

Funding the Cold War University: Science, Curriculum Reform,
and Soft Power in US Research Universities, 1940s-1960s

By: Bethany Holley-Griffith

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Bethany Holley-Griffith

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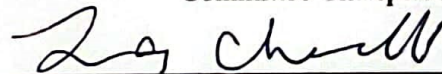
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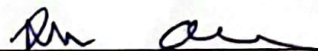
By



Committee Chairperson



Committee Member



Committee Member

Committee Member

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Abstract

During the Cold War, the US government projected both hard and soft power at home and abroad by funding scientific research at universities. Key government officials asserted the essential role universities played in promoting democracy within American society. They also sought to compete with the Soviet Union by shifting the curricular focus to science. In response to student complaints, university officials fostered a more representative Liberal Arts curriculum. Foreign exchange programs presented a particular vision of democracy to the world. Research universities played a critical role in projecting soft power during Cold War, which has not received sufficient scholarly attention.

Introduction

In the nineteenth century, colleges typically operated under the influence of interest groups that provided most of the school's funding. In addition to tuition costs, church colleges received money from the church and its donors, while local colleges received income from taxpayers and "local boosters eager to make a quick profit on land or to develop business opportunities in their town."¹ Therefore, many universities received a large amount of funding from private investors, usually, philanthropists who directed wealth accrued from industry to the advancement of scholarly inquiry and study.²

After founding presidents David Starr Jordan of Stanford University and G. Stanley Hall of Clark University unsuccessfully attempted to promote a research-oriented university model in the nineteenth century, they turned to industrial tycoons for support. The children of these philanthropists made significant contributions to Harvard, Clark University, and other East Coast institutions as alumni recognizing the need for scientific advancement at these schools. Therefore, David Riesman posits that the "academic revolution" resulted from private funding during the industrial revolution rather than government funding.³ Private support set the tone for universities and remained prominent until the First World War, which ushered in a transition from this industrial model.

¹ Christopher Jencks and David Riesman, *The Academic Revolution* (Garden City, New York: Doubleday and Company, 1968), 4-5.

² John R. Thelin, and Edwards, Jason R., Moyen, Eric, "Higher Education in the United States: Historical Development, System," *Education Encyclopedia*, accessed June 4, 2020, <https://education.stateuniversity.com/pages/2044/Higher-Education-in-United-States.html>.

³ Jenks, Christopher, and David Riesman, *The Academic Revolution*, (Doubleday & Company, Inc: Garden City, New York), 260; Agricultural research was a prominent form of research in the nineteenth century as addressed in and war changed the scope of this research as addressed by R.C. Lewontin, "The Cold War and Transformation of the Academy," in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997),, 1-33.

Funding for military means altered the landscape of research universities. “Project research before the war was an industrial or government enterprise carried out by industrial and government scientists in industrial and government installations.”⁴ Between 1945 and 1970, research universities gained a strong position in the eyes of key government officials. The funding provided to these universities reshaped the way Americans viewed higher education.⁵ As universities incorporated middle-class values into academics and took on the role of creating upstanding citizens, the purpose of research took on new characteristics.⁶ After the Second World War, government funding served the additional purpose of creating citizens who possessed a particular set of American values centered on democracy and progress.⁷

In 1930 Abraham Flexner, a prominent scholar and advocate for US education reform, wrote, “Nations have recently been led to borrow billions for war; no nation has ever borrowed for education. Probably no nation is rich enough to pay for both war and civilization. We must make our choice. We cannot have both.”⁸ Unbeknownst to Flexner, a cold war emerged following the Second World War, which combined these seemingly opposing concepts.

European governments scrambled to find stability while the Truman administration in the US

⁴ R.C. Lewontin, “The Cold War and the Transformation of the Academy,” ed. Andre Schriffin, *The Cold War and the University: Toward an Intellectual History of the Postwar Years* (New York: New Press, 1997), 13.

⁵ Ethan Schrum, *The Instrumental University: Education in Service of the National Agenda after World War II*, (Ithaca: Cornell University Press, 2019), accessed September 1, 2020, ProQuest Ebook Central.

⁶ Fred M. Hechinger, “New Barrier to U.S. Aid to Education: Support is Found for View that it Implies Federal Controls,” *New York Times (19 23-Current File)*, Mar 27, 1963, accessed September 10, <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/116522362?accountid=14516>.

⁷ Education Commissioner Earl McGrath outlines this purpose in a statement published by the *Journal of Higher Education* in which he claims that the new university model should instill democratic values and promote their new model onto the “troubled and restless world.” Earl J. McGrath, April, 1949: The Goals of Higher Education, Condensed for Publication in the *Journal of Higher Education*, Speeches, Articles, and Public Statements File, 1949-1953, Earl J. McGrath Papers, Truman Library, 1;15, accessed September 18, 2020, <https://www.trumanlibrary.gov/library/personal-papers/speeches-articles-and-public-statements-file-1949-1953/april-1949-goals>.

⁸ Abraham Flexner, *Universities: American English German* (New York: Oxford University Press, 1930), 302, accessed May 22, 2022, <https://archive.org/details/universitiesamer008115mbp/page/n313/mode/2up?view=theater&q=research>.

remained busy developing methods for controlling the new, chaotic world.⁹ Hard power was no longer the key focus within this administration, as officials began to utilize soft power methods to bolster their standing in the aftermath of the Second World War.

Soft power describes an ability to coerce others to make desired changes through attraction rather than force. In many instances, soft power manifests through the display of cultural practices that one nation projects to induce other nations into following its lead. Education is a crucial component of cultural soft power.¹⁰ Diplomats began to recognize the need for education in the new battle between democracy and communism, in which soft power became the preferred method of force. The Truman administration linked research to soft power through scientific developments, which helped assert their global position. Increasing funding to stateside research universities promoted scientific developments throughout the country and strengthened the United States' standing as a dominant world power while projecting democratic principles to counter Soviet ideologies.

Some refer to soft power as cultural diplomacy, and historian Audra J. Wolfe clarifies that “a country can use its cultural resources - its cultural products as well as its cultural values – to strengthen its alliances and build bridges to those not yet in its camp.”¹¹ Asserting their cultural diplomacy, the United States developed psychological campaigns to supplement their troop offensives to persuade other nations to follow democratic domestic policies. These programs, often referred to as “hearts and minds” offensives, took the form of propaganda broadcasts, student exchanges, and sponsorship of academic conferences. The United States

⁹ For a detailed description of the political environment at the close of the Second World War see Melvyn P Leffler, *A Preponderance of Power: National Security, the Truman Administration, and the Cold War* (Stanford, California: Stanford University Press, 1992).

¹⁰ Joseph S. Nye, "Public Diplomacy and Soft Power," *The Annals of the American Academy of Political and Social Science* 616 (2008): 94-96, accessed April 8, 2021.

¹¹ Audra J. Wolfe, *Freedom's Laboratory: The Cold War Struggle for the Soul of Science* (Baltimore: John Hopkins Press, 2020), 3-4.

recruited many participants into their battle for cultural supremacy, and Frank Wisner, head of the Office of Policy Coordination (OPC), viewed these “intellectuals as ideological foot soldiers in the Cold War.”¹² As the United States embarked on its battle for cultural supremacy, education increasingly became entangled in soft power initiatives.

This research examines efforts by the federal government to promote the United States as a dominant world power through government funding at universities and government-backed higher education programs. Federal authorities invested heavily in scientific and technological sectors, which allowed military research to flourish.¹³ Programs that advanced research into nuclear technology became possible in locations like Los Alamos and Livermore.¹⁴ Through federal research programs, a marriage between education and government took place, allowing the United States to bolster its image as a powerful nation.

Additionally, through government funding, the American university adapted to these new financial opportunities, allowing a new framework for higher education to take shape. President of the University of California Clark Kerr promoted an original blueprint for this design which he referred to as a multiversity in his influential and also controversial publication *The Uses of the University*. In this book, he highlights the role of federal funding within the university and brings to light the massive investments the government made in a select few universities. Kerr also advocated for a system in which graduate students received a substantial amount of attention

¹² Wolfe, *Freedom's Laboratory*, 3; 60.

¹³ Richard C. Atkinson and Blanpied, William A. “Research Universities: Core of the US Science and Technology System,” *Technology in Society*. 30 (2008): 30-48, accessed September 4, 2020, http://www.rca.ucsd.edu/docs/TIS_Research%20Universities%20Core%20of%20the%20US%20science%20and%20technology%20system.pdf.

¹⁴This is in reference to Lawrence Livermore National Laboratory and Los Alamos National Laboratory. Rebecca S. Lowen, “The More Things Change...: Money, Power and the Professoriate.” *History of Education Quarterly* 45, no. 3 (2005): 438-45, accessed September 1, 2020. <http://www.jstor.org/stable/20461992>; Jencks and Riesman, *The Academic Revolution*, 223.

at a time when undergraduates started to express frustration with their impersonal college experiences.¹⁵

Kerr's plan for research investments came in the wake of the Soviet Union's launching of Sputnik in 1957, which pushed the United States to pursue education for the sake of competing technologically with the USSR. David Kaiser, an American physicist and historian of science, indicates that scholars of this period were divided by two viewpoints, with some claiming that science was apolitical and others asserting that science only operated properly within one political system, that being democracy. The United States relied heavily on the efficiency of its education system as a means for promoting the benefits of democracy in other nations. When the Soviet Union launched Sputnik, it challenged their status by suggesting that US education was inferior.¹⁶ To prevent other nations from turning to communism, the United States increased investments into scientific research, which allowed for more funding at leading universities that promoted these studies and democratic values. Elected officials passed legislation that supported these goals, and the university quickly became a battleground in the Cold War.¹⁷

The increased focus on scientific research and on the graduate students conducting this research came with a price. Undergraduate students expressed concerns over reduced time with professors and voiced their grievances to university officials through protests and demands for curriculum reform. As graduate students gained more attention on campuses through Kerr's

¹⁵ Clark Kerr, "Toward the More Perfect University," Clark Kerr, Rosemary Park, Jacques Barzun, Sir Eric Ashby, Robert M. Hutchins, and Others, *The University in America: Occasional Papers (Center for the Study of Democratic Institutions)*, (Santa Barbara, Calif.: Center for the Study of Democratic Institutions, 1967), 10-11; See also Clark Kerr, *The Uses of the University* (Cambridge, Massachusetts: The Harvard University Press, 2001).

¹⁶ David Kaiser, *American Physics and the Cold War Bubble*, (University of Chicago Press: In preparation) 1230-31, accessed September 4, 2020. <http://web.mit.edu/dikaiser/www/CWB.html#CWBCapters.>; chapter 1 "The Physics of Spin" accessed at <http://web.mit.edu/dikaiser/www/Kaiser.PhysSpin.pdf>.

¹⁷ "Stewart E. McClure: Chief Clerk, Senate Committee on Labor, Education, and Public Welfare (1949-1973)," Oral History Interviews, Senate Historical Office, Washington, D.C. 8, accessed June 28, 2022. <https://www.senate.gov/artandhistory/history/resources/pdf/McClure4.pdf>

design for a research-centered university, undergraduates complained of the impersonal nature of their educations.¹⁸ The emergence of the multiversity coincided with a period of student population booms. Therefore, curriculum focus narrowed while professors' ability to give attention to a growing student body shrank. A continued commitment to research drew professors' attention away from the classroom.

As undergraduate complaints intensified, university frameworks and curricula shifted. Large student bodies and a lack of interest in professors' narrow specializations contributed to overcrowded lecture halls.¹⁹ Students also drew a clear link between research topics and national interests, which led to complaints that their education did not center on advancing their intellectual abilities but on serving government agendas.²⁰ The hiring of professors for their ability to conduct research rather than their ability to teach reinforced claims that instruction did not focus on the undergraduate student. Universities awarded faculty positions to candidates with PhDs and MAs because they proved they could conduct such research rather than searching for candidates experienced in delivering instruction.²¹

Liberal Arts programs received the most attention as universities sought to address undergraduate complaints by establishing unique programs and colleges. Humanities gained attention at prominent schools like Swarthmore. Within these programs, scholars began to reexamine methods for studying their subjects.²² As higher education became available to more people, student bodies diversified, and topics like Women's Studies and Black Studies garnered

¹⁸ John R. Thelin, *Going to College in the Sixties*, 116-17. Thelin attributes this comparison to Calvin Coolidge and Woodrow Wilson.

¹⁹ Morton and Phyllis Keller, *Making Harvard Modern*, (Oxford University Press; New York), 2001. 298.

²⁰ Connelly, John, and Michael Gruttner, *Universities Under Dictatorship* (University Park, Pennsylvania: Pennsylvania State Press, 2005), 7.

²¹ Jenks, Christopher, and David Riesman, *The Academic Revolution*, (Doubleday & Company, Inc: Garden City, New York), 240-41.

²² John R. Thelin, *Going to College in the Sixties*, 117.

favorable attention. Within History, new disciplinary trends emerged, such as feminism, postmodernism, and postcolonialism. These new approaches shifted the focus to unexamined players in history and gave way to interest in women's, black, Chicano, and indigenous people's history.²³ Because of the push to give attention to humanities fields, new curricula related to these studies emerged in US universities.

The role of universities in spreading an image of democracy took a prominent role during the Cold War. Figures within the federal government made numerous statements that drew explicit links to the role of universities in promoting American ideals. US Commissioner of Education Earl McGrath took a substantial role in promoting this cause by calling on Americans to attend universities to gain the skills and attitudes needed to become good citizens.²⁴ A 1962 speech delivered by President John F. Kennedy reaffirmed these claims and drew a link between democratic societies and the pursuit of higher education.²⁵ These messages served as a call to Americans to attend universities and conduct research as a patriotic duty, which linked democracy to American education.

Continuing the promotion of democracy through education, government officials used foreign exchange programs to simultaneously spread and promote American values in countries vulnerable to communist influences.²⁶ Truman backed up these claims by endorsing the

²³ Howard Zinn, "The Politics of History in the Era of the Cold War," ed. Andre Schiffrin, *The Cold War and the University: Toward an Intellectual History of the Postwar Years* (New York: The New Press, 1997), 65-66.

²⁴ Earl J. McGrath, April, 1949: The Goals of Higher Education, Condensed for Publication in the Journal of Higher Education, Speeches, Articles, and Public Statements File, 1949-1953, Earl J. McGrath Papers, Truman Library, 1-3, accessed September 18, 2020, <https://www.trumanlibrary.gov/library/personal-papers/speeches-articles-and-public-statements-file-1949-1953/april-1949-goals>.

²⁵ John F. Kennedy, "Text of the President's Message to Congress on Educational Needs," *New York Times (1923-Current File)*, Feb 07, 1962. <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/115633990?accountid=14516>.

²⁶ John W. Gardner, "The Foreign Student in America," *Foreign Affairs* 30, no. 4 (1952): 637-38, accessed September 5, 2020, doi:10.2307/20030929. https://heinonline-org.vortex3.uco.edu/HOL/Page?public=true&handle=hein.journals/fora30&div=59&start_page=637&collection=journals&set_as_cursor=2&men_tab=srchresults.

Fulbright program, asserting that it successfully promoted American democracy in areas subjected to communist propaganda.²⁷ Exchange programs deliberately focused on “periphery countries” to combat communism through education in these areas.²⁸

Government officials sought to promote democracy in the face of communism, but occasionally, their initiatives directly contradicted American ideals related to freedom. Efforts to push communism out of the United States brought various academic figures under the scrutiny of the House UnAmerican Activities Committee (HUAC). Measures intended to promote education served the contradictory requirement of calling on scholars to sign loyalty oaths to receive funding. In this way, academic freedom was compromised in the name of democracy.²⁹ In addition, scholars adjusted their research goals to serve corporations through government contracts.³⁰ While the federal government promoted education as a model of democracy, its programs challenged the very ideals they claimed to promote.

Designs for US research universities were projected onto other nations, with Great Britain serving as a prime example of US education as a form of soft power. As the UK emerged from the Second World War, its education model needed revising to incorporate a more scientific and technological design. British parliamentary figures looked to US designs of research universities to plan their approach to higher education during the Cold War.³¹ In the

²⁷ Lonnie R. Johnson, “Exchange Programs in the XXth Century: Education, Circulations, and Transfers,” *The Fulbright Program and the Philosophy and Geography of U.S. Exchange Programs since World War II*, organized by Giles Scott-Smith and Ludovic Tournès and held at the University of Geneva, December 11-12, 2014.

²⁸ John W. Gardner, “The Foreign Student in America,” *Foreign Affairs* 30, no. 4 (1952): 637-38, accessed September 5, 2020, doi:10.2307/20030929. https://heinonline-org.vortex3.uco.edu/HOL/Page?public=true&handle=hein.journals/fora30&div=59&start_page=637&collection=journals&set_as_cursor=2&men_tab=srchresults.

²⁹ Richard Ohmann, “English and the Cold War,” in Andre Schiffrin and others, eds., *The Cold War and the University: toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), 82.

³⁰ Rebecca S. Lowen, *Creating the Cold War University: the Transformation of Stanford*, (Berkeley, California: University of California Press, 1998), 33.

³¹ Algo D. Henderson and M. M. Chambers, “Government, Administration, Co-Ordination, and Financing of Higher Education,” *Review of Educational Research* 30, no. 4 (1960): 385-97, accessed January 30, 2021, <http://www.jstor.org/stable/1168859>.

years following the Second World War, Britain steadily increased government funding to higher education.³² Representatives of Parliament toured the United States to develop education models and created a British version of MIT upon return. Additionally, Britain received significant funding from the United States dedicated to research within their university system.³³ These methods permitted Britain to create a university system modeled after US institutions but still unique in its design, thus allowing them to utilize education as soft power against other nations, including the US.

The Cold War altered the American university landscape as US government representatives utilized soft power to project authority, influence, and their vision of democracy at home and abroad by increasing funding for the sciences and reforming the humanities' curriculum. Through federal research grant universities and government initiatives, officials from the US government used federal research funding to promote scientific research and further US militaristic ambitions that asserted an image of the US as a powerful nation that supports the democratic ideals that come from having a US education. The push to create a research-centered university model upset the balance between undergraduates and graduate education on campuses and created discontent that ultimately led to the development of more liberal arts programs and pushed for changes to the university curriculum. As officials sought to promote American democracy through education, they often contradicted these actions by creating initiatives that challenged university faculty's academic freedom. Despite these flaws, the federally funded research university served as a model for Britons who looked to the scientific and technological success of the United States as a blueprint for their redesign of higher education. By

³² David Montgomery, "Introduction," in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), xix.

³³ Jean Bocoock, Lewis Baston, Peter Scott, and David Smith, "American Influence on British Higher Education: Science, Technology, and the Problem of University Expansion, 1945-1963," *Minerva* 41, no. 4 (2003): 339.

implementing similar strategies and incorporating unique British elements, the UK created a successful system that allowed them to use education as soft power during the Cold War. The US government successfully promoted the United States as the dominant world power through federal funding and government initiatives and projected American ideals onto other nations.

Chapter Summaries

Chapter One, “Shift to Science through Government Funding,” deals with the transition from private funding to federal funding of universities and the impact of wartime economic developments on scientific fields. This section details how the federal grant university came into existence and the framework that this university system functioned within. To make this point, prominent sources of funding are examined, highlighting the sectors that benefitted most from these research dollars. Additionally, it addresses how Soviet advancements in scientific and technical fields propelled US scientific research at universities. The chapter closes with a brief examination of federally funded research projects at Los Alamos and Livermore, in which the development of nuclear weapons occurred.

Chapter Two, “The Changing Social Science Curriculum,” notes the impact of increased funding to science programs at universities, which created some tension within liberal arts divisions on campuses. Additionally, it addresses how humanities suffered as science advanced. This imbalance encouraged discontent on campuses and fueled student rebellions. Frustrations grew among undergraduates who expressed concern over the graduate-centered research university model that neglected undergraduate studies. Undergraduates complained of overcrowded lecture halls, poor selection of courses, and lack of engagement with faculty. Their complaints brought about a new campus framework and a greater selection of courses.

Chapter Three, “Limiting Academic Freedom at Home while Promoting It Abroad,” addresses how federal involvement in universities allowed the United States to project its values onto other countries but also compromised the freedoms of its citizens. While the federal government utilized grants to project an image of power onto other nations, they simultaneously used American education as a tool for promoting democratic values. Various spokespeople for the government highlighted the university system as a place where students learned the values of a democratic society while also promoting foreign exchange programs that intended to spread those values to other nations. However, while these figures emphasized the importance of democracy on campus, they also compromised the freedom of university faculty during the McCarthy era. Recipients of government grants and scholarships later came under attack through the loyalty oath provision in the National Defense of Education Act.

Chapter Four, “Exporting Education: US Influence on British Universities during the Cold War,” details the role of US federal research institutions in motivating Great Britain to adjust its higher education framework to incorporate a more science-centered design. Examining how the US model influenced another nation highlights the research university’s role in projecting soft power. Great Britain revived their universities by embracing US research models. This nation began heavily investing federal funds into their higher education programs to revive their economy though the same focus on privatization was not apparent. US programs and funding held significant sway over Great Britain when the UK redesigned the university model during the Cold War.

Chapter 1

Historiography

The term “Cold War” describes a period from 1945-1991 that started after the defeat of Axis powers in the Second World War and ended when the Soviet Union broke apart.³⁴ Global cultural and political shifts marked this time frame, and throughout this period, scholars sought to make sense of the political turmoil that arose from this conflict of ideologies. The historiography of higher education during the Cold War has changed as historians have considered the advantages and disadvantages of new university frameworks and examined the sources and recipients of grant funding. Additionally, access to declassified sources has allowed historians to reassess the full scope of cultural diplomacy and the role science and education played in the Cold War.

The Cold War and the Battle for Power

After the Soviet Union dissolved, historians took more interest in post-war history. The ending of the Cold War compelled these researchers to identify the characteristic of this period and determine the root of the ideological battle. Responding to this situation in 1992, Melvyn P. Leffler offered a thorough examination of Cold War history with a particular focus on the impact of government policies and diplomatic measures in *A Preponderance of Power: National Security, the Truman Administration, and the Cold War*. This book delivered a comprehensive look at politics during the Cold War. It is a fantastic basis for understanding the global political

³⁴ Many scholars mark President Truman’s March 12, 1947, address to Congress, known as “The Truman Doctrine,” requesting economic assistance to Turkey and Greece, as the official start date of the Cold War. I choose to use the date of 1945 that incorporates many factors that led up to the Truman Doctrine.

environment of this period and grasping the importance of retaining control of “periphery nations” and the role that soft power played in this battle.³⁵ This research provides a foundation for understanding why government officials selected specific nations as participants in foreign exchange programs.

In the 2021 publication *The Free World: Art and Thought in the Cold War*, Louis Menand describes a collection of key people who played pivotal roles in striking social and cultural change during the Cold War while also examining broader economic and technological influences that led to these shifts. This author accounts David Reisman’s contributions to the field of sociology while explaining that he had little background on the subject before diving into his first major publication. Menand also details the pushback Clark Kerr received from students responding to his plans in *The Uses of the University* and links this person to student protest activity at the University of California. Through the lens of unique individuals the author provides specific examples of people involved with educational movements and the controversies surrounding them. Menand also applies the relevance of significant events and social processes to the lives of these individuals to provide greater contextualization of the impact this battle of ideologies had on social frameworks.³⁶

Education and Soft Power

Education had a unique role in cultural diplomacy, allowing the US and Soviet Union to use intellectual power to triumph over their enemy. In 1990, just as Mikhail Gorbachev was dissolving the Soviet Union, a renewed urge to examine the history of US-Soviet relations

³⁵ Melvyn P. Leffler, *A Preponderance of Power; National Security, the Truman Administration, and the Cold War* (Stanford, California: Stanford University Press, 1992).

³⁶ Louis Menand, *The Free World: Art and Thought in the Cold War* (New York: Farrar, Straus, and Giroux, 2021).

emerged. The same year, Joseph Nye, an esteemed political scientist, coined the term *soft power*, which has become synonymous with the Cold War.³⁷ In “Public Diplomacy and Soft Power,” Nye addresses what constitutes soft power and highlights the power of education as a force that can sway people into acting in accordance with what others want them to do.³⁸ This form of soft power forms a significant basis for claims that the US government used federal research grant universities to assert soft power.

Allaine Cerwonka adds to the study of education as soft power in “Higher Education ‘Reform’, Hegemony, and Neo-Cold War Ideology.” Cerwonka addresses the spread of western education in the former Eastern Bloc for the explicit purpose of spreading democracy and promoting a capitalistic economy. The author stresses that by the 1990s, efforts to promote this education were not hidden, and donors like the John D. and Catherine T. Macarthur Foundation made their intentions clear.

Higher Education Models: The Cold War and the University

Higher education underwent tremendous changes throughout the twentieth century, with the first significant shift occurring with the GI Bill, which brought a considerable influx of veterans to campuses across the country.³⁹ In addition, the Higher Education Act of 1965 diversified and added to an already rising student population.⁴⁰ By 1968, global unrest led to

³⁷ Joseph S. Nye, “Soft Power.” *Foreign Policy*, no. 80 (1990): 153–71. <https://doi.org/10.2307/1148580>.

³⁸ Joseph S. Nye, “Public Diplomacy and Soft Power,” *The Annals of the American Academy of Political and Social Science* 616 (2008): 94-96, accessed April 8, 2021. <http://www.jstor.org/stable/25097996>.

³⁹ For information related to the false portrayal of democratization that occurred as a result of the GI Bill see John Bound and Turner, Sarah, “Going to War and Going to College: Did World War II and the G.I. Bill Increase Educational Attainment for Returning Veterans?” *Journal of Labor Economics* 20, no. 4 (2002): 784–815 <https://doi.org/10.1086/342012>. This source argues that the GI Bill primarily benefitted white males and served to make education less attainable for marginalized groups.

⁴⁰ See Thomson, Ronald B. *The Impending Tidal Wave of Students*. (Presentation) The American Association of Collegiate Registrars and Admissions Officers, (1954) for information on student population growth during this decade.

protests among many student bodies. At the close of the nineteenth century, these institutions were primarily funded through income provided by generous donors and served a predominately white clientele, except for a few black colleges, women's colleges, and seminary schools. At the close of the twentieth century, universities were inclusive and received a large amount of income from federal and state governments. As the framework for higher education changed, the study of these systems also changed.

By the end of the 1990s, the outcome of the dissolution of the Soviet Union became apparent, and historians had a renewed interest in the effects the period had on higher education. The 1997 publication *Creating the Cold War University* by Rebecca S. Lowen addresses research universities, and the dominant role military assistance played in funding these institutions during this period. However, Lowen focuses on how federal assistance affected the university's goals but neglects to address how funding allowed the US to project images of peace on the global front or promote the country as a dominant world power. In addition, this book looks specifically at Stanford, rather than the list of other universities that received substantial funding during this period.⁴¹ Lowen revisited the topic in 2005 and revealed the significant changes universities underwent in the aftermath of the Second World War. Lowen notes the funding increases received by universities during the Cold War and identifies how monetary assistance promoted liberal agendas while stressing the importance of efforts made by professors who directly received federal funds for their research.⁴²

Offering a multidisciplinary perspective on this topic, Andre Schiffrin brought together an eclectic group of Cold War scholars in 1997 to compose a fantastic collection of essays for

⁴¹ Rebecca S. Lowen, *Creating the Cold War University: the Transformation of Stanford* (Berkeley: University of California Press, 1997).

⁴² Rebecca S. Lowen, "The More Things Change...: Money, Power and the Professoriate." *History of Education Quarterly* 45, no. 3 (2005): 438-45, accessed September 1, 2020. <http://www.jstor.org/stable/20461992>

publication in *The Cold War and the University: Toward an Intellectual History of the Postwar Years*. This book offers an assortment of articles about varying experiences in academia during the Cold War. The collection contains work by such prominent figures as linguist Noam Chomsky, historian Howard Zinn, and sociologist Emmanuel Wallerstein, which offers a diverse range of university experiences during the Cold War. For example, one article provides information on the rise of Anthropology. Another article covers changes to the English department. Other articles detail the rise of Area Studies and new trends in history that focused on understudied topics like African American history, women's history, and labor history. The scholars that contribute to this book have an enormous breadth of talent and offer a variety of perspectives. As a result, this book offers multiple viewpoints and analyzes how the Cold War influenced other areas of academia. Most importantly, it establishes the disparity between disciplines but also emphasizes the gains in these fields since some subject areas received more attention during the Cold War than they had received before, even if they did not get significant funding from scientific research.⁴³

As scholars sought to understand the source of science-centered funding initiatives, this topic has come back into focus. The 2008 article "Research Universities: Core of the US Science and Technology System," by Richard C. Atkinson and William A. Blanpied, provides a detailed account of US research universities during the Cold War and addresses funding within these higher education institutions. This article shows the relationship between industry and education

⁴³ Ed. Andre Schiffrin, *The Cold War and the University: Toward an Intellectual History of the Postwar Years* (New York: The New Press, 1997).

during the Cold War. This article provides valuable data that shows how this education system influenced other universities.⁴⁴

The study of globalization has gained urgency in the last decade as the effects of mass media and instant technology have increased knowledge exchange between nations. These topics are addressed as they relate to education in the 2017 article, “The Changing Discourse on Higher Education and the Nation-state, 1960–2010,” by Elizabeth S. Buckner. This author writes on the effects of liberal approaches to higher education, which expanded access to higher education in the US and beyond. Furthermore, as monetary markets shifted with the emergence of the World Bank, funding for these educations became more readily available, which also had repercussions on nation-states and the globalization of higher education. This article compliments research on US federal research grant universities, the opening up of US universities, and on the British higher education system, which modeled itself after US frameworks during the Cold War.⁴⁵

Many scholars have conducted studies on specific universities and made references to the shift to a more scientific and technological approach to education but have not given credit to the source of inspiration for this shift or neglected to focus on education as a vital component of soft power during this period. W.H.G. Armytage’s 2011 publication of *American Influence on English Education* covers a wide time frame, so it does not go in depth on any specific elements of these influences, nor does it analyze how the Cold War or US federal funding played into US

⁴⁴ Richard C. Atkinson, and Blanpied, William A. “Research Universities: Core of the US Science and Technology System.” *Technology in Society* 30 (2008): 30–48, accessed September 4, 2020. http://www.rca.ucsd.edu/docs/TIS_Research%20Universities%20Core%20of%20the%20US%20science%20and%20technology%20system.pdf.

⁴⁵ Elizabeth S. Buckner, “The Changing Discourse on Higher Education and the Nation-state, 1960–2010.” *Higher Education* 74, no. 3 (2017): 473–89, accessed January 30, 2021. doi:10.2307/26448762.

or British design models. Nevertheless, this source serves as an excellent springboard for research on America's influence on British education during the Cold War.⁴⁶

Jean Bocoock, a leading scholar of British history and the history of higher education, makes a strong case for US influence and links the Labour Party to this push for scientific research. In the 2003 article, "The Labour Party and Higher Education: 1945–51," this author demonstrates that British Labour Party representatives pushed for a shift to scientific and technological frameworks within the university system. This article identifies numerous policies that show this transition, however, the research in this thesis examines other sources to show the link between US universities and these new designs.⁴⁷ Further examination of the flaws that resulted from this shift to science is necessary. In the 2003 article, "American Influence on British Higher Education: Science, Technology, and the Problem of University Expansion, 1945-1963," Bocoock asserts that America influenced British education but that higher education in the UK remained uniquely British.⁴⁸ Bocoock's arguments display how these models helped the US assert power over the UK and how the UK used this influence to promote their new education systems to other nations, including the US.

Hannah Gay's 2007 publication, *History of Imperial College London, 1907-2007: Higher Education and Research in Science, Technology and Medicine*, centers on London's premier institute and its reliance on scientific endeavors. While this work provides valuable material on US contributions to British higher education models and offers information on the changing scope of British education during the Cold War, the author's focus is limited to Imperial College

⁴⁶ W. H. G. Armytage, *American Influence on English Education* (Florence: Taylor & Francis Group, 2011), accessed February 4, 2021. ProQuest Ebook Central.

⁴⁷ Jean Bocoock and Taylor, Richard, "The Labour Party and Higher Education: 1945–51," *Higher Education Quarterly* 57, no. 3 (July 2003): 249–65. doi:10.1111/j.0951-5224.2003.00246.x.

⁴⁸ Jean Bocoock, Lewis Baston, Peter Scott, and David Smith, "American Influence on British Higher Education: Science, Technology, and the Problem of University Expansion, 1945-1963," *Minerva* 41, no. 4 (2003): 327-46, accessed August 26, 2020. <http://www.jstor.org/stable/41821255>.

London. Additionally, Gay does not draw an explicit connection to the utilization of education as a method of soft power during the Cold War.⁴⁹

To pinpoint flaws in British education designs during the Cold War period, Vikki Boliver published the article “Expansion, Differentiation, and the Persistence of Social Class Inequalities in British Higher Education” in 2011, which addresses enrollment increases in British higher education between the 1960s and the 1990s. Through comparisons of enrollment data, Boliver states that the inequalities that universal secondary education intended to address persisted at the end of this timeframe.⁵⁰ This article reveals the limitations of the new framework that Britain put into place during the Cold War.

Curriculum at the University

The unrest among youth in the sixties is a well-researched topic, but few historians draw an explicit link to the curriculum’s role in these student protests. John Thelin is a historian focusing primarily on higher education. Thelin’s 2018 publication, *Going to College in the Sixties*, takes a broad focus on universities within this decade, so he does not offer extensive coverage of specific topics. However, this book offered some details on changes to university curricula and the connection to student unrest which relates to the federal research university.⁵¹

⁴⁹ Hannah Gay, *History of Imperial College London, 1907-2007: Higher Education and Research in Science, Technology and Medicine* (Singapore: World Scientific Publishing Company, 2007), accessed March 12, 2021, ProQuest Ebook Central.

⁵⁰ Vikki Boliver, “Expansion, Differentiation, and the Persistence of Social Class Inequalities in British Higher Education.” *Higher Education* 61, no. 3 (2011): 229-42, accessed February 14, 2021, <http://www.jstor.org/stable/41477791>.

⁵¹ John R. Thelin, *Going to College in the Sixties* (John Hopkins University Press: Baltimore, 2018). See also John R. Thelin, Edwards, Jason R., Moyen, Eric. “Higher Education in the United States: Historical Development, System.” *Education Encyclopedia*, accessed June 4, 2020. <https://education.stateuniversity.com/pages/2044/Higher-Education-in-United-States.html> for more details on the general history of universities.

The election of Ronald Reagan in 1981 brought with it the rise of the New Right and ushered in a period of new political ideologies with strong conservative leanings. This movement came as a reaction to the extreme leftist activity of the 1960s and 1970s. Renewed interest in and a need to understand this period of radicalization came at the end of Reagan's term. In the 1988 article "Arthur M. Schlesinger, Sr.: New Viewpoints in American History Revisited," Arthur M. Schlesinger, Jr. details the path of history during the first half of the Cold War and describes the rise of Revisionist histories, in which historians sought to examine figures previously left out of the story. As a result, history was no longer written exclusively about men in power but about other players in the story.⁵² This work offers excellent coverage of the new trends in history but does not detail how these changes play into the curriculum movement of the 1960s.

Black History and Black Studies

In 1992, the acquittal of four police officers in the beating of Rodney King sparked outrage across the United States and resulted in uprisings and riots in the Los Angeles area. Noliwe Rooks, the Princeton director of African American Studies in 2006, listed this event as a defining period in black studies.⁵³ Scholars reexamined the history of black studies with this renewed interest in the field. In the 1995 article, "The Revival of African-American Studies at Harvard," Richard M. Benjamin contributes to this research by examining a specific area of curriculum reform within one of the institutions associated with federal research grant funding. Benjamin focuses on the African American Studies department and deals with faculty and curriculum changes at that location. Harvard is one of a select few universities that received a

⁵² Arthur M. Schlesinger, Jr, "Arthur M. Schlesinger, Sr.: New Viewpoints in American History Revisited." *The New England Quarterly* 61, no. 4 (1988): 483-501, accessed February 15, 2021, doi:10.2307/365941.

⁵³ Ed Gordon interview with Noliwe Rooks, "'White Money' and Black Studies Departments," *NPR*, January 30, 2006.

significant amount of federal research funding during the Cold War period. Other sources that compliment this work include Morton and Phyllis Keller's *Making Harvard Modern* and William Palmer's *From Gentleman's Club to Professional Body: The Evolution of the History Department in the United States, 1940-1980*. These works detail the history of this institution but do not have a specific focus on the development of Black Studies.⁵⁴

Women's History, Women's Studies, and Gender Studies

In 1995, President Clinton issued Proclamation 6773, officially designating March as Women's History Month. This designation reflected an increased interest in studying the role of women in our past. Looking at the influence of science on women's education, Clinton B. Allison briefly touches on the subject in the 1995 article "Gender and Education: How Are Gender Biases Reflected in Schools?" This article provides a detailed account of women's education throughout the nineteenth century and briefly addresses the shifting scope of education into the twentieth century with an emphasis on the home economics programs that came into play at the beginning of this century.⁵⁵

Judith M. Bennett is a leading scholar in the field of women's history and began approaching this topic and gender history in the 1980s. This author contributes to the study of curriculum reform by addressing the development of women's history over time in the 2007

⁵⁴ Richard M. Benjamin, "The Revival of African-American Studies at Harvard." *The Journal of Blacks in Higher Education*, no. 9 (1995): 60–67, <https://doi.org/10.2307/2962637>. See also William Palmer, *From Gentleman's Club to Professional Body: The Evolution of the History Department in the United States, 1940-1980* (William Palmer: Marshall University, 2008) and Morton Keller and Keller, Phyllis, *Making Harvard Modern* (Oxford University Press; New York, 2001).

⁵⁵ Clinton B. Allison, "Gender and Education: How Are Gender Biases Reflected in Schools?" *Counterpoints* 6 (1995): 161–94, <http://www.jstor.org/stable/42974990>.

book *History Matters: Patriarchy and the Challenge of Feminism*. Women's history is one of the changes that took place.⁵⁶

Cold War and Science

Examining significant areas of funding and the universities that received these funds is essential is the study of research grant universities. Harriet Zuckerman links funding to the success of Nobel Laureates in the 1977 book *Scientific Elite: Nobel Laureates in the United States*. This source offers essential data related to Nobel Prize-winning research. This data stresses the benefits bestowed upon universities that received substantial federal funding which helps arguments that highlight how much of this research was conducted at these institutions. Scientists who receive government support are more likely to be the beneficiaries of this award.⁵⁷

Less than a decade after the crumbling of the Soviet Union and the thawing of Cold War tensions, scholars revisited these topics to see the influence of Soviet technology on American universities. In the 1999 article "The Cold War, Technology and the American University," J. A. Douglass points to the launching of Sputnik as a significant turning point in higher education during the Cold War. At this point, the US made a major transition to science-heavy academics, with this field serving as a Cold War battleground. The article highlights the role of federal grants during this period and adds various arguments for and against funding. In response to these arguments, this thesis highlights infringements on both personal and academic freedom and questions whether the US should use the university to promote liberal ideals or emulate Russia's

⁵⁶ Judith M. Bennett, *History Matters : Patriarchy and the Challenge of Feminism* (University of Pennsylvania Press, 2007) ProQuest Ebook Central, <http://ebookcentral.proquest.com/lib/ucok-ebooks/detail.action?docID=3441577>. Created from ucok-ebooks on 2021-09-25 22:02:55.

⁵⁷ Harriet Zuckerman, *Scientific Elite: Nobel Laureates in the United States*, (New York: The Free Press, 1977).

scientific success. Additionally, Douglass provides an ample supply of data to emphasize how much money went into research and development at universities after the launching of Sputnik.⁵⁸

As government documents became declassified, the role of science became more interesting to scholars studying the Cold War. The United States used various methods of covert activity to engage in cultural diplomacy with foreign nations throughout the Cold War. Frequently this came in the form of publications, conferences, knowledge exchange programs, and broadcasts. However, due to federal involvement in this activity, information related to these programs remained classified until recently. Audra J. Wolfe provides an excellent analysis of how science played a role as soft power during the Cold War in the 2020 publication, *Freedom's Laboratory: The Cold War Struggle for the Soul of Science*. Wolfe examines this topic in university and government settings, with these two locations overlapping many times. Wolfe's work was published in 2020 and provides current information on a topic in constant need of new analysis because of the opening of once-classified documents. Wolfe details the role of science in cultural warfare and analyzes the government's motivations for contributing to that field of study.⁵⁹

Academic Freedom

Released in 2005, *Universities Under Dictatorship* contains a collection of scholarly articles, each dealing with a different nation that fell under dictatorship and how the university was affected by this political turmoil. This work offers a counter to research that deals with the role of democracy in education and how education under dictatorships differed. Additionally,

⁵⁸ J. A. Douglass, "The Cold War, Technology and the American University." *UC Berkeley: Center for Studies in Higher Education* (1999), accessed on September 20, 2020. <https://escholarship.org/uc/item/9db970dq>.

⁵⁹ Audra J. Wolfe, *Freedom's Laboratory: The Cold War Struggle for the Soul of Science*. (Baltimore: The Hopkins Press, 2020).

this book provides background history on academic freedom and situations where this freedom has been questioned in the United States. It also addresses how academic freedom was compromised at some universities under dictatorship, though not all.⁶⁰

New factors are leading historians to revisit the role of higher education funding during the Cold War. Currently, failures within the education system in the United States have encouraged increasing numbers of teachers to exit the classroom. As a result, emergency-certified teachers are filling their shoes. John L. Rudolph describes a similar situation that occurred during the Cold War in the 2002 book *Scientist in the Classroom*. This issue brought the attention of the National Science Foundation (NSF), which sought to garner government support for increasing the number of science teachers receiving training and improving the quality of training at universities. By focusing on the threat of Soviet advancements over the US, the NSF finally got the funding it needed.⁶¹ Because of the current state of education, it is likely that more scholars will examine the role of the NSF and analyze how Cold War tensions led to increases in funding which produced more teachers with better training in national schools.

Current scholarship has brought an increased focus on the advancement of science that resulted from the Cold War conflict. As declassified documents have opened up, a new focus has been placed on the role of cultural diplomacy and the freedom permitted to scientists studying abroad. As more information becomes available, these topics will be revisited with the production of new scholarship. Additionally, growing tensions between the United States and Russia, a result of the invasion of Ukraine that is currently taking place, increase the likelihood that scholarship in the field will rapidly expand soon. The body of research currently in

⁶⁰ John Connelly and Gruttner, Michael, *Universities Under Dictatorship* (University Park, Pennsylvania: Pennsylvania State Press, 2005).

⁶¹ John L. Rudolph, *Scientists in the Classroom: The Cold War Reconstruction of American Science Education* (New York: Palgrave, 2002).

circulation supports claims that the Cold War altered the university landscape in America as US government representatives sought to utilize soft power to project authority, influence, and their vision of democracy onto the world.

Chapter 2

Shift to Science through Government Funding

On November 17, 1944, President Franklin D. Roosevelt responded to a letter from the Office of Scientific Research and Development, in which he praised the success of their wartime ventures and urged that “the information, the techniques, and the research experience...be used in the days of peace ahead for the improvement of the national health, the creation of new enterprises bringing new jobs, and the betterment of the national standard of living.”⁶² Efforts to promote science during the Second World War persisted and brought new techniques for utilizing this science on campuses across the nation.⁶³ In “Research Universities: Core of the US Science and Technology System,” Richard C. Atkinson and William A. Blanpied contend that university research funding did not come into full scope until the Second World War. The monetary assistance provided to universities proved indispensable to wartime efforts, whereas universities received minimal federal assistance prior to the war. These research efforts reveal how scientific pursuits became a staple of university funding.⁶⁴ As scholars displayed their research outcomes, the federal government, recognized how university funding helped the US sustain a dominant role in world politics. The beginning of the Cold War marked a new era in which nations became torn between conflicting ideologies. Agents of the US government sought

⁶² Vannevar Bush. *Science The Endless Frontier, A Report to the President by Vannevar Bush, Director of the Office of Scientific Research and Development, July 1945*. Washington DC. Government Printing Office: 1945. Accessed September 10, 2020. <https://www.nsf.gov/od/lpa/nsf50/vbush1945.htm>.

⁶³ Audra J. Wolfe, *Freedom's Laboratory: The Cold War Struggle for the Soul of Science* (Baltimore: John Hopkins Press, 2020), 3.

⁶⁴ Richard C. Atkinson and Blanpied, William A. “Research Universities: Core of the US Science and Technology System,” *Technology in Society*. 30 (2008): 30-48, accessed September 4, 2020, http://www.rca.ucsd.edu/docs/TIS_Research%20Universities%20Core%20of%20the%20US%20science%20and%20technology%20system.pdf.

out methods for competing in this new global arena.⁶⁵ Federal grants provided a basis for asserting dominance through scientific research, but other initiatives allowed the government to promote democratic ideals throughout these higher education institutions. Through federal grants and efforts to promote science and democracy on campuses, the US federal government asserted itself as a dominant force during the Cold War.

The “federal grant university” is a product of these efforts by the US government to increase research dollars at higher education institutions. Historian John Thelin identifies the emergence of these universities and explains the impact of the federal government on research and development within the university through various agencies, stating, “Federal support in this arena led to the flourishing of what came to be called the federal grant university, one of the most dramatic and consequential developments in the history of American higher education.”⁶⁶ Efforts to link the federal government to university research began during the Second World War when universities contributed to the Engineering, Science, and Management War Training Program starting in 1940. Another program linking these two sectors began the same year through the Office of Scientific Research and Development (OSRD), which initially took the name National Defense Research Committee. The OSRD brought universities into war research through the numerous programs established by its organization.⁶⁷ These relationships served as a basis for the activity of the federal research grant universities, which changed the shape of higher education in America and brought scientific research to the forefront of academics.

Prominent advocates for scientific funding like Vannevar Bush and Detlev Bronk attributed the technological advancements of the wartime period to the US government's

⁶⁵ Wolfe, *Freedom's Laboratory*, 3.

⁶⁶ John R. Thelin, *Going to College in the Sixties* (Baltimore: John Hopkins University Press, 2021), 63.

⁶⁷ Clark Kerr, *The Uses of the Multiversity* (Cambridge, Massachusetts: Harvard University Press, 2001), 39.

partnerships with university scientists. Motivated by technological progress, these scientists produced the atomic bomb and the proximity fuse. Because of these successes, the period immediately following the war brought science to the center of US life, with scientific research funding consuming more of the US federal budget than in any other peaceful period of US history.⁶⁸ Science became a source for combatting communism and projecting the image of US democratic values onto other nations. It also served as a method of asserting power and establishing a safety net against opposing forces.

Key figures in Washington asserted the need for this research immediately following the close of the Second World War. In 1946 President Harry S. Truman outlined the role of the Federal Security Administration to fulfill the federal government's role of overseeing "research, advice, stimulation, and financial aid," which "contributes greatly to progress and to the equalization of standards in the fields of education, health, and welfare."⁶⁹ Three years later, US Commissioner of Education Earl J. McGrath reiterated these goals in his 1949 statement pressing for the improvement of the education system, which he considered an area of national vulnerability. To prevent potential corruption of higher education, the commissioner threw his support behind efforts to put the US Office of Education under control of the Federal Security Administration, claiming, "Nothing is more closely related to the public welfare than education."⁷⁰ Discontent swelled around the federal government's role within universities, but McGrath's strong stance ensured that government involvement served the added benefit of

⁶⁸ Wolfe, *Freedom's Laboratory*, 2-10.

⁶⁹ Harry S. Truman, President Truman's Federal Reorganization of 1946. Message of the President to the Congress of the United States. May 16, 1946. <https://www.ssa.gov/history/1946Reorg.html>.

⁷⁰ Earl J. McGrath, March 10, 1949: Statement, To Editor of The Nation's Schools, Speeches, Articles, and Public Statements File, 1949-1953 of Earl J. McGrath Papers. Truman Library. 2, accessed September 18, 2020, <https://www.trumanlibrary.gov/library/personal-papers/speeches-articles-and-public-statements-file-1949-1953/march-10-1949>.

providing safety.⁷¹ Education and security remained associated on many levels throughout the Cold War.

In 1950, the military budget climbed from \$13 billion to \$54 billion, and over the next forty years, the US economy relied heavily on these funds for prosperity. Research divisions at universities also benefitted from this massive military budget as it “provided a shelter for research grants, fellowships, and the cultivation of new fields of study in higher education.”⁷² Scholars who attended universities that received substantial government monetary assistance highlight the benefits of this federal funding with their academic successes.

Government funding acted through outside agencies that partnered with individual scientists. By 1950, Congress enacted legislation that brought monetary assistance to universities through the National Science Foundation (NSF).⁷³ In this atmosphere, institutions like the NSF obstructed partisan interference and provided more freedom for scientists to conduct research at locations that received these grants.⁷⁴ In 1960, the NSF offered grants to sixty-three science teachers who studied biology, chemistry, physics, and physical science at the Science Institute of Fisk University. The program also offered \$15,000 to five students studying in the Hampton Institute doctoral program.⁷⁵ Within ten years, the NSF’s original budget expanded from one hundred thousand to one hundred million dollars.⁷⁶ These efforts by Congress and the NSF

⁷¹ McGrath, March 10, 1949: Statement, To Editor.

⁷² David Montgomery “Introduction” in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), xix.

⁷³ Public Law 507-81st Congress. Chapter 171-2D Session. S. 247. An Act: Establishment of the National Science Foundation, accessed September 4, 2020, <https://www.nsf.gov/about/history/legislation.pdf>.

⁷⁴ Audra J. Wolfe, *Freedom’s Laboratory: The Cold War Struggle for the Soul of Science* (Baltimore: John Hopkins Press, 2020), 4.

⁷⁵ “College Roundup,” *New Pittsburgh Courier (1959-1965)*, Jul 02, 1960, National edition, <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/371578489?accountid=14516>.

⁷⁶ R.C. Lewontin, “The Cold War and the Transformation of the Academy” in Andre Schiffrin and others, eds., *The Cold War and the University: toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), 16.

avored scientific research, which provided federal authorities with the benefit of advancing US militaristic ambitions through minds educated in scientific fields.

Institutions that received these funds made tremendous advancements in scientific and technological fields. Examining the research performed by Nobel prize-winning scientists from 1901-72 reveals that “somewhat more than half of the ninety-two laureates who did that [prize-winning] research in the United States did so at just six institutions; Harvard, Columbia, [University of California-] Berkeley, the Rockefeller [University], [University of] Chicago, and Washington University (in St. Louis).”⁷⁷ Significantly, Harvard and Columbia ranked in the top fifteen among universities receiving the most federal funds directed towards research in 1975 and 1990. While Berkeley did not rank in the top fifteen, three other research universities operating under the University of California’s massive campus system landed within the top ten.⁷⁸ Furthermore, by the early 1960s, the federal government supplied over a billion dollars a year for research and development. The University of California was one of six universities that “received 57 percent of the funds in a fiscal year” and one of twenty institutions that received 79 percent of the funds in a year.⁷⁹ These six universities also relied on government research dollars for over half of their operating cost.⁸⁰ This focus on military-oriented themes brought new meaning to research funding and allowed some universities to take considerable advantage of government grants.

⁷⁷ Harriet Zuckerman, *Scientific Elite: Nobel Laureates in the United States*, (New York: The Free Press, 1977), 170.

⁷⁸ Lewontin, “The Cold War and the Transformation of the Academy,” 25. In 1975, the top universities receiving the most federal funding ranked MIT, University of Washington, Stanford, UCLA, and University of Wisconsin. In 1990, four of these schools maintained a top-five position, with the University of Wisconsin only dropping to position nine. Harvard, Yale, and Cornell maintain positions within the top 15 in both studies. The University of California branches listed are Los Angeles, San Francisco, and San Diego.

⁷⁹ Lowen, “The More Things Change...” 438-45; Lowen pulls information from Kerr, *The Uses of the...*, 40-41. Kerr indicates that the percentage continues to grow if the university pool is only slightly altered. “If both project research and large research center are included, six universities received 57 percent of the funds in a recent fiscal year, and twenty universities received 79 percent.”

⁸⁰ Lowen, “The More Things Change...” 438-45.

Through funding, the government could concentrate university research on areas that they considered to be in the national interest. The three main concerns for research were divided as follows, defense (40%), scientific and technological progress (20%), and health (37%).⁸¹ On May 25, 1961, President John F. Kennedy delivered a Special Message to the Congress on the Urgent National Needs in which he stressed the importance of funding research in space. The president claimed that “this decision demands a major national commitment of scientific and technical manpower, material and facilities, and the possibility of their diversion from other important activities where they are already thinly spread.”⁸² Furthermore, he called on the nation’s commitment to this cause as the only means for making this ambition a reality, stating, “new objectives and new money cannot solve these problems. They could in fact, aggravate them further--unless every scientist, every engineer, every serviceman, every technician, contractor, and civil servant gives his personal pledge that this nation will move forward, with the full speed of freedom, in the exciting adventure of space.”⁸³ With the presidential endorsement, federal contracts with NASA flourished at universities.

Sciences received substantial funding from the federal government, with MIT bringing in almost twice as much funding as the second-highest funded university, Stanford, in 1968. Sources of these dollars came from the National Institutes of Health (NIH), NSF, the Atomic Energy Commission, and the National Aeronautics and Space Administration (NASA).⁸⁴ Of the \$1.5 billion universities received in federal funding in 1960, Clark Kerr (1911-2003), president of the University of California from 1958 to 1967, notes that the government provided about one

⁸¹ Kerr, *The Uses of the Multiversity*, 5th ed., 41.

⁸² John F. Kennedy, “Special Message to the Congress on Urgent National Needs”, Online by Gerhard Peters and John T. Woolley, *The American Presidency Project* <https://www.presidency.ucsb.edu/node/234560>.

⁸³ Kennedy, “Special Message to the Congress on Urgent National Needs”

⁸⁴ Thelin, *Going to College in the Sixties*, 64-65.

third of these funds for university research centers, one third for university project research, “and about one third for other things, such as residence hall loans, scholarships, and teaching programs.”⁸⁵ The recipients of federal funds in 1960 primarily consisted of the NIH (37%), Department of Defense (32%), NSF (11%), Atomic Energy Commission (8%), Department of Agriculture (6%), and NASA (3%).⁸⁶ Providing these funds to universities gave the federal government a method of directing prominent areas of concern while simultaneously bolstering the image of the US as a scientifically advanced nation. These funds improved defense methods to inflate the nation’s powerful image while improving health and technology sectors that promoted the nation’s image of a peaceful democracy.

Clark Kerr highlights both power and democracy when outlining the allocation of grant funding by pointing to defense, scientific and technological progress, and health as key areas of focus. Regarding the direction of research focus, he states, “Decisions have not been based on thorough study of national priorities. They have been made pragmatically, in response to the felt needs of the nation and of the people in accord with the possibilities of the times, and also, to an extent, in response to the urgings of very powerful lobbies.”⁸⁷ This method of decision-making for university research in the United States starkly contrasted with the socialist structure of Soviet scientific research. “The Soviet Union’s supposed ability to ‘select and train’ any student with scientific aptitude had given it an edge over the United States, where students were free to pursue whatever topics interested them.”⁸⁸ While Clark Kerr laid out the intent of university research funding, Communist governments also turned to science as a form of economic and

⁸⁵ Kerr, *The Uses of the Multiversity* 5th ed., 40.

⁸⁶ Kerr, *The Uses of the Multiversity* 5th ed., 40.

⁸⁷ Kerr, *The Uses of the Multiversity* 5th ed., 42.

⁸⁸ Wolfe, *Freedom’s Laboratory*, 136.

political power and eagerly displayed the capabilities of their socialist model to foreign visitors, which was perceived as a threat to US democracy in 1957.⁸⁹

Influence of Soviet Advancements

Interestingly, federal funding increases to universities in the US resulted from Soviet advancements in research tied to science-heavy academics.⁹⁰ Claiming that, “in an ideological war, everything is a competition” Audra J. Wolfe offers profound insight on the role of science in the battle between communism and democracy.⁹¹ The Soviet Union’s launching of Sputnik on October 4, 1957, played a pivotal role in promoting scholarly research within the United States and caused the US to question the effectiveness of their educational system, which up until that point, they had considered a solid basis to the nation’s democratic functions. In the decade following Sputnik’s launching, funding for research at universities remained on a steady incline. Soviet intellectual accomplishments challenged the US and pushed the country toward a more interdisciplinary education model while also bringing the link between democracy and educational gains into question.⁹²

The battle between Communism and Democracy spread into classrooms with new funding initiatives. The National Defense of Education Act of 1958 (NDEA) and other federal grants brought high school curricula into the battlefield by introducing students to new scientific and mathematics courses and programs. John Thelin provides the example of a group funded by

⁸⁹ Wolfe, *Freedom’s Laboratory*, 19.

⁹⁰ David Kaiser, *American Physics and the Cold War Bubble*, (University of Chicago Press: In preparation) 1230-31, accessed September 4, 2020. <http://web.mit.edu/dikaiser/www/CWB.html#CWBCapters>.; chapter 1 “The Physics of Spin” accessed at <http://web.mit.edu/dikaiser/www/Kaiser.PhysSpin.pdf>.

⁹¹ Wolfe, *Freedom’s Laboratory*, 136.

⁹² Daniel Tröhler, “Harmonizing the Educational Globe. World Polity, Cultural Features, and the Challenges to Educational Research,” *Studies in Philosophy and Education* 29, no. 1 (January, 2010): 12-15.; J. A. Douglass, *The Cold War, Technology and the American University*. UC Berkeley: Center for Studies in Higher Education (July, 1999), 1-9.

the NSF in 1958, the School Mathematics Study Group. Responding to the Soviet's Sputnik launch, this program reformed high school education by offering summer workshops for high school math teachers at esteemed universities, which included original textbooks for their classrooms. Other organizations sponsored similar programs for chemistry, biology, physics, social studies, and foreign language teachers.⁹³ In these examples, universities served as the arenas for combatting Soviet advancements, where US high school teachers could gain the weapons they needed to instruct the US scientists and mathematicians of tomorrow.

The launching of Sputnik pushed a group of diplomats to come together and develop the National Defense of Education Act of 1958 (NDEA). Senator Stewart E. McClure asserts that government officials addressed the threat of Soviet scientific advances in hearings and communications well before the passage of the NDEA.⁹⁴ In 1956, the National Security Council attended a presentation warning about the Soviet Union's advancements in scientific and technical training. Charts and graphs identified a 'widening gap' in doctoral degrees in science and engineering to highlight the threat faced by the US.⁹⁵ Creators of NDEA came to similar conclusions after observing articles and looking at the Soviet budget, which pointed to the Soviet's advanced education in science and technology, mathematics, and "the hard subjects," while the US concentrated on social sciences and "soft stuff."⁹⁶ McClure claimed that the US abandoned efforts directed at biology, physics, chemistry, mathematics, or "anything difficult."⁹⁷ The threat of Soviet success in STEM fields pushed the US to accelerate funding to these fields in universities.

⁹³ Thelin, *Going to College in the Sixties*, 21.

⁹⁴ "Stewart E. McClure: Chief Clerk, Senate Committee on Labor, Education, and Public Welfare (1949-1973)," Oral History Interviews, Senate Historical Office, Washington, D.C. Senate Historical Office Oral History Project www.senate.gov/history.

⁹⁵ Wolfe, *Freedom's Laboratory*, 136.

⁹⁶ "Stewart E. McClure: Chief Clerk, Senate Committee on Labor, Education, and Public Welfare (1949-1973),"

⁹⁷ "Stewart E. McClure: Chief Clerk, Senate Committee on Labor, Education, and Public Welfare (1949-1973),"

McClure partnered with Bill Reidy, Jack Forsythe, and Fred Blackwell and spoke with members of numerous organizations and lobbyists, including the American Association for the Advancement of Science and the American Chemical Society, to gather information and ideas on how to approach Soviet competition in education. Meanwhile, Vice President Lyndon Johnson battled communism in space by “running hearings in his preparedness committee on what became NASA.”⁹⁸ The maneuvers laid a foundation that shaped the federal research grant university. These universities took shape through programs outlined in the NDEA and with grants that funded NASA research.

Already aware of the threat of Soviet advancements and sensing the need to accelerate US education programs, the creators of the NDEA seized the opportunity to capitalize on the nation's fears that Sputnik presented. As a result, the dialogue in the bill reflects the urgent need for scientific advancement for the nation's well-being, with each line striking fear in its readers with words like security, defense, and emergency.

The Congress hereby finds and declares that the security of the Nation requires the fullest development of the mental resources and technical skills of its young men and women. The present emergency demands that additional and more adequate educational opportunities be made available. The defense of this Nation depends upon the mastery of modern techniques developed from complex scientific principles. It depends as well upon the discovery and development of new principles, new techniques, and new knowledge.⁹⁹

By claiming that “[w]e must increase our efforts to identify and educate more of the talent of our Nation,” the NDEA attempted to emulate the Soviet model of selecting individuals who show aptitude in science to pursue their programs.¹⁰⁰ The bill offered scientific training to all members of society by extending financial assistance to those in need, which was also intended to “correct as rapidly as possible the existing imbalances in our educational programs which have led to an

⁹⁸ "Stewart E. McClure: Chief Clerk, Senate Committee on Labor, Education, and Public Welfare (1949-1973)," f

⁹⁹ National Defense Education Act 1958. September 2, 1958, HR 13247. Public Law 85-864. 1581

¹⁰⁰ National Defense Education Act 1958.

insufficient proportion of our population educated in science, mathematics, and modern foreign languages and trained in technology.”¹⁰¹ This bill promoted funding for science at universities as a method for maintaining power and defending the nation against outside forces.

The world closely watched these races as they represented more than just the race to scientific advancement but also a race between the dominance of two separate ideologies. Vannevar Bush (1890-1974), government scientific advisor and head of the US Office of Scientific Research and Development, explains, “after reviewing the very explicit ways in which science is applied to ships or bombs or aircraft, we have examined very broadly the motives that actuate the two parts into which the world is becoming completely split, and how the growth of science itself has thrown into relief this clash of philosophies and ideals.”¹⁰² The launching of Sputnik challenged more than US intelligence; it tested the power of democracy, the progress of a nation, and the fortitude of their alliances. Bush continued “for the course of the world is to be determined by the relative stability and strength of two groups, and no small part of modern strength depends upon the wisdom with which science is furthered and utilized. This depends upon how well governments function. We shall see that the ideals themselves deeply affect this functioning.”¹⁰³ The strength of the nation continued to be measured by the strength of scientific research and development.

Los Alamos and Livermore Projects

During the Cold War, government efforts to promote science and technology spread into many sectors to combat communism. As a result, funding seeped into scientific research,

¹⁰¹ National Defense Education Act 1958.

¹⁰² Vannevar Bush, *Modern Arms and Free Men: A Discussion of the Role of Science in Preserving Democracy* (New York: Simon and Schuster, 1949), 191.

¹⁰³ Vannevar Bush, *Modern Arms and Free Men*, 191.

education, rocket and missile development, and nuclear weapons. “But at the same time, the US foreign policy establishment doubled down on promoting scientific internationalism, scientific freedom as a cultural front in the Cold War.”¹⁰⁴ Wolfe claims that “the politics of freedom fused with anti-Communism to create a vision of science in the United States that highlighted empiricism, objectivity, a commitment to pure research, and internationalism.”¹⁰⁵ Through these connections, the US government performed advanced research with international agents.

Responding to these concerns, Frank Wisner of the Office of Policy Coordination sought assistance from the scientific community to disperse psychological warfare. As a result, a team of scientists from MIT and Harvard came together under the name of Project Troy. “Project Troy’s biggest impact ultimately turned out to be long-lasting relationships between government officials at the State Department and the CIA and social scientists at MIT and Harvard.”¹⁰⁶ These organizations reflect the marriage between the government and universities that formed through scientific research.

Other organizations remained at work with covert scientific operations. Scientific and research divisions existed within each armed service, although these divisions did not actively seek outside scientific intelligence except for the Army’s Manhattan Engineer District, also known as the Manhattan Project, “which maintained its own Foreign Intelligence Branch.”¹⁰⁷ This organization's partnership with an outpost of the Office of Scientific Research and Development (OSRD) revealed that the meshing of scientific and military communities produced better intelligence information than either group did independently. In 1947, the Atomic Energy

¹⁰⁴ Wolfe, *Freedom’s Laboratory*, 91.

¹⁰⁵ Wolfe, *Freedom’s Laboratory*, 2.

¹⁰⁶ Wolfe, *Freedom’s Laboratory*, 66-67. See also *Foreign Relations of the United States*, eds. Edward C. Keefer, Douglas Keene and Michael Warner, 1950–1955, The Intelligence Community, 1950–1955, Document 57 for more information on Project Troy.

¹⁰⁷ Wolfe, *Freedom’s Laboratory*, 37.

Commission took over Manhattan Project, and universities started to set up special contracts with boards of trustees to develop the Los Alamos and Livermore Projects.¹⁰⁸ These military projects created a shift in the relationship between military and scientific communities that continued to develop throughout the Cold War.

Militaristic ambitions that supported federal aid provisions to universities spurred the growth of STEM sectors.¹⁰⁹ This transition pulled some focus from humanistic teaching methods that dominated higher education until that point.¹¹⁰ Research began to take a more decisive role in satisfying these goals. Through military contracts, some universities became involved in the management of federal laboratories, as with the University of California's management of the Los Alamos and Livermore projects.¹¹¹ The federal government invested in STEM research to maintain a position of power and increase military capabilities. Therefore, the university was not just an institution for spreading democratic values but also for promoting combat and nuclear production.

Money directed to the Los Alamos National Laboratory in New Mexico helped develop nuclear weapons, including the hydrogen bomb.¹¹² University professors created an academic culture within military settings in these new research facilities.¹¹³ Many university heads embraced this new scientific research. President of Cornell University Edmund Ezra Day argued

¹⁰⁸ Wolfe, *Freedom's Laboratory* 37-38; Kerr, *The Uses of the Multiversity* 5th ed., 216.

¹⁰⁹ Benjamin Fine, "Education in Review: Federal 'Crash' Program for Encouragement of Science Criticized as Inadequate Narrow Emphasis ILL-Considered Measures," *New York Times (1923-Current File)*, Dec 08, 1957, <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/114274520?accountid=14516>.

¹¹⁰ Tomislav Topolovčan and Snježana Dubovicki, "The Heritage of the Cold War in Contemporary Curricula and Educational Reforms," *CEPS Journal : Center for Educational Policy Studies Journal* 9, no. 2 (2019): 11-32, accessed September 20, 2020, doi:<http://dx.doi.org.vortex3.uco.edu/10.26529/cepsj.567>, <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/2249688769?accountid=14516>.

¹¹¹This is in reference to Lawrence Livermore National Laboratory and Los Alamos National Laboratory. Lowen, "The More Things Change...:" 438-45; Jencks and Riesman, *The Academic Revolution*, 223.

¹¹² Montgomery, "Introduction," xi-xvi.

¹¹³ Lewontin, "The Cold War and the Transformation of the Academy," 13.

for the expansion of nuclear technology since it provided the US with more weight in the Cold War but cautioned, “We have in the newly acquired command of atomic energy a power with which the whole world must reckon—a power with which the world seems as yet quite unprepared.”¹¹⁴ These research initiatives were apparent attempts to project America’s image of power onto other nations. Because of the grants provided to universities, advancements continued to persevere in science sectors.¹¹⁵

Conclusion

Funding to scientific sectors brought university research into the spotlight. Federal Research Grant Universities were on the rise and accelerating technological advancements in all sectors of society. “By 1960 higher education leaders’ speeches forecasted a new American model for an academic metropolis in which the modern university was the nerve center for economic innovation and research.”¹¹⁶ Higher education enrollment rapidly rose with these advancements, which can be partially attributed to the promotion of democratic principles related to equality and inclusion.

¹¹⁴ Edmund Ezra Day, *Education for Freedom and Responsibility; Selected Essays*, (Ithaca, New York: Cornell University Press, 1952), 22.

¹¹⁵ Fred M. Hechinger, “New Barrier to U.S. Aid to Education: Support is Found for View that it Implies Federal Controls,” *New York Times (19 23-Current File)*, Mar 27, 1963, accessed September 10, <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/116522362?accountid=14516>.

¹¹⁶ Thelin, *Going to College in the Sixties*, 13-14.

Chapter 3

The Changing Social Science Curriculum

The push for science at US federally funded research universities created an imbalance in higher education across the nation that ultimately led to unrest and the need for a new campus framework with a course catalog that addressed the interests of the entire student body. Although changes to the science curriculum at US universities resulted from Soviet advancements, changes to the liberal arts curriculum stemmed from the US government's desire to understand and dominate foreign nations during the Cold War. These changes came not from increased federal funding for graduate research, as was the case in the sciences, but from the expanding ranks and changing demographics of undergraduate students who challenged the graduate-centered research design at prominent research universities. Social movements altered the study of social science considerably but had little impact on the physical sciences.

Soft Power and Military Research

The Cold War and intellectual competition with the Soviet Union introduced the need to study new topics in the United States, which carried over into many subjects. The 1943 Committee on World Regions of the Social Science Research Council's Report stated, "In order that we may fulfill our postwar role as a member of the United Nations our citizens must know other lands and appreciate their people, cultures, and institutions. Research, graduate teaching, undergraduate instructions, and elementary education in world regions will be desirable as far as

one can see into the future.”¹¹⁷ This statement reflects a growing trend within universities to emphasize social sciences at the close of the Second World War. This conflict brought on a need to understand other nations and cultures and to identify where democracy fits into this world framework.

Soft power manifested in new subject areas and forms of curricula that helped US officials gain information on nations that could fall victim to the pressures of communism. Pursuing this need to understand the traits of people in foreign nations, Colombia University issued a statement in 1943 that emphasized the need for studying the geography of people in the world with an acute focus on Latin America, China, and Japan. Interestingly, the focus of study shifted to Russia and China by 1945 as more individuals sought to understand communist nations. Once again pushing for the principles of democracy in education, the 1947 Social Science Research Council (SSRC) report stated, “National welfare in the postwar period more than ever before requires a citizenry well informed as to other peoples, and the creation of a vast body of knowledge about them.”¹¹⁸ The United States used new methods of study to assert US interpretations of democracy in other nations.

Science often helped the government assert a military presence by using federal funds to benefit sectors that promoted US military power. Kerr claims that fields like Humanities and Social Sciences were disadvantaged because the student-to-teacher ratio was too high and educations were not personalized. In these fields, classrooms were overcrowded, and professors worked with too many teaching assistants, whereas in science fields, students worked in more

¹¹⁷ Social Science Research Council, Committee on World Regions, *World Regions in the Social Sciences; Report of a Committee of the Social Science Research Council* (New York: Social Science Research Council, 1943), 1-2. Cited in Immanuel Wallerstein, “The Unintended Consequences of Cold War Areas Studies,” in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), 196.

¹¹⁸ Social Science Research Council, Committee on World Regions, 1-2; Wallerstein, “The Unintended Consequences of Cold War Areas Studies,” 196-202.

personalized environments like laboratories. Ultimately, Kerr points to a lack of specializations as the main issue with undergraduate instruction.¹¹⁹ Government funding focused predominately on fields that promoted the United States' military strength and gave little attention to the humanities.¹²⁰ With an abundance of assistance directed to STEM fields, government funding continued to neglect scholarly pursuits that did not benefit the military.

The Cold War influenced all areas of the academic realm, though some fields were affected differently than others. In fact, in his essay covering the university English department during the Cold War, Richard Ohmann claims, "Literary studies were an integral if minor part of the military-industrial-government-university complex and claimed a residual share in its spoils. But unlike many other fields, English was not recruited to fight the Cold war, not given special inducements, not directly shaped by Cold War imperatives."¹²¹ However, humanities came to battle the Cold War in new creative ways. Central Intelligence Agency official Thomas W. Braden, once employed by the English Department at Dartmouth, controlled an estimated \$900,000 of CIA funding for the Congress for Cultural Freedom in addition to overseeing funds for the National Student Association, American Newspapers Guild, and the National Education Association, which helped bring the battle to fields outside of STEM.¹²² Education served as a crucial component of soft power during the Cold War.

¹¹⁹ Clark Kerr, "Toward the More Perfect University," Clark Kerr, Rosemary Park, Jacques Barzun, Sir Eric Ashby, Robert M. Hutchins, and Others, *The University in America: Occasional Papers* (Center for the Study of Democratic Institutions), (Santa Barbara, Calif.: Center for the Study of Democratic Institutions, 1967), 10-11.

¹²⁰ Fred M. Hechinger, "New Barrier to U.S. Aid to Education: Support is Found for View that it Implies Federal Controls," *New York Times (19 23-Current File)*, Mar 27, 1963, accessed September 10, <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/116522362?accountid=14516>.

¹²¹ Richard Ohmann, "English and the Cold War," in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), 80.

¹²² Ohmann, "English and the Cold War," 75. See also John Simpkin, *Thomas Braden*, <https://escholarship.org/uc/item/9db970dq>

Campus Discontent

Federal funding to many programs encountered some opposition. Funding came in the form of both grants, which are often related to financial needs, and scholarship awards based on merit. Federal scholarship opponents spoke out against government involvement in education since it focused on one field of study rather than the standard multi-disciplinary approach to children's education. Other opponents advocated for school funding but disapproved of the type of funding the federal government offered. Again, they worried about the heavy application of federal funds to STEM research. Opponents used the scholarship program for gifted students to provide an example of how the government steered gifted minds towards specialized fields that took the focus off essential topics and neglected children's general education.¹²³ These concerns reveal how funding provided the government with the power to direct educational curricula throughout the nation.

Reflecting on the role of the federal research grant university, Clark Kerr states:

Federal research support has added a new dimension to the eternal class struggles within a university. To student versus faculty, assistant versus tenured professors, and faculty versus administrators has been added a new hierarchical point of tension – that between humanists and scientists. The scientists, by and large, in the federal grant universities get promoted faster, get more space, get more income through summer employment and consulting, have more secretaries and assistants, have greater access to travel funds and expense accounts, and accumulate a greater sense of status within and outside the academic community.¹²⁴

The upset of this balance between faculty, graduates, and undergraduate students ultimately led to the replanning of US university curricula during the Cold War.

¹²³ Benjamin Fine, "Education in Review: Federal 'Crash' Program for Encouragement of Science Criticized as Inadequate Narrow Emphasis ILL-Considered Measures," *New York Times (1923-Current File)*, Dec 08, 1957, <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/114274520?accountid=14516>.

¹²⁴ Clark Kerr, *The Uses of the Multiversity* 5th ed. (Cambridge, Massachusetts: Harvard University Press, 2001), 46.

Higher education curricula in the 1960s underwent an extreme transformation as a direct result of the Cold War. Efforts to combat communism and project the US as the dominant world power created a shift in academics towards a more research-oriented university. However, in the 1960s, undergraduate demands for a personalized learning experience and students' insistence on relevant course material interrupted the growing trend to bring research to the forefront of university learning. Student activism thus played a crucial role in altering the liberal arts curriculum at many higher education institutions in the United States.

In the first half of the twentieth century, student enrollment in private colleges and universities increased seven-fold while numbers in public colleges and universities multiplied seventeen times, owing to the comment by collegiate admissions officers that “no other nation has found it possible to provide so many educational opportunities for so large a proportion of its population.”¹²⁵ Florida alone experienced a 561 percent increase in higher education enrollment from 1930-1950. Education specialists looked at this massive influx of students and pondered the future of colleges and universities in America, which forced them to question methods for training teachers in these institutions. Furthermore, faculty, preparing themselves for the doubling of student populations, began exploring new resources for educating the “impending tidal wave of students.”¹²⁶

This anticipated growth was predicted to strike in the sixties, and universities already faced difficulties acquiring properly trained staff by the mid-fifties. Training for these positions took years of study, which could only be performed in graduate centers. At that time, the student-to-teacher ratio was 12 to 1, and that balance could not be maintained without additional training

¹²⁵ Ronald B. Thomson, *The Impending Tidal Wave of Students*, (Presentation) The American Association of Collegiate Registrars and Admissions Officers, (1954),14.

¹²⁶ Thomson, *The Impending Tidal Wave of Students*, 6-18

in education fields, leading some to question whether the solution lay with new teaching methods and educational philosophies, which allowed for larger class sizes. Meanwhile, colleges began actively recruiting students willing to pursue careers in education. This culmination of data, combined with new approaches to economic disparities in education, led university faculty to proclaim that “the mobility of our population, the inequality in the distribution of our nation’s wealth among the various states, and the extent of our mutual educational responsibilities confront us with problems which are national in scope.”¹²⁷ This influx of students set in motion a shift in educational frameworks from the 1950s to the 1960s, which allowed for the accommodation of larger student bodies and removed the focus from student-centered learning.

Changes to the university model also resulted in response to the Cold War. Research universities in the United States received massive federal funding increases at the close of the Second World War, and this funding transformed the US university model as the academic focus gravitated to research and development in STEM sectors.¹²⁸ Graduate students benefitted from this shift with increased funding to research projects, which resulted in better facilities, more assistantships and fellowships, and increased involvement between faculty and graduate students.¹²⁹ However, challenges to this model came as early as the 1960s when undergraduate students began pushing for curriculum reforms. Undergraduates were dissatisfied with large lecture halls and criticized teachers that remained focused heavily on research.¹³⁰ With professors dedicating their time to graduate work and research, faculty spent less time in the classroom.¹³¹ Over twenty years of changes in the university structure, an apparent link between

¹²⁷ Thomson, *The Impending Tidal Wave of Students*, 32-36.

¹²⁸ Public Law 507-81st Congress. Chapter 171-2D Session. S. 247. An Act: Establishment of the National Science Foundation, accessed September 4, 2020, <https://www.nsf.gov/about/history/legislation.pdf>.

¹²⁹ Kerr, *The Uses of the University* 5th ed., 48.

¹³⁰ John R. Thelin, *Going to College in the Sixties*, (John Hopkins University Press: Baltimore, 2018), 116.

¹³¹ Kerr, *The Uses of the University* 5th ed., 49.

electives, department organization, and curriculum reform persisted and ultimately placed the “supremacy of research” at the epicenter of campus unrest.¹³² In addition, students complained that education no longer served “independent inquiring minds” but rather “the ‘national purpose’ as defined by the Cold War establishment.”¹³³ Research-centered education models upset the focus of undergraduate education, causing students to scrutinize instructional methods within their campuses.

Balancing these Cold War demands in the sixties remained a prominent issue on campuses nationwide, and undergraduates bore the burden of the shift to research-heavy academics. Stanford altered the structure of the curriculum, which disturbed the entire course of study for these students. Even if there was consensus among the university to move back toward a more generalized education model, faculty and individual university departments held the ultimate say on what topics they taught while also controlling the input for these models. Students did not have any voice on these matters. One dean sought input from the biology department chair in 1961 on the possibility of adding more faculty to teach introductory courses at the undergraduate level. The Chair rejected the idea since undergraduate courses detracted the faculty's focus from biological research. The Chair complained that in asking faculty to combine undergraduate teaching with research production, they attempted “to accomplish two quite different and almost incompatible things.”¹³⁴ This complaint highlights how universities neglected to prioritize undergraduate instruction over scientific research.

¹³² Larry Cuban, *How Scholars Trumped Teachers: Change Without Reform in University Curriculum, Teaching, and Research, 1890-1990*. New York: Teachers College Press, 1999. <https://search-ebshost-com.vortex3.uco.edu/login.aspx?direct=true&db=nlebk&AN=34537&site=ehost-live>.

¹³³ Jim Gwin, “Cold War U.” *Great Speckled Bird* 1, no. 17 (October 7, 1968), 2. <https://jstor.org/stable/community.28037580>.

¹³⁴ Cuban. *How Scholars Trumped Teachers*, 33.

One major obstacle US universities faced in the 1960s dealt with instructional methods. Higher education institutions hired professors because they had an MA or PhD without requiring any training or education in teaching. After hiring professors, these institutions seldomly evaluated the effectiveness of their instruction to students, partially because they had not established a transparent system for doing so but also in fear of violating academic freedom. Because of the emphasis universities placed on research, professors gained employment for their research contributions and not for their teaching methods.¹³⁵ This discrepancy manifested in undergraduate classrooms.

Pushes for higher education reform came throughout the sixties with significant complaints on the treatment of professors' work which heavily stressed research and publication.¹³⁶ At Harvard, students waged complaints about undergraduate courses and professors' teaching methods. Students grew weary of the excessive emphasis placed on grades and "preparation for academic careers."¹³⁷ Echoing demands for more focused instruction, in 1964, the Council for Undergraduate Affairs at Harvard complained of unbalanced classroom experiences that centered on either too much analysis without facts or facts without analysis.¹³⁸ By the mid-1960s, David Reisman claimed, "in the last decade American higher education has become increasingly academic, meritocratic, and less "collegiate."¹³⁹ The unfulfilled demands of undergraduates that called for more adequate instruction resulted in unrest among study bodies.

While reaping the benefits of research-centered instruction, universities still attempted to adapt to growing student bodies. The 'smorgasbord' style of learning that came into place in the

¹³⁵ Jenks, Christopher, and David Riesman, *The Academic Revolution*, (Doubleday & Company, Inc: Garden City, New York), 240-41.

¹³⁶ Thelin, *Going to College in the Sixties*, 118.

¹³⁷ Morton and Phyllis Keller, *Making Harvard Modern*, (Oxford University Press; New York), 2001. 297.

¹³⁸ Keller, *Making Harvard Modern*, 297-98.

¹³⁹ David Reisman, *Constraint and Variety in American Education*, (University of Nebraska Press: Lincoln, 1958), vii.

sixties resulted from schools wanting to feel small and personal even though they were rapidly expanding. As a result, large lecture halls were still being used, but universities compromised by offering various course options.¹⁴⁰ Critics of the current model wanted a complete overhaul of the system, not just reform, and sought to make American education the “school upon the hill.”¹⁴¹ Curriculum reform became the basis for this reimagining.

Universities designed to offer students the highest level of education did not fall short of criticism. Stanford fell into the top tier of universities in the 1960s, recognized for high-quality faculty and students in addition to a large endowment and high levels of funding for research. College-level education during this period emphasized teacher-guided design models and a focus on citizenry, while graduate schools focused on research and scholastic merit. This model seemed practical at first but maintaining this balance proved difficult. Graduate school culture spread to undergraduate levels, and the promotion of American ideals dwindled. The undergraduate education that focused on humanitarian topics and centered on promoting good citizens shifted to strictly academia.¹⁴² The research-heavy university model that emerged during the Cold War led to the development of new institutional frameworks within higher education.

New Undergraduate Schools began to emerge within this atmosphere. For example, Liberal Arts Colleges came into place at universities that wanted to incorporate humanities study programs.¹⁴³ Furthermore, historically black colleges and universities during the sixties offered liberal-thinking teachers a place of refuge.¹⁴⁴ Hampshire College was among other undergraduate

¹⁴⁰ Thelin, *Going to College in the Sixties*, 119.

¹⁴¹ Thelin, *Going to College in the Sixties*, 119.

¹⁴² Cuban, *How Scholars Trumped Teachers*, 9.

¹⁴³ Thelin, *Going to College in the Sixties*, 118.

¹⁴⁴ Howard Zinn, “The Politics of History in the Era of the Cold War,” in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), 52.

schools offering new designs of higher education. The central theme of this college rested in seminars, field studies, and contract studies which shifted the focus away from heavy coursework. Hampshire College relied on creative methods of inquiry that prepared its students for three stages of comprehensive exams before obtaining their degrees. However, few students went into the program with the capabilities necessary to begin planning a course of study, which created issues with developing this model of university instruction.¹⁴⁵ These programs and new trends in higher education addressed undergraduates' desire to pull away from graduate-centered research and introduce more practical curricula.

The emergence of a new “distinctive” college design found at Reed, Antioch, and Swarthmore offered new student-focused initiatives to make their degrees desirable. Antioch instituted work-study programs and put targeted recruitment efforts in place. At Swarthmore, the school’s president relied on liberal arts and honor programs to boost student morale. Reed College took the approach of offering liberal education with the incorporation of humanities in core studies and included a senior thesis requirement into their program. They did not focus on athletics, which set them apart from many universities.¹⁴⁶ The changes in these institutions shifted higher education curricula back to humanities fields.

Reforms continued to shape the curriculum of undergraduate students. It did not go unnoticed that founders at the university advocated for student choice in course selection, but those university representatives did not enjoy this autonomy when course selections fell outside their interests and comfort zones.¹⁴⁷ At Harvard, “highly professional, highly specialized faculty not surprisingly offered highly professional, specialized courses.” A reflection of this

¹⁴⁵ Thelin, *Going to College in the Sixties*, 120.

¹⁴⁶ Thelin, *Going to College in the Sixties*, 117.

¹⁴⁷ Thelin, *Going to College in the Sixties*, 120.

specialization was apparent in the availability of 1,614 courses to choose from in the 1961-62 catalog. This shocking abundance equates to a 1:4 ratio of courses to undergraduate students. However, students did not take advantage of these unique course offerings. Instead, to avoid the harsh scrutiny of professors within these specialized courses, students populated courses that offered easy grades, with one course in European intellectual history receiving nearly 800 attendees.¹⁴⁸ Specialization and course pool selection did not equate to satisfaction, and students continued to push faculty to change the curriculum.¹⁴⁹

Because the focus on research drove unrest, education historian John Thelin claims that “curricular reforms were at the start, if not always at the heart, of the student movement of the 1960s.”¹⁵⁰ However, when discussing efforts to change curriculum in the 1960s, Thelin points to numerous figures who compared this task to moving a graveyard.¹⁵¹ Even though undergraduate students attending Harvard in the 1950s enjoyed the status of attending an elite university and praised the intellectual and social activity of campus life, discontent over the curriculum swelled.¹⁵² In the 1965 Foreword to *Constraint and Variety of American Education*, David Reisman (1909-2002), a prominent sociologist and author of many books pertaining to higher education, complained of his lack of familiarity with the changing course scope just ten years after his original publication of the book stating, “The eighty or so institutions I am familiar with hardly begin to span the range of diversity in American higher education, and with institutions changing so rapidly, I cannot even revisit those I already know in order to keep up with the

¹⁴⁸ Keller, *Making Harvard Modern*, 298.

¹⁴⁹ Thelin, *Going to College in the Sixties*, 116.

¹⁵⁰ Thelin, *Going to College in the Sixties*, 116.

¹⁵¹ Thelin, *Going to College in the Sixties*, 116-17. Thelin attributes this comparison to Calvin Coolidge and Woodrow Wilson.

¹⁵² Keller, *Making Harvard Modern*, 297.

changes within them.”¹⁵³ Reisman’s comments reveal how rapidly universities underwent reform, which contributed to revisions in the university curriculum.

A New Student Body

Curriculum changes continued with the passage of the Higher Education Act of 1965 (HEA). Education Commissioner from 1962-65 Francis Keppel details the passage of the HEA by explaining how an Omnibus Bill passed first, which brought a collective group of education representatives together to promote education reforms through government funding and initiatives.¹⁵⁴ This bill laid the groundwork for the HEA in 1965, which opened universities to minorities and low-income students previously denied access to such facilities. The HEA offered relief to the discontent of students in the sixties. Additionally, it intended to provide educational resources to higher education institutions and financial assistance to students attending those schools.¹⁵⁵ In President Lyndon B Johnson’s remarks upon signing the HEA, he claimed that through scholarships, loans, and work opportunities, the bill opened “the most important door that will ever open--the door to education,” to one million students that previously did not have access to college.¹⁵⁶

This Act also raised the quality of education students received by providing new resources to universities and financial assistance to students. It offered teacher fellowship

¹⁵³ David Reisman, *Constraint and Variety in American Education*, (University of Nebraska Press: Lincoln, 1958), vii.

¹⁵⁴ Oral history transcript, Francis Keppel, interview 1 (I), 4/21/1969, by David G. McComb, LBJ Library Oral Histories, LBJ Presidential Library, accessed March 26, 2021, <https://www.discoverlbj.org/item/oh-keppelf-19690421-1-72-22-a>

¹⁵⁵ Higher Education Act of 1965, Public Law 89-329-November 8, 1965 1219 Public Law 89-329 An Act, accessed March 26, 2021, <https://www.govinfo.gov/content/pkg/STATUTE-79/pdf/STATUTE-79-Pg1219.pdf#page=37>.

¹⁵⁶ Lyndon B Johnson, “Remarks at Southwest Texas State College Upon Signing the Higher Education Act 1965,” November 8, 1965, online by Gerhard Peters and John T. Woolley, *The American Presidency Project*.

programs and allowed colleges and universities to draw on the talents of esteemed universities through cooperative exchanges.¹⁵⁷ The HEA allowed Americans from all income levels to attend college through grants, loans, and work-study programs. Organizations like TRIO and other outreach programs were designed through this Act to provide resources to low-income students.¹⁵⁸ As the student body composition changed, so too did the framework of higher education.

Protests and civil rights movements likely influenced these policy changes on a federal level. The shifts resulted in modifications to Humanities education, including many changes in History departments. “In the 1960s, affected undoubtedly by the powerful currents of the civil rights and antiwar movements, historians began to write a new kind of American history, which came to be known as “revisionist history.”¹⁵⁹ The new histories of the 1960s and 1970s resulted from social movements that overtook the nation and influenced the outlooks of millions of Americans who questioned the “orthodox treatment of every aspect of the American past.”¹⁶⁰ As a result, new studies developed, and within a short time, those studies branched out and promoted a diverse range of topics to examine within higher education.¹⁶¹

Federally funded research universities were not isolated from these changes to the curriculum. African American Studies emerged as Black history and fully developed through liberal scholars who revisited historical genres and examined old topics with new perspectives.¹⁶² In 1969, Harvard responded to protests with attempts to bring in more black and low-income

¹⁵⁷ Higher Education Act of 1965.

¹⁵⁸ Mary Ellen Flannery, “At 50, Higher Education Act Remains the Cornerstone of College Affordability,” *neaToday*, National Education Association. October 27, 2015, accessed March 26, 2021, <https://www.nea.org/advocating-for-change/new-from-nea/50-higher-education-act-remains-cornerstone-college>.

¹⁵⁹ Zinn, “The Politics of History in the Era of the Cold War,” 63.

¹⁶⁰ Zinn, “The Politics of History in the Era of the Cold War,” 65.

¹⁶¹ Arthur M. Schlesinger, “Arthur M. Schlesinger, Sr.: New Viewpoints in American History Revisited.” *The New England Quarterly* 61, no. 4 (1988): 483-501.

¹⁶² Zinn, “The Politics of History in the Era of the Cold War,” 65.

students, claiming that these students provided an “air of reality and more honestly reflect the varied backgrounds of people in our society at large.”¹⁶³ While African American studies became an important area of focus, some faculty objected to calls for black candidates to head the program’s creation, labeling it “racism in reverse.”¹⁶⁴ After an extensive debate with contributions from radical white and black demonstrators, Harvard opted for a Black studies department rather than creating a Black studies program. That fall, Harvard launched the African and Afro-American Studies department, headed by the controversial Jamaican American Ewart Guinier.¹⁶⁵ Through student unrest and with the help of a new diverse body of students, original fields of study emerged on the campuses of federal research-grant universities.

Women’s Studies also gained a place in the campus curriculum during the 1960s. Women historians began to write history books and give attention to previously ignored topics. Bookstores quickly stocked these writings on resistance and equality written by women historians who began to collect a following.¹⁶⁶ As a result, an expansion of research on women took place, focusing on the long-neglected history of women’s lives. These studies crossed disciplines and gave “attention to roles of women in other cultures, enriching history, literature, and anthropology and other social sciences.”¹⁶⁷ In addition, new journals emerged, like *Signs* and *Psychology of Women Quarterly*, which provided women with scholarly mediums to display their research and gave academics new resources for conducting research in liberal arts fields.¹⁶⁸

¹⁶³ Keller, *Making Harvard Modern*, 286-87.

¹⁶⁴ Keller, *Making Harvard Modern*, 287.

¹⁶⁵ Keller, *Making Harvard Modern*, 287-88. Guinier reportedly displayed an “indifference to the cause of black advancement... laziness” and had “a record of misuse of funds.”

¹⁶⁶ Zinn, “The Politics of History in the Era of the Cold War,” 65-66.

¹⁶⁷ David Reisman, *On Higher Education: The Academic Enterprise in an Era of Rising Student Consumerism*, (Jossey-Bass Publishers: San Francisco, 138.

¹⁶⁸ Reisman, *On Higher Education*, 138.

The design of the campus differed drastically from the model of the federal research-grant university that emerged at the start of the Cold War. This revised model accommodated a new group of students, including adult women who influenced the curriculum of universities. Their presence as adults returning after breaks from education, often due to marriage or work, created an environment that advocated for new studies in higher education. “The serious adult women just mentioned have been one of the sources of student market pressure, and on many campuses political pressure also, for separate women’s studies departments and programs.”¹⁶⁹ As a result, new facilities for researching women’s histories and contemporary women emerged, and existing centers expanded. Radcliffe’s Schlesinger Library and Stone Center at Wellesley College are two products of these advancements.¹⁷⁰

Another topic that gained focus in university curricula was Hispanic Studies. However, the lack of Hispanic professors hindered the development of this field. Unlike the swift development of African American studies, topics related to these Hispanic studies are only recently gaining attention. In contrast, historically black universities and colleges have existed for over a hundred years, bringing in students who demand study of these topics. However, in recent years, the prominence of Hispanic Americans has created a push for more programs related to Chicano studies.¹⁷¹ Chicano studies bridged into other areas. For example, the formation of the Mexican-American and Indian Law Student Association at UCLA in 1968 resulted from students seeking a curriculum that reflected social issues within their communities.¹⁷² Scholars started visiting other topics, such as Indigenous studies.¹⁷³ Eventually,

¹⁶⁹ Reisman, *On Higher Education*, 138.

¹⁷⁰ Reisman, *On Higher Education*, 139.

¹⁷¹ Reisman, *On Higher Education*, 142-43.

¹⁷² “Carta Editorial,” *Carta Editorial* 5, no. 11 (November 26, 1968), <https://jstor.org/stable/community.28034743>.

¹⁷³ Zinn, “The Politics of History in the Era of the Cold War,” 66.

other groups started to finance their own programs, as with the appointment of “the Armenian chair at Pennsylvania or the Chair in Polish Literature and several Ukrainian chairs at Harvard.”¹⁷⁴ As shown through the previous examples, government initiatives encouraged diversity on campuses, which contributed to the development of new curricula in higher education during the Cold War.

Conclusion

The paucity of coursework that appealed to minority groups in America revealed the limitations of higher education curricula in the US at the start of the Cold War. Following the education reform of the 1960s, new fields of study emerged in the 1970s and expanded many traditional subjects. Examples of new coursework in the sixties included Women’s Studies and Black Studies. However, while reforms took shape in many areas, a closer examination reveals that changes mostly fell within the liberal arts curriculum.¹⁷⁵ The unrest on campuses was not just a product of changing demographics among students and social movements like Civil Rights and Women’s Liberation but also a reaction to campus frameworks that emphasized specialization and scientific research.

Militaristic ambitions that supported federal aid provisions to universities spurred the growth of STEM sectors.¹⁷⁶ This shift pulled some focus from humanistic teaching methods that dominated higher education up until that point.¹⁷⁷ Nevertheless, the Humanities were just as

¹⁷⁴ Reisman, *On Higher Education*, 144.

¹⁷⁵ Thelin, *Going to College in the Sixties*, 133-35.

¹⁷⁶ Fine, “Education in Review.”

¹⁷⁷ Tomislav Topolovčan and Snježana Dubovicki, “The Heritage of the Cold War in Contemporary Curricula and Educational Reforms,” *CEPS Journal : Center for Educational Policy Studies Journal* 9, no. 2 (2019): 11-32, accessed September 20, 2020, doi:<http://dx.doi.org.vortex3.uco.edu/10.26529/cepsj.567>.
<http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/2249688769?accountid=14516>.

essential in the fight against Communism since they could assist in spreading cultural practices, and “the best way to combat the global spread of Communism was to encourage the development of social structures similar to those in the United States.”¹⁷⁸ Universities were caught between opposing trends in Science and Humanities toward funding and teaching that magnified during the Cold War.

Science had its day in innovation with the research funding provided by the federal government at the start of the Cold War, but the humanities came back with the curriculum reform of the 1960s. Because of undergraduates’ demands for education reform, research universities attempted to incorporate new approaches to undergraduate study. However, university faculty did not steer away from their specialized focuses but, instead, responded to students’ complaints and political unrest by incorporating new humanities topics into the higher education curriculum.

The foundation of the nation's democratic ideals has often come into question at universities. Following the protest activity of the early 1960s, some commentators viewed universities as the breeding grounds for anti-government activity.¹⁷⁹ At the University of Wisconsin in Madison, a Socialist Club emerged from this research university’s intellectual community in the 1950s, with more leftist activity, including draft protests, following in the 1960s.¹⁸⁰ At Swarthmore, students rallied against segregation and separate but equal doctrine and threw their support behind civil rights policies. They supported the Marshall Plan, but students advocated against Germany’s division and America's role in promoting the Federal Republic.

¹⁷⁸ Audra J. Wolfe, *Freedom’s Laboratory: The Cold War Struggle for the Soul of Science* (Baltimore: John Hopkins Press, 2020), 7.

¹⁷⁹ Kerr, *The Uses of the University* 5th ed., 101-02.

¹⁸⁰ Matthew Levin, *Cold War University: Madison and the New Left in the Sixties*, (Wisconsin: University of Wisconsin Press, 2013), 73, accessed September 4, 2020. <https://ebookcentral-proquest-com.vortex3.uco.edu/lib/ucok-ebooks/reader.action?docID=3445342>.

They opposed the formation of NATO, and between 1946-47 support for unionization was at a high.¹⁸¹ Other arguments contend the opposite and say universities fostered government ideals since “universities during the Cold War were controlled by the U.S. government and supportive incorporated foundations.”¹⁸² While the democratic values of universities ran perpendicular to federal activity at times, the intentions of government officials did not always align with their funding results. However, it is apparent that federal funding allowed the US to spread American ideologies.

¹⁸¹ David Montgomery “Introduction” in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), xvi-xix.

¹⁸² Masaki Fujioka, “Understanding the History of American Universities during the Cold War Era --The Validity of the Concept of ‘Tension,’” 社会システム研究 = *Socialsystems: political, legal and economic studies* (March, 2016), 19: 69, accessed September 3, 2020, https://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/210565/1/soc.sys_19_69.pdf.

Chapter 4

Limiting Academic Freedom at Home while Promoting It Abroad

Between 1945 and 1970, research universities received significant attention from key government officials, and the funding provided to these universities reshaped Americans' view of higher education.¹⁸³ As universities incorporated middle-class values into academics with a dedication to creating upstanding citizens, the purpose of research took on new characteristics.¹⁸⁴ After the Second World War, government funding not only sought to bolster scientific research but also intended to instill a seemingly distinct concept of American values in its recipients. At the same time, many called into question the limits of academic freedom in this new frontier.

David Montgomery draws attention to a March 24, 1953 statement by The American Association of Universities entitled, *The Rights and Responsibilities of Universities and Their Faculties*, to highlight the universities' role in promoting American values.¹⁸⁵ In this document, Yale President A. Whitney Griswold emphasized the unity of scholars who worked together on their research under the same ideology that dedicated them to a patriotic code of learning and morals and stated that "free enterprise is as essential to intellectual as to economic progress."¹⁸⁶ Montgomery underscores the quote, which points to efforts by US government administrators to

¹⁸³ Ethan Schrum, *The Instrumental University: Education in Service of the National Agenda after World War II*, (Ithaca: Cornell University Press, 2019), accessed September 1, 2020, ProQuest Ebook Central.

¹⁸⁴ Fred M. Hechinger, "New Barrier to U.S. Aid to Education: Support is found for View that it Implies Federal Controls Science Foundation Funds Clash in Views A National Ministry," *New York Times (19 23-Current File)*, Mar 27, 1963, accessed September 10, <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/116522362?accountid=14516>.

¹⁸⁵ Montgomery, "Introduction," in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), xxii.

¹⁸⁶ Statement by the Association of American Universities, *The Rights and Responsibilities of Universities and Their Faculties*, (Princeton, NJ: Association of American Universities, 1953), 7, accessed November 5, 2022, <https://babel.hathitrust.org/cgi/pt?id=mdp.39015023464178&view=1up&seq=7>.

project capitalistic values as essential in scholarly pursuits.¹⁸⁷ The federal government supported university figures in advocating for using higher education centers as places for promoting American values.

Earl McGrath, the US Commissioner of Education from 1949-1953, further illuminates the new uses of the university in his speeches. McGrath's statement *Can Federal Aid Meet the Demands of Higher Education in America?* details the benefits American higher education bestowed upon the nation, which included molding good citizens. McGrath complained of the restraints some Americans encountered due to a lack of financial assistance and asserted that federal grants helped with this dilemma and contributed to the expansion and improvement of college facilities. The commissioner also focused on the success of federal higher education programs by highlighting the GI Bill, which altered campus environments immediately following its enactment.¹⁸⁸ As outlined by McGrath, the desire to produce a stable educational environment where all Americans have access to facilities that promote peace through democratic functions motivated government officials to provide universities with money for research.

McGrath's dedication to promoting financial assistance to highlight American values was not isolated. US officials frequently associated university funding with democracy during the Cold War. A statement made by President John F. Kennedy addressed the federal role in school and university funding in 1962 by asserting that both students and schools needed assistance from the federal government, which the president assured did not equate to federal control of

¹⁸⁷ Montgomery, "Introduction," xxii.

¹⁸⁸ Earl J. McGrath, March 23, 1949: *Can Federal Aid Meet the Demands of Higher Education in America?* Third Annual Bulletin Forum, Philadelphia, P.A., Speeches, Articles, and Public Statements File, 1949-1953, Earl J. McGrath Papers, Truman Library, accessed September 18, 2020. <https://www.trumanlibrary.gov/library/personal-papers/speeches-articles-and-public-statements-file-1949-1953/march-23-1949-can>.

schools.¹⁸⁹ In his speech, Kennedy drew strong connections between education and democracy, stating, “Free men and women value education as a personal experience and opportunity- as a basic benefit of a free democratic civilization.”¹⁹⁰ However, claims about the benefits of democracy did not always align with reality, and the “free men and women” Kennedy references, did not include minorities. According to the 1960 National Center for Educational Statistics, white students constituted 95% of the total undergraduate enrollment in all US universities.¹⁹¹ Though their claims did not accurately portray the situation in America, many representatives used higher education to promote an image of a free and equal country to combat Communism during the Cold War.

To promote the spread of democratic values, McGrath outlined four primary functions for universities, which included training for vocations that require an education beyond high school, providing service to their communities, encouraging research, and educating youth “to perform intelligently and responsibly all the activities of life in a democratic society.”¹⁹² These goals reveal the importance the commissioner placed on universities and scholarly research, which helped communities create an environment that fostered democracy. Moreover, the research university provided more than academic knowledge; it provided a location where students learned the “skills, attitudes, and habits of the scholar.”¹⁹³ McGrath envisioned these

¹⁸⁹ John F. Kennedy, “Text of the President's Message to Congress on Educational Needs,” *New York Times (1923-Current File)*, Feb 07, 1962. <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/115633990?accountid=14516>.

¹⁹⁰ John F. Kennedy, “Text of the President's Message to Congress on Educational Needs,”

¹⁹¹ John R. Thelin, *Going to College in the Sixties* (Baltimore: John Hopkins University Press, 2021), 13.

¹⁹² Earl J. McGrath, April, 1949: The Goals of Higher Education, Condensed for Publication in the *Journal of Higher Education*, Speeches, Articles, and Public Statements File, 1949-1953, Earl J. McGrath Papers, Truman Library, 1-3, accessed September 18, 2020, <https://www.trumanlibrary.gov/library/personal-papers/speeches-articles-and-public-statements-file-1949-1953/april-1949-goals>.

¹⁹³ McGrath, April, 1949: The Goals of Higher Education, 1-3.

centers of higher education as locations where students could harness the abilities needed to combat Communism.

Other methods for promoting democratic values manifested in scientific and technical fields. Historian Audra J. Wolfe claims that after the Second World War, there “was a sense that the United States was engaged in a prolonged battle of civilizations that could not be won through force alone” and uses the term “psychological warfare” to identify government campaigns that incorporated propaganda or activities that could help bring others into their following.¹⁹⁴ Scientific education played a crucial role in winning this war. While many sectors of education focused on combatting Communism directly, some members of the US academic community embraced scientific internationalism, including the National Academy of Sciences (NAS). These figures shared scientific knowledge on the international front without restrictions on exchanges between Soviet and US scholars.¹⁹⁵ Therefore, promoting scientific research came to represent the promotion of American democracy.

In an effort to advocate for scientific knowledge and combat the spread of communism, numerous foundations, including the Rockefeller Foundation and Ford Foundation, promoted the global dispersal of scientific textbooks.¹⁹⁶ In 1951 alone, The Rockefeller Foundation provided funding to Japan for medical books, Syria for books related to social sciences, Germany for academic books and journals, and Denmark for books related to sociology.¹⁹⁷ These efforts helped promote US ideas and values throughout the world, which highlighted their commitment to the free exchange of ideas. Wolfe claims that “[t]he historical record shows, over and over

¹⁹⁴ Audra J. Wolfe, *Freedom’s Laboratory: The Cold War Struggle for the Soul of Science* (Baltimore: John Hopkins Press, 2020) 3-4; 57.

¹⁹⁵ Wolfe, *Freedom’s Laboratory*, 9-13.

¹⁹⁶ Wolfe, *Freedom’s Laboratory*, 14.

¹⁹⁷ Rockefeller Foundation Annual Report 1951. 378.31.R59. New York (1955). Accessed October 8, 2022. <https://www.rockefellerfoundation.org/wp-content/uploads/Annual-Report-1951-1.pdf>.

again, that the loudest Western voices in favor of scientific freedom and scientific internationalism were at least as interested in advancing US foreign policy as in promoting civil liberties.”¹⁹⁸ One method of dispersing this scientific knowledge and promoting scientific internationalism came by way of foreign exchange programs.

Foreign Exchange Programs

Government funding for higher education extended beyond research grants. In “The Uses of the Foreign Student,” Margaret O’Mara criticizes Kerr’s plans for the federal research grant university, claiming it dealt with only a select few elite universities, which O’Mara claims limits the impact of international students on the development of America’s dominant higher education system.¹⁹⁹ The foreign exchange program had more than 30,000 students receiving support from private and federal entities in 1951 and 1952. The intent of aiding these students was to equip them to deal with social and economic problems in their home countries. By exposing these students to the institutions that created democratic citizens in America, exchange students could take the same concepts and project them onto their home countries.²⁰⁰

The Fulbright Program, established by President Truman in 1946, highlights the federal government's goals to promote democratic ideals through the exchange of educational practices. This program allowed universities to welcome potential candidates in the hope of spreading American ideals to foreign nations when these candidates returned home. Additionally, the program attempted to spread these same values through US students visiting foreign nations for

¹⁹⁸ Wolfe, *Freedom’s Laboratory*, 9.

¹⁹⁹ Margaret O’Mara, “The Uses of the Foreign Student,” *Social Science History* 36, no. 4 (2012): 583-615, accessed September 3, 2020, doi:10.2307/23361144.

²⁰⁰ John W. Gardner, “The Foreign Student in America,” *Foreign Affairs* 30, no. 4 (1952): 637-38, accessed September 5, 2020, doi:10.2307/20030929. https://heinonline-org.vortex3.uco.edu/HOL/Page?public=true&handle=hein.journals/fora30&div=59&start_page=637&collection=journals&set_as_cursor=2&men_tab=srchresults.

study. While the name-bearer of this program, J. William Fulbright, did not promote a political agenda for the program and merely sought to foster cultural exchanges in an academic setting, in the mid-1960s he complained of government use of exchange programs for “short-range and shortsighted political purposes.”²⁰¹ Regardless of Fulbright’s intent, this program served to promote American democracy in nations threatened with falling under the influence of communism.

The enactment of the Fulbright Program under Public Law 584 provided twenty countries with student exchanges and allowed students, professors, teachers, and research scholars to participate in the program. A 1951 letter from President Truman written to Walter Johnson, Chairman of the Board of Scholarships, highlights the program’s benefits stating, “It is helping us all to understand each other better than ever before. And it is proving effective in combatting communist lies and distortions about social, economic and political conditions and objectives in our respective countries.”²⁰² The exchange program served as a vital tool for refuting communist propaganda and countering it with the promotion of American democratic ideals during the Cold War.

In the 1951-52 academic year, many international students from countries vulnerable to communism arrived in the United States. Germany and Japan both sent more than a thousand students to US universities. Almost 7,500 students came from the rest of Europe. Additionally, over 10,000 students came from Asia and the Near East.²⁰³ Foreign exchange programs came in

²⁰¹ Johnson, Lonnie R. The Fulbright Program and the Philosophy and Geography of U.S. Exchange Programs since World War II. “Exchange Programs in the XXth Century: Education, Circulations, and Transfers” organized by Giles Scott-Smith and Ludovic Tournès and held at the University of Geneva, December 11-12, 2014.

²⁰² Letter to the Chairman, Board of Foreign Scholarships, on the Fulbright Program. Harry S. Truman Library Archives. Library Collection. Public Papers. <https://www.trumanlibrary.gov/library/public-papers/103/letter-chairman-board-foreign-scholarships-fulbright-program>

²⁰³ Gardner, “The Foreign Student in America,” 637-38; For information pertaining to the significance of these regions read Melvyn P. Leffler, *A Preponderance of Power*, (Stanford, California: Stanford University Press, 1992).

many forms. The American Field Service brought secondary students from France, Czechoslovakia, the Netherlands, Norway, England, and Syria just after the Second World War in an effort to promote cultural exchanges and initiate international friendships. By 1957, President Dwight D. Eisenhower praised this program's success and claimed he bore direct witness to the program's growth with his yearly attendance at an event honoring the American Field Service students from 1948-57, of which he only missed one year. He also emphasized the responsibility of these travelers to return and report the experiences they had during their stay.²⁰⁴

Recruiting the world's brilliant minds was not just a way to preserve peace through shared institutions but also to maintain a dominant presence of democratic nations to counter the growing threat of communism. John Gardner highlights this mindset in an article published for *Foreign Affairs* in 1952, stating, "it would be ironic if we fell into the error of seeking talent in other countries only among the favored few, leaving it to the Communists to recruit- as they eagerly do- the vigorous and striving potential leaders outside this charmed circle."²⁰⁵ The strategic placement of exchange programs in countries vulnerable to communism allowed the US to recruit these nations to the side of democracy.

Academic Freedom

Chester I. Bernard, president of the Rockefeller Foundation, outlined the changing scope of academic freedom in the foundation's 1951 annual report. While Bernard emphasizes the need for placing national security as supreme in the case of weapons development and similar

Leffler explains that US politicians attempted to focus on European countries but periphery regions, such as Asia and the Near East, maintained significant importance because of their vulnerability to communism.

²⁰⁴ Dwight D. Eisenhower, Remarks to the American Field Service Students, July 18, 1957, Published Papers of the President, (Washington DC: GPO, 1958), 561-62, accessed September 4, 2020, <https://quod.lib.umich.edu/p/ppotpus/4728417.1957.001?rgn=main;view=fulltext>. In his speech Eisenhower claims that he was in attendance from 1948.

²⁰⁵ Gardner, "The Foreign Student in America," 637-39.

classified scientific research, he also recognizes that all research requires the free exchange of ideas between scholars. Highlighting the rights of the scholar, he states:

Academic freedom is not a concept promoted to favor a selfish interest or to maintain a position of special privilege. Freedom to inquire, to observe, to theorize, to exchange ideas and experiences, to criticize, is essential to fundamental research. Science is largely rooted in the experimental method. But unless the experimenters are able to communicate their findings to fellow workers — unless they can freely meet with their peers in research and discuss their results, relate their findings to what other investigators have found, obtain the discipline of competent criticism and be challenged to defend and prove their conclusions — in short, unless they are able, in John Milton's phrase, "to utter and argue freely," their contributions are likely to suffer avoidable defects. And this freedom is necessary to the fullest production and the correction of error, not only in science but equally in scholarly pursuits in art, literature, industry and business. It is the essential freedom which anyone must have if he is to do creative work of any kind.²⁰⁶

While many officials promoted the use of universities as centers for spreading democratic values, these locations were also the target of practices that completely contradicted those same ideals. As members of the US government sought new methods of slowing the spread of communism in stateside institutions, they took drastic measures that imposed limitations on many scholars. By restricting the academic freedom of employees and interfering with the universities ability to hire and fire faculty, the US government used the fear of communism to limit freedom in US universities.

The impositions placed upon scholars during the Cold War are contentious because they challenged university faculty's concepts of academic freedom. However, obtaining a clear definition of what this freedom entitles is challenging. America's concept of academic freedom is derived from the German concept of *Lehrfreiheit* (freedom of teaching), which was adopted by the many Americans who studied in Germany during the late-nineteenth century.²⁰⁷ This realm

²⁰⁶ Rockefeller Foundation Annual Report 1951.

²⁰⁷ *Lehrfreiheit* is referred to as freedom of the teacher, whereas *lehrfreiheit* is the freedom of the student. US academic freedom traditionally looks at the freedom of the teacher. Connelly, John, and Michael Gruttner, *Universities Under Dictatorship* (University Park, Pennsylvania: Pennsylvania State Press, 2005), 3.

of freedom consists primarily of three elements: inquiry and research, teaching, and extra-mural utterance and action. Bernard's statement addresses the first freedom, which pertains to the ability to research and share ideas between scholars. The second freedom relates to the professor's ability to teach without undue scrutiny. Finally, the third freedom deals with professors' ability to express their opinions and practice politics as they see fit outside the university.²⁰⁸ These freedoms embody the ideal of a free and democratic nation, yet the federal government constantly challenged professors' rights to these freedoms during the Cold War.

To further clarify interpretations of this concept during the Cold War, the 1940 Statement on Academic Freedom released by the American Association of University Professors (AAUP) claimed that teachers had complete freedom in research and publication. Additionally, it claims that professors possessed the freedom to discuss their area of study in the classroom as long as they were "careful not to introduce into their teaching controversial matter which has no relation to their subject."²⁰⁹ Furthermore, when exercising their citizenship in society and membership in an academic community, academic freedom exempted them from educational censorship, assuming these instances took place outside the university. However, academic freedom did not protect speech that could foster a negative image of the profession or institution. Finally, the report informed professors to practice accuracy and restraint, when necessary, in addition to displaying "respect for the opinions of others" and to always emphasize that their words and actions were not representative of the academic institution.²¹⁰

²⁰⁸ AAUP's 1915 Declaration of Principles, The American Association of University Professors, President, John Dewey, Columbia University and the AAUP Committee on Academic Freedom and Academic Tenure. <https://aaup-ui.org/Documents/Principles/index.html>.

²⁰⁹ 1940 Statement of Principles on Academic Freedom and Tenure with 1970 Interpretive Comments, American Association of University Professors. Reports and Publications. <https://www.aaup.org/report/1940-statement-principles-academic-freedom-and-tenure>.

²¹⁰ 1940 Statement of Principles on Academic Freedom and Tenure with 1970 Interpretive Comments.

In 1938, Congress formed the House Unamerican Activities Committee (HUAC) to examine the activities of US citizens suspected of engaging in any disloyal or treacherous activity. The government used the courts to bring citizens suspected of being affiliated with the Communist Party to trial. As the Cold War intensified, this committee also accelerated its practices and private citizens found themselves the targets of numerous threats that challenged their loyalty to the nation. Teachers and scientists were not exempt from these hearings, with the period between 1950-54 being the most intense for those subject to persecution.

The reactions of some faculty during these hearings can be understood by examining the operation of universities, which placed professors under boards of trustees with whom they negotiate the terms of their contracts. These professors were not subject to the state but rather the will of administrators and trustees of the institutions. Therefore, disputes over academic freedom played out through legal battles and political arenas. Additionally, as professors sought tenure from these same forces, they often compromised their academic freedom for employment stability.²¹¹

Though many opposed the actions of the House Unamerican Activities Committee (HUAC), these critics failed to form any cohesive opposition. Instead, higher education institutions reacted in many ways, including avoidance of any confrontation with issues raised by the committee, compromising with the committee, or remaining silent, which only inflated the issue. In this manner, “universities let HUAC and anti-Communist trustees set the agenda: they advised faculty members to come clean; they accepted and used FBI information; they set up

²¹¹ Connelly, John, and Michael Gruttner, *Universities Under Dictatorship* (University Park, Pennsylvania: Pennsylvania State Press, 2005), 3.

their own inquisitions.”²¹² Universities and the federal government worked together to jeopardize the academic freedom of university faculty, doing so under the guise of democracy.

English scholar and activist during the Cold War Richard Ohmann reflects on this period of intellectual oppression and the contradictions that came with the HUAC persecutions.

We learned that the state could pry into and severely punish our affiliations and politics, with the cooperation of our employers, dedicated as they supposedly were to freedom of thought; that, in fact, we were *less* free than other workers to challenge power, because of the special obligations we took on with our special privilege; that the stigmatized could expect little if any help from our profession and scholarly organizations, and not much from ad hoc groups of colleagues.²¹³

According to Ohmann, scholars and faculty could continue to teach and research with very little interference, so in a sense, their academic freedom was not challenged in their work. However, activism could make them the target of investigations, and simply participating in the “wrong” political groups could wreck their careers. “By extension, to be a professional was to be nonpartisan, to abstain from historical agency.”²¹⁴ The experiences of political and social activist Angela Davis reveals the extent to which these governing bodies could persecute professors for communist affiliations. As an assistant professor teaching philosophy at UCLA, Davis lost her position after University Vice-Chancellor Saxon asked her to reveal if she was a member of the communist party. Though the university withheld her pay, she continued to teach within her department and defeated the regents in a ruling by the Superior Court of California.²¹⁵ For professors, the freedom to exercise free thought no longer applied as the government attempted to enforce a pro-America stance.

²¹² Richard Ohmann, “English and the Cold War,” in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), 82.

²¹³ Ohmann, “English and the Cold War,” 83.

²¹⁴ Ohmann, “English and the Cold War,” 83.

²¹⁵ Online Archive of California, Register of Angela Davis Academic Freedom Case & Trial and Defense Movement, 1969-1972 An Inventory of Angela Davis at the Southern California Library for Social Studies and Research. <http://pdf.oac.cdlib.org/pdf/scl/davis.pdf>.

The scientific community in the United States suffered endless attacks on academic freedom during the Cold War. Even J. Robert Oppenheimer suffered scrutiny in 1954 when US Atomic Energy Commission revoked his security clearance due to alleged involvement with the Communist Party in the 1930s. Oppenheimer's former student, Melba Phillips, "refused to renounce the Progressive Party" which led to her removal from the Federation of American Scientists in 1948. Many scientists in the Cold War were denied funding, lost their jobs, or had their passports revoked for failing to align with government ideologies.²¹⁶ These attacks on academic freedom opened the door for the loyalty oaths that came with the National Defense of Education Act (NDEA) in 1958.

Designers of the NDEA sought to combat communism through scientific and technological advancements after the nation witnessed Soviet success in these fields with the launching of Sputnik. The NDEA provided fellowships and loans to students pursuing higher education in the United States and sought to improve science, math, and foreign language programs within these institutions. This bill provided over a billion dollars to higher education and vastly expanded the role of the federal government within education.²¹⁷ The NDEA itself did not create contention, but one clause within the bill that required university faculty to take loyalty oaths did. The provision placed loyalty oaths and noncommunist affidavits in front of scholars as a safeguard against the threat of Communism which authorities feared might impose upon the nation's democratic institutions. The Red Scare had been in effect for some time and other examples of this process had manifested over the previous twenty years, with the loyalty oaths at the University of California in 1949 still fresh on many people's minds. Consequently,

²¹⁶ Wolfe, *Freedom's Laboratory*, 4.

²¹⁷ U.S. House of Representatives, "National Defense Education Act," Legislation and Floor Proceedings. August 21, 1958. Committee on Education and Labor. Bills and Resolutions Originating in the House, 1789-1974. History, Art & Archives, accessed November 05, 2022, https://history.house.gov/Records-and-Research/Listing/lfp_006/.

refusing to participate did not appear feasible to many faculty members.²¹⁸ Loyalty oaths and security checks were just a couple of ways the anti-Communism uproar manifested itself.²¹⁹

When writing the NDEA, one of the planners of the bill, Senator Stewart E. McClure, did not intend to include the clause requiring loyalty oaths. “We were just about to report this beautiful National Defense bill to full committee, having been through every subject there was, when Roy James leaned over to Alexander Smith and suggested a loyalty oath for professors who received money from this program.”²²⁰ McClure did not expect the clause to stay since his colleague Senator Lister Hill, “gave three thoughts to it and said OK. ‘We get rid of it later,’... but we never did.”²²¹ McClure expressed his frustration with keeping this amendment in the bill he curated. He complained of the House’s reaction to the provision decrying, “God, the House embraced it as if it was the greatest thing since custard pie, and we had to take it in conference, it was in our bill--this stupid, irrelevant, nongermane amendment.”²²² While McClure intended to protect education from Communism by changing the scope of study, the House took this defense a step further and imposed upon the freedoms of scholars.

Even though members of the House supported the amendment, the passage of the bill with the requirement for loyalty oaths came with significant opposition. Some institutions never participated in the program strictly due to the loyalty oath affidavit. Others, like Harvard, accepted funds and backed out of the agreement later, citing concern for the oath’s infringements on personal rights as grounds for their departure. Other schools found themselves conflicted since they supported the democratic principles tied to the bill and wanted to help students who

²¹⁸ Ohmann, “English and the Cold War,” 88.

²¹⁹ Wolfe, *Freedom’s Laboratory*, 2.

²²⁰ “Stewart E. McClure: Chief Clerk, Senate Committee on Labor, Education, and Public Welfare (1949-1973),” Oral History Interviews, Senate Historical Office, Washington, D.C. 9, accessed June 28, 2022, <https://www.senate.gov/artandhistory/history/resources/pdf/McClure4.pdf>.

²²¹ “Stewart E. McClure: Chief Clerk, Senate Committee on Labor, Education, and Public Welfare (1949-1973),”

²²² “Stewart E. McClure: Chief Clerk, Senate Committee on Labor, Education, and Public Welfare (1949-1973),”

needed financial assistance to get an education. However, these institutions felt that students' freedom of thought and belief should not be imposed upon for this financial support. Eventually, the AAUP represented 148 universities that opposed NDEA because of the loyalty oaths. With help from Senator John F. Kennedy, opposition to the loyalty oaths from universities ultimately led to revisions. However, the inclusion of this affidavit reveals how democratic principles came into jeopardy with these efforts to combat Communism.²²³

The creation of federal grant universities brought a new understanding of academic freedom that directly challenged professors' ability to research within their chosen interests. At Stanford, academic freedom came into jeopardy when Roosevelt's higher taxes were placed on private investors, which drove private universities to seek financial support from the government.²²⁴ Nonetheless, very few professors were terminated for their political opinion, even with the McCarthy-era witch hunts taken into consideration. The University of Wisconsin failed to dismiss faculty in 1967 for boycotting classes after an incident with police following an on-campus antiwar rally.²²⁵ Employees terminated for violations related to their academic freedom often found support in the court system. Thirty-one tenured University of California employees were terminated in 1950 for refusing to sign loyalty oaths; the California Supreme Court ordered their reinstatement two years later, and sixteen of the terminated faculty members successfully

²²³ Brent D. Maher, "Divided by Loyalty: The Debate Regarding Loyalty Provisions in the National Defense Education Act of 1958." *History of Education Quarterly* 56, no. 2 (2016): 301–30. <http://www.jstor.org/stable/26356303>.

²²⁴ Rebecca S. Lowen, *Creating the Cold War University: the Transformation of Stanford*, (Berkeley, California: University of California Press, 1998), 31.

²²⁵ Connelly, *Universities Under Dictatorship*, 4.

sued for back pay.²²⁶ Furthermore, Angela Davis's case with the Superior Court of California ended with court ruling against the university.²²⁷

When federal contracts started appearing in universities during the 1930s, numerous university presidents expressed concerns about the threat these agreements posed to the private university.²²⁸ They posited that private universities were institutions that facilitated scholars' search for truth and that these were one of the few locations for attaining such goals; "they were, essentially, the proverbial ivory towers, remote from the pressures of democratic society."²²⁹ By 1969, government-subcontracted funding supported three-quarters of all academic research. Opponents of this system claimed that academia served outside agencies that prioritized corporations and military research over genuine academic interests.²³⁰ "To midcentury US educators...the links between scientific observation and liberal democracy were transparent and urgent. They believed that political freedom depended on scientific freedom and that scientific freedom emerged from unobstructed encounters with the natural world."²³¹ However, grants provided through military and commercial contracts did not always permit the scientist to pursue such encounters but rather to explore a specific topic with a focused outcome. That was the case at Stanford in 1946 when the Dean of the School of Engineering Frederick Terman brought in engineers "who he was sure would easily obtain governmental contracts," and encouraged

²²⁶ IMS Council Committee on the Situation at the University of California, Report by the IMS Council Committee on the Situation at the University of California, December 27, 1950 Part of James Ralston Caldwell papers, BANC MSS 67/97 c, BANC MSS 67/97 Box 1, Folder 21: Loyalty Oath. Folder, accessed October 1, 2022, <https://digioll.lib.berkeley.edu/record/62119?ln=en>. See also Connelly, John, and Michael Gruttner, *Universities Under Dictatorship* (University Park, Pennsylvania: Pennsylvania State Press, 2005), 4.

²²⁷ Online Archive of California, Register of Angela Davis Academic Freedom Case & Trial and Defense Movement,

²²⁸ Lowen, *Creating the Cold War University*, 33. Among those university presidents were Princeton President Harold Dodds, Caltech President Robert Millikan, and Stanford President Ray Wilbur.

²²⁹ Lowen, *Creating the Cold War University*, 33.

²³⁰ Connelly, *Universities Under Dictatorship*, 7.

²³¹ Wolfe, *Freedom's Laboratory*, 1.

existing faculty to shift their research focus to areas that aligned with their funding needs.²³² As a result, some scientists shifted their interests to align with the interests of funding agencies, potentially leaving other areas of research unexamined.²³³ Support from industry and research in the commercial sector forced scientists in academia to choose between funding and professional autonomy.²³⁴

Conclusion

Defining academic freedom creates many challenges. There is not a general consensus on what or who is protected. Some may argue that academic freedom protects the academy itself from outside interference. For example, the institution can exercise its academic expertise without the influence of industry, religion, or government. However, others may interpret it as freedom for the scholar to practice their academic research without interference from the institution itself. At what point can academic freedom be interrupted? Can a scholar exercise their freedom when their research falls outside their trained subject area, and does the entire university community receive this protection? Scholars have debated these questions for decades, and responses seem to pull in many directions leaving the inquirers more confused with each answer.²³⁵ The Cold War brought many of these questions to the forefront of academic life and exposed how challenging it is to define the limits and expectations of scholarly research.

Through the Fulbright program and other exchange efforts, government figures made obvious attempts to promote American democracy through education, while claims from the government sponsors asserted how the university fits into America's conception of a free and

²³² Lowen, *Creating the Cold War University*, 111.

²³³ Wolfe, *Freedom's Laboratory*, 4.

²³⁴ Lowen, *Creating the Cold War University*, 42.

²³⁵ Connelly, *Universities Under Dictatorship*, 2.

just society. While the federal government attempted to use federal funding and government initiatives to promote American ideals in countries vulnerable to communism, their efforts often contradicted common conceptions of freedom and democracy. The HUAC challenged concepts of freedom, and the NDEA imposed upon the rights of the scholar. By examining academic freedom against government statements on democracy, it is clear that the federal government manipulated education programs to combat communism and compromised its vision of democracy when academic freedom did not align with its current agenda.

Chapter 5

Exporting Education: US Influence on British Universities during the Cold War

In 1954 a Manchester-based organization, Committee on Science and Freedom “envisioned scientific freedom as a crucial plank in its anti-Communist platform” and dispersed scientific journals to professors as far away as Canada.²³⁶ This UK-based committee operated through a global network of publications identified as the Congress for Cultural Freedom (CCF). At a glance, this activity appears to fall outside the domain of the US-Soviet Cold War battlefield. However, US involvement in dispersing this information was explicitly linked to the government since the CCF was a product of the CIA.²³⁷ In this manner, the United States promoted UK soft power so both countries could combat the threat of communism in Europe. US institutions played a critical role in reforming British education along American lines.

Higher education in Great Britain suffered during the wartime period, which led officials to seek new methods of producing British scholars. Initially, reduced intellectual activity encouraged many educated people in Britain to flee the country, leading to an increase in travel writing among learned individuals. Reluctant to cede its high intellectual standing, Britain experienced renewed academic energy in the post-war period.²³⁸ This surge of intellectual activity resulted from government anxieties related to power lost during the wartime period, and officials looked to the United States for methods of reasserting their influence through education.²³⁹ Following the Second World War, British officials sought out methods of

²³⁶Audra J. Wolfe, *Freedom's Laboratory: The Cold War Struggle for the Soul of Science* (Baltimore: Johns Hopkins University Press, 2020), 74-75.

²³⁷ Wolfe, *Freedom's Laboratory*, 74-75.

²³⁸ Edward Shils, “The Intellectuals”, *Encounter* 3, (April 1955): 8.

²³⁹ Jean Bocoock, Lewis Baston, Peter Scott, and David Smith, “American Influence on British Higher Education: Science, Technology, and the Problem of University Expansion, 1945-1963,” *Minerva* 41, no. 4 (2003): 328; 335.

transforming higher education to promote soft power through industry-driven research.²⁴⁰

Through various programs and university models, the US used education to project egalitarian images of power and success for other nations to envy. Utilizing soft power as a method to reclaim dominance during the Cold War, Britain relied on US funds and university models to create a university framework centered on scientific and technical education.

Britain's focus on America's university models reflected Britain's long-standing interest in scientific research. Giving credit to the emergence of scholarly journals during the Scientific Revolution, Derek de Solla Price estimated that "the total research effort in Great Britain since the time of Newton has doubled every ten to fifteen years."²⁴¹ Price measured this advancement through the expansion of the scientific journal to reveal that scientists experienced this doubling at least three times in their careers.²⁴² From the start of the twentieth century to the beginning of the Second World War, Great Britain led the way in the acquisition of documents related to foreign science.²⁴³ Challenging Britain's leadership in the field, the United States played a prominent role in obtaining and reproducing these periodicals in the postwar period, initiating US government involvement in the circulation of foreign scientific knowledge. This activity served as a prelude to US government agencies' involvement in British academic affairs after the war. The United States' connection to funding and its influence in the acquisition of scientific information during and after the Second World War helped Britain reestablish soft power through the dissemination of scientific material.²⁴⁴

²⁴⁰ Jean Bocock and Richard Taylor, "The Labour Party and Higher Education: 1945–51." *Higher Education Quarterly* 57, no. 3 (July 2003): 255. doi:10.1111/j.0951-5224.2003.00246.x.

²⁴¹ Daniel Bell, *The Reforming of General Education: The Columbia College Experience in its National Setting*, (Columbia University Press: New York and London, 1966), 74.

²⁴² Daniel Bell, *The Reforming of General Education*, 74.

²⁴³ Pamela Spence Richards, "Great Britain and Allied Scientific Information: 1939-1945," *Minerva* 26, no. 2 (1988): 177-98, accessed March 3, 2021, <http://www.jstor.org/stable/41820723>.

²⁴⁴ Richards, "Great Britain and Allied Scientific Information," 189-97.

The promotion of British education as a method of projecting soft power can be traced to periods before the Cold War. Prior to the Second World War, the British university framework was well regarded internationally. Clark Kerr, President of the University of California from 1958-67, credited British and German education models as the source for US university designs before 1930.²⁴⁵ One source of inspiration lay in Britain's University Grants Committee (UGC), which was established by the Board of Education in 1919 and funded by the government's Treasury.²⁴⁶ The UGC provided the country with control over the distribution of grant money and aided the improvement of higher education.²⁴⁷ The Treasury provided the Board of Education with ample control of the funding of the UGC, allowing for more freedom of spending than federal funding measures in place in the United States, which needed congressional support for passage.²⁴⁸ Nonetheless, universities still lacked a vital component for academic success. In the 1930 publication of *Universities: American, English, German*, Abraham Flexner praised Oxford, Cambridge, and the UGC but reported the need for scientific research within the university system. He also said that teaching at the graduate level should incorporate a focus on research. Flexner identified inadequate funding, which he viewed as a core element of research development, as the culprit.²⁴⁹ He attributed Britain's recovery from the Napoleonic Wars to the expansion of the steam, coal, and iron industries and called on England to develop physics and

²⁴⁵ Clark Kerr, *The Uses of the University*, 5th ed., (Harvard University Press: Cambridge, 2001), 1-4.

²⁴⁶ Eric Hutchinson, "The Origins of the University Grants Committee," *Minerva* 13, no. 4 (1975): 583-620.

²⁴⁷ Bocock, "American Influence on British Higher Education," 332. See also Jean Bocock and Richard Taylor, "The Labour Party and Higher Education" and David Smith, Lewis Baston, Jean Bocock and Peter Scott, "Americanization and UK higher education: towards a history of transatlantic influence on policy and practice," *Journal of Education Policy* 17 (4): 443-461.

²⁴⁸ Hutchinson, "The Origins of the University Grants Committee," 583-620.

²⁴⁹ W.H.G. Armytage, *American Influence on English Education*, (Florence: Taylor & Francis Group, 2011), 52-53, accessed February 4, 2021, ProQuest Ebook Central; Abraham Flexner, *Universities: American English German* (New York: Oxford University Press, 1930), 299-302, accessed May 22, 2022, <https://archive.org/details/universitiesamer008115mbp/page/n313/mode/2up?view=theater&q=research>.

chemistry for similar results.²⁵⁰ Britain incorporated plans that reflected Flexner's vision, and British higher education models catered to industry-driven scientific sectors during the Cold War. According to Historian Jean Bocock, who has published numerous works on America's influence on British higher education, this new focus served the additional benefit of promoting democracy.²⁵¹

While Britain used designs from US models during the Cold War, Great Britain relied heavily on academic inspiration from Germany and other foreign sources before the Second World War.²⁵² Germany molded Britain's industrial models, as well.²⁵³ From 1914-1918, Britain distanced itself from the German model and, by 1917, imported the PhD program, making the country capable of attracting international students, including those from the US, during the Cold War.²⁵⁴ After the Second World War, Britain's status as a great power declined, and this country relied heavily on its relationship with the United States to regain its position as a dominant power. Historian Jérôme B. Élie describes this relationship as a device used by the British to harness the power of the United States.²⁵⁵ In this context, Britain's efforts to win American hearts and minds through educational endeavors signifies the use of soft power. As displayed with the

²⁵⁰ Abraham Flexner, *Universities: American English German* (New York: Oxford University Press, 1930), 302, accessed May 22, 2022,

<https://archive.org/details/universitiesamer008115mbp/page/n313/mode/2up?view=theater&q=research>.

²⁵¹ Bocock, "American Influence on British Higher Education," 328.

²⁵² Richards, "Great Britain and Allied Scientific Information," 184-86.

²⁵³ Bocock, "American Influence on British Higher Education," 332.

²⁵⁴ Armytage, *American Influence on English Education*, 51; Bocock, "American Influence on British Higher Education," 332. See Chris Park, "New Variant PhD: the Changing Nature of the Doctor in the UK," *Journal of Higher Education Policy and Management* 27 (2): 191-92 for an explanation on the evolution of Doctorate degrees. The doctorate degrees awarded to professors in the medieval universities were of no equivalent to the degrees awarded by German universities in the nineteenth century. British and American students studied at German schools and earned PhDs for conducting research and attending seminar classes. This program arrived in the US at the end of the nineteenth century and did not appear in British universities until 1917. Higher doctorates (DSc and D Litt) did appear in the UK in the late nineteenth century, but the PhD did not appear in Britain until 1917 when Oxford adopted it. For further reading, consult Renate Simpson *How the PhD came to Britain: A Century of Struggle for Postgraduate Education* (Guildford: Society of Research into Higher Education, 1983) which provides more details on this subject.

²⁵⁵ Jérôme B. Élie, "Many Times Doomed but Still Alive: An Attempt to Understand the Continuity of the Special Relationship" *The Journal of Transatlantic Studies* 3, (03, 2005): 63-83.

PhD programs, Britain used soft power to recruit US students into their universities. Another way Britain sought to attract American students was through the Marshall Scholarship program. In response to the massive amount of funding the United States sent through the Economic Recovery Act of 1947, also known as the Marshall Plan, Great Britain created this scholarship to show their appreciation to the United States.²⁵⁶ Working together, the US and Great Britain established a link between democratic countries to promote economic recovery through educational programs that served as a model to other countries.

As a global leader in education during the twentieth century, the United States served as a model for British higher education.²⁵⁷ Before the Cold War, most funding for British universities did not come from government entities.²⁵⁸ US government funding for higher education significantly increased following the Second World War. In 1950, the military budget climbed from \$13 billion to \$54 billion, which provided research divisions at universities with “a shelter for research grants, fellowships, and the cultivation of new fields of study in higher education.”²⁵⁹ The US federal government also assisted higher education by supplying over a billion dollars a year for research and development by 1960.²⁶⁰ More significantly, some

²⁵⁶ Aroop Mukharji, “A Brief History of the Marshall Scholarship,” (2010), accessed March 10, 2021, https://www.marshallscholarship.org/the-scholarship/a-brief-history-of-the-marshall-scholarship_

²⁵⁷ Algo D. Henderson and M. M. Chambers, “Government, Administration, Co-Ordination, and Financing of Higher Education,” *Review of Educational Research* 30, no. 4 (1960): 385-97, accessed January 30, 2021, <http://www.jstor.org/stable/1168859>.

²⁵⁸ Bocock, “The Labour Party and Higher Education,” 255.

²⁵⁹ David Montgomery, “Introduction,” in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), xix.

²⁶⁰ Rebecca S. Lowen, “The More Things Change...: Money, Power and the Professoriate,” *History of Education Quarterly* 45, no. 3 (2005): 438-45, accessed September 1, 2020, <http://www.jstor.org/stable/20461992>.; Lowen pulls information from Kerr, *The Uses of the University*, 40-41. Kerr indicates that the percentage continues to grow if the university pool is only slightly altered. “if both project research and large research center are included, six universities received 57 percent of the funds in a recent fiscal year, and twenty universities received 79 percent.”

institutions took up to sixty percent of their funding from government entities.²⁶¹ The US university model displayed how funding could influence a nation's ability to project soft power.

At the close of the Second World War, British parliamentary figures recognized the need to improve the British education system and turned to the United States for a framework.²⁶² These shifts are primarily observable in English bills focused on Education reform. Passage of the Education Act of 1944, also known as the Butler Act, established a concrete outline for funding methods and laid the groundwork for higher education improvements.²⁶³ The UGC continued to exercise control of grant money to higher education while the Ministry of Education still exercised “no direct responsibility for universities” highlighting the limitations of the government's influence of university funding.²⁶⁴ The Education Act 1944 pushed for methods of promoting democratic principles and addressed the need for improvements in schooling across all sectors. This Bill provided equal access to education, regardless social class. While the Ministry of Education held a minuscule role in monetary matters, this Bill added funding to adult education and technical training programs with an emphasis on the creation of facilities that benefitted both sexes.²⁶⁵ Setting a precedent for future education reform within the country, the Bill emphasized the need for universities to form a technical training program for students.²⁶⁶

With inspiration from US university models, the Percy Report was presented in 1945 to address the need for technical education in an industry-driven society. This document goes a step

²⁶¹ Howard Zinn, “The Politics of History in the Era of the Cold War,” in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), 41.

²⁶² Extract from a transcript for an interview with RAB Butler and Richard Montague Smith, a reporter from The Daily Mail, 14 November 1944 (ED 121/202), Better Education, Attlee's Britain 1945-1951. The National Archives. <https://www.nationalarchives.gov.uk/education/resources/attlees-britain/better-education/>.

²⁶³ “Education Bill.” HC Deb, 19 January 1944. vol 396, cc207-322. Order for Second Reading. Order For the Day. Accessed February 13, 2021. <http://hansard.millbanksystems.com/commons/1944/jan/19/education-bill>.

²⁶⁴ Bocock, “The Labour Party and Higher Education,” 250.

²⁶⁵ “Education Bill,” HC Deb.

²⁶⁶ “Education Bill,” HC Deb.

further than the Education Act of 1944 and outlines which schools were eligible to receive grant money from the UGC for technical training.²⁶⁷ This focus on technical education mirrored the focus on STEM sectors displayed in US Cold War research universities.²⁶⁸ To bring back ideas for the British university model, the Imperial College's rector, Richard Southwell, visited the Massachusetts Institute of Technology in 1944 and returned with a model focused on post-graduate courses and research.²⁶⁹ Southwell presented the information to the University of London and the UGC, at which time he stressed how the government must invest in technology in the university. If they did not, he warned, the country's national economy faced potential collapse. His complaints brought about the Barlow Report of 1946, which criticized the insignificant number of scientists and engineers that Great Britain produced.²⁷⁰ Great Britain utilized US education models to promote egalitarian ideas and institute STEM studies into their design model to reassert British economic power in industrial fields.

Following the various reports centered on US university models' success, British government funding to education began to increase significantly during and after the Second World War.²⁷¹ The UK invested two million pounds into universities in 1939. This figure rose to

²⁶⁷ Percy Report (1945). "Higher Technological Education," Report of a Special Committee appointed in April 1944. (London: His Majesty's Stationery Office 1945). Accessed February 10, 2021.

<http://www.educationengland.org.uk/documents/percy1945/percy1945.html>.

²⁶⁸ Benjamin Fine, "Education in Review: Federal 'Crash' Program for Encouragement of Science Criticized as Inadequate Narrow Emphasis ILL-Considered Measures," *New York Times (1923-Current File)*, Dec 08, 1957, <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/114274520?accountid=14516>.

²⁶⁹ Hannah Gay, *History of Imperial College London, 1907-2007: Higher Education and Research in Science, Technology and Medicine* (Singapore: World Scientific Publishing Company, 2007), 280.

²⁷⁰ Gay, *History of Imperial College London*, 280.

²⁷¹ The Robbins Report (1963). Higher Education, Report of the Committee appointed by the Prime Minister under the Chairmanship of Lord Robbins, London: Her Majesty's Stationery Office 1963. Accessed February 13, 2021; "Education Bill," HC Deb, 19 January 1944. vol 396, cc207-322. Order for Second Reading. Order for the Day, accessed February 13, 2021, <http://hansard.millbanksystems.com/commons/1944/jan/19/education-bill>; The Percy Report (1945), Higher Technological Education, Report of a Special Committee appointed in April 1944, London: His Majesty's Stationery Office 1945. Accessed February 10, 2021. <http://www.educationengland.org.uk/documents/percy1945/percy1945.html>.

five million pounds in 1946, and then a significant jump to fifty-five million pounds occurred in 1950.²⁷² Inspired by US models for funding universities, Britain developed a similar method of promoting scientific research with increased government funding.

After this period, funding increases for British higher education partially resulted from the United States' competition against the Soviet Union in scientific sectors.²⁷³ While US government-funded research focused on science steadily increased at the start of the Cold War, it rapidly rose after the Soviet Union's Sputnik launching on October 4, 1957.²⁷⁴ The priorities of the US educational system, which was supposed to train citizens to participate in the country's democratic functions, came into question with this event, as Sputnik demonstrated the connection between scientific research and national prestige during the Cold War. As a result, government funding for research at US universities expanded during the next decade. To assert the link between education and the fight against communism, the United States moved to a more science-heavy curriculum after the Soviet Union launched Sputnik.²⁷⁵ Simultaneously, the United States advocated for a global form of education to promote democracy, which directly influenced the British education model.²⁷⁶ Officials directed significant amounts of this funding towards scientific and technical areas of study within higher education because of scientific races

²⁷² Gay, *History of Imperial College London*, 279.

²⁷³ Gay, *History of Imperial College London*, 279.

²⁷⁴ David Kaiser, *American Physics and the Cold War Bubble* (Chicago: University of Chicago Press: In preparation) 1230-31, accessed September 4, 2020. <http://web.mit.edu/dikaiser/www/CWB.html#CWBCapters>.; chapter 1 "The Physics of Spin" accessed at <http://web.mit.edu/dikaiser/www/Kaiser.PhysSpin.pdf>.

²⁷⁵ Daniel Tröhler, "'Harmonizing the Educational Globe. World Polity, Cultural Features, and the Challenges to Educational Research,'" *Studies in Philosophy and Education* 29, no. 1 (January, 2010): 8-15, accessed September 20, 2020, <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/204259653?accountid=14516>.; J. A. Douglass, *The Cold War, Technology and the American University*. UC Berkeley: Center for Studies in Higher Education (July, 1999), 1-9. Accessed on September 20, 2020. <https://escholarship.org/uc/item/9db970dq>.

²⁷⁶ Tröhler, "'Harmonizing the Educational Globe,'" 8-15.; Douglass, "The Cold War, Technology and the American University," 1-9.

between the United States and the Soviet Union. In turn, economic stability in Great Britain began to rely on technological gains.²⁷⁷

Rather than offering general education, London encouraged universities to specialize in particular disciplines. Bocock claims that London implemented a specialist program within the existing federal framework.²⁷⁸ Seven universities tried out new curriculum that focused on specific topics rather than each location offering a broad scope of courses.²⁷⁹ York focused on social sciences and natural sciences. East Anglia emphasized biological studies as they relate to agricultural environments. The University of Essex at Colchester promoted all arts, though students learned some science and statistics in the first year. At Warwick, logic and language courses were required to create standard discourse methods across the campus during the first year. Except for York, all new universities embraced general degrees linked to specific subjects.²⁸⁰ Drawing on the US specialization model, British schools embraced new focuses of study within their universities.

A special report conducted by a committee established in 1960 under Lord Robbins revealed that Britain still looked to the United States for inspiration in higher education fifteen years after the Second World War.²⁸¹ The committee spoke to the president of the London M.I.T. about this specialist institution modeled after the Massachusetts Institute of Technology, which existed within the framework of the Imperial College of London. In addition to examining this program, they visited universities in other countries but spent “as much time in the U.S.A. as in all the other countries they visited taken together— except Russia.”²⁸² The Lord Robbins Special

²⁷⁷ Gay, *History of Imperial College London*, 279.

²⁷⁸ Bocock, “American Influence on British Higher Education,” 340.

²⁷⁹ Bell, *The Reforming of General Education*,” 194.

²⁸⁰ Bell, *The Reforming of General Education*,” 194.

²⁸¹ The Robbins Report (1963), Higher Education.

²⁸² Armytage, *American Influence on English Education*, 59-60.

Report focused on post-graduate work, recommended the development of six technical institutions in Britain, and established colleges for the first two years of course study.²⁸³ This report also expanded the British higher education model to include new sectors like business and nursing, which intended to combat the “brain drain” Britain experienced from students leaving to study in America at a period when Britain actively tried to draw in students.²⁸⁴ Great Britain used programs observed in American institutions to promote educational and economic developments within its borders.

British higher education did not just gain inspiration from the United States, but often received funds directly from that country. For example, the United States offered monetary assistance to British institutions through the Mutual Security Act of 1951.²⁸⁵ The US distributed this assistance “to maintain the security and promote the foreign policy and provide for the general welfare of the United States by furnishing assistance to friendly nations in the interest of international peace and security.”²⁸⁶ Bocock links the Mutual Security Act to the British MIT design and claims that the United States used the MIT model to encourage study visits and student exchanges in the 1940s while the Mutual Security Act provided monetary assistance.²⁸⁷ Promoting the economic and technical benefits of higher education allowed Great Britain to use funds from the Mutual Security Act “to strengthen the mutual security and individual and collective defenses of the free world..., in the interest of their security and independence and the national interest of the United States.”²⁸⁸

²⁸³ Armytage, *American Influence on English Education*, 59.

²⁸⁴ Armytage, *American Influence on English Education*, 51-59.

²⁸⁵ Bocock, “American Influence on British Higher Education” 339.

²⁸⁶ Public Law 165, Chapter 47 9, An Act, Mutual Security Act of 1951. October 10, 1951 [H. R. 5113], accessed February 10, 2021, <https://www.govinfo.gov/content/pkg/STATUTE-65/pdf/STATUTE-65-Pg373.pdf>.

²⁸⁷ Bocock, “American Influence on British Higher Education,” 339.

²⁸⁸ Public Law 165, Chapter 47 9, An Act, “Mutual Security Act of 1951.”

Separate from the \$3.3 billion received from the European Recovery Program, in 1953, Great Britain received nine million dollars in funding from the US government to promote industry initiatives. This country directed those US funds toward engineering and industrial programs.²⁸⁹ Apart from government funds, in 1942, Britain benefitted from funding received from the Rockefeller Foundation, which contributed \$10,000 to the “Aslib microfilm service.” Aslib also received funding from the Department of Scientific and Industrial Research in 1944 to facilitate the distribution of technical information jeopardized by limited access to enemy academic sources during wartime conflict.²⁹⁰ In 1953, Birmingham and London University received over two hundred million dollars of funding for research, while twenty other universities and higher education institutions received thousands of research dollars into their programs from the Rockefeller Foundation.²⁹¹ These contributions facilitated the creation of a British university model centered on scientific research.

Other efforts to bring US university programs into Great Britain came in 1948 from US Rhodes scholar and Senator J. W. Fulbright, who proposed a system of selling surplus war materials in foreign countries to fund education and research programs in those countries. Fulbright’s plan brought almost 5,000 British teachers to the United States and over 4,000 American teachers to the United Kingdom. Through Fulbright’s plans, the United Kingdom brought biologists into British-colonized African locations, where they established wildlife conservation programs.²⁹² Fulbright’s programs allowed Britain to influence its colonies through soft power.

²⁸⁹ Armytage, *American Influence on English Education*, 59; “Marshall Plan 1947–1997 A German View” by Susan Stern at the Wayback Machine (archived July 9, 2006).

²⁹⁰ Richards, “Great Britain and Allied Scientific Information,” 189-91.

²⁹¹ The Rockefeller Foundation, *The Rockefeller Foundation Annual Report, 1953* (New York: The Rockefeller Foundation 1913, 1955), 495, accessed April 8, 2021, <https://www.rockefellerfoundation.org/wp-content/uploads/Annual-Report-1953-1.pdf>.

²⁹² Armytage, *American Influence on English Education*, 61.

While these funding designs offered many benefits to Britain's education system and economy, it was not without flaws. The Second World War altered campus life in Great Britain for students and faculty. Colleges and universities in the United Kingdom struggled to bring scientists back to their institutions after the war. The Royal Academy, Birkbeck, Manchester, and the Imperial College all suffered losses to their staff during the wartime period and urged their prompt return to educate the next generation of students.²⁹³ Britain relied on these scientifically trained instructors for the success not just of their universities but of the nation. Reforms to higher education did not fix these problems. In response to complaints about the expansion of British education in 1966, Lord Robbins published a paper *The Financial Times* of London, which addressed growing concerns over teachers' unemployment and over-specialization in undergraduate courses.²⁹⁴

Conclusion

The Oxford model was held up as an example for other nations to aspire to before the Second World War devastated Europe, but as the British Empire crumbled, its education system appeared to do the same.²⁹⁵ Thanks to inspiration from US education models, the country that introduced the world to advanced science through the Royal Academy once again gained an opportunity to share its knowledge with the world. Commentators began to recognize the importance of research in British universities and claimed that the most prestigious institutions of higher education were the ones that did the most research. Not only would this research help to revive Great Britain's economy, but it promoted industrial advancements and provided more

²⁹³ Gay, *History Of Imperial College London*, 281.

²⁹⁴ Lord Robbins, "Reflections on Eight Years of Expansion in Higher Education," *Higher Education* 1, no. 2 (1972): 229-34. Accessed January 30, 2021. <http://www.jstor.org/stable/3445634>.

²⁹⁵ Edward Shils, *The Intellectuals*, 1-8, Kerr, *The Uses of the University*, 2-7.

educational opportunities to British citizens.²⁹⁶ By taking funding and university designs from the United States, Great Britain bolstered its image as a powerful nation whose democratic values served as an inspiration for the rest of the world.

²⁹⁶ Ernest Rudd, "The Research Orientation of British Universities," *Higher Education* 2, no. 3 (1973): 301-24, accessed January 24, 2021, <http://www.jstor.org/stable/3445973>.

Conclusion

The role of scientific research at the university changed during the Cold War with federal research grant universities playing a key role in its transformation. However, US government representatives in various speeches and public announcements revealed that they did not rely on science alone to defend the nation against the communist threat. These figures placed an emphasis on the role of education in promoting democratic ideals. To highlight the importance of democracy in a world obsessed with science, Vannevar Bush states:

We shall find, in fact, that the faith that lies behind the actions of men of good will, the faith on which democracy is founded, the belief in freedom and the dignity of man, are powerful, as faith has always been powerful. We shall find that these form a basis for creating strength in a world that science has altered, a strength far beyond what can be created and maintained by any regimented dictatorship, a strength that can build a better world.²⁹⁷

Prior to the Cold War, the government provided limited funding to universities for research.²⁹⁸ Because of significant military advancements that occurred during the Second World War, Vannevar Bush urged government officials to consider the value of federal funding to academic research.²⁹⁹ The monetary incentives provided to universities encouraged these institutions to emphasize scientific research and left a lasting impact on higher education in the United States. Research continues to play a pivotal role in university frameworks, and the

²⁹⁷ Vannevar Bush, *Modern Arms and Free Men: A Discussion of the Role of Science in Preserving Democracy* (New York: Simon and Schuster, 1949), 191.

²⁹⁸ Christopher Jencks and David Riesman, *The Academic Revolution* (Garden City, New York: Doubleday and Company, 1968), 260; Agricultural research was a prominent form of research in the nineteenth century as addressed in and war changed the scope of this research as addressed by R.C. Lewontin, "The Cold War and Transformation of the Academy," in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), 1-33.

²⁹⁹ Audra J. Wolfe, *Freedom's Laboratory: The Cold War Struggle for the Soul of Science* (Baltimore: John Hopkins Press, 2020) 19.

relationship between higher education and federal funding is closely intertwined.³⁰⁰ Additionally, the role of science within the entire education sector shifted during the Cold War making STEM fields the primary recipients of grant funding which continues today.

The link between science and democracy was fortified in federal research grant universities during the Cold War. As US government officials looked for ways to triumph over communism, science became a forceful weapon. Education acted as a primary tool in the advancement of democracy.³⁰¹ Soviet successes in science and technology fields challenged the effectiveness of US education and pushed government officials to increase government spending in STEM fields.³⁰² Through government initiatives, universities received contracts for scientific and technological projects with the aim of surpassing Soviet intelligence in similar fields. US fears of Soviet dominance acted as the guiding force for increasing funding to NSF and the development of government contracts.³⁰³ Additionally, the passage of the NDEA resulted from key government officials making the argument that increasing education in and funding to scientific and technological fields was necessary for the safety of the nation.³⁰⁴ By equating

³⁰⁰ Fred M. Hechinger, "New Barrier to U.S. Aid to Education: Support is found for View that it Implies Federal Controls Science Foundation Funds Clash in Views A National Ministry," *New York Times (1923-Current File)*, Mar 27, 1963, accessed September 10, <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/116522362?accountid=14516>.

³⁰¹ John F. Kennedy, "Text of the President's Message to Congress on Educational Needs," *New York Times (1923-Current File)*, Feb 07, 1962. <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/115633990?accountid=14516>.

³⁰² Daniel Tröhler, "'Harmonizing the Educational Globe. World Polity, Cultural Features, and the Challenges to Educational Research,'" *Studies in Philosophy and Education* 29, no. 1 (January, 2010): 12-15, accessed September 20, 2020, <http://vortex3.uco.edu/login?url=https://www-proquest-com.vortex3.uco.edu/docview/204259653?accountid=14516>.; J. A. Douglass, *The Cold War, Technology and the American University*. UC Berkeley: Center for Studies in Higher Education (July, 1999), 1-9. Accessed on September 20, 2020. <https://escholarship.org/uc/item/9db970dq>.

³⁰³ John R. Thelin, *Going to College in the Sixties* (Baltimore: John Hopkins University Press, 2021), 21.

³⁰⁴ "Stewart E. McClure: Chief Clerk, Senate Committee on Labor, Education, and Public Welfare (1949-1973)," Oral History Interviews, Senate Historical Office, Washington, D.C. Senate Historical Office Oral History Project www.senate.gov/history.

science and technology to the Soviet threat, these figures gained the support they needed to push government funding into the scientific fields.

Through government contracts, laboratories that manufactured nuclear arms came into operation under the management of universities. The creation of the Los Alamos and Livermore national laboratories highlights the controversial relationship between universities and government research.³⁰⁵ Academic research took place within a military setting. Through these operations, military projects received ample funds supported by university management.³⁰⁶ The Atomic Energy Commission, which is listed as one of the top funders of federal research at universities, took over the Manhattan Project and redirected those funds to the Los Alamos and Livermore projects in 1947.³⁰⁷ Through government contracts, institutions that allegedly taught America's youth the principles they needed to become good American citizens also manufactured weapons capable of mass destruction. These projects blurred the line between the education and military sectors of society.

The link between graduate research and federal funding strengthened during the Cold War with the development of Clark Kerr's multiversity. A few research universities received the majority of the government funding in a given year from the National Institute of Health, the Atomic Energy Commission, the NSF, and NASA. Almost eighty percent of these funds benefitted only twenty universities.³⁰⁸ In 1960, Stanford received 39 percent of its operating budget from federal support.³⁰⁹ More significantly, for six of these universities, the University of California among them, over half of their operating budget relied on government funding, which

³⁰⁵ Wolfe, *Freedom's Laboratory*, 38; Clark Kerr, *The Uses of the Multiversity* 5th ed., (Cambridge, Massachusetts: Harvard University Press, 2001), 216.

³⁰⁶ Wolfe, *Freedom's Laboratory*, 37.

³⁰⁷ Wolfe, *Freedom's Laboratory*, 38; Kerr, *The Uses of the Multiversity* 5th ed., 216.

³⁰⁸ Kerr, *The Uses of the Multiversity* 5th ed., 40-42.

³⁰⁹ Rebecca S. Lowen, *Creating the Cold War University: the Transformation of Stanford*, (Berkeley, California: University of California Press, 1998), 147-48.

created an incentive to turn out research projects and focus more on graduate research than undergraduate education.³¹⁰ This imbalance created an atmosphere of discontent among undergraduates who were already reacting to social issues related to inequality across the nation.

In the 1960s, university enrollment reached unprecedented numbers, with undergraduate populations doubling and the number of graduates tripling rates of previous decades.³¹¹ A large part of this population boom can be credited to the emergence of a new, more diverse student body that challenged the predominantly white male student body that had been prevalent on most campuses up until that point.³¹² As university professors gave more attention to research and graduate work, they gave less attention to undergraduates leading to what Kerr refers to as a “point of no return” when faculty became so consumed with graduate work that they became unable to deliver adequate instruction to undergraduates.³¹³ Undergraduate demands led to discontent, which spurred the creation of new frameworks and curricula.³¹⁴ Through their resistance to graduate-centered research, undergraduates altered the scope of the curriculum at universities. Undergraduate demands were met with revisions to coursework that appeased the new student body.

Democratic principles helped spur the creation of new government initiatives that centered on providing education to more students. Through funding, groups that had previously found higher education unattainable now entered campuses across the nation. Thanks to federal

³¹⁰ Rebecca S. Lowen, “The More Things Change...: Money, Power and the Professoriate.” *History of Education Quarterly* 45, no. 3 (2005): 439-40; Kerr, *The Uses of the Multiversity* 5th ed., 40-42.

³¹¹ Louis Menand, *The Free World: Art and Thought in the Cold War* (New York: Farrar, Straus, and Giroux, 2021), 452.

³¹² Higher Education Act of 1965, Public Law 89-329-November 8, 1965 1219 Public Law 89-329 An Act, accessed March 26, 2021, <https://www.govinfo.gov/content/pkg/STATUTE-79/pdf/STATUTE-79-Pg1219.pdf#page=37>.

³¹³ Kerr, *The Uses of the Multiversity* 5th ed., 48-49.

³¹⁴ Howard Zinn, “The Politics of History in the Era of the Cold War,” in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), 65.

bills that promoted democracy within universities, like the Higher Education Act, a diverse crowd of students arrived and brought with them new demands for the shape of the curriculum in universities.³¹⁵ This student body, who criticized the science-centered design of research universities, prompted the shift to more relevant coursework. New fields of study emerged in the humanities that paid attention to the interests and concerns of marginalized groups. In this atmosphere, women's studies, black studies, and Chicano studies emerged, and new revisionist histories began to take shape.³¹⁶ Additionally, university heads began to reconsider methods for delivering their coursework and invited more interactive methods for instructing students.³¹⁷ The push for democratic principles led to the formation of a new student body, and resistance to science-centered graduate work encouraged this group to explore liberal arts studies and push for changes to the university curriculum.

The federal government's push for democracy manifested in many ways on campus. Many government representatives explicitly linked democracy to the universities and highlighted these locations as essential in giving youth a place to learn the principles necessary to become strong, upstanding Americans. US Commissioner of Education, Earl McGrath, identified research as a source of these ideals.³¹⁸ In addition, the launching of Sputnik demonstrated the link between science and the Cold War, which spurred the US government to initiate funding to federal research grant universities. Because of Soviet success, American diplomats backed a more science-centered model of education and created numerous initiatives that provided

³¹⁵ Higher Education Act of 1965.

³¹⁶ Zinn, "The Politics of History in the Era of the Cold War," 65.

³¹⁷ Thelin, *Going to College in the Sixties*, 131-35.

³¹⁸ Earl J. McGrath, April, 1949: The Goals of Higher Education, Condensed for Publication in the Journal of Higher Education, Speeches, Articles, and Public Statements File, 1949-1953, Earl J. McGrath Papers, Truman Library, 1-3, accessed September 18, 2020, <https://www.trumanlibrary.gov/library/personal-papers/speeches-articles-and-public-statements-file-1949-1953/april-1949-goals>.

funding to scientific and technological areas of study.³¹⁹ This event challenged and then reasserted the bonds between education and democracy. The fear of Soviet success prompted officials within the US government to invest in scientific education at federal research grant universities.

The foreign exchange programs that took shape during the Cold War display how government officials sought to use education as a form of cultural diplomacy. Employing soft power, they sent US students to foreign nations, with a specific focus on those vulnerable to communism, to spread the value of democracy. At the same time, these programs brought in students from the same countries to teach and impress American ideologies upon them. Truman expressed the importance of combating communist propaganda by showing these visitors firsthand the benefits of democracy. These students, in turn, returned home with American educations that gave them the tools they needed to fight Soviet influence in their own countries.³²⁰ President Truman praised the success of the Fulbright program in reaching these goals, and President Eisenhower reported similar gains from the American Field Service. As a result, the trend of exchanging students through these programs continued throughout the Cold War.³²¹ While exchange programs offered a valuable opportunity for students to understand cultural practices in other nations, top government officials exercised soft power by utilizing these programs to spread democracy in foreign nations that could fall under the influence of Communism.

³¹⁹ "Stewart E. McClure: Chief Clerk, Senate Committee on Labor, Education, and Public Welfare (1949-1973)."

³²⁰ Letter to the Chairman, Board of Foreign Scholarships, on the Fulbright Program. Harry S. Truman Library Archives. Library Collection. Public Papers. <https://www.trumanlibrary.gov/library/public-papers/103/letter-chairman-board-foreign-scholarships-fulbright-program>

³²¹ Dwight D. Eisenhower, Remarks to the American Field Service Students, July 18, 1957, Published Papers of the President, (Washington DC: GPO, 1958), 561-62, accessed September 4, 2020, <https://quod.lib.umich.edu/p/ppotpus/4728417.1957.001?rgn=main;view=fulltext>. In his speech Eisenhower claims that he was in attendance from 1948.

Even though government representatives praised universities as locations for instilling democratic ideals, government initiatives repeatedly brought those ideals into question. Challenges to academic freedom emerged throughout the Cold War, and government officials sought to protect democracy from communism. University faculty suspected of having communist ties were denied the freedoms outlined in a free democratic society. The House Un-American Activities Committee tried to curtail academic freedom and many other challenges to the ability of faculty to teach without interference independently emerged on campuses.³²² Efforts to promote democracy interfered with the projection of American ideals related to freedom.

Government officials' suspicions that communists had infiltrated America's scientific and academic communities brought many scientists under scrutiny. As a result, numerous scientists had their clearances revoked or were prevented from conducting research within their institutions during the Cold War.³²³ The next blow came with the passage of the National Defense of Education Act, which promoted scientific studies as a means of protecting the country from communism. However, the inclusion of a loyalty oath required scholars to pledge their allegiance to the state and excluded any member of the Communist Party from participating in this program.³²⁴ Fundamental American rights of freedom of belief and speech, as well as academic values of independent inquiry and critical thought, are compromised when scholars are required to prove their loyalty. The example of Angela Davis, who claimed her membership in the Communist Party and lost her teaching position, proves that non-compliance with loyalty oaths had real consequences. The actions of the HUAC, the provisions in the NDEA, and the

³²² Richard Ohmann, "English and the Cold War," in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), 82.

³²³ Wolfe, *Freedom's Laboratory*, 4.

³²⁴ "Stewart E. McClure: Chief Clerk, Senate Committee on Labor, Education, and Public Welfare (1949-1973),"

case of Angela Davis reveal that throughout the Cold War, government attempts to promote democracy brought academic freedom into question.

Other challenges to academic freedom came in the form of government contracts. Some Stanford faculty challenged the role of their university in promoting government contracts and complained that it compromised the integrity of the scholar who placed government interests over their own academic interests. Key figures within this institution encouraged members of their staff to shift their research focus to areas that were more likely to attract government contracts.³²⁵ However, while some funding agencies “selectively funded the work that they wanted to see done and ignored the work that they did not,” research through other government contracts allowed for more flexibility within scientific sectors, such as those provided through the NSF.³²⁶ In this manner, government funding had the potential to both prevent and to foster academic freedom. If contracts aligned with the scientist's interests, they received the freedom to conduct research freely, but if their institution relied on funding for contracts that did not align with the professor's preferred project, the professor had to make adjustments.

The American design of federally funded research grant universities served as a model for other nations to emulate. Great Britain came out of the Second World War in need of a new model for their higher education system. This nation looked to the United States for methods of reforming their university design. Using America's focus on scientific and technological research backed by federal funding as an example, the UK developed new blueprints for their institutions.³²⁷ The UK increased funding from government sources to their institutions to spur

³²⁵ Lowen, *Creating the Cold War University*, 111-12. Lowen uses correspondence from Frederick Terman, dean of Stanford's school of engineering, to reveal how in addition to recruiting faculty that were trained in fields that would attract government contract, he directed existing staff to pursue research that attracted government contracts and encouraged them to shift their focus when their plans did not align with government projects.

³²⁶ Wolfe, *Freedom's Laboratory*, 4.

³²⁷ David Montgomery, “Introduction,” in Andre Schiffrin and others, eds., *The Cold War and the University: Toward an Intellectual History of the Postwar Years*, (New York: The New Press, 1997), xix.

research programs in higher education.³²⁸ Additionally, they shifted to a more a democratic design model that incorporated a more diverse student body.³²⁹ To help guide them on their overhaul of the education system, parliamentary officials examined federal research grant universities in the United States and even developed a British version of MIT in their nation. Even though Britain took ideas from the US model, their design remained unique, which allowed them to project their model as a basis for soft power and bring students into the UK from other nations, including the US.³³⁰ This example reveals how the US projected its education model onto other nations.

Federal funding to US research universities allowed the US government to project an image of power by producing military projects in scientific settings. Additionally, the increases to funding promoted the study of sciences at universities which allowed figures within the US government to view these gains as byproducts of democratic education. However, by investing heavily in a select few universities, and passing measures that provided education to a changing demographic of students, the US government altered the framework of university experiences for undergraduates. As the university faculty continued to neglect the demands of undergraduates, pushback from students initiated changes to the humanities curriculum. Nonetheless, education played an essential role as soft power both at home and abroad, and government funding inspired other nations to emulate this model. The framework of universities, specifically research grant universities, underwent profound changes during the Cold War resulting from US government representatives' eagerness to utilize soft and hard power gained from scientific and technological research to project authority, influence, and a tailored vision of democracy at home and abroad.

³²⁸ Boccock, "American Influence on British Higher Education," 339.

³²⁹ "Education Bill," HC Deb.

³³⁰ Boccock, "American Influence on British Higher Education," 339.

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