such gestures from the rural periphery, by the end of 1909 thirty-two legislatures had already authorized their state universities to apply for membership in the Carnegie system.
Most legislators and governors saw membership in the Carnegie system as a way for state universities to keep their best professors at no cost to the state treasury. However, as Ernest Victor Hollis notes in his study: "state officials were soon to learn that their acts were not merely perfunctory legal gestures."\textsuperscript{59}

The Carnegie Foundation strictly enforced a policy that required state institutions to undergo scientific surveys in order to determine if the higher institutions in a particular state "were really co-operating parts of a consistent system of state education or whether they were competing parts."\textsuperscript{60} The surveys applied Cooke's calculus of academic efficiency to individual institutions, while extending the principle of systemization to entire states. As with private institutions, state universities were denied admission to the system until such time as they made satisfactory progress in implementing survey recommendations.

Yet, in an early skirmish, Henry Pritchett literally ordered the Governor of Ohio to downgrade one university to a normal school and to convert Ohio State to an agricultural school. The impending reorganization sparked a rebellion among Ohio farmers in defense the land-grant university. The same struggle was soon replicated after similar surveys in Vermont, Maryland, Illinois, and California.\textsuperscript{61} The political fallout, according to Abraham Flexner, is that foundation officials began worrying that they might "through some misstep become mixed up in state or local
politics" in such a way as to permanently impair their influence.62

This pattern of events would appear to support Karen Orren's hypothesis that when finance capital implements social policy directly through private capital allocations, the policies will encounter resistance because underlying populations view the activities as illegitimate usurpations of public or state authority.63 The direct implementation of social policy encounters the limits of legitimacy when it intrudes on policy areas and institutions that are normally considered "public" and, hence, suggests that corporate liberals must often turn to the state when the public resists its social policies as illegitimate and undemocratic. At the same time, this scenario explains why policy planning organizations typically prefer to work behind the scenes through state executive institutions and survey commissions. On the one hand, corporate liberals must operate behind state institutions in order to legitimate their policies, yet their main objective is to facilitate the implementation of policies that are already being pursued through private capital allocations.

The Development of Underdevelopment

The U.S. Bureau of Education (USBE) was the only federal agency directly involved in education at the turn of the century. The USBE had been established in 1867 and charged with three tasks: 1. to administer the disbursement of federal lands to the newly established land-grant colleges, 2. to create and
administer a common school system for Alaskan natives, and 3. to collect and distribute statistics on education. In terms of the strong state/weak state concept which underlays most statist theory, the USBE was an exceptionally weak state organization. First, the USBE's organizational orientation was weak because, as a reserved power of the States, the constitution simply did not authorize the federal government to intervene directly in educational policy. The USBE also had a weak procedural routine to the extent that it was a minor statistical bureau buried in the Department of the Interior where its original role was to disburse public lands to the land-grant colleges. Finally, as Stephen Skowronek notes, the state is not only an arrangement of organizations and procedures; it is also an intellectual enterprise which draws upon the irreducible skills of state officials to formulate, administer, and enforce policy goals. Yet, the USBE was also chronically understaffed and lacked internal policy expertise on higher education.

There was little that could be done to strengthen the USBE's organizational orientation short of a constitutional amendment. Moreover, during the progressive era, even less ambitious attempts to create a cabinet-level department of education were continually rebuffed in Congress by southern and midwestern defenders of states' rights. Nevertheless, under the leadership of Henry Barnard, the first commissioner of education (1867-1870), the USBE had managed to establish a coherent procedural routine aimed at maximizing the bureau's weak capacities. Barnard recognized that the bureau's role in disbursing federal
land-grants and in creating an Alaskan school system were temporary mandates by nature. Thus, looking to the future, Barnard commissioned an outside report to define the bureau’s role in the federal structure and to recommend a strategy for the bureau’s institutional development. Robert Gallaudet completed the report in 1870 and recommended that the bureau become the "national clearinghouse for opinion" on educational questions. Gallaudet advised the bureau to use its statutory mandate for gathering statistics to become the leading authority on national education trends, educational problems, and education policies. Thus, the bureau’s ambition was to strengthen its procedural routine in data collection and to upgrade its technical capacities for the expert application of education data.

The Bureau was partially succeeding at this enterprise by the early twentieth century as educators, policy-makers, and reform groups increasingly turned to the bureau for statistical trend data and policy advice. However, despite the exponential rate of increase in requests for information and policy guidance, in 1910, the USBE’s had only about $7,000 available to maintain its reference library, bibliographic service, documents distribution, and data collection. Moreover, the bureau’s entire "expert" professional staff at this time consisted of the commissioner, two general statisticians, one specialist in foreign education systems, a specialist in local school systems, and a translator. Thus, by the turn of the century, the bureau was at the limits of its general organizational capacity and had
virtually no procedural or technical capacity in higher education.

Consequently, during his tenure as commissioner of education, E. E. Brown (1906-1911) concentrated on building and mobilizing a national education lobby to push Congress for additional staff and budget. Brown generalized Gallaudet's concept of the bureau as a national clearinghouse into a philosophy of conducting "government by influence." Brown observed in a bureau memorandum that the strategy of conducting government by influence could succeed only through "the most effective collection and diffusion of the most useful knowledge." Thus, Brown sought to enhance the bureau's technical capacities and extend its territorial penetration by asking Congress for "a fully organized staff of high grade specialists, who...shall visit all parts of the country...and advise personally with educational authorities who seek and need their advice." His long-term procedural objective was to create "an active center of educational influence and information for the whole country." Yet, Brown only succeeded in winning a slight budget increase earmarked for publication activities and for hiring three additional staff specialists; a general statistician, a specialist in land-grant college statistics, and a specialist in higher education. For the most part, a House Appropriations Committee dominated by members from midwestern farm states and the south, continually rebuffed Brown's efforts to assume "governmental functions belonging to the States."
In certain respects, the procedural routine established by the bureau, and the characteristics of its expert staff are consonant with the expectations of state autonomy and state capacity theorists. First, commissioners of education from Henry Barnard onward all identified the bureau's institutional interest with a procedural routine designed to strengthen its influence on educational policy through statistical data and to enhance its territorial penetration by deploying technical experts. Second, commissioners of education and the bureau's technical "specialists" had all been professors immediately prior to assuming their governmental posts and all had been active in progressive educational reform movements, particularly in the south. Finally, all of them explicitly identified their future career interests with a university presidency and saw service in the bureau as a stepping stone to this goal (and each of them achieved that objective).

However, in the particular instance of higher education reform, it is unlikely that a genuinely "statist" response was even possible given the absence of constitutional authority not to mention the Congress' reluctance to enhance the bureau's capacities in a significant way. Second, while the bureau's top personnel were technically middle class academics, they were not really "autonomous" either in terms of their organizational affiliations or their ideological inclinations. Top state managers came to their posts with extensive organizational linkages and an ideological commitment to the objectives of the policy planning network. On this point, Domhoff has
persistently emphasized that assessing the autonomy of state personnel consists of more than identifying their social origins; it requires an extensive analysis of their participation in a network of social and organizational relations. In addition, the USBE simply lacked the technical expertise to formulate an autonomous higher education reform policy. The bureau's first three technical "specialists" in higher education included a professor of American history (1910-1913), a professor of German language (1914-1919), and a professor of European history (1920-1925); none of whom had any prior administrative experience or any facility with statistics and accounting. Finally, given the fact that most university trustees were businessmen, it is unlikely that state managers's personal career interests would have been served by building a national reputation for challenging the corporate reconstruction movement in higher education. On the other hand, the corporate liberal reform strategy offered state personnel an opportunity to strengthen the bureau's institutional role and to advance individual career interests by working in partnership with business reformers.

Moreover, from the standpoint of corporate liberals, the bureau was an ideal administrative instrument for executing foundation strategies in the public sector. The bureau's weak structural capacities meant that it could probably never formulate or implement a genuinely autonomous higher education policy. The USBE was potentially strong enough to exert national leadership in educational policy, yet, constitutional and statutory limitations would always prevent the bureau from
assuming direct control of education. This was an appealing characteristic to business reformers who saw federal leadership as necessary to higher education reform, but who were still suspicious of the potential for autonomous government control of educational policy. In this sense, the USBE was strong enough to facilitate private initiatives in education, but too weak to countervail against those initiatives or to launch independent "statist" alternatives. The result was a partnership in which USBE officials maximized their institutional effectiveness by operating at the margins of the implementation process to advance tendencies that were already being set in motion through the capital allocations of private educational foundations.

In fact, the foundations were never interested in doing surveys on a state by state basis precisely because their direct participation involved them in local politics. Furthermore, foundation officials did not regard higher education as a local institution but considered it a national agency that required "guidance from the central government looking toward unifying and coordinating the separate State systems." Therefore, CFAT's political strategy was to employ opportunities like Ohio and Vermont to initiate pressures for a national survey movement. Henry Pritchett often lobbied the USBE to take over the "function of scrutinizing and reporting upon educational methods and educational problems in the various states." Likewise, GEB conducted a half dozen surveys in southern states, and then withdrew from the process, "on the theory that the proper authorities, local, state, or national would take over and
develop any line of effort, the importance of which had been demonstrated on the basis of the Board's support."78

**The Consultant Network**

A key mechanism in the development of a state-capital partnership was the network of private consultants designed to compensate for the bureau's lack of internal technical expertise. These expert consultants undertook the task of writing an ever increasing number of bulletins and circulars which utilized the bureau's extensive data base to diagnose educational crises and to make policy recommendations. The USBE's Division of Statistics acknowledged a inquiry by noting that there was a "large measure of cooperation" between themselves, the Carnegie Foundation, and the General Education Board.79 Frequently, the USBE relied entirely on the foundations for conducting specialized studies which the bureau then publicized in lieu of its own works.80 As a result, Clyde Furst of the Carnegie Foundation could rightly boast that "the foundations have frequently been able to suggest and to supplement governmental procedure."81

Furthermore, Claxton aggressively expanded the USBE's territorial penetration through a new policy of on-the-spot persuasion modeled after the foundations' use of field agents. First, Claxton began to implement E. E. Brown's philosophy of government by influence by detailing himself, the specialist in higher education, and the specialist in land-grant college statistics on regular field visits throughout the country. In
1911, for example, the total number of man-days spent visiting educational institutions and attending educational conferences quadrupled over the previous year. The number of states in which they visited institutions tripled. However, Claxton also failed to secure Congressional appropriations for a proposed squadron of field agents rendered the bureau even more dependent on the private foundations.

The foundations were so dismayed by Congressional intransigence that in 1911 GEB and the Phelps-Stokes Fund offered to supply appropriations to the bureau out of their own treasuries "to supplement the salaries of one or more positions provided by law." When Claxton sought authorization to institutionalize the arrangement he was told "to drop the idea you have in mind" and was warned by the Assistant Attorney General that "the source of the contribution of such money might be a very material matter." Claxton parlayed this blow to his plans by proposing an even wider and more systematic use of outside consultants. An arrangement was worked out with GEB and the Phelps-Stokes Fund in which the foundations would hire agreed upon specialists and field agents at full salary as foundation employees. The bureau would then pay these persons the nominal sum of one dollar per year for acting as "special collaborators." The legal difference in this new arrangement was that instead of being government employees whose salaries were being supplemented by outside private agencies, they were now employees of a private agency performing occasional service as government consultants. The Attorney General's office could offer "no legal objection" to
the new arrangement. In addition, a second opinion informed the commissioner that the bureau (as opposed to individual employees) could accept money from outside agencies for specific work done by bureau staff, if such work was undertaken by the USBE within its statutory mandate.85

The Survey Movement

USBE officials never articulated, nor even attempted to devise, a higher education policy that was autonomous of the policy planning network. Instead, State governments, colleges, and universities were always urged to participate in the Carnegie survey movement. Claxton, for instance, praised the "growing tendency among progressive colleges and universities to survey themselves" after trustees ordered scientific management surveys at the Drexel Institute of Technology (1914), Miami University (1914), CCNY (1914), and Smith College (1915) which all employed Cooke's student clock hour as a measure of academic efficiency.86 Nevertheless, Henry Pritchett continued pushing the bureau to play a more active role by adopting the Carnegie survey as its own instrument of national policy. Pritchett admonished the Secretary of the Interior that: "It is, of course, impossible for the Government of the United States actually to control or regulate the systems of education set up in the various states, but there is no reason why the United States Commissioner of Education, through his office, should not scrutinize and report upon these various state systems and state institutions with entire frankness and truthfulness."87
The turning point in the bureau's willingness to assume leadership of the nascent Carnegie movement was Claxton's appointment of Samuel P. Capen as the new higher education specialist in 1914. Capen had been a Clark University professor of German and a leading advocate of school efficiency in the Worcester, Massachusetts reform movement. A new phase of survey activism began two months after Capen arrived at his new post in Washington, D.C., when the North Carolina legislature asked the bureau to conduct a survey of the state's higher institutions.

The bureau's lack of autonomy was revealed immediately when Commissioner Claxton ordered Capen to conduct the proposed survey in cooperation with Clyde Furst, the secretary of the Carnegie Foundation, and Kendric C. Babcock, Capen's predecessor (now a dean at the University of Illinois). The commissioner informed Capen that the Carnegie survey in Vermont should be used as a model for his own work. Moreover, as Capen prepared for his first project as a bureau specialist, his own lack of technical expertise surfaced in the admission that he "was not so strong on hard facts." In his own words, Capen realized that he needed to be "Carnegieized," whereupon Claxton advised him to go see Abraham Flexner, the GEB staff member who was currently directing a survey in Maryland similar to the CFAT Vermont survey. The strategy and techniques for the North Carolina survey were subsequently arranged at a full membership meeting of the General Education Board. From that point forward, Capen was systematically integrated into the emerging network of
educational engineers spreading the gospel of academic efficiency as written by Morris Cooke.\textsuperscript{91}

The North Carolina survey was mainly a test run for the bureau while Capen received on-the-job training from the Carnegie and GEB technocrats.\textsuperscript{92} Once completed, P. P. Claxton appeared at the 1914 annual convention of the National Association of State Universities and offered the bureau's "extended experience" and "broad outlook" to any state or institution "which might desire a survey of its work or organization."\textsuperscript{93} Within weeks, the bureau was invited by state legislatures to survey the higher institutions of Washington, Iowa, and the University of Oregon. The invitations were exactly the kind of leverage that the bureau needed to pursue a more aggressive federal intervention in higher education policy. First, the bureau was acting at the invitation of the states, so it did not violate constitutional provisions reserving education to the states. Second, federal participation in the surveys was justifiable under the bureau's existing statutory mandate to collect statistical data. Third, the state legislatures agreed to assume the cost of the surveys and the Attorney General's 1911 opinion had already authorized Claxton to accept money from outside agencies as reimbursement for specific work done by the bureau. Consequently, survey invitations supplied the bureau with a mechanism for penetrating state higher education policy and for expanding central state authority without one cent of additional appropriations from Congress.

In Washington, the push for a Carnegie-style survey was initiated by Henry Suzzalo, the new president of the University
of Washington. While a professor of education at Columbia University, Suzzalo had become a favorite of the CFAT trustees with Pritchett calling him "one of the best men in education in the country." Suzzalo's objective for higher education in Washington was to adopt the Carnegie plan, first, by making the state university the center of a comprehensive state system and, second, by implementing his trustees' desire that the University of Washington play a more active role in the region's economic development. Their main obstacle was the land-grant college located in eastern Washington; primarily an agricultural center and once a source of Populist strength in the state.

The rationale for inviting federal intervention was to provide an impartial and scientific survey. A similar scenario transpired in Iowa where a USBE survey was commissioned with the explicit goal of "securing moral support for consolidation that would overcome local opposition" and confer on "the investigation and consequent recommendations all possible authority and prestige." In this respect, Domhoff has already offered the general proposition that the most important role of a public survey commission is "to legitimate and make 'official' the ideas that have been developed in the private-sector policy network." The USBE's role in the higher educational survey movement is certainly illustrative of the claim.

The Washington and Iowa surveys were both published by the USBE in early 1916 and Claxton's office received high praise for having calculated "the cost of a student-clock hour of instruction in each of the principal departments." The
proposals for internal administrative reform parroted Cooke's liturgy of scientific management and academic efficiency. The surveys also applied the concept of state-wide systematization, while emphasizing that the urban state university should be the nucleus of each system. A centralized board of regents was to allocate curriculum within the system based on the functional division of labor that was most cost-efficient for the state.

The USBE's also applied the concept of curriculum specialization in order to focus the educational resources of each institution on a "major line" of instruction and research, e.g., engineering in technical institutes, teaching in normal schools, liberal arts and the professions in state universities, agriculture in land-grant colleges, and advanced vocational training in junior colleges. Major lines were to be allocated to institutions based on local labor market segmentation (e.g., farming, urban professions, manufacturing) and also by considering an institution's proven ability to produce a major line more efficiently than other institutions in the state. Service lines of instruction and research would provide support personnel to the major line(s), e.g., chemistry for agriculture, political science for law, or physics for engineering.99

Finally, to facilitate an efficient allocation of major lines, the survey commissions also recommended that higher institutions keep detailed records of graduates' occupational placement to find out specifically what segments of the labor market actually generated demand for their product. This would allow colleges and universities to fine tune curricula in relation to the
relevant labor markets. The commissions recommended concurrently that all institutions should establish placement centers with the function of maintaining a close watch on local or regional labor markets, to identify necessary adjustments in production (i.e., course offerings and research), and to ease frictions in the labor market by moving graduates out of college and into positions of full-time employment.

The Washington and Iowa surveys launched a national movement which reached its crescendo during the 1920s when a fiscal crisis hit higher education in full force. By the time Samuel P. Capen left the specialist's office in 1919, the USBE had conducted surveys of the University of Nevada, the University of Arizona, Bradley Polytechnic Institute, and the entire state systems of North Dakota, South Dakota, and Alabama. By the end of the Alabama survey in 1919, the social average of academic efficiency had been pegged at nineteen cents per student clock hour.\textsuperscript{100}

The USBE was subsequently invited to conduct a series of state by state surveys over the next decade so that by 1928 the bureau had conducted or participated in a minimum of 114 higher educational surveys embracing at least 240 higher institutions.\textsuperscript{101} At least one third of all four year higher institutions were surveyed directly by the USBE in the period from 1915 to 1928. The USBE's survey recommendations consistently followed the path mapped out originally in Vermont, Washington, and Iowa. In a survey of its surveys published in 1928, the Bureau reported that:

"whatever the main purpose of the survey, the same set of facts and conditions are studied and much the same
means of dealing with specific problems are recommended...All the surveys give considerable weight to problems of educational coordination, to methods of control, and the nature of support....To settle disputes between two or more institutions regarding the proper fields of each, the Bureau of Education has consistently recommended the application of the principle of major and service lines. When lack of coordination between institutions exists, it has recommended a board to devise means of bringing about unity of purpose, or it has recommended the creation of a central board to govern the institutions. State surveys conducted by other agencies have followed the same general lines as have those of the Bureau of Education."

In the bureau's own estimation, the survey was "the most important of the advisory methods" at its disposal. Capen concluded after less than a decade that the educational survey was allowing the bureau to exercise influence "out of all proportion to its size and resources." The vitality of that influence, he observed, lay in the survey's ability to provide "genuine intellectual leadership" -- what Capen called "a leadership of ideas." Thus, George F. Zook, Capen's successor as the bureau's higher education specialist, could rightly boast that the USBE had "done more than any other single agency in making surveys of higher institutions and, indeed, probably more than all other agencies combined." The bureau accomplished this task even though Congress neither authorized, nor ever made an appropriation in support of a single survey.

Yet, the real extent of the survey movement is difficult to gauge because the USBE, CFAT, and GEB surveys do not fully measure the force with which the Carnegie movement swept through American colleges and universities. For example, George Zook observed that USBE surveys steadily exerted centralized pressures
toward systematization as college officials competing with the surveyed institutions began scrutinizing their own capital equipment and their ability to generate comparable financial resources.\textsuperscript{108} The result was that unknown scores, perhaps hundreds of small and little known colleges conducted their own internal surveys in an attempt to identify local or niche markets for themselves in the burgeoning national system. Many institutions surveyed themselves several times as a means of gauging whether prior survey recommendations were being successfully implemented. Hence, when the USBE sought to compile a comprehensive list of higher educational surveys in 1926, the project was abandoned when the editorial staff concluded: "the list of such studies is increasing so rapidly and so many of them receive no circulation outside of the immediate campus vicinity that no adequate record or knowledge of this work exists anywhere."\textsuperscript{109}

A precise assessment of the survey movement's real impact is even more problematic. The bureau did not keep systematic records on which recommendations were actually adopted by institutions or state legislatures. Nevertheless, its one effort to collate the practical results of the survey movement indicate that almost every survey was followed by some substantial change along the lines recommended by the survey.\textsuperscript{110} Indeed, John J. Tigert, who succeeded Claxton as Commissioner of Education in 1921 indicated that "the Bureau of Education undertakes educational surveys only when there is a reasonable expectation that its recommendations will be adopted or carried out so far as
possible." Tigert emphasized that while surveys always produced some immediate results, their real objective was to institutionalize a national ideal that would guide higher educational development in the future. Thus, foundation and government officials were satisfied so long as progress was being made "in the right direction within a reasonable period of time." By 1928, the bureau's staff was satisfied that the consolidation of smaller private colleges with larger ones, and the formation of public university systems, "had been effected in sufficiently scattered portions of the United States to indicate that a new method and form of organization" was "likely to be developed in higher education."112

Conclusion

The effectiveness of the central state in advancing a national policy agenda is paradoxical from a statist perspective to the extent that the U.S. Bureau of Education is conceptualized as a weak state sector. Yet, the analysis suggests that a weak state organization was highly effective in facilitating reform because it moved in conjunction with market pressures and furthered institutional tendencies that were already being induced by private capital allocations. In this sense, the federal surveys operated as an adjunct to the market and to private decisions by removing institutional inflexibilities and local frictions that were obstructing the transition to a modern university system. The analysis, if correct, should raise some fundamental questions about what counts theoretically as a "strong" state and about
what theorists mean by state capacities. The question is posed especially in respect to whether or not a state's capacities are exclusively or even largely a consequence of its own internal structure, financial resources, and expert personnel. In certain respects, one might view the USBE as a very strong state sector; for to the extent that it worked in partnership with capital, state managers were able to magnify their capacities by drawing on "private" resources and by utilizing the expert personnel of the corporate policy network in higher education.
ENDNOTES


For a similar analysis of elementary and secondary school reform, see Joel Spring, Education and the Rise of the Corporate State (Boston: Beacon Press, 1972); David Tyack, The One Best System


9. This "finance hegemony perspective" is elucidated by Beth Mintz, "United States of America," in Tom Bottomore and


12. In 1930, 77% of four year higher institutions were private corporations and these institutions accounted for 60% of student enrollments, USBE, *Biennial Survey of Education 1928-1930*, pp. 332, 335.


20. The concept of an organic intellectual is derived from Antonio Gramsci, "The Intellectuals," in *Selections from the Prison Notebooks of Antonio Gramsci*, edited by Quintin Hoare and Geoffrey Nowell Smith (New York: International Publishers, 1971), p. 3; Domhoff, *The Powers That Be*, p. 13 describes the power elite as the "active, working members of the ruling class and high level employees in institutions controlled by members of the ruling class."


29. Cooke, Ibid., p. 3.


31. A student-hour is "one hour of lectures, of laboratory work, or recitation room work, for a single pupil," Ibid., p. 19. It is now the standard unit of measurement in American colleges and universities.

32. Cooke suggests that "if the same standards of efficiency are to be applied to college teachers as are applied elsewhere, it will mean that when a man has ceased to be efficient he must be retired," Ibid., p. 23.

33. Ibid., p. 59, Table 8.

34. Ibid., p. 103.


38. CFAT, Annual Report, 1908, p. 152.

39. Quoted in Raymond B. Fosdick, Adventure in Giving (New


48. Barrow, Universities and the Capitalist State, Chap. 6.


52. Pritchett, "Shall the University Become a Business Corporation?" p. 292.
53. CFAT, Annual Report, 1909, p. 84.

54. CFAT, Admission of State Institutions to the System of Retiring Allowances of the Carnegie Foundation (New York, 1907), pp. 33-35.


61. CFAT, A Study of Education in Vermont, Bulletin No. 7 (Boston: Merrymount Press, 1914); Abraham Flexner and Frank P. Bachman, Public Education in Maryland (New York: General Education Board, 1915).


63. Orréén, Corporate Power and Social Change, Chap. 7.

64. Durrell Hevenor Smith, The Bureau of Education
(Baltimore: Johns Hopkins University Press, 1923).


72. "Letter from James A. Tawney, Chairman, Committee on

73. The empirical reference for an autonomous state is one in which the leading political elites are career officials recruited from the ranks of non-dominant classes, who refrain from close personal or economic ties to the economically dominant class after their elevation to high office, and who develop a sense of ideological purpose or a bureaucratic collective identity which legitimates the desireability of using the state to act against the dominant class, see Skocpol, "Bringing the State Back In", p. 9.


80. USBE, "Letter from Chief Clerk of the Bureau of Education to Miss Elsa Denison," March 2, 1912, Ibid. A central clerk perhaps best summarized the overall situation in a 1912
memo to the commissioner of education: "Their [the foundations'] efforts are of great value as supplements to the work of the Bureau. By keeping track of what these agencies are doing we can avoid a duplication of work. They can do much that we cannot undertake for lack of facilities and along certain lines they can make investigations which it would be unwise for a government office to attempt," USBE, "Undated Loose Handwritten Note, Signed A.S.,” Ibid.

82. Barrow, Universities and the Capitalist State, pp. 107-110.
85. USBE, "Letter from Assistant Attorney General for the Department of the Interior to the Secretary of the Interior," November 9, 1911, Ibid.
88. "Letter from Samuel P. Capen to Mrs. Capen," February
22, 1914, Capen Papers, Box 7, SUNY - Buffalo University Archives.

89. "Letter from Samuel P. Capen to Mrs. Capen," May 1, 1914, Capen Papers, Box 8.


94. USBE, "Letter from Henry S. Pritchett to the Secretary of the Interior," May 29, 1911, Historical File no. 100.


