The Influence on American Post-Secondary Education by United States Military and Veteran Programs Resulting from Changing Technology, Reform-Minded Leaders, and Large Military Operations

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Abstract

Scholars have explored the United States military from the lens of battles, campaigns, operations, and leaders with depth and zeal. When discussing the influence of the Army on education in America, the G.I. Bill is consistently the main topic of conversation. However, the contributions of the Army to American higher education are much more complicated than simply the passage of the Servicemen's Readjustment Act of 1944. A wide variety of programs and efforts championed by the Army during the first half of the twentieth century lack in-depth research and analysis. This study examined the American military transformation from the American Civil War through World War II resulting from technological advancements, changes in military and veteran programs, reforms and partnerships between the Army and higher education, and the American need for manpower to conduct large-scale operations. The evidence revealed that the Army had a significant effect on the beginning of literacy and intelligence testing in America, the development of the standardized General Educational Development (GED) test, and the changes in training technical experts and leaders in college-level programs. Programs such as the Students' Army Training Corps of World War I and the Army Specialized Training Program of World War II not only trained hundreds of thousands of recruits, but they also demonstrate the influence of the military on post-secondary education in America. Overall, the numerous Army programs had a significant influence on education in America years before the World War II G.I. Bill.

Acknowledgments

My educational journey has involved many influential people. First, I want to thank my wife Pam and children Riley, Mallory, and Spencer for their support in all my endeavors. They have been and continue to be a source of inspiration. Pam spent many hours patiently listening to my thoughts on my discoveries and topic of research. Her feedback and words of encouragement have been the single most important factor as to why I have been successful over the years. My family motivates me to be successful and I want to say how much I love them and appreciate their influence in my life.

My career in the United States Army provided me with the idea and desire to conduct this research and pursue my educational journey. Without the experiences I gained as a Soldier, and all of those with whom I served over time influencing me, this research may not have happened. The many discussions on professional development, leading others, and training and education motivated me to pursue this research topic. To those who challenged me to continue to learn and grow, I thank you.

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CHAPTER ONE: INTRODUCTION

The Servicemen's Readjustment Act of 1944

The Servicemen's Readjustment Act of 1944 (or G.I. Bill of Rights) produced many life-changing events for those who used the benefits to not only make a better life for themselves, but to influence the nation. Some scholars conclude that the G.I. Bill expanded intellectual capacity in America. Others, such as management guru Peter Drucker, attribute the establishment of the American middle class to the G.I. Bill. In the years following World War II (WWII), the G.I. Bill program funded the education of thousands of doctors, teachers, and engineers. It also helped to advance the careers of more prominent public leaders, such as Supreme Court Justice John Paul Stevens. After graduating from the University of Chicago, Stevens enlisted in the Navy on December 6, 1941, the day before the Japanese bombed Pearl Harbor. After he enlisted, the Navy sent Stevens to the Pacific as an intelligence officer, where he was part of the team that cracked Japanese radio codes. After the war, Stevens returned home but was unsure of what to do after he finished his time in the military. As one of many returning veterans, Stevens became aware of the G.I. Bill and considered the options it provided. Stevens considered the G.I. Bill a major opportunity to further his education and, with the encouragement of his brother, who was also an attorney, decided to enter law school.[1] Using the G.I. Bill benefits, Stevens attended Northwestern University Law School, graduating first in his class in 1947, and began to clerk for Supreme Court Justice Wiley Rutledge. The G.I. Bill helped to put Stevens on a path that eventually led him to becoming a Supreme Court justice. While the G.I. Bill was a significant piece of

[1] John Paul Stevens, Interview by Troy A. McKenzie, New York University School of Law, September 26, October 10 and 31, 2014, https://www.law.nyu.edu/sites/default/files/Stevens%20Transcript%20Final%20508.pdf

legislation, many other programs may have set the conditions for the bill being drafted by Senators Warren Atherton and Ernest McFarlane.

Contributions of US Military and Veteran Programs to American Education

There is no doubt the WWII G.I. Bill was important to American education during the post World War II era, but research shows it was the work of reform-minded leaders and the implementation of several military programs that set the conditions for the passage of the G.I. Bill and expanded federal influence on post-secondary education in America during the first half of the twentieth century. A few leaders proposed changes to training, operations, and education in the United States (US) Army as early as the American Civil War but lacked any major support. As the nineteenth century came to an end, military and political leaders struggled to implement changes in the training and education of servicemembers or veterans. As American capitalism flourished, private industry exerted a growing influence on the American workforce and the US military leading to changes in American post-secondary education. Between 1910 and 1950, the US Army had a considerable influence on colleges and universities in America through partnerships and programs resulting from the combination of changing technology, reform-minded leaders coming into positions of power, and large military operations demanding large numbers of recruits.

The contributions of the US military and veteran programs to American education are much more complex than simply the passage of the G.I. Bill.[2] Examining the transformation of the US military and researching the factors that influenced the education and training changes during the first half of the twentieth century may help explain how the G.I. Bill and

[2] The Servicemen's Readjustment Act of 1944 provided federal government aid for the readjustment to civilian life of returning World War II veterans and was passed on June 22,1944; Enrolled Acts and Resolutions of Congress, 1789-1996; General Records of the United States Government; Record Group 11; National Archives, https://www.archives.gov/milestone-documents/servicemens-readjustment-act

similar US military and veteran programs affected American society. This inquiry documents the efforts to assist servicemembers and veterans by exploring not only the G.I. Bill, but the evolution of military training and developmental needs as well by examining changing technology, reform-minded leaders, and large military operations. Examining whether the US Congress passed a revolutionary piece of legislation when the G.I. Bill became law in 1944 was an important motivator for further research into the transformation of the military and its impact on post-secondary education in America. The review of primary sources, historiography, and thorough analysis identified major training and education changes in the US military that were already in motion prior to the post-WWII G.I. Bill.

Research Methodology

The research methodology focused on the American military transformation as a result of technological advancements, changes in military and veteran programs, reforms and partnerships between the US military and higher education, the American need for manpower during large military operations, and the impact these combined factors achieved during the twentieth century. It required an analysis of the demographics of those who benefited from military and veteran programs and how changes affected areas such as the American economy and education. Since the research focused on multiple groups including people and organizations, a multidisciplined examination of the topic yielded insight that the G.I. Bill was the next step in the evolution of transforming the US military, its related programs, and post-secondary education. A benefit of this approach was that the research illuminated the connections between American economic conditions and the influence of the military and veteran programs on society between 1910 and 1950. There are several major and minor

research questions that guided the research and yielded insight into connecting the military transformation, the establishment of programs, and the impact on American society.

To understand this transformation, focusing on the organizational structure of the US Army during the American Civil War and the reformers who sought to make change provided insight as to where significant changes in technology began. Leaders such as Emory Upton demonstrated the intransigence of military leaders to make change to something as simple as tactical operations, even with the significant increase in casualties amongst soldiers during battle.[3] This research also provided insight into the post-Civil War changes by analyzing the establishment of post-schools by the US Army, the support from leaders such as General William T. Sherman, and the lack of consistency or support for any notable change. Providing this historical perspective demonstrates the significance of the changes occurring between 1910 and 1950 by comparing them to the limited changes during the 40-year period of 1860–1900.

Taking a chronological approach, this work focuses on key reformers such as Army officer Arthur Wagner and Secretary of War Elihu Root and their efforts to bring about change at the beginning of the twentieth century.[4] While none of these leaders found the ability to make change easy, the rise of reform-minded leaders into positions of power eventually led to minor changes prior to the 1916 American Punitive Expedition. An

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[3] Peter S. Michie, *The Life and Letters of Emory Upton: Colonel of the Fourth Regiment of Artillery, and Brevet Major-General, U. S. Army* (New York: D. Appleton & Co., 1885), 1–9.; Emory Upton, *The Military Policy of the United States* (Washington, DC: US Government Printing Office, 1912).

[4] Arthur L. Wagner, "The Military Necessities of the United States, and the Best Provisions for Meeting Them." *Journal of the Military Service Institution* 5 (September 1884): 234–271.; Todd R. Brereton, *Educating the U. S. Army: Arthur L. Wagner and Reform, 1875-1905* (Lincoln and London: University of Nebraska Press, 2000), 5.; James E. Hewes, *From Root to McNamara: Army Organization and Administration 1900-1963*, CMH Publication 40-1 (Washington, DC: Center of Military History, United States Army, 1975), 3–9, https://history.army.mil/html/books/040/40-1/cmhPub_40-1.pdf.

examination of large operations beginning with the Punitive Expedition demonstrates the challenges the Army faced and how the combination of reform-minded leaders, adoption of technology, and large military operations eventually led to notable change in the way the Army trained and educated servicemembers. Moving into World War I (WWI), the need for change in partnerships with post-secondary education became even more evident and provided the Army an opportunity to influence American higher education in a significant manner.

Influence of Military Training Camps and Civilian Leaders

The focus on the development of the American population from a military perspective is seen much earlier than the G.I. Bill. In 1913, the US War Department established military training camps, which eventually became the Military Training Camps Association of the United States.[5] Attendance at these camps by young men promoted good citizenship and discipline and provided the US military with a pool of trained men to help safeguard the national defense. The involvement of university presidents and civilian committees within this movement helped to develop training material, promoted attendance at the camps, and allowed for a national scale with camps placed strategically throughout the United States. By 1916, American leaders in the public and private sector promoted the necessity for these camps as a part of the national defense plan. Community leaders such as social workers, clergy, and educators testified to Congress, explaining that educational institutions needed to include classes that assisted young people in understanding and appreciating civic duties, regard for law and authority, and the need for discipline among the population. There were

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[5] Henry S. Drinker, "The Military Training Camps," *The Military Engineer* 23, no. 131 (1931): 448, http://www.jstor.org/stable/44573659.

those who argued against these classes being included within educational institutions, and these advocates urged against any type of military training in fear of militarism being spread across the country.[6] The changes were not always smooth sailing; leaders entrenched in nineteenth century beliefs came from educational organizations, clergy, civic groups, and even the military. While progress was slow, programs and activities outside of the military began to have an influence on how legislators viewed servicemember development while on active duty.

Legislative Influences

On March 30, 1916, Michael Hoke Smith, a US senator from Georgia, spoke on the Senate floor, introducing an amendment to the Army reorganization bill under review by the Committee on Military Affairs. A specific feature of the amendment, which later became Section 29a, was to allow soldiers on active duty an average of ninety-six hours a month to study and receive educational instruction not connected directly to military service, but rather to prepare them for return to civilian life. The amendment language specifically focused on education and vocational areas such as agriculture and mechanical arts. The amendment also expressly recommended that civilian teachers be employed by the Army to assist Army officers, and the specificity of the senator's recommendation illuminated the growing interest in preparing servicemembers for reintegration into civilian life.[7] Senator Smith's amendment provided an example of leaders' attempts to pass military-related changes almost three decades prior to the passing of the G.I. Bill in 1944.

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[6] United States Congress, Senate, Sidney Anderson of Minnesota on the Military Establishment, *Proceedings and Debates,* 64th Congress, 1st session, March 16, 1916, 4320, https://www.govinfo.gov/content/pkg/GPO-CRECB-1916-pt5-v53/pdf/GPO-CRECB-1916-pt5-v53.pdf.

[7] United States Congress, Senate, Michael Hoke Smith of Georgia on National Defense, *Proceedings and Debates,* 64th Congress, 1st session, March 16, 1916, 4181 and 5164, https://www.govinfo.gov/content/pkg/GPO-CRECB-1916-pt5-v53/pdf/GPO-CRECB-1916-pt5-v53.pdf.

The 1916 legislative session was a year of momentous change for the military as well as American universities and colleges. Part of the National Defense Act of 1916 included the Pomerene-Gard Bill. As part of the Pomerene-Gard Bill, Congress established the Reserve Officer's Training Corps (ROTC), allowing military courses to be taught at universities and colleges across America.[8] By 1917, the ROTC program was in full swing at many universities, such as the Massachusetts Institute of Technology, the Ohio State University, the University of California, and the University of Texas, to name a few. Not only did these courses focus on military training, but some universities, such as Ohio State, established schools of Aeronautics as early as 1917.[9] These new technical schools benefited the military as it built a cohort of experts that the American military leveraged during the world wars.

Focus on Literacy

The military training camps, legislative focus on assisting servicemembers and returning to civilian life, and the National Defense Act of 1916—which expanded the National Guard and reserve corps—were followed by the US Army's focus on increasing literacy among recruits. To shift the US military from a nineteenth- to a twentieth-century fighting force, the War Department needed a process to educate illiterates and specialized technicians. The shifting tools of the trade resulted in soldiers who were experienced in caring for horses and using mules and wagons lacking experience with new equipment while they attempted to operate and maintain trucks and aircraft. The adoption of mechanized tools of war became a problem during the Punitive Expedition. By WWI, the widespread use of

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[8] United States Sixty-Fourth Congress, "The National Defense Act of 1916," 1916, https://www.loc.gov/law/help/statutes-at-large/64th-congress/session-1/c64s1ch134.pdf.

[9] Sarah Hammond, *Ohio State Prepares for World War I* (Columbus, OH: The Ohio State University, 2017), https://library.osu.edu/site/archives/2017/04/11/ohio-state-prepares-for-world-war-i/

technology required potential recruits to be literate, as they would need to read manuals and instructions on maintaining equipment as part of their duties. In addition, the Army's adoption of technology also required specialized technicians, leading to the need for education on the other end of the spectrum.[10] Not only did the Army need to address literacy, but it also needed to address technical training and education by leveraging the knowledge housed in colleges and universities across America. By WWII, the US military again found itself with a significant labor pool problem. Many of the civilians who became fighting men needed some type of development just to meet the mandated fourth-grade level of literacy.[11] During WWII, an estimated three quarters of a million men failed to pass basic literacy examinations. As a result, these Americans were missing one of the three major educational components assessed—reading, writing, or speaking at the fourth-grade level. While the illiterate inductee numbers were not historically unique, the increased adoption of technology since the Punitive Expedition and continuing during WWI exacerbated the problem.

The US military faced a significant literacy problem during World War I, and military leaders worked with educators within their academic discipline to develop literacy assessments in an attempt to address the problem. During WWII, the Army invested even more resources to address recruit literacy. Military leaders needed significant fighting manpower for WWII in Europe, North Africa, and the Pacific. In September 1940, President Franklin D. Roosevelt signed the Selective Training and Service Act into law.[12] The

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[10] US Army Service Forces, Army Specialized Training Division, "Essential Facts about the Army Specialized Training Program" (Washington, DC: US Government Printing Office, 1943), 1, https://hdl.handle.net/2027/umn.31951m01224175k.

[11] Samuel Goldberg, *Army Training of Illiterates in World War II* (New York: Bureau of Publications, Columbia College, 1951).

[12] Selective Training and Service Act of 1940, Pub. L. No. 76-783, 39 STAT 166, 76th Congress, 3rd session, September 16, 1940, https://govtrackus.s3.amazonaws.com/legislink/pdf/stat/54/STATUTE-54-Pg885a.pdf.

Selective Service Act, a peacetime draft in 1940, was a significant legislative and political move, since the United States was not yet involved in the war. American leaders did, however, anticipate eventual entrance into the war, and military leaders identified that the ability to mobilize massive numbers of men to fight the war would place a significant burden on the War Department and American industry if solutions were not addressed early. If America entered the war, the War Department would need to examine, classify, and train men arriving with various levels of intelligence and literacy. The lessons learned during WWI later enabled actions during WWII to be more effective.

As American military leaders anticipated the need to induct and train a large number of men, the War Department staff considered how the military might respond to the arriving illiterate recruits. To address the problem, the Army established special training units to educate inductees in reading and writing, with the goal of achieving proficiency at the fourth-grade level. While the process was much more complicated, it demonstrated the ongoing evolution within the US military as it sought to address the impact of technological advances on servicemembers. While some deferred selectees never achieved the Army literacy standards, the program was a success, with more than 90 percent of illiterate recruits achieving the established standards within the first sixty days of being in the program.[13] In addition, the assessments and instructional materials developed as part of the Army's literacy training program provided civilian adult literacy programs in communities across America with an example of a method for increasing literacy amongst the American population and training materials that were easily adaptable to the civilian population.

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[13] Deborah Brandt, "Drafting U.S. Literacy," *College English* 66, no. 5 (2004): 485–502, https://doi.org/10.2307/4140731.

By examining published literature on the G.I. Bill and other military training and educational programs, scholarly interpretations of the programs explain mainstream perspectives on the program, divergent views, and research gaps. Generating a significant background as to the events leading up to the G.I. Bill allows a connection to the organizational changes that occurred within the US military at the start of the twentieth century and in American society. Gathering empirical evidence on the US military structure changes resulting from societal and industrial changes, and how these affected the development of servicemembers, shows connections between technological advancements, the transformation of the US military due to reform-minded leaders, the impact of major military operations on manpower, and methods used to identify and address the development of servicemembers and veterans. Examining specific events such as the Punitive Expedition and WWI uncovered the increased demand for training and education of servicemembers to improve military performance and prepare them to return to civilian life.

Identifying how these changes influenced servicemembers, veterans, and American education leading to the passage of the post-WWII G.I. Bill shows how previously unidentified factors influenced the expansion of educational opportunities for servicemembers and veterans. For example, technological and organizational changes led to an increased demand for literacy in the military.[14] This led to the establishment of programs connected to educational advancements where the military and post-secondary education partnered and invested in servicemember education and training. To understand the significance of the transformation and the effects it had on the military's investment in

[14] United States Selective Service System, "Army to Accept Some Illiterates," *Selective Service*, Volume 2, no. 7, July 1942, 1. http://archive.org/details/1selectiveservice11119417.; Samuel Goldberg, *Army Training of Illiterates in World War II* (New York: Bureau of Publications, Columbia College, 1951).

training and education, the research explored the chronological changes between 1910 and 1950 within the military's organization, equipment, training and education, veteran programs, and higher education. To relate these changes to why they did not occur until the reform-minded leaders gained positions of authority, technology was adopted by the military, and large-scale military operations were present, this research examines the view of operations during the American Civil War, postwar events, and the establishment of internal Army schools in the last few decades of the nineteenth century. An example of how the products of the Industrial Revolution influenced the military transformation through technology can be better understood by examining literacy.

In response to the need for a more technologically savvy force identified during the 1910s, the military created literacy programs to address the identified need. In 1918, the Army fielded an intelligence-testing program that identified, trained, and educated recently inducted servicemembers who had difficulty adjusting to the military life or performing their duties in a satisfactory manner. During WWI, "the War Department found that 30 percent of the 1.7 million soldiers taking the Army Beta Test could not understand the form due to their lack of reading skills."[15] Military literacy and its effect on military operations and American society is an interesting and infrequently examined topic from the lens of both world wars. Research shows a connection between these military programs, such as literacy testing and the partnerships the military created with post-secondary education institutions in doing so.

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[15] Clinton L. Anderson and Steve F. Kime, "Some Major Contributions of the Military to the Field of Adult and Continuing Education in the United States (A work in progress)," American Association of Adult and Continuing Education's Adult Education Conference (Charlotte: Servicemembers Opportunity Colleges, 1996), 5.

The GED and University Programs

Improving literacy rates was not the only effort by the US military to increase educational achievement in servicemembers. Another example of how literacy in the US Armed Forces initiated change is related to the Testing for General Educational Development today known as the GED. The US military partnered with educational groups and developed military-led organizations to address the War Department needs. Examining partnerships, programs, and the development of participants connects the need for skilled and educated labor during both world wars to the partnerships between education, the military, and industry leaders.

As the US entered WWII, the American Council on Education (ACE) promoted "its general education curriculum and testing for credit agenda within the military through the Joint Army and Navy committee on Welfare and Recreation."[16] These previous advancements and successes led to the establishment of the United States Armed Forces Institute (USAFI) and its reshaping of the field of American education within and outside of the US military. The institute's work on developing testing procedures, focusing on measuring the learning outcomes achieved during the four years of high school, eventually led to the testing program known today as the GED.[17] The USAFI partnered with the University of Wisconsin for three decades, providing courses related to military duties, self-improvement, and even college credit for servicemembers around the world.[18] This program

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[16] Lois M. Quinn, "An institutional history of the GED" (Milwaukee, WI: University of Wisconsin-Milwaukee Employment and Training Institute, 2002), 18.

[17] John M. Persyn and Cheryl J. Polson, "Evolution and Influence of Military Adult Education," *New Directions for Adult and Continuing Education* (Winter 2012): 8.

[18] United States Armed Forces Institute, *Catalog of the United States Armed Forces Institute*, 4th ed. (Washington, DC: Departments of the Army, the Navy, and the Air Force, 1947).

showed how learning at a distance could be done on a widespread level. The transformation and contributions of the US military during the first half of the twentieth century is seen in specific examples as this research focuses on Southern Methodist University (SMU) and Baylor University archival documents to provide insight into programs such as the Students' Army Training Corps (SATC) of WWI and the Army Specialized Training Program (ASTP) during WWII.

Use of Multiple Types of Archival Sources in this Research

Researching archives from universities involved in the expansion of military training and education provided a unique perspective as to the changes affecting the military and higher education. Occurring after the passing of the G.I. Bill, an example of the military/ civilian continued partnerships is the 1947 establishment of the University of Maryland's College of Special and Continuation Studies. Considering the legacy of the military and veteran programs, research shows how the organization transformed several times over the years, with more than a million servicemembers completing college courses with the organization while pursuing a post-secondary education.[19] Understanding how organizations such as the University of Maryland's College of Special and Continuation Studies were part of the military education and training transformation increases the historical understanding of both organizations. Insight on the influence of the US military on literacy, training, and education leading to almost 6 million WWII veterans using the G.I. Bill expands the knowledge of historical changes that occurred during the first half of the twentieth century.

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[19] Sharon Hudgins, *Beyond the Ivory Tower: The First Sixty Years 1947-2007* (Adelphi, MD: University of Maryland University College. 2008).

This research gathered primary sources and developed a connection between assorted topics. It examined military archival records, educational statistics, census records, university archives, letters to military agencies and congressional leaders, and congressional records. The research discovered the legacy of the transformation while identifying future areas of research. To gain insight, an examination of the scholarly research on the topic of the G.I. Bill, servicemember and veteran programs, and military transformation generated insight as to the influence of the American military on post-secondary education during the first half of the twentieth century. This research examined the transformation of military and veteran programs in a way that demonstrates the connections to post-secondary education by explaining why technology, the rise of reform-minded leaders, and large military operations were all needed to generate change within both the military and American higher education.

Historical Sources

Examining the major historical monographs surrounding the major topics of this research provides insight into the schools of thought as well as the changing perspectives over time. Historians Alan Millet, Peter Maslowski, and William Feis provided an overarching understanding of the US military from precolonial times through the global war on terror.[20] They explained organizational structure and critical changes in *For the Common Defense: A Military History of the United States from 1607 to 2012*. They explained the connection between civil and military personnel and the military's increasing adoption of sophisticated technologies over time. Taking a similar approach but focusing on doctrine, Walter Kretchik's *U.S. Army Doctrine: From the American Revolution to the War on Terror*

[20] Allan R. Millett, Peter Maslowski, and William B. Feis, *For the Common Defense: A Military History of the United States from 1607-2012* (New York: Free Press, 2012).

puts the US Army doctrine in a historical perspective, allowing the reader to understand how congressional action influenced the military doctrine, organizational structure, and developmental programs.[21]

A focus on the education of American military diplomats is found in the work of historian and expert on American diplomacy Robert Ferrell, *American Diplomacy: The Twentieth Century*. While the work is not specifically focused on military educational and training programs, the author provides a unique perspective on the diplomatic efforts of military leaders. The work of scholars in other disciplines, such as government experts John Masland and Lawrence Radway's *Soldiers and Scholars: Military Education and National Policy*, provides a framework to understand the evolution of military education and development of senior and joint service colleges. They argue that the role of the military officer transformed as a result of the adoption of technologies during the first half of the twentith century.

Historians provide insight into how American industrialism shifted from an agrarian to an industrial economy. American historian and prolific writer of US history H.W. Brands provided an excellent example of economic changes in his work, *American Colossus: The Triumph of Capitalism, 1865-1900*. Connecting the transformational changes during the Industrial Revolution to the military organizational structure by focusing on the civilian workforce provided insight into the early twentieth century training and educational changes.

Examining the work of scholars allows specific events to demonstrate the need for change. For example, in March 1916, Pancho Villa and his forces conducted a raid on the

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[21] Walter E. Kretchik, *U.S. Army Doctrine: From the American Revolution to the War on Terror*. Lawrence, KS: University Press of Kansas, 2011.

town of Columbus, New Mexico. E. Bruce White, in his article *The Waters of Columbus, New Mexico*, described the raid, but also put the event into historical perspective. White highlighted how Villa's raid showed Americans the unpreparedness of the US military for large military operations.[22] Regardless of viewpoint on the success or failure of the military on the Columbus raid, understanding the influence of Villa's raid and other events on the military is critical in uncovering the factors that influenced education and training changes during the first half of the twentieth century.

James W. Hurst, in his book *Pancho Villa and Blackjack Pershing: The Punitive Expedition in Mexico*, provided the reader details of how the US Army had one foot in the nineteenth and the other in the twentieth century. Hurst provided a perspective of the US military being ill-prepared to assemble vehicles for operation and lacking the tools to install truck bodies onto chassis.[23] Agreeing with Hurst on some points, military historian Julie Prieto, in *The Mexican Expedition 1916-1917*, provided another point of view. She argued the Punitive Expedition might be considered a failure, but the military operations also created conditions in which the environment tested soldiers and equipment, preparing the US military for successful operations during WWI.[24] Connecting this published historiography to new evidence generated a unique approach to viewing these events and showed how the convergence of technology, reform, and large military operations created the need for a partnership between the Army and educational institutions.

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[22] E. Bruce White, "The Muddied Waters of Columbus, New Mexico," *The Americas* 32, no. 1 (July 1975): 72–98.

[23] James W. Hurst, *Pancho Villa and Blackjack Pershing: The Punitive Expedition in Mexico* (Westport, CT: Greenwood Publishing Group, 2008).

[24] Julie Irene Prieto, *The Mexican Expedition 1916-1917* (Washington, DC: Center of Military History, United States Army, 2016).

Effect of Military Literacy and the G.I. Bill on American Life

Not only did the military begin to change because of the Punitive Expedition campaign into Mexico, but American businesses did as well. This research investigated the effects of the campaign on American industry as the US military continued to adopt motorized and aerial transport as part of its technical revolution. Connecting the military campaign to the discussions in American society, as well as in Congress, showed the transformation within the military between 1916 and 1917 while providing insight into the need for literate and educated servicemembers, thus creating demand for developmental programs. Since the US military first used airplanes during a campaign by deploying the First Aero Squadron as part of the Punitive Expedition, events such as these provide first-hand evidence as to the changing conditions, along with insight into what was to come during the world wars.

During the nineteenth century, much of what servicemembers learned was simply through their first-hand experiences on the job and drill. While not all development occurred on the job, and the United States Military Academy at West Point developed some officers during its four-year initial education, historians and scholars Harold Clark and Harold Sloan's *Classrooms in the Military: An Account of Education in the Armed Forces of the United States* discussed influences on the military from both internal and external changes and highlighted that the military developed programs and partnerships in the twentieth century that addressed these changes while influencing American society.[25] Much of this

[25] Harold F. Clark and Harold S. Sloan, *Classrooms in the Military: An Account of Education in the Armed Forces of the United States* (New York: Institute for Instructional Improvement, Inc., 1964).

change was influenced by a literacy problem in America and the Army's needs relating to technology, manpower, and reform.

A key contributor to the development, coordination, and supervision of the Army literacy program during World War II, Samuel Goldberg provided a unique perspective on how the military sought to deal with the problem of literacy in his 1951 work, *Army Training of Illiterates in World War II*.[26] He explained the challenges between manpower needs and literacy as well as the successes and failures of the Army's efforts. While his document was written after the program ended, it provided insight into early documentation and interpretation of the Army's literacy effort. In a more recent article, scholars from the educational field John Persyn and Cheryl Polson described the need for soldiers during WWI to be literate in order to be effective in their military service.[27] The demand for literacy resulted from the explosion in technological advancements that the US Army adopted during the Punitive Expedition, expanded during WWI, and continued during WWII and beyond.[28]

Focusing on literacy, Harvard University professor and literacy skills expert Thomas Sticht offered a useful perspective on the military's investment in his *The Rise of the Adult Education and Literacy System in the United States: 1600-2000*. Sticht provided a historical perspective from the colonial and early national periods, where the military infrequently attempted to increase literacy and training for servicemembers in certain fields.[29] More important is his focus on the US Army-sponsored development of the first widespread

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[26] Samuel Goldberg, *Army Training of Illiterates in World War II* (New York: Bureau of Publications, Columbia College, 1951).

[27] Persyn and Polson, "Evolution and Influence of Military Adult Education," 7.

[28] Clark and Sloan, *Classrooms in the Military*, 22.

[29] Thomas G. Sticht, "The Rise of the Adult Education and Literacy System in the United States: 1600-2000," *The Annual Review of Adult Learning and Literacy* 3 (2002): 10–43.

standardized literacy testing, which highlighted the effect these programs had on servicemembers during and after their military service. To investigate the transformation of training and education programs in the military, considering the progressive agenda within literacy movements provided some insight into how societal and political leaders in the United States came to support the post-WWII G.I. Bill.

Several books and articles in the literature on the G.I. Bill add scholarly perspectives on the mainstream schools of thought on the topic. Historian Keith Olson, in *The G.I. Bill, the Veterans, and the Colleges* as well as his article, "The G.I. Bill and Higher Education: Success in Surprise," explained how the G.I. Bill generated an unforeseen demand resulting in more than two million veterans entering higher education programs after World War II.[30] These numbers were much higher than institutions of higher education could accommodate. From another viewpoint, scholars have provided insight into how the US economy played a part in the adoption of the G.I. Bill program. The 1929 stock market crash and large number of WWI veterans out of work led to a political fiasco with the Bonus Army incident, discussed in detail in Chapter Four. Authors such as historians Suzanne Mettler and Stephen Ortiz addressed the influence of the G.I. Bill on the American economy and politics and provided insight into how several factors influenced decision-making regarding the passage of the legislation in 1944.

Ortiz focused more on veteran politics in the twentieth century in his work, *Beyond the Bonus March and GI Bill: How Veteran Politics Shaped the New Deal Era*, compared to

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[30] Keith W Olson, *The G.I. Bill, the Veterans, and the Colleges* (Lexington, KY: University Press of Kentucky. 1974); Keith W. Olson, "The G.I. Bill and Higher Education: Success in Surprise," *American Quarterly* 25, no. 5 (December 1973): 596–610.

the work of Olson.[31] In recent scholarship, historical analysis of the G.I. Bill helps to connect the transformation of American society based on connections drawn from WWI and the inadequate preparation of the US military. Ortiz draws a connection between the difficulties that veterans faced returning from WWI and the investment politicians and other groups were willing to make in the passage of the post-WWII G.I. Bill. These insights provided connections that ultimately helped to focus the research. Examining opposing perspectives led to a critical examination of the events and added depth to the research. Mettler provided alternative views in some areas as she argued in her book, *Soldiers to Citizens: The G.I. Bill and the Making of the Greatest Generation*, that the successful difference the government made in the lives of these citizens increased their desire for involvement in the American democratic process.[32] Her research demonstrated the diversity of G.I. Bill beneficiaries, including civil rights advocates such as Medgar Evers, actors such as Clint Eastwood, political leaders such as President George H. W. Bush, and Chief Justice of the US Supreme Court William Rehnquist.

American historians Glenn Altschuler and Stuart M. Blumin provided an in-depth account of the G.I. Bill and its impact on Americans. In *GI Bill: The New Deal for Veterans*, the authors focused on the political partnerships to explain the decision-making of key stakeholders in passing the legislation. The authors also highlighted the challenges that veterans faced and the benefits they found as they pursued their educational endeavors using

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[31] Stephen R. Ortiz, *Beyond the Bonus March and GI Bill: How Veteran Politics Shaped the New Deal Era* (New York: New York University Press, 2009).

[32] Suzanne Mettler, *Soldiers to Citizens: The G.I. Bill and the Making of the Greatest Generation* (New York: Oxford University Press, 2007).

the G.I. Bill funding. These historians provided an in-depth analysis of the impact of the G.I. Bill on post-secondary educational institutions.

Political historian Kathleen Frydl provided a historical perspective in *The G.I. Bill* by situating the topic amongst the debates regarding social policy, citizenship, and political legitimacy. She examined historical events that led to the G.I. Bill, explained the challenges that veterans of all colors faced when navigating its bureaucracy, and argued that many claims about the benefits of the G.I. Bill should be re-examined with a skeptical eye. Her work aligns with many of the more recently published historical works that diverge from standard themes surrounding the topic.

Another divergent view is from historian and Bancroft prize recipient Lizabeth Cohen. She traced the American transformation from the Great Depression to a mass consumption society in *A Consumers' Republic: The Politics of Mass Consumption in Postwar America*. She argued that the G.I. Bill contributed to America's return to pre-war gender roles and the expansion of consumer culture after WWII.[33] Cohen presented evidence to support this claim, such as how the 1944 G.I. Bill resulted in an explosion of new home construction, with 25 percent of homes in America in 1960 being built during the 1950s. She also highlighted the fact that women had limited social and economic power and men's ability to purchase homes influenced their credit in a way that was not open to women. Cohen's work aligned with that of other historians such as Ira Katznelson and Margot Canaday.

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[33] Lizabeth Cohen, *A Consumers' Republic: The Politics of Mass Consumption in Postwar America* (New York: Knopf, 2003).

Katznelson is an American political scientist and historian with a focus in his research on liberalism, inequality, and society in the United States. In *When Affirmative Action was White*, Katznelson argued that the G.I. Bill increased disadvantages for minorities in America.[34] Katznelson highlighted the social programs established by the Roosevelt and Truman administrations that transformed America. In his work, he acknowledged that both White and Black Americans benefited from these programs but presented the argument that decision-making led to informal exclusion of racial minorities through the use of decentralized administration of programs. With more than three quarters of Blacks living in the South and working in domestic service or agricultural jobs, the informal exclusions for home loans to be guaranteed, college admissions to be approved, and even the receipt of Social Security benefits were all hamstrung for Blacks in the South. While his work was not focused entirely on veteran's benefits, it demonstrated how scholars currently examine public policy using a historical lens to advance affirmative action today. The author concluded by offering his own resolutions of how America might compensate those previously excluded.

A similar theme is found in the work of historian Margot Canaday. Her research focuses on gender and sexuality in modern America. In *Building a Straight State: Sexuality and Social Citizenship under the 1944 G.I. Bill*, she argued that the literature fails to acknowledge that the program included built-in exclusions such as the denial of G.I. Bill benefits to discharged lesbians and gays.[35] Works such as this demonstrate the complexity of creating a program that affected more than 16 million veterans. These views diverge from the

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[34] Ira Katznelson, *When Affirmative Action was White* (New York: W.W. Norton, 2005).

[35] Margot Canaday, "Building a Straight State: Sexuality and Social Citizenship under the 1944 G.I. Bill," *The Journal of American History* (December 2003): 935–957.

more traditional view on the G.I. Bill, such as that provided by Michael J. Bennett in *When Dreams Came True: The GI Bill and the Making of Modern America*.[36]

Organization of the Remainder of the Study

Understanding the historiography is an excellent starting point from which to discuss the topics for each chapter in this study. Chapter Two focuses on the structure of the US military and its development of servicemembers prior to 1916. The chapter examines the catalysts for education and training changes and how technology changed and should have played a part in the transformation of the US military's organizational structure, but due to the lack of reformers, change was both difficult and rare. The chapter introduces reform-minded leaders such as Emory Upton, Arthur Wagner, and Elihu Root. The topic of professionalization of the Army is introduced and draws a connection to the need for officer education beyond attendance at the United States Military Academy. The background on education with the establishment of the Army War College, ROTC, and the Citizens' Military Training Camps sets the stage for the changes after 1915. Here the focus lays the foundation for understanding the technological changes occurring in American society, introduces the influence of the progressive movement, and explains the changes between the nineteenth- and twentieth-century US military.

Chapter Three focuses on the events just prior to the Punitive Expedition and continues through WWI. The focus of this chapter is on developing connections to the changes introduced in the previous chapter, and how these changes further developed as the changes in technology, labor needs, and reforms affected the US military as well as

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[36] Michael J. Bennett, *When Dreams Came True: The GI Bill and the Making of Modern America* (Potomac Books, Inc., 1996).

American private industry. A review of the literature related to the G.I. Bill and other military educational programs during the first half of the twentieth century reveals the influence of the G.I. Bill as one of the largest and most significant educational programs of the century. Connections between the US military's transformation resulting from its leaders adopting technology and the programs investing in servicemembers begins to form significantly throughout this chapter. The evidence in Chapter Three presents a compelling argument that there was already a need for change in the training and education within the United States and its military. The technological transformations created the need to assess literacy, education, and technical competence within the US military decades before entering WWII. This examination of the events of the US military prior to WWI shows that America dispatched unprepared forces as part of the Punitive Expedition and examines the resulting lessons learned.

With the United States entering WWI in 1917, the story focuses on the attitudes of investing in the military and servicemember programs by Americans and lawmakers. Chapter Three provides a focus on the role of literacy needs, the Army's need for specially trained technicians, and the changes these demands imposed on military training and educational programs. Understanding the use of newly adopted technology during the Punitive Expedition provides further development on the effect of technological changes on military programs and the need for literacy and educated specialists during WWI.

The research examines the need for educated recruits during the war and shows how leaders identified and addressed servicemembers' literacy as well as critical technical skills. The research also acknowledges that prior to WWI, the Army created courses to educate and train military personnel when needed. However, several sources indicate that training and

education was neither standardized nor universal. Building on the work of scholars and connecting new primary resources from this research demonstrates how the US military's literacy needs eventually affected American society in a much larger way.

Not only did the Army focus on literacy and the need for manpower for front-line troops, but it also focused on the higher-level skills for technical experts to maintain new equipment and conduct duties in medicine, engineering, and other fields. The need to focus on these already educated potential recruits resulted in the creation of the SATC. This partnership between the Army and colleges and universities across America not only benefited the military as it sought to fill positions with technical experts, but it also helped to fill the gap for post-secondary institutions, which saw a significant loss of revenue due to reduced student enrollments as American men enlisted to fight in the war. To examine the positive influence of the SATC program, this research focused on the archives at SMU. Examining the student throughput, the financial aspects, and the benefit to the Army provides insight into the partnerships and impact the Army had on post-secondary education during WWI.

Providing educational aid to veterans through the Servicemen's Readjustment Act of 1944 may have seemed innovative, but it was simply a continuation of the American culture of taking care of veterans. For example, during WWI, the US Congress created a system of veterans' benefits that also included vocational rehabilitation for the disabled.[37] By 1944, the G.I. Bill went much further in providing benefits. In addition to providing home loans and establishing medical facilities, the early form of the WWII G.I. Bill allowed veterans to apply

[37] Department of Veterans Affairs, *History-Department of Veterans Affairs (VA)*, accessed November 5, 2021, https://www.va.gov/HISTORY/VA_History/Overview.asp.

for a $500 stipend per semester to attend accredited training or educational programs. This research further develops the connections between the post-WWII benefits and previous partnerships between the Army and post-secondary education that provided benefits to servicemembers and veterans.

The period after WWI and into WWII is covered in Chapter Four. The chapter focuses on continued military transformation and investigates whether the actions by US leaders during WWI are connected to the decision-making on training and educational programs for veterans during the interwar period and beyond. The focus in this chapter begins with the demobilization efforts and the postwar benefits veterans received after WWI. Several policy changes in legislation occurred after the war, such as the Vocational Rehabilitation Act of 1918, ensuring that veterans wounded during the war could be provided an opportunity to retrain so they might be productive members of society in the workforce. Also provided to veterans was the War Risk Insurance. This additional piece of legislation was an expansion on the vocational and rehabilitative training for veterans with permanent disabilities and also provided life insurance. Another key change that happened was the establishment of the American Legion. This organization fought for the compensation provided the WWI veterans and had a significant impact on legislation including the World War Adjusted Compensation Act of 1924, which promised WWI veterans interest on money invested in 1925 from which they would gain a benefit some twenty years later. This eventually resulted in a problem for politicians with the Bonus Army incident.

Continuing with the theme of literacy, Chapter Four builds on the Army's advances to identify literacy and create mitigations during WWII. Many historians have described the problem of literacy throughout history, but few have connected the transformation of the US

military and American literacy programs in depth. While literacy in America may have been a minor problem for the military during the nineteenth century, it was addressed by educating officers at the United States Military Academy at West Point and other military-focused institutions of higher education. The problem of educating the military became evident as technology advanced. The use of trucks and aircraft was introduced into military operations in the 1910s, and the ability to read technical manuals to service and maintain new equipment created conditions where it was no longer acceptable for enlisted soldiers to simply follow orders and shoot, which they learned from drill; soldiers now required additional education and training. WWI introduced the need for a more technologically savvy force, leading the US military to develop programs to address these demands. This chapter connects the US Army's 1918 intelligence-testing program to the WWII efforts.

Chapter Four also provides an analysis of the peacetime draft and its impact on Army preparedness. Finally, the chapter also provides insight into the other end of the spectrum with a focus on educating technical specialists with the establishment of the ASTP.[38] To understand this program, the research examines Baylor University and the financial impact, student load, and benefit to the Army. The research on the ASTP also examines the disagreements amongst Army leaders on whether the program enhanced its war fighting capabilities.

Chapter Five examines the contributing factors leading to the US Congress passing the Servicemen's Readjustment Act of 1944. Several books and articles in the literature on the G.I. Bill add scholarly perspectives explaining the challenges faced by those who

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[38] Memorandum summary and highlights of the Army Specialized Training Program at Baylor University, November 6, 1944, written by Captain Edward H. Day, Army of the United States, Baylor Commandant, Pat M. Neff collection, Accession #463, Series 4. Baylor University Records, 1930-1952, Bulk 1932-1947, Box 109, Folder 10, Baylor University, The Texas Collection.

supported the G.I. Bill. In this chapter, this research examines the influence of the Army's partnership with higher education as the USAFI was established, how the Institute assisted in educational development, and the long-term impact of the USAFI.[39]

To date, few studies have focused on combining the significant contributions of multiple US military and veteran educational programs in America. None trace the journey of the military and veteran program changes and connect them to the evolution that led to the G.I. Bill. Included in this chapter are continuing details of the partnerships between the US military and American post-secondary educational institutions. While millions of veterans took advantage of the G.I. Bill, another significant connection is the influence of university satellite campuses on the US military and local communities. At the end of WWII, there were numerous military installations across the world. Those military installations influenced and increased accessibility to education for members of the US military. The expansion of access to higher education did not stop at the gate of the military camp, post, or station.

After WWII, the substantial number of veterans who began attending universities across America created conditions in which university and college administrators expanded their campuses to nearby cities where housing was available and classroom space could be acquired. As time went on, the next phase of the expansion led to universities establishing satellite campuses on military camps, posts, and stations. Not only were these established in the continental United States, but the University of Maryland established a presence in the European and Asian military theaters of operation as early as the late 1940s.

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[39] United States War Department, "Army Regulation 350-3100, United Stated Armed Forces Institute," December 24, 1941, and July 30, 1943.; American Council on Education, "Educational Lessons from Wartime Training: The General Report of the Commission on Implications of Armed Services Educational Programs," (Washington, DC, 1948), 151-153.

Also included in Chapter Five are the details of the ACE and USAFI partnerships, goals of the educational initiatives, and how these efforts led to successful programs such as the GED.[40] To better understand how the US military developed programs such as these, and their impact on American society, the chapter explains the factors influencing the establishment of USAFI, its impact on servicemembers during WWII, and the organizations created as a result of its influence.

Chapter Six uses the topics to summarize the major takeaways of the research. This research reveals changes in academics and military investment and increases the understanding of how past military programs transformed attitudes towards training and education in America and led to significant changes in achievement such as the passing of the G.I. Bill. The closing chapter ends by discussing the benefit to future decision-making towards investment in military educational programs and how this research might better inform decision-makers of the long-term strategic benefits to American society of partnerships between the military and educational institutions and thereby foster positive support from educators, the American public, and legislators for similar programs in the future.

This chapter leads to an opportunity for further inquiry by researching the effect of satellite campuses on educational institutions, faculty, and citizens from the local community. Evidence may show secondary influences of the transformation of the military educational programs. Data must be gathered from university archives and government records to

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[40] American Council on Education, *Tests of General Educational Development (High School Level) Examiner's Manual* (Washington, DC: American Council on Education, 1945).; Paul L. Dressel, "The Use of the USAFI General Educational Development Test," *Journal of the American Association of Collegiate Registrars* 22 (1947), 287–92; L. L. Love, "Use of the College-Level General Educational Development Tests," *Educational Research Bulletin* 26, no. 5 (1947): 123–27. http://www.jstor.org/stable/1474288.

understand the number of military personnel, veterans, and community students who attended courses at the satellite campuses. Also, identifying whether full-time faculty provided instruction or whether administrators hired adjunct faculty to fulfill the need may illuminate how the demand for face-to-face courses taught on military installations in America may have led to a different hiring model for college and university faculty. Researching information on satellite campuses may demonstrate the connection between early programs and the continued evolution of training and education of both US military servicemembers and veterans.

Although acknowledging that the G.I. Bill was one of the most significant pieces of legislation passed in the twentieth century, published literature fails to draw the connections between the G.I. Bill and other programs. Factors such as the transformation of the US military as it adopted trucks and aircraft during the Punitive Expedition, the WWI efforts to identify and address literacy problems, the US military establishment of the USAFI, as well as the expansion of educational opportunities for military personnel worldwide collectively provide evidence to understand the historical changes. Developing connections to generate understanding of how technological changes affected the military in early twentieth century, the influence of these changes on military programs, and how these changes affected American society produced insight into how the military and veteran programs affected servicemembers, veterans, communities, educational institutions, and the American mindset towards the need for higher education.

CHAPTER TWO: ARMY STRUCTURE AND DEVELOPMENT OF SERVICEMEMBERS PRIOR TO WORLD WAR I

Throughout its first hundred years, the US Army relied on a small standing force of units led by officers trained at the United States Military Academy. In times of war, the Army could expand and provide commissions to educated men to serve as officers and lead formations of fighting men regardless of literacy. Officers trained at West Point learned the technical aspects of engineering as well as tactical-level operations. On occasion, the Army had small post schools, but most soldiers saw them providing few long-term benefits, and officers considered they knew best what training their men needed. The Army relied on men from an agrarian society and was slow to adopt technology even during the American Civil War. The success the US Army achieved during the Mexican-American War ultimately influenced Army leaders, entrenching them into the mindset they need not change training or education, regardless of changing technology. During the American Civil War, reform-minded leaders such as Emory Upton sought to influence the "old guard" to change tactical operations, but even his successful demonstrations of new tactics at Spotsylvania produced limited support for change. After the war, influential reform-minded leaders such as Arthur Wagner continued the campaign for change in the Army's training and development. It was not until the turn of the twentieth century that other reformers such as Elihu Root, Secretary of War, rose to power and began supporting reforms which influenced the education of Army officers and paved the way for future partnerships between educators and the military. Root championed the creation of a continuation of officer educational opportunities for Army senior leaders with the creation of the Army War College in 1903. This effort combined with ideas from reformers such as Leonard Wood and Arthur Wagner, were the start of significant

change in Army education and training as well as partnerships with post-secondary educational institutions across America.

Introduction of Military Training Camps

Building on the successes of other reformers, in 1913, Army Chief of Staff Major General Leonard Wood introduced the idea of hosting summer camps to train men attending college and universities on military skills. This was the first significant partnership between post-secondary educational institutions and the American military. Wood identified the need for leaders to be trained in military knowledge and skills in preparation for a national emergency. He considered the camps a way to eliminate a risk should America need to raise a large army quickly. While the American land-grant colleges were required to provide military tactics training, these lacked uniformity and rigor, which Wood proposed could be mitigated with the development of the student camps.

As a result of Wood's efforts, these military training camps opened the door for expansion into training men in support of national defense. The camps led to future partnerships between post-secondary education and the American military, and the formalization of the Citizens' Military Training Camps program influenced the National Defense Act of 1916 and the establishment of the ROTC program. While these efforts showed progress, significant change amongst the training and educational programs where the military partnered with post-secondary education did not occur during the American Civil War or the postwar period. It was not until the adoption of technology, increased influence of reform-minded leaders, and large military operations demanding significant manpower combined to bring about changes in training and education for servicemembers.

The Need for Engineers

The engineering impact on the American West by the US Army began in 1802 with the establishment of the United States Military Academy at West Point, New York. Until its creation, the Army did not have an engineering school in America to train its officers. Creating the school was but one of the many changes that enabled the US military to influence education and training in America. During the ninetieth and twentieth centuries, Army engineers had a significant impact on the design and construction of many key American projects in the West. Additionally, they created many projects in the eastern American states such as the Brooklyn Navy Yard dry-docks and, later, international projects such as the Panama Canal.[41] During the nation's expansion, the Army spent much of its time building roads and making travel in the frontier possible.

During the nineteenth century, changing technologies led to an expanding need for technical knowledge within the US military. During the American westward expansion era, providing a secure environment through the use of military forts and patrols required soldiers to be trained in more than just war fighting. The building of roads by the Army was financially sound for America; "the soldiers were working on roads and fortifications at five dollars a month, doing work that would cost thirty dollars a month if done by anyone else," and the roads allowed for not only military use, but civilian expansion to the West at a faster rate.[42] The military trained some officers in the technical aspects of roadbuilding, but the soldiers were generally seen as laborers or simply carrying out the orders of the officers. The national importance of roads and canals caused much controversy between the military and

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[41] Robert Cowley and Thomas Guinzburg, *West Point: Two Centuries of Honor and Tradition* (New York: Warner Books, 2002), 55, 139.

[42] Edgar Bruce Wesley, *Guarding the Frontier* (London: Oxford University Press, 1935), 75.

the federal government in the 1820s. The economic and political importance of westward expansion increased the need for the completion of roads and canals, resulting in pressure being applied on military leaders to complete the projects quickly. For the Army in the West, the problem was that "the erection of forts and the construction of military roads were tasks of indefinite duration."[43] Without a focus on fighting, or the development of post-service skills, soldiers generally saw the military as providing few long-term benefits for them personally.

The economic impact of the Army on the West was, however, significant. Small towns without a source of outside money or trade would not have survived without the Army's influence. To the contrary, "army posts offered economic opportunity, often making the difference between a stagnant local economy and a prosperous one."[44] The building of forts, camps, and posts infused money into the local economy from soldiers' salaries as well as from the quartermaster, who purchased food and supplies for the Army. In 1855, there were seventy-four posts listed throughout the United States, and each needed supplies to survive and build.[45] The Army required food, cattle, munitions, and other items to sustain the men. During the winter months, the need for supplies was even more important.

The building, designing, and economic growth the army brought to the West was an important part of the settlements and westward expansion. Without the input of outside capital to encourage economic growth, many of these small and remote communities would not have grown. One of the towns that started small and grew as a result of the Army was

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[43] Wesley, *Guarding the Frontier*, 104.

[44] Allan R. Millett, Peter Maslowski, and William B. Feis, *For the Common Defense: A Military History of the United States from 1607-2012* (New York: Free Press, 2012), 131.

[45] Edward M. Coffman, *The Old Army* (New York: Oxford University Press, 1986), 58.

Fort Worth, Texas. The US Army established a military outpost along the Trinity River to protect American interests at the end of the Mexican-American War. The Army established the fort in 1849 and named it after the former commander of the Texas Army, General William Jenkins Worth, who died that same year. The development of the West and placement of the West Point-trained army engineers contributed significantly to settling the West during the early years. The expansion westward required officer training and education, but little beyond the West Point education was provided. Most of the development for Army officers, and almost all enlisted development, occurred as on-the-job training. While technology affected the Army during its first one hundred years, efforts by leaders to make significant changes were met with resistance.

At times, training and education in the US military moved along at a pace similar to society's technological advancements, but this was not always the case. Although scientific research brought about advancements in the rifle, these changes did not occur immediately within the US military. During the American Civil War, the US military units still used the single shot smoothbore musket. While rifled muskets had been around since the American Revolution, the fact that the Army did not adopt these more advanced weapons during the American Civil War related both to cost and to the time it took to reload rifled muskets. It was not until the technological innovation by Claude Minie with the Minie ball that change came to the Army's rifles. The Minie ball enabled the US military to adopt more advanced weaponry, and warfare became more deadly. These increased casualties should have influenced changes in tactics and training. Looking at the Mexican-American War and the American Civil War provides perspective on the need for change as well as examples of change agents such as Emory Upton.

Of course, changes that should have come rather quickly still took some time. Consider how units were trained during the American Civil War: Army units lined up in formation and mass fires were used against the enemy. When using the conical projectile, the range and accuracy of the rifles increased. In today's military, this technological adoption would require a change in tactics, but during the American Civil War there was significant resistance from military leaders who wanted to continue to use the same approach as they did during the Mexican-American War, even though the longer range of the rifles increased casualties. Another problem created as a result of the longer range of the rifle was that it made the artillery susceptible to rifle fire. During the Mexican-American War, this was not the case. Understanding the need for military change correlates to the need to also train soldiers before, during, and after service. To frame the situation, an examination of the historical drivers of change is needed.

Nineteenth Century Drivers of Change

During the Mexican-American War, the use of mobile artillery to blast a hole in the enemy's lines enabled the attacker to have the advantage. Using rifled muskets with conical-shaped projectiles increased the range and therefore allowed the advantage to go to the defender during the American Civil War. It was much more difficult to rout an enemy from a dug-in defensive position during the Mexican-American War. The American success during the Mexican-American War may have taught the wrong lessons. During the American Civil War, limited change occurred in doctrine. Training was simply focused on drilling soldiers to ensure that they would have muscle memory during the fight. From the perspective of line officers, there was little need for educated troops or higher education for officers. This mindset hampered any potential changes proposed by reform-minded leaders.

The years of the American Civil War are a time that many Americans still debate today. One subject lacking significant analysis is the unchanging tactics of warfighting through the lens of the significant technological changes that occurred both after the Mexican-American War and during the American Civil War. Understanding how tactics followed General Winfield Scott's model during the Mexican-American War can help explain the lack of advancement in tactics during the American Civil War. After the Mexican-American War, officers such as William J. Hardee and Silas Casey published approved manuals that sought to make doctrinal changes to how the US military fought, but these changes were simplistic, resulting in well-known leaders such as General Ulysses S. Grant discounting their usefulness.[46] Eventually, as the American Civil War began and progressed, leaders only minimally adapted their tactics in an effort to try to reduce the number of casualties. One strategic thinker and tactician, Emory Upton, had a desire to address the increased number of casualties that fighting produced because of the technological changes that had occurred in the mid-nineteenth century.

Ultimately, Upton's demonstrated success at the Muleshoe during the Battle of Spotsylvania was not enough to influence the American army generals to change tactics. While it seems that commanders who failed to adopt Upton's policies during war did so because these tactics were not validated concepts, and therefore not doctrine, it is also possible that change failed to be adopted because of ignorance, fear, or a lack of understanding. Regardless of the answer, the military culture was not open to changes in its doctrine during the American Civil War. It was not until after the American Civil War that

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[46] E. B. Long, *Personal Memoirs of U.S. Grant* (Cambridge: Da Capo Press, 2001).

leaders responded to the proposed changes of tactical manuals by Emory Upton.[47] Had the Union Army leaders considered doctrinal changes during the American Civil War, it is possible they would have been more effective on the battlefield against the Confederates earlier in the war. The analysis and potential changes in doctrine may have influenced how troops were trained and educated and allowed for an earlier partnership between post-secondary education and the US Army. An examination of the doctrine and tactics between the Mexican-American War and the end of the Civil War further illuminates the situation.

Changes in Doctrine and Tactics

Analyzing the failure to change tactics during the American Civil War generates insight into the Army's lack of a growth mindset and military leaders' failure to generate a vision to train soldiers for the arrival of future technological changes. The situation had changing technology and large-scale military operations but lacked reform-minded leaders in positions of authority. Prior to the American Civil War, the US military engaged in a major conflict known as the Mexican-American War from April 1846 to February 1848. During this war, Army leaders utilized tactics based on *General Winfield Scott's Infantry Tactics or Rules of the Exercise of Maneuvers of the United States Infantry*, published in 1835.[48] The Mexican-American War was a one-sided victory and the US Army won every major battle.[49] General Winfield Scott and other military leaders, such as Doniphan and Kearny, demonstrated the use of Scott's military tactics in a way that impressed on the Army that its

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[47] Brian M. Linn, "The American Way of War," *OAH Magazine of History* 22, no. 4 (October 2008): 19–23.

[48] Winfield Scott, *Infantry Tactics or Rules for the Exercise and Maneuvers of the United States Infantry* (New York: George Dearborn, 1835).

[49] Richard W. Stuart, ed., *American Military History Volume 1* (Washington DC: Center of Military History, United States Army, 2009).

current approach was the way to fight wars. Some other more famous US Army leaders such as Ulysses S. Grant and Robert E. Lee learned their tradecraft during this war. The Army's experiences using "Scott's Tactics" failed to change in order to mitigate the advances in technology between the Mexican-American and American Civil War. This failure to adapt brought about enormous casualties on both sides during the Civil War.

William Hardee updated Scott's 1835 tactics in 1855; however, at the outbreak of the American Civil War, Hardee sided with the Confederacy.[50] This created an opportunity to change tactics or at least rewrite the tactical manuals for the US Army. Unfortunately, a new publication, "Casey's Tactics," created by Silas Casey, was simply Scott's tactical approach with a new author and name, which ensured the Union Army would not be using a tactical manual published by a now rebel leader.[51] The problem with both "Hardee's Tactics" and "Casey's Tactics" is that each publication failed to address the problems of technological advancements, how these advancements increased the lethality of soldiers, and changes needed in military tactics; the Union Army failed to take advantage of changing doctrine even when publishing a new manual. The need to change how the Army was organized and trained became evident, but the leaders were not willing to make many of the proposed changes. Significant changes to how the Army trained and educated officers and soldiers were not yet a priority for Army leaders.

During the Civil War, the advantages of using the longer range and accuracy of the rifled musket, and later the Sharps and Henry rifles, became a problem that neither the

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[50] William J. Hardee, *Rifle and Light Infantry Tactics: For the Exercise and Manoeuvres of Troops When Acting as Light Infantry or Riflemen* (Westport, CT: Greenwood Press, 1971).

[51] United States War Department, *Infantry Tactics for the Instruction, Exercise, and Maneuvers of the Soldier, a Company, Line of Skirmishers, Battalion, Brigade, or Corps D'Armee* (Washington, DC: US War Department, 1862).

Confederate nor Union military leaders were able to counter with current tactics. The question remains whether military leaders understood the need to counter this type of technology, or whether commanders simply chose to continue to conduct warfare in a manner with which they were familiar. These technological advancements, including the Minie Ball, enabled soldiers to take advantage of the rifled barrels that had been available since the Revolutionary War but still maintain the same rate of fire that the smooth bore musket offered.[52] Other technological advances occurred in the interwar period. The advancements in railroads, steamships, and the telegraph all brought about increasing opportunities for lethality as leaders practiced the art of maneuver. However, it was the advancements in weaponry that provided a significant challenge for commanders; the range and accuracy of the rifled musket mandated a change in the behavior of organizational units and commander's tactics.

One change that did occur between Scott's 1835 manual and the American Civil War tactical manual by General Casey was the rate of march. Scott's manual mandated a rate of eighty-four yards a minute. Future tactical manuals, in an attempt to compensate for the increased accuracy and range of weaponry, mandated 154 yards a minute.[53] While this does seem to address the problem of increased lethality, it fails to make any significant tactical changes such as those Emory Upton proposed and employed during the Spotsylvania Courthouse attack by Union forces.[54]

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[52] Stuart, *American Military History Volume 1.*

[53] Scott, *Infantry Tactics or Rules*.

[54] Salvatore G. Cilella, *Upton's Regulars: The 121st New York Infantry in the Civil War* (Lawrence, KS: The University Press of Kansas, 2009); Benjamin F. Cooling, *Counter-Thrust: From the Peninsula to the Antietam* (Lincoln, NE: University of Nebraska Press, 2007); Mark Grimsley, *And Keep Moving On: The Virginia Campaign May-June 1864* (Lincoln: University of Nebraska Press, 2002), 77–82; Brooks D. Simpson, *The Civil War in the East* (Santa Barbara, CA: Praeger, 2011); Mark A. Weitz, "Drill, Training, and the Combat

There was one additional change between Hardee's tactical manual and Casey's tactical manual that may be considered an approach to dealing with the technological advancements and their lethality: while Hardee formed the brigade "in-line," Casey's approach was a brigade in depth.[55] This change was not enough to transform the Army, yet. Even Grant commented in his memoirs that Hardee's tactics were simply the French doctrine translated into English.[56] Casey's approach was not a significant change to military doctrine; it simply led the Union to form in a different manner but ultimately receive similar casualties. The Union generals should have appreciated the obvious need for military doctrinal change, but it took a leader like Emory Upton to propose significant tactical changes to gain the advantage over the enemy. The problem seems to lie in the fact that the officers at the time failed to accept the proposal of this young military mind, either due to their lack of knowledge or because of their being stuck in one way of thinking. To change the mind of the collective Army leadership would take significant support and effort. The technological changes and massive casualties of the war were not enough to motivate educational or training changes, reform minded leaders had to influence the situation as well.

Emory Upton's Influence on Doctrine and Tactical Changes

Not every Army officer was stuck in the past; there were some up and coming leaders with ideas to change the way the Army applied the principles of war. Born in 1839, Emory Upton grew up on a farm in New York. Upton was a smart and disciplined young man who spent his first two years in post-secondary education studying under Charles G. Finney, the

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Performance of the Civil War Soldier: Dispelling the Myth of the Poor Soldier, Great Fighter," *The Journal of Military History* 62, no. 2 (April 1998): 263–290.

[55] Hardee, *Rifle and Light Infantry Tactics*; The United States War Department, *Infantry Tactics for Instruction, Exercise, and Maneuvers*.

[56] Long, *Personal Memoirs of U.S. Grant*.

famed evangelist, at Oberlin College in Ohio. At 17 years of age, Upton entered West Point as a cadet in 1856.[57] During Upton's time as a cadet, his correspondence to his sister and others demonstrated his increased faith in God, along with his thoughts for the future and how he might live a worthy life. These had obvious influences on Upton as he departed West Point a commissioned officer in the US Army.

Historian Mark Grimsley described Upton: "Just twenty-four years old and three years out of West Point, Upton regarded the profession of arms as a Jesuit did the mission field."[58] While at West Point, Upton spent much of his time analyzing potential methods of defeating the enemy. He created his own tactics, which proved to be successful at the Rappahannock River, and later at the battle of Spotsylvania Courthouse. Upton's efforts were not only academic with regard to tactics; he was also a distinguished leader of military units, influencing the success of battle at Spotsylvania, Fredericksburg, Charlottesville, and Sharpsburg, just to name a few.[59] By May 1864, Upton had seen his share of tactical failures, and his demonstration of how "numbers prevail" at Spotsylvania failed to significantly change the attitudes of military leaders of the time.[60] The lessons Upton learned on the battlefield seemed disconnected from the theories he studied at West Point. Even prior to "the Civil War and Upton's emergence as a military thinker, the Army's leadership was not looking realistically at how to fight an American war."[61] Even though Upton was an

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[57] Peter S. Michie, *The Life and Letters of Emory Upton: Colonel of the Fourth Regiment of Artillery, and Brevet Major-General, U. S. Army* (New York: D. Appleton & Co., 1885), 1–9.

[58] Grimsley, *And Keep Moving On*, 77.

[59] Stephen E. Ambrose, *Upton and the Army* (Baton Rouge, LA: The Louisiana State University Press, 1993).

[60] Robert M. Cassidy, "Profits or Praetorians? The Uptonian Paradox and the Powell Corollary," *Parameters* 33, no. 3 (Autumn 2003): 130–143.

[61] Cassidy, "Profits or Praetorians?," 132; Russell F. Weigley, *Towards an American Army: Military Thought from Washington to Marshall*, (New York: Columbia University Press, 1962), 78.

influential officer among a small group of Army reformers, his ability to influence change on Army doctrine only occurred after the American Civil War ended.[62] The lack of higher education amongst military officers may have been a roadblock to adopting change during the war, and the desire to forget the conflict may have influenced the lack of changes immediately thereafter.

During the American Civil War, Upton had the opportunity to demonstrate how his tactics could be successful at the Rappahannock station in Virginia six months prior to the assault on the "Muleshoe" by Union forces during the battle at Spotsylvania Courthouse.[63] This provided Upton the confidence to apply his new tactics in Spotsylvania. The conditions were superb for Upton's tactics at the Muleshoe. He concealed his forces in a pine forest, there were few Confederate pickets, and the open ground they had to cover was only a few hundred yards.[64] Historian Brooks Simpson explained the situation and why Upton led the assault. Since Upton had "experimented with various offensive tactics designed to punch a hole through Confederate defenses," he was placed in charge of the attack column and gave specific instructions to ensure that no Union forces would fire on the Confederates, but have bayonets fixed to assault their defenses without stopping.[65] The change did open a hole in the Confederate line, but it was not the success needed to convince Army leaders of his recommended changes in tactical doctrine. While Upton's plan may have been sound, it relied on other military leaders and their support for the plan to be successful. General Mott deserves some credit for the failure, since he did not provide support to Upton during the

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62 Cassidy, "Profits or Praetorians?," 130–143.

63 Grimsley, *And Keep Moving On*, 77–82.

64 Scott Valentine, "Numbers Prevailed: Lieutenant James Johnston," *Military Images* 30, no. 4 (Jan/Feb 2009): 18–19.

65 Simpson, *The Civil War in the East*.

charge. Others influenced Upton's efforts, such as General Wright, the VI Corps Commander, who also failed to support Upton's charge and the Union assault effectively.[66] For the Army, adopting Upton's recommended changes would take a while longer. However, Upton was an important figure as the Army began to face the need to change its training and doctrine.

The question of why commanders failed to seek out innovative ways to counter the technological advancements and weaponry, or to attempt to modify their tactics as a way to reduce casualties, continues to drive the focus towards Emory Upton. While the military profession can be slow to change, the organizational structure and administration of the Union Army during the American Civil War were the two most significant barriers to change.[67] Many senior officers in the Union Army during the American Civil War were political appointees.[68] Politics played such a role in the strategy of both armies; as a result, it seems plausible that politicians would have to approve changing tactics as well.

A contributing factor to the lack of acceptance for change was the organizational structure of the Army. The field Army, also known as the "line," was established as a separate department and each had both command and staff functions operating with their own budget, tactical units, and the responsibility to train and develop servicemembers assigned to the department. This approach led to decentralized Army planning, training, and changes. Fortunately, there were some forward thinkers in positions of authority who attempted to make change. While Secretary of War John C. Calhoun established the

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66 Grimsley, *And Keep Moving On*, 103.

67 Fred A. Shannon, *The Organization and Administration of the Union Army 1861-1865* (Gloucester: The Arthur H. Clark Company, 1965).

68 Charles A. Stevenson, *Congress at War: The Politics of Conflicts in 1789* (Washington, DC: National Defense University Press, 2007), 76.

Commanding General of the Army position as part of the restructuring after the war of 1812, this position was simply an advisor to the Secretary of War and did not resolve the Army's structure problem. After the change, "Department Commanders" still felt no need to gain approval for their decisions or actions from the War Department General Staff or the Commanding General.[69] Even with the new commanding general, the structure continued to favor decentralized operations without centralized planning. Basically, the organizational structure inhibited success on the battlefield at times, as well as a transformation in the way tactics, promotions, education, and other critical efforts in the Army could be improved upon.

In 1863, the US War Department published new doctrine approved by the Secretary of War, called *The 1863 US Infantry Tactics*.[70] The problem was that the organization, training, and fighting by the US Infantry units based on this new doctrine failed to contain any significant changes.[71] The result of this failure to change was that Grant's Overland Campaign in 1864 produced more than 60,000 union casualties.[72] This number equaled more than half the number of Union casualties during the first three years of the war. While American Civil War historians such as Mark Grimsley suggest that Grant was finally prosecuting an effective war against the South, it is possible that Grant could have reduced his casualty numbers by simply modifying the tactics used by the Union Army. By this point

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[69] United States Adjutant-General's Office, *Legislative History of the General Staff of the Army of the United States, its Organization, Duties, Pay and Allowances, from 1775 to 1901* (Washington, DC: US Government Printing Office, 1901), https://www.loc.gov/item/ltf90000979/.

[70] United States War Department, *The 1863 U.S. Infantry Tactics* (Mechanicsburg, PA: Stackpole Books, 2002).

[71] Emory Upton, *The Military Policy of the United States* (Washington, DC: US Government Printing Office, 1912).

[72] Grimsley, *And Keep Moving On;* Stuart, *American Military History Volume 1*, 161.

in the war, the lack of adaptation to training and advanced officer education had devastating results for both sides.

The end of the American Civil War brought about a notable change in both Emory Upton's influence in military policy and updated doctrine for the US Army. Scholars such as Stephen E. Ambrose have researched and published at length regarding Upton's success as the Commandant of Cadets at the United States Military Academy at West Point, his travels throughout Europe and Asia studying armies along the way, and his "Infantry Tactics" published soon after the end of the American Civil War.[73] Upton's work demonstrated not only his dedication to the military profession, but his ideas on what he considered the American way of war. Upton was a young man during the American Civil War, having just graduated from West Point as the war began. His ideas and knowledge were based on his wartime experiences. His first-hand experience of military operations allowed Upton to analyze current military tactics and develop solutions to overcome the stalemate that produced enormous casualties on each side. After the American Civil War, Upton "wrote the first definitive description of American military policy," and examining Upton and his proposed changes introduces the question of why Union generals failed to adopt his policies earlier in the war.[74] While this question remains unanswered with absolute certainty, military historians conclude Upton's tactics may have benefited the Union Army had they adopted them earlier on in the war. Had a scaffolded set of courses been in place for military officer education, the results may have been different. The reflection on past conflicts by leaders such as Upton ultimately led to a change in how the Army educated its leaders.

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[73] Ambrose, *Upton and the Army*.

[74] Linn, "The American Way of War," 19–23.

The unchanging tactics utilized during the American Civil War failed to take into account the significant technological changes that occurred between the Mexican-American War and the American Civil War. The advances in weaponry created increased lethality on nearly every battlefield. Continuing to utilize dated French tactics or General Winfield Scott's Mexican-American War approach did little except create additional casualties for units who desperately needed doctrinal change. The Union did have at least one open-minded strategic thinker and tactician in Upton. Had the military culture been willing to change and seek to validate proposed concepts, the Army may have taken an improved training and development approach to educating and training servicemembers. As an organization, the Army may have discovered doctrinal changes that were more effective on the battlefield against the Confederates earlier in the war.

Innovations in Education after the Civil War

The American Civil War could be considered the beginning of the revolution of the Army adopting innovative technology and changing the way its units were organized. The war saw the use of breech-loading Springfield and other brands of rifles, which were much improved over the smoothbore and even rifled muskets, but the official adoption of the breech loaders as standard equipment for many of the US Army units did not come until 1873. After the Civil War, weaponry continued to change. By the 1880s, the US Army adopted Hiram Maxim's machine gun, which was recoil-operated and replaced the hand-operated Gatling gun, increasing the firepower of military units. These advancements in weaponry did much more than make it easier for soldiers to inflict casualties on the enemy; they created a need for better trained and educated soldiers and leaders. To address these needs, the US Army established schools to train men and units in tactics, the use of artillery,

and even medical treatment. The challenge Army leaders faced was the competing demands on the available military resources. At times, Army schools opened and closed at the whim of whoever was in charge or if the need for resources was more pressing in another area of the Army. This lack of standardization remained a problem with state militias and Army units well into the twentieth century. Changes to the methods of training and educating servicemembers needed specific conditions before America would see the benefits a partnership between the military and higher education could produce.

To improve the capabilities of specific units, the US Army focused on developing schools to train servicemembers in specialized areas. In the second half of the nineteenth century, the Army established, shuttered, and reestablished several schools based on the perceived immediate need. An artillery school was established at Fort Riley, Kansas, in 1869, and by 1881 the infantry and cavalry had established schools of their own in Fort Leavenworth, Kansas. These schools, however, did not focus on developing servicemembers for the return to the civilian populace. Instead, the schools focused on providing specialized instruction on how to operate the new tools of warfare. Soldiers and leaders at these schools studied topics such as the care of men, the use and maintenance of equipment, and employment concepts related to specialty areas such as the Signal Corps, Engineer Corps, Medical Corps, and Artillery Corps operations during peace and war. The problem with advancements in technology became apparent to Army leaders, who realized that training soldiers on these new inventions, at least at a basic level, was needed. The establishment of Army schools was the result.

After the American Civil War, a few forward thinkers lobbied for more Army education than the United States Military Academy or the Leavenworth schools provided.

General William Tecumseh Sherman thought that military education at West Point provided a baseline, but he also advocated for what he called a "war college." Sherman and others were instrumental in founding the cavalry and infantry schools at Fort Leavenworth as well as looking at other professional development opportunities for military officers. Sherman was critical to the establishment of the Military Service Institution in 1878. This society promoted the idea that military officers should meet regularly to discuss and develop the specialized knowledge needed to apply the principles of warfare as an art. The Military Service Institution advocated for officers to publish articles in its journal and for professional discussions about topics that enhanced military officers' understanding of warfare.[75] The Army and its senior leaders began the journey towards improving training and education, which put them on a pathway to significant involvement in adult education in the twentieth century. However, not everyone embraced modern technology or changes to the military business processes.

The changes progressive-minded officers and political leaders sought to impose on the US military faced many challenges from the intransigence of the old guard. These old Army leaders felt the military processes were good enough for them, and many of them did not want to upset the apple cart. Another factor that influenced change was the promotion of Army officers. After the American Civil War, as it had been during other periods of peace, the Army based promotions on length of service instead of aptitude and performance. Therefore, there was little motivation for self-development through education or training. Additionally, relationships between lawmakers and senior military leaders exacerbated the problem for anyone seeking to make change. While Sherman had advocated for a war college

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[75] Millett, Maslowski, and Feis, *For the Common Defense*, 242.

and helped to create the cavalry and infantry schools at Fort Leavenworth, a comprehensive approach to professional development was still in the distant future.

Arthur Lockwood Wagner, US Military Influencer

To understand the transformation of the military and how programs affecting servicemembers, veterans, and educational institutions came about, it is critical to look back at a few of the key influencers at the turn of the twentieth century. Arthur Lockwood Wagner is one of the lesser-known influencers on the US military during the transformation just after 1900. It is interesting to note that many military leaders are famous for their acts of bravery—such as Alvin York, Audie Murphy, and Hal Moore—or for leading large organizations to victory—such as Patton, MacArthur, and Schwarzkopf—but Wagner, the man who made such a significant and long-term impact on the US Army, seems only a footnote in history. Former professor of history and Chair of the Division of the Human Studies at Iowa Wesleyan University Todd Brereton is one of the few historians who focused on Wagner and his role in changing how military leaders learn. Other than Brereton's work, *Educating the U.S. Army: Arthur L. Wagner and Reform, 1875-1905*, and a few biographical articles, there is little historiography focused on Wagner's role in changing military education except from those published by Wagner himself.

Wagner graduated from the United States Military Academy at West Point in 1875—where he began his military career of deviating from the status quo—with a "staggering 731 demerits."[76] This may have been an early indication that Wagner was not happy with how the Army conducted business. During his early career, Wagner spent time in the American West

[76] Todd R. Brereton, "The First Lessons in Modern War: Arthur Wagner, the 1898 Santiago Campaign, and U.S. Army Lesson-Learning," *Journal of Military History* 64 (January 2000): 79–96.

as a staff officer along with spending time commanding a detachment of artillery with Company E, Sixth Infantry.[77] Wagner's time in the West provided him experience completing a variety of duties, including staff work, leading patrols, and other assignments generally given to lieutenants during the Indian Wars. By January 1880, Wagner was looking for something other than frontier duty. Working through friends and acquaintances, he focused his attention on being assigned to one of the thirty officer positions at college and universities nationwide. His own best advocate, he wrote letters to influential officers asking for their support in making his transfer possible. Eventually, Wagner's persistence paid off, and he received reassignment orders. During Wagner's three-year assignment at East Florida Seminary, he found that he enjoyed teaching, and because of his experiences delivering military history to his students, he decided to put his military ideas on paper. He wrote an article titled "The Military Necessities of the United States, and the Best Provisions for Meeting Them" in 1884, which was published in *The Journal of the Military Service Institution*.[78] This success motivated Wagner to investigate how he might use his talents to make changes to the way Army leaders learned their craft.

Wagner focused on practical application of how the US Army might improve officer development and education. Although others such as Upton had previously attempted to change the Army, they failed to take such a pragmatic approach. Wagner seemed to work within the system, taking an approach that allowed his recommendations to solve the problems he and others identified.[79] Wagner continued to write, and his work creating *The*

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[77] Todd R. Brereton, *Educating the U. S. Army: Arthur L. Wagner and Reform, 1875-1905* (Lincoln and London: University of Nebraska Press, 2000), 5.

[78] Brereton, *Educating the U. S. Army*, 8.

[79] Arthur L. Wagner, "The Military Necessities of the United States, and the Best Provisions for Meeting Them," *Journal of the Military Service Institution* 5 (September 1884): 234–271.

Campaign of Königgrätz demonstrated his ability to research and analyze the successes and failures in the application of the principles of war. He pointed out in this publication that Prussian Helmuth von Moltke was a genius and his subordinates energetic and intelligent, but that Moltke and other military leaders failed to learn from events during the American Civil War. Wagner's focus on reconnaissance and intelligence gathering enabled him to demonstrate the ignorance of the Prussians and present an argument that "their success was solely due to the great blunders of their opponents."[80] Over time, Wagner increased in prominence and was considered by his superiors for special assignments. Those future positions allowed Wagner to make significant changes in officer development and education. These eventually influenced post-secondary education during the world wars.

By the 1890s, Wagner had become quite influential as an academic within the US Army. His influence began shifting the Army's educational focus from learning by experience in war to an organization that focused on development of its officers in schools and by practicing maneuvers. Wagner may not have been a progressive in the traditional sense, but his pragmatic approach to change allowed him to view the progressive movement as a means to achieve some of his goals. Educating soldiers and leaders was not the only change needed in the US Army in the second half of the nineteenth century; there were other changes connected to the progressive agenda as well. Historian Alan Millet noted that progressive officers were seeking a change in how the Army promoted its officers. Promotion only based on time in service did not benefit the Army, and the best and brightest officers wanted opportunities to shine. These desired changes attempted to replicate the

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[80] Arthur L. Wagner, *The Campaign of Königgrätz: A Study of the Austro-Prussian Conflict in the Light of the American Civil War* (Leavenworth. Kansas: Fort Leavenworth, 1889), 119.

civilian professional model as these progressive officers "sought professional status and worked insidiously to justify their occupation as a skill oriented, theoretically based, socially useful, and culturally unique career."[81] Wagner sought to connect the professionalism of military officers to the progressive reforms by demonstrating that educated leaders in the US Army could be more effective in reducing casualties and better protect American lives and resources.

Wagner considered the actions he and other leaders could take so the US Army would increase in prestige and regain the respect that had waned after the American Civil War. To do this, Wagner advocated for the adoption of technology and the modernization of training and education within the military. It is by examining leaders such as Wagner that historical analysis demonstrates the changes that occurred at the beginning of the twentieth century within the US military. This analysis generates insight into how the increased demand for an educated Army led to the influential programs that affected colleges and universities during and after the world wars. Wagner arrived at a time of significant change. The efforts of a small core group of reformers within the Army expanded the mindset in which military leaders valued training new recruits, developing servicemembers, and even preparing as they reintegrated into civilian life.

Creating training and development programs to ensure the success of members of a profession has been a long-standing process. Before focusing on the details of Wagner's successes, it makes sense to elaborate on whether the military is a job or a profession. At the beginning of the twentieth century, Wagner and other leaders sought to professionalize the

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[81] Allan R. Millett, *Military Professionalism and Officership in America* [Briefing Paper Number Two] (Columbus, OH: Mershon Center of the Ohio State University, 1977), 13.

military's Officer Corps. This dichotomy of whether one sees the military as a profession or simply a job may relate to an individual's situation. Draftees during the American involvement in Vietnam in the 1960s and 1970s might have considered the military as simply a requirement or job. Examining the history of the concept of a profession in recent years is valuable in understanding the changes within the US Army during the early twentieth century. A profession demands significant investment in developing its members. Wagner's efforts were part of the ongoing attempt to professionalize the American military.

In 1983, the US Army created the United States Army Center for Leadership and Ethics. This organization had several name changes and organizational transfers before it became what is today known as the Center for the Army Profession and Leadership.[82] This organization, as well as many leaders within the US Army, sought to answer the difficult question of whether military service was a profession, an occupational choice, or both. At the end of the draft during the 1970s, others sought to answer a similar question. Charles Moskos, professor of sociology who coined the phrase "Don't ask, don't tell" wrote, as part of his analysis of the all-volunteer US military in 1977, that terms such as profession, calling, and occupation "suffer from imprecision."[83] In Wagner's lifetime, many of these critical questions regarding the professionalization of the US Army were still in their infancy. Wagner's efforts to professionalize the Army were an important part of the evolution towards a better educated servicemember and veteran.

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[82] United States Army, "Center for the Army Profession and Leadership," January 2022, https://capl.army.mil/

[83] Charles C. Moskos, "The All-Volunteer Military: Calling, Profession, or Occupation?," *Parameters* 7, no. 1 (1977): 2, https://doi.org/10.55540/0031-1723.1112.

The question of a professional military force remains a topic of interest to scholars and military personnel alike. Wagner attempted to influence Army professional development at a time when senior military personnel still had one foot in the nineteenth century and few leaders focused on the significant changes required to move the Army into the twentieth century. As Wagner was promoted through the ranks, the US Army's promotion process favored seniority over performance. As a result, Wagner found it difficult to influence change early in his career. Luckily for Wagner, Elihu Root had become the Secretary of War in 1899. Root was an outsider who had the knowledge of the political processes in Washington and the desire to educate and transform the military. This new Secretary of War masterfully guided the military through the roadblocks of Congress and eventually produced reforms in the US Army that continue today. Wagner was in the right place at the right time. Root's desire to change the military and Wagner's ideas to educate established many beneficial changes at a critical time in history. These changes included the creation of the Army War College and several other officer professional development opportunities.[84] This was a wonderful time for Wagner, as he and other progressive-minded military leaders who fought for change in the military found an advocate in Root.

Elihu Root became the Secretary of War at a time when the United States was examining the problems resulting from a failed centralized planning approach to the Spanish-American War. As a result, the US Congress established a commission to analyze the military problems encountered during the war. Appointed by President William McKinley,

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[84] United States War Department, *Annual Report of the Secretary of War for the Year of 1902*, Washington, DC: US Government Printing Office, 1902, 29-34.; Root reported that of the 2,900 officers of the line of the Army in 1902, 181 were appointed during the war with Spain and of those, only 276 were educated at the US Military Academy at West Point and the remaining 1,542, more than half of all officers, had no systematic military education.

retired Major General Greenville M. Dodge served as the Commission President. The Dodge commission, as it was called, reported in eight volumes the testimony of numerous military officers—along with a summary—that the War Department was generally inefficient in the process to acquire supplies, provide medical treatment, and prepare troops, while administrative requirements overburdened units with regulations and inefficiencies during the war with Spain.[85] Root identified the need for a modern army in which officers planned "intelligently" in a centralized manner similar to the German General Staff. He made several proposals to Congress, including restructuring so that the department heads of the field armies would no longer report directly to the Secretary of War, but instead through a proposed Office of the Chief of Staff. According to Root, the then current position of Commanding General was not appropriate since it created confusion in the chain of command. Therefore, Root recommended the Army have a centralized military advisor to the Secretary of War and the President. To establish clear lines of authority, Root proposed this Chief of Staff would be senior to all other Army officers.[86]

Secretary Root also understood that officers needed to be exercised and trained in the application of the principles of war to avoid the same mistakes Wagner identified in his *Report of the Santiago Campaign, 1898*; this was an excellent opportunity for Wagner to wield his influence for change.[87] At the time, there were few officers interested in learning from the past. Fortunately for Wagner, Major General Nelson A. Miles, the Commanding

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[85] United States Congress, Senate, *Report of the Commission Appointed by the President to Investigate the Conduct of the War Department in the War with Spain* (Washington, DC, 1899). vol. I, 115–121. https://archive.org/details/reportofcommissi01unit/page/n5/mode/2up

[86] United States War Department, *Annual Report of the Secretary of War for the Year of 1902,* Washington, DC: US Government Printing Office, 1902, 42-48.

[87] Arthur L. Wagner, *Report of the Santiago Campaign, 1898* (Kansas City, MO: F. Hudson Publishing Company, 1908).

General of the US Army, requested Wagner prepare his report on the Army's performance during the Spanish-American War. Wagner's report on the Santiago Campaign examined the performance of the Army and highlighted those technical advances, such as smokeless powder, that ultimately led to an advantage for military forces in the defense.[88]

As part of the Santiago report, Wagner identified the need for military leaders to participate in practical application in managing larger troop formations as well as classroom-based learning. Wagner recommended that learning occur during leaders' time in educational institutions and schools to reduce the learning curve during combat operations. In addition, Wagner advised the leadership on the development of maneuvers that allowed for regular Army troops, as well as joint maneuvers between regular Army and National Guard troops, which were eventually conducted at Fort Riley, Kansas. During these maneuvers, Wagner was the "chief umpire" for the maneuvers; his experience observing these large formations gave him a wide variety of ideas for future officer development.[89]

The success of the maneuvers paved the way for other events to be established in Kentucky and for Wagner to increase his own influence and reputation. Wagner included ideas such as what is known today as an after-action-review, where officers discussed the performance of units during the maneuver, what they did well, and how they might improve in the future.[90] While working on planning these maneuvers and his other duties, Wagner also became a prolific writer. He wrote and lectured on topics such as strategy, combined maneuvers, and even proper military instruction. His writings added to his previous work on

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88 Wagner, *Report of the Santiago Campaign, 1898*, 112–115.

89 Timothy K. Nenninger, *The Leavenworth Schools and the Old Army: Education, Professionalism, and the Officer Corps of the United States Army, 1881-1918* (Westport, CT: Greenwood Press, 1978), 48.

90 Nenninger, *The Leavenworth Schools*, 39.

an American War College, the "Campaign of Königgrätz," essays, and reports that increased Wagner's influence within the Army.[91]

Wagner was influential in transforming the education of US Army officers at Fort Leavenworth by focusing on the development of officers using tactical field exercises. This hands-on practical exercise approach to solving problems by employing troops, writing operations orders and plans, and analyzing problems gave junior officers the opportunity to command larger organizations and learn from their successes and failures.[92] Wagner spent time researching and analyzing historical events to incorporate what the Army learned during the American Civil War into the scenarios he provided to leadership during training exercises. In *Organization and Tactics*, Wagner examined the changes in tactics used by the Army during the previous century as a way to explain that changes in technology had disproportionately shifted the advantage to defensive operations.[93] Publications such as *Organization and Tactics* increased Wagner's influence and his role in the Leavenworth schools' curricula. Over time, he made significant changes to the infantry and cavalry schools, the Army Staff College, and even the Military Information Division, which collected and evaluated intelligence.[94] These changes put Army professional development on the pathway to partnerships with post-secondary educational institutions.

At the same time Wagner was working to influence change, Secretary of War Root was at work supporting transformational efforts at a different level. Root established the

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[91] Brereton, *Educating the U.S. Army*.

[92] Wilson C. Blythe, "Arthur L. Wagner: Military Educator and Modernizer," *Army History*, no. 86 (2013): 22–32, http://www.jstor.org/stable/26298777.

[93] Nenninger, *The Leavenworth Schools*, 43.

[94] Graham A. Cosmas, *An Army for Empire: The United States Army in the Spanish-American War* (Columbia: University of Missouri Press, 1971), 74–75; Arthur L. Wagner, *Organization and Tactics* (Kansas City: MO, Hudson-Kimberly Publishing Company, 1906).

Army War College in November 1903; it was not simply focused on academics but used the model of academic study combined with practical application, replicating Wagner's approach in the Leavenworth schools.[95] Although Root's time as the Secretary of War lasted little more than four years, his reforms are well known amongst US Army military leaders and seen as a significant and transformational time for servicemember development. To the contrary, Wagner is not well known today. Regardless, Wagner may be as significant as Elihu Root, Emory Upton, and other reform-minded leaders.

Twentieth Century Drivers of Change

The Industrial Revolution

As America and the world entered the twentieth century, the internal combustion engine was influencing society, the demand for a skilled labor pool increased, the Industrial Revolution was in full swing, and the progressive agenda in America found an advocate in President Woodrow Wilson. The internal combustion engines found their way into automobiles and trucks with which the US Army conducted a few experiments in 1904, but Army senior leaders did not see the value in using them.[96] The lack of adoption of motorized vehicles may have been a result of tradition, but evidence shows it can also be attributed to the lack of literacy and knowledge by the soldiers. Most of the Army was still stuck in the horse and buggy—or more appropriately, mule and wagon—mindset of the nineteenth century.

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[95] James E. Hewes, *From Root to McNamara: Army Organization and Administration 1900-1963,*. CMH Publication 40-1 (Washington, DC: Center of Military History, United States Army, 1975), 3–9, https://history.army.mil/html/books/040/40-1/cmhPub_40-1.pdf.

[96] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1915: Volume I* [Report of the Secretary of War and Reports of the Bureau Chiefs], Washington, DC: US Government Printing Office, 1916, 163.

Henry Stimpson and Leonard Wood

With the Industrial Revolution and corporations demonstrating to politicians the effectiveness that a centralized approach might have on military and government organizations, Root's reforms in the Army continued to move forward even when, in 1911, Henry L. Stimpson became the Secretary of War. Alongside Stimpson was another reformer, the US Army Chief of Staff, Major General Leonard Wood. These two reform-minded leaders sought to change procedures within the US Army, increase efficiency, and consolidate what they considered a scattered Army into a centralized organization with uniform programs for training troops, all while improving command and control.

Wood's Army career provided him a wide variety of experiences outside of his profession as a medical doctor. While a member of the campaign against Geronimo, Wood was awarded the Medal of Honor in 1898. This fame, and his political connections as the personal physician to President McKinley, provided him opportunities not given to other medical officers. He was given command of the First Volunteer Cavalry and led his men at the famous Battle of San Juan Hill during the Spanish-American War. Theodore Roosevelt, who is famous for this battle, was Wood's second-in-command. From 1900 to 1902, Wood was the military governor of Cuba and later assumed several senior positions of leadership in the US Army, such as commander of the Philippines Division and commander of the Department of the East. His experiences gained from these assignments resulted in Wood challenging the status quo and focusing on increasing the preparedness of the US Army through training, labor pool analysis, and organizational restructuring.

Historian and former staff member in the US Army's Office of the Chief of Military History James E. Hewes provided a summary of the benefits of reorganization by Stimpson

and Wood, highlighting that Stimpson was able to mobilize one of the new divisions along the Texas border by sending a short five-line telegram. Under the old system, Stimpson claimed he would need to send fifty to sixty telegrams to put together an *ad hoc* task force. The changes addressed the chain of command problems and illuminated the need for changes in other developmental programs.[97] The efforts to make change within the military began to expand beyond simply the active federal force, and transformational-minded leaders sought to influence the development of reserve officers and the patriotism of young men in America.

Legislative Support

In 1902, the US Congress passed H.R. 11,654, "A Bill to Promote the Efficiency of the Militia and for Other Purposes," otherwise known as the Militia Act of 1903.[98] Prior to this, the militia lacked federal support even when activated for federal service by the president. This was a watershed piece of legislation that not only provided funding for this new "National Guard" but also aligned the training of these forces with that of the regular Army. This allowed the reserve forces to attend Army schools, ensured federal funding for training, and paved the way for the establishment of the Reserve Officers' Training Corps (ROTC). The connection to American higher education and influence of the ROTC opened the door between the Army and higher education even wider.

The Militia Act of 1903 was a topic of keen interest for both its National Guard impact as well as its focus on American citizens and the defense of the nation. A 1903 perspective written by James Parker in the *North American Review* outlined the key points of

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97 Hewes, *From Root to McNamara*, 14–15.

98 Charles Dick, Interstate National Guard Association, Executive Committee, and YA Pamphlet Collection, *The "Dick" Bill and Comments: H.R. 11,654, "a Bill to Promote the Efficiency of the Militia and for Other Purposes," to Supersede the Archaic Militia Laws Enacted in 1792* (Brooklyn, NY: Executive Committee of the Interstate National Guard Association, 1902), https://www.loc.gov/item/96190993/.

the Act and explained that learning rifle marksmanship was considered at the time to be a critical part of educating the soldier. The author also made the point that generating interest in shooting and providing opportunities to American citizens would offset the advantage that other countries had with their conscription. This turn-of-the-century assessment proposed that the cost to provide ranges to ensure effective marksmanship skills amongst the National Guard as well as the male population would be an insignificant investment that "should not exceed the cost to build a battleship or two."[99] It was not just improving the tactical skills that Parker and others focused on within the 1903 Act, but also the impact the training would have on National Guard members in qualifying them to compete for opportunities and become eligible as volunteer officers. The provisions of this legislative change were understood in 1903 as increasing the knowledge, skills, and abilities of military personnel and created a conversation around the entrance examinations for the National Guard and why they should be similar to those used for a regular Army recruit. This was innovative thinking in 1903 and by the 1917 American entrance into WWI expanded beyond physical requirements to include literacy, along with the ability to communicate in the English language.

Development of the Military Training Camps

As Parker elaborated on in 1903, the focus on investing in young men from the American population was needed long before the post-WWII G.I. Bill. The US Army needed a literate, educated, and trained workforce to win wars in the twentieth century. Reform-minded leaders were seeking a way to invest in training potential military inductees in the

[99] James Parker, "The Militia Act of 1903," *The North American Review* 177, no. 561 (August 1903): 284, https://www.jstor.org/stable/25119439

skills they would need to be successful, should America be involved in war. One example of military investment in society was put forth by Wood in the form of the Citizens' Military Training Camps. These summer training camps went through several name changes throughout their lifecycle. Understanding the partnerships between the US Army, American post-secondary education institutes, and American society illuminates the involvement amongst these groups long before the G.I. Bill became law. In May of 1913, General Leonard Wood penned letters to university presidents and, with the backing of the Secretary of War, set about to arrange for summer camps where men attending universities and colleges came together in the Students' Military Instruction Camps.[100] These summer training camps focused on military, outdoor, and civic skills as well as knowledge for young men.

Attendance at these camps by young men promoted good citizenship and discipline and provided the US military with a pool of trained men to help safeguard the national defense. The involvement of university presidents and civilian committees within this movement helped to develop training material, promoted attendance at the camps, and allowed for a national scale with camps placed strategically throughout the United States. By 1916, American leaders in both the public and private sectors were promoting the necessity for these camps as a part of the national defense plan. Community leaders such as social workers, clergy, and educators testified to Congress, explaining that educational institutions needed to include classes that assisted young people in understanding and appreciating civic duties and the regard for law and authority and developed discipline among the population.

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[100] Ralph B. Perry, *The Plattsburgh Movement: A Chapter of America's Participation in the World War* (New York: E. P. Dutton & Co., 1921), 1–5.

Although there were those who argued against these classes before American involvement in WWI, programs and activities outside of the military began to have a positive influence on how legislators viewed servicemember development while on active duty.[101]

The connections between the military and post-secondary education grew as leaders from both the military and educational institutions began to collaborate. The desire of Army Chief of Staff Wood to address the problem he identified as the need for college-educated men to be trained in military concepts, rifle marksmanship, and physical fitness is considered the inception of the modern ROTC. Wood saw this as an approach to preparing the United States militarily without the need for conscription. It is interesting that in 1913, Wood viewed the lack of trained officers as a problem, but in the 1913 *Annual Reports of the War Department for the Year Ended June 30, 1913: Volume I*, the Secretary of War reported that the regular Army had only ninety-eight officer vacancies out of the total and strength of 4,763.[102] This 2 percent vacancy rate seems insignificant compared to the 11 percent vacancy rate for enlisted men at the time. Wood may have understood America's manpower problems from a perspective beyond what was documented in the annual reports. In 1913, the Secretary also reported the Army was having a problem with accessions and desertions. A 20 percent acceptance rate for the 127,827 men who applied to enlist or reenlist, combined with the vacancies, demonstrated the problems the Army was having with recruitment and retention of qualified personnel in the enlisted ranks much earlier than America's

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[101] United States Congress, Senate, Sidney Anderson of Minnesota.

[102] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1913: Volume I* [Report of the Secretary of War and Reports of the Bureau Chiefs], Washington, DC: US Government Printing Office, 1914, 5–6. https://babel.hathitrust.org/cgi/pt?id=uiug.30112109525854&view=1up&seq=18&skin=2021

involvement in WWI.[103] Developing solutions to training and educating the labor pool from which the Army could draw required agreement amongst a wide variety of stakeholders. Not only was it a problem to find adequate leaders, soldiers, and specialized technical experts, but gaining support for programs was equally difficult.

The difficulty in recruiting personnel with special skills for the Army was not unique to 1913. Nor was it a problem only for the enlisted ranks within the Army. During the April 14, 1916, congressional session, Senator Atlee Pomerene proposed an amendment providing pay for military officers that would provide members of the US Army Dental Corps increased rank upon commissioning. The debate on the rank for dental officers led to Senator William Hughes shifting the conversation to the perceived disparity between the enlisted men and the officers in the US Army. Hughes focused the conversation on his belief that there was a caste society within the US military. This perspective led to several senators, including Senator George Chamberlain, disagreeing. Chamberlain provided an opposing perspective, stating the enlisted man in the Army is treated like a prince in comparison to other laboring men in the country. He considered the problem to be utterances from senators and other legislators who portrayed the military poorly and ultimately influenced the quality of men who enlisted to serve the country.[104] Wood may have anticipated the need for qualified officers should war come to America, but the problem identified in the 1913 *Annual Report of the War Department* and the Senate debate provide a preview of the problems that the

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[103] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1913*, 7.

[104] United States Congress, Senate, Discussion on National Defense, "Provides Pay for Officers," 64th Congress, 1st Session, April 14, 1916, 6125–6129, https://www.govinfo.gov/content/pkg/GPO-CRECB-1916-pt6-v53/pdf/GPO-CRECB-1916-pt6-v53-13-1.pdf

Army and America had to address during the world wars. The fighting was not limited to the front lines, with the battle to gain support by political leaders just as important.

As for the success of the military training camps, during the first year, in the summer of 1913, two camps were organized: one in Gettysburg, Pennsylvania, and one at the Presidio of Monterey in California. These were a good start, and after the success during the summer of 1913, Wood was not the only person to promote these camps. Henry S. Drinker, President Emeritus of Lehigh University and later Honorary President of the Military Training Corps Association, organized a committee to further promote the project in the hopes that the camps would expand. Not only did he have the support of General Wood and other influential university leaders, but President Wilson also supported the camps, stating in a September 22, 1913, letter, "I am very much interested in the successful working out of the idea of these college camps."[105]

During the summer of 1914, numerous military training camps provided examples of how large numbers of college and university students might be provided with an opportunity to develop their military knowledge and skills in preparation for a national emergency. These student camps provided an opportunity to develop both physically and militarily for those seeking an adventure during their summer break from school. Military training was not new in many universities. The 1862 Morrill Act required land-grant-established post-secondary institutions to provide "military tactics" training courses. Officially titled "An Act Donating Public Lands to the Several States and Territories which may provide Colleges for the Benefit of Agriculture and the Mechanic Arts," the act gave each state 30,000 acres of land

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[105] Henry S. Drinker, "The Military Training Camps," *The Military Engineer* 23, no. 131 (1931): 448.

for each congressional delegate to sell and use the funds to establish public colleges.[106] These land-grant universities ultimately numbered sixty-nine in total, including Texas A&M University, Louisiana State University, Purdue University, and Cornell University, just to name a few. What was new was the concept of attending military training camps where students learned military tactics through application instead of simply classroom principles.

The military training camps focused on good citizenship, and they were intended for men either in post-secondary education or who could take time off their civilian occupations in the summer. The camps provided hands-on training in the outdoors, emphasizing physical activity. These camps needed men who were well educated and quick learners. Many of those who attended the camps were students receiving training in university classrooms from military officers such as Arthur Wagner. These military science professors were, and still are, detailed from the active force to provide instruction in military science and tactics. From time to time, the US military also allowed retired officers to conduct these activities. The plan for these military training camps was to place students in a field environment simulating a soldier's life while providing instruction. During the first camps, students were required to fund their own attendance including the cost of a uniform, board, and transportation.[107] As the interest in camps expanded, the military took on an increasingly influential financial role.[108]

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[106] Act of July 2, 1862 (Morrill Act), Public Law 37-108, 12 STAT 503, Which Established Land Grant Colleges, 07/02/1862; Enrolled Acts and Resolutions of Congress, 1789-1996; Record Group 11; General Records of the United States Government; National Archives Building, Washington, DC.

[107] Perry, *The Plattsburgh Movement*, 13.

[108] Telegram from President Warren G. Harding to Texas Governor Pat M. Neff, May 18, 1922, "Citizen's Military Training Camps, May 18 - August 25, 1922," Texas Governor Pat M. Neff Records, Box 301-394, Folder 14. Archives and Information Services Division, Texas State Library and Archives Commission.; The telegram notified Neff that the upcoming summer training camps would be of no cost to "every young man willing to prepare himself for the defense of his country."

By 1915, what is known today as the Plattsburgh Movement began to take shape. Meeting with business and professional men in New York City, Grenville Clark asked General Wood about having a training camp for business and professional men. Wood agreed, and the Plattsburgh Movement enabled students and businessmen to attend these combined camps. The continued interest and growth resulted in more than 3,400 men attending camps across the United States in 1915, and more than 16,000 attending in 1916. The schedule during these camps was quite grueling. The attendees learned military tactics, weaponry, and the functions of the diverse types of units such as cavalry, engineers, and artillery. Attendees received hands-on marksmanship training as well as learning-by-doing while living and conducting military operations in the field environment. While many saw the value in these military training camps between 1913 and 1916, others pointed out the lack of attention paid to the Morrill Act at land-grant colleges.[109]

One man who felt the summer training camps did not accomplish enough was Edward Orton, Jr., Dean of the College of Engineering at the Ohio State University. Orton was not only an academic but later a military officer in the US Army Reserve Corps and contributor to the National Defense Act of 1916. To understand the negative feelings towards these training camps, an examination of Orton's address to the Joint Session of the Section on College Work in Administration and of the Engineering Association of the Land-Grant Colleges during its afternoon session on November 13, 1913, provides perspective. In his address to the attendees, Orton referred to the Morrill Act's words "and including military tactics" as he pointed out the disparity amongst military departments and the process by

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[109] Edward Orton, Jr., *The Status of the Military Department in the Land-Grant Colleges*, submitted to a Joint Session of the Section on College Work and Administration and of the Engineering Association of the Land-Grant Colleges, quoted in Ira L. Reeves, *Military Education in the United States* (Burlington, VT: Free Press Printing Company, 1914), 90–98.

which different colleges maintained military instruction.[110] Orton's concern regarding the lack of uniformity and the "wrong mental attitude which most of these colleges assume toward military instruction" supported his perspective that military drill could and should be improved to support the needs of the country and the colleges. While Orton supported the student camps, he pointed out that attendance was voluntary and did not go far enough in training cohorts of potential military officers. Orton saw the military training camps as simply a duplicate process, which he considered an ineffective method of producing reserve status officers for potential active duty. While many business, educational, and military leaders supported these camps, Orton showed that the support was not universal. Regardless of complaints, the development of servicemembers remained a growing priority for the US military.

In the 1915 *Annual War Department Report*, Chief of Staff General Hugh L. Scott pointed out that the US Army continued to focus on military training and education. The report explained that providing military training and educational instruction to prisoners convicted of military offenses allowed the Army to restore these men back to duty. As for the military camps of instruction, Scott wrote in the report that three additional camps were established throughout the year for businessmen interested in learning how to prepare the country for defense while gaining practical knowledge of soldierly duties. The Chief of Staff's personal belief outlined in the annual report was that the benefit of the camps was far-reaching. Scott provided insight into the locations selected for these training camps. He highlighted that the camps occurred on military posts due to a lack of funds available to meet

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[110] Edward Orton, Jr., *The Status of the Military Department in the Land-Grant Colleges*, submitted to a Joint Session of the Section on College Work and Administration and of the Engineering Association of the Land-Grant Colleges, quoted in Ira L. Reeves, *Military Education in the United States* (Burlington, VT: Free Press Printing Company, 1914), 90–98.

expenses. Those conducted on public and private lands required the citizens or communities to incur the expenses for constructing the camps. Scott's analysis was that the camps had "passed the experimental stage," and he advocated for additional funding, saying the amounts, while not large, should be allocated to ensure men without the means to furnish their own uniforms and travel expenses might still show their patriotism and attend.[111]

Scott also mentioned military instruction in colleges, opining that a dependable supply of reserve officers might be gathered from these institutions. The need for a focus on manpower remained a key factor in Army efforts. In referring to the land-grant institutions receiving endowments from the government and providing instruction in military tactics, Scott reported, "I regret to say that the successes have not been very encouraging."[112] It was in this report where Scott outlined what eventually became standard practice for the US military's ROTC program. The consistent changes over the first few years of the training camps may have created some skepticism but provide insight into how the best practices led to a merging of educational and military hands-on training.

The Military Training Camps Association was a combination of several initiatives.[113] The combined efforts of Wood, the War Department, and university presidents resulted in the Federal Citizens Training Camps or student camps, successfully starting in 1913. The same year, the men who attended the camps also formed The Society for the National Reserve Corps and promoted training camps in America. The men who attended the student camps

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[111] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1915*, 159–160.

[112] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1915*, 160–161.

[113] Ralph B. Perry, *The Plattsburgh Movement: A Chapter of America's Participation in the World War* (New York: E. P. Dutton & Co., 1921), 1–5.; United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1913*, 5–6.; Henry S. Drinker, "The Military Training Camps," *The Military Engineer* 23, no. 131 (1931): 448.

merged into an association titled The Military Training Camps Association of the United States, which allowed attendees at the federal training camps to meet the criteria to join. There were significant recruiting efforts to publicize the value of the camps and by 1916, the partnership with the War Department resulted in the National Defense Act of 1916 authorizing the War Department to fund transportation, uniforms, and sustenance for the training of attendees at the federal training camps.[114] Additionally, the Military Training Camps Association paved the way for the Students' Army Training Corps (SATC), by which the War Department's Committee on Education and Special Training partnered with universities and colleges across America to provide special military-intensive courses funded by the government as part of an emergency measure to train college men as military officers.[115]

With much of the world watching the Great War unfold, 1916 became a watershed year for change in American military policy. The National Defense Act of 1916 updated the Militia Act of 1903 and outlined the expansion of the Army and National Guard while creating enlisted and officer reserve corps. The 64th Congress, in the National Defense Act of 1916 (An Act for Making Further and More Effectual Provision for the National Defense, and for Other Purposes), addressed the composition of national defense forces as authorized by law, expanded presidential authority over the National Guard, modified enlistments in the regular army to include furlough into the Regular Army Reserve for enlisted men, and

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[114] Telegram from President Warren G. Harding to Texas Governor Pat M. Neff, May 18, 1922, "Citizen's Military Training Camps, May 18 - August 25, 1922."; United States Sixty-Fourth Congress, "The National Defense Act of 1916," 1916.

[115] United States War Department, *Special Regulations No. 103. Students' Army Training Corps Regulations* (Washington, DC, 1918), 11–13, https://archive.org/details/studentsarmytrai00unit/page/n3/mode/2up.

provided a detailed explanation of the Officers Reserve Corps.[116] Additionally, the National Defense Act of 1916 included specific guidance in regard to soldiers' opportunities to study and receive instruction to both prepare them in their military occupations and "enable them to return to civil life better equipped for industrial, commercial, and general business occupations."[117] American leaders began focusing on the needs of the military, servicemembers, and American economy collectively.

The 1916 legislative session was a year of momentous change for both the military and American universities and colleges. The National Defense Act of 1916 included the Pomerene-Gard Bill. As part of the act, Congress established the ROTC program, allowing military courses to be conducted at universities and colleges across America. By 1917, the ROTC program was in full swing at universities such as the Massachusetts Institute of Technology, the Ohio State University, the University of California, and the University of Texas, to name a few. Not only did these courses focus on military training, but some universities, such as Ohio State, established schools of Aeronautics as early as 1917.[118] These joint programs led the way for technical training soldiers needed during both world wars.

Continued Expansion of the Military Training Camps and ROTC Programs

While expanding beyond the American involvement in WWI, it is worthwhile to cover the support for the camps beyond the war. During the 1920s, the partnership between the US Department of War, state leadership, and American universities continued to expand. The military training camps became more popular, leading to increased involvement by

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[116] United States Congress, *The Statutes at Large of the United States of America from December 1915 to March 1917*, 64th Congress, 1st Session (Washington, DC: US Government Printing Office, 1917), 166–187. https://tile.loc.gov/storage-services/service/ll/llsl//llsl-c64/llsl-c64.pdf.

[117] United States Congress, *The Statutes at Large*, 186.

[118] Hammond, *Ohio State Prepares for World War I*.

American political leaders. In his letter to Texas Governor Pat Neff dated September 21, 1921, John W. Weeks, the US Secretary of War, commented on the marked success of the Texas training camps conducted that summer.[119] In his reply, Governor Neff endorsed the camps and stated that he had visited several times and "was impressed by the splendid conduct of these young Texans, and the excellent training they were getting which seemed most conducive to a spirit of reverence for law and order, a desire for right living, and a love of country."[120] The post-WWI support for the camps demonstrated the success of the partnerships between multiple stakeholders. The military continued its efforts into 1923, seeking support from Governor Neff by extending an invitation to visit the summer camps of the regular Army, reserves, Citizens' Military Training Camps, and ROTC camps that were to be held in Texas, Oklahoma, Colorado, New Mexico, and Arizona that summer.[121] While the total number of National Guard troops participating exceeded 13,000, the ROTC participants—minus reserve officers—totaled 1,084, whereas the Citizens' Military Training Camps projections were 3,000 attendees.[122] The Eighth Corps Area information flyer on the Citizens' Military Training Camps for the summer of 1923 demonstrated the complexity these camps achieved in ten years. To encourage continued attendance, published

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[119] Letter from Secretary of War John W. Weeks to Texas Governor Pat M. Neff, September 21, 1921, "Citizen's Military Training Camps, September 21 – October 7, 1921," Texas Governor Pat M. Neff records, Box 301-394, Folder 13, Archives and Information Services Division, Texas State Library and Archives Commission.

[120] Letter from Texas Governor Pat M. Neff to Secretary of War John W. Weeks, October 7, 1921, "Citizen's Military Training Camps, September 21 – October 7, 1921," Texas Governor Pat M. Neff records, Box 301-394, Folder 13, Archives and Information Services Division, Texas State Library and Archives Commission.

[121] Letter from General E. M. Lewis, Commander Eighth Corps Area, Fort Sam Houston, Texas to Governor Pat M. Neff, May 2, 1923, including a "summary of training activities, summer 1923," "Citizen's Military Training Camps, April 4 – Sept. 18, 1923," Texas Governor Pat M. Neff records, Box 301-394, Folder 15, Archives and Information Services Division, Texas State Library and Archives Commission.

[122] Letter from General E. M. Lewis, Commander Eighth Corps Area, Fort Sam Houston, Texas to Governor Pat M. Neff, May 2, 1923.

advertisements informed the public that attendees would receive "a month's vacation with all expenses paid by Uncle Sam" and communicated to parents that attendees would be well cared for, offering them the opportunity to visit to see how these "lads live and learn."[123] By 1923, these camps had transformed into four phases, with attendees learning and growing over a period of years. The focus on education was evident, as the first two courses required attendees to read and write in English, the third course required a minimum of a grammar school education, and the fourth course required a high school education.

One problem with the military training camps was that the enlisted men were the ones who performed most of the equipment maintenance and fighting during a war. These men generally did not attend American universities and colleges. Moreover, if these men were farmworkers, they would not have the ability to attend these camps during summer sessions. Most of America still had a significant agricultural labor force, and due to the maintenance of crops, many of those who might be considered for conscription simply did not have the time to attend the training camps.

Many of the men who did not attend college did choose to enlist in the Army during wartime. Army leaders acknowledged it was their job to prepare these men to be successful during combat operations. However, by 1916, there was also a focus on the enlisted soldier who would eventually leave the military and return to civilian life. To address this issue, on March 30, 1916, Michael Hoke Smith, a US senator from Georgia, spoke on the Senate floor, introducing an amendment to the Army reorganization bill under review by the Committee on Military Affairs. A specific feature of the amendment, which later became section 29a,

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[123] Citizens' Military Training Camps flyer printed 3-1-23, "Citizen's Military Training Camps, April 4 – Sept. 18, 1923," Texas Governor Pat M. Neff records, Box 301-394, Folder 15, Archives and Information Services Division, Texas State Library and Archives Commission.

was to allow soldiers on active duty an average of ninety-six hours a month to study and receive educational instruction not connected directly to their military service, but to prepare them for return to civilian life. The amendment language specifically focused on education and vocational areas such as agriculture and mechanical arts. The amendment also expressly recommended that civilian teachers be employed by the Army to assist Army officers. The specificity of the senator's recommendation illuminated the growing interest in preparing servicemembers for reintegration into civilian life.[124] This idea represented the early desire to support the reintegration of soldiers into American society. Senator Smith provided an example of how leaders sought to address the transition of servicemembers from the military back to civilian life much earlier than the passing of the G.I. Bill in 1944.

Summary of the Changes Leading Up To World War I

Many changes occurred in the five years preceding America's entrance into WWI. The transformation of organizational structure resulting from the Root reforms and Wagner's influence on how military leaders were trained—shifting from what was essentially on-the-job training to exercise-based knowledge development—created the structure to train higher level military leaders, but there was still a problem with technological changes and a need for the average soldier to read and write. The Army and American political leaders would soon realize that the experiences gained from the Napoleonic tactics of the American Civil War and the ability of the US Army to conduct constabulary operations such as it had in the Philippines at the beginning of the twentieth century would not be enough to avoid the problems that technological innovations brought. Chapter Three provides an in-depth review of the difficulties the US Army faced with large-scale military operations in the age of

[124] United States Congress, Senate, Michael Hoke Smith of Georgia on National Defense.

technological change. The problems the American Army identified during the 1916–1917 Punitive Expedition into Mexico had far-reaching effects on the training and education of servicemembers. The actions by American politicians, as well as the Army, were critical in preparing the United States for entrance into WWI. An examination of the partnerships between post-secondary educational institutions, the War Department's transformation from cavalry to a mechanized force, and the problems with increasing the size of the US military to fight the war demonstrates the significant demand on the US Army to ensure servicemembers were both literate and educated.

CHAPTER THREE: THE PUNITIVE EXPEDITION THROUGH WORLD WAR I

The Punitive Expedition, focus on literacy, and the Student's Army Training Corps program produced significant changes as a result of the Army's increased adoption of technology, influence of reform-minded leaders, and large military operations, which had a significant effect on the relationship between the US military and educational institutions during WWI. Under General Pershing's leadership, the Expedition was a significant effort, requiring thousands of US Army troops to manipulate wagons, pack animals, and motorized trucks throughout the Mexican desert in the largest maneuver of US forces since the American Civil War.[125] This operation identified many of the flaws within the Army's quartermaster system along with the need for additional training for the American state militia forces. As a result, Congress authorized an increase in the Army size, updated the status of the National Guard, and created an Army Reserve.[126] The mobilization of the Punitive Expedition helped the Army as it transformed from a cavalry to a mechanized structure. This not only improved operations during the Expedition, but the significant changes to the organizational structure of the Army had a substantial effect on the success of the American forces when Pershing led the American Expeditionary Forces in Europe only months later.

A continuation of change after the Punitive Expedition into WWI demonstrates how the strategic goals of the government and military poured money into new equipment and created conditions under which literacy became a requirement for many in the military service. This led to a partnership between the US military and educational researchers to

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[125] United States War Department, *Annual Report of the Quartermaster General to the Secretary of War*, Washington, DC: US Government Printing Office, 1917, 69-74.

[126] United States 64th Congress, "The National Defense Act of 1916."

identify, develop, and educate servicemembers who found it difficult to perform their duties in a satisfactory manner without the ability to read and write—and, in some cases, without formal advanced technical training. The examination of literacy rates by the War Department provided shocking statistics: 25 percent of the men called to duty in the 1910s either had a literacy rate so low that they were not effective within the Army, or they were illiterate altogether.[127] As a result of the Army's work with educators, literacy education within the Army began during the recruitment process when potential men with no other impediments were assigned to developmental battalions for education. This proved to be successful, and in a matter of weeks those who would previously have been turned away were educated to a point at which they would be effective within the Army. While a focus on literacy was significant, the SATC was at the other end of the spectrum, providing educational opportunities at colleges and universities across America.

At the beginning of the twentieth century, the US Army found itself fighting a guerrilla force throughout many parts of the Philippines. The Army spent a few years in the Philippines with leaders including General John J. "Blackjack" Pershing, learning how to lead soldiers and fight in the jungle.[128] The US military forces, including the Army and the Marine Corps, fought against a motivated insurgency from 1899 to 1902. During this time, the Army's leaders learned many lessons as they focused on small unit tactics.[129] At the

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[127] United States Department of Commerce, *Thirteenth Census of the United States: 1910*, United States Summary (Washington, DC: US Government Printing Office, 1913), 239.; Robert M. Yerkes, *Psychological Examining in the United States Army: Memoirs of the National Academy of Sciences* (Washington, DC: US Government Printing Office, 1921), 743.

[128] United States War Department, *Annual Report of the Secretary of War for the Year of 1902*, Washington, DC: US Government Printing Office, 1902, 18-19.; Captain Pershing was under the Fifteenth Calvary and the annual report recorded Pershing as leading an expedition on September 28th, 1902, where he inflicted severe casualties on the enemy killing 40-50 and only incurring the wounding of two of his men.

[129] Andrew J. Birtle, *U.S. Army Counterinsurgency and Contingency Operations Doctrine 1860-1941* (Washington, DC: Center of Military History, United States Army, 2004), 147–182.

beginning of the twentieth century, the Army focused its training on responding to guerrilla tactics during the American Westward expansion, as well as in foreign operations such as the Philippines. While not necessarily beneficial for large-scale operations, these experiences served the Army well during the March 9, 1916, raid by Mexican rebel leader Pancho Villa on Columbus, New Mexico. The lessons learned by the US Army following the raid, during the Punitive Expedition, helped the Army identify problems, develop leaders, and prepare the United States to enter WWI. The literacy problems and programs identified a need to standardize training and take steps to ensure those brought into the military were placed in jobs where they could most effectively support the war effort. The legacy of Pancho Villa's 1916 raid and the Punitive Expedition was far-reaching and provided a lens from which to see the connection between the changing military and the Army's involvement in educational programs.

Mexican Political History

Between 1910 and 1920, Mexico experienced significant turmoil as several influential leaders attempted to gain power and become Mexico's president. The competition for authority and desire to become the president of Mexico by leaders such as Victoriano Huerta, Emilio Zapata, Francisco Madero, Pancho Villa, and José Venustiano Carranza created conditions that eventually led to the raid on Columbus, New Mexico.[130] The factors leading up to the event are quite detailed, but a summary can frame the situation and the influences on the US military. By understanding how the raid influenced the US Army, one can also see how the raid benefited the US Army as it prepared its forces to enter the European theater during WWI.

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[130] David D. Romo, *Ringside Seat to a Revolution* (El Paso, TX: Cinco Puntos Press, 2005), 108–114.

For a quarter-century, Porfirio Diaz served as the president of Mexico. By 1910, he had entered his eighth term of office and had grown quite unpopular. Diaz began seizing power in the 1880s, when the country was in turmoil and sought a political answer to bring about order.[131] While this worked for many years, eventually others such as Francisco Madero, Diaz's opponent in the 1910 election, challenged him, calling for him to step down from the presidency. Madero thought the change in power might occur without bloodshed if he were to be elected president, but after being nominated for president by the antireelectionist party, Diaz had Madero arrested.[132] Skipping bail, Madero eventually was exiled to San Antonio, Texas. From San Antonio, Madero called for an armed uprising against Diaz, and by 1911, Madero had been officially elected president of Mexico. The desire of peasants in Mexico for land reform, coupled with the aspirations of many key Mexican leaders, ultimately led to political instability throughout the country. The struggle for power in Mexico had just begun with Madero's election. In 1913, forces led by Mexican General Victoriano Huerta assassinated Madero in an attempt to gain control of the country. This continued change in leadership exacerbated the political instability, since many influential men in Mexico, such as Carranza, were opposed to Huerta assuming power.

Several leaders rebelled against Huerta, assuming positions of power within their individual regions of Mexico. As a result, the country became fractured, with political and military power becoming decentralized in the hands of regional leaders. Regional leaders in Mexico such as Emiliano Zapata, Francisco "Pancho" Villa, Venustiano Carranza, and Alvaro Obregon put considerable effort into their goal of ultimately becoming the recognized

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131 White, "The Muddied Waters of Columbus, New Mexico," 72–98.

132 Romo, *Ringside Seat to a Revolution*, 66.

president of Mexico.[133] Their efforts forced Huerta into exile in the United Kingdom, Spain, and eventually the US, and Carranza replaced him as president.[134] As a key regional leader, Villa had a good relationship with Americans and even met with American General John J. Pershing on a few occasions. Villa considered himself a protector of American interests and looked out for Americans living in northern Mexico. Villa's relationship with the Americans was, however, no guarantee of political support. By October 1915, American President Woodrow Wilson recognized Carranza as the legitimate president of Mexico.[135] Villa saw this as a betrayal to his loyalty to America.

Of course, recognizing Carranza as Mexico's president was not the only action that angered Villa. Carranza and Villa both used their military forces as a means of control and influence in Mexico. Villa was angered that President Wilson did not just put his voice behind Carranza, but he also allowed the transport of Carranza's Mexican military forces on American railroads. The transporting of Carranza's troops through Douglas, Arizona, and eventually back to Agua Prieta, Mexico, created significant losses for Villa. This ability of Carranza's forces to maneuver more efficiently than Villa's forces led to Villa's defeat by Carranza's forces.[136] This betrayal by the United States resulted in Villa not only losing more

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[133] United States Department of State, *Papers Relating to the Foreign Relations of the United States: With the Address of the President to Congress, December 7, 1915*, House Document No. 1864, (Washington, DC: Government Printing Office, 1924), 643-670.; The interest of the US in Mexico was so significant in 1915 that 453 pages of the 1330 pages in the papers contained documents under the Mexico section (pages 643-1096).; Romo, *Ringside Seat to a Revolution*, 150–197.

[134] *The New York Times*, "Special Cable to the New York Times," August 25, 1914, 6; *The New York Times*, "Carranza Departs as Zapata Nears," December 23, 1914, 20; *Times* (London), August 28, 1914, 11.

[135] "Letter from the US Secretary of State to the President of the United States," February 12, 1916, 9-13, included in the United States Senate document 324, 64th Congress, 1st Session, titled "Affairs in Mexico," (Washington, DC: US Government Printing Office, 1916).; United States Department of State, *Papers Relating to the Foreign Relations of the United States: With the Address of the President to Congress, December 7, 1915*, House Document No. 1864, (Washington, DC: Government Printing Office, 1924), 694-695.

[136] White, "The Muddied Waters of Columbus, New Mexico," 76.

than 75 percent of his fighters, but also in a change in his attitude towards Americans and how he viewed his relationship with the United States in general.[137]

The 1916 Raid

The headquarters for the Columbus, New Mexico patrol district was Fort Bliss, located in El Paso, Texas. A few important dates must be recognized before moving forward with details regarding the actual raid. In April 1914, the Regiment's headquarters and five Troops from the 13th Cavalry arrived in Columbus, New Mexico. A few weeks later, Army Colonel Herbert J. Slocum was assigned to command the 13th Cavalry Regiment, where his forces patrolled a sixty-five-mile stretch of the border between New Mexico and Mexico.[138] On May 9, 1914, Brigadier General Pershing arrived in El Paso in command of the 8th Infantry Brigade. He and the brigade had been reassigned from the Presidio of San Francisco due to the tensions building up along the United States-Mexico border.[139] At the same time, the majority of the 13th Cavalry Regiment was also located in El Paso.

To understand why the United States placed Army units along the border, we must understand a little more about the conditions in Mexico and the United States' relationship with the country in 1914. Since the Mexican Revolution was well underway, many American authorities, including the Army, had confiscated weapons and ammunition from Mexicans seeking to cross the border into the United States.[140] The context of US Army operations along the border demonstrated the skills needed by soldiers to support current operations. Small military engagements continued, preventing the Army from adopting improvements in

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[137] White, "The Muddied Waters of Columbus, New Mexico," 76–77.

[138] Joseph A. Stout, *Border Conflict: Villistas, Carrancistas, and the Punitive Expedition, 1915-1920* (Fort Worth, TX: Texas Christian University Press, 1999).

[139] United States War Department, *Annual Report of the War Department,* 1916, volume 1, 7-13, 189-191.

[140] "Hostilities with Mexico," *Army and Navy Journal,* April 25, 1914, 1080–1081.

training and educational programs. While the turn of the century brought about some changes, reform-minded leaders, technological changes, and large military operations were yet to be combined in a way that led to partnerships between post-secondary education and the US military. The Mexican Revolution eventually led to changing conditions within the US Army, which had far-reaching consequences.

The hostilities with Mexico in 1914 were also exacerbated by the Tampico incident, in which American forces occupied Veracruz.[141] According to the account in the 1914 *Army and Navy Journal*, on April 21, 1914, when President Wilson was notified that "the Hamburg-American liner Ypiranga was approaching Veracruz, bearing 200 machine guns and a large amount of ammunition," Wilson directed the US Navy to ensure these arms did not reach Huerta.[142] Less than three months later, Huerta, who had assumed office by overthrowing Madero in a coup in 1913, resigned. His continued losses against the forces of Carranza and Villa culminated in the Battle of Zacatecas, which led to the destruction of the Mexican Federal Army and therefore Huerta's ability to maintain his position of power. As for the Americans in Veracruz, Villa was the only rebel leader who did not condemn the occupation of Veracruz, or the seizing of the German-supplied weapons.[143] This demonstrated Villa's earlier loyalty to the United States.[144]

Returning to the 13th Cavalry Regiment, the organization of its men on the night of Villa's raid on Columbus, New Mexico is an important consideration. At the time of the

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[141] Navy Department, *Annual Report of the Secretary of the Navy for the Fiscal Year, 1914*, Washington, DC: US Navy, 1914: 468, 470–471.

[142] "Hostilities with Mexico," *Army and Navy Journal*, 1080.

[143] "Veracruz is Seized by U.S.: Villa Says He Will Back U.S.," *The Graham Guardian*, April 24, 1914, No. 10, 1.; Romo, *Ringside Seat to a Revolution*, 179.

[144] "Details of the Mexican Situation: Attitude of Constitutionalists," *Army and Navy Journal*, April 25, 1914.

attack on Columbus, the 13th Cavalry had seven troops with a total of approximately twenty-five officers and 650 men.[145] It is important to note that in the camp itself, there were only about 350 men at the time of the raid. The fact that almost half of the soldiers were not in the camp was a result of Colonel Slocum's security plan. He had mounted patrols that traveled along the border at irregular intervals as well as fixed stations in a few of the nearby ranches.[146] With about sixty-five men at the Columbus border gate and roughly 125 men fifteen miles away at a local ranch, he had a plan to "screen" the border for illegal crossings. However, Villa was able to circumvent the patrols and checkpoints through his own intelligence gathering but Villa's information was not always accurate. The failure of the Mexican forces during the raid were also influenced by Villa's poor intelligence gathering regarding the number of soldiers currently stationed at the camp in Columbus. Villa believed there were only about fifty soldiers at the camp just prior to the attack.[147] The difference between 50 and 350 was a problem Villa's men did not expect.

Unlike the other key leaders in the story of the Mexican Revolution, Villa played a significant part in influencing the US Army prior to the American entrance into WWI. Villa was born in the Mexican state of Durango and given the name Doroteo Arango.[148] During his teenage years he changed his name to Francisco Villa and in 1911 was commissioned a captain in the Madero Army.[149] This experience would ultimately lead to him being loyal to

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[145] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1915*. 13, 23, 189–191.

[146] *Report of Colonel H. J. Slocum on the Columbus Raid*, 5th Endorsement, 18 May 1916, Record Group 391, National Archives II, College Park, MD.

[147] Prieto, *The Mexican Expedition 1916-1917*, 19.

[148] White, "The Muddied Waters of Columbus, New Mexico," 72.

[149] White, "The Muddied Waters of Columbus, New Mexico," 72.

Madero and coming out of retirement to fight against Huerta.[150] Some say that Villa saw himself as a larger-than-life character. Technology influenced both Villa and the US Army, although in different ways. Villa capitalized on motion pictures to improve his own publicity. *The New York Times* reported in 1914 that Villa sold "the Mutual Film Corporation of New York exclusive film rights to all Villista battles."[151] As time went on, being filmed in battle may have influenced Villa's military decisions. For instance, Villa wore uniforms provided by the film company, and the mayor of El Paso even accused the *El Paso Times* of selling favorable coverage to Villa for $10,000 in gold.[152] Villa may have been ahead of his time in using the social media of the day to promote his popularity and achievements; however, his influence on the US Army was much more significant.

Villa was a powerful leader in northern Mexico in 1914. While Villa continued to project his friendship for Americans, he also entered El Paso, Texas in late April 1914 with thousands of armed men, prepared to fight in Juarez, Mexico or El Paso, Texas.[153] This was a time when Villa was at his most powerful. In battles after 1914, Villa fought against Obregon at Celaya, losing somewhere between 6,000 and 8,000 men, who were difficult to replace.[154] In the 1915 battle of Agua Prieta, Villa was defeated by Carranza's forces, who had logistical assistance from the United States. By the time Villa and his forces were planning their attack

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150 Clarence C. Clendenen, *The United States and Pancho Villa: A Study in Unconventional Diplomacy* (Ithaca, NY: Cornell University Press, 1961), 11–32.

151 "Villa at the Front: 'Movies' Sign Him Up," *The New York Times*, January 7, 1914.

152 "Times Took Money from Villa; Mayor Talks Out in Meeting," *El Paso Herald*, July 14, 1916.

153 Juarez, Mexico, and El Paso are separated only by a border on paper, and the Rio Grande River physically. In 1914, they were essentially the same city as residents moved freely between the two.

154 Robert E. Quirk, *The Mexican Revolution 1914-1915: The Convention of Aguascalientes* (New York: W. W. Norton and Company, Inc., 1960), 200–225.

on Columbus, he had roughly 800 men, and his friendship towards Americans had turned to bitterness.[155]

During Huerta's time as the Mexican president, President Woodrow Wilson sent envoys to meet with Villa and report back to the Wilson administration.[156] While some of these men, such as Gregory Mason, viewed Villa as a bandit, they also added validity to his position of power and authority simply by meeting with him. Villa may have seen this outreach as potential support for him personally. Later, when Wilson provided support to Carranza's forces, Villa's understanding of Wilson's position became clear. As a result, Wilson was influential, even if only by a small part, in Villa's raid on Columbus, New Mexico.

The conflict surrounding the support of Carranza's forces by President Wilson exacerbated the situation with Villa. While in the past Villa had sought to protect the interests of Americans both personally and from a business perspective, times had changed, and Villa found himself losing prestige and in need of supplies. In the early morning of March 9, 1916, Villa and his forces moved north from his southern Chihuahua headquarters towards Columbus, New Mexico.[157] Some say that Villa was looking to exact revenge on the Americans for supporting his enemies and causing him to lose the battle at Agua Prieta. Ronald Atkin provides a more pragmatic interpretation, saying, "Though Villa never explained his reasons for attacking Columbus, there seems little doubt that the prime object

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[155] James A. Sandos, "German Involvement in Northern Mexico, 1915-1916: A New Look at the Columbus Raid," *Hispanic American National Review* 50, no. 1 (1970): 77, https://doi.org/10.1215/00182168-50.1.70.

[156] Gregory Mason, "With Villa in Chihuahua," *Outlook* (May 2, 1914): 75–78.

[157] Haldeen Braddy, "Pancho Villa at Columbus: The Raid of 1916," *Southwestern Studies* 3, no.1 (Spring 1965): 10-13.

was to pick up guns, horses, money, and as much incidental booty as possible."[158] Other authors highlight the fact that Villa had previously purchased firearms and ammunition from Sam Ravel, a local merchant, and that prior to the raid Ravel had taken payment for a shipment he had yet to deliver.[159] The 13th Cavalry's dispersal patrolling sixty-five miles of the border between the United States and Mexico left an opportunity for Villa to enter the United States in between the fixed cavalry unit outposts. Villa's forces simply needed to avoid the patrols.

By March 1916, Colonel Slocum had been in command of the regiment in Columbus for more than a year. During that time, few exciting events occurred and, as soldiers do, everyone fell into a routine. The small town of Columbus, with only a few hundred citizens, was twice the size when considering the soldiers of the 13th Cavalry. These numbers affected the town, and soldiers interacted with the citizens in official and unofficial capacities regularly. Many of the Army officers who brought their wives to Columbus lived within the town, while the soldiers and unmarried officers lived on the south side of town between Columbus and the border gate marking the United States and Mexico. By 1916, as there was concern that Villa might attempt to travel to Columbus, Slocum sought out information on Villa's movements. Slocum was under orders not to enter Mexico, and therefore paid Mexican "scouts" to provide information on Villa's whereabouts.[160]

The terrain was beneficial to Villa. Late in the evening of March 8, Villa and his forces crossed the border, entering the United States, and hid in an arroyo.[161] There they

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158 Ronald Atkin, *Revolution! Mexico 1910-1029* (London, UK: Panther Publishing, 1969), 279.

159 White, "The Muddied Waters of Columbus, New Mexico," 87.

160 Hurst, *Pancho Villa and Blackjack Pershing*, 20–25.

161 Braddy, "Pancho Villa at Columbus," 15.

waited until the moon went down and at approximately 4:15 AM on March 9, Villa's forces attacked the 13th Cavalry. First Lieutenant John P. Lucas, who incidentally would later become a division commander in WWII, was one of the first to be engaged by Villa's forces. Lucas commanded the Regiment's machine gun troop, and after being engaged by Villa's men, he quickly rallied his forces along with other officers of the 13th Cavalry. Regardless of whether Villa's forces wanted to acquire fresh horses, meet up with Ravel for the weapons they had paid for, or loot the stores within the town, the Mexicans were surprised by the number of American soldiers in the cavalry camp. Over the next two hours, the forces of Villa and the 13th Cavalry engaged each other as the cavalry troops defended the town and routed Villa and his forces towards the southwest.

The Punitive Expedition

The raid on Columbus, New Mexico was the first military action against an armed enemy on American soil since 1812. While Villa and his forces lost an estimated 150–200 men during the raid, the actual numbers are disputed. Compared to eight troopers from the 13th Cavalry, the long-term impact of Villa's actions ultimately benefited the US Army. As a result of American media and encouragement from leaders such as Major General Frederick Funston, the Commander of the Army Southern Department at Fort Sam Houston in San Antonio and medal of honor recipient, the US War Department directed the Army to send forces into Mexico "for the purpose of crushing General Francisco Villa."[162] This directive led to the establishment of the Punitive Expedition, and American officials notified the Mexican ambassador to the United States to inform General Carranza that the US

[162] Jeff Guinn, *War on the Border: Villa, Pershing, the Texas Rangers, and the American Invasion* (New York: Simon & Schuster, 2021), 134; "Our Troops Cross the Border," *Army and Navy Journal*, March 11, 1916, 893, 896.

government was taking action and did not need any cooperation from the Carranza government to enter Mexico or pursue Villa.[163] Before moving on to a discussion of the Punitive Expedition, this mentality may provide insight into the mindset of not only the American leadership, but of the American military. The confidence of American military and political leaders to enter another sovereign nation without any local support is not unique. The same approach can be seen with the entrance of American forces into the European theater of war during WWI. Pershing did not relinquish control of American forces for the British and French to use as replacements for their own units. His staunch belief that American fighting men belong above the ground with a focus on the war principle of maneuver, and under the command of American leaders, seems to be a continuation of the approach the American government took in informing the Mexican government regarding its actions during the Punitive Expedition.

Instead of focusing on the reasons why the American leadership decided to send military forces into Mexico to chase Villa, this focus is on the aspects of how the Punitive Expedition benefited the US Army. At the time, Major General Frederick Funston was senior to Pershing, but was not selected to lead the expedition for political reasons. The decision was ultimately beneficial to the United States, since Funston died just prior to the United States entering WWI. Proximity to the Mexican border may have also been a factor, since when Pershing was selected to lead the expedition, he was in command of the 8th Infantry Brigade at Fort Bliss, Texas, just ninety miles from Columbus. Pershing's selection to lead the Punitive Expedition would have far-reaching influence on the future changes in training and education of servicemembers during and after WWI.

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[163] "Our Troops Cross the Border," *Army and Navy Journal*, 893, 896.

After political decisions were made regarding American military forces entering Mexico, the United States put significant effort into logistical processes to support the substantial number of troops moving into Mexico. The United States did have between 18,000 and 19,000 regular Army troops on the border with Mexico in March 1916.[164] The Secretary of War, along with military generals, took the number of available soldiers into consideration, and according to a 1916 article in the *Army and Navy Journal*, American leaders planned that approximately "8,000 men will be sent on the expedition."[165]

Brigadier General John J. Pershing was placed in command of the Punitive Expedition, with specific instructions to round up Villa and—more importantly—eliminate the Villistas who supported him. Pershing organized his forces so they could operate within the harsh desert conditions of northern Mexico, but he also factored in that Mexican President Carranza had denied the use of Mexican railroads to American military forces.[166] This was a significant constraint for the American Army, and it required the Army to use wagons, pack animals, and obtain motorized trucks to move supplies.[167] The vast size of American forces, combined with the limitations of maneuvering within Mexico, exposed many of the flaws with the United States Army's quartermaster system of the time.

As a commander, Pershing allowed decision-making freedom through decentralized operations, using multiple columns while moving south into Mexico.[168] The lack of intelligence due to the locals siding with Villa, the unavailability of maps, and consistent

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164 "Mexican Bandit Raid on US Territory," *Army and Navy Journal*, March 11, 1916, 896–897.

165 "Mexican Bandit Raid on US Territory," *Army and Navy Journal*, 896–897.

166 Prieto, *The Mexican Expedition 1916-1917*, 25.

167 Julie Irene Prieto and Roger G. Miller, *The Mexican Expedition 1916-1917: The Punitive Expedition against Pancho Villa and the Mexican Revolutionaries* (Washington, DC: Center of Military History, United States Army, 2017), 51–57.

168 Prieto, *The Mexican Expedition 1916-1917*, 30.

sustenance issues highlighted problems with the Army's systems and processes. These problems also required the Army to develop solutions over the several months of the expedition. Another major influence on the US Army of the raid in Columbus was congressional authorization to increase the Army in size, approve a dual state/federal status for the National Guard, and create an Army Reserve.[169] While Congress did not officially authorize these changes until June 1916, there was an obvious connection to the Columbus raid. Julie Prieto cited that President Wilson declared "a partial mobilization for a 'punitive expedition' and to defend the border" after the raid.[170] The correlation between that declaration and Congress's authorization to support military changes just a few months later is straightforward. The need for more soldiers and modern equipment identified literacy and skill gaps amongst the ranks and potential recruits.

At the beginning of the Punitive Expedition, the Army owned a few trucks but was not the mechanized organization it would be just a few years later.[171] The Army purchased vehicles in an effort to increase their speed across the desert while chasing Villa.[172] Even in early March 1916, there were only sixteen trucks in the Southern Department and 105 trucks and fifty-six cars in the entirety of the Army.[173] The US Army learned many lessons while using vehicles on a large scale for the first time. Early in the expedition, when the few

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169 Prieto, *The Mexican Expedition 1916-1917*, 5.

170 Prieto, *The Mexican Expedition 1916-1917*, 5.

171 United States War Department, *Annual Report of the Quartermaster General to the Secretary of War*, Washington, DC: US Government Printing Office, 1913, 55–57.

172 "The Expedition into Mexico," *Army and Navy Journal*, April 1, 1916, 989, 992.

173 Prieto, *The Mexican Expedition 1916-1917*, 49.; United States 63rd Congress, "Deficiency Appropriations for 1915 and Prior Years," 3rd Session, Government Printing Office.; United States 64th Congress, "An Act Making Appropriations to Supply Urgent Deficiencies in Appropriations for the Military Establishment for the Fiscal Year Nineteen Hundred and Sixteen," 116-118.; The Army had so few automobiles that in 1914 the Assistant to the US Army Chief of Engineers, Lieutenant Colonel Harry Taylor, testified in front of Congress that Army engineers only had two cars and were requesting from Congress approval for a third.

vehicles the Army was using would run out of fuel, units had to wait for the mules pulling wagons to arrive with the fuel canisters. The expedition assisted the Army in identifying issues that hampered successful operations and provided an opportunity for the Army to develop solutions prior to America entering WWI. These solutions ultimately required specialized training and literacy, both of which many recruits lacked during the Punitive Expedition and as America entered the First World War.

In 1916, the US Army forces stationed in the western part of the United States were mainly a cavalry-based organization. Columbus, New Mexico, as well as northern Mexico, generally lacked the vegetation needed for a large number of military units and their animals. Even while the 13th Cavalry was in Columbus, almost all the supplies were shipped from Fort Bliss. Alfalfa, food stores, coal oil, etc. were all shipped by railway from other parts of the country. Prior to the raid and subsequent expedition, the Army was generally supported by an agrarian supply line and could easily integrate illiterate troops.

It is easy to see the significance of the mechanized transition for the US Army during the Punitive Expedition. During the Expedition's eleven months, American forces in the southwestern United States and Mexico began with two truck companies and less than a year later had seventeen quartermaster truck companies moving supplies from Columbus, New Mexico to forward operating bases within Mexico. The War Department purchased numerous equipment, vehicles, and aircraft including 588 cargo trucks, twelve truck-mounted machine shops, six tow trucks, and fifty-seven tanker trucks during the expedition.[174] These significant changes to the organizational structure of the Army had a

[174] United States War Department, *Annual Report of the Quartermaster General to the Secretary of War,* Washington, DC: US Government Printing Office, 1917, 3.; Prieto, *The Mexican Expedition 1916-1917*, 50.

tremendous effect on the success of American forces when Pershing led the American Expeditionary Forces in Europe. Operations during WWI demonstrated how organizational structure changes and the adoption of technology significantly affected how the Army tested potential recruits and highlighted the need for specialized technical experts.

The US Army Chief of Staff Hugh L. Scott, in his Report of the Chief of Staff to the War Department, made several observations on the use of "motor trucks" and "motor cycles." While testing motor trucks within the US Army, the military kept detailed records on whether these vehicles were economically sound, efficient, and durable for operations.[175] Scott's report identified that the use of these vehicles to transport supplies to outlying camps along the border between Texas and Mexico showed them to be "entirely dependable, even over difficult roads."[176] The Army considered the trucks to be reliable but in the same report highlighted that road conditions were a major problem for these trucks. The Army also examined the idea of using trucks and trailers but still had to contend with the problem of road conditions. To work on resolving the road concerns, the Army staff from the Quartermaster Corps in 1916 reached out to manufacturers to discuss the possibility of developing tractors that could pull several trailers on these unimproved roads.[177]

This was a time when the United States Army experimented with modern technology as a means to operate more efficiently and effectively along the Texas border. During the 1916 fiscal year, the Army used twenty-five motorcycles to deliver messages at the

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[175] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1915*, 163.

[176] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1915*, 163.

[177] United States War Department, *Annual Report of the Quartermaster General to the Secretary of War*, Washington, DC: US Government Printing Office, 1917, 69-73.

headquarters as well as along the Texas border camps. It seemed that these motorized cycles were of significant interest to the US Army Signal Corps. In the 1916 report from the Chief Signal Officer to the War Department, Brigadier General and US Army Chief Signal Officer George P. Scriven opined that the motorcycle was reliable and dependable for communication and recommended the Signal Corps be provided one hundred motorcycles to assign to sections within the existing organization.[178] Scott's report to the War Department also considered these motor cycles to be efficient and a quick means of communication.[179] The use of trucks, motor cycles, and other mechanical changes was not the only focus for the Army, but it does seem to have taken center stage during the Expedition.[180] Not everyone wanted to move forward with the adoption of technology; the old Army was still focused on cavalry. Even with the transition to a mechanized force on the horizon, the Army continued its breeding of horses for military service and placed considerable effort into cavalry unit organizational structure, regulations, and equipment.[181] In contrast, by 1916, the Army was also using the aeroplane for observation and reconnaissance and was even experimenting with "aeroplane bombs."[182]

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[178] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1915*, 781.

[179] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1915*, 163.

[180] United States War Department, *Annual Report of the Quartermaster General to the Secretary of War*, Washington, DC: US Government Printing Office, 1917, 69-70.

[181] United States War Department, *Annual Report of the Quartermaster General to the Secretary of War*, Washington, DC: US Government Printing Office, 1917, 7, 74.; The Army Quartermaster General reported that during the 1916-1917 reporting year, the Army spent $3,701,958.96 to purchase trucks (excluding the Philippine Islands) and $1,864,713.00 on the purchase of horses. 55,000 animals were purchased during a three-month period to outfit the National Guard troops who arrived for service with few if any horses or mules.

[182] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1915*, 718.

More than 10,000 American servicemembers were involved in the Punitive Expedition. The Expedition included the first use of aircraft by the US Army in a military operation. As a result of this use, the impact of American forces chasing Villa's men in Mexico was far-reaching. The small town of Columbus, New Mexico had a population of about 300 in 1915, which grew to 15,000 less than two years later. This growth was a result of American forces using Columbus as a staging base for logistics from which the Army could supply the needed materials for the success of Pershing's forces. Buildings, tents, and the rail lines were all enhanced in support of military operations in Columbus. The use of aircraft added to this expansion, requiring the development of an airstrip on the south side of town.

While Pershing's forces had wagons, mules, and soldiers at the beginning of the Expedition, the addition of trucks was not the only example of the widespread expansion of technology used by the Army.[183] The introduction of aircraft into the Army demonstrated to leaders how the lack of technical expertise created difficulties in conducting military operations. While the Army began its school of flight training pilots in Texas prior to the Punitive Expedition, the fact that it had yet to use this technology in a military operation resulted in Army leaders failing to invest in significant training, education, and equipment for aviators.[184] The lessons the Army learned during its operations in Mexico eventually led the combination of reform-minded leaders, large military operations, and the adoption of

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[183] United States War Department, *Annual Report of the Quartermaster General to the Secretary of War,* Washington, DC: US Government Printing Office, 1917, 69.

[184] United States War Department, "Equipment for Aero Units of the Aviation Section (Signal Corps), Tentative," 1916, 7.; By 1916 the Signal Corps was working to standardize policy regarding equipment and the structure of the Aviation Sections. The fact that the officer in charge of the entire Aviation Section of the Signal Corps was a Lieutenant Colonel indicates a lack of importance and support at the Army level.

technology to begin investing in aviation assets through partnerships with post-secondary education. Aviators, however, had a difficult experience during the Punitive Expedition.

The 1st Aero Squadron arrived in Columbus on March 15, 1916 to support Pershing and the Expedition.[185] The leaders of the 1st Aero Squadron faced similar problems to those of the units attempting to integrate trucks into the Army. Luckily for the Army, the issues it faced by utilizing the aircraft over Mexico were a benefit in disguise. The aircraft flown by the 1st Aero Squadron lacked power and were poorly designed and the construction techniques used to develop them were shoddy at best.[186] While the US Army had used aircraft in the Philippines some four years earlier, the number of aviators even by 1913 only numbered a handful and the aircraft they flew were experimental. The lack of training for aviators and technicians led to all the Army aircraft in the Philippines being crashed beyond repair by 1915.[187] By 1916, the need for aviation support during the Punitive Expedition changed the emphasis on the program, and on March 15 the 1st Aero Squadron arrived in Columbus, New Mexico. The officer in charge of aviation assets was Captain Benjamin D. Foulois. He and his men arrived with eight JN-3 "Jenny" aircraft, which at the time were all the aircraft the US Army could muster outside of those at the aviation school in San Diego, California.[188]

Pershing and his forces had crossed into Mexico that same day and spent the next several months extending the Army's line of communication and expanding Pershing's

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[185] Prieto, *The Mexican Expedition 1916-1917*, 53.

[186] Dwight R. Messimer, *An Incipient Mutiny: The Story of the U.S. Army Signal Corps Pilot Revolt* (Lincoln, NE: Potomac Books, 2020), 214.

[187] Lee Arbon, *They Also Flew: The Enlisted Pilot Legacy 1912-1942* (Washington, DC: Smithsonian Institution Press, 1992), 15–20.

[188] "First Aero Squadron to Mexico," *Aerial Age Weekly*, Volume 3, No. 1, (New York: Aerial Age Company,) March 20, 1916, 24-25.; Arbon, *They Also Flew*, 38.

forces into what eventually became a group of districts patrolled by the US Army cavalry regiments. The role of the 1st Aero Squadron was significant but quite different from the way military aircraft were used during the world wars. During this Expedition, the Army was able to experiment with bombs and even machine guns, but the majority of the work conducted by the aviators related to reconnaissance and communications. The Army used the aircraft to scout for hostile forces and keep track of the location of Pershing's forces.

The challenges that Foulois and his aviators faced were a result of a lack of funds as well as a lack of standardization. The Army purchased aircraft from manufacturers on an *ad hoc* basis. Additionally, the lack of training within the US Army on how to transport, assemble, and maintain these aircraft led to the need for the squadron to develop their own processes without the benefit of an overarching approach from headquarters or education from attending post-secondary institutions. Fortunately for Pershing, the squadron's mechanical expertise extended beyond the use of aircraft. When Foulois and his squadron first arrived in Columbus, the Army forces on the ground had to rely on the trucks for logistical support. The problem was that the Army had few people with experience with motorized transport.[189] Fortunately, the 1st Aero Squadron had their own organic trucks and were able to assist in transporting equipment and men into Mexico. It was not until March 19 that Foulois and his men began conducting flights as they moved to Pershing's headquarters at Casas Grandes more than one hundred miles south of Columbus. Once they began, flight operations during the Expedition yielded numerous crashed airplanes and challenging flight

[189] United States War Department, *Annual Report of the Quartermaster General to the Secretary of War*, Washington, DC: US Government Printing Office, 1917, 69-74.

conditions and identified significant limitations with underpowered aircraft.[190] The aviation experiences demonstrated to Pershing the value of aircraft during military operations while also demonstrating to the Army and its aviators that poorly constructed aircraft needed to be addressed by the manufacturers.

A significant example the Army faced with these early aircraft was a problem with propellers. The climate in Mexico and the southwestern United States caused the glue holding the wooden propellers together to loosen, and at times the propellers would separate. On June 19, 1916, only thirty-five minutes into a flight, the propeller on pilot Lieutenant Chapman's plane broke off near the hub, and while he was able to land uninjured, the aircraft was destroyed.[191] Foulois communicated these problems to senior military leaders in the hopes that action could be taken to improve the quality of equipment and increase the safety of military aviators. The perspective on whether these Aero squadrons were effectively equipped and trained is unclear in some instances. On September 10, 1915, the US Army Chief Signal Officer and Brigadier General George P. Scriven reported that, in addition to other duties within the Signal Corps,

> enlisted men, recruited from intelligent men in civil life, are given severe training and practical instruction in telegraphy, telephony, and radiotelegraphy; as auto-mobile and aero motor drivers; and telegraph construction and maintenance; and cable laying and testing; in the use of scientific electrical and photographic apparatus; in the service of automobiles; in the inflation and handling of balloon; in scouting and reconnaissance work of aeroplanes.[192]

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[190] "Captain B.D. Foulois and Lieut. J.E. [or J.C.?] Carberry picked up by Mexican along road [in wagon] after their aeroplane had fallen 1500 feet - Mexican-U.S. Campaign after Villa, 1916," April 27, 1916. http://hdl.loc.gov/loc.pnp/cph.3b24490.

[191] Prieto and Miller, *The Mexican Expedition 1916-1917: The Punitive Expedition*, 143.

[192] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1915*, 737.

This perspective seems quite different from that of Scriven's own words, calling the duties "far too onerous and difficult to be performed in their full requirement by the men and officers now allowed."[193] It seems Foulois' perspective less than a year later demonstrated a lack of progress in the mechanical arts by the US Army Signal Corps and that the Army had a need to partner with stakeholders to develop better training and education to fully use the technology it was adopting.

The adoption of new technology and equipment was challenging at best. The Army did not have a new equipment training program in which soldiers were trained on the equipment in a formal manner. While there were civilian pilot schools, and even some post-secondary educational institutions offered courses on mechanical principles, soldiers found themselves learning much of the needed skills and knowledge from trial and error. While the Army was adopting technology with the encouragement of reform-minded leaders, without large-scale military operations demanding significant investment, training and educational opportunities still lacked the needed support. In addition, recruit literacy remained a problem that had yet to be addressed.

Dwight Messimer, in his work, *An Incipient Mutiny*, covers in depth the history of Aeronautics within the US Army Signal Corps and explains the numerous failures that ultimately led to Army aviation being separated from the Signal Corps. The events prior to the Punitive Expedition had already garnered congressional attention, creating problems for the Signal Corps and its oversight of Army aviation. Information regarding the mechanical failures of the JN-3 "Jenny" aircraft during the Punitive Expedition eventually made its way

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[193] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1915*, 738.

to the newspapers, creating an embarrassment for the War Department.[194] As a result of this bad publicity, Congress passed The Urgent Deficiency Act, allocating half a million dollars for the Army to purchase twenty-four new aircraft along with other needed technology in support of military aviation efforts.[195] This approach to solving problems identified during the Punitive Expedition was not limited to equipment but included manpower problems as well.

Preparation for Large-Scale War

While there was some effort to prepare America for a large-scale war, it was not nearly enough. In 1913, Major General Leonard Wood and others began developing the Citizens' Military Training Camps. This was a result of military leaders identifying the need for a trained pool of men in American society from which the Army could quickly assimilate into its ranks.[196] The Punitive Expedition demonstrated how the manpower deficiencies affected the War Department in a significant way. The continuing changes in technology, reform-minded leaders such as Leonard Wood, and large-scale military operations such as the Punitive Expedition created conditions the Army could no longer ignore. The Army needed to change how it trained and educated servicemembers, as well as recruits.[197]

In 1916, Major General Frederick Funston had the responsibility of not only supporting the Punitive Expedition, but also guarding the 1,700-mile United States-Mexico

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194 "Only Two Aeroplanes Left on March 27," *Flying*, Volume 5, No. 1, February 1916, 93.

195 United States 63rd Congress, "Deficiency Appropriations for 1915 and Prior Years," 3rd Session, Government Printing Office.; United States 64th Congress, "An Act Making Appropriations to Supply Urgent Deficiencies in Appropriations for the Military Establishment for the Fiscal Year Nineteen Hundred and Sixteen."; Prieto, *The Mexican Expedition 1916-1917*, 55; United States Sixty-Fourth Congress, "The National Defense Act of 1916," 1916.

196 United States Army War College, "Organization, Training, and Mobilization of a Force of Citizen Soldiery: Method of Training a Citizen Army on the Outbreak of War to Insure its Preparedness for Field Service," (Washington, DC: Government Printing Office), WCD 7541-12, 1915, 15-18.

197 United States Army, *Army Training Problems Instructor's Guide for All Arms*, 1929, 1-6.

border. Due to the substantial number of troops needed to support the Punitive Expedition while continuing to guard the border, Funston needed additional troops. With the Army activating units from the National Guard, the lack of available and trained troops became apparent.

The problems faced by the US Army when calling up the National Guard from the state militias made it clear that there were neither a systematic approach to coordinate the instruction provided to troops from the various states nor clearly written laws on the use of these troops. The theoretical principles and practical application of warfare amongst the states' service schools were well documented in the 1914 work by US Army Captain Ira L. Reeves, *Military Education in the United States*. The problem seemed to be that policy did not support the state militias. Reeves cited evidence and provided commentary on the fact that state governors were responsible for the theoretical and practical instruction of the National Guard troops within their states and that the relationship between the War Department and the state militias was not well-defined. Reeves went on to elaborate on the 1913 opinion of the US Attorney General, who believed that "State troops may not be ordered beyond the limits of the United States."[198] This policy problem created a lack of trained state militias and confusion on their use at a time when the Army needed assistance.

By 1916, the War Department had called up more than 10,000 National Guard troops in support of the Punitive Expedition. During several months of the Expedition, leaders such as Pershing and Funston found themselves limited in the effective use of the National Guard due to mobilization processes and a lack of standardized training amongst the troops. To

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[198] Ira L. Reeves, *Military Education in the United States* (Burlington, VT: Free Press Company, 1914), 372–392.

address the problems faced in raising forces quickly, the US Congress passed The National Defense Act of 1916 in June.[199] This not only supported the National Guard at the state level, but also provided funding for training to ensure the National Guard units were prepared in case of call-up at the federal level in the future. By February 1917, the War Department had ordered Pershing and his forces to leave Mexico and began to demobilize the National Guard forces on the border. A short two months later, some of the same National Guard soldiers found themselves training for action in France.

Through analysis, the evidence demonstrates the time chasing Villa through northern Mexico was well spent. The Punitive Expedition provided an opportunity for the expansion of the US military as well as the transformation from a nineteenth century mule and wagon organization to one that had expanded its mechanized force tremendously.[200] Luckily for the US Army, the victory over Villa's forces during the raid was not enough for American political leaders or the American public. The desire for action led to the Army operating in Mexico for months, allowing the adoption and testing of new equipment as well as integration between the active and state militia forces. Wilson's attitude towards Carranza's government demonstrated that the American president believed he needed no approval from other world leaders and chose to make his own decision to take action against Villa in Mexico. The same type of approach applied during WWI, as Pershing chose to keep American soldiers as part of the American Expeditionary Force in Europe, instead of using them as individual replacements for English and French units.

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[199] United States 64th Congress, "The National Defense Act of 1916."

[200] United States War Department, *Annual Report of the Quartermaster General to the Secretary of War,* Washington, DC: US Government Printing Office, 1917, 69-74. United States War Department, *Annual Report of the War Department,* 1916, volume 1, 7-13, 189-191.

More importantly, the US Army learned many lessons in regard to logistics, maneuvers, and organizational structures. At the beginning of the Punitive Expedition, the US Army was largely a cavalry-based organization. Military units used wagons and mules to transport supplies when trains were not available. There was a decentralized approach to military operations. Although the 13th Cavalry was successful in repelling a larger force during the raid on Columbus, New Mexico, the Army as a whole was not ready for the Punitive Expedition.

The long-term benefits created from the Expedition were numerous. An understanding of effective logistics in the mechanized age and the introduction of vehicles on a large-scale were critical lessons learned by Army leaders.[201] The adoption of aircraft and illumination of the problems the 1st Aero Squadron encountered encouraged the US Congress to provide funding to move the American military into the twentieth century. One of the most significant changes that came out of the raid on Columbus was the National Defense Act of 1916, which allowed for the funding of training in the state National Guard, so that these organizations would be prepared if called up to operate under the federal service.[202] More than 100,000 America military men were affected by the Punitive Expedition, but more importantly, this same funding still occurs today.

Overall, understanding how the US Army defeated a small incursion into the United States by Pancho Villa and his bandits illuminates the numerous benefits that came about as a result. The tactical success by the 13th Cavalry may have demonstrated to the US Army and

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[201] John J. Pershing, "Expedition Letter," 1916, John J. Pershing Papers, Manuscripts Division, Library of Congress, 1-3. https://www.loc.gov/exhibits/mexican-revolution-and-the-united-states/images/pershing-expedition-p1_enlarge.jpg

[202] Glen Williams, *National Defense Act 1916.* May 2016. https://history.army.mil/news/2016/160500a_natDefAct1916.html.

Americans that the military was prepared to repel an incursion, but more importantly, the event led to the mobilization of the National Guard and the lessons learned from the Punitive Expedition, which assisted in preparing America for entrance into WWI.

Reflecting on the Punitive Expedition provides insight into the lack of education and training the Army provided soldiers as they adopted new technology. The Mexican Revolution provided an opportunity for rebel leaders such as Villa to seek power, and the influence of President Wilson ultimately pushed Villa to attack the 13th Cavalry in Columbus, New Mexico. This event was terrible for the town of Columbus and its residents, but ultimately provided an opportunity for the US Army. The large forces needed to conduct operations in Mexico, combined with the adoption of technology, illuminated the lack of skilled technicians the Army had to conduct large-scale operations.

Prior to the raid on Columbus, the Army had what were called “post schools,” where some units received training on the use of artillery, horsemanship, and even medical duties in some areas. The lack of a holistic training program that was standardized across the Army led to an unprepared reserve force with the National Guard. In addition to the lack of standardized training, the adoption of technology such as recently purchased trucks, with little training on their use, created both problems and opportunities for Pershing. The insights gathered through the use of new technology including aircraft, motor drivers, and other mechanical arts supported the perspective of Brigadier General George P. Scriven, Army Chief Signal Officer, in his 1915 report, where he identified that the duties of many men

were “far too onerous and difficult to be performed in their full requirement by the men and officers now allowed.”[203]

The activation of the National Guard and its performance led to the passing of the National Defense Act of 1916 in an attempt to improve mobilization processes and standardize training amongst troops across the active component and all states. The policy problems prior to the passage of this legislation created conditions in which state militia lacked effective training and therefore created confusion at a time when the active Army needed assistance most. The large-scale operation of the Punitive Expedition, combined with action by reform-minded leaders, led to federal funding for training of National Guard units to prepare for potential activation in the event of national emergencies. The infusion of technology into Army units, combined with the large-scale operations of the Punitive Expedition, required not only soldiers to fill fighting formations, but specially trained technicians to operate and maintain equipment. The need for a change in training and education amongst these technical experts becomes evident through an examination of the Army’s performance during the Punitive Expedition. Shortly after the War Department ordered Pershing and his forces to leave Mexico in February 1917, many of the same forces found themselves preparing for action in France.

World War I

Examining the First World War provides an excellent opportunity to understand why wars were an opportunity for the transformation of the US Army as well as post-secondary education in America. While there are many areas to investigate from the social, political,

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[203] United States War Department, *Annual Report of the War Department for the Year Ended June 30, 1915*, 738.

and economic realms, reviewing published literature on WWI highlights two critical influences of the war. First, WWI created problems for the progressive movement during the war, but the war itself created conditions in which literacy in America became an issue of strategic importance. Second, WWI created the foundation for the military-industrial complex of WWII, which kicked the doors wide open for women in the workplace and created conditions under which programs such as the G.I. Bill enhanced social mobility, democratized post-secondary education, and led to postwar prosperity that lasted for decades.[204]

Momentous change occurred at the beginning of the twentieth century in America, and the influence of WWI is seen by examining the contributions of historians within their major works. The literature illuminates how the war influenced conditions in America and, moreover, the impact the military had on the country. When considering the question of whether war influences the population to maintain or transform, or some combination of both, an examination of the historiography provides perspective. A combination of these is seen in major works such as Michael McGerr's *A Fierce Discontent: The Rise and Fall of the Progressive Movement in America, 1870-1920*, David Kennedy's *Over Here: The First World War and American Society*, and H. W. Brands' *American Colossus: The Triumph of Capitalism, 1865-1900*. The connection amongst these three works is the connection of politics, the progressive movement, and capitalism as a theme during the early twentieth century. Brands provides an excellent perspective on how industrialists such as John D. Rockefeller, Andrew Carnegie, and J. P. Morgan wielded much more power than the

[204] Arthur Herman, *Freedom's Forge: How American Business Produced Victory in World War II* (First edition) (New York: Random House, 2013).

legislators and government officials at the beginning of the century. While the elite of the industrial age made significant efforts to eliminate competition from the market and crush labor problems, the contributions to American growth by industrial leaders in the capitalist economy was discounted by those focused on supporting a progressive agenda.[205]

Kennedy provided a more robust perspective on American society prior to and during the First World War. He highlighted that the progressive movement had made significant strides, but the war itself became problematic for the progressive movement. The shift of the Wilson administration from a less than Herculean effort to support the progressive movement to a focus on American support for the war seemed to present a loss for the progressives, but simultaneously allowed the government to expand and invest in partnerships between the Army and education. WWI was a watershed in the expansion of government into what was previously the responsibility of the states by using programs focused on Americanization, education, defense, and information about internal subversives.[206] Drawing a connection to the investment in military and veteran educational programs helps show the growth of the government and how the military and post-secondary partnerships of WWI influence future programs such as the WWII G.I. Bill.

WWI influenced the progressive movement in a positive and negative manner. The war created conditions that influenced the education of the labor force while suppressing much of the remaining progressive agenda items. While Woodrow Wilson was seen as a "transformative president" and an advocate for the progressive movement, he was unable to

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[205] Henry W. Brands, *American Colossus: The Triumph of Capitalism, 1865-1900* (New York: Anchor Books, 2011).

[206] David Kennedy, *Over Here: The First World War and American Society* (New York: Oxford University Press, 2004).

maintain a strong position for continued progressive changes once Americans saw entry into the war as inevitable. The transformation of American society from neutrality into a nationalistic view where everyone should be "100% American" was a significant challenge for both Wilson and the progressive movement. Any dissent against the war was viewed as anti-American. This may have been viewed as an impediment to the progressive movement at the time, but in hindsight it increased access to post-secondary education for many Americans.

The Need for Literacy in Army Troops

While the progressive movement waned during WWI, the federal government grew in power and influence in response to wartime needs. A byproduct of this expansion was the significant acquisition of mechanized equipment and other technologies in support of the war. The need to utilize technical manuals to maintain this new equipment created conditions under which literacy was required for many in the military service.[207] Connecting this need to the strategic goals of the government and military success allowed money to pour in for the analysis and eventual creation of adult literacy programs in the military. One result was the Army's fielding in 1918 of an intelligence testing program so the service could identify, develop, and educate servicemembers who found it difficult to perform their duties satisfactorily.[208]

While the assessment and training of servicemembers by the American military may not seem transformational, democratizing education by connecting it to a national security issue provided funding and importance in a way that the progressive movement had yet to

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[207] United States War Department, *The Technique of Army Training*, Government Printing Office, 1922, 1-9.

[208] Anderson and Kime, "Some Major Contributions of the Military," 5.

achieve. Answering the question of whether WWI presented a transformative or stabilizing force for educational programs is still debated today. To address the need for manpower during WWI, the War Department began examining literacy rates to ensure that personnel brought into the Army were able to understand and carry out orders.

A leading researcher and workplace literacy expert, Thomas G. Sticht, supported the perspective that WWI was a new way to wage war, with mechanized and technical armaments both on the ground and in the air, that demanded an educated American society. The horse and rifle military gave way to organizations of men that required technical training. This transformation seemed to catch American military and civilian leaders by surprise when they were shocked at statistics that showed that more than 25 percent of the men called to service during WWI were illiterate, and that literacy rates were so low that many were classified as nonfunctioning within the Army.[209] Research by Clinton Anderson and Steve Kime showed that by the end of WWI "the War Department found that 30 percent of the 1.7 million soldiers taking the Army Beta Test could not understand the form due to their lack of reading skills."[210] Data such as this influenced the US Army to take action to ensure its manpower needs in this new mechanized and technological age were met.

When considering education in America, what quickly comes to mind is primary, secondary, and post-secondary education. In addition to those, the United States also has the Adult Education and Literacy System (AELS), which today is funded in some part by appropriations from the US Congress and the remainder by state and local governments. An

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[209] Thomas G. Sticht, *Fighting Illiteracy in Times of War* (2017), 7. https://www.researchgate.net /publication/320024840_FIGHTING_ILLITERACY_IN_TIMES_OF_WAR_An_anthology_of_brief_historical _notes_by_Tom_Sticht.

[210] Anderson and Kime, "Some Major Contributions of the Military," 5.

examination of where the AELS began illuminates the frequently overlooked role of the US military in the development of literacy and adult education programs in America. During WWI, as a need to ensure potential recruits were literate enough to succeed as servicemembers, the Army sponsored the development of the first standardized intelligence test focused on literacy and education in America. In conjunction with educators, literacy education within the Army happened in what was called "development battalions."[211] Here is where Robert Mearns Yerkes enters the story.

Robert Mearns Yerkes

Yerkes was the son of a farmer in rural Pennsylvania and spent his early years helping on the farm while using his free time to achieve his goal of becoming educated. At a young age, Yerkes decided he wanted a career in the medical field. Once he graduated from college, however, and faced the decision of entering graduate or medical school, he chose graduate school, completing a doctorate in psychology in 1902. Over the following decade, Yerkes became very influential in human intelligence studies. He worked on the revisions of the Stanford-Binet Intelligence Scale in 1916 and later became the president of the American Psychological Association. Yerkes was a psychologist with a desire to move the science of intelligence testing forward, and the Army's needs during WWI provided just such an opportunity.

When war broke out in 1917, Yerkes was appointed a major in the US Army Medical Corps. After his appointment, he was assigned the responsibility of Army recruit testing while leading a team of forty psychologists. These recruit tests were a significant change in

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[211] Department of the Interior, "Educational Work of the Young Men's Christian Associations 1916-1918, Bulletin 1919," No. 53, (Washington, DC: Government Printing Office, 1919), 17.

the field of human intelligence, and the war gave Yerkes and his colleagues a rare opportunity for large-scale testing. Under Yerkes' leadership, the team developed the Army Alpha and Beta testing models. The Alpha Test was a written examination developed to test intelligence and predicated on the ability of the individual being tested to read English. The Beta Test was a series of pictures used to examine the intelligence of either illiterate or non-English-speaking recruits. By the end of the war, the Army had tested more than 1.7 million recruits and soldiers using the Alpha and Beta tests.[212]

Of course, Yerkes did not achieve these accomplishments alone. Psychologists Walter Scott and Walter Bingham were simultaneously developing a military personnel program that built on their work developing tests for the selection of salesmen.[213] Yerkes convinced Scott they should work together and that by combining their efforts they might have a better outcome. It also helped that Scott had the support of then Secretary of War Newton Baker, while Yerkes was finding it difficult to convince even his own psychologists.[214] Within a short period of time, Yerkes became a member of Scott's Committee on Classification of Personnel and in 1917, the committee convinced the War College's Committee on Training of the validity and benefit of the testing. The evidence even persuaded the Army to establish the "school of military psychology" to standardize test examiner training to ensure the data gathered were useful both scientifically and militarily.[215]

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[212] Robert M. Yerkes, *Psychological Examining in the United States Army: Memoirs of the National Academy of Sciences* (Washington, DC: US Government Printing Office, 1921), 91–119.

[213] Walter V. Bingham, "Psychology Applied," *Scientific Monthly* 16 (February 1923): 141–142, 148–151.

[214] Daniel J. Kevles, "Testing the Army's Intelligence: Psychologists and the Military in World War I," *The Journal of American History* 55, no. 3 (December 1968): 565–581. https://doi.org/10.2307/1891014

[215] Kevles, "Testing the Army's Intelligence," 572.

Not everybody agreed with the value of these tests, with many officers considering the training and mobilization of the Army to be the highest priority and the testing and selection of recruits and officers for placement as undermining traditional military processes.[216] While there were many problems with the questions contained in the Alpha Test, as well as difficulties with language pushing others to the Beta Test, the partnership between educators and the military was evident. With intelligence testing as a science being in its infancy, efforts such as the classification of personnel and Alpha and Beta testing had created significant changes to how the US Army assigned men to units. After the war, military recruiters continued to administer intelligence tests to potential recruits when they were uncertain of their literacy.

The long-term impact of the work of Yerkes, Bingham, and Scott extends far beyond the military. Intelligence testing became practical, and after the war, primary and secondary schools began using testing more extensively, while universities adopted admissions testing. Aptitude tests continued to develop during WWII, while the use of academic testing to measure learning outcomes expanded. Researchers across multiple academic disciplines today may point out problems with Yerkes' approach or findings; however, the relationship between the US military and academia enhanced processes and created an understanding of how literacy affected servicemembers, the military, and education. Analyzing Yerkes helps to emphasize this critical point.

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[216] Richard T. von Mayrhauser, "Making Intelligence Functional: Walter Dill Scott and Applied Psychological Testing in World War I," *Journal of the History of the Behavioral Sciences* 25, no. 1 (January 1989): 60–61, https://doi.org/10.1002/1520-6696(198901)25:1<60::AID-JHBS2300250105>3.0.CO;2-R

The Effect of Partnerships between the Military and Academic Institutions

While testing in the US Army identified many potential recruits as being illiterate or non-native speakers, this classification also provided an opportunity for training servicemembers arriving at different levels of proficiency. Efforts to classify men and provide them training based on the needs of the Army and the capabilities of each individual had direct connections to educational and training programs during WWII. The need for technically proficient and educated men led the Army to quickly establish programs such the SATC. This program provided both academic and vocational training to thousands of men during the war. The war showed Americans that there was a significant need to invest in a combination of military and educational activities. During WWI, the identification efforts of the Army yielded problems on a scale that few expected. In the US Army, approximately 24 percent of soldiers could not write or read English with enough capacity for it to be useful within the Army; moreover, approximately one-third of all potential Army recruits from the 21–45 year age group were physically unfit for any military service whatsoever.[217] These staggering statistics highlighted the benefits of classification of personnel and literacy testing.

The partnership between post-secondary educational institutions, the War Department's Committee on Education and Special Training, and the SATC is best understood by looking at the interaction amongst these groups. The relationship between SMU and the US War Department provides a unique perspective on the number of students in the program as well as the value it provided to all stakeholders.

The US Congress gave the War Department authority to establish the SATC on May 18, 1917, approximately a month after the United States officially entered WWI. Passing

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[217] Perry, *The Plattsburgh Movement*, 258.

what is today known as the Selective Service Act, President Wilson gained the ability to increase military forces temporarily during emergencies. Although the war ended November 11, 1918, the United States' manpower investments continued beyond that date, spanning the military, industry, and educational institutions. The SATC showed how the efforts to train and educate soldiers continued to advance during WWI. More importantly, this partnership between the US military and educational institutions provided the foundation on which training and education was built during WWII. The land-grant colleges, ROTC, and military training camps were a start, but the WWI SATC took the military and American post-secondary education relationship even further.

The War Department's Committee on Education and Special Training administered the SATC with the goal of maximizing the use of post-secondary educational institutions to train technical experts and officer candidates for the needs of the military. The program was divided into a collegiate section known as "Section A" and a vocational section known as "Section B." Although the military already had ROTC programs in colleges across America, as well as training institutions as required by the Morrill Land-Grant Act, this program dwarfed both in the sheer number of men who were part of the program. While changes in the Selective Service Act lowered the age of men who might be drafted to 18, university leaders wanted exceptions for the men enrolled in the SATC at universities across America. This desire was summarized in a memorandum from SMU President R. S. Hyer to the Adjutant General of the US Army, writing to confirm that "men over eighteen who enroll

will be members of the Army of the United States, liable to active duty at call of President, but aim not to call them till twenty-one."[218]

Even though the SATC program was short in duration, the program was designed with significant depth. The goal of the "Section A" instruction was to cover military topics such as drilling physical training eleven hours a week. Other instruction in what was called "allied subjects" covered forty-two hours, using the model of two hours of supervised study for each hour of lecture. The allied subject courses included language, mathematics, sciences, and engineering, along with a mandatory "war-issues course" which covered the underlying reasons for the war.[219] As part of the agreement, the government would issue property and uniforms and pay for equipment the universities needed to ensure effective completion of the program. For a university or college to be eligible to have an SATC program, they needed to be able to maintain a unit with a strength of at least one hundred men. This limited some smaller colleges, which did not possess the facilities to dedicate to the program.

As for the "Section B" instruction, it also included the war-issues course as well as military subjects, with vocational instruction comprising the majority of the week.[220] At first it was problematic for school officials to operate along the specialized technical lines. When men arrived, they were given an outline of what they would learn and then performed hands-on activities to learn skills needed to do the jobs of carpenter, blacksmith, auto mechanic, and mechanical draftsman, among others. The expanded use of technology in warfare created a

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[218] Letter from Southern Methodist University President R. S. Hyer to the Adjutant General of the United States Army. "World War I, SMU Military Affairs," SMU Academic and Administrative Correspondence, Series 2: Correspondence: Internal SMU business, Box 2, Folder 12, Southern Methodist University Archives, DeGolyer Library, Southern Methodist University. SMU 191.0010.

[219] United States War Department, *Special Regulations No. 103. Students' Army Training Corps Regulations* (Washington, DC, 1918), 11–12, https://archive.org/details/studentsarmytrai00unit/page/n3/mode/2up

[220] United States War Department, *Special Regulations No. 103*, 13.

demand for post-secondary education to train men in vocational skills. The view of college as a place for only liberal arts in deep thinking was being challenged by the demand for trained men. Apprenticeships were not an option, as the job growth far outpaced the on-the-job training capacity. By March 1918, the Army had requisitioned more than 85,000 tradesmen, of which 70 percent would be trained in the "auto trades."[221] Identifying men with the Army's new classification system allowed for the assigning of SATC courses to men based on experience and potential, which gave them an opportunity to produce their best work. Colleges were able to build on the initial SATC program experiences, and for some occupations—such as electrician, telephone repairman, and machinist—educators identified the need for a higher level of intelligence. There were some unanticipated successes. For instance, sometimes men who were inexperienced in the vocation which they were receiving training astonished program leaders at how quickly they gained proficiency. As an example, Channing Rice Dooley's *Final Report of the National Army Training Detachments, Later Known as Vocational Section S.A.T.C.* reported, "Farmers totally ignorant of the tinsmith trade produced work of commercial quality including the making of their own patterns and involving principles of descriptive geometry."[222] Rarely seen were men who failed completely; on the contrary, a significant number of men found they were better suited for another line of work, while others with no technical trade had found themselves gaining skills they might use after the war to improve their lot in life.[223]

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[221] C. R. Dooley, *Final Report of the National Army Training Detachments, Later Known as Vocational Section S.A.T.C.* [Students' Army Training Corps] (Washington, DC, March 1919), 27.

[222] Dooley, *Final Report of the National Army Training Detachments*, 33.

[223] Dooley, *Final Report of the National Army Training Detachments*, 33.

The vocational, or "Section B", instruction filled the gap that industry within America needed before the war. The demand for skilled workmen was a critical need in industrial and commercial activities in American society. The Army's partnership with educational institutions in response to the war not only demonstrated patriotism to serve the country, but also provided an opportunity for more than 140,000 soldiers to complete the vocational instruction training as part of the SATC program.[224] The program did identify some shortfalls, such as the inexperience of many of the educational institutions in providing intensive vocational education, but this also provided the opportunity to develop personnel classification tests for the trade industry along with the development and distribution of instructional manuals, which were later used at Army training schools on camps, posts, and stations around the world. Dooley also reported in 1919 that in times of peace, the coordination of these Army schools and industry would give well-rounded training in the corresponding civilian trade, and therefore "soldiers honorably discharged at the end of the term of enlistment would find ready employment in the industries at attractive wages," thus increasing the quality of volunteers and morale in the peacetime Army.[225] This type of forward thinking would later have an influence on military training and educational programs during WWII, as well as on the passage of the Servicemen's Readjustment Act of 1944.

The SATC program's influence on the financial status of universities is a principal factor in the partnering between the Army and higher education. With the United States entering the war, institutions such as the University of Illinois had more than a thousand men

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[224] American Council on Education, "Educational Lessons from Wartime Training: The General Report of the Commission on Implications of Armed Services Educational Programs," (Washington, DC, 1948), 211. There were 525 campuses across the country with a SATC program.

[225] Dooley, *Final Report of the National Army Training Detachments*, 178.

withdraw from the university to fight in the war by May 1917. The low enrollment numbers affected universities across the country financially. This program provided an opportunity for universities to solicit for men to attend their institutions. The challenge was to gain approval for and establish an SATC program. On May 8, 1918, Secretary of War Newton Baker issued a memorandum to the presidents of all institutions of collegiate grade, indicating that the War Department intended to implement a comprehensive plan in September 1918 to coordinate all ROTC programs and include them in the broader plan. In response, SMU President R. S. Hyer drafted a handwritten statement to the Adjutant General of the US Army, highlighting how SMU was a "great university with 650 students enrolled in the 1917-1918 school year."[226] In his letter, Hyer elaborated on the new buildings as well as the quality of the faculty and provided the Army with data supporting its ability to bring on 600 new students and organize SATC members into six companies, providing them classes in military tactics by their Canadian officer faculty member in support of the War Department's efforts.[227]

After several communiqués back and forth between SMU and the War Department's Committee on Education and Special Training, the university established an SATC program and found itself receiving many requests for information on the program from men across East Texas. One example is a letter dated August 11, 1918, from N. O. Robbins, the First Vice President of the Texas State Teachers Association. Robbins requested information regarding the work between the War Department and the colleges of Texas. In his letter, Robbins explained that he knew "practically nothing about military training in the Army"—

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[226] Handwritten memo from SMU President R.S. Hyer filed with the War Department's letter, May 8, 1918 (noted as GC-524-MMR), to presidents of all institutions of collegiate grade. "World War I, SMU Military Affairs," SMU Academic and Administrative Correspondence, Series 2: Correspondence: Internal SMU business, Box 2, Folder 12, Southern Methodist University Archives, DeGolyer Library, Southern Methodist University. SMU 191.0010.

[227] Handwritten memo from Hyer, May 8, 1918.

mentioning that, should he receive training, he might increase his services to the country—and asked whether he would be eligible to enlist in SMU for special training.[228] Other men wanted to join the SATC, such as Abie Andrews, a 20-year-old Russian citizen who had been in the United States for over nine years and James Aimer, an 18-year-old British citizen who had spent twelve years in the United States. Both students at SMU, the men wanted to join the SATC but, due to their non-citizen status, required approval from the War Department's Committee on Education and Special Training.[229] Efforts by the university to maximize student enrollment in the SATC demonstrated the value the program provided the institution.

While there was significant effort within colleges and universities to support the war effort, leaders understood that the maintenance of higher education in America had to be considered part of the war effort. The *Dallas News*, a local newspaper, reported that the War Department was "calling on colleges of Texas for 2449 men for the S.A.T.C." and on the same page of the newspaper highlighted that "college is not a refuge for slackers."[230] The attitude towards the war was one of significant commitment. The need for trained men resulted in many changes to the ROTC program, the National Guard, and the selective service process.

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[228] Signed letter from N. O. Robbins, August 11, 1918, "Miscellaneous Education-Related Organizations," SMU Academic and Administrative Correspondence, Series 3: Correspondence: Other universities, colleges, and Texas high schools, Box 3, Folder 16, Southern Methodist University Archives, DeGolyer Library, Southern Methodist University. SMU 191.0010.

[229] Letter from SMU Acting Dean to Colonel Robert I. Rees, Director, Committee on Education, War Department, September 19, 1918, SMU Academic and Administrative Correspondence, Series 3: Correspondence: Other universities, colleges, and Texas high schools, Box 3, Folder 16, Southern Methodist University Archives, DeGolyer Library, Southern Methodist University. SMU 191.0010.

[230] "War Department Calling on Colleges of Texas for 2449 Men for the S.A.T.C.," *The Dallas News*, August 11, 1918; "World War I, Students' Army Training Corps (SATC)," SMU Academic and Administrative Correspondence, Series 2: Correspondence: Internal SMU business, Box 3, Folder 1, Southern Methodist University Archives, DeGolyer Library, Southern Methodist University. SMU 191.0010.

In Texas, General John Augustus Hulen had been recalled to active service in 1916 and was patrolling the Texas-Mexico border as the commander of the 6th Separate Brigade. By June 1917, Hulen was the Commanding General of the Texas National Guard and between June and July 1917 received hundreds of letters petitioning him for a commission with the Texas National Guard. Hulen's perspective on the passing of the 1916 National Defense Act was demonstrated in his June 18, 1917, letter to the twenty-four speakers for the National Guard campaign of Texas. In his six-page document, Hulen outlined the benefits of gaining volunteers immediately to "fill the breach" and stated that any delay waiting for the draft would "be certain to cause our allies and our own armies a loss in men and munitions which nothing can justify."[231] Examining documents such as this provides perspective on the competing demands for manpower for military units and the SATC program. The regular Army was looking for men to fill its ranks, each state's National Guard sought to communicate the benefits of working with their own neighbors, and leaders of colleges and universities wanted to ensure the continued successful operation of their institutions while providing support for the war. It was a challenging time indeed.

SMU took advantage of the SATC program and its opportunities in multiple ways. The institution worked on developing a lecture course on the "Flying Machine," training courses on gasoline engines for automobiles including construction and repair, and courses on practical wireless telegraphy.[232] While these supported the military's need for trained technicians, SMU also benefited. The university invested in building laboratory facilities in

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[231] Letter from General John Augustus Hulen, June 18, 1917, to 24 speakers of the National Guard campaign of Texas. "June 13-July 30, 1917," General John A. Hulen papers, Box 2-23, Folder 1107, Archives and Information Services Division, Texas State Library and Archives Commission.

[232] "Southern Methodist University: A United States Army Recruiting Station," *The Dallas News*, August 11, 1918; "World War I, Students' Army Training Corps (SATC)."

support of this effort.[233] The financial aspects of the SATC program for SMU demonstrated the benefits the program provided the university. According to the statement of claim for reimbursement of costs by SMU dated March 31, 1919, the university president spent two-thirds of his time devoted to the SATC program, and therefore the government's cost was $1,098.88. The overall financial cost to the government during the school year for housing was $14,640.99, for subsistence the bill was $18,934.13, and for instruction it was $17,679.07. Overall, the actual costs incurred by the university based on the SATC program required the government to pay $51,254.19.[234] This is equivalent to $856,534.54 in the year 2022. While this may not seem significant compared to today's university annual income statements, SMU's total annual income between 1915 and 1918 was between $110,000 and $116,000 each year. Additionally, between 706 and 904 students attended courses of college and professional grade during these three years. The addition of more than one hundred students was a significant benefit to SMU, particularly since enrollments across America were falling dramatically as a result of men joining the military. Ultimately for SMU, the more than $50,000 paid by the government for the 1918–1919 school year kept the university fiscally sound while enabling SMU to contribute to the war effort.

With 150 universities across the United States participating in the program, a significant financial investment in this partnership kept universities afloat at a time when men were withdrawing from college to take jobs in key industry positions or fight in the war. By the time the War Department's Committee on Education and Special Training issued its

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[233] Undated typed memo with handwritten notes, "World War I, SMU military affairs," SMU Academic and Administrative Correspondence, Series 2: Correspondence: Internal SMU business, Box 2, Folder 12, Southern Methodist University Archives, DeGolyer Library, Southern Methodist University. SMU 191.0010.

[234] War Department settlement form A1 completed by Southern Methodist University dated March 31, 1919 (13 pages); "SMU Student Army Training Corps," SMU War Records WWI, Box 1, Folder 3, Southern Methodist University Archives, DeGolyer Library, Southern Methodist University. SMU 91.33.

memorandum on the demobilization of the SATC on November 26, 1918, more than 100,000 men had been involved in the SATC program. These men attended technical and liberal arts courses in colleges and universities across America. The War Department's financial investment in colleges and universities in America during WWI may have provided the foundation for similar partnerships in WWII and beyond.

The SATC program ended as quickly as it began. In November 1919, the War Department's Chairman of the Committee on Education and Special Training, Brigadier General R. I. Rees, issued memorandum A-40, notifying the presidents of all participating institutions that the telegram they received regarding the notification of demobilization for the SATC was confirmed and that instructions regarding the Reserve Officers' Training Corps would be forthcoming.[235] Some organizations, such as SMU, had been operating the program on the campus for the entire school year, while others, such as Johns Hopkins University, had requested 708 students be assigned, and by the time of the demobilization order its SATC students had only been on campus for two months. The benefit to each organization varied based on the length of time it took to establish the program.

Summary of the Need for Education in the Military in the Early Twentieth Century

As Americans entered the twentieth century, the US Army found itself with one foot in the past and the other hesitantly stepping into the future. The advances in technology as a result of electricity, mechanical engineering, and transportation were moving forward so quickly that military leaders and training programs could hardly keep up. Part of the problem was the attitude towards tradition and past practices, and the successful prosecution of the

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[235] War Department Committee on Education and Special Training, "Student Army Training Corps Demobilization Memo," *Exhibits: The Sheridan Libraries and Museums*. November 26, 1918. https://exhibits.library.jhu.edu/items/show/414.

Spanish-American War may have led to leaders learning the wrong lessons. While this was not universal, and leaders such as General Leonard Wood and Elihu Root had helped to institute change with the Citizens' Military Training Camps, it was Pancho Villa and his raid on Columbus, New Mexico that forced Americans to take steps towards modernizing its military.

The Mexican Revolution between 1910 and 1920 created conditions that spilled over into American towns along the United States-Mexico border. Assigning patrol districts to organizations such as the 13th US Cavalry Regiment increased security but did little to reduce tensions between the warring factions in Mexico. The political environment between President Wilson and Mexican leaders, along with the Tampico and Veracruz incidents, did little to quell the situation between the two countries. Villa's 1916 raid on Columbus led to an expensive but valuable Punitive Expedition.[236]

Under General Pershing's leadership, the Expedition was a significant effort, requiring thousands of US Army troops to operate wagons, pack animals, and motorized trucks throughout the Mexican desert in the largest maneuver of US forces since the American Civil War. This operation identified many of the flaws within the Army's quartermaster system, and also identified the need for additional training for the American state militia forces.[237] As a result, Congress authorized an increase in the Army size, updated the status of the National Guard, and created an Army Reserve. The mobilization for the

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[236] John J. Pershing, "Expedition Letter," 1916, John J. Pershing Papers, Manuscripts Division, Library of Congress, 1-3.

[237] United States War Department, *Annual Report of the Quartermaster General to the Secretary of War,* Washington, DC: US Government Printing Office, 1917, 69-74.

Punitive Expedition helped the Army transform from a cavalry to a mechanized structure.[238] This not only improved operations during the Expedition, but the significant changes to the organizational structure of the Army had a significant effect on the success of the American forces when Pershing led the American Expeditionary Forces in Europe only months later.

During the Punitive Expedition, the Army also tested its first use of aircraft in an operational environment. The 1st Aero Squadron encountered a wide variety of problems with aircraft that lacked power and were poorly designed and constructed. The challenges Army aviators faced led to improvements in the Army aviation program as well as feedback to manufacturers with the goal of improving quality. Overall, the time spent chasing Villa in Mexico and operating in the desert was well spent for the US Army. More than 100,000 American military men were affected by this Expedition and the lessons learned helped to prepare America for entrance into WWI. Moreover, it introduced these changing technologies in a way that made the Army aware of the need for literate and technically proficient soldiers to operate and maintain new types of equipment.

The benefits of the Punitive Expedition can be seen through an examination of WWI. The strategic goals of the government and military poured money into new equipment and created conditions under which literacy became a requirement for many in the military service. This led to a partnership between the US military and educational researchers to identify, develop, and educate servicemembers who found it difficult to perform their duties in a satisfactory manner. The examination of literacy rates by the War Department provided shocking statistics: 25 percent of the men called to duty either had a literacy rate so low that

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[238] United States War Department, *Annual Report of the Quartermaster General to the Secretary of War,* Washington, DC: US Government Printing Office, 1917, 69-74.

they were not effective within the Army, or they were illiterate altogether.[239] As a result of the Army's work with educators, literacy education within the Army began during the recruitment process when potential men with no other impediments were assigned to developmental battalions for education. This proved to be successful, and in a matter of weeks those who would previously have been turned away were educated to a point where they would be effective within the Army. While this was significant, the SATC was at the other end of the spectrum.

The WWI SATC program came about as an expansion of the ROTC program once the Selective Service Act was passed. The SATC program increased relations and partnerships between the US Army and American universities and colleges even further. This program provided collegiate and vocational sections to train men in areas that benefited the Army. Some men trained as potential officer leaders and others in technical subjects to meet the Army's projected needs. While the SATC program was short-lived, it provided an opportunity for the development of experts should the war last more than a few years. The benefit the universities and colleges gained from the influx of students ensured their financial success by filling the gap left when men who would have traditionally attended college signed up to serve in the war. While there were competing priorities, such as each state focusing on increasing the numbers of their National Guard units, institutions such as SMU exemplified how the program was beneficial for the Army, students, and institutions alike. With more than 150 universities and 100,000 students enrolled, the significance of participating in the program, where the military partnered with post-secondary education,

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[239] United States Department of Commerce, *Thirteenth Census of the United States: 1910*, United States Summary (Washington, DC: US Government Printing Office, 1913), 239.; Robert M. Yerkes, *Psychological Examining in the United States Army: Memoirs of the National Academy of Sciences* (Washington, DC: US Government Printing Office, 1921), 743.

demonstrated to leaders across America how a combined effort might be capitalized on in the future. While the Punitive Expedition, literacy, and the SATC program were significant, the relationship between the US military and educational institutions during WWII expanded even further.

By 1920, America had demonstrated its ability to respond to a global emergency. The preparation started with General Wood in 1913 with the Citizens' Military Training Camps and further developed as the Army encountered manpower problems during the Punitive Expedition and WWI. The military and civilian efforts demonstrated during the war that the organized National Guard was useful, but a combination of efforts such as the military training camps, the National Guard, and the ROTC along with other programs could yield a much larger impact. The education of recruits continued after the war, and Ralph Perry described the Army's impact on literacy in 1921, writing, "On December 1, 1920, there were 4,500 illiterate soldiers receiving instruction at six Recruit Education Centres which graduate about 1,000 men each month."[240] The legacy of the WWI literacy, training, and categorization efforts lived on. The partnership and investment between the Army and post-secondary education continued after WWI only to be overshadowed by the WWII education and training programs.

[240] Perry, *The Plattsburgh Movement*, 255.

CHAPTER FOUR: POST-WORLD WAR I INTO WORLD WAR II

The major challenges faced from the time World War I ended through World War II focused on demobilization and the efforts to address veteran education, rehabilitation, and compensation. Throughout the interwar period, veterans faced significant challenges that ultimately led to the Bonus Army incident, in which thousands of veterans marched on Washington in the hopes of early wartime bonus payments the federal government promised as part of the veteran WWI demobilization efforts. The slow growth in the American economy after WWI had a significant impact on America's ability as it entered WWII. The increased need for literacy and technical skills in servicemembers, and the lack of widespread possession of these skills by American men, led to partnerships between the War Department and post-secondary education developing programs such as the Army Specialized Training Program as well as a widespread literacy testing program, which expanded on the successes learned during WWI. The significant increase in technological advancements, the need for reform, and the large-scale military operations during WWII placed continued demands upon the American military and post-secondary education to partner in developing solutions to address the challenges America faced during the war.

During WWI, the United States invested significantly in programs to prepare servicemembers and potential inductees for military duty. The lessons the Army learned from the Punitive Expedition and the technological changes it faced at the beginning of the twentieth century identified problems that leaders sought to resolve while also fighting in the war. Literacy was a significant problem for the Army when considering the pool of potential recruits in America. The need to ensure potential recruits possessed the literacy skills needed to be successful in this new Army demanded partnerships between the War Department and

educators such as Robert Yerkes. These partnerships extended beyond researchers and into post-secondary education, as demonstrated in the chapter three example with SMU. Working with educational institutions during WWI, establishing the SATC, and the early development of the Citizens' Military Training Camps before and during WWI was just the beginning. An examination of the post-WWI into WWII period illuminates how the Army influenced education in America during WWII by learning from its experience with the Bonus Army incident, establishing the Army Specialized Training Program, and building on literacy programs from WWI to meet the demand for personnel and military units across the Army.

Demobilization Issues

At the end of WWI, the United States focused on a rapid demobilization of military forces. With more than 4.5 million Americans fighting during WWI, and more than 70 percent being conscripted as part of the Selective Service Act, the Great War resulted in legislation that increased benefits for veterans. This postwar time reveals how organizations such as the American Legion began to expand the influence of veterans in America. It also connects to political problems such as the government's treatment of the Bonus Army in 1932, when veterans, along with many others in America who were out of work and unable to support themselves or their families, marched on Washington in hopes of receiving an early payment of WWI veteran benefits. This led to a significant problem when the Army burned the veteran encampment to the ground, leading to political problems for multiple American presidents. During the interwar years, political leaders attempted to address America's societal problems for veterans. Congress passed legislation such as the War Risk Insurance Act, providing support for families of servicemembers who died or became

disabled while in service, while also providing voluntary life insurance at a very low rate.[241] Legislators also passed the Vocational Rehabilitation Act of 1918, which provided an opportunity for those men disabled during the First World War to receive training that would enable them to reenter the workforce.[242] Finally, the passage of the Selective Service Act had a significant impact on Americans, as it required men to sign up and potentially become conscripted for military service. Each of these pieces of legislation had lasting impacts as America entered WWII.

The legislation and programs that Congress established to assist veterans during their transition from the military back to civilian life were similar to General Leonard Wood's effort to establish the Citizens' Military Training Camps in 1912. Each sought to prepare a group of people for the future. One such effort was the proposal by US Senator Michael Hoke Smith, who advocated for adding language in the Army Reorganization Bill of 1916 whereby soldiers on active duty would receive ninety-six hours a month to study and receive educational instruction not connected directly to military service, in preparation for their return to civilian life.[243] American leaders understood the potential problems of recruiting and the connection to the need for veteran employment opportunities. However, veteran programs were not the only significant efforts to come out of WWI. Army literacy programs

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[241] United States Congress, Senate, Subcommittee of the Committee on Finance, "Hearing Before the Subcommittee of the Committee on Finance United States Senate," An Act to Authorize the Establishment of a Bureau of War-Risk Insurance in the Treasury Department," Approved September 2, 1914, and for Other Purposes," 65th Congress, 1st session, September 18, 1917; For the text of the Congressional Record on Public Document No. go, Sixty-fifth Congress, 1st Session, H.R. 5723, see the Proceedings and Debates of the 65th Congress, First Session, https://www.govinfo.gov/content/pkg/GPO-CRECB-1917-pt7-v55/pdf/GPO-CRECB-1917-pt7-v55-1-1.pdf. The War Risk Insurance Act established the War Risk Insurance Board (WIRB) in order to administer the financial compensation of wounded veterans.

[242] Federal Board for Vocational Education, *Annual Report of the Federal Board for Vocational Education*, Washington, DC, 1919, 20–21; Also known as the Sears Bill, the Vocational Rehabilitation Act initially appropriated $2,000,000 for veteran rehabilitation.

[243] United States Congress, Senate, Michael Hoke Smith of Georgia on National Defense.

continued, as the expansion of technology while waging war created an increased demand for a trained and educated workforce. The significant investment in training technicians and educating leaders continued to grow after WWI. While taxpayer-funded adult education programs had their inception during WWI and continued after the war, the infusion of federal money for military purposes affected literacy and language as well.

The demobilization of millions of men serving in the US military at the end of The Great War proved to be a significant challenge for the War Department. Not only were the men serving overseas part of the demobilization, but many men were still in training while others had only just taken their oath of allegiance the morning the Allies signed the armistice.[244] Demobilization was a complicated affair. As a result of the armistice, Secretary of War Newton Baker identified the development battalions at all camps to be the first units demobilized, starting on November 15, 1918. Baker also stated that

> every man who is discharged from the Army has to have a physical examination and a very careful record made for statistical status, and instead of furloughing them and then discharging they will be discharged, so that there may be no subsequent claims against the government.[245]

Both Baker and then US Army Chief of Staff General Peyton C. March provided an overview of the demobilization plans, which many in American industry attempted to influence. Baker and March eventually developed and implemented a demobilization plan that prioritized military needs. Their efforts to work in cooperation with the Department of Labor and the War Industries Board were combined with the need to increase processing

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[244] Brian F. Neumann and Shane D. Makowicki, *Occupation and Demobilization 1918-1923* (Washington, DC: Center of Military History, United States Army, 2019), 35, https://history.army.mil/html/books/077/77-9/CMH_Pub_77-9.pdf.

[245] Committee on Public Information, *Official U.S. Bulletin*, 2, no. 465 (Washington, DC, November 16, 1918), 1–6, https://www.worldwar1centennial.org/images/official-bulletin/pdf/18-11/2-465-november-16-1918-ww1-official-bulletin.pdf.

speed to muster out millions of soldiers, and as March informed reporters, ultimately achieve the ability to discharge 30,000 men a day.[246] Many economists and progressive Americans advised General March to demobilize the Army based on the needs of American industry to support the filling of critical jobs. March, however, focused on demobilization based on what made sense for military units. Baker supported the demobilization approach; he considered this approach as not only efficient, but equitable to the servicemembers.[247]

In transporting men from Europe back to the United States, the industrial might utilized originally to move troops into Europe during the war was no longer available. At the end of the war, the postwar rate of returning men home from the European theater was affected by the War Department's transport capacity. Only one-third of the capacity available during the war was at the disposal of the military immediately after the armistice, creating a significant problem for the American military. To solve the problem, the War Department modified naval ships and chartered passenger vessels to increase the troop transport capacity. By June 1919, the Americans were transporting troops across the ocean at a monthly rate that exceeded the highest transport numbers during the war by more than 60,000 soldiers.[248] The War Department leaders understood the pressures to "get our boys home" and responded effectively. This rapid demobilization may have made soldiers happy in the short term, but the economy and the need for employment would later influence their thoughts on veteran's benefits.

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[246] Committee on Public Information, *Official U.S. Bulletin*, 2, no. 465, 6.

[247] Neumann and Makowicki, *Occupation and Demobilization 1918-1923*, 41. For more information on the efforts to reorganize the Army as part of the demobilization, and the controversy, see the Baker-March Bill of January 1919.

[248] Neumann and Makowicki, *Occupation and Demobilization 1918-1923*, 36.

Other concerns with the demobilization were the need for men to continue military unit operations, the question of who the military would demobilize first, and the impact of demobilization on the American economy.[249] Many officers holding commissions in the Army wanted to tender their resignation and return home immediately. The presidential determination under Section 9, Act of Congress, of May 18, 1917, informed officers, except those holding commissions in the regular Army, that the military would discharge them as soon as the military could spare their services. Some officers saw this an opportunity to depart the Army as soon as possible.[250] The resignation letters poured in and were problematic for the Army. As a result, Army leadership issued a directive that the Army would not accept or consider officer resignations.

The War Department faced significant challenges in the demobilization far beyond releasing men from service. The military halted multiple construction projects and supply contracts across the country, as the Armed Forces no longer needed them.[251] The construction of a Radio School in Camp Jackson, South Carolina, as well as cantonment areas for more than 10,000 men each at Fort Benjamin Harrison, Indiana and Fort Leavenworth, Kansas demonstrated the complications facing the War Department during demobilization.[252] As men working on these projects were laid off, they were in competition

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[249] Jennifer D. Keene, *World War I: The American Soldier Experience Paperback*, (Lincoln, NE: University of Nebraska Press, 2011). At the end of WWI, American servicemembers totaled 4.4 million, including more than 3,800,000 soldiers, 450,000 sailors, 54,000 Marines, and 2000+ Coast Guard members. America had over 53,000 combat deaths and more than 63,000 non-combat deaths. The two million men deployed overseas as part of the expeditionary force had to be transported back to America.

[250] Committee on Public Information, *Official U.S. Bulletin*, 2, no. 469, 1–2.

[251] "Public Sale of Army and Navy Good from Cancelled Government Contracts," *Perth Amboy Evening News*, Vol. 39, November 7, 1919. https://chroniclingamerica.loc.gov/lccn/sn85035720/1919-11-07/ed-2/seq-20/; *The Wheeling Intelligencer*, "U.S. Army and Navy Surplus Stocks," Vol. 68, December 20, 1919, https://chroniclingamerica.loc.gov/lccn/sn86092536/1919-12-20/ed-1/seq-24/.

[252] Committee on Public Information, *Official U.S. Bulletin*, 2, no. 469, 5.

with returning servicemembers seeking civilian employment. In addition to construction project terminations and officer resignations, the War Department's demobilization efforts needed to address the uncertainty of veterans returning to civilian life. For those soldiers who were not immediately discharged, Army leaders invested in their education to keep them busy and assist them in the transition to civilian life.

Efforts to Address Veteran Education and Rehabilitation Issues

In a continued effort to educate soldiers, those who remained in Europe as part of the occupying force had an opportunity to attend courses and pursue learning opportunities. Leaders such as General John J. Pershing and General March, took a top-down approach to ensure that soldiers stayed busy with military drills such as cavalry, artillery, and infantry exercises, but the Army also established educational classes to reduce boredom amongst American soldiers stationed in Europe as an occupying force. Military historians Brian Neumann and Shane Makowicki explained that "[t]he Army Educational Commission and the section of the general staff that coordinated education and training managed to secure a substantial number of textbooks on topics ranging from American history to farm management and business law."[253] These books supported the Post Schools, enabling them to provide classes on a wide variety of topics. The success of these classes provided examples for future Army education and veteran return-to-work programs.[254]

The effort to reduce the illiteracy rate was a passion of General Pershing. His focus on these learning opportunities came from his desire to ensure men stayed out of trouble and

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[253] Neumann and Makowicki, *Occupation and Demobilization 1918-1923*, 77.

[254] Federal Board for Vocational Education, *Annual Report of the Federal Board for Vocational Education*, 84.

used their free time in a "profitable and enjoyable method."[255] People at all levels within the Army observed the literacy problems. One chaplain in the 165th Infantry noted during WWI that there were 200 soldiers in the unit who could not sign their name to the payroll ledger. Illiteracy continued to be a problem in the Army, but senior leaders saw the occupying force as a chance to provide learning opportunities and improve educational standing amongst soldiers before they left the Army.[256] In support of this effort, Pershing requested his commanders identify men from within their formations who could teach educational classes. Once units identified the men, commanders could request the needed books from the Army Educational Commission and schedule classes. Efforts towards literacy and educational advancement in the Army that continued into WWII built on the successes of the WWI and postwar efforts.

Addressing injuries as part of the demobilization required significant effort by the Army and was not always appreciated by servicemembers. The Army had more than 250,000 men pending disability compensation for exposure to poison gas, injury, or some other serious health problem resulting from the war. Many of these men simply wanted to leave the military and therefore chose not to claim any level of disability. Over time, this quick departure became a larger problem for soldiers requiring long-term care. The Army had a policy of keeping men requiring long-term care on the active Army roles to ensure that they received hospitalization, domiciliary treatment, and even prosthetics. Many men wanted to exit the military as quickly as possible and return to their civilian life. Therefore, those who

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[255] Department of the Interior, "Educational Work of the Young Men's Christian Associations 1916-1918, Bulletin 1919," No. 53, (Washington, DC: Government Printing Office, 1919), 17. In the months of January – March 1918, 1,277,916 people attended classes on military camps as a result of the Army educational program and the developmental battalions.; Neumann and Makowicki, *Occupation and Demobilization 1918-1923,* 77.

[256] Mark Meigs, *Optimism at Armageddon: Voices of American Participants in the First World War*, New York: NYU Press, 1997, 189–190.

wanted a quick discharge and could hide the need for treatment, did so. These shortsighted decisions created problems later and limited access to programs that may have assisted those veterans in returning to work such as retraining benefits provided by the Vocational Rehabilitation Act of 1918. Establishing veterans' benefits that did not require men to remain on active duty, but still allow them to receive treatment, was still a work in progress. It was not until 1930 and the consolidation of the Veterans Bureau, the Pensions Bureau from the Department of the Interior, and the War Department's Soldiers' Home that support from a single dedicated organization was available to veterans.[257]

Policies to provide veteran benefits were not new to Americans, but WWI saw the significant expansion of these benefits. Previous veterans' benefits included the American Civil War General Pension Act of 1862, which provided disability payments to veterans and their dependents. Congress modified the 1862 legislation multiple times over the years and eventually passed the 1912 Sherwood Act, which expanded eligibility and provided a pension to veterans aged 62 and older. In 1917, Congress debated the War Risk Insurance Act, which eventually provided life insurance as well as vocational and rehabilitative training for veterans with permanent disabilities.[258] Those who chose to stay on active duty after the war could claim the benefit of training. With more than 100,000 men dying while in service, and many more returning with disabilities, this approach helped some but overall supported only a small number of the more than four million Americans in the service during WWI. The War Risk Insurance Act of 1917 provided for rehabilitation and reeducation of all

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[257] Neumann and Makowicki, *Occupation and Demobilization 1918-1923*, 31-34.

[258] United States Congress, Committee on Finance, "H.R. 5723, An Act to Amend an Act Entitled 'An Act to Authorize the Establishment of a Bureau of War-Risk Insurance in the Treasury Department,'" 65th Congress, 1st Session, September 18, 1917, 1-95.

disabled soldiers. Those the military did not consider disabled still faced the challenge of having less experience than those who remained in their jobs and industry while others fought overseas.

A significant difference between WWI and previous conflicts, for America, was that during WWI, the military conscripted more than 70 percent of Americans who served.[259] This was far greater than any previous war. As a result, American leaders saw not only the problem of disability in veterans, but also the reduction in income from military pay compared to what a man could have earned had he not served. To address this problem, later in the war the military increased the basic monthly salary to $30, and when discharging servicemembers at the end of WWI, the men received $60 and a train ticket home. While that seemed to help, after the war the American economy was lackluster and by spring of 1919, more than one-third of veterans were unemployed.

Congress did take action to help veterans with the passage of the Smith-Hughes Act of 1917. One of the authors of the bill, Senator Michael Hoke Smith, had previously advocated for servicemembers to receive dedicated time for educational instruction to prepare them for civilian life. The Smith-Hughes Act was known formally as the National Vocation Education Act, and it promoted vocational education in industrial and agricultural trades.[260] While this act was not solely for servicemembers or veterans, the authors did write it to address the needs of the labor force in America and allocate federal funding in support

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[259] The specific WWI induction statistics are documented as 2,810,296, according to the Selective Service System. More than two million of those were during 1918. Selective Service System, "Induction Statistics," https://www.sss.gov/history-and-records/induction-statistics/.

[260] Gerald C. Hayward and Charles S. Benson, *Vocational-Technical Education: Major Reforms and Debates 1917-Present*, Report (Washington, DC: Office of Vocational and Adult Education, 1993), 6–8, https://files.eric.ed.gov/fulltext/ED369959.pdf; United States Congress. Senate. Michael Hoke Smith of Georgia on National Defense.

of American education. The benefit of this type of legislation was that it paved the way for additional federal funding in support of veteran programs.

A year after the passing of the National Vocation Education Act, the Soldier's Rehabilitation Act of 1918 also passed. This provided not only compensation but also training for veterans who had been injured in the war and were not able to return to their previous professions. Many saw this legislation as a way to rehabilitate disabled veterans and incorporate them back into the civilian workforce and saw the program as being both helpful and cost-effective.[261] During and coming out of WWI, many focused on how modern medicine might eliminate some of the societal problems that resulted from war. With appropriate vocational and physical support, along with reconstruction, men who had been blinded, became deaf, or had amputated limbs could be effective contributors to society.[262] Of course, helping veterans was not the only reason for investing in their rehabilitation. It is estimated that by 1916, the cost of Civil War pensions to the United States was more than $5 billion.[263] The fact that modern medicine allowed men who would previously have died from their wounds to return home caused leaders to anticipate a more significant economic burden on the nation and determine that action was needed.

The attitude towards disabilities and rehabilitation went through a transformational change during this progressive era. As the war began, leaders such as US Army Medical Corps Lieutenant Colonel Harry Mock focused on the Army "mak[ing] plans to reclaim the soldiers" instead of simply providing homes or pensions that would support but not empower

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[261] William T. Bawden, *Vocational Education, Bulletin No. 25* (Washington, DC: Department of the Interior, Bureau of Education, 1919), 13–15, https://files.eric.ed.gov/fulltext/ED541191.pdf.

[262] Beth Linker, *War's Waste: Rehabilitation in World War I America* (Chicago: University of Chicago Press. 2011), 2.

[263] Linker, *War's Waste*, 2–3.

the rehabilitation of disabled soldiers.[264] Physically reconstructing these veterans, coupled with retraining them for new work that suited the goals of the men and their disabilities, became the goal for social and economic reasons.[265]

The need to focus on industry and putting veterans back to work during demobilization was a topic of great interest towards the end of the war. William Stoddard, the 1918–1919 administrator of the National War Labor Board, highlighted in his January 1918 article that statistics from France and Belgium projected large numbers of American troops returning with disabilities. Stoddard opined that "that the vocational rehabilitation of disabled soldiers is a very wise business investment" using France as an example, where they re-educated nearly 1,800 wounded men in four months, ultimately eliminating the need for the men to receive pension payments.[266] This elimination of these pension payments resulted in France saving $1,930,000.[267] The win-win regarding the progressive agenda and federal economic savings was in the minds of many American leaders involved in policy and programs after WWI.

Several veteran program changes occurred after WWI, with many of the changes influenced by veteran organizations. More than one hundred veteran organizations existed by 1920, with the American Legion being one of the most powerful. In 2015, James Ridgway, Chief Counsel for Policy and Procedure at the Board of Veterans' Appeals, provided a historical perspective on the 1919 founding of the American Legion by WWI veterans.

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[264] Harry E. Mock, "Reclamation of the Disabled from the Industrial Army," *The Annals of the American Academy of Political and Social Science* 80 (1918): 29–34, http://www.jstor.org/stable/1013904.

[265] US House of Representatives, *Document 1445, Second Annual Report of the Federal Board for Vocational Education*, 1918, 24–27, https://www.va.gov/vetdata/docs/FBVEFY1918.pdf.

[266] William Leavitt Stoddard, "Those Who Come Back: How the Republic Plans to Care for the Broken Men Who Soon Will Be Returning from Her Battles." *Nation's Business (Pre-1986)* 1 (1918): 20.

[267] Stoddard, "Those Who Come Back," 20.

Ridgway explained that WWI veterans needed a hospital system that could manage the overwhelming number of veterans returning from Europe.[268] Ridgway wrote that "in 1921, The American Legion helped issue a report that publicized the fact that shell-shocked veterans were being sent to hospitals for feeble-minded children because there was no other space elsewhere, and they were forced to sit on infant chairs."[269] While the American Legion's report may not have been interpreted as significant compared to other published reports of the time, Ridgway suggested that the report "was one of the first triumphs of The American Legion, to bring to light the conditions in the (veterans) hospital system, which led to substantial new funding to expand capacity of the system."[270] While only two years old in 1921, the American Legion was quickly becoming an influential organization that eventually used its influence to affect the passage of the post-WWII G.I. Bill.

Legislation Supporting Veteran Compensation

The American Legion also fought for compensation to WWI veterans to make up for lost wages in relation to salary they received during their war service. For example, the Legion lobbied for the World War Adjusted Compensation Act of 1924. This, of course, was not without conflict.[271] American Legion delegate John F. J. Herbert from Worcester, Massachusetts had a significant problem with the words "Adjusted Compensation Act." During the January 1920 American Legion special constitutional convention for the

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[268] Bawden, *Vocational Education*. The 1919 annual report on vocational education by the Department of the Interior identifies that according to government research, there were 16 general convalescent and reconstruction hospitals, one in each of the 16 military districts established during the war. It also documents that out of 516 cases being treated in four of the hospitals, 184 men were able to return to full military duty, 210 were fit for return to limited service, and 172 were eligible for discharge.

[269] The American Legion, "Recounting the History of Veterans Benefits," February 26, 2015, https://www.legion.org/washingtonconference/226244/recounting-history-veterans-benefits.

[270] American Legion, "Recounting the History of Veterans Benefits."

[271] "Sober Sense about the Bonus," *Nation's Business (Pre-1986)* 2 (1924), 38.

Department of Massachusetts, Herbert took issue with the fact that "bonus has come to mean 'full payment plus,' and there has not yet been full payment, or anywhere near full payment, so there cannot be any plus."[272] Some two years later, in the fall of 1922, the adjusted compensation bill had still yet to be passed. At this point, President Harding took issue with Congress's failure "to provide the revenue from which the bestowal is to be paid" and stated that to "bestow a bonus which the soldiers themselves, while serving in the World War, did not expect" was not sensible.[273] As a result, President Harding vetoed the bill, drawing the anger of the Legion. In response, the American Legion commander, Hanford MacNider, published his position in the weekly magazine *The Outlook*, in which MacNider stated "the battle for adjusted compensation has only just begun."[274] MacNider was enthusiastic about achieving these payments for war veterans, publishing his own articles to gain support. His generalization of earnings that he applied to all veterans, the use of historical precedents, and details that generated emotional responses were all part of his campaign to ensure the expansion of veterans' benefits.[275]

In 1924, Congress passed the World War Adjusted Compensation Act, which provided $1.25 for each day of overseas service and a dollar for each day of home service, with a maximum of $500 for veterans with no overseas service and a maximum of $625 for veterans who had overseas service. As part of this legislation, the veteran could apply for and be issued a certificate payable at 4 percent interest compounded annually either twenty years

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[272] American Legion, *Annual Proceedings: The American Legion 1920*, Department of Massachusetts (Boston: Wright and Potter Printing Company, 1921), 228–230. https://books.google.com /books?id=PssMAAAAYAAJ&pg=PA228&#v=onepage&q=compensation%20act&f=false.

[273] "The Bonus, the President, and the Legion," *The Outlook* 132 (October 4, 1922): 181–182, https://books.google.com/books?id=Eem9pK5oIhsC&pg=PA182&#v=onepage&q&f=false.

[274] "The Bonus, the President, and the Legion," *The Outlook*, 181–182.

[275] Hanford MacNider, "A Bonus for Ex-Soldiers," *Current History* 7 (1922), 545.

after the date of the certificate, with all certificates being dated after January 1, 1925, or upon the death of the veteran, whichever came first.[276] As part of this legislation, the government set aside $100 million from which they could draw interest for twenty years, and the resulting proceeds would enable the government to pay for this legislation. This supported President Harding's goal of providing revenue streams for programs that Congress initiated, and with President Coolidge now in office and in disagreement with the legislation, Congress had to achieve enough votes to override his veto and pass the bill into law. Coolidge considered this a significant additional investment, with the country already spending $400,000,000 annually on training, insurance, and hospitalization for disabled veterans.[277] Ultimately, this "bonus" would prove to create additional problems beyond finances for the US government.

The Bonus Army Incident

There were many efforts to enhance veterans' benefits in the years after the end of WWI. By 1929, the Great Depression and American economic activity had put fifteen million Americans out of work. The World War Adjusted Compensation Act of 1924 soon became a topic that polarized politics. The veterans of WWI felt the depression affected them disproportionately to other Americans.[278] Between May and June 1932, veterans of WWI, who had been issued the US government certificates payable in 1945, marched on Washington, demanding the federal government pay their "bonus payments" immediately. This "Bonus Army" called themselves the Bonus Expeditionary Forces, growing out of a

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[276] United States Congress, "H.R. 7959, Pub. L. No. 120, Chapter 157: An Act to Provide Adjusted Compensation for Veterans of the World War, and for Other Purposes," 68th Congress, 1st Session, 19 May 1924, Chapter 157, 1924, 121–128.

[277] Calvin Coolidge, Presidential Message to the United States Congress, *Veto Message: Adjusted Compensation for War Veterans*, Messages and papers of the Presidents, May 15, 1924, 9405–9408, https://coolidgefoundation.org/wp-content/uploads/2020/10/VetoHR.7959.pdf.

[278] Jennifer D. Keene, *Doughboys, the Great War, and the Remaking of America* (Baltimore, MD: Johns Hopkins University Press, 2001), 180.

local special interest group from Portland, Oregon and led by Walter Waters. After his time in the Army, Waters found it difficult to find work, and with about 30 percent of Americans unemployed, he and his fellow veterans were looking for more than simply a future bonus payment—they were looking for immediate assistance.

Politically, the Bonus Army was a fiasco for President Herbert Hoover. He had already vetoed early payment legislation in 1930, and once Hoover ordered Army General Douglas MacArthur to remove the men and their families of the Bonus Army from the capital mall, the situation became worse. The Bonus Army began with Waters and others traveling to Washington, DC to protest for the early payment of bonuses. During the trip across the country, other veterans joined the group, and by the time they reached Washington, there were thousands of veterans participating in the protest. In May 1932, the thousands of men and their families camped in the nation's capital, sleeping and eating along the Anacostia River just east of Capitol Hill. During the day, the veterans marched in protest throughout Washington, passing in front of the White House numerous times in the hopes that their peaceful assembly would eventually result in passage of early payment of their bonuses. President Hoover saw them as a mob and considered the veterans vagrants, which his administration must remove.[279] The poor treatment the veterans received as part of the Bonus Army incident, may have influenced the decision to take care of veterans by providing educational benefits during and after WWII.

On July 28, 1932, after MacArthur issued repeated orders to the Bonus Army to leave the city, the situation became volatile. Just seventeen days after Hoover vetoed the Garner-Wagoner Relief Bill, which would have paid the veterans the anticipated bonus early,

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[279] Kathleen J. Frydl, *The G.I. Bill* (New York: Cambridge University Press. 2009), 51–53.

MacArthur exceeded his orders from President Hoover to contain the veterans, to the detriment of Hoover's political career. Using tear gas, tanks, and portions of infantry and cavalry regiments, MacArthur not only evicted the veterans from the buildings they occupied on Pennsylvania Avenue, but he also exceeded his orders to contain the marchers at their campsite at Anacostia Flats. In what some historians document as overzealous, MacArthur's forces employed tear gas into the campsite at Anacostia Flats, injured thousands of veterans, and burned their makeshift structures to the ground. The political ramifications of this event ended Hoover's political career and was one factor that contributed to Roosevelt's victory in the 1932 election later that year.[280]

The destruction of the tents and makeshift living conditions of the veterans created deep sympathy for the group, which organizations such as the American Legion as well as supporters of early bonus payments used to their advantage. The destruction of the camp also left the Bonus Army with little to support their continued stay in Washington, DC, thus ending the protests.[281] A year later, veterans again traveled to Washington, DC in the hopes of gaining support for early bonus payments. President Roosevelt followed in Hoover's footsteps by vetoing the passage of the bill, but eventually Congress overrode Roosevelt's veto and veterans received the bonus payments for which they so passionately lobbied.

Through the lens of the Second World War, the connection between the Bonus Army and American post-secondary education shows the significant impact. At the end of WWII, millions of servicemembers were set to end their military obligations and reenter the

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[280] David M. Kennedy, *Freedom from Fear: The American People in Depression and War, 1929–1945* (New York: Oxford University Press, 2005), 92.

[281] Wyatt Kingseed, "A Promise Denied: The Bonus Expeditionary Force," *American History* 39, no. 2 (June 2004), 28–35.

American workforce. Since the march on Washington by the Bonus Army was less than two decades old, American politicians looked to avoid a similar problem. The pressures veteran organizations such as the American Legion placed on legislators leveraged sympathy from society, and incidents such as the Bonus Army treatment provided them examples to use. Some progressive politicians saw this event as an opportunity to increase social welfare programs, while others wanted to avoid a political fiasco similar to the Bonus Army. Regardless of their political leanings, the US Congress passed the Servicemen's Readjustment Act in 1944.[282] The post-WWI period was one of tough times and slow growth of veteran and servicemember educational benefits, but by the Second World War, progress and support for veterans had increased significantly.

Changing Demographics

In 1940, literacy and competence with the English language were still a problem for the US Army's potential labor pool. The men needed to fight during wartime required educated officers to lead formations in the Army along with men with technical capacity to prepare, use, and maintain battle-ready equipment. No longer was the Army an organization where men simply followed orders, needing only to maintain their rifle and place within the rank-and-file. The Army needed men who could read, write, and think. The competing priorities between men serving in the Army and those in support of the military-industrial complex created a significant problem for the War Department during WWII.

An analysis of the 1940 census statistics provides insight into the makeup of American society prior to the war. With 131,669,275 persons reported in the United States

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[282] Servicemen's Readjustment Act (1944), An Act to Provide Federal Government Aid for the Readjustment in Civilian Life of Returning World War II Veterans, June 22,1944; *Enrolled Acts and Resolutions of Congress, 1789-1996*; General Records of the United States Government; Record Group 11; National Archives. https://www.ourdocuments.gov/doc.php?flash=true&doc=76#.

census of 1940, the number of unemployed during the week of March 24–30, 1940, was 5,093,810, as reported by the states collectively. The increase of urban dwellers between the 1930 and 1940 census was 27.3 percent, with the increase in overall population being only 16.1 percent.[283] This demonstrated how industry was drawing Americans to urban areas and correlated to the need for an educated and trained workforce. Those living in the cities were less able to grow their own food and live off the land, but the workforce was gaining skills in the use and maintenance of industrial equipment. Without management of the workforce during wartime, problems would undoubtedly arise.[284] While taxpayer-funded adult education programs began decades earlier, bringing together different groups of people as federal money became available for local and state programs, the average years of schooling for Americans 25 years old and over during the 1940 census was only 8.4 years.[285] Even with the Citizens' Military Training Camps and Reserve Officers' Training Corps teaching men military skills, there was still a gap in preparing America for a large-scale war. Understanding conscription in America and its transformation over time provides insight into how the US Army arrived at the need for the WWII draft. The historical perspective on selective service in America connects the changes in technology to the eventual partnership between the Army and post-secondary education to address the literacy and skills needed to wage war.

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[283] United States Department of Commerce, *Sixteenth Census of the United States: 1940*, United States Summary (Washington, DC: US Government Printing Office, 1943), 11.

[284] United States Department of Commerce, *Sixteenth Census of the United* States, 11–18.

[285] United States Department of Commerce, *Sixteenth Census of the United States*, 9.

Conscription

During WWII, the world encountered many significant changes. By the 1940s, Americans had not only fought for their own land but brought freedom to others in Europe during WWI during 1917–1918. Americans fought not only for each other and their principles but to keep others from being oppressed. One perspective on this is by Caspar W. Weinberger, former US Secretary of Defense, who stated,

> For the first hundred and fifty years we generally depended on a small standing volunteer professional armed force. The first major step away from this practice came just after World War II with the realization of America's leadership role. It became clear then that America needed conscription to achieve the military forces the mission required. It is important, however, to remember that historically America's reliance on conscription has been the exception rather than the rule for staffing the Army."[286]

The United States' reliance on the draft during the world wars had a lasting effect on American society for decades to come. Understanding the nuances of the draft during both world wars helps illuminate the need for programs in support of servicemember development, as well as transitional programs to ready veterans for reintegration into civilian life.

George Washington laid the foundations for the American draft when, in 1778, he wrote to the President of the Continental Congress, "I Believe our greatest and only aid will be derived from drafting, which I trust may be done by the United States."[287] A little more than four score years later, the United States drafted men to fight during the American Civil War when, on March 3, 1863, President Abraham Lincoln signed the Enrollment Act.[288] With the Civil War having no end in sight, the Union needed soldiers. There were countless

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[286] Martin Anderson, *The Military Draft* (Stanford: Hoover Institution Press, 1982), Forward.

[287] Anderson, *The Military Draft*, 8.

[288] This act is also known as the Civil War Military Draft Act or the National Conscription Law.

exceptions to the draft during its beginnings, such as the fact that one man could pay another man to take his place. For example, an owner could send a slave to fight in the draftee's place.[289] Those types of system failures, where manipulation was common, resulted in more than simply discontent. Many men in the North had connections to southern businesses and families and therefore had little desire to fight in the conflict. As a result, in July 1863, four days of rioting took place in New York City due to the unfair drafting practices. The problem with using the concept of service to the nation in a system that contained loopholes in the service requirements meant that well-to-do men were less likely to be drafted. The fact that a man could pay $300 to avoid the draft essentially ensured that the wealthy would not be forced to serve. This, along with racial tensions deriving from most Blacks being exempt from the draft since they were not considered citizens, demonstrated the problems America faced with conscription during the Civil War.[290] Essentially, the policies created a larger status gap between the rich and the poor, which were revisited after WWI when lawmakers and members of American society voiced their opinions on whether veterans' benefits should be connected to rank and compensation received while in the service.

Of course, there were even more labor problems during the American Civil War. The result of the draft failures in the North and South during the Civil War led to men being drafted into the military even when these men were beyond the normal fighting age. Within the first few years of the war, Confederate President Jefferson Davis had already depleted the

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[289] The World War I Selective Service Act eliminated this loophole and did not allow the use of substitutes.

[290] Iver Bernstein, *The New York City Draft Riots; Significance for American Society and Politics in the Age of the Civil War* (New York: Oxford University Press, 1990), 9–10.

bulk of men in the South and, by 1863, began drafting men up to 50 years of age. With the consent of their owners, the South even began to draft slaves.

Regardless of the depletion of men in the North and the South, during the American Civil War, draftees made up less than 10 percent of all servicemembers. Even so, the draft was a major undertaking requiring a large administration, which neither the North nor the South was able to develop quickly. A more important aspect relating to this research was that the need to take care of those who fought the war was even more important should the country conscript their service. Since many were fighting based on mandate instead of choice, the expectation for veterans' benefits rose after the war. Because of the draft, leaders felt programs such as war pensions after the American Civil War helped to soften the burden placed on these draftees and established precedents that American political leaders revisited after the world wars.

The modern draft took form in 1940, when President Franklin Roosevelt signed the Selective Training and Service Act (STSA), creating the country's first peacetime draft.[291] The wartime draft was in place during WWI, but as the country prepared for the possible entry into the European war, the need for a large standing military training program became obvious. Military leaders were only two decades removed from the 2,810,296 men inducted through the draft in support of WWI over its fourteen-month period. During the First World War, America faced a significant problem—developing the military while at the same time ensuring that key industries in support of wartime production, such as shipbuilding,

[291] Selective Training and Service Act of 1940, Pub. L. No. 76-783, 39 STAT 166, 76th Congress, 3rd session, September 16, 1940.

continued to operate at maximum capacity.[292] Leaders identified that simply relying on volunteers for military service may not produce the numbers required for the fighting force, and allowing anyone to sign up for the military under a volunteer system might result in wartime industries being affected or even incapacitated.[293] As a result, the draft boards and War Department provided deferments to those with skills needed to operate in critical industries, leaving the US military with unskilled, and at times uneducated, labor. Prior to WWI, the United States had a wartime draft policy of recruitment and training. The STSA solidified the selective service program and made the drafting of men available during both peace and wartime possible. This program was a complicated system with numerous rules, workers, and problems administered by an independent federal agency.[294] The WWII program built on the efforts of the WWI process.

The WWI selective service registration process was unique in its scope and timeline. The US Congress passed the 1917 Selective Service Act on May 18, and President Woodrow Wilson issued a proclamation to the state governors, along with all men in America, whether native born or alien, between the ages of 21 and 31, excluding men already in service to the US military, that "between 7 A.M. and 9 P.M. on the fifth day of June, 1917 in the precinct where they have their permanent homes," these men must present themselves and register for potential service in accordance with the Selective Service Act.[295] The attempt to enroll such a

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[292] John L. Rafuse, "United States' Experience with Volunteer and Conscript Forces," in *Studies Prepared for the President's Commission on an All-Volunteer Armed Force*, vol. 2 (Washington, DC: US Government Printing Office, 1970), III-1-23.

[293] US House of Representatives, *Document 1445, Second Annual Report of the Federal Board for Vocational Education*, 1918, 27–32.

[294] Edwin P. Hoyt, *The GI's War* (New York: Da Capo Press, 1988), 9.

[295] Associated Press, "President's Proclamation: Selective Conscription Law Presented to Country," *Tonopah Daily Bonanza*, May 19, 1917, Saturday Evening, vol. XVI, no. 287, Library of Congress Chronicling America, 1, https://chroniclingamerica.loc.gov/lccn/sn86076142/1917-05-19/ed-1/seq-1/?loclr=blogser.

large number of men into the conscription records was a task of enormous scale. With only two weeks' notice, Americans were both supportive and shocked. The centralized approach focusing on data from the 1910 census and information gathered from local entities as part of the decentralized execution in such a brief time showed American efforts to leverage its resources quickly.[296]

Of course, not everyone was happy with the requirement for draft registration, but the consequences of not registering during WWI were a year in prison and mandatory registration once released. American leaders were serious about supporting this war effort and did not tolerate dissension. Butte, Montana resident John Lennon had moved from Alaska to Butte six months earlier. In June 1917, the *Butte Daily Post* reported that when told by the local registrar Emmet Griffin, "You will have to register now because this is the only day that registrations will be accepted," Lennon replied, "Well, I want to think it over anyway."[297] After being pressed on his decision, Lennon refused to register and was arrested. The same month, authorities arrested another Butte, Montana resident, James E. Treanor, Secretary of the Pierce-Connolly Club, and charged him as the ringleader in a conspiracy to interfere with draft registrations.[298] The local Irish society was distributing anti-conscription literature to men in the town in defiance of the new law. While these incidents show that not everyone supported conscription during WWI, the significant majority complied with the conscription requirements. The support and compliance were both overwhelming in many

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[296] United States War Department, "Regulations Governing Physical Examinations," (Washington, DC: Government Printing Office, 1917). http://archive.org/details/regulationsgov00unit

[297] "John Lennon Is Only Man to Refuse to Sign Name," *The Butte Daily Post*, June 5, 1917, vol. 5, no. 134, Library of Congress Chronicling America, 1, https://chroniclingamerica.loc.gov/lccn/sn85053058/1917-06-05/ed-1/seq-1/.

[298] "Pearce-Connolly Club Officer is Held for Anti-Draft Agitation," *The Butte Daily Post*, June 5, 1917, vol. 5, no. 134, Library of Congress Chronicling America. 1–3. https://chroniclingamerica.loc.gov/lccn /sn85053058/1917-06-05/ed-1/seq-1/.

parts of the country, with some precincts even encountering a shortage of registration cards. Other areas pushed back against the conscription law, which ultimately may have later affected decisions on veterans' benefits to placate those the law forced into service.

The connection between conscription and veterans' benefits later became a critical point of debate for legislators. In previous wars, most men had volunteered for service, with the conflict's overall conscription rate being less than 10 percent. In WWI, the American government sought to manage not only conscription, but enlistments and labor in general. To ensure industry in America continued to produce the goods and equipment needed to wage war, voluntary enlistments in all American Armed Forces eventually ended, and all accessions into the military were through conscription. The government saw this as the best method to ensure the most effective use of its workforce. As a result, many Americans may have viewed this as the government mandating requirements for their lives and eliminating their choices. This management of people may have therefore affected the perspective of legislators on providing postwar education benefits for veterans. In addition to affecting these benefits, the method of bringing men into the military during WWII applied the lessons learned from WWI. The process of the military influencing education in America was a series of events that continued to build over time.

Prior to America declaring war on Germany, in 1940 the American military drafted 18,633 men to fill the ranks of the peacetime military.[299] It seemed that some men understood America would eventually become involved in WWII. As a result, many men signed up for military duty just so they could enter their desired branch of service. The actions of these

[299] Selective Service System, "Induction Statistics," https://www.sss.gov/history-and-records/induction-statistics/.

men lessened the need for draftees, but overall, the need for trained military men required numbers far greater than the early volunteers provided. In addition, the advancements in technology at the beginning of the twentieth century created a need for men with technical skills. The fact that so many American men were out of work during the Great Depression exacerbated the military's problem of building a fighting force capable of maintaining and employing the equipment and advanced weaponry needed to prosecute the war.[300] Men who were out of work were not gaining the technological skills needed at a time when America was preparing for potential conflict.

At the start of 1940, the US Army had only 200,000 full-time soldiers.[301] America also had a military reserve in the National Guard, but sadly most Army leaders considered the National Guard an untrained force. As for the manpower within military units, the average officer or enlisted man became no longer average. During WWII, the US military drafted college-educated men into positions where, at times, they may have fought next to a man with a fourth-grade education. This example shows how the chasm between the wealthy and the poor closed somewhat during the war. Still, those with enough money or status might find ways to avoid the draft. Overall, draftees were generally average men who were healthy and generally did not want to fight or volunteer but waited for their turn and showed up when called.

The idea that the US military was not prepared to resource the large fighting force required to win the war in Europe was obvious to the foot soldier who attended rushed

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[300] Brandt, "Drafting U.S. Literacy," 486.

[301] National World War II Museum, *Research Starters: US Military by the Numbers*, https://www.nationalww2museum.org/students-teachers/student-resources/research-starters/research-starters-us-military-numbers

training where he carried broomsticks to simulate machine guns during training. Examples from soldiers in 1940 present an interesting perspective on Army training. Edwin Hoyt, in *The GI's War*, described the Army's lack of preparation to equip and train men for WWII, saying,

> Lieutenant Shebeck, being of an inquiring mind, had some disquieting thoughts about the future. He saw that a quarter of the men had no weapons. Saplings were cut from small trees to improvise. His machine gun company only had half its machine guns. The company was supposed to have 37-millimeter antitank guns, but it had none. Instead small forked trees were cut, and a small log was put across the crotch to make a 'gun.'[302]

While there were effective training plans, the expansion of military recruit training by the Army overloaded training center capacity early in the war.

Some combat veterans from WWI were part of the US military in 1940. However, those men were usually senior military leaders and of little help either in training new inductees or on the front lines of the battlefield, since the fighting in WWII was much different from that of WWI. Many WWI veterans were certainly not part of the active force, and many were most likely too old for military service at all. The policy of drafting men specifically for war, instead of keeping a standing military, led to the same problem at the beginning of both world wars—no trained or equipped military. Not only were American leaders aware of the United States' problem of military preparedness, but the international opinion on the status of the American forces confirmed the situation. One of Benito Mussolini's journalists, Luigi Barzini, wrote in Il Duce's newspaper *Il Popolo D'Italia*,

> The United States can never successfully intervene in the European war, the United States Regular Army consists of 200,000 mercenaries, with a complement of playboy National Guards who specialize in picnics….American intervention is a race between a tortoise and an automobile….There is not a single man in the United States today who would fight for the Poles, the Belgians, the Norwegians and the Dutch, and die

[302] Hoyt, *The GI's War*, 11.

> on the battlefield with the sweet names of Reynaud and Churchill on his lips. Americans are prepared to do everything to help the Allies without going to war. Even if the United States openly intervenes, it cannot increase its present mediocre exportation.[303]

In 1940, the American Army, including the National Guard, consisted of roughly a half-million men. The country did not have the trained and prepared military needed to fight the seasoned German military. As Senator James Murray of Montana protested, "A conscript Army made up of youths trained for a year or two, compared to Hitler's Army, is like having a high school football team going up against the professional teams."[304] There were significant concerns about the American military, the possibility of war, and the path to success. The Germans had been at war for some time now, and even though the United States had the labor and raw materials, it did not possess the necessary supplies and equipment on hand to outfit and train the military. In August 1940, the Army conducted large-scale training operations in New York. During the training, men used pieces of stovepipe to represent anti-tank weapons, beer cans as ammunition, and broomsticks as machine guns. At times, even soldiers felt they were not prepared prior to and during the war. The mindset of the patriotic servicemember may have been the image used in broadsides and on the big screen during WWII, but many soldiers confirmed the ill-prepared American military. Karl R. Bendetsen gave an in-depth interview weighing in on his perspective of the "inadequate military posture" of American forces. In 1929, Bendetsen became a member of the Officers' Reserve Corps in the field artillery. In his civilian job, he practiced law and as early as 1939 voiced

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303 Hoyt, *The GI's War*, 8–9.

304 William E. Leuchtenburg, *Franklin D. Roosevelt and the New Deal* (New York: Harper & Row Publishers, 1963), 308.

his opinion to US senators and congressmen about the inadequate military posture.[305] The state of the military services was considered by some draftees as being ill-prepared for combat even on a small scale. The US military was not prepared to defend itself at home, let alone in Europe.[306] Considering the perspective of Hanford MacNider, the 1922 American Legion Commander as he recognized "that our government has the obligation to all service men and women to relieve the financial disadvantages incident to their military service," one can see how men conscripted to serve in WWII may expect benefits at least as much as the WWI veterans. American lawmakers, the military, and post-secondary institutions would partner together and not disappoint these servicemembers.[307]

American leaders and communities knew they could not stay out of the fight forever. The war in Europe had already begun affecting the country. The support that the United States provided to Great Britain affected the economy as well. With Europe at war and the United States looking at the possibility of war, America had to act. In 1940, the campaigning for peacetime conscription began, not from the president or the military, but from powerful men outside the military or lawmakers, such as the prominent New York attorney Grenville Clark and Julius Ochs Adler, the publisher of *The New York Times*. President Franklin D. Roosevelt and General George Marshall were both against the draft—the president because it was an election year and Marshall due to the draft's impact on the War Department and the military itself.[308]

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[305] Jerry N. Hess, *Oral Interview with Karl R. Bendetsen* (New York: Harry S. Truman Library, October 24, 1972), 1–4, https://www.trumanlibrary.gov/library/oral-histories/bendet1.

[306] Leuchtenburg, *Franklin D. Roosevelt*, 306–307.

[307] MacNider, "A Bonus for Ex-Soldiers," 547.

[308] Leuchtenburg, *Franklin D. Roosevelt*, 307.

Roosevelt and Marshall were both persuaded to support the cause by Secretary of War Henry Stimson, who convinced them the draft was becoming more popular to the people. The later support for the bill came from the American people as well as Congress, who realized the major impact the war would have on the United States. The world needed the Americans to come into the war in Europe.[309] Both President Roosevelt and Wendell Willkie, the Republican presidential candidate, supported the STSA bill, and it passed on September 16, 1940.[310] Within the next month, sixteen million men registered for the draft. The initial rules prohibited the military from stationing those men outside the western hemisphere and informed the men they would not see combat. Roosevelt later changed the wording by adding Iceland to what was known as the new world, thereby allowing the military to send Marines closer to the fight in Europe.[311] Eventually, as changes continued, those men saw combat, some in multiple theatres of war.

The military found itself dealing with bureaucratic issues as it implemented the draft. Racial discrimination was one of the leading issues, causing tension between Blacks and Whites in the South. Blacks were drafted to fill Black units, but since there were few Black units (less than 6 percent, compared to 10.6 percent of the nation being Black), Whites were taken at a much higher rate from many heavily African-American-populated areas in the South. When towns in Mississippi where the ratios of Black to White men were similar saw most of the draft age eligible White males drafted, problems for Black males increased. Since the military did not draft Black men at the same rate as Whites, racial problems increased in

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309 Leuchtenburg. *Franklin D. Roosevelt*, 308.

310 Barnard Ellsworth, *Wendell Willkie: Fighter for Freedom* (Marquette: Northern Michigan University Press. 1966), 204–205.

311 Kennedy, *Freedom from Fear*, 459.

the South. The problem did not lie in the fact that Black men did not want to serve, the problem was that many of the potential draftees failed to meet the requirements for induction into the service. Literacy in America was again a limiting factor for the pool of service-eligible men.[312]

It was the poor men of the nation who were most available for service. The problem for the US military was that these potential recruits lacked the literacy, and at times language skills, needed to be effective soldiers. During WWII, America established local draft boards to facilitate the processing of men into the military. These local boards had the authority to defer men or exempt them from service altogether. This resulted in many men who were able to fight, being kept out of the war for a myriad of reasons. The board also had the responsibility for implementing assessments that identified literacy and language problems along with the medical examinations.[313] The need for qualified men to fill the ranks, combined with the exemptions, created significant manpower problems for the US military.

Many changes occurred in the draft program during WWII; the draft began with a commitment of twelve months and extended in 1941 to eighteen months of service, and the ages of men who were required to register changed from 18–45 to 18–65 later in the war. Legislators eventually changed the required commitment to six months after the completion of the war. After the war was over, a new Selective Service Act became law in 1948, modifying the ages again to 19–26 years old with a mandatory twenty-one months of service. This time, however, the Act established a five-year commitment of service in the Army

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[312] Brandt, "Drafting U.S. Literacy," 486.

[313] United States Selective Service System, "Only Physically, Mentally Fit Trainees Acceptable to Army," *Selective Service*, Volume 1, no. 1, January 1, 1941, 1. http://archive.org/details/1selectiveservice11119417.

reserves.[314] The draft was one effort to address the nation's mobilization needs with a response to the problems of acquiring men who possessed the necessary skills and characteristics needed for specific positions in the military. The need to ensure men had the literacy, language, and technological skills to fight the war resulted in a variety of testing and educational programs that left a legacy on America.

The Continuing Need for Literacy in the Military

Between 1910 and 1945, technological changes increased demands on the US military to ensure potential servicemembers were healthy, literate, and possessed the needed skills for success. No longer could the Army simply recruit soldiers, hand them a rifle, and expect them to be successful. The situation forced leaders to address the lack of literacy, technological changes, and the demand from servicemembers to address their needs. During WWII, the US Army put forth a significant effort to address servicemembers' recreational opportunities, education and training, and access to information.[315] One rationale behind focusing on these areas was to keep the servicemember's mind busy on something other than the great dangers they faced in the wartime environment. As a result, the US Army established a Special Services Division of the Army Service Forces and later a specific organization called the Information and Education Division. The goal of these organizations was to provide information from carefully selected books and magazines to troops in wartime areas and to distribute movies and athletic equipment to keep servicemembers busy. The

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[314] United States Congress, Conference Committees, 1948, Walter Gresham Andrews and Chan Gurney, *Selective Service Act of 1948* (Washington, DC: US Government Printing Office, 1948), 2–5, https://www.loc.gov/item/48046581/.

[315] United States War Department, Army Service Forces, Information and Education Division, *What the Soldier Thinks: A Digest of War Department Studies on The Attitudes of American Troops, December 1942-September 1945* (Washington, DC: Research Branch, Information and Education Division, War Department, 1945).

military also coordinated with the United Service Organizations, today more commonly known as the USO, and the Red Cross, with its own Military Welfare Services Program.[316]

Not only was literacy training provided, but the US military also focused on providing opportunities for advanced study or refresher courses in technical areas. The War Department went so far as to establish a technical school in Tidworth, England to provide refresher training on vocational skills for US troops, including the Women's Army Corps personnel.[317] The technical school had a significant capacity, with a throughput of four thousand students every two months. For those students who did not meet the entrance qualification of three or more years of apprentice training, the Army provided an opportunity for them to complete correspondence courses and even post-secondary education opportunities.[318]

Much of the military effort focused on technical skills for military duties during the recruitment process. Additionally, towards the end of the war, the Army also considered how it might take advantage of the time servicemembers would have from the end of the war until they were able to return to the United States for discharge. As a result, the Armed Forces Institute shipped textbooks for use during the war, as well as textbooks on topics that would help the servicemembers as they prepared to return to civilian jobs.[319] The Army focused on more than technical schools; it also established the University Center in France as well as

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316 George C. Marshall, *Biennial Reports of the Chief of Staff of the United States Army to the Secretary of War: 1 July 1939-30 June 1945* (Washington, DC: Center of Military History, United States Army, 1996), 204–206, https://history.army.mil/html/books/070/70-57/CMH_Pub_70-57.pdf.

317 Marshall, *Biennial Reports of the Chief of Staff*, 206.

318 Clinton L. Anderson, "Remembering Those Who Have Made a Difference in United States Military Volunteer Education," A working paper, 2006 Department of Defense Worldwide Education Symposium. Compact Disk Productions, 2006, 27. https://www.dantes.doded.mil/_content/remembering_2006.pdf

319 United States Armed Forces Institute. *Catalog of the United States Armed Forces Institute*, 4th ed. (Washington, DC: Departments of the Army, the Navy, and the Air Force, 1947).

another in Shrivenham, England. The 1945 report from Army Chief of Staff General George C. Marshall stated that each of these University Centers offered "a series of five 2-month courses at college level."[320] With a similar four thousand student capacity as the technical school, the Army focused on providing instruction at the junior college level in algebra, history, foreign languages, and other topics. The challenge for the Army was to staff these technical and educational schools with qualified instructors. To address this need, the Army chose personnel if they had experience in education, and the military supplemented these instructors with nonmilitary educators.

Recalling that literacy was a problem in WWI, and even though the United States took action to address this problem through training programs, by WWII the problem still persisted. Not only did the military eliminate men from possible service due to physical or mental reasons, but the Army also rejected men because of a lack of education. The most critical indicator the military used to identify whether potential recruits met educational requirements was literacy and education.[321] If a man were unable to read and understand English, induction centers would many times mislabel them as illiterate or a slow learner, when in fact they may simply have lacked the education or the ability to speak English due to their limited amount of time in America. Even in WWII, the Army was using the ability to read and write English as a means for evaluating the ability to learn. This created a problem for the nation, as the country needed men to fight the war. The need for a program to teach reading, writing, and language became a priority during WWII.

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[320] Marshall, *Biennial Reports of the Chief of Staff*, 206.

[321] United States War Department, Army Service Forces, Information and Education Division, *What the Soldier Thinks*, 34–35.

An interesting perspective is that the Army standard for literacy was the recruit's ability to read English at the fourth-grade level.[322] This problem for the manpower demand of the US Armed Forces during WWII is seen in the example that 347,000 men did not sign their registration cards, but simply made a mark when registering just prior to the Japanese attack on Pearl Harbor.[323] Finding men to fill the Army's manpower requirements ultimately led to the Army changing its literacy classification policy three times throughout WWII.[324] By August 1942, the Army chose to accept what testing identified as intelligent illiterates into the Army.[325] The manpower needs generated ideas on how induction centers might identify the ability to learn, and in June 1943, the Army implemented the Visual Classification Test. This enabled the Army to assess illiterates and classify those with sufficient cognitive ability to perform certain military duties, thereby increasing the potential number of men for induction.[326]

As WWII continued, the number of casualties increased the pressure on the American War Manpower Commission and had an influence on policy. In 1942, more than 10 percent of draftees the Army wanted to induct failed the literacy tests.[327] The Visual Classification Test allowed the Army to induct men and then educate them on reading and writing at a level that enabled them to perform their military duties. To provide this education, the Army

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322 Goldberg, *Army Training of Illiterates*, 32.

323 Gladyce H. Bradley, "A Review of Educational Problems Based on Military Selection and Classification Data in World War II," *The Journal of Educational Research* 43, no. 3 (November 1949): 161.

324 William Vilmos, *Instruction for Tests in the Armed Forces* (New York: Kenmore Publishing Company, 1943), 15–17.

325 United States Selective Service System, "Army to Accept Some Illiterates," *Selective Service*, Volume 2, no. 7, July 1942, 1.

326 Goldberg, *Army Training of Illiterates*, 36.

327 H. M. Kallen, "The War and Education in the United States," *American Journal of Sociology* 48, no. 3 (November 1942): 338.

created Special Training Units, which gave these inductees instruction focused on improving their literacy rates.[328] Between June 1943 and October 1944, the Army Special Training Units taught more than 180,000 men to read and write. Almost 150,000 or 85 percent, of those men were able to continue in the military service by achieving a minimal Army standard for literacy.[329]

The Army's effort to teach men how to read and write English in a Special Training Unit had a significant impact on literacy rates in America after the war.[330] After June 1943, 49 percent of all Black men arriving at Army reception centers and almost 10 percent of White men were sent to a Special Training Unit, where they received instruction on reading and writing. A full 3 percent more of the Black troops mastered reading and writing to a level where they met Army standards than did the White troops.[331] The limited opportunity for education in many of the southern states had a counterproductive impact on the available labor pool from which the US military could draw. The American educational system actually hampered the ability to raise a large and effective army through a draft or recruitment process in the industrial age. The Army Special Training Units not only mitigated this educational system deficiency, it also provided an uplifting opportunity for minorities and the poor.

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[328] United States War Department, "Army Regulation 615-28, Enlisted Men: Classification and Assignment," May 28, 1942.

[329] Bradley, "A Review of Educational Problems," 164.

[329] Goldberg, *Army Training of Illiterates*, 36.

[330] United States Bureau of the Census, *Illiteracy in the United States: October 1947*, Current Population Reports, Series P-20, No 20 (Washington, DC: US Government Printing Office, 1948): 1.

[331] Herbert Aptheker, "Literacy, The Negro and World War II," *The Journal of Negro Education* 15, no. 4 (Autumn 1946): 602.

Literacy was not the only problem facing the American War Manpower Commission. American military leaders saw the need for educating men beyond those needed to lead formations at the tactical and operational levels. [332] The ROTC program provided military and leadership training, but the Army needed technical experts as well. As a result, the Army developed a program to identify men for training as specialists such as engineers, doctors, and pilots to fill the technical and specialist positions the Army anticipated needing throughout the war. While the Army could teach men how to read and write, the capacity to provide instruction in the specialized topics required partnership with post-secondary educational institutions across America.

The need for trained specialists resulted in the establishment of the Army Air Forces Meteorological Training Program, the Navy College Training Program (V-12), and the Army Specialized Training Program (ASTP), the largest of which was the ASTP, with the desired end strength of 200,000 men.[333] The factors that influenced training and educational programs during WWII can be related to the available labor pool. The ability to train Army leaders, deploy reserve forces on active duty during the war, and train technical experts all found challenges with competing priorities such as college administrators' enrollments concerns. In 1941, American colleges had a collective enrollment number of more than one million students. By 1942, the war had caused the number of men enrolling to drop by 40

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[332] United States Army, "Army Regulation 350-500, Military Education: Army Air Forces Schools," July 7, 1943.; This version replaced the earlier August 11, 1942 publication.

[333] United States Congress, "Army Specialized Training Program: Hearing before the Committee on Military Affairs United States Senate," *Hearings on S. 739*, (Washington, DC: US Congress, 1943). 78th Congress, 1st Session, 17 February 1943, 4, 31.

percent, and universities across America found themselves both in financial trouble and concerned that enrollments would fall even further as the war continued.[334]

Efforts such as the ASTP have been largely overshadowed by legislation such as the Servicemen's Readjustment Act of 1944, which created what is known today as the G.I. Bill. Louis E. Keefer, author of *Scholars in Foxholes: The Story of the Army Specialized Training Program in World War II*, is one of the few scholars with published literature on the ASTP. Keefer, however, approaches his writing by telling the story of the ASTP with a focus on the perspective of individual trainees within the program, thus leaving out the program's influence on American post-secondary educational institutions.[335] With the drop in enrollments amongst educational institutions across America during WWII, the war generated competing priorities, requiring leaders of institutions of higher education to collaborate with internal stakeholders, the US military, and the federal government simultaneously.

For higher education in America, enrollment had grown from approximately 250,000 after WWI to 1.25 million students before the start of WWII.[336] The rapidly falling enrollment numbers resulting from WWII caused many universities to examine the situation and look for alternatives to maintain relevance and financial security. Two examples of higher education's partnerships with the Army are Stanford and Baylor universities. Stanford University leaders recognized the prestige and financial rewards the university might gain by

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[334] United States Department of Education Office of Educational Research and Improvement, National Center for Education Statistics, "120 Years of American Education: A Statistical Portrait," 1993, 65-69.

[335] Louis E. Keefer, *Scholars in Foxholes: The Story of the Army Specialized Training Program* (Reston, VA: COTU Publishing, 1988).

[336] John R. Thelin, *A History of American Higher Education* (Baltimore: The John Hopkins University Press, 2004), 205.

supporting the war, and how engaging with the US military units' training programs would also address the declining enrollments it faced as a result of the war.[337] Baylor University also felt the impact of WWII, with a reduction in student enrollment from 2345 to 1300 or about 50 percent between 1940 and 1942.[338] Luckily for these two universities, the Army developed a program that needed the expertise of those in American higher education.

To address the need for technical experts in the Army, President Franklin D. Roosevelt, with the encouragement of Secretary of War Stimson, established the Army Specialist Corps in 1942.[339] The intent of this program was to allow men who worked in office-type jobs and produced specialist work to wear uniforms different from those worn by the Army but serve in the Army as a noncombatant performing technical and specialist work. This program lasted a short 10 months and only appointed a few thousand technical experts. The Army needed a more effective process to ensure it could produce the numbers of technical specialists America needed.[340] The Army continued to focus on how it would fulfill its needs by procuring trained and educated officers. While it took some time, by late 1942, the US Army and post-secondary education had established their partnership.

In November 1942, the Army announced it would enter into agreements with colleges across America to provide training to servicemembers. The plan was for the War Department

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[337] Charles Dorn, "Promoting the 'Public Welfare' in Wartime: Stanford University during World War II." *American Journal of Education* 112, no. 1 (2005): 121. https://doi.org/10.1086/444525.

[338] Letter from James Mixson to Congressman Lyndon Johnson, April 1, 1943, Pat M. Neff collection, Accession #463, Series 4. Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 6, Baylor University, The Texas Collection.

[339] Franklin D. Roosevelt, Executive Order 9078, "Army Specialist Corps" (Washington, DC, February 26, 1942), The Army Specialist Corps was established in the War Department by the president and later abolished by War Secretary Stimson on October 31, 1942 when the functions merged the central Officer Procurement Service.; Keefer, *Scholars in Foxholes*, 3.

[340] Marshall, *Biennial Reports of the Chief of Staff of the United States Army to the Secretary of War: 1 July 1939-30 June 1945*.

to collaborate with civilian educators to address what US Army Chief of Staff General George C. Marshall considered an increasing handicap to fighting the war. Marshall believed the Army faced a "shortage of men possessing desirable combinations of intelligence, aptitude, education, and training in fields such as medicine, engineering, languages, science, mathematics, and psychology, who are qualified for services officers of the Army."[341] Since the selective service had reduced the draft age to 18, American colleges and universities were increasingly concerned with the lack of student enrollment.

While on the surface it seemed there was consensus amongst Army leaders after the publication of the August 30, 1943 pamphlet titled *Essential Facts about the Army Specialized Training Program*, the reality was that not everyone considered the ASTP the best method of solving the Army's manpower concerns. Lieutenant General Lesley McNair, the Commanding General of the Army Ground Forces, opposed the removal of men from the induction pipeline into Army Ground Forces and placing them into colleges to receive specialized instruction. McNair felt that the ASTP should not be implemented unless American leaders were certain that WWII would extend past 1944.[342] The problem for the Army Ground Forces was that they were already short hundreds of thousands of men, and McNair was frustrated that this program was asking him to send men to college when his formations could not even reach their authorized end-strength.

Nonetheless, the Army issued its criteria for eligibility into the specialized training and began working with post-secondary educational organizations to implement these

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[341] US Army Service Forces, Army Specialized Training Division, "Essential Facts about the Army Specialized Training Program" (Washington, DC: US Government Printing Office, 1943), 1.

[342] Keefer, *Scholars in Foxholes*, 15.

programs on their campuses.[343] In developing the curricula these Army personnel would receive at universities across America, the Army Specialized Training Division collaborated with the American Council on Education as well as an advisory committee of educators from renowned universities such as Johns Hopkins University, Fordham University, Stanford University, and the University of Wisconsin to draft the curricula and courses of instruction. In developing the program, they created two phases, basic and advanced.[344] The basic phase was sectioned into three twelve-week terms and provided what a traditional student received in the freshman and first semester of sophomore years. The advanced phase consisted of four twelve-week terms, which would develop in a trainee enough knowledge to meet the needs of the Army.[345]

The Army curricula further detailed which program trainees were best suited, based on specific educational content. The training and engineering basic phase contained two separate plans. Plan One of the ASTP focused on the engineering specialties, allowing trainees to specialize in communications, mechanical topics such as engines, and surveying. Plan Two of the ASTP consisted of basic studies in general engineering, allowing further specialization in the advanced phase.[346] The Army designed an advanced curriculum for

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[343] Letter from Brigadier General Joe N. Dalton to Baylor University President Pat M. Neff, April 28, 1943, Pat M. Neff collection, Accession #463, Series 4, Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 7, Baylor University, The Texas Collection.; Letter from the Office of the Regional Director Qualifying Test for Civilians Army and Navy College Training Program, H. T. Manuel, Regional Director addressed to President or Principal, March 12, 1943, Pat M. Neff collection, Accession #463, Series 4, Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 5, Baylor University, The Texas Collection.

[344] United States War Department, "Fifty Questions and Answers on Army Specialized Training Program" (Washington, DC: Government Printing Office, April 1, 1943), 12-16.

[345] US Army Service Forces, Army Specialized Training Division, “Essential Facts about the Army Specialized Training Program,” 4–5.

[346] Memorandum from Army Service Forces, “Curricula, Army Specialized Training Program,” April 1, 1943. Pat M. Neff collection, Accession #463, Series 4. Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 7, Baylor University, The Texas Collection.

student specialization in civil engineering, ensuring these technical specialists received training in mechanical engineering, electrical engineering, chemical engineering, and even sanitary engineering. The need for engineers was critical for solving both Army problems and American industry labor needs. The ASTP also contained curricula for training in medicine, veterinary skills, dentistry, psychology, and even language studies.[347] The Army anticipated needing experts in these critical disciplines of study throughout the war. [348]

The ASTP took a centralized planning approach with a decentralized execution. The colleges could choose the textbooks from which to instruct groups of trainees, along with conducting examinations and giving credit according to their own institutional practices. Where the Army did provide specific guidance was on the trainee's schedule. The Army required fifty-nine hours of supervised activity each week, five of which were part of military instruction and six of which were physical instruction. In addition to the academic environment, the Army program regimented class times, even documenting reveille and lights out.[349] In support of the military training, post-secondary educational institutions that did not have an established ROTC unit, such as Baylor University, added Army officers to their faculty to oversee the program and trainees from a military point of view. Those

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[347] American Council on Education, "War Service Opportunities For College And University Students" (Washington, DC, May 14, 1943), 51-63.

[348] "Army-Navy Qualifying Test at High School here Wednesday, MCH. 15," *Roanoke Rapids Herald* 29, no. 9, September 30, 1943, https://chroniclingamerica.loc.gov/lccn/2017236974/1943-09-30/ed-1/seq-8/; "Army Specialized Training Program Provides Education," *The Future Outlook* 11, no. 36, August 21, 1943, https://chroniclingamerica.loc.gov/lccn/sn97064597/1943-08-21/ed-1/seq-5/.

[349] United States War Department, "Fifty Questions and Answers on Army Specialized Training Program" (Washington, DC: Government Printing Office, April 1, 1943), 18-19.

colleges with an ROTC program and a professor of military science and tactics leveraged those already assigned officers to provide military and physical training instruction.[350]

Baylor University, in Waco, Texas, provided an example of the coordination between American universities and the Army Specialized Training Branch. In March 1943, the American Council on Education, together with a joint committee from the War Department, Navy Department, and War Manpower Commission, identified educational institutions with which they might contract for the Army and Navy specialization programs. *Emergency Supplement Number 11, a Bulletin on Higher Education and National Defense* identified post-secondary institutions for the placement of programs covering instructional content such as dentistry, architecture, language, and even basic training in the ASTP. The bulletin made no mention of Baylor University as a potential site for inspection for one of these programs.[351] The interest from post-secondary educational institutions in gaining one of these programs on its campus was significant. By the spring of 1943, 488 colleges and universities across the country had reached out to the War Department demonstrating their interest in one or more programs.[352] Baylor was no exception. The university leaders at Baylor wanted the program on the campus and took significant steps to gain a contract with the War Department.[353]

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[350] Memorandum from Army Specialized Training Branch, "Army Specialized Training Program Negotiation Directive No. 23, Special Training, Assignment and Reclassification School," April 1, 1943, Pat M. Neff collection, Accession #463, Series 4. Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 6, Baylor University, The Texas Collection.

[351] American Council on Education, "Emergency Supplement Number 11, a Bulletin on Higher Education and National Defense," March 27, 1943, Pat M. Neff collection, Accession #463, Series 4. Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 6, Baylor University, The Texas Collection.

[352] American Council on Education, "Emergency Supplement Number 11, a Bulletin on Higher Education and National Defense," March 27, 1943.

[353] Letter from Pat M. Neff President of Baylor University to the Commanding General Service and Supply, "Subject: Baylor University's Facilities and the War Effort," December 9, 1942, Pat M. Neff collection,

At Baylor, James Mixson, assistant to University President Pat Neff, wrote a letter to then Congressman Lyndon Johnson on April 1, 1943, emphasizing that Baylor had continuously renewed its offer to do whatever the university could to serve the country during the war.[354] Mixson explained that the Army Air Corps surveyed the university regarding the practicality of a pre-flight aeronautics program and establishing a ground unit there, and why the presence of the Black Land Army Flying School in Waco, Texas may have been a reason why the Army Air Corps did not select Baylor. As the Black Land Army Flying School used aircraft that were no longer in the Army's inventory, providing the academic courses without the hands-on flying experience did not meet the program requirements. Mixson went on to explain that Baylor University was on the eligible list for institutions for Army and Navy programs and that during the on-site inspection, the naval contingent included a medical doctor who found the facilities to be excellent for a pre-med and pre-dental program for approximately 450 trainees.[355] Baylor University was ultimately not selected and the communication from W. R. Poage, Congressman for the Eleventh Texas District, informed Mixson that the reason for the withdrawal of the Navy's offer was that Baylor University had been identified for the exclusive use of the Army. This was an obvious error, as the letter stated the War Department records identified Baylor as having an ROTC program. Mixson explained with frustration to Johnson that "we do not have and have not had at any time any military unit even faintly resembling the R. O. T. C. at Baylor University in Waco."[356] The significant desire by Baylor leaders for a program at their institution is seen

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Accession #463, Series 4, Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 4, Baylor University, The Texas Collection.

354 Letter from James Mixson to Congressman Lyndon Johnson, April 1, 1943.

355 Letter from James Mixson to Congressman Lyndon Johnson, April 1, 1943.

356 Letter from James Mixson to Congressman Lyndon Johnson, April 1, 1943.

in the language that Mixson used in his communication to Johnson when Mixson stated, "a grievous wrong" had been committed against Baylor and "due to this inadvertent error, we stand a good likelihood of getting nothing."[357] The loss of student enrollment and financial incentives of an ASTP or other program undoubtedly influenced the desire of Baylor's leaders to gain program approval.

The political dynamics and heavy-handed tactics by Mixson are evident in his communication to Johnson. In an April 1, 1943 letter to Johnson, Mixson stated, "it may be that I am overestimating, first, your influence in Washington; and second, your interest in Baylor University and Governor Neff." Along with his use of language highlighting Baylor University's desperate need for the program, Mixson was upfront in asking Johnson to use his influence to gain some program for Baylor and Texas.[358] The significant reduction in enrollment in post-secondary educational institutions across America had a financial impact on Baylor. During the first two years of the war, Baylor's enrollment dropped from 2,345 to 1,300 students.[359]

Good news eventually came to Baylor's leaders. In a letter dated April 1, 1943, Army Colonel Ralph H. Durkee informed the Baylor University president that the Army granted authority to establish at Baylor, a Special Training Assignment and Reclassification School (STAR), which would train, test, classify, and assign ASTP trainees and move them "as sections" to ASTP units for instruction.[360] The relationship between Baylor University and

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[357] Letter from James Mixson to Congressman Lyndon Johnson, April 1, 1943.

[358] Letter from James Mixson to Congressman Lyndon Johnson, April 1, 1943.

[359] Letter from James Mixson to Congressman Lyndon Johnson, April 1, 1943.

[360] Memorandum from Army Service Forces, "Curricula, Army Specialized Training Program," April 1, 1943. Pat M. Neff collection, Accession #463, Series 4. Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 7, Baylor University, The Texas Collection.

the US Army, as part of the ASTP, demonstrated the influence of these programs beyond the instruction that men within the program received. In the letter, Durkee requested a Letter of Intent be issued by the university as to whether it was open to negotiate a contract with the Army immediately, and if so, informing Baylor leaders that small groups of men would begin arriving on April 6, 1943. The problem with the STAR program was the lack of full-time students and the program's transient nature.[361] This program would not yield the financial rewards that Baylor's leaders desired.

The communication between Baylor University and its congressional representatives continued as Mixson reached out to W. R. Poage on April 8, 1943, updating him on the call that Baylor President Neff had with Army Colonel E. A. Keyes, Chief of the Army Specialized Training Unit, Headquarters Eighth Service Command. During the call, Keyes informed Neff of his opinion that Baylor University was not qualified or prepared to screen engineering students as part of the STAR program. Keyes also explained the financial disadvantages—that the War Department would only pay Baylor for each day that a man was physically at Baylor for processing. Mixson communicated to Poage that both he and Baylor University President Neff agreed that it was best to turn the offer down and hoped it would not prejudice them against a future program being offered to Baylor.[362] The limited financial incentives of the STAR program, and the desire of Baylor's leaders to pass on the opportunity, provided insight into the priorities of the university leaders. Luckily for Neff and Baylor, good news eventually arrived.

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[361] Letter from James Mixson to Congressman W. R. Poage, April 8, 1943, Pat M. Neff collection, Accession #463, Series 4, Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 6, Baylor University, The Texas Collection.

[362] Letter from James Mixson to Congressman W. R. Poage, April 8, 1943.

On April 14, 1943, Keyes penned a letter to the Baylor University president, informing him that the War Department had directed a site planning board visit to Baylor on April 16 to ascertain the viability of having 400 students assigned to Baylor in an Army Specialized Training Unit.[363] While it seemed that all was well with Baylor leaders after receiving the letter, Congressman Lyndon Johnson acknowledged on more than one occasion the significant difficulty the university faced in acquiring a program. Even the War Department acknowledged the difficulties it faced in developing, refining, and implementing policies and procedures surrounding the program.[364] This was not a smooth process between the Army and the university. The influence of the military on post-secondary education was more of a series of lengthy processes than a series of events.

By May 1943, Baylor had received the Army curricula, which included a program of military training for students who did not yet complete basic military training along with a second course of military training for students with military experience.[365] The university was finally able to begin training soldiers, and on May 10, 1943, Baylor's program started with 398 men. The university operated its ASTP over six terms, enrolling 890 individual men between May 1943 and the end of October 1944.[366] The success of the program at Baylor University brought about financial benefits with increased enrollment, educational benefits to the men, and a better trained and educated soldier for the Army.

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[363] Letter from E. A. Keyes to Baylor University President, April 14, 1943, Pat M. Neff collection, Accession #463, Series 4, Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 6, Baylor University, The Texas Collection.

[364] Letter from Joe N. Dalton, Brigadier General, Assistant Chief of Staff for Personnel to Baylor University President Pat Neff, April 28, 1943, Pat M. Neff collection, Accession #463, Series 4. Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 7, Baylor University, The Texas Collection.

[365] Memorandum from Army Specialized Training Branch, "Army Specialized Training Program Negotiation Directive No. 23."

[366] Memorandum summary and highlights of the Army Specialized Training Program at Baylor University, November 6, 1944.

The soldiers assigned as students at Baylor University represented only a portion of the tens of thousands of men who participated in the ASTP. The program had both supporters and critics, but ultimately the need for men to fight in the war was the most significant factor in the decision on the program's continuation. In a War Department Memorandum for the Press, released on February 18, 1944, Secretary of War Stimson announced that as a result of military necessity, the War Department was transferring to active duty troops participating in the ASTP, and there would be an overall drastic reduction of the number of students enrolled in the program.[367] While the program was advertised as being of extreme significance to the military at its inception, since the specialized training these soldiers received was based on the prediction that the Army would require the specialized technicians to win the war, reducing the number of participants may have signaled to some that America was either in dire straits or the war was nearly over.

Although in any conflict, a review of the manpower needs required to achieve victory is ongoing, the planned operations for 1944 saw opinions on the need for reduction of the ASTP participants as early as November 1943.[368] The competing priorities between post-secondary institutions with enrollment, and military units with men to fight in the war, provided both an opportunity for education for the men placed in these programs and financial rewards for colleges and universities across America. The Army reaped its benefits as well with a large pool of men receiving education in case the war lingered. The success of

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[367] Memorandum for the Press from the War Department Bureau of Public Relations, Press Branch, "Statement by the Honorable Henry L. Stimson, Secretary of War," February 18, 1944, Pat M. Neff collection, Accession #463, Series 4. Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 8, Baylor University, The Texas Collection.

[368] Robert R. Palmer, Bell I. Wiley, and William R. Keast, *The Army Ground Forces: The Procurement and Training of Ground Combat Troops* (Washington, DC: Historical Section, Army Ground Forces Historical Division, Department of the Army, 1948), 28–39.

the program may be evaluated differently depending on the lens through which it is measured. But there is no doubt the men who completed the programs provided an example of how the military and higher education partnering could achieve results that neither could produce alone. Baylor University graduated 351 men over the six enrollment terms between May 1943 and August 28, 1944.[369]

Baylor produced the largest number of graduates at the end of the third term, in January 1944. With 280 men graduating, the university demonstrated its value while the soldiers headed to units across the Army. As the program continued, the 305 men who arrived at Baylor on February 7, 1944 brought Baylor's numbers back up to almost 400 students in attendance. These men, however, did not have the opportunity to finish the entire curriculum before Baylor's program ended on October 28, 1944. The ASTP at Baylor did achieve the objectives of reinforcing the basic training knowledge needed for soldiers to operate in the Army, while also providing technical skills and preparing high school graduates for military service. The academic instruction provided by Baylor University professors led to successes on many fronts. Two participants of the program at Baylor were chosen to attend West Point, and the Army recognized the Baylor ASTP unit for improving the physical fitness of its participants in a significant manner. The ASTP unit at Baylor was commended for having the highest rating for physical efficiency of all the Army Specialized Training Units in America.[370] The fact that the ASTP participants had a grueling schedule of both academic and physical activity, along with their adherence to military protocol, and yet

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[369] Memorandum summary and highlights of the Army Specialized Training Program at Baylor University, November 6, 1944.

[370] Memorandum summary and highlights of the Army Specialized Training Program at Baylor University, November 6, 1944.

the program lost less than 10 percent of its participants to discipline, academic failures, and requested transfers combined, demonstrated the commitment by the participants and faculty to make a success of the ASTP at Baylor University.[371]

As part of the ASTP, the Army Specialized Training Reserve Program provided an opportunity for men to enlist in the Enlisted Reserve Corps of a service and receive post-high school academic training at the federal government's expense.[372] The men selected received training at universities and colleges across America. The military needed men; therefore, the Army and Navy partnered with colleges and universities, guiding them to intensify the educational process so that trained and educated men were available to fill positions in the war industries as well as in fighting units.[373] Programs such as this showed the connection between the need for labor, higher education, and educational opportunities during WWII. While not everyone considered the ASTP a success, leaders such as General McNair saw the ASTP as a program that absorbed many of the best potential leaders, which the Army could have assigned to the Army Ground Forces but instead placed those men into the program with little chance the men would return to frontline units. The process for allocating men seemed equitable on paper, but McNair held a different opinion. While the Army required McNair and the Army Ground Forces to submit the number of graduates the organization required from the program, the problem for McNair and his commanders was that they needed these men immediately. Not only did ASTP trainees come from men pending or

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[371] Memorandum summary and highlights of the Army Specialized Training Program at Baylor University, November 6, 1944.

[372] United States War Department, *Army Service Forces Annual Report for the Fiscal Year 1944*, (Washington, DC: Government Printing Office, 1944), 297-299.

[373] Statement of the Secretary of War Covering Army Enlisted Reserve Corps, 16-30229-1 (Washington, DC: US Government Printing Office, September 8, 1942), 1, Army, 1941-1946, Umphrey Lee papers, Series 3: Presidential Papers, National Defense, Box 4, Folder 6, Southern Methodist University Archives, DeGolyer Library, Southern Methodist University. SMU 1995.0248.

enrolled in colleges, but the Army also took men from military units already fighting the war and enrolled them in the program. As these men had identified themselves as being of higher intelligence and capability, the program affected units such as headquarters elements, engineering companies, and Signal Corps units the most. Eventually, the Army Ground Forces collaborated with the Army Headquarters and they were able to limit the number of men selected for the ASTP from within the military units.[374]

By February 1944, the ASTP had reached its maximum number of enrollees, with approximately 140,000 participants enrolled in 227 colleges across America.[375] While a participant's time spent studying while enrolled in the ASTP did not count towards eligibility for veterans' benefits, it did provide a significant benefit to those who would undoubtedly not have had the opportunity to attend a college or university based on their pre-war income. The benefits of the program transcended the participants and ultimately demonstrated the continuing evolution of veterans' benefits, post-secondary and Army partnerships, and the democratization of higher education in America.

In addition to the ASTP, by 1943, the War Department had strengthened its focus on pre-induction training.[376] The Army began working with the US Office of Education and assigned an officer liaison to the National Policy Committee of the High School Victory

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[374] Palmer, Wiley, and Keast, *The Army Ground Forces*, 28–39.

[375] Memorandum for the Press from the War Department Bureau of Public Relations, Press Branch, "Army Cuts Specialized Training Program," February 18, 1944, Pat M. Neff collection, Accession #463, Series 4. Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 8, Baylor University, The Texas Collection.; Memorandum for the Press from the War Department Bureau of Public Relations, Press Branch, "Statement by the Honorable Henry L. Stimson, Secretary of War," February 18, 1944,

[376] H. M. Kallen, "The War and Education in the United States," *American Journal of Sociology* 48, no. 3 (November 1942): 338.

Corps to influence secondary students who were future potential recruits.[377] The relationship between the Army and educational institutions reached beyond post-secondary education during WWII and moved to influence those still learning in secondary, vocational, and trade schools.[378] To influence educators, the Army even recommended camp visits for teachers and administrators so they might gain first-hand knowledge on military procedures and training. The War Department also provided educators information on camp visits, films, and other programs as they related to secondary school needs and objectives in the 1944 War Department publication *PIT-1, Essential Facts about Preinduction Training*.[379] The Office of Education and the War Department provided examples of best practices, citing examples from specific schools that had made significant efforts to prepare men and women to support the war after high school. The publication went so far as to highlight how the Women's Army Corps inductees would benefit from the technical and professional knowledge they acquired. These communications demonstrated the widespread partnerships between the War Department and educational institutions towards the end of the war.

Not only did Texas leaders partner with the Army to educate and train soldiers, as early as April 1943, Congressman Poage was in communication with Dr. H. Rubin, the manager of the veterans facility in Waco, Texas. In this communication, Poage demonstrated

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[377] United States War Department, "PIT-1: Essential Facts about Pre-induction Training" (Washington, DC: Government Printing Office, 1944), 15. Army, 1941-1946. Umphrey Lee papers, Series 3: Presidential Papers, National Defense, Box 4, Folder 6, Southern Methodist University Archives, DeGolyer Library, Southern Methodist University. SMU 1995.0248.; United States War Department, *Army Service Forces Annual Report for the Fiscal Year 1944*, (Washington, DC: Government Printing Office, 1944), 299-301.

[378] United States War Department, "PIT-330: Pre-Induction Training in Vocational Schools Vocational Departments and Trade Schools" (Washington, DC: Government Printing Office, 1943).; United States War Department, "PIT-331: Pre-Induction Training in Auto Mechanics" (Washington, DC: Government Printing Office, 1943). These are examples of the numerous publications prepared jointly by the War Department and the United States Office of Education-Vocational Division.

[379] United States War Department, "PIT-1: Essential Facts about Pre-induction Training," 1–18.

the forward thinking of rehabilitating veterans through training and education at post-secondary institutions in Texas. These leaders began examining the relationship between servicemembers and higher education and discussing how it might continue after the war. The Dean of what was then known as the A&M College of Texas had also been working with Rubin and the veterans facility to outline the details of how his college could support the Veterans Affairs organization. The Texas State National Guard, Baylor University, and the A&M College of Texas provided insight into postwar planning of how the facilities at these universities might assist veterans' transition from the military and receive rehabilitation from war injuries.[380] In addition to communicating with Rubin, Poage also sought the support of Baylor University president, Pat Neff.[381] Efforts such as this undoubtedly had influence on the decision-making of postwar veteran educational benefits at the national level.

American leaders invested significantly in partnerships between the Army and higher education to develop preparatory programs that trained and educated the American workforce during WWII. Much of this was built on the lessons learned from WWI and the demobilization after the war. The need for men to return to their communities and find employment influenced the veterans' benefits policies after the war. The resulting legislation, such as the Soldier's Rehabilitation Act of 1918, which provided funding for training of war-injured veterans, increased the chances veterans would become productive members of society. Politicians were not the only influencers in demanding the increase in veterans' benefits. The growing influence of organizations such as the American Legion put pressure

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[380] Letter from Congressman W. R. Poage to Dr. H. Rubin, manager of the veteran facility at Waco, Texas, April 7, 1943, Pat M. Neff collection, Accession #463, Series 4. Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 6, Baylor University, The Texas Collection.

[381] Letter from Congressman W. R. Poage to Pat Neff, April 7, 1943, Pat M. Neff collection, Accession #463, Series 4. Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 6, Baylor University, The Texas Collection.

on Congress to compensate drafted veterans who fought in the First World War. As a result, in 1924 Congress passed the World War Adjusted Compensation Act, promising veterans assistance.[382] The problem was that the compensation would not be issued until 1945. This may have seemed an appropriate fix to veterans' problems in the minds of legislators, but the stock market crash of 1929 and the following Great Depression resulted in more than fifteen million Americans out of work. Unable to take care of their families or themselves, many veterans of WWI considered themselves affected far greater than other Americans by the Depression and eventually took their problems to Washington, DC.

Incidents such as the Bonus Army of 1932 demonstrated the political sensitivity of veterans' benefits and the ramifications politicians might face should they fail to act in the future. While the World War Adjusted Compensation Act of 1924 promised payouts in 1945, the economic fallout of the stock market crash and lack of employment opportunities led to thousands of veterans and their families marching on Washington demanding an early payout. While Presidents Coolidge, Hoover, and Roosevelt all vetoed the passage of the bills to pay veterans early, eventually Congress overrode Roosevelt's veto, and veterans did receive the bonus payments for which they lobbied.[383] Understanding the connection between political situations such as this and future military and veteran programs illuminates that American politicians sought to avoid a similar problem with the demobilization of soldiers at the end of WWII.

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[382] United States Congress, "H.R. 7959, Pub. L. No. 120, Chapter 157: An Act to Provide Adjusted Compensation for Veterans of the World War, and for Other Purposes," 68th Congress, 1st Session, 19 May 1924, Chapter 157, 1924, 121–128.

[383] "President Reads Bonus Veto to Congress," *The Washington Times*, May 22, 1935, 1, https://chroniclingamerica.loc.gov/lccn/sn84026749/1935-05-22/ed-1/seq-1/. Roosevelt vetoed the Patman Greenback Bonus Bill in 1935, only to have his veto of early bonus payments overturned with a vote of 356-59 in the House and 74-16 in the Senate in January 1936.

Summary of Literacy, the Military, and the Wartime Partnerships

The Second World War brought about challenges similar to those of WWI. American leaders established the modern draft in 1940 when President Roosevelt signed the Selective Training and Service Act, America's first peacetime draft. With a world war raging in Europe, military and political leaders looked to the WWI selective service registration process and the need to ensure that drafting men for war did not drain the critical industries of skilled labor. As a result, both the Army and Navy focused on more than their active components, but military leaders also focused on the manpower reserves in the National Guard and ROTC programs. One large problem the draft created for the Army was draftees' literacy rates. As technological changes continued to increase demands on potential servicemembers, the Army needed to address the problem in a way that allowed illiterate men to achieve the required military standards. The Army needed literate, healthy, and skilled servicemembers. While the Army Ground Forces needed intelligent men to lead others, those in the Army Air Forces and the Signal Corps required technical competencies and knowledge, which American universities and colleges were in the best position to provide. Recalling the literacy problem of WWI, the Army collaborated with multiple stakeholders to identify which draftees lacked literacy and sent them to Army Specialized Training Units. In these Army-operated units, more than 180,000 men were taught to read and write. Almost 150,000 men, or 85 percent, continued with military service after achieving the Army standard for literacy in an Army Specialized Training Unit. This was a success story for the Army, as it increased the manpower supply while expanding the opportunities for education for thousands of men. The literacy program supported the war effort and the efforts of the American War Manpower Commission to keep industry and the

military supplied with trained labor. Low literacy rates were a problem for which the Army provided a benefit. After June 1943, almost 50 percent of all Black men arriving at Army reception centers received instruction on reading and writing. This increased the opportunity for education for these men, many of whom arrived in the Army reception centers from southern states.

In addition to literacy, American military leaders identified the need to address the education of men in technical skills and the needed fundamentals to lead formations at the tactical and operational levels. As a result, the War Department established the ASTP and the Navy College Training Program, or V-12. These programs allowed educated men to enroll as trainees within the program by taking courses at educational institutions across America. Focusing the on the largest program shows how the Army entered into agreements with more than two hundred colleges and universities across America, providing both vocational and educational pathways, with professors focusing on the educational content and military officers simultaneously preparing these men as soldiers. The program combined military instruction and physical training with higher education courses to prepare men to lead formations and successfully serve in technical jobs such as medicine, engineering, and aviation duties, to name a few.

WWII was a time of momentous change for both post-secondary education and the US Army. The wide variety of programs established to assist in the war effort provided examples of successful partnerships that undoubtedly influenced future programs benefitting the Army, veterans, and higher education. While some may see the development of programs as simply a reaction to the war and a strategic need, examining the changes in partnership amongst the stakeholders and the transformation of higher education demonstrates the

influence of the Army on post-secondary education over time. As a result of the Army's need, the expansion of literacy efforts began within the military only to later expand into governmental programs. The connection, or credit, should not be focused simply on the efforts of the Army and a few educators, but should acknowledge the conditions created through a wide variety of influencers. The need for a strong manufacturing workforce during WWII was not simply a result of the military-industrial complex but of the contributions of individuals and organizations across the nation. Understanding the expansion of programs during the war draws a connection to the post-WWII G.I. Bill and beyond.

CHAPTER FIVE: WORLD WAR II AND BEYOND

The continued transformation of Army education and training during WWII brought about programs that left legacies on the Army and American higher education far beyond the world wars. The effort by the US Army to develop servicemembers expanded beyond simply preparing them for highly specialized jobs as part of the ASTP or providing initial education in the special training units to raise a recruit's literacy rate high enough to successfully perform the duties of a soldier. While focusing on the workforce needed to fight WWII, the Army built on past practices that had a significant impact on American post-secondary education. During the war, the War Department established the United States Armed Forces Institute (USAFI) to address servicemember education while on active duty.[384] In addition, the desire for postwar educational benefits was a significant topic of debate among legislators and stakeholders, resulting in the passage of the Servicemen's Readjustment Act of 1944. While the G.I. Bill of Rights was significant, the continuation of the advancing programs for servicemember and veterans' benefits in response to new technologies, reform-minded leadership, and significant military operations during WWII is equally important in the historical analysis of the military impact on American post-secondary education. During WWII, the US Army had a considerable influence on colleges and universities in America through partnerships and programs resulting from the combination of changing technology, reform-minded leaders coming into positions of power, and large military operations demanding large numbers of recruits. The expansion on literacy efforts led to the United

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[384] American Council on Education, *Sound Educational Credit for Military Experience, a Recommended Program* (Washington, DC: American Council on Education), 1943.

States Armed Forces Institute, the General Educational Development Test, and post WWII efforts influencing education far beyond the G.I. Bill.

Military/University Educational Partnerships

The establishment of the USAFI and its reshaping of education in and out of the US military lasted for decades after the war.[385] The USAFI established many educational initiatives in partnership with educational organizations such as distance education through correspondence courses, testing, and programs for high school and college credit.[386] The institute's partnership with the University of Chicago to evaluate the learning of servicemembers based on the USAFI programs led to testing procedures focused on measuring the learner outcomes achieved during the four years of high school. This project eventually became what is known today as the General Educational Development test, informally called the GED.[387]

When considering the relationship between the US military and educational institutions in America, recall that the Morrill Land-Grant College Act of 1862 required educational institutions financed through the sale of federal lands, under the terms of the act, to offer military training as part of the standard curriculum. Of course, these colleges implemented the mandated military tactics training with different levels of rigor. The rationale behind including military instruction in higher education was that during the American Civil War, the Union forces faced difficulty staffing Army units with competent

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[385] American Council on Education, "Educational Lessons from Wartime Training: The General Report of the Commission on Implications of Armed Services Educational Programs" (Washington, DC, 1948), 51-59.; Persyn and Polson, "Evolution and Influence of Military Adult Education," 7.

[386] Paul L. Dressel, "The Use of the USAFI General Educational Development Test," *Journal of the American Association of Collegiate Registrars* 22 (1947), 287–92; L. L. Love, "Use of the College-Level General Educational Development Tests," *Educational Research Bulletin* 26, no. 5 (1947): 123–27. http://www.jstor.org/stable/1474288.

[387] Anderson and Kime, "Some Major Contributions of the Military," 8.

officers.[388] To address this the Morrill Land-Grant College Act was a good start but lacked enforcement or oversight.

Identifying the risk that America lacked a trained pool of potential officers, General Leonard Wood advocated for the summer camps where men could learn military skills. These Citizens' Military Training Camps were successful and a precursor to the increased oversight of officer education. Wood's efforts led to Congress taking action and eventually passing legislation that formalized oversight and funding of officer education. The National Defense Act of 1916 included a provision that enabled American colleges and universities to establish an ROTC unit on their campus. In the past, the preparation of military officers was achieved either through attending the United States Military Academy or potentially on-the-job training once becoming a servicemember. With the 1916 legislation, the country began to professionalize its military with a focus on also educating those reserve officers in the art and science of military operations. While the military training camps and later ROTC units in colleges and universities were designed to increase knowledge of American citizenship and to build character, the fact was that the War Department needed to standardize education and build capacity.

Another partnership that developed between the military and higher education during WWII was in research. Advancements in technology, specifically with weapons research, required a collective effort between the military and scientists at research universities. At no time in history was this more important than at the onset of America's entrance into WWII. In June 1941, President Roosevelt, through an Executive Order, created the Office of

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[388] Quoted in James E. Pollard, *Military Training in the Land-Grant Colleges and Universities* (Columbus, OH: Ohio State University Press, 1964), 57–58.

Scientific Research and Development. This government agency worked with universities across America, focusing on advancing American warfighting equipment. Everything from bomb sights to the atomic bomb were the focus of military and educator research.[389] While these efforts involved a small number of servicemembers, another program was poised to influence a far greater population.

Establishment of the Army Institute

In 1941, the War Department authorized the creation of the Army Institute. Leading the charge to design and implement educational programs in the Army was Frederick Henry Osborn, who began as the Chief of the Army's Morale Branch in 1941 and was later promoted to lead the Information and Education Division. While leading the Information and Education Division, Osborn established a Research Branch, collecting and measuring servicemember data in a variety of areas within the scope of educational achievement and personal knowledge.[390] His work influenced not only the educational opportunities for soldiers, but also the Army's information campaign in support of servicemembers' education on the obligations of Americans to participate in civil society. In partnership with key educators such as the Harvard School of Education Dean, Francis Trow Spaulding, the Army began to develop and implement programs of instruction as a means to both educate and provide opportunities for soldiers.[391]

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[389] A. Hunter Dupree, *Science in the Federal Government: A History of Policies and Activities* (New York: Johns Hopkins University Press, 1986), 313–325.

[390] "Frederick Osborn, A General, 91, Dies," *The New York Times*, January 7, 1981.; Richard D. McKinzie, "Oral history interview with Frederick Osborn," July 10, 1974, Garrison, NY, Truman Library of Oral Histories, https://www.trumanlibrary.gov/library/oral-histories/osbornf#29.

[391] Richard D. McKinzie, "Oral history interview with Frederick Osborn," July 10, 1974, Garrison, NY, Truman Library of Oral Histories, https://www.trumanlibrary.gov/library/oral-histories/osbornf#29.; Anderson, "Remembering Those Who Have Made a Difference," 187.

Evolution to the US Armed Forces Institute

By April 1942, the Joint Army-Navy Committee on Welfare and Recreation agreed to transform the Army Institute into a combined organization, the USAFI. This consolidation of efforts allowed the program to assist servicemembers in any of the Armed Forces. Using donated office space as a headquarters, in 1942 USAFI began operating in offices and buildings provided by the University of Wisconsin. The organization's staff was charged with developing, implementing, and supervising the educational programs for the US Armed Forces during the war. This was a task well beyond the military or any college or university; America needed a joint effort. Not only were educational experts involved, but private companies, such as the McGraw-Hill Book Company, and a wide variety of colleges, universities, and high schools offered assistance as well.[392]

As previously discussed, the literacy of potential recruits was a problem for the military, as it hindered mission accomplishment. One goal of USAFI was to provide technical training opportunities and continue to build on improving literacy in servicemembers.[393] The USAFI program started with sixty-four vocational and technical courses, and the initial response from Army personnel was overwhelming. While in April 1942, the Army Institute opened its doors in Madison, Wisconsin, it was not until September 1942 that the Army Institute program became available to Navy personnel. In addition to the

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[392] A. J. Matthias, *War Department Education Manual-EM-976, How to Design and Install Plumbing* (Washington, DC: American Technical Society, 23 June 1944). This work was published for USAFI and the War Department by the American Technical Society. It demonstrates the partnerships between industry, educational institutions, publishers, and the military. Over time, hundreds of educational supplements were published for USAFI.

[393] United States Office of Education, "Rural War Production Training Program Final Report," bulletin 1946, No. 11, 1 (Washington, DC: United States Government Printing Office, 1946). The Army, the Navy, the War Manpower Commission, and the United States Office of Education Wartime Commission, joined together in December 1941 recommending colleges and universities across America accelerate their academic calendars to speed up the training needed for technical and professional personnel which led to classes during the usual summer vacation time.

initial sixty-four courses, when the Army Institute officially became the USAFI in February 1943, the program expanded its initial offering, continuing to focus on courses offered through colleges and universities. The Army's establishment of the Institute assisted in addressing the military literacy problem while demonstrating the value of military partnerships with higher education.[394]

The USAFI provided on- and off-duty educational opportunities to both men and women, enlisted and officer, in any of the military services.[395] The partnership between the Armed Forces and a wide variety of educational institutions focused on four major types of learning. First was the Institute correspondence courses developed by USAFI. Servicemembers taking these courses received text materials and lessons through the mail and the advice of an educational advisor who provided feedback on their progress. Second were the university extension correspondence courses, which were similar to the Institute courses except that college credit could be received based on test scores and the correspondence material was received directly from the university or college offering the course. Third were the self-teaching courses. For servicemembers located in remote areas, these self-teaching courses provided the textbook from the Institute, pictures and diagrams that one would see on a normal classroom blackboard, and assessments at the end of each chapter to measure understanding. The fourth type of courses were the off-duty classes. If servicemembers could form a group of individuals who desired to study a specific subject or topic, the textbooks and teaching materials would be provided by USAFI, and the students

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[394] Clinton L. Anderson, "Recognition of Cyril Houle's and Thurman White's Work In Adult Education and The Armed Forces," presented at the 2003 Hall of Fame Conference of the American Association of State Colleges and Universities, March 7, 2003, 1.

[395] US Office of Civilian Defense, *Introduction to the Armed Forces: Suggestions for Preinduction Informational Meetings, Leaflet One: What Every Inductee Ought to Know* (Washington, DC: US Office of Civilian Defense, 1944), Box 35, Folder 2, Defense Council Records, Oregon State Archives.

could take advantage of the opportunity to learn together. Qualified military personnel could use the materials to deliver the course to the group.[396]

USAFI was a full-service program.[397] The Institute hired and trained counselors to work with servicemembers, answering questions regarding their choice of courses and providing assistance with learning plans. This allowed servicemembers the opportunity to complete college courses and continue working towards a degree while serving.[398] The demand for higher education grew over time. In 1943, over eighty universities and colleges across America offered university extension correspondence courses.[399] A significant benefit to the learner beyond the accessibility of these courses was the cost sharing between the servicemember and the government which continued throughout the twentieth century.[400] The government paid half of the tuition and course material fees for university extension correspondence courses up to a total of $20 per course.[401] This allowed those who would have never had an opportunity to complete a degree or take a college course to do so. The benefits of the program were not the same for all servicemembers. For Army officers there was no cost sharing; since the officer salary was much higher, the officers paid the full

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396 United States Armed Forces Institute, *Catalog of the United States Armed Forces Institute*. 3rd ed. (Washington, DC: War Department and Navy Department, 1944), 29–33.

397 United States War Department, "Army Regulation 350-3100, United States Armed Forces Institute," December 24, 1941, and July 30, 1943.

398 Miles R. Palmer, "The United States Armed Forces Institute." *Public Administration Review* 15, no. 4 (1955): 272–74. https://doi.org/10.2307/972982. At the time of writing this journal article, Palmer was a colonel in the United States Air Force and at the time of writing the article the Chief, Education Division, Office of Armed Forces Information and Education, Department of Defense.

399 Anderson and Kime, "Some Major Contributions of the Military," 6-8.

400 United States Armed Forces Institute, *Catalog of the United States Armed Forces Institute*, DOD PAM 7-4, 13th ed. (Washington, DC: Departments of the Army, the Navy, and the Air Force, 1965).

401 Issac L. Kandel, *The Impact of the War Upon American Education* (Chapel Hill: University of North Carolina Press, 1948): 241.

tuition costs. However, military officers still had the opportunity to enroll in the Institute courses and continue their education.

During WWII, a considerable number of high schools and colleges across the United States agreed to provide academic credit to servicemembers who could prove their experience based on training hours.[402] This was quite different from the traditional course credit, which required students to both sit in the classroom and complete assessments demonstrating competency. The Institute worked with servicemembers, giving them specially designed tests to measure what they had learned, and then documented those examination scores, forwarding them to the school of their choice for credit.[403] There were a variety of courses provided by the Institute. Servicemembers could learn a foreign language, complete courses related to aviation and the automotive industry, and even educate themselves on topics with no correlation to military duties, such as courses related to the life insurance industry. For example, on July 18, 1944, USAFI published *War Department Educational Manual-758, life insurance*, providing more than 600 pages of content on the principles, types, and rates of life insurance.[404] The course book was designed for use as an

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[402] Letter from Francis T. Spaulding, US Army Colonel and Chief, Education Branch, Special Service Division, Headquarters Army Service Forces to Pat M. Neff, President Baylor University, June 9, 1943. Pat M. Neff collection, Accession #463, Series 4. Baylor University Records, 1930-1952, Bulk 1932-1947, Box 118, Folder 7, Baylor University, The Texas Collection. The letter requested Baylor University make available the complete course material for dozens of courses spanning 17 different college disciplines. The letter refers to Contract No. 16, dated 24 April 1942, stating that Baylor University was officially recognized by the United States Armed Forces Institute as a cooperating institution and therefore required to make the courses available for servicemembers to complete through the USAFI.

[403] American Council on Education, "Educational Lessons from Wartime Training: The General Report of the Commission on Implications of Armed Services Educational Programs" (Washington, DC, 1948), 151-153.; It is estimated that more than two million servicemembers used USAFI study materials from the organization's inception through 1948.

[404] United States War Department, *EM-758, Life Insurance* (Madison, WI: McGraw-Hill Book Company Inc. for the United States Armed Forces Institute, 1944). In addition, there were many other War Department educational manuals published. These include *EM-306: Plane Geometry*, *EM-754: Principles of Business Law*, and even those which focused on providing training to potential recruits such as *PIT-333: Preinduction Vocational Training in Aircraft Maintenance*.

off-duty self-learning course and contained instructions on how to complete the end-of-course test for life insurance certification. This is one example of the numerous publications produced by USAFI in partnership with educators, industry, and publishers.[405] The result of these partnerships during WWII allowed tens of thousands of servicemembers to complete correspondence courses and demonstrated to educators the value in distance learning and the acquisition of knowledge outside the classroom. In one 1945–1946 study at the Ohio State University, the Junior Dean of the College of Education found that 107 student veterans took 308 tests during the academic year; passing 249 tests ultimately saved $25,200 for the veterans at the 1945–1946 tuition rates.[406]

USAFI introduced correspondence courses on an enormous scale, giving servicemembers access to technical and educational material almost anywhere in the world.[407] By the 1950s, USAFI was offering courses through the Institute or by colleges across America, providing learning opportunities to servicemembers stationed across the globe. One of the benefits the military provided in testing and fielding programs with USAFI was its large population. Because so many Americans participated in USAFI correspondence studies, the benefit of distance education was validated as an effective method of learning.[408]

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[405] United States Armed Forces Institute. *Catalog of the United States Armed Forces Institute*, 4th ed. (Washington, DC: Departments of the Army, the Navy, and the Air Force, 1947).

[406] Love, "Use of the College-Level General Educational Development Tests."

[407] "Students of 'Foxhole University' Do Homework Between Battles," *The Frontier* (O'Neill City, NE), January 11, 1945, https://chroniclingamerica.loc.gov/lccn/2010270509/1945-01-11/ed-1/seq-7/. This Nebraska newspaper article elaborated on the fact that a million servicemembers were completing their education through correspondence. The article provided an example of a soldier who had been studying the German language through the USAFI correspondence courses and overheard German soldiers explaining their plans to attack his position. Luckily, he was learning German through the USAFI correspondence program.

[408] American Council on Education, "Educational Lessons from Wartime Training: The General Report of the Commission on Implications of Armed Services Educational Programs" (Washington, DC, 1948), 151-153.; American Council on Education, "Higher Education and National Defense," Bulletin No. 36, October 23, 1942.; Anderson and Kime, "Some Major Contributions of the Military," 13-14.

The involvement of educators and Army personnel influenced the educational program in a positive way and created new opportunities of educating and training in American society.[409]

Transition from USAFI to DANTES

USAFI did not end after the war and by 1955 had 45 colleges and universities contracted as partners offering 6,400 courses available to servicemembers.[410] The program continued until 1974, when Congress stopped funding USAFI and the Army disbanded the organization on May 31 of that year.[411] No longer having the support USAFI provided, the military services collaborated to develop the Defense Activity for Non-Traditional Education Support (DANTES). The armed services jointly established the organization in July 1974, and its focus was to support voluntary educational programs across the Department of Defense (DOD).[412] DANTES provided support in areas such as the GED, college level examinations, and certifications, while also assuming legacy duties such as maintaining the records, tests, and study material from USAFI and issuing transcripts.[413] From 1974 to 2000, DANTES exams continued to provide college credit opportunities to servicemembers at little to no cost. The DANTES organization continues today within the services, and the testing is a joint effort between the DOD and a private company. In 2000, the private company

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[409] Persyn and Polson, "Evolution and Influence of Military Adult Education," 7.

[410] Miles R. Palmer, "The United States Armed Forces Institute." *Public Administration Review* 15, no. 4 (1955): 273.

[411] United States Army Center of Military History, *Department of the Army Historical Summary Fiscal Year 1974*, Washington, DC, 1978, 120-122. According to this 1978 report, 1974 was a high watermark in enrollments according to military statistics. High school activity testing completions reached 124,534.; American Council on Education, *Guide to the Evaluation of the Educational Experiences in the Armed Services: the 1978 Guide*, Washington, DC, 1978, xii, A-4.

[412] Clinton L. Anderson, "Remembering Those Who Have Made a Difference in United States Military Volunteer Education," A working paper, 2006 Department of Defense Worldwide Education Symposium. Compact Disk Productions, 2006, 8, 47-49. https://www.dantes.doded.mil/_content/remembering_2006.pdf

[413] Office of the Assistant Secretary of Defense for Force Management and Personnel, *Education Programs in the Department of Defense*, November 1985, 23-25.

Prometric acquired the exams developed and refined over time through educational partnerships with the DOD and today provides the DANTES Subject Standardized Test (DSST) to military and civilian personnel seeking to earn college course credit by examination.[414] While developers produced many of these examinations as part of USAFI to assist military personnel as they pursued higher education, the legacy of the WWII partnership between educators and the War Department lives on in American higher education today.[415]

The GED Testing Program

Another benefit of the partnerships with educators was the GED testing program. No understanding of the GED testing program can be complete without discussing the need for literacy improvements in the US military. Several scholars have researched the problem of illiteracy throughout the history of the United States. As a result, for the military, literacy became a military operational necessity in the twentieth century. During WWI, literacy became a requirement for military service.[416] This was due to the explosion in technological advancements and the military's adoption of new equipment at the time that continued during WWII and beyond.[417] In 1918, the Army fielded an intelligence-testing program as a means

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[414] Defense Activity for Non-Traditional Education Support, "DoD VolEd Programs: Cost for test Fees," https://www.dantes.doded.mil/EducationPrograms/get-credit/creditexam.html. As of November 2022, DANTES funded College Level Examination Program (CLEP) test fees, for the first attempt on all exam titles, for eligible military personnel.

[415] United States Department of Education, *No Child Left Behind: A Desktop Reference*, Washington, DC, 2002, 73-74. An example of how this continued impact on education in America can be seen is in this document. The Troops-to-Teachers program explains how the Department of Defense Activity for Non-Traditional Education Support DANTES partnered with the US Department of Education through a memorandum of understanding and support to former military personnel in becoming teachers in public education. This memorandum of understanding included a teacher referral system and placement offices in nearly half of the states in 2002.

[416] Persyn and Polson, "Evolution and Influence of Military Adult Education," 7.

[417] Clark and Sloan, *Classrooms in the Military*, 22.

to identify, train, and educate those inductees who had difficulty adjusting to military life and performing their duties in a satisfactory manner. Clinton Anderson and Steve Kime highlighted that during WWI, "the war department found that 30 percent of the 1.7 million soldiers taking the Army Beta Test could not understand the form due to their lack of reading skills."[418] As evidence has shown, during WWII, the screening of inductees and standardized testing expanded to the point where local draft boards and induction stations could identify slow learners, illiterates, and non-English speakers.[419] This identification enabled the Army to place recruits who were potentially unfit for service into specialized training units where the Army taught them reading and writing to improve individual literacy.

Army literacy programs not only continued but expanded during WWII. During the wartime screening, illiterate, slow learning, or non-English speaking recruits were sent for extra training and education.[420] Connecting the need for a trained and educated military during both world wars, and the subsequent assessments and educational programs, led to the American Council on Education endorsing the "general education curriculum and testing for credit agenda within the military through the Joint Army and Navy committee on Welfare and Recreation," along with the War Department placing oversight on the supervision of literacy training, and the maintenance of the curriculum, under the USAFI in May 1944.[421]

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[418] Anderson and Kime, "Some Major Contributions of the Military," 5.

[419] Letter from President Franklin Roosevelt to Oregon Governor Charles Sprague, September 21, 1940, Box 6, Folder 15, Governor Charles Sprague Records, Oregon State Archives. This letter is an example of the communications Roosevelt sent to the governors of each state asking them to set Wednesday, October 16, 1940, as the day to register each eligible man for conscription. Also included was the proclamation for selective service enrollment. In response to this letter, Governor Sprague set up local draft boards, boards of appeal, and 10 medical advisory boards across the state based on population centers.

[420] Anderson and Kime, "Some Major Contributions of the Military," 8.

[421] Quinn, "An Institutional History of the GED," 18.

Building on literacy testing and USAFI courses, in partnership with USAFI and the American Council on Education, educators such as Ralph Tyler from the University of Chicago constructed examinations designed to evaluate the knowledge servicemembers gained based on the USAFI educational programs.[422] The leaders within the American Council on Education recommended that these examinations not only measure the outcomes from the USAFI courses but apply them to all veterans to test whether they have achieved the specific level of knowledge.[423] The course examinations focused on measuring knowledge and course outcomes at the university and high school levels.[424] They included in the course examinations, technical competence tests and an overall GED test.[425] The GED test was of significant interest since if passed and accepted by high schools and colleges, servicemembers could pursue higher education without the need to return to high school if they had left due to the war. The GED was announced in February 1944 as being available for civilians to take the general educational development test, highlighting the success of the USAFI program.[426] Later, to standardize the administration of the GED test, in 1945, the American Council on Education established the Veterans Testing Service, a precursor to the

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[422] E. F. Lindquist, "The Use of Tests in the Accreditation of Military Experience and in the Educational Placement of War Veterans," *Educational Record* 25 (1944): 357–376.; Everett F. Lindquist, *Statistical Analysis in Educational Research* (Boston, MA: Houghton Mifflin, 1940); Dressel, "The Use of the USAFI General Educational Development Test"; Love, "Use of the College-Level General Educational Development Tests."

[423] American Council on Education, *Sound Educational Credit*.

[424] American Council on Education, *Tests of General Educational Development*.

[425] Miles R. Palmer, "The United States Armed Forces Institute." *Public Administration Review* 15, no. 4 (1955): 273. By 1955, 44 states had a policy under which a serviceman could qualify for an equivalency certificate, or a high school diploma based on achieving a passing score of the high school level GED test. Additionally, 43 states offered credit for successful completion of USAFI subject-matter tests.

[426] United States Office of Education Federal Security Agency, "Education for Victory," Volume 2, No. 15, February 3, 1944, 22.

later GED testing service.[427] Efforts such as these were a continuation of significant changes in American post-secondary education resulting from the partnerships with and influence of the military.

Contributors designed the GED test to assist veterans in documenting their knowledge and to demonstrate their equivalency to a high school diploma. The goal of the test was to assist veterans in taking advantage of higher education opportunities when they returned from the war. The critical component behind developing the GED test was that it would measure learning outcomes, or the knowledge of the average high school student upon graduation.[428] This was critical, as nearly eight million men served in the US Armed Forces during the war, and approximately half of those did not possess a high school diploma.[429] Providing academic credit based on either military service or knowledge gained from service and nontraditional courses such as those provided by and through USAFI was a novel idea. The need for the test was obvious; educational institutions could not simply provide the same blanket accreditation to all servicemembers because their military and educational experiences lacked uniformity. How to measure the knowledge based on four years of high school was the question, and educators working with USAFI considered the GED exam a potential answer.[430]

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[427] Anderson and Kime, "Some Major Contributions of the Military," 9-10.

[428] Shailer Peterson, "The United States Armed Forces Institute Field Examination in High School Biology," *The American Biology Teacher* 6, no. 3 (1943): 51–56, https://doi.org/10.2307/4437454.

[429] United States Department of Commerce, *Sixteenth Census of the United States: 1940*, United States Summary (Washington, DC: US Government Printing Office, 1943), 11.; H. M. Kallen, "The War and Education in the United States," *American Journal of Sociology* 48, no. 3 (November 1942): 332.

[430] United States Armed Forces Institute, *Catalog of the United States Armed Forces Institute*, 3rd ed., 3–11; American Council on Education, *Tests of General Educational Development*.

Between 1910 and 1945, technological increases placed significant demands on the US military. America needed servicemembers who were both literate and educated. Harold Clark and Harold Sloan explained how the Industrial Revolution affected skills and the "technological advances put a premium on knowledge, agile minds, quick responses, and clear thinking."[431] While the progressive movement may have been overshadowed by WWI, the needs identified while waging war created conditions under which efforts to help American servicemembers during and after the war continued to spread across the country. The long-term impact of the partnerships with USAFI and educational institutions during WWII led to successes such as the identification of standard outcomes gained from four years of secondary education. Today, the GED continues to provide opportunities in America. As recent as the 2010s, more than half a million Americans took the GED annually.[432]

Literacy and the Economy after World War II

Of course, other factors during WWII influenced society, politics, and the economy. Arthur Herman's *Freedom's Forge: How American Business Produced Victory in World War II* provided an excellent perspective on how the American military-industrial complex and the production capacity for manufacturing moved America from being a limited producer of wartime products to a manufacturing powerhouse that supported multiple nations in their efforts to defeat the Axis powers during WWII. Taking a business-focused approach to research demonstrates how American wartime production, industrial leaders, and private

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[431] Clark and Sloan, *Classrooms in the Military*, 65.

[432] GED Testing Service, *2013 Annual Statistical Report on the GED Test* (Washington, DC: GED Testing Service, 2014).

enterprise were all a critical part of the successful outcome of the war.[433] The demand for skilled, literate, and educated men and women during the war created competition for labor in the workforce.[434] It was the military who focused on a solution by partnering with multiple stakeholders to address the development of technical experts while improving the literacy of men who would otherwise be underperformers or unacceptable in this new technological age.[435]

While there is significant historiography on both world wars, analysis of how literacy became an issue of national defense has been limited. Focusing on the expansion of government, how the US military identified the need for a literate workforce, and the impact on Americans after WWI enables historians to understand the impact from both a micro and macro level. Focusing on taxpayer-funded post-secondary education programs that had their inception during and after WWI may demonstrate how distinct groups of people came together as federal money became available for local and state programs.

The financial impacts were a factor that affected the decisions of leaders on the development and use of these educational programs and acceptance of these programs by ordinary citizens. The demobilization at the end of WWII raised significant concerns by civilian and military leaders regarding the American economy.[436] In his biennial report to the Secretary of War, United States Army Chief of Staff George C. Marshall specifically mentioned this demobilization concern by saying, “the disturbance to our national economy

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[433] Herman, *Freedom’s Forge*.

[434] Bureau of Educational Research, "Manpower Planning for Victory," Louisiana State University Bureau Educational Research Monograph Series, 1942 – Number 2 (Baton Rouge, LA, 1942,) 8-18.

[435] Richard M. Rose, *A Summary of Voluntary Education in the Armed Forces*, Office of the Assistant Secretary of Defense for Manpower and Reserve Affairs, Washington, DC, May 1974, 1-6.

[436] United States Selective Service System, “Apprenticeship Program Resumed by War Department,” *Selective Service*, Volume 5, no. 10, October 1945, 4. http://archive.org/details/1selectiveservice11119417.

must be kept to the minimum."[437] American leaders understood that mobilizing a large army, waging war for four years, and then returning millions of troops back into local communities would have a significant effect on the lives of all American citizens. The concerns of a rapid demobilization were so significant that the US Army developed a complicated points system to establish the servicemember's muster-out date at the end of WWII. Soldiers received credit for length of time in the service, length of time overseas, number of dependent children, and even awarded decorations. The goal of this process was to be fair in the discharge of servicemembers while not overburdening the military, or return-to-civilian-life programs, with too many servicemembers departing the military at once.

In late 1945, Army efficiency allowed the service to discharge soldiers within forty-eight hours of returning to an embarkation port. During the last two days before discharge, administrative actions such as receiving briefings, paperwork, and a discharge certificate were completed. What was both interesting and divergent from other wars is that the servicemember received pamphlets on their rights as a veteran and the benefits provided by specific agencies, offering information on topics such as employment assistance, mustering-out payments, and the G.I. Bill of Rights.[438] For a nation without a national military policy, the effort of the US military in developing programs to benefit servicemembers and veterans expanded significantly during and after WWII. Leaders such as General Marshall explained the need for American political and military leaders to establish a detailed national military policy outlining the organization of and support for a peacetime military in America.[439] He

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[437] Marshall, *Biennial Reports of the Chief of Staff*, 204–206.

[438] United States War Department, "Going Back to Civilian Life," War Department Pamphlet No. 21-4, August 1945.

[439] United States Selective Service System, "General Marshall Urges Universal Military Training," *Selective Service*, Volume 5, no. 10, October 1945, 1, 3. http://archive.org/details/1selectiveservice11119417.

was aware that America needed a plan to ensure the country would be ready for the next conflict. Marshall considered that from an educational standpoint, the need for service schools and facilities on camps, posts, and stations capable of training the citizen-soldier must be part of a national military policy.[440]

In the twenty-first century American military, the legacy of providing educational assistance to veterans and current military servicemembers continues. The current form of what started as the Servicemen's Readjustment Act of 1944, or G.I. Bill of Rights, is now Chapter 33, the post-9/11 G.I. Bill.[441] Some might consider the Readjustment Act of 1944 as a novel or revolutionary idea, but when viewing educational and training programs along with the partnerships between the US Army and post-secondary education, the act was part of an evolutionary process needed to fulfill the American labor requirements while providing veterans the needed support to reintegrate into society after the war. This legislation continued the partnership between the military and higher education in America. During WWI, Congress created a system of veterans' benefits that also included vocational rehabilitation for the disabled. Building on the WWI example, WWII ideas expanded earlier programs designed to help veterans and undoubtedly influenced the passing of the 1944 G.I. Bill.

Impact of the G.I. Bill and Other Tuition Assistance

In addition to having a significant impact on education, the G.I. Bill was more than an educational program. In its 1944 form, the WWII G.I. Bill allowed veterans to apply for a

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[440] Marshall, *Biennial Reports of the Chief of Staff*, 211.

[441] United States Congress, ''Post-9/11 Veterans Educational Assistance Improvements Act of Public Law" 111–377, January 4, 2011. https://www.govinfo.gov/content/pkg/PLAW-111publ377/pdf/PLAW-111publ377.pdf

$500 stipend per semester while attending accredited training or educational programs; this generated an unforeseen demand when over two million veterans entered higher education programs.[442] The 1944 Act also established hospitals, provided home loan guarantees, and included unemployment compensation.[443] While it is easy to appreciate the establishment of hospitals creating conditions that required additional staff, those hospitals also increased the need for programs to educate those workers needed in the medical community. At the same time, unemployment compensation and home loan guarantees created conditions that made pursuing higher education a possibility on a scale not seen before. The economy of the United States played a part in the adoption of the G.I. Bill program; WWII demonstrated the shortage of trained employees in many industrial fields.[444] Factors such as the economy, private industry demands, and the lobbying power of the American Legion helped to push the proposal through Congress.[445] While people affected by the G.I. Bill after WWII numbered in the millions, the current descendent program of the G.I. Bill continues to affect several hundred thousand veterans annually.[446] The effect on colleges and universities is in the billions of dollars, and economists can only speculate on the number of jobs the legislation created.

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[442] William C. Diehl, *Learning at the Back Door: Charles A. Wedemeyer and the Evolution of Open and Distance Education* (University Park, PA: The Pennsylvania State University, 2011), 29.

[443] Eric Foner and John A. Garraty, *The Readers Companion to American History* (San Diego: Houghton Mifflin Harcourt Publishing Company, 1991).

[444] Olson, "The G.I. Bill and Higher Education," 600.

[445] United States Congress, "House Committee on World War Veterans' Legislation," *Hearings on H.R. 3817 and S. 1767* (Washington, DC: US Congress, 1944).

[446] United States Department of Veterans Affairs, *FY2021 Annual Report for Veterans Education*, September 2021, 144-242, https://www.benefits.va.gov/REPORTS/abr/docs/2021_education.pdf. In 2021, 610,009 veterans received education benefits from the Post 9/11 GI Bill education program. This total equaled $9,142,053,000 injected into the American economy and half ($4,515,328,460) of the funding was sent directly to the post-secondary institutions for tuition costs.

The creation of educational programs for servicemembers under the umbrella of the G.I. Bill significantly changed societal views on higher education. The program became an enabler to pursue higher education for many who would have never had the opportunity. Research on the benefit of the G.I. Bill to education in America is rare. Searching contemporary databases for sources on the subject provides few works that acknowledge the major influence of the US military on higher education. Keith Olson demonstrated through his research that many academics consider the G.I. Bill to be the most successful and significant educational experiment in American history.[447] While this may be a widely held opinion, the evolution of programs such as the Citizens' Military Training Camps, the SATC, the ASTP, and even ROTC paved the way.

After the war, the G.I. Bill opened opportunities for the masses to attend post-secondary education in numbers never before seen.[448] The G.I. Bill influenced urbanization and suburbanization, social mobility, and many changes in educational institutions.[449] Factors such as class size, enrollment numbers, and student accommodations upset the cart for traditional educational organizations. Before 1915, American colleges and universities were mired in the status quo of the traditional student acceptance processes and instructional methods. Those who designed and organized the G.I. Bill may have failed to anticipate the long-term effects that America observed some fifteen to twenty years later. Anderson and

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[447] Olson, "The G.I. Bill and Higher Education," 596–610.

[448] Morse A. Cartwright, "Marching Home: Educational and Social Adjustment after the War," (New York: Institute of Adult Education, 1944,) 27.; National Association of State Boards of Education, *Common Ground: Education & the Military* (Arlington: National Association of State Boards of Education, 2010), 10.

[449] United States Selective Service System, "200,000 Vets May Be Unable to Go To College," *Selective Service*, Volume 6, no. 6-7, June-July 1946, 1, 4. http://archive.org/details/1selectiveservice11119417. The gap between the college and university capacity and anticipated demand for enrollment was a significant problem for post-secondary education in 1946. Higher education collectively reported in 1946 that the potential enrollment of 2,080,000, including 970,000 veterans, but could not enroll more than 1,600,000 students in the fall of 1946 due to a lack of capacity.

Kime summed up the influence of educational programs within the US military quite succinctly by saying, "The democratization of higher education and the emergence of what is commonly referred to as adult and continuing education—owe much to the nation's service members and veterans."[450] Many consider the Servicemen's Readjustment Act of 1944 one of the most influential pieces of legislation ever approved by Congress; it effectively created the American middle class and was as significant as the passing of the legislative act itself.[451]

Before the First World War, many colleges were small private liberal arts organizations that graduated a small number of attendees annually. Although there were land-grant colleges, attending higher education was still limited to a small portion of American society. Even graduating from high school was not a standard achievement prior to the Second World War. With low literacy rates, programs such as those the Army provided to prepare recruits by teaching them to read and write had an extraordinary impact on the nation. With the passing of the G.I. Bill in 1944 and the war ending in 1945, by 1947 there were more than a million veterans using G.I. Bill benefits in colleges across America. This number was 49 percent of all college enrollments that year.[452] The financial gains are evident in the expansion of faculty at four-year colleges by comparing faculty members in 1942 to those after the war. The total number of faculty members at four-year colleges in 1940 was 146,929 and in 1946, even after the G.I. Bill became law and the majority of servicemembers were released from duty, that number was only 165,324.[453] Since it took time for universities to make the huge investments in the postwar era, the true demonstration of the influence of

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[450] Anderson and Kime, "Some Major Contributions of the Military," 1.

[451] Gilbert Cruz, "A Brief History of: The G.I. Bill," *Time* 171, no. 23 (May 2008): 25.

[452] Milton Greenberg, *The G.I. Bill: The Law That Changed America* (New York: Lickle Publishing Inc., 1997), 36.

[453] Frydl, *The G.I. Bill*, 316-320.

the G.I. Bill on universities is highlighted by 1948 faculty numbers: the number of faculty at four-year universities was 223,660, an increase of about 60,000 new faculty in two years.[454] To put the growth in perspective, the pre-war increases of faculty numbers over two years were less than 10,000. The impact of the G.I. Bill on American higher education was significant not only immediately after the war but continued as changes occurred over many years.[455]

Recent data on beneficiaries currently using educational benefits from military programs highlight the post-9/11 G.I. Bill as the most widely used educational benefit by veterans today. In 2013, 754,229 beneficiaries utilized the post-9/11 G.I. Bill at a cost of over $10 billion.[456] The influx of funding dollars from military educational programs can have a significant effect on educational organizations as well as on American businesses. Adding $10 billion into educational programs increases the demand for educators, along with non-veterans pursuing higher education and training to remain competitive in the employment market. Consider the one million Americans who reportedly used veterans' educational benefits in the year 2013; they influenced society by raising the level of education for skilled workers, increased jobs in higher education, and created a demand for publishing and other peripheral jobs as well.[457] By improving the educational status of the veterans, the G.I. Bill

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[454] Frydl, *The G.I. Bill*, 316-320.

[455] Office of the Assistant Secretary of Defense for Force Management and Personnel, *Education Programs in the Department of Defense*, November 1985, 6.; United States Congress, "Hearing Before the Committee on Veterans Affairs United States Senate: G.I. Bill Amendments Act of 1979," *Hearings on S. 870, S. 830, S. 881 and related bills*, 96th Congress, 1st Session (Washington, DC: US Congress, 1979).

[456] Department of Veterans Affairs, *FY 2013 Annual Benefits Report - Education Section* (Washington, DC: US Department of Veterans Affairs, 2013), 10.

[457] Department of Veterans Affairs, *FY 2013 Annual Benefits Report*, 1–16.

educated veterans while creating employment competition as they entered the workforce with a higher level of education.[458]

To understand the influence of veterans' educational benefits on institutions, one only needs to examine the media from any time in history. After WWII, federal funding through the G.I. Bill led to organizations specifically marketing directly to veterans.[459] This not only included post-secondary institutions but also trade schools and nontraditional places of instruction as well. Although post-secondary institutions sought veterans' attendance, the substantial number of veterans attending universities as a result of the G.I. Bill, was not initially supported by all educators.[460] From a business perspective, organizations may have viewed veterans as prospective students who brought with them scholarships and, therefore, guaranteed income to the organization. This influence affected decision-making similar to the SATC and the ASTP.[461] But there was also a positive contribution to the veterans attending classroom courses. Over time, educators began to view veterans as more mature than the traditional students arriving directly from high school, as veterans possessed increased motivation and drive to complete assignments and represented the organization well as alumni. These attitudes towards military students may be a result of the high volume of veterans who appeared on the Dean's List and honor rolls using the G.I. Bill after WWII.[462]

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[458] Richard M. Rose, *A Summary of Voluntary Education in the Armed Forces*, Office of the Assistant Secretary of Defense for Manpower and Reserve Affairs, Washington, DC, May 1974, 3-13.

[459] Inside Higher Ed, "Senators Introduce New Bill on Veterans and For-Profits," February 17, 2012, https://www.insidehighered.com/quicktakes/2012/02/17/senators-introduce-new-bill-veterans-and-profits.

[460] Keith W. Olson, "A Historical Analysis of the G.I. Bill and Its Relationship to Higher Education," Syracuse University Research Institute, 1968. 8-10. https://files.eric.ed.gov /fulltext/ED024330.pdf.

[461] American Council on Education, "Educational Lessons from Wartime Training: The General Report of the Commission on Implications of Armed Services Educational Programs" (Washington, DC, 1948).; US Army Service Forces, Army Specialized Training Division, "Essential Facts about the Army Specialized Training Program".

[462] Olson, "The G.I. Bill and Higher Education," 596–610.

There was an obvious financial benefit to educational organizations in relation to G.I. Bill funding. By financing veterans' educational pursuits, the program indirectly increased the market from which colleges and universities might gather students. This increased desire for higher education affected the demand for educators while also having the potential to increase the influence of higher education within American society.[463] While the G.I. Bill did represent a significant contribution to American society, the military-related contributions to the field of education are no less significant. Anderson and Kime connected WWII to the changes in higher education after the war, saying, "Cyril Houle, one of America's leading adult educators, found that, through the very struggle for democracy during World War II, adult education—a 'new implement for democracy'—had been forged."[464] Even Peter Drucker, the American management guru, believed that the G.I. Bill was the beginning of the knowledge society in America today.[465] While some may consider the change in higher education a progressive victory, the capitalist economy and military demands for trained and educated servicemembers had a more significant influence in moving America towards these changes.

The colleges and universities were not the only financial beneficiaries of the G.I. Bill. The veterans themselves discovered the monetary benefit of attending higher education by utilizing the G.I. Bill—increasing their income by over 40 percent in the late 1940s. The American government and the economy also reaped benefits. According to Anderson and Kime, the increased personal income provided America a return on investment at a rate of

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463 James B. Hunt, Jr., *Educational Leadership for the 20th Century*, 2006, http://www.highereducation.org/reports/hunt_tierney/hunt.shtml.

464 Anderson and Kime, "Some Major Contributions of the Military," 4.

465 Peter Drucker, "The Post-Capitalist World," *Public Interest* 109 (1992): 91.

"two to eight times as much in income taxes as it paid out in educational benefits."[466] The increased income and improved veteran quality of life changed the country by supporting the expansion of the middle class, while providing higher education with increased enrollments, research opportunities, and revenue. The ability to use veterans' benefits for vocational and technical education in addition to colleges and universities provided the country with the motivation to increase its investment in engineering and mechanical technologies.[467]

Ultimately, the long-term effects of the G.I. Bill program demonstrated to educators that student veterans possessed increased maturity, initiative, and a wider variety of experiences, thus adding to the learning of civilian educators and students alike. Prior to the passage of the 1944 Servicemen's Readjustment Act, some educators such as James B. Conant, president of Harvard University, and Robert M. Hutchins, president of the University of Chicago, viewed the G.I. Bill as a threat to, and an unworkable problem for, the American institution of education. Over time, these attitudes changed as the high volume of veterans appeared on the Dean's List and honor rolls.[468]

The higher performing veterans in many educational institutions benefited American higher education in several ways. The increased drive of veterans to perform well in the classroom raised the performance expectations of all students.[469] Over half a century later, the multiple variations of the G.I. Bill wield a significant influence on the financial success of colleges, universities, and trade schools across America. In 2013, more than one million

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[466] Anderson and Kime, "Some Major Contributions of the Military," 4.

[467] Martha V. Gottron, "Education's Role in the Workplace: The Military Experience," in *A Report on the Conference on the Role of Education in Restructuring Defense and Other Industries* (Washington, DC: Office of Educational Research and Improvement, 1991), 10.

[468] Olson, "The G.I. Bill and Higher Education," 596–610.

[469] Olson, "The G.I. Bill and Higher Education," 596–610.

beneficiaries utilized veteran educational benefits, attending colleges, universities, and technical programs resulting in the payment of over $12 billion in tuition during a single year.[470]

The US military has a long history of providing education to its servicemembers. From the very beginning, leaders such as General George Washington sought to address illiteracy within the ranks. He assigned his chaplains to provide basic literacy instruction in the hopes that his soldiers might find spiritual enrichment.[471] Almost a century and a half later, the US Congress formalized a tuition assistance program as part of the 1942 Appropriations Act.[472] Educating and training military personnel to a specific baseline standard is the goal of the US military, but education has influenced personal developmental goals in the eyes of military leaders. As the tuition assistance program transformed over the years, military personnel began to view educational achievement as a means to advance their careers within the service.[473] While the program began as a way to increase the servicemembers' knowledge and skills, in the twentieth century, promotions and assignments became tied to vocational certificates and educational achievements.

Considering George Washington's requirement that his chaplains educate and improve the literacy of his soldiers, Anderson and Kime explained that Washington's goal was not to increase their educational ability from a military perspective, but to improve the skills of enlisted men in Bible reading to enhance "spiritual enrichment and a better life for

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[470] Department of Veterans Affairs, *FY 2013 Annual Benefits Report - Education Section*, 1-16.

[471] Clinton L. Anderson, "Educating the United States Army," In *The Educating of Armies*, edited by Michael D. Stephens, 39-74 (New York: St. Martin's Press, Inc., 1989), 53.

[472] Anderson, "Recognition of Cyril Houle's and Thurman White's Work," 1.

[473] Clark and Sloan, *Classrooms in the* Military, 66.

the future."[474] This approach related to Pershing's thoughts on educating men during their free time at the end of WWI. He saw an opportunity for them to be productive, and education was a way to avoid the problems that sometimes arise when soldiers have idle time. Of course, today there may be some gnashing of teeth and protesting as to the religious involvement in the curriculum, but acknowledging the benefit the leaders sought to provide reaches far beyond the organization itself. The lack of reform-minded leaders limited the expansion of military training and educational programs for decades, but by WWII the changes were in motion on what seemed like an unstoppable path.

With the passing of the G.I. Bill in 1944, the continued changes for active military education expanded a few years later. The military had the USAFI program with its learning opportunities, and by 1946 in-class off-duty education started to become an even more attractive option for servicemembers.[475] The military tuition assistance program became formalized with the 1947 publication of War Department Memorandum 85-40-1, which authorized servicemembers to enroll in civilian universities and colleges and attend classes during their off-duty time.[476] The design of the tuition assistance program generated a demand for higher education educators beyond traditional campuses and daytime classes. Before the adoption of tuition assistance during WWII, most American educators received exposure to military personnel in the form of veterans who had exited the service and were returning to higher education. While those veterans brought with them unique experiences,

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[474] Anderson and Kime, "Some Major Contributions of the Military," 3.

[475] Department of the Army, "Army Information Digest: Index to Volume 1, May-December 1946" (Washington, DC: Government Printing Office, 1947), 56, 75-76. Using central post funds to pay for off-duty education of servicemembers was approved by the board of directors Army Central Welfare Fund, on July 13, 1946.

[476] United States War Department, "War Department Memorandum 85-40-1: Policy for Off-Duty Extension Group Classes of the Army Education Program in the Zone of the Interior," May 7, 1947.; Anderson, "Remembering Those Who Have Made a Difference," 19.

unless educators worked at a college or university located in proximity to an active military installation, they missed the broadening opportunity of working with active-duty military learners. The expanding opportunities for servicemembers to pursue higher education while on active duty had a significant impact on post-secondary education. For example, the University of Maryland was a traditional higher education institution at the end of WWII. The majority of its students were full-time attendees of traditional age and attended courses at the College Park and Baltimore campuses. After the war, the substantial number of veterans had a significant impact on the student body of post-secondary education in America. The University of Maryland was no exception. The considerable number of enrollments from beneficiaries of the G.I. Bill included single, married, and even older men who had postponed their education. To address the demand for education, the University of Maryland established the College of Special and Continuation Studies under the College of Education. The program began in 1947 and within the first few years expanded to more than 250 courses at twenty-five campus centers serving over 4,000 students.[477] By 1949, the University of Maryland had established an overseas presence in Germany in an effort to build on its success with stateside off-campus programs.[478] The University of Maryland's establishment of campus centers on military installations set the precedent that many colleges and universities across America eventually followed. This provided an opportunity for educators to engage with active-duty personnel and potentially return to their universities and colleges with a better understanding of the military and its challenges. This also provided an

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[477] Sharon Hudgins, *Beyond the Ivory Tower: The First Sixty Years 1947-2007* (Adelphi, MD: University of Maryland University College, 2008), 15.

[478] Department of the Army, "Army Information Digest: Index to Volume 5, January-December 1950" (Carlisle Barracks, PA, Government Printing Office, 1950,) 33-36.; The university established its European Branch on October 31, 1949.; In the first term, the University of Maryland had more than 1800 students taking courses.; Anderson and Kime, "Some Major Contributions of the Military," 15-16.

employment opportunity for potential adjunct faculty and attendance by nonmilitary students from the local community near these camps, posts, and stations. Another benefit was that overseas faculty positions broadened the educators' experience while providing an in-class learning opportunity for servicemembers.

With today's proliferation of both online distance education courses and technology that supports both synchronous and asynchronous collaboration, a large number of active-duty military are able to attend courses with organizations, and with professors, that previously would have been unavailable based on proximity to a college campus. Since the tuition assistance program supports leader and personal development within the military, its financial support for courses using multiple formats—such as traditional classes, distance education, and self-directed learning—has influenced the field of education by creating increasingly diverse opportunities for achieving educational goals. Allowing military personnel to access and complete courses from anywhere in the world, distance education helps the servicemember, other students, and educators. Without the tuition assistance program, many servicemembers would be unable to enroll in these courses due to the financial burden, providing funding increases as customers for colleges and universities. The long-term influence of the military has changed the way educational programs provide services.[479]

The tuition assistance program in the military had a significant effect on how organizations presented and conducted classes. In the past, organizations conducted classes at brick-and-mortar institutions, and some with the entrepreneurial spirit provided

[479] Anderson and Kime, "Some Major Contributions of the Military," 1–34.

correspondence course study and even video courses.[480] However, the influence on colleges, universities, and technical schools by military educational programs has evolved over several decades. Consider the classroom instruction on and near military installations. In today's technological society, encouraging accredited universities, colleges, and trade schools to provide classes near and on military installations is commonplace.[481] Clark and Sloan explained that this practice was prolific sixty years ago.[482] This expansion of the campus to accommodate the military student was in both synchronous and asynchronous modalities. While some may not see an obvious connection between the concept of providing education away from the main campus today and military programs in the past, examining how the tuition assistance program generated the demand for alternate locations of the classroom over half a century ago provides an insightful perspective. Moving the classroom to the student has been a military staple for decades.

The use of tuition assistance by military personnel has provided more than just a benefit to the individual or the military. The use of tuition assistance by servicemembers today influences the number of faculty on the payroll in hundreds of colleges and universities across the country. Today, much of this is due to the ubiquitous nature of online classes. Consider the number of attendees and education centers six decades ago, and one can see the major influence of the program for more than half a century. Clark and Sloan documented that during "the fiscal year 1957, there were over 100…Army educational centers in the United States and over 200 overseas, employing some 275 civilian educational advisors and

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480 United States Armed Forces Institute, *Catalog of the United States Armed Forces Institute*. 3rd ed. (Washington, DC: War Department and Navy Department, 1944).

481 Army Education, "ArmyIgnitED," 2020. https://www.armyignited.com/app/.

482 Clark and Sloan, *Classrooms in the Military*, 66.

over 1600 civilian and military teachers."[483] This encouragement of the civilian institutions of higher learning to operate on and near US military installations and provide classes has not only benefited the military but also provides opportunities to the civilian populations that live near these installations. This relationship generates additional broadening opportunities for educators to teach under different circumstances than they usually encounter. In addition, the locally offered programs provide opportunities for the local population to attend courses while encouraging military personnel to continue to pursue higher education after completing their service obligation.

One example is the city of Waynesville, Missouri, located just outside the military installation of Fort Leonard Wood, Missouri. With just over five thousand people in the city, one may not expect to see Columbia College, Drury University, Lincoln University, Park University, and Webster University, along with others, offer residential courses, due to the small local population.[484] Not only do military personnel and their families attend classes at these colleges, but the programs welcome civilians from the surrounding community to attend these same courses, most of which the colleges conduct on the military installation. This is just one example of the widespread influence of the tuition assistance program. Similar opportunities exist at other small or remote places such as Fort Polk, Louisiana, Fort Irwin, California, and Fort Drum, New York. The benefits for civilians with no military

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[483] Department of the Army, *Field Manual 21-5: Military Training* (Washington, DC, January 1957), 18. This field manual documented the recommendation for soldiers to attend courses with USAFI and explained that "instruction at the elementary literacy level is mandatory for newly inducted men who need it to enable them to assimilate military training".; Clark and Sloan, *Classrooms in the Military*, 65.

[484] Each of these colleges and universities provides a link to a dedicated page for the Army installation where it provides services. Columbia College started its courses on Fort Leonard Wood, Missouri and expanded into the community with its Waynesville campus. Park University expanded its courses onto military bases and now has in El Paso, Texas, a campus on Fort Bliss and another in the local El Paso community.

affiliation seeking in-class post-secondary educational programs are apparent at US military camps, posts, and stations across the globe.

As a forerunner in satellite campus creation, the University of Maryland led the way. Clark and Sloan explained that the Armed Forces educational program, with members such as the University of Maryland, had 400–500 full and part-time educators teaching overseas in the early 1960s.[485] Based on these numbers, the opportunities the tuition assistance program provided for educators over the decades were tremendous. Today, the military tuition assistance program helps to support the operations of the University of Maryland and its satellite campuses that span over one hundred worldwide locations across more than a dozen countries outside the United States.

It has been said that the more power a person achieves, the more they desire.[486] The same may be true for education. Since the military uses a deliberate approach to education and training, military personnel spend anywhere from a few years to decades inculcating the routines, ideals, and beliefs that continued personal development is crucial in preparing for the civilian labor market. Since between 25 percent and 50 percent of all military skills have some direct civilian correlation, the rich opportunities in technical, administrative, and leadership positions in the military need only be coupled with formal certifications or academic degrees to prepare military personnel for success in civilian life.[487] Utilizing the tuition assistance program while in the military provides an opportunity for servicemembers to experience a formal post-secondary educational environment, even if they do not complete

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485 Clark and Sloan, *Classrooms in the Military*, 67.

486 American Council on Education, "Educational Lessons from Wartime Training: The General Report of the Commission on Implications of Armed Services Educational Programs" (Washington, DC, 1948), 156.

487 Clark and Sloan, *Classrooms in the Military*, 65–67.

a degree. By completing a few classes towards either a technical or academic degree while in the military, the program may increase the desire of the servicemember to utilize other benefits such as the post-9/11 G.I. Bill upon separation from the service. The benefits of the tuition assistance program affect the servicemember, educators, educational organizations, and even civilian personnel with no military affiliation. The overarching influences on higher education by the military tuition assistance program demonstrate its diverse lines of influence and raise a curiosity as to exactly what financial return on investment it provides American society.

During WWII, Army education and training continued to build on the successes of programs such as the SATC of WWI, the ASTP of WWII, and literacy programs designed to increase the number of men available to the Armed Forces in support of the war. The combined efforts of the War Department and American educators led to the establishment of USAFI. The work of key USAFI stakeholders on evaluating learning of servicemembers in USAFI programs and developing course material assisted servicemembers in taking the courses needed to improve their abilities and performance. The program also provided servicemembers an opportunity to continue with their education by taking courses on topics such as mathematics, engineering, and languages.[488] This not only enhanced the servicemembers' abilities while on active duty, but it also prepared them for future civilian employment. By providing university extension correspondence courses, self-teaching courses, and off-duty classes, the program served as a benefit to servicemembers, educators, and the military.

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[488] United States Armed Forces Institute, *Catalog of the United States Armed Forces Institute*. 3rd ed. (Washington, DC: War Department and Navy Department, 1944).

To develop these programs, the military partnered with educational institutions such as the University of Wisconsin, the University of Chicago, and others in developing curricula for each course.[489] Although the US military already had a relationship with a wide variety of educational institutions as part of the ROTC program, new partnerships and organizations bloomed with the Army creating the Office of the Executive for Reserve and ROTC Affairs during WWII.[490] During the war, not all partnerships with educators involved the educating of servicemembers. The Office of Scientific Research and Development focused on designing weapon systems and warfighting equipment. While each program provided benefits as America waged war, USAFI created a decades-long legacy. At a time when education in America was expanding at a rapid rate, the US military and its partners shaped the delivery of training and educational materials for Americans both in and out of the US military.[491]

As part of USAFI's research, program leaders partnered with stakeholders, developing testing products that identified the expected outcomes from a high school graduate. This ultimately yielded the examination that became today's GED test. While

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[489] American Council on Education, "Educational Lessons from Wartime Training: The General Report of the Commission on Implications of Armed Services Educational Programs" (Washington, DC, 1948), 156.; United States Armed Forces Institute, *Catalog of the United States Armed Forces Institute*, 3rd ed., 3–11; American Council on Education, *Tests of General Educational Development*.; Hundreds of publications were produced including, United States War Department, *EM-758, Life Insurance* (Madison, WI: McGraw-Hill Book Company Inc. for the United States Armed Forces Institute, 1944). In addition, there were many other War Department educational manuals published. These include *EM-306: Plane Geometry*, *EM-754: Principles of Business Law*, and even some focused on providing training to potential recruits such as *PIT-333: Preinduction Vocational Training in Aircraft Maintenance*.

[490] Marshall, *Biennial Reports of the Chief of Staff*.

[491] Department of the Army, "Army Information Digest: Index to Volume 9, January-December 1954" (Washington, DC: Government Printing Office, 1954), 41-46. In 1954, inductees into the Army began completing literacy education prior to basic combat training. This was another change to how the Army addressed literacy rates by providing the education before military training. Those recruits who did not complete basic combat training still benefitted from the education they received from the Army. USAFI Achievement Tests II were administered to the recruits as a method to measure literacy achievement; Persyn and Polson, "Evolution and Influence of Military Adult Education," 5–16.

focusing on literacy in the military, the WWI intelligence testing program provided the baseline for evidence-based testing, and the military provided the incentives, funding, and needed test participants for the large-scale studies. Working with leaders in the field such as Ralph Tyler, USAFI invested in testing veterans' knowledge so they might continue with their educational journey by acquiring a high school diploma equivalency accreditation through this newly developed testing program. This Institute focused on measuring the learner outcomes achieved during high school and developed testing procedures that led to the creation of the GED test.[492] The legacy of the partnerships between the military and educators is that the GED continues to provide opportunities for the masses to acquire a second chance at post-secondary education in America.[493] This is just one example of how the long-term relationship between educators and the US military benefits American society.

Efforts towards the end of WWII led to the passage of the Servicemen's Readjustment Act of 1944. While there were numerous proposals to provide a benefit to the WWII veterans, few were backed with as much consensus as the G.I. Bill of Rights. The support of the American Legion influenced the passage of the 1944 G.I. Bill prior to the end of the war.[494] Another influence was the need to address how to integrate the millions of men returning to the American economy. The G.I. Bill opened opportunities for the masses of veterans to attend post-secondary education in numbers for which many universities and colleges were ill-prepared. The impact of the G.I. Bill was significant, and the veterans showed their commitment to education, with many former servicemembers appearing on the

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[492] Department of the Army, "Army Information Digest: Index to Volume 1, May-December 1946" (Washington, DC: Government Printing Office, 1947), 56.

[493] GED Testing Service, *History of the GED Test*, 2015, http://www.gedtestingservice.com /educators/history.

[494] American Legion, "Recounting the History of Veterans Benefits."

Dean's List and Honor Roll.[495] While veterans may have benefited from increased personal income after using the G.I. Bill, the government benefited from the increased tax base, and institutions of higher education benefited financially and structurally from this influx of veteran students.[496]

Summary of the Focus on Servicemember Education During and After WWII

The creation of educational programs for servicemembers and veterans such as the G.I. Bill significantly changed societal views on higher education in America in the twentieth century.[497] Enabler programs such as these allowed the average American who previously did not have the opportunity to attend college, to do so. This program changed the American attitude towards higher education. By financing veterans' educational pursuits, the program increased the number of college and university customers and influenced an attitude change in educational leaders such as the presidents of Harvard University and the University of Chicago. These two leaders saw the G.I. Bill as a threat to the American institution of education.[498] Eventually, when they saw the performance of the veterans within their organizations, they realized their concerns were unfounded. With veterans achieving many academic accolades in their studies after WWII, the program proved its value. Ultimately, leaders in their field such as Cyril Houle and Peter Drucker proposed that the program was of more value than just educating veterans—it was a move towards a more educationally democratic, knowledge society.[499]

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[495] Keith W. Olson, "A Historical Analysis of the G.I. Bill and Its Relationship to Higher Education," Syracuse University Research Institute, 1968, 11.; Olson, "The G.I. Bill and Higher Education," 596–610.

[496] United States Department of Veterans Affairs, *FY2021 Annual Report for Veterans Education*, September 2021, 144-242, https://www.benefits.va.gov/REPORTS/abr/docs/2021_education.pdf.

[497] Anderson and Kime, "Some Major Contributions of the Military," 1–34.

[498] Olson, "The G.I. Bill and Higher Education," 596–610.

[499] Drucker, "The Post-Capitalist World," 89–100.

There were several byproducts that came about as a result of the focus on veteran and servicemember education during and after WWII. One educational program with an influence on higher education in America was the tuition assistance program. Although aspects of the program have changed since its formalization in 1942, what remains constant is the influence the tuition assistance program has yielded. In 1989, military personnel using tuition assistance attended over 500,000 college courses. This influx of students and tuition dollars has a marked influence on the way institutions of higher learning cater to military customers. Twenty years later, in 2009, tuition assistance expenditures surpassed $500 million.[500] The DOD leverages these numbers to gain compliance from organizations seeking to educate military personnel while receiving federal funding.[501] The standards created by the servicemembers opportunity colleges agreement required organizations receiving tuition assistance dollars meet the exacting standards established by the DOD.[502] This influence on American education is obvious. Post-secondary institutions not achieving and maintaining the required standards are not eligible for payment, thus protecting veterans and servicemembers while ensuring academic standards. This demonstrates the continued impact of military programs on post-secondary education in America.

The military tuition assistance program also provides opportunities for educators. There is a direct correlation between the program and the creation of classroom instruction

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[500] United States Government Accountability Office, *DOD Education Benefits: Increased Oversight of Tuition Assistance Program is Needed* (Washington, DC: Government Accountability Office, 2011), 1–29.

[501] Department of the Army, "Army Regulation 621-5: Army Continuing Education System" (Washington, DC, October 2019), 20-22. Educational institutions placed on the GSA "Excluded Parties List System," those which do not sign the DOD memorandum of agreement, and those who are identified as non-compliant and suspended in GoArmyEd cannot receive federal funding for servicemembers attending courses.

[502] Barack Obama, *Executive Order – Establishing Principles of Excellence for Educational Institutions Serving Service Members, Veterans, Spouses, and Other Family Members*, April 27, 2012, https://obamawhitehouse.archives.gov/the-press-office/2012/04/27/executive-order-establishing-principles-excellence-educational-instituti; Anderson, "Remembering Those Who Have Made a Difference," 52.

on and near military installations. Financing military personnel to attend post-secondary education programs generates a demand; institutions of higher education are aware of this demand and seek ways to gain their market share. Colleges and universities providing instructors in classrooms on military installations is nothing new; this practice saw its beginning during WWII.[503] Providing opportunities for military personnel to attend classes locally can influence higher education with local employment opportunities for faculty members. In addition, civilians with no military affiliation may also attend these courses, providing educational opportunities for civilians as well.

[503] Clark and Sloan, *Classrooms in the Military*.

CHAPTER SIX: CONCLUSION

The contribution of the US military to American post-secondary education is more complicated than simply the passage of the Servicemen's Readjustment Act of 1944 and the fact that post-WWII veterans used the G.I. Bill to attain educational achievement. This study illuminates how changing conditions throughout history led to significant influences by the US military on American post-secondary education and that the G.I. Bill was only one of many steps in the evolutionary process of military training and developmental needs. Moreover, this study establishes the influence of the US military on higher education in America and demonstrates how military programs established before the G.I. Bill, such as the WWI SATC and the WWII ASTP, expanded federal influence on post-secondary education in America through the successes brought about by these Army programs. The evidence shows that between 1910 and 1950, the US Army had a considerable influence on colleges and universities in America through partnerships and programs resulting from the combination of changing technology, reform-minded leaders coming into positions of power, and large military operations demanding large numbers of recruits. Understanding these changes may allow American military and educational leaders in the twenty-first century to consider partnerships that might benefit each group of stakeholders.

Over time, few leaders proposed changes to training, operations, and education in the US Army. Examining the American Civil War demonstrated the need for changes in the tactical and operational application of the principles of war and highlighted that reform-minded leaders such as Emory Upton faced significant barriers in changing the way the Union Army conducted offensive operations. Even with the adoption of new technologies such as the rifled musket, the Minie Ball, and the telegraph, it was surprising to find that Army leaders failed to recognize and

adopt significant changes in servicemember development, even with the substantial number of casualties while waging large military operations. Understanding the intransigent mindset of military leaders during the American Civil War, as well as the limited changes proposed by major leaders such as Sherman, provides a comparison to the significant changes that occurred during the first half of the twentieth century. While researching to understand Army structure and the development of servicemembers, it was surprising to find that after the American Civil War there were a few reformers who began to influence change. Reform-minded leaders such as Arthur Wagner sought to make changes at the beginning of the twentieth century. Aligning Wagner's ideas for change with others in powerful positions of authority such as Secretary of War Elihu Root showed that the Army could implement change should a combination of major factors present themselves. Technological changes were occurring within American industry, but without major military operations and reform-minded leaders to use those factors as a means to justify investment and modification, both legislators and military officers hesitated to provide their support.

While the Army did put some effort into transforming itself and moving into the twentieth century through the development of a War College in 1903, expansion of officer education through the use of applied theory beyond the classroom, and the development of some post-schools, it was not until the Punitive Expedition that major changes began happening within the Army's training and educational programs. Another unexpected and rarely discussed program discovered while researching for this study began prior to the Punitive Expedition. In 1913, Army Chief of Staff General Leonard Wood campaigned his idea that America needed Citizens' Military Training Camps to engage college students in learning the distinct types of military units and the soldierly application of warfighting. While this effort initially focused on

college students attending these camps in the summer, it later expanded to businessmen who could afford to attend as well. Wood's motivation for this program was the need for America to train Army leaders prior to the outbreak of war. While the Citizens' Military Training Camps did eventually experience successes, the initial stages of these camps failed to consider that many of the men who would do the fighting were farming fields and working in industry during the time these camps occurred. Over time, these camps did expand, providing opportunities for a wider variety of attendees. The long-term success of this program, which focused on the development of officers to lead men, is that it set the foundation as a precursor to what later became the ROTC program.

The Citizens' Military Training Camps might have become a failed program had it not been for the Punitive Expedition. Villa's raid on Columbus, New Mexico and the following Punitive Expedition ultimately led to significant legislative changes as part of the 1916 National Defense Act. While leading the Punitive Expedition, General Pershing fielded and commanded a large number of military forces as they chased Villa into Mexico. Due to the small standing active Army, and the considerable number of troops needed in northern Mexico, America had no choice but to activate the National Guard. At the time, each state had its own training plan and appointment process for National Guard soldiers and officers. As a result, the ability to perform the required duties in the austere environment of northern Mexico and the American Southwest placed significant challenges on Pershing's forces. These challenges faced by Pershing and communicated to legislators was one factor in the decision to include funding for state National Guard troops within the 1916 national defense legislation. Acknowledging that Europe was at war during this time, and American legislators recognizing that America may eventually become a party in the conflict, the performance of American troops during the Punitive Expedition and

challenges they faced were undoubtedly combined with the fears of legislators that America would soon be at war. Researching for this study led to the expectation that major military operations would have a significant impact on educational and training programs. What was unexpected was the significance of the Punitive Expedition in motivating legislation and change in the Army. While there are tens of thousands of books written on the American Civil War, those focused on the Punitive Expedition only measure in the hundreds.

Not only did Pershing field a considerable number of troops and command them during the Punitive Expedition, but he also utilized some equipment provided by modern technology for the first time in any American military operation. The first use of aircraft occurred during the Punitive Expedition and highlighted a wide variety of problems. The Army was ill-prepared for fielding its limited number of aircraft; moreover, the American aircraft industry prioritized its best aircraft for European powers. Not only was America not receiving the best quality aircraft to use in the Punitive Expedition, but it also lacked the technological support needed from both the Army and industry to effectively take advantage of these modern innovations. It was during the Punitive Expedition that America first used motorized trucks in any significant capacity. Army quartermasters purchased many of the trucks used during the Expedition shortly before or during those military operations in 1916. As a result, Pershing's forces conducted a significant amount of on-the-job training and discovered that soldiers lacked not only the ability to maintain the equipment, but literacy to read the technical manuals that occasionally arrived with them.

The Punitive Expedition and adoption of new technology during the operation influenced in a large part the transformation of the US Army during WWI. The Army discovered the need for literacy to read manuals and maintain equipment and the specific challenges faced when implementing new equipment during the Punitive Expedition. This highlighted for leaders such

as Pershing that the Army had to develop military education and training programs before and during WWI. More than ten thousand American servicemembers were involved in the Punitive Expedition, and the experience that Pershing and his forces gained during its operations provided an opportunity for expansion of the US military. The transformation from a mule and wagon organization to one that greatly expanded its mechanized force during WWI gave Army leaders a better understanding of twentieth century logistics, maneuvers, and organizational structure. The adoption of aircraft and illumination of the problems that the First Aero Squadron encountered during the Punitive Expedition resulted in the US Congress providing funding to not only the state National Guard, but also to the training of servicemembers in a large-scale capacity during WWI. When the War Department ordered Pershing and his forces to leave Mexico in February 1917, significant change was just around the corner as those same forces prepared to fight in WWI.

During WWI, numerous partnerships formed between the US military and post-secondary educational institutions. While the progressive movement had an advocate in President Woodrow Wilson, the transformation of attitude in American society from one of neutrality into a nationalistic view, where being American and supporting the war was critical, essentially limited Wilson's ability to promote the progressive agenda; luckily for Wilson and the progressives, the Army needed literate servicemembers. During WWI the federal government increased its power and influence in response to wartime needs. As a result of this expansion and the military's acquisition of mechanized equipment and other technology to fight the war, the Army focused on the labor pool from which to choose potential servicemembers. The American military needed to have literate troops who could read and use technical manuals to maintain this new equipment in support of the war. As a result, literacy became a requirement for many in the

military service. A surprising discovery was that the expansion of American literacy had a direct connection to the needs of American military operations and the US Army. By connecting the need for literate troops to the strategic goals of the government and the military, federal money poured into analysis and the eventual creation of literacy programs for recruits. The War Department began to examine literacy rates and partnered with educators in developing methods of assessing both literacy and intelligence using what were called the Alpha and Beta Tests during WWI. In an effort to speed up the process of identifying literacy rates and intelligence, the Army appointed Robert Yerkes a major in the US Army Medical Corps and assigned him the responsibility for recruit testing. This opportunity for widespread testing led to more than one and a half million recruits and soldiers being given the Alpha and Beta Tests by the end of WWI. While not everyone agreed with the value of the testing, since implementing it removed soldiers from the importance of fighting the war, it did provide the Army an opportunity to place men in positions where they were best suited, based on their level of intelligence and literacy rates.

After the war, military recruiters continued to administer these tests when they were uncertain of a potential recruit's literacy. The baseline from WWI and these tests ultimately were further developed during WWII, with recruits who did not meet the baseline requirements of the service attending special training units where both educators and Army personnel taught recruits how to read and write. Efforts such as this had a significant impact on the desire for personal improvement after the war. The Army continued its literacy program after the end of WWI, and in December 1920 there were 4,500 illiterate soldiers receiving instruction on reading and writing at recruit centers across America. The Army graduated about a thousand men every month in this program and demonstrated that the legacy of the WWI literacy efforts continued beyond the need for educating men to fight in the war.

Not only did the Army focus on the literacy of potential recruits, it also focused on the need for specialized training during WWI. The establishment of the SATC is an excellent example of how the War Department provided opportunities at both ends of the spectrum. The relationship between SMU and the War Department provided a unique perspective on how the students, the Armed Forces, and the universities all benefited from this partnership. The SATC demonstrated how the expertise of universities combined with the resources of the military, and their demanding standards ultimately moved American post-secondary education forward during the war. The ability to maximize the use of these post-secondary educational institutions to train technical experts and officer candidates based on the needs of the military dwarfed any program previously provided by ROTC or the Morrill Land-Grant Act. The Army's partnership with these educational institutions during WWI led to more than 140,000 soldiers completing the collegiate or vocational training as part of the SATC program. Financially, this program was a windfall for universities as well. The federal government paid for the attendance of soldiers in the SATC, including overhead costs and tuition, resulting in roughly 50 percent of SMU's revenue for the 1918–1919 school year coming from the SATC program.

Although the end of WWI created challenges with demobilization and long-term care of soldiers with disabilities, it also demonstrated the expansion of veterans' benefits with the consolidation of numerous bureaus into what became the Department of Veterans Affairs. The passage of legislation to provide War Risk Insurance, the promotion of vocational education for both civilians and veterans, and the investment in the Soldier's Rehabilitation Act of 1918 all focused on continuing the changes America started during the war. One significant organization that helped to support these changes was the American Legion. Developed after the First World War, the American Legion had significant influence that continued to grow throughout the

1920s. The World War Adjusted Compensation Act, which promised to pay WWI veterans a "bonus" twenty years after the passage of the act, created significant problems politically for Presidents Harding, Coolidge, and Roosevelt. The resulting Bonus Army incident demonstrated the need for American legislators to focus on veterans and take care of them even after the war. After WWI, the Great Depression created conditions that made it even more difficult for politicians. During the period between the world wars, Americans continued moving to urban areas, faced high unemployment, and less than half of Americans completed high school. These factors continued to influence the country into the Second World War. By 1940, advancing technology demonstrated the need for an educated and trained workforce, and the drafting of Americans to serve during the war only exacerbated the problem.

At the beginning of WWII, America was once again ill-prepared to fight. The country had neither the needed equipment nor trained troops to wage war, just as the US Congress passed the Selective Service Act and more than sixteen million people registered for the draft. By this time, the Army required servicemembers to possess technical skills if they were to effectively complete their duties. The Army did have induction centers where educators and trainers taught recruits to read and write English to meet the established standard of literacy. While this may not seem to have been a significant problem, the numbers tell a different story. Hundreds of thousands of men were unable to sign their registration cards for the draft, as they could not write at all. Early in the war, the Army continued its literacy classification policy and expanded it even further throughout the war. The manpower needs of the Army required it to partner with educators to implement additional testing such as the visual classification test. As the war continued, the pressure on the American War Manpower Commission to ensure that both industry and the military had the workforce needed to accomplish their assigned goals became

even more of a pressure on America. To provide education to men inducted into the Army who could not read or write at a level needed to perform assigned duties, the Army created special training units and gave the men specialized instruction to improve their literacy rates. This was no small accomplishment; between June 1943 and October 1944, the Army educated more than 180,000 men in reading and writing. This had a significant impact on the labor pool from which the Army could draw military personnel. The training program allowed the Army to accept recruits who failed to meet the service requirements and invest in those men, providing a short-term benefit to the Army but a long-term benefit to the servicemember. The special training units and literacy programs provided an uplifting opportunity for minorities and the poor, who arrived unable to read and left the Army with this newfound skill.

In addition to focusing on those who lacked literacy, the Army also established a program to ensure it would have trained specialists throughout the war. The largest of the three programs established by the Armed Forces was the ASTP, which provided training and educational opportunities throughout WWII by taking advantage of American colleges and universities across America. Those institutions of higher education were more than happy to take on this task, as their enrollment rates by 1942 had dropped by 40 percent compared to pre-war rates. The development of the ASTP provided many universities an opportunity to maintain relevance in supporting the war effort, along with financial security. Baylor University was an excellent example of the difficulties of establishing a program but also provides an example of the benefits yielded by the partnerships between the War Department and post-secondary education. Baylor University leadership contacted legislators many times in an effort to establish an ASTP on its campus during the war. By May 1943, the Army approved Baylor to establish a program, and the university received the Army curriculum. The university operated its program for over six terms,

enrolling almost 900 individual men in eighteen months. Graduating 351 men in six enrollment terms, Baylor met the objectives of the program and provided an example of how these partnerships could benefit multiple stakeholders.

During WWII, multiple other programs continued to build on previous successes and expand partnerships throughout the war. USAFI was the most significant of these examples. USAFI partnered with a wide variety of educators to develop four separate types of courses through which servicemembers could enhance their skills both professionally and personally. This long-term partnership yielded many noteworthy results, such as testing for college credit, the GED, and demonstrated successful application of distance learning. USAFI provided opportunities for educators to work within the military system with large numbers of soldiers to pursue the goal of validating educational processes while benefiting large groups of people and supporting the war effort simultaneously.

This study revealed several successes resulting from partnerships between the US military and educators that deserve additional attention. The partnerships between multiple stakeholders to publish War Department educational manuals would benefit from further study. Examining the collaboration between educators, professional organizations, publishers, and USAFI may yield additional insight into the benefits of USAFI to the organizations themselves. This study examines the benefits the program brought to veterans and higher education; undoubtedly, professional organizations, publishers, and stakeholder groups benefited as well.

The long-term benefit of the USAFI program demonstrates the legacy of the Army on post-secondary education throughout the twentieth century. Programs such as the GED, tuition assistance, and subject standardized testing not only benefited the military and veterans, but the evidence also shows these programs continue to benefit higher education and American citizens

today. The enormous number of servicemembers serving during WWII, and the fact that approximately half of those did not possess a high school diploma, created an opportunity to develop assessments such as the GED and streamline the process for adults to continue with their education after the war. The demand for skilled, literate, and educated men and women during WWII not only created competition for labor in the workforce but required solutions and partnerships between the US military and multiple stakeholders, including educators, to develop technical experts who were already educated, as well as to improve the literacy of men who would otherwise be unemployable in this new technological age.

While many veteran groups supported the adoption of the G.I. Bill in 1944, and many veterans were affected by its benefits, the creation of educational programs for servicemembers is much more complex than this one single program. This study demonstrates that the literature on these lesser-known programs is quite rare. By researching primary sources located in state and university archives, evidence was found that shows a multitude of partnerships between the US military and post-secondary education throughout history. As a result, this study acknowledges that the Army had a significant impact on higher education, which should be considered equally as important as the federal funding for the Servicemen's Readjustment Act of 1944. While the G.I. Bill did increase the number of faculty at colleges and universities across America after the war and continues to add billions of dollars in higher education annually, expanding the scope of analysis increases understanding of how US military programs influenced post-secondary education in America throughout history.

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