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Universities in America since 1945

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Summary and Keywords

Until World War II, American universities were widely regarded as good but not great centers of research and learning. This changed completely in the press of wartime, when the federal government pumped billions into military research, anchored by the development of the atomic bomb and radar, and into the education of returning veterans under the GI Bill of 1944. The abandonment of decentralized federal–academic relations marked the single most important development in the history of the modern American university. While it is true that the government had helped to coordinate and fund the university system prior to the war—most notably the country's network of public land-grant colleges and universities—government involvement after the war became much more hands-on, eventually leading to direct financial support to and legislative interventions on behalf of core institutional activities, not only the public land grants but the nation's mix of private institutions as well. However, the reliance on public subsidies and legislative and judicial interventions of one kind or another ended up being a double-edged sword: state action made possible the expansion in research and in student access that became the hallmarks of the post-1945 American university; but it also created a rising tide of expectations for continued support that has proven challenging in fiscally stringent times and in the face of ongoing political fights over the government's proper role in supporting the sector.

Keywords: admissions, black studies, civil rights, Cold War, diversity, federal government, GI Bill of 1944, Higher Education Act of 1965, National Defense Education Act of 1958, multiversity, new left, red scare, research and development (R&D), social identity, student aid, student movements, women's studies, World War II

The history of American universities since 1945 begins in the era of World War II with the rise of the federal–academic partnership. It is not possible to understand the development of the nation's sprawling network of public and private universities without explaining the role that robust government funding and legislative action played in expanding research production and student access between 1945 and 1973—higher education's so-called golden age. The story continues with the campus revolts of the 1960s and early 1970s

and the end of the “golden age,” when students organized to protest the university’s part in the “military-industrial complex” and its glacial recognition of minority rights. The long-range consequences of the campus upheavals of the 1960s manifested in the 1980s, when conservative politicians, led by Ronald Reagan, cut taxes, delegitimized public investments in social goods, and rolled back funding for the nation’s costly university system that, in their view, had become synonymous with the scourge of “big government” itself. Declining public support for universities—exacerbated by lateral competition from other publicly funded goods and services such as pensions, prisons, and healthcare—has meant increased burdens on families and students and less generous research support. In the wake of the “Great Recession” of 2008, additional budget cuts have made an already challenging financial environment more difficult, ushering in a period of uncertainty, the likes of which have not been seen since the turbulent 1960s.

Big Science: The Federal–Academic Research Matrix

The federal government provided minimal support for university research before World War II. Powerful academic antistatism—the fear of government intrusion—pervaded the professorial ranks. Most university professors and administrators harbored deep suspicions about federal involvement of any kind, especially if it impinged on the research process, which they considered a semi-sacred duty best left to self-regulating expert communities with support, when needed, from foundations and industrial firms.[1] They need not have worried. Except for sponsoring agricultural research at the public land-grant universities, ongoing since the passage of the Hatch Act of 1887, and for supporting the work of the government’s complex of research bureaus and institutes, few national policy makers considered university-based research a critical federal matter. Not even the crisis of the Great Depression, when voluntary and corporate funding for academic research declined and professional associations organized in search of some relief, stirred the government to alter substantially its hands-off posture.

All of this changed during World War II. Political leaders and university officials abandoned the longstanding tradition of decentralized relations and forged a powerful partnership that transformed the country’s burgeoning university system into a key locus of turnkey research production, of administrative coordination in the federal government, and of democratic citizenship.

Universities were in a strong position to contribute to the war effort as never before. During the interwar period, the nation’s higher-education system enjoyed remarkable growth thanks to heightened student demand, even during the lean years of the 1930s: enrollments climbed from 500,000 to 1.4 million students, and the number of institutions grew from 1,000 to 1,750. And while research funding tapered off, the capacity for future

research expanded: graduate training increased a stunning 500 percent across all fields as the disciplines diversified into ever-more-specialized fields.[2]

The nation's university system was ready for war in large measure thanks to the organizational savvy of Vannevar Bush, the MIT professor–turned–government bureaucrat who orchestrated the scientific establishment's wartime role. In June 1940 Bush met with President Roosevelt to make his pitch. The White House meeting lasted ten minutes and ended precisely as Bush had hoped. Armed with a one-page blueprint to mobilize America's scientists under the banner of the National Defense Research Committee (NDRC), Bush received Roosevelt's authorization to proceed and funding from the president's own emergency reserves in order to do so.[3]

The NDRC—reconstituted as the Office of Scientific Research and Development (OSRD) in May 1941—set up makeshift headquarters a few blocks north of the White House. But Bush did not want the committee to be just another government outpost pursuing business as usual. Devoted above all to "untrammeled scientific freedom," and impressed by his own experiences with MIT's fee-for-service research program, Bush's fundamental insight was that scientists needed as much autonomy as possible from mettlesome bureaucracy in order to do their job.[4] His belief in the "free play and give and take of independent minds" was why he recommended "contracting out" government assignments to "universities, research institutes and industrial laboratories," as he matter-of-factly explained it to his deputy director James Conant. Conant, who had spent World War I concocting poison gas for the Chemical Warfare Service, in government-run laboratories, and assumed that a similar arrangement would be used now, immediately understood the significance of what Bush was proposing, describing it later as a "revolutionary scheme."[5]

By writing contracts for specific projects, infusing each contract with cost-overhead that turned government work into a profitable one for universities and industry, and then permitting scientists to work in their home laboratories, or at the very least in the absence of crushing government oversight, Bush's plan reconstituted federal–academic relations.[6] It also redefined the very idea of research, once categorically divided between theoretical and applied work, as a continuous process of research *and* development (R&D) in which the former necessarily led to the latter. With Bush at the helm, the OSRD employed 6,000 scientists and contracted out approximately 2,260 different projects to 450 industrial labs and universities during the war.[7] The entire success of the OSRD," he later claimed, "depended upon extreme decentralization and great autonomy of individual units."[8]

The Manhattan Project and the Radiation Laboratory

While Bush's valorization of unencumbered scientific discovery was mostly true, the "big science" era—big staffs, big facilities, and big pots of public money—created in the crucible of war also required unprecedented coordination and control.[9] No projects were

bigger than the Manhattan Project and Radiation Lab. The Manhattan Project began as part of the OSRD, but when it became apparent in 1942 that a nuclear bomb was possible but the OSRD lacked the capacity to deliver it, the Army Corps of Engineers took over. Enter Brigadier General Lesley R. Groves, who was assigned overall command of the project by Secretary of War Henry Stimson. At the time, Groves was the deputy chief of construction for the Army Corps of Engineers, overseeing the final stages of the Pentagon construction project in Arlington, Virginia, on the banks of the Potomac River. Although he was initially unenthusiastic about his new post, the supremely confident Groves, a West Point graduate with a background in engineering, effortlessly made the move from managing big construction projects to managing the biggest science project in the history of the world.[10]

For Groves the difference between constructing buildings and bombs was not that great. Indeed, his rudimentary scientific training and his experience writing and disseminating $600 million per month to private contractors for the construction of arsenals, harbor facilities, bases, buildings, and cantonments proved invaluable. By the time Groves took over, theoretical work was already well underway at university labs at Columbia, Chicago, and Berkeley. And after émigré physicist Enrico Fermi's team at the University of Chicago's Metallurgical Lab ("Met Lab") achieved a self-sustaining nuclear reaction in a squash court beneath the west stands of the university's defunct football stadium in December, Groves moved full steam ahead with weapon production and development, contracting out much of the work to leading industrial firms, including Du Pont, General Electric, and Westinghouse. He leveraged the army's "eminent domain" power to acquire "large and remote tracts" of land to set up two plutonium enrichment facilities: one at the Clinton Engineer Works in the hinterlands of Tennessee's Smokey Mountains (contracted to Monsanto Chemical Company and made possible by the earlier construction of the Tennessee Valley Authority in the 1930s, by 1944 the second largest power producer in the United States), and another at the Hanford Engineer Works on the shoals of the Columbia River in Washington State (contracted to Du Pont). Both the tracts and the labs that were constructed on them were big: 500,000 acres and 50,000 workers in Washington; 60,000 acres and 24,000 workers in Tennessee.[11] Add to this the 7,000 scientists and staff at the weapon development and test site in the high desert of Los Alamos, New Mexico, northwest of Santa Fe, run by Berkeley theoretical physicist J. Robert Oppenheimer, little wonder that the $2 billion Manhattan Project served as the touchstone for all the big science projects that followed.[12]

The MIT Rad Lab (officially called the Radiation Lab to hide its real work on radar) was comparatively smaller but still big. After British scientists delivered a prototype of a resonant cavity magnetron capable of emitting a 2-centimeter microwave that was 2,000 times more powerful than anything the Americans had created, the Rad Lab set up shop in a single lab in MIT's Building 4.[13] From these modest origins, the project expanded rapidly, first to a "rooftop system" (site of the first successful radar test), and then to a new building at MIT, migrating from there to Boston proper and to an abandoned milk factory and to an East Boston Airport hangar; additional work was conducted at Harvard, Columbia, and a joint laboratory in England. The Rad Lab made amazing advances in

radar technique and microwave theory, and built highly effective air-to-surface vessel, anti-aircraft, and long-range radar units.[14] By the armistice the lab had managed 249 contracts, employed 4,000 workers, occupied 400,000 square feet of space, and built 150 different radar, sonar, and radar-jamming technologies—all at a price tag of $1.5 billion.[15]

Although scholars continue to debate whether it was necessary to drop atomic bombs on Hiroshima and Nagasaki, there can be no doubt that the federal government's $4 billion investment in wartime R&D profoundly altered the nation's university system and the researchers who inhabited it.[16] The hard sciences attracted the most federal money and attention, but virtually all fields of study were touched by the federal hand: social scientists penetrated the Office of Strategic Services, the forerunner of the Central Intelligence Agency, the Office of War Information, and the government's propaganda apparatus, and controlled the Army Research Branch—the main hub of social science research in the military.[17] Even humanists of various stripes got in on the action, working away in far-flung government agencies and as "reeducation" instructors in Army P.O.W camps, tasked with the dubious assignment of retooling German soldiers into democratic citizens.[18]

The Cold War University and the Red Scare

As the end of the war neared, the terms under which the federal–academic research partnership would continue remained uncertain. Bush wanted to shelve the OSRD and revamp the partnership under new terms, creating a one-stop shop to coordinate and support the production of knowledge. He sketched the contours of his plan in *Science—The Endless Frontier*, commissioned by President Roosevelt, delivered to President Truman, and released to the general public in July 1945, just weeks before the atomic assault on Japan. The thrust of the spare, thirty-four-page report was that science had helped to win the war and that it deserved continued government support.[19] By deftly connecting scientific progress to both military preparedness and social betterment, Bush convincingly argued that "the frontier of science" and the future of American freedom were one in the same.[20]

Bush's plan centered on the development of a National Research Foundation modeled after the OSRD but built on a firmer legislative basis and with greater civilian control.[21] Specifically, Bush wanted the foundation to be civilian led and the director's role (Bush's) to be more or less totally independent, thereby minimizing political interference and maximizing academic freedom.[22] Bush also wanted the foundation to focus exclusively on "basic" research and discovery rather than the mission-driven applied work that had been the OSRD's stock and trade. Weary of the long-term fallout of military patronage, Bush thought that the foundation ought to privilege theoretical work, serving the armed forces on a purely supplemental basis.[23]

Bush’s proposal for scientific remobilization was sponsored by Senator Warren Magnuson (D-WA), but it was not the only plan then circulating about the nation’s capital. Populist senator Harley Kilgore (D-WV) put forth an alternative foundation plan that affirmed Bush’s call for government support for science but with a different administrative structure—one led by a presidential appointee rather than a civilian.[24]

The differences between the two plans—the battle between civilian and government control—took five years to work out. So long, actually, that by the time the National Science Foundation was finally established, in 1950, the sponsored research economy had dramatically changed. The emergence of a constellation of congressionally funded agencies, each with its own pot of money, vested interests, and research agenda, reconfigured Bush’s original plan. The Atomic Energy Commission (inheritor of the Manhattan Project) and the Office of Naval Research, both created in 1946, charted new patron–client relations with the university-based research system, at the same time that older, established, well-funded agencies, like the National Institutes of Health, the Department of Agriculture, and the National Advisory Committee on Aeronautics (renamed NASA in 1958), plowed funds into medical and agricultural research and space exploration.[25] At the center of the federal research universe was the Department of Defense, established in 1947, and its massive $5 billion annual research budget, which accounted for fully three-quarters of all federally funded research expenditures in the 1950s.[26]

The Cold War quest for national security institutionalized the “military-industrial-academic complex” and the government’s role as the linchpin of the entire research enterprise—as the coordinator and funder of contracted research projects then and for the rest of the century. This turn of events was greeted favorably, since it was not possible to conduct big science any other way, but it also had its downside, as big science sometimes led to big problems. No event revealed the tradeoffs of government involvement quite like the anti-Communist crusades of the late 1940s and 1950s, when Cold War paranoia, piqued by the “loss” of China and by the end of the U.S. nuclear monopoly in 1949, and by the presence of state-level anti-subversive statutes, emboldened opportunistic politicians and subservient university administrators to wreak havoc on academic freedom.[27]

Codified in 1915 by the American Association of University Professors and later revised, the principle of academic freedom—to research and teach without fear of outside interference—had been routinely quashed during wartime, when fears of disloyalty ran high. The Cold War years proved no different, as universities, long regarded as hotbeds for “nonconformists” and left-wing sympathizers, again came under attack. The most vigorous assaults occurred at the hands of energetic state legislatures in their efforts to ensure the loyalty of faculty at public universities. But it was the drama surrounding a number of high-profile loyalty cases that captured the biggest headlines. The “trial” of J. Robert Oppenheimer by the Atomic Energy Commission was one such event. He was the country’s most famous scientist, and while it was true that he had flirted with leftism in

the 1930s, it was his opposition to the H-bomb (1,000 times more powerful than the atomic bomb) that led to the revocation of his security clearance and his banishment from the government's scientific elite.[28]

Senator Joseph McCarthy's (R-WI) reckless search for Communist traitors was the most lurid chapter in the decades-long Red Scare. Elected in 1948, McCarthy, the junior senator from Wisconsin, gained national notoriety as a "red baiter" by attacking the Truman administration for being "soft" on Communism. Following his reelection in 1953, McCarthy orchestrated his witch hunt from inside the capitol, where, as chair of the Senate Committee of Government Operations, he used the investigatory powers of his office to cast accusations in every direction, from the State Department and Hollywood to the academy, before petering out in a desperate, failed attempt to impugn the U.S. Army, resulting in a senate censure for his conduct in 1954.

McCarthy's reign of terror only lasted a few years, but his strident politicization of academic life left a permanent stain. Although few professors were ever convicted of being Communists, hundreds of careers were derailed by the mere accusation of political subversion that McCarthyism stoked, thus setting a precedent for future political attacks by unscrupulous elected officials.[29] McCarthyism also left an imprint on the construction of knowledge itself. In the midst of what Christopher Jencks and David Riesman dubbed the "Academic Revolution"—the rapid professionalization, centralization, and standardization of the professoriate in the postwar period—the fear of political attack pushed virtually all academic fields toward "scientism" and self-conscious value neutrality.[30] Quantifiable methods increased professional status and inoculated professors from outside interference, particularly in vulnerable fields like the social sciences and humanities, but in ways that ultimately rendered scholastic knowledge indecipherable to all but the initiated.[31]

Enrollment Boom: Federal Student Aid Policy

The advance of the sponsored research economy was paralleled by the federal government's coincident involvement in the area of student aid and access from 1944 to 1973. During this period, student rolls "boomed" from 1 to 8 million (with the fastest growth in the 1960s thanks to the "baby boomers"), and the number of schools grew from 1,700 to 2,500 institutions.[32] It has become commonplace to depict this period of flush public investments and dramatic expansion as higher education's "golden age," and, from a purely statistical standpoint, in many ways it was.

The growth in student enrollment and tuition revenues was made possible by three factors. The first was the presence of real and metaphoric wars—hot and cold, against Communism and poverty—that shaped American political culture during the middle decades of the last century; the second was the enactment of federal civil-rights legislation and of new student-aid programs that provided aspiring collegians with the

legal basis and funding to go to college; and the third, which cannot be overlooked, was the American people's insatiable demand for advanced training, made possible by steady economic growth and the belief in the social mobility and democratic citizenship that more education provided.

In a classic example of policy feedback, higher-education policies begat new political demands that begat new policies.[33] The critical policy enactments responsible for paving the way for the expansion of student access and affordability from the end of World War II to the War on Poverty will be examined in order: the GI Bill of 1944, the National Defense Education Act of 1958, key desegregation court decisions and the passage of landmark civil rights legislation, and the Higher Education Act of 1965.

GI Bill of 1944

The revolution in college-going was triggered by the Servicemen's Readjustment Act of 1944—one of the most important social policies of the 20th century. Better known as the GI Bill of Rights, the legislation had profound policy effects, contributing $14.5 billion in tuition revenue in the twelve years after its enactment.[34] Signed by President Franklin D. Roosevelt on June 2, 1944, the bill contained a range of benefits that went well beyond the usual mix of cash bonuses and survivors' pensions that had followed previous wars. The bill included comprehensive counseling, disability, and unemployment provisions; generous lending privileges to help veterans buy homes or farms, or start a business; and, of special significance to higher education, portable tuition subsidies to put toward a college degree. Nearly half of the nation's 16 million veterans continued their educations after the war, 2.2 million (97 percent of them men) did so at a college or university, propelling national enrollments to a record 2.5 million by 1949—1 million more students than had ever enrolled in a single year.[35] Whatever concerns administrators harbored about veterans' preparation for collegiate study were quickly abandoned. Veterans were older, often married with children, and had little interest in the highjinks and "rah-rah" behavior of their younger civilian peers. Indeed, most observers at the time lauded the veterans as the best students to have ever attended college, an assessment that nostalgia mongers have since used to perpetuate the myth of "the greatest generation."[36]

The heroic tale of veterans' successful readjustment to civilian life looks less heroic when the focus shifts from the experiences of the bill's prime beneficiaries: white male veterans.[37] The means-test to access the benefits was simple: a minimum of ninety days of continuous service and a discharge other than dishonorable. These criteria automatically barred "outed" homosexual veterans from securing benefits, but there was nothing on paper ensuring that African American and female veterans would be similarly deprived.[38] Yet, this is precisely what happened thanks to Southern congressmen's insistence that the bill's benefits be disbursed by third-party providers, like private banks and semi-autonomous colleges and universities, thereby ensuring the perpetuation of entrenched racial and gender hierarchies in the segregated South and elsewhere.[39]

Only a small percentage of the 350,000 female and one million African American veterans made use of the bill. Although benefits trickled down to female veterans through marriage, a mere 3 percent of them tapped benefits on their own, while only the most determined African Americans were repaid for their wartime sacrifice. Inadequate preparation and bigoted admissions policies kept most black veterans out of America's exclusive white-serving universities. They had better luck at the nation's roughly one hundred historically black colleges, which accommodated as many veterans as they could, helping to increase the total black student population to a record seventy-five thousand in 1950, three times more than the previous high-water mark, set in 1940.[40]

National Defense Education Act of 1958

Although the 1947 President's Commission on Higher Education report called for a vast expansion in federal support—from the building of community colleges to the creation of adult-education programming—no additional federal action in the area of student aid was forthcoming until the late 1950s.[41] Defiant Southern congressmen, fearful of further breaching the racial barrier that had been punctured by the Supreme Court's *Brown v. Kansas Board of Education Decision* (1954), were temporarily fortified by the constitutional orthodoxy of the Eisenhower administration, which viewed education policy as a state and local matter, not a federal one. Following the Soviet Union's successful launch of its Sputnik rockets in the fall of 1957, specious constitutional interpretations—specious in light of massive federal spending for research and veterans' aid—succumbed to national-security concerns, spurring the passage of the National Defense Education Act of 1958.[42]

It was indeed ironic that the principal architects of the legislation were two Southern Democratic congressmen from Alabama, Representative Carl Elliott and Senator Lister Hill. Longtime friends and allies, both men were racial moderates whose primary concern was to increase the funding and stature of Southern education, which lagged far behind the rest of the nation by every metric available. They seized on the Sputnik crisis, and all the fears of Soviet technological superiority that it provoked, suggesting that the entire country, not just the South, was falling intellectually and militarily behind the Russian enemy. By framing federal education aid as a temporary national security issue, and by preserving the edifice of local control held dear by their fellow southerners, Elliott and Hill, with co-sponsor senator H. Alexander Smith (R-NJ), persuaded their Capitol Hill colleagues that training in the name of national defense was a cause worth supporting.[43]

The $1 billion act deepened the federal government's support for higher education. The legislation pumped money into programs aimed at stockpiling the country's "brainpower" to win the Cold War. The law provided support for language and area-studies centers, for research on "new media" pedagogical approaches that used radio and TV, for vocational education, and for a national fellowship to support the advanced training of scientists, mathematicians, and linguists. All of these provisions were dwarfed by the act's $300 million federal student-loan provision—by far the most consequential part of the

legislation. At a time when many institutions did not have loan programs, and those that did had limited resources with which to work, and student borrowers leaned on private lenders, the act irrevocably changed college-going. The government provided qualifying institutions with $250,000 annually to seed the lending process. The maximum individual loan was $1,000, repayable at 3 percent interest over ten years, with more generous terms for borrowers with degrees in defense-related fields of study. Priority was to be given to students in math, science, and foreign language, but because the program was administered at the local level, loan officers disbursed the funds proportionally across all undergraduate fields. The results were startling: the National Defense Education Act not only enriched the loan reserves of all 1,400 participating institutions, but also helped nearly 650 schools establish loan programs for the first time on the way to disbursing loans to nearly 1.5 million students in its first decade of operation.[44]

Higher Education Act of 1965

The GI Bill and the National Defense Education Act provided federal aid to millions of students, including growing numbers of white working-class students, thus changing the social composition of the college campus in important ways. Yet, by and large, African Americans and other underrepresented minority groups continued to be left on the outside looking in, far from the ranks of the nation's leading research universities. Indeed, despite the promise of the 1954 *Brown* decision to end discriminatory admissions practices, a decade later American education remained as segregated as ever.[45]

The passage of the Civil Rights Act of 1964 followed by the Higher Education Act a year later—buffeted by the moral power of the African American Freedom Struggle and President Lyndon B. Johnson's War on Poverty, set in motion the collapse of discriminatory admissions practices once and for all. The Civil Rights Act was the key. It banned discrimination by private employers and in accommodations and by any institution that received federal funds. This last stipulation, part of Title VI, implicated virtually all public and private universities, and the act's promise to withdraw support for research and student aid ensured widespread compliance. Even in the South, where fantasies of white supremacy lingered, and resistance to integration remained strong, universities finally, if grudgingly, relented.[46]

With discrimination based on "race, color, religion, sex, or national origin" outlawed, Johnson's next move was the enactment of the Higher Education Act of 1965. The $2.7 billion, eight-title act, signed just months after the Elementary and Secondary Education Act, marked the high tide of the federal government's growing jurisdiction over student access and aid, absorbing existing programs and regulations while creating new ones intended to increase the educational opportunities for all Americans regardless of race, ethnicity, or economic station. The act included a title for urban education extension, two titles for campus building projects, another authorizing the creation of a national Teachers Corps, and still another that provided general aid to "developing institutions"—

the 123 historically black-serving universities and colleges still responsible for the education of a majority of the country's black students.[47]

But it was in the area of student aid (Title IV) that the act left its biggest mark. It embraced an expansive definition of aid that encompassed summer bridge programs, like Upward Bound, for poor but talented students as well as a trio of financial aid instruments to help all students pay for school: work study, direct and guaranteed loans, and federal grants (renamed Pell Grants in 1980) for needy students. This combination of tools gave admissions and financial aid counselors the ability to craft ever-more diverse student bodies while reassuring aspiring students of limited means that they would have the necessary support services and aid to afford a college degree. The results of the legislation, now many times reauthorized and expanded, were dramatic and long lasting: the federal government's higher-education budget doubled, and the enrollment of traditionally underrepresented students soared. By the mid-1970s black student rolls had climbed above a million for the first time in history, with the vast majority of those matriculates now studying at predominantly white, but now minority accessible, institutions.[48]

Revolt: Student Movements in the 1960s and 1970s

During the 1960s "big science" and "big enrollments" collided. Administrators and students advanced competing visions of the modern university and struggled, on and off across the decade, to convince each other of the superiority of their respective views. On the one hand, there was the administrative view, embodied by Clark Kerr, the balding and bespectacled president of the gargantuan University of California System. The country's most esteemed academic leader, Kerr had guided the University of California, ground zero of the Manhattan Project, into one of the biggest research universities in the world; so big, in fact, he called it a "multiversity"—a somewhat awkward neologism intended to capture the "massive impact of federal programs" on the "uses of the university" in the modern age.[49] On the other hand, there was the student view, albeit one held by a small subset of skeptical students (between 50,000 and 75,000 total), who thought the multiversity was too big and too bound to government and industry demands—a cog in the nefarious "military-industrial complex."[50] They thought the multiversity was an impersonal and alienating institution, so they turned against it.

From Civil Rights to New Left

The spread of student movements during the decade was precipitated by the civil-rights movement and, later, by the escalation of the Vietnam War and the perceived defects of the modern university. The civil-rights movement served as the singular inspiration. It

thrust African American and white college students, along with millions of “local people,” into the thick of national politics for the first time.[51] Organizations like the Student Nonviolent Coordinating Committee (SNCC) and the Congress of Racial Equality—elevated by black college students’ lunch counter “sit-ins” in Greensboro, NC, in 1960, and across the segregated South—helped closed the gap between the self and society and infuse political action with moral meaning. It was a powerful mixture, as graduates of “The Movement” never forgot what they had done. In a typical refrain, one Northern white college student recalled, “The Negro struggle was, more than any other, *the* event of my life.”[52]

The experience of joining hands with African Americans set off a flurry of student political activity at predominantly white college campuses later.[53] Calling itself the new left, founding members claimed the civil rights movement as a guiding light. “This was how [Students for a Democratic Society (SDS)] was born as well,” recalled University of Michigan graduate student Tom Hayden, who helped found SDS, in 1962. “I started in the South, not in Ann Arbor; I spent two years in the South.”[54] Awed by the courage and conviction of African Americans living under the iron fist of segregation, the new left, with SDS at its core, sought to emulate the early civil-rights movement’s ideology of nonviolent direct action; and, for a time, they did.

Inspired by the experience of penetrating and then toppling Jim Crow (even when done vicariously), Northern college students returned to their home campuses convinced they were also oppressed. Although the campus scene of the twilight Cold War years was hardly oppressive by Jim Crow standards, student complaints about the alienation of college life were not unwarranted. Lingering McCarthy-era bans on political activity and free speech were widespread and enforced, and so too the engrained habits and customs of the *in loco parentis* legal regime, which created a stifling social and intellectual climate at many campuses. *In loco parentis* defined students as “children” and granted professors and administrators far-reaching parental powers, especially over their female charges, who were subjected to strict codes of conduct that governed their comings-and-goings, bedtimes, dress, and dating rituals. Nascent leftists at schools such as the University of California–Berkeley and the University of Michigan, and other similarly positioned “multiversities,” followed the lead of the civil rights movement by mobilizing nonviolent direct action campaigns to reform the university and heal society.[55]

Institutionalizing Identity

Reforming higher education, to say nothing of American society, took much longer and proved much more difficult than the new left ever imagined it would. Securing “free speech” at Berkeley and rolling back noisome parietal rules was one thing, making American politics more participatory and democratic, ending racial discrimination once and for all, and stopping the Vietnam War something else entirely. Frustrated by their lack of progress, members of the new left gave up trying to “name that system … and change it,” as SDS president Paul Potter put it, in 1965, to destroying the system

altogether. And when that happened, all hope for “One Big Movement” imploded with it.[56] The “turn to violence and mindless disruption,” explained SDS veteran Todd Gitlin—at hundreds of campuses, but especially at the 1968 Democratic National Convention in Chicago, and at separate murderous events at Kent State, Jackson State College, and University of Wisconsin in the spring and summer of 1970—decimated the new left’s hope of a unified movement that crossed racial, class, and gender lines.[57] Students instead broke off into a multitude of social-identity groups configured around group characteristic such as race, gender, ethnicity, age, religion, illness, and sexual orientation. Drawn together by a quest for individual and group liberation, social-identity groups quickly discovered that identity was a powerful tool for political work.[58]

Then and later, social-identity groups worked to reform society and politics, but arguably their most durable accomplishments occurred on campuses themselves. The organization of student-identity groups, made possible by the rapid diversification and politicization of the student body in the early 1960s, begat the diversification of the university curriculum. Newly admitted black students numbered in the dozens at many institutions. Inspired by Stokely Carmichael’s call for “black power” and self-determination, they led the charge for a “relevant” education that addressed the needs and experiences of black people. They persuaded administrators and students that, in the words of a member of Princeton’s Association for Black Collegians, “the actual curriculum of most predominantly white universities *is* an Anglo-American studies program: the study of the culture and heritage of the American ideal.”[59] Sometimes courses and programs were established after African American students erupted in violent protest, as was the case at Cornell University and San Francisco State College following the assassination of Dr. Martin Luther King Jr. in April 1968. More often than not, however, administrators agreed with students’ demands and created black-studies courses and programs before violence broke out.[60] In the fall of 1968, Black Students at Yale, a campus organization led by future University of Virginia historian Armstead Robinson, one of fourteen black students in his class, hosted a national conference on race and education; covered in the *New York Times*, the event drew representatives from more than a hundred universities, providing a roadmap for the establishment of black-studies courses and programs at campuses across the country.[61] Within a few years, an estimated 500 programs were established, and while not all of these survived, they helped alleviate campus tensions and institute an identity-based curriculum that not only appealed to administrators but also motivated other traditionally marginalized identity groups to mobilize in search of representation and respect within the hulking multiversity.[62]

No group rallied as vigorously or as effectively as the campus wing of the second-wave feminist movement.[63] Demeaned and disrespected in the male-dominated university, and fed up with the new left, female activists formed “consciousness-raising” groups and women’s organizations that paved the way for women’s studies and women’s centers. Years before Title IX of the Education Amendments of 1972 barred sex discrimination and forced coeducation, women not only exposed the misogynistic workings of the university but also did something about it.[64] Substituting gender for race, women’s-studies pioneer Barbara Sicherman denounced the existing curriculum, which “confirmed the woman

student's conscious or unconscious conviction that women were inferior to men, that their achievements were virtually non-existent … distinctly second rate."[65] Women's studies aimed to change this by offering courses that explored women's contributions to history, English literature, and the social sciences, but also by "grounding" this knowledge in the experiences of their everyday lives. For many second-wavers, women's studies was a revelation, providing a model for female intellectual and personal discovery that spread to campuses everywhere. Following the opening of the first women's-studies program at San Diego State University, in 1970, hundreds followed, and by the middle of the decade, the National Advisory Council on Women's Educational Programs counted 270 programs and 15,000 classes being offered by 1,500 different institutions.[66]

Diversity in the University

The diversification of the curriculum with black and women's studies—and all the social identity groups and hyphenated studies that followed—served as the opening salvo in an endless battle over the legality of diversity itself in the 1970s. The main front in this war was affirmative admissions policies at elite universities, where admissions directors and administrators crafted protocols that sometimes went beyond federal anti-discrimination guidelines. Ultimately the Supreme Court was forced to weigh in on the matter in the *Regents of the University of California v. Allan Bakke (1978)*. At the center of the case was the admission policy of the Medical School at the University of California–Davis. The respondent, Allan Bakke, claimed he had been a victim of "reverse discrimination" and unfairly rejected because of the medical school's policy that set aside sixteen seats for minority applicants. The result were two sharply divided 5–4 decisions that banned quotas, thus granting Bakke retroactive admission, but upheld "race or ethnic background" as a constitutionally protected "element—to be weighed fairly against other elements—in the admissions process." Citing an amicus brief by Harvard College, Columbia University, University of Pennsylvania, and Stanford University (one of a record fifty-eight submitted), Justice Lewis Powell concurred that "a diverse student body" created an atmosphere ripe for speculation and discovery.[67] Subsequent Supreme Court decisions in 2003 and, again, in 2016, reached similar conclusions regarding the legality of affirmative admissions.[68]

The Evolving Federal–Academic Partnership since 1980

Along the way, the battle over curricular and student-body diversity got swept up in an emerging conservative critique of the government's support for the American university. The origins of this critique dated to the "academic depression" of the 1970s when enrollments leveled off and research funding, having reached its apogee in 1968, declined in real terms for the rest of the decade, a victim of double-digit inflation and the rising

costs of War on Poverty social programs and getting out of Vietnam. Confronted by a "permanent tax revolt" at the state level and less purchasing power and rapidly rising expenses, universities did about the only thing they could do: they passed along the financial burden to students and families.[69] Since 1978, when these data were first collected, college tuition and fees have risen 1,120 percent—double the consumer price index and almost twice as fast as the rise in medical costs.[70]

It was the election of Ronald W. Reagan (R-CA) two years later that drove a permanent wedge in the longstanding, if increasingly fragile, consensus around government support for research and student aid in an era of runaway costs. Reagan ran against "big government" and arrived in Washington vowing to cut taxes and reel in the social safety net, and to deregulate the economy in order to unleash the "free market." One of his main targets was higher education. Though he never succeeded in dismantling the recently constituted Department of Education, the spread of free-market thinking, previously limited to a small bloc of neoclassical economists and antigovernment political thinkers, revived a long-dormant strand of academic antistatism that turned out to be far more consequential for the future of the American university. The federal government advanced a series of market-driven policies that permanently altered the terms of the federal–academic partnership. Two policies, in particular, stood out. The Bayh-Dole Act of 1980 made technology transfer a condition of federal support and permitted universities to patent and then cash in on their own discoveries.[71] While in the area of student aid, loans eclipsed grants as the government's preferred aid instrument, supplemented later by tax credits, tax-deferred 529 college saving plans, and state and institutional merit-aid programs that disproportionately benefited middle- and upper-income families.[72] Aside from making more money available for loans and grants, the federal higher-education "policyscape" has not added anything substantively new in nearly five decades.[73]

Meanwhile, the commercialization of research (which accounted for $2 billion in revenues last year) and the growing reliance on loans ($1 trillion outstanding at last count) have been cited as exhibit A and B of the neoliberal takeover of the modern university.[74] Once a public good sponsored by public funds, the American university, according to this prevailing view, has been effectively "privatized" thanks to three decades of disinvestment capped by the budget slashing of the "Great Recession."[75] College students are piling up mountains of debt (averaging $26,000), taking longer to graduate (averaging six years)—if they graduate at all (half do not, according to some measures)—and then struggling to find a well-paying job. Recent polls indicate that the American people are worried about paying for college and unsure whether it is still a worthwhile investment, even though all the evidence indicates that earning a degree today matters more than ever.[76]

These are serious problems, and they will require inventive policy solutions that in all likelihood will involve a mix of private *and* public action to increase funding, lower costs, improve performance, and target aid to widen access to those students who need it most.[77] At a time when 90 percent of high school students indicate a desire to attend college, but the United States lags behind other nations in the production of college-

educated workers, bold initiatives will be required.[78] Policy makers and academic leaders would be wise to start by revisiting the history of the American university since 1945 to understand how the institution, despite its many structural weaknesses, became, by most measures, “the world’s best.”[79] They would also do well to remember that the remarkable growth of the American university was made possible by vast public investments and that it is impossible for the sector to fulfill its mission without them.

Indeed, despite the prevalence of neoliberal rhetoric and claims that the American university is a “private” enterprise unmoored from the public, nothing could be further from the truth. Last year the U.S. Department of Education distributed over $130 billion in student aid, while government spending for university-based research and development was $69 billion. When combined with the $80 billion in state-level spending, the total budget outlay for the nation’s 4,700 colleges and universities and 20 million students is only eclipsed by spending for defense, social security, and healthcare.[80] Like these other policy areas, the American university is a creature of government—a conglomeration of programs, laws, regulations, and judicial decisions—and whatever form the sector takes next, some variant of the federal–academic partnership will perforce be at the center of it.

Discussion of the Literature

Before World War II, the history of American universities was a fringe field dominated by narrowly drawn “house histories” of varying quality. These chronicles remain popular with alumni, and the best of them offer valuable insights into the historical evolution of American colleges and universities and are required reading for scholars.[81]

The first major works on the history of American universities by Frederick Rudolph and Laurence Veysey emerged in the midst of the expansion of the institution in the postwar period, when the importance of universities became incontrovertible and popular demand for, and public investments in, higher learning climbed rapidly.[82] The formation of a field dedicated to the history of higher education happened concurrently as scholars formed associations and created journals in which to publish their findings.[83] From the start, a number of research areas preoccupied scholars, setting the terms for future study. The history of the academic professions was one area. Eliot Friedson, Magali Sarfatti Larson, Andrew Abott, and Brian Balogh took a critical stance toward professional life by exploring the departmentalization of knowledge and the self-interested quest of professional communities to obtain power and widen their jurisdiction on and off campus.[84] The work of Ellen Schrecker and others on the vagaries of “academic freedom,” meanwhile, exposed the frailty of professional autonomy in the face of externally motivated political and corporate challengers.[85] A recent study by Neil Gross has pinpointed the political dimensions of professional life and how it has affected the history of the university.[86]

A second main area was the study of the research economy. Roger L. Geiger's expansive collection of books offers the best overview of this topic.[87] Other studies by Stuart Leslie and Rebecca Lowen hone in on particular institutional manifestations of the military-industrial–academic-research complex, detailing administrator decision making and professorial self-interest as well as the long-range impact of the matrix on disciplinary development and undergraduate and graduate education.[88] More recent work on the sponsored research economy has built productively on the history of the Cold War university to explain the origins of biotech, hi-tech, and the digital age, with a special emphasis on the predominant if underappreciated part that public investment still plays in the research-and-development life cycle.[89]

The history of student life and cultures represents yet another core research topic. For the single best synthesis on the topic (covering the period both before and after 1945), readers should consult the work of Helen Lefkowitz Horowitz.[90] Much of the rest of the literature has hewed closely to the decade of the 1960s. The earliest works on this pivotal era were written by veterans of the new-left, civil-rights, antiwar, and minority-rights movements.[91] Ensuing work—on the new left in Texas and in the Bay Area,[92] on the African American freedom struggle and black power,[93] on women's rights and coeducation,[94] and on the rise of the right-wing student groups[95]—has not only added fresh perspectives to the foundational literature but also provided valuable insights for understanding student behavior *since* the 1960s.[96]

The political and policy history of American universities is a final area of inquiry that intersects with many of the themes and ideas outlined above. This body of scholarship examines the interaction of decision makers at the institutional, state, and federal levels and traces how policies (both formal and informal, from the top down and the bottom up), laws, and court decisions have influenced university development—from the research that is conducted, to how students pay for college, to the rules and regulations that govern campus life. The animating idea undergirding this work is that universities are creatures of the state, and that their history has been shaped by social, political, and legal institutions that span the gamut of the public, private, and voluntary sectors. The scholarship on the political and policy history of universities has focused on the end of segregation,[97] on the birth of student aid,[98] on the fight over selective admissions and affirmative action,[99] on the contribution of universities to American political development,[100] and on the challenges the sector faces in a time of political gridlock[101] and ascendant neoliberalism.[102]

Primary Sources

University archives are the single best source to study the evolution of American colleges and universities. Administrative and personal papers, along with related historical materials and ephemera (e.g., yearbooks, student newspapers, and cultural artifacts) are the foundation of these collections. At institutions that receive federal funds—which is to say most universities—student records are protected by the **Federal Education Rights**

and Privacy Act (FERPA), while administrative records are typically sealed for forty to fifty years, though records may be accessed earlier at public universities governed by public-access laws. In either case, researchers should contact an archivist in advance to familiarize themselves with the **information governance principles** of the repository and to verify if and under what terms the records are available for examination. For helpful university-specific data and trends, researchers should consult the institutional research office, whose staff collect, analyze, and disseminate institutional data. The Common Data Set—a standard compendium of the most commonly requested statistical and descriptive information—is a helpful place to start.

On the growth of the federal role in university development, and the specific contributions of discrete government departments and agencies, scholars will benefit from visits to the National Archives II at College Park, Maryland, and to the various Presidential Libraries and Museums of the National Archives and Records Administration. National professional associations and/or learned society archives are helpful for understanding the formation, growth, and development of specific disciplinary communities. The location of association holdings vary widely: some (e.g., the National Academy of Sciences) manage their own archival collections; others (e.g., the American Council of Learned Societies) are housed at the Library of Congress; and still others (e.g., the records of the American Sociological Association, held at Penn State Library) are managed by university archivists. Researchers should consult individual associations for information on archival locations and accessibility.

For the contribution of philanthropic organizations, especially their part in supporting research, campus building projects, and disciplinary communities, the Rockefeller Archives Center (RAC) in Tarrytown, New York, is essential. Scholars will find the papers of two dozen leading philanthropic organizations, many of which have played and continue to play a key role in coordinating and funding core university functions around teaching, research, and service. In addition to the Rockefeller family’s array of philanthropic units (including the Rockefeller Foundation, the Rockefeller Brothers Fund, and the Rockefeller University), the RAC also maintains the papers of the Ford Foundation, the General Education Board, the Social Science Research Council, the Russell Sage Foundation, and the Spelman Fund of New York, along with other smaller philanthropies and related organizations. The papers of the Carnegie Corporation of New York are held at Columbia University’s Rare Book and Manuscript Library in New York City, and available to researchers.

Many university archives have placed significant portions of their most requested records online, and researchers should spend time perusing individual archival websites to learn more about the digital materials that are free and publicly accessible. Additional aggregate data on historical trends and the changing institutional, financial, legal, and demographic patterns of the country’s higher-education system are available online through the federal government and non-governmental educational research organizations.

U.S. Department of Education.

National Center for Education Statistics.

Integrated Postsecondary Education Data System.

Office of Civil Rights Reading Room.

U.S. Census Bureau.

Organisation for Economic Co-operation and Development (OECD).

F.B.I. Uniform Campus Crime Reports.

College Board's Trends in Higher Education.

UCLA's Higher Education Research Institute.

Links to Digital Materials

College Women: Documenting the History of Women in Higher Education.

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Links to Resources from Students for a Democratic Society.

Manhattan Project: An Interactive History.

SNCC Legacy Project.

Women's Liberation Movement Print Culture.

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Notes:

(1.) Roger L. Geiger, *To Advance Knowledge* (New York: Oxford University Press, 1986).

(2.) Bernard Berelson, *Graduate Education in the United States* (New York: McGraw Hill, 1960), 24–32; Thomas D. Snyder, ed., *120 Years of American Education: A Statistical Portrait* (Washington, DC: NCES 1993), 76–77.

(3.) Roger L. Geiger, *Research and Relevant Knowledge: American Research Universities Since World War II* (New York: Oxford University Press, 1993), 3–6.

(4.) Larry Owens, "MIT and the Federal 'Angel': Academic R&D and Federal-Private Cooperation before World War II," *ISIS* 81 (1990): 188–213.

(5.) Vannevar Bush, *Endless Horizons* (Washington, DC: Public Affairs Press, 1946), 130; Zachary, *Endless Frontier*, 115. On Conant's World War I experiences, see James G. Hershberg, *James B. Conant: Harvard to Hiroshima and the Making of the Nuclear Age* (New York: Alfred A. Knopf, 1993), 35–48.

(6.) Don K. Price, *Government and Science: Their Dynamic Relation in American Democracy* (1953; New York: Oxford University Press, 1962), 65–94. Price elaborated, "Here was a system in which the federal agencies could do business not only with state government agencies, but with private universities and corporations as well… . This new system wipes out the distinction between public and private affairs and gives great segments of industry and education a stake in federal programs" (77–78).

(7.) Bush, *Endless Horizons*, 111.

(8.) James Phinney Baxter, *Scientists Against Time* (Boston: Little, Brown and Company, 1946), ix, 21.

(9.) Howard Brick, *Age of Contradiction: American Thought and Culture in the 1960s* (New York: Twayne Publishers, 1998), 37. The belief in the superiority of democratic science grew stronger in the postwar period; see Michael Polanyi, "The Republic of Science: Its Political and Economic Theory," *Minerva* 1 (1962): 54–73.

(10.) Leslie R. Groves, *Now It Can Be Told: The Story of the Manhattan Project* (New York: Harper, 1962), 3–4. The Apollo Mission would surpass the Manhattan Project in size, expense, and complexity. Walter C. McDougall, *The Heavens and the Earth: A Political History of the Space Age* (New York: Basic Books, 1985).

(11.) Harry Thayer, *Management of the Hanford Engineer Works in World War II: How the Corps, DuPont and the Metallurgical Laboratory Fast Tracked the Original Plutonium*

Works (Washington, DC: American Society of Civil Engineers); Leland Johnson and Daniel Schaffer, *Oak Ridge National Laboratory: First Fifty Years* (Knoxville: University of Tennessee Press, 1994).

(12.) Oppenheimer's background in theoretical physics made him something of an unlikely choice for the job, but the other leading candidates—Harold Urey at Columbia, Arthur Compton at Chicago, and Ernest Lawrence at Berkeley—were already indisposed. Groves, *Now It Can Be Told*, 61–62.

(13.) Irvin Stewart, *Organizing Scientific Research for War: The Administrative History of the Office of Scientific Research and Development* (Boston: Little, Brown and Company, 1948), 92; Kevles, *Physicists*, 302–308

(14.) Henry E. Guerlac, *Radar in World War II* (New York: American Institute of Physics, 1987), 285–290.

(15.) Ibid., 666.

(16.) For the best synthesis of the heated debate to drop the bomb, and how historians have understood it, see J. Samuel Walker, *Prompt and Utter Destruction: Truman and the Use of Atomic Bombs against Japan*, 2d ed. (Chapel Hill: University of North Carolina Press, 2004).

(17.) Ellen Herman, *Romance of American Psychology: Political Culture in the Age of Experts* (Berkeley: University of California Press, 1996).

(18.) Ron Robin, *The Barbed-Wire College: Reeducating German POWs in the United States During World War II* (Princeton, NJ: Princeton University Press, 1995).

(19.) Vannevar Bush, *Science—the Endless Frontier: A Report to the President on a Program for Postwar Scientific Research* (Washington, DC: National Science Foundation, 1980), 6–7.

(20.) Ibid., 6.

(21.) Ibid., 25.

(22.) Ibid., 7.

(23.) Ibid., 12–13.

(24.) Jessica Wang has characterized this struggle as one that pitted "elite scientist-administrators," who sided with Bush, against "a progressive left politics of science," who sided with Kilgore. Jessica Wang, *American Science in an Age of Anxiety: Scientists, Anticommunism, and the Cold War* (Chapel Hill: University of North Carolina Press, 1999), 10–43.

(25.) Geiger, *Research and Relevant Knowledge*, 16–19.

(26.) Stuart W. Leslie, *The Cold War and American Science: The Military-Industrial-Academic Complex at MIT and Stanford* (New York: Columbia University Press, 1993), 1.

(27.) This point has been made most convincingly by Rebecca S. Lowen, *Creating the Cold War University: The Transformation of Stanford* (Berkeley: University of California Press, 1997).

(28.) Kai Bird and Martin J. Sherwin, *American Prometheus: The Triumph and Tragedy of J. Robert Oppenheimer* (New York: Alfred A. Knopf, 2005).

(29.) Ellen W. Schrecker, *No Ivory Tower: McCarthy and the Universities* (New York: Oxford University Press, 1986).

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(33.) For a definition of "policy feedback," see Margaret Weir, Ann Shola Orloff, and Theda Skocpol, "Introduction: Understanding American Social Politics," in Weir, Orloff, and Skocpol, eds., *The Politics of Social Policy in the United States* (Princeton, NJ: Princeton University Press, 1988), 25. On the GI Bill as a feedback loop, see Theda Skocpol, "The G.I. Bill and U.S. Social Policy, Past and Future," *Social Philosophy and Policy* 14.2 (1997): 95–115.

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(35.) Keith W. Olson, *The G.I. Bill, the Veterans, and the Colleges* (Lexington: University Press of Kentucky, 1974).

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(39.) Kathleen J. Frydl, *The GI Bill* (New York: Cambridge University Press, 2009).

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(44.) Ibid., 178–183.

(45.) Earl J. McGrath, *The Predominantly Negro Colleges and Universities in Transition* (New York: Teachers College Press, 1965), 5–6, 172–177.

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(48.) "Number of Black Students Has Tripled in a Decade," *Chronicle of Higher Education* (June 19, 1978), 8; Snyder, ed., *120 Years of American Education*, 75–76.

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(54.) Cheryl Lynn Greenberg, *A Circle of Trust: Remembering SNCC* (New Brunswick, NJ: Rutgers University Press, 1998), 33.

(55.) For the new left's rejection of *in loco parentis*, see the section titled "The Students" in The Port Huron Statement, available in James Miller, *Democracy is in the Streets: From Port Huron to the Siege on Chicago* (New York: Simon and Schuster, 1988), 333–335. For the rise of the Free Speech Movement at Berkeley and its challenge to received student norms and campus life more generally, see W. J. Rorabaugh, *Berkeley at War: The 1960s* (New York: Oxford University Press, 1989). On the history of *in loco parentis*, see Scott Gelber, "Expulsion Litigation and the Limits of In Loco Parentis," *Teachers College Record* 116.12 (2014): 1–16; Christopher P. Loss, "Institutionalizing In Loco Parentis after Gott v. Berea (1913)," in ibid., 1–16; and Philip Lee, "The Case of Dixon v. Alabama State Board of Education: From Civil Rights to Students' Rights and Back Again," in ibid., 1–18.

(56.) Paul Potter, "Name the System" (April 17, 1965), in *Debating the 1960s: Liberal, Conservative, and Radical Perspectives*, ed. Michael W. Flamm and David Steigerwald (New York: Rowan & Littlefield, 2007), 95; Todd Gitlin, *The Sixties: Years of Hope, Days of Rage* (New York: Bantam, 1987), 417.

(57.) Gitlin, *Sixties*, 417.

(58.) For the classic explication of the turn toward identity, on which this interpretation is based, see Sara Evans, *Personal Politics: The Roots of Women's Liberation in the Civil Rights and New Left* (New York: McGraw Hill, 1979). For a critical assessment, see Todd Gitlin, *The Twilight of Common Dreams: Why America is Wracked by Culture Wars* (New York: Henry Holt, 1995).

(59.) Elliott Duane Moorman, "The Benefit of Anger," in *Image and Event*, ed. David L. Bickness and Richard L. Brengle (New York: Appleton-Century-Crofts, 1971), 340–344.

(60.) For a thorough assessment of the development of the field, see Nathan Huggins, *Afro-American Studies: A Report for the Ford Foundation* (New York: Ford Foundation, 1985).

(61.) Armstead L. Robinson, Craig C. Foster, and Donald H. Ogilvie, eds., *Black Studies in the University: A Symposium* (New Haven, CT: Yale University Press, 1969).

(62.) Fabio Rojas, *From Black Power to Black Studies: How a Radical Social Movement Became an Academic Discipline* (Baltimore: Johns Hopkins University, 2010); and Peter Novick, *That Noble Dream: The "Objectivity Question" and the American Historical Profession* (New York: Cambridge University Press, 1988), 475–476.

(63.) On the origins of the women's movement, see Evans, *Personal Politics*; William H. Chafe, *Women and Equality: Changing Patterns in American Culture* (New York: Oxford University Press, 1977); and Anne Enke, *Finding the Movement: Sexuality, Contested Space, and Feminist Activism* (Durham, NC: Duke University Press, 2007). For a general history, see Ruth Rosen, *The World Split Open: How the Modern Women's Movement Changed America* (New York: Viking, 2000).

(64.) On Title IX, see Andrew Fishel and Janice Pottker, *National Politics and Sex Discrimination in Education* (Lexington, MA: Lexington Books, 1977). For the history of coeducation, see Barbara Miller Solomon, *In the Company of Educated Women: A History of Women and Higher Education in America* (New Haven, CT: Yale University Press, 1985); and Nancy Weiss Malkiel, *"Keep the Damned Women Out": The Struggle for Coeducation* (Princeton, NJ: Princeton University Press, 2016).

(65.) Barbara Sicherman, "The Invisible Woman," in *Women in Higher Education*, ed. W. Todd Furniss and Patricia Albjerb Graham (Washington, DC: American Council on Education, 1974), 161.

(66.) Mari Jo Buhle, "Introduction," in *The Politics of Women's Studies: Testimony from 30 Founding Mothers*, ed. Florence Howe (New York: Feminist Press, 2000), xv.

(67.) Terry H. Anderson, *The Pursuit of Fairness: A History of Affirmative Action* (New York: Oxford University Press, 2004), 150–155.

(68.) The main cases were: *Gratz v. Bollinger* and *Grutter v. Bollinger* (2003) (i.e., The Michigan Cases); and *Fischer v. Texas* (2016).

(69.) Christopher P. Loss, *Between Citizens and the State: The Politics of American Higher Education in the 20th Century* (Princeton, NJ: Princeton University Press, 2012), 215–216; Isaac William Martin, *The Permanent Tax Revolt: How the Property Tax Transformed American Politics* (Palo Alto, CA: Stanford University Press, 2008).

(70.) http://www.bloomberg.com/news/articles/2012-08-15/cost-of-college-degree-in-u-s-soars-12-fold-chart-of-the-day.

(71.) Roger L. Geiger, *Knowledge and Money: Research Universities and the Paradox of the Marketplace* (Palo Alto, CA: Stanford University Press, 2004), 180–181.

(72.) Loss, *Between Citizens and the State*, 224–226.

(73.) Suzanne Mettler, *Degrees of Inequality: How the Politics of Higher Education Sabotaged the American Dream* (Princeton, NJ: Princeton University Press, 2014), 14.

(74.) On tech transfer, see Walter D. Valdivia, *University Start Ups* (Washington, DC: Brookings Institution, 2013), available at https://www.brookings.edu/research/university-start-ups-critical-for-improving-technology-transfer/. On student-debt estimates, see The Institute for College Access and Success at http://ticas.org/posd/home.

(75.) The literature on this topic is huge. For several of the better-known titles, see, for example, Bill Readings, *The University in Ruins* (Cambridge, MA: Harvard University Press, 1997); Christopher Newfield, *Unmaking the Public University: The Forty-Year Assault on the Middle-Class* (Cambridge, MA: Harvard University Press, 2011); Gaye Tuchman, *Wannabe U: Inside the Corporate University* (Chicago: University of Chicago

Press, 2011); and Benjamin Ginsberg, *The Fall of the Faculty: The Rise of the All-Administrative University and Why it Matters* (New York: Oxford University Press, 2013).

(76.) For a recent study of the economic advantages of an advanced degree, see Anthony Carnevale and Stephen Rose, *The Economy Goes to College* (Washington, DC: Georgetown University, Center on Education and the Workforce, April 2015) available at https://cew.georgetown.edu/cew-reports/the-economy-goes-to-college/.

(77.) For some possible recommendations, see William G. Bowen and Michael S. McPherson, *Lesson Plan: An Agenda for Change in American Higher Education* (Princeton, NJ: Princeton University Press, 2016), 73–140; and Patrick J. McGuinn and Christopher P. Loss, "The Future of Convergence," in *The Convergence of K-12 and Higher Education: Policies and Programs in a Changing Era* (Cambridge, MA: Harvard Education Press, 2016), 225–228.

(78.) For data comparing U.S. educational performance to that of other countries, see the Organisation for Economic Co-operation and Development (OECD) at http://www.oecd.org/education/education-at-a-glance-19991487.htm. For a history of the OECD and the development of its surveying techniques, see Amanda Ripley, *The Smartest Kids in the World—and How They Got That Way* (New York: Simon & Schuster, 2013), 14–19.

(79.) This claim was memorably leveled by Henry Rosovsky, "Our Universities Are the World's Best," *New Republic* (July 13, 1987), 13–14. Most every global metric used to measure "the best" universities have reached the same conclusions ever since. According to the recent results of the Center for World University Rankings, U.S. universities occupied eighteen of the top twenty-five spots; see http://cwur.org/2014.php.

(80.) Budget of the U.S. Government, Fiscal Year 2016, Analytical Perspectives (Washington, DC: Government Printing Office, 2015), table 29-1. See also College Board, "Trends in Student Aid," table 1, https://lp.collegeboard.org/trends.; https://www.aaas.org/fy16budget/federal-rd-fy-2016-budget-overview; and http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2015/06/federal-and-state-funding-of-higher-education.

(81.) For a fine early example of such a study, see Samuel Eliot Morison, *Three Centuries of Harvard* (Cambridge, MA: Harvard University Press, 2001); For other exemplary studies of more recent publication, see, for example, Robert A. McCaughey, *Stand Columbia: A History of Columbia University in the City of New York* (New York: Columbia University Press, 2003); and Morton Keller and Phyllis Keller, *Making Harvard Modern: The Rise of America's University* (Cambridge, MA: Harvard University Press, 2006).

(82.) John S. Brubacher and Willis Rudy, *Higher Education in Transition: An American History* (New York: Harper, 1958); Frederick Rudolph, *The American College and University: A History* (New York: Knopf, 1962); Clark Kerr, *The Uses of the University* (Cambridge, MA: Harvard University Press, 1963); Laurence Veysey, *The Emergence of the American University* (Chicago: University of Chicago Press, 1965); and Christopher

Jencks and David Reisman, *The Academic Revolution* (New York: Doubleday, 1968). Veysey's book covers the formative period of university development between the end of the Civil War and 1910, though it is required reading for anyone interested in understanding the history of the modern university in the post-1945 period.

(83.) The founding of the History of Education Society in 1960 and the publication of the first issue of *History of Education Quarterly* a year later were early defining moments. In 1976 the Association for the Study of Higher Education (ASHE) was incorporated, and, in 1981, the first issue of *Perspectives on the History of Higher Education* (formerly *The History of Higher Education Annual*), edited by Roger Geiger, was published—the first peer-reviewed history journal to focus exclusively on the history of colleges and universities.

(84.) On the professions, see Eliot Freidson, *Profession of Medicine: A Study of the Sociology of Applied Medicine* (New York: Dodd, Mead, 1970); Magali Sarfatti Larson, *The Rise of Professionalism: A Sociological Analysis* (Berkeley: University of California Press, 1979); Andrew Abbott, *The System of Professions: An Essay on the Division of Expert Labor* (Chicago: University of Chicago Press, 1988); Brian Balogh, *Chain Reaction: Expert Debate and Public Participation in American Commercial Nuclear Power, 1945–1975* (New York: Cambridge University Press, 1991); and Steve G. Brint, *In an Age of Experts: The Changing Role of Professionals in Politics and Public Life* (Princeton, NJ: Princeton University Press, 1994). On the departmentalization of knowledge, see Thomas Bender and Carl E. Schorske, eds., *American Academic Culture in Tranformation: Fifty Years, Four Disciplines* (Princeton, NJ: Princeton University Press, 1997).

(85.) Ellen W. Schrecker, *No Ivory Tower: McCarthyism and the Universities* (New York: Oxford University Press, 1986); Robert O'Neil, *Academic Freedom in the Wired World: Political Extremism, Corporate Power, and the University* (Cambridge, MA: Harvard University Press, 2008). See also Richard Hofstadter and Walter P. Metzger, *The Development of Academic Freedom in the United States* (New York: Columbia University Press, 1955).

(86.) Neil Gross, *Why Are Professors Liberal and Why Do Conservatives Care?* (Cambridge, MA: Harvard University Press, 2013).

(87.) Roger L. Geiger, *Research and Relevant Knowledge: American Research Universities since World War II* (New York: Oxford University Press, 1993); *Knowledge and Money: Research Universities and the Paradox of the Marketplace* (Standord, CA: Stanford University Press, 2004); Roger L. Geiger and Creso M. Sa, *Tapping the Riches of Science: Universities and the Promise of Economic Growth* (Cambridge, MA: Harvard University Press, 2008).

(88.) Stuart W. Leslie, *The Cold War and American Science: The Military-Industrial-Academic Complex at MIT and Stanford* (New York: Columbia University Press, 1993);

Rebecca S. Lowen, *Creating the Cold War University: The Transformation of Stanford* (Berkeley: University of California Press, 1997).

(89.) Janet Abbate, *Inventing the Internet* (Cambridge, MA: MIT Press, 2000); Margaret Pugh O'Mara, *Cities of Knowledge: Cold War Science and the Search for the Next Silicon Valley* (Princeton, NJ: Princeton University Press, 2005); Fred Turner, *From Counter Culture to Cyberculture* (Chicago: University of Chicago Press, 2008); Sally Smith Hughes, *Genentech: The Beginnings of Biotech* (Chicago: University of Chicago Press, 2011); Mariana Mazzucato, *The Entrepreneurial State: Debunking Public vs. Private Sector Myths* (New York: Anthem Press, 2014).

(90.) Helen Lefkowitz Horowitz, *Campus Life: Undergraduate Cultures from the End of the Eighteenth Century to the Present* (Chicago: University of Chicago Press, 1987).

(91.) Sarah Evans, *Personal Politics: The Roots of Women's Liberation in the Civil Rights Movement and the New Left* (New York: Vintage, 1980); Clayborne Carson, *In Struggle: SNCC and the Black Awakening of the 1960s* (Cambridge, MA: Harvard University Press, 1981); Todd Gitlin, *The Sixties: Years of Hope, Days of Rage* (New York: Bantam, 1993); Ruth Rosen, *The World Split Open: How the Modern Women's Movement Changed America* (New York: Penguin, 2006).

(92.) Doug Rossinow, *The Politics of Authenticity: Liberalism, Christianity, and the New Left in America* (New York: Columbia University Press, 1998); Robert Cohen, *Freedom's Orator: Mario Savio and the Radical Legacy of the 1960s* (New York: Oxford University Press, 2009).

(93.) Fabio Rojas, *From Black Power to Black Studies: How a Radical Social Movement Became an Academic Discipline* (Baltimore: Johns Hopkins University, 2010); Donna Jean Murch, *Living for the City: Migration, Education, and the Rise of the Black Panther Party in Oakland, California* (Chapel Hill: University of North Carolina Press, 2010); Ibram H. Rogers, *The Black Campus Movement: Black Students and the Racial Reconstitution of Higher Education, 1965–1972* (New York: Palgrave Macmillan, 2012); Martha Biondi, *The Black Revolution on Campus* (Berkeley: University of California Press, 2014).

(94.) Linda Eisenman, *Higher Education for Women in Postwar America, 1945–1965* (Baltimore, MD: Johns Hopkins University Press, 2006); Elizabeth A. Armstrong and Laura T. Hamilton, *Paying for the Party: How College Maintains Inequality* (Cambridge, MA: Harvard University Press, 2013); Nancy Weiss Malkiel, *"Keep the Damned Women Out": The Struggle for Coeducation* (Princeton, NJ: Princeton University Press, 2016);.

(95.) Gregory L. Schneider, *Cadres of Conservatism: Young Americans for Freedom and the Rise of the Contemporary Right* (New York: New York University Press, 1998); Rebecca E. Klatch, *A Generation Divided: The New Left, the New Right, and the 1960s* (Berkeley: University of California Press, 1999).

(96.) Robert A. Rhoads, *Freedom's Web: Student Activism in an Age of Cultural Diversity* (Baltimore MD Johns Hopkins University Press, 1998); Jonathan Zimmerman, *Campus Politics: What Everyone Needs to Know* (New York: Oxford University Press, 2016).

(97.) Melissa Kean, *Desegregating Private Higher Education in the South: Duke, Emory, Rice, Tulane, and Vanderbilt* (Baton Rouge: Louisiana State University Press, 2008).

(98.) Rupert Wilkinson, *Aiding Students, Buying Students: Financial Aid in America*. (Nashville: Vanderbilt University Press, 2005).

(99.) Nicholas Lemann, *The Big Test: The Secret History of the American Meritocracy* (New York: Farrar, Straus, and Giroux, 1999); John D. Skrentny, *The Minority Rights Revolution* (Cambridge, MA: Belknap, 2002); Jerome Karabel, *The Chosen: The Hidden History of Admission and Exclusion at Harvard, Yale, and Princeton* (Boston, MA: Houghton Mifflin, 2005).

(100.) Hugh Davis Graham, *The Uncertain Triumph: Federal Education Policy in the Kennedy and Johnson Years* (Chapel Hill: University of North Carolina Press, 1984); Kathleen J. Frydl, *The G.I. Bill* (New York: Cambridge University Press, 2009); Christopher P. Loss, *Between Citizens and the State: The Politics of American Higher Education in the 20th Century* (Princeton, NJ: Princeton University Press, 2012.)

(101.) Suzanne Mettler, *Degrees of Inequality: How the Politics of Higher Education Sabotaged the American Dream* (New York: Basic Books, 2014).

(102.) Much of this work tends to be overblown. For several studies that thoughtfully dissect the current scene, see Derek Bok, *Universities in the Marketplace: The Commercialization of Higher Education* (Princeton, NJ: Princeton University Press, 2004); Sheila Slaughter and Gary Rhoades, *Academic Capitalism and the New Economy: Markets, State, and Higher Education* (Baltimore: Johns Hopkins University Press, 2009); and William G. Bowen and Michael S. McPherson, *Lesson Plan: An Agenda for Change in American Higher Education* (Princeton, NJ: Princeton University Press, 2016).

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