

## CHAPTER 1

### INTRODUCTION

The Industrial College of the Armed Forces, situated at Fort Lesley J. McNair in Washington, D.C., traces its beginning to 1924. Originally chartered as the Army Industrial College, it was established in the aftermath of the United States' relatively poor military-industrial mobilization experience in World War I. Later closed for a time during World War II, the school was reconstituted as the Industrial College of the Armed Forces in 1946 and continues today as one of the nation's senior defense colleges.

As a unique institution for adult learning in the United States government, it is dedicated to educating senior military and federal civilian officials in the economic and industrial aspects of national security preparedness. In fact, as early as 1932, then Assistant Secretary of War Payne reported to the President that, while a number of senior defense colleges had been established to study military strategy, the Industrial College was "*the first in the world* to devote its whole time to studying ways and means of developing the maximum utilization of economic resources" (Thatcher, 1943, p.26).

Over the years, the College and those affiliated with it have garnered a distinguished record of public service. A young Major Hap Arnold, later to become one of the pioneers of military aviation, was a member of the second class to graduate from the fledgling institution in late 1924. Another young officer, Major Dwight David Eisenhower, served on the faculty of the College in the early 1930s. Ironically, it was President Eisenhower who later warned the nation of the potential excesses of the military-industrial complex, although he understood equally well the necessity for professional cooperation between these two communities. In fact, Eisenhower was a staunch supporter of the College throughout his entire professional life.

The original charter of the College created a school to train Army officers in procurement and industrial mobilization, with its first class consisting of but nine students tutored by two faculty members. In the intervening decades since its establishment, however, the formal mission of the institution has actually changed on a number of occasions, sometimes significantly. When the College re-opened following its closure during part of World War II for instance, it was commissioned to train some 4,700 contract officers in the mechanics of contract termination and de-mobilization. Today, with a faculty of 80 academicians and military scholars presiding over a class of 270 adult students each year, its mission is to prepare senior military officers and civilians from throughout government for high positions of leadership through a postgraduate academic program. It is the historical analysis of the evolution of this changing mission -- and those individuals, review boards, and commissions in

government, industry, defense and academia who have influenced it -- that provides the central focus of this study.

## BACKGROUND OF THE PROBLEM

Relatively few accounts have been written which chronicle the development of this interesting institution over the past seven decades. Scammell (1946) compiled the first history of the College, capturing the early years of its development, and Bauer (1983) subsequently wrote what he hoped would be regarded as a "first definitive" history, largely of internal events, some years later. Gest's (1990) more recent doctoral dissertation concentrates primarily on an historical trace of curriculum development at the College. A few other short, pamphlet-length historical treatments exist, but virtually none of these works contains an analytical assessment of events and stakeholders which have shaped the changing purpose and function of the institution over time. Fortunately, a rather extensive array of original source materials, many never publicly evaluated or reported upon, is contained in the archives of the National Defense University Library. These documents include original reports, correspondence, and a variety of official papers.

Taken together, these circumstances suggest a pivotal confluence of both need and opportunity: the relatively unexplored landscape of the historically changing mission of a major institution of adult education, and a rich collection of primary source archival material available for investigation and analysis. In short, the study affords a rare occasion to gain insight into the forces influencing a national center for adult learning which has endured for some 70 years while simultaneously undergoing profound changes in its charter and very *raison d'etre*.

The Industrial College is, however, part of a much larger legacy and system of advanced education in the national security community. In fact, a number of works, published beginning in the late 19th century, trace the evolution of senior-level adult education in the armed forces -- a development of which the Industrial College is an important, albeit somewhat overlooked, component.

### Senior Military Education

Today's senior military colleges comprise a group of institutions chartered within the Department of Defense to provide a select number of promising senior military officers (Army and Air Force lieutenant colonels and colonels; Navy commanders and captains) and civilians (typically in federal grade levels GS-14 and GS-15) with graduate level education in leadership and academic areas relevant to national security. These institutions include three senior service colleges -- the Army War College, the Navy War College, and the Air War College -- and two joint service

colleges -- the National War College and the Industrial College of the Armed Forces.

Senior adult education within America's armed forces has its roots in the 19th century, generally dating from around the time of the Civil War. Henry Barnard's classic work in this area, Military Schools and Courses of Instruction in the Science and Art of War, was published in 1872, although the book is actually a compilation of articles which Barnard wrote for The American Journal of Education in 1862 (Barnard, 1872). Characterized by some as the seminal work on military education (Gest, 1990), it noted a near absence of "higher education" for military officers, echoing complaints from industrialists such as shipbuilders who interacted with uniformed officials along with navy admirals who spoke of "the neglect of a naval education from the moment a midshipman left his school and was appointed to a steamer" (Barnard, 1872, pp. 942-945).

Barnard surveyed military institutions in France, Prussia, Austria, Sweden, Switzerland, Sardinia, England, and the United States whose missions were dedicated to the "special training of officers and men for the exigencies of war" (p. 7). Contrasting the virtual absence of senior military education in this country, he pointed in admiration to the Kriegsschule in Berlin as an institution whose mission was to educate staff officers in the "means of acquiring the knowledge requisite for the higher ranks of service" (p. 395).

A similar theme was reflected by Emory Upton in 1878 with the publication of his book on The Armies of Asia and Europe: Embracing Official reports on the Armies of Japan, China, India, Persia, Italy, Russia, Austria, Germany, France, and England (Upton, 1878). Upton, then a Brigadier General in the U.S. Army, had served with distinction during the Civil War and was a protege of General William Tecumseh Sherman. Upton was sent by the War Department in 1876 to study military schools in Europe and Asia which offered "instruction of officers in strategy, grand tactics, applied tactics, and the higher duties in the art of war" (Upton, 1878, p. iv). In his book, a report of his study which Johnson (1982, p. 18) says "set the standard for American higher military education," Upton spoke highly of European institutions such as the German Kriegsschule and Kriegsakademie. He concluded that:

The corner stone of the European staff system is the War Academy...the school of instruction for all of the great commanders of Europe. ...it is the universal theory that the art of war should be studied only after an officer has arrived at full manhood, and therefore most governments have established post-graduate institutions for nearly all arms of service where meritorious officers...may study strategy, grand tactics, and all the sciences connected with modern war. (Upton, 1878, pp. 328, 362-363)

At the time of Upton's report, the United States had no war academies in the

tradition of the German, French, or British models, although he noted that the Army had established a small post-graduate Artillery School at Fort Monroe, Virginia in 1867 which, though designed primarily to teach artillery tactics, included history, strategy, and military and Constitutional law in its curriculum as well (Upton, 1878, pp. 363-364). Upton's study for the War Department, however, reflected growing serious concerns in the late 19th century about senior officer education in this country which were likely fueled by a series of rather spectacular Prussian victories in Europe in 1866 and 1870 - 1871 (Van Creveld, 1990, p.57). In fact, based upon one of Upton's recommendations, General Sherman, in 1881, ordered the establishment at Fort Leavenworth, Kansas, of "a school of application of infantry and cavalry similar to the one now in operation for the artillery at Fort Monroe" (Nenninger, 1978, p.22). These developments also came at a time of great technological advances in warfare and more complicated supply systems in an era when the United States began to turn from its preoccupation with internal affairs and gradually view itself as a great national power (Masland and Radway, 1957).

By the time Ira Reeves' account of Military Education in the United States was published in 1914, the first of the American institutions devoted to senior education in the armed forces had been established (Reeves, 1914). Reeves, then a U.S. Army Captain and Professor of Military Science and Tactics at the University of Vermont, noted that the Army War College had been created in 1901 by Secretary of War Elihu Root to provide a course of "applied knowledge (for) capable and qualified officers," observing that in the modern era, "the success of contending armies is largely determined by the training of the leaders in all that pertains to the art and science of war" (pp. 18, 202). Reeves also decried the lack of analytical studies and books dealing with education and national defense, arguing that "military education is a matter of great public concern" (p. 9).

Interestingly, Reeves' otherwise excellent treatment of American military education makes no mention of the one other institution then in existence which had been established to provide professional education for senior officers -- the Naval War College. The Naval War College was established by order of the Secretary of the Navy in 1884. Captain (later Rear Admiral) Stephen Bleecher Luce was the driving force behind the creation of this college, attributing his original idea for the institution to a conversation with General Sherman in 1865 and his later admiration for the Artillery School at Fort Monroe along with similar schools for infantry and cavalry which were subsequently created at Fort Leavenworth, Kansas (Luce, 1975). Luce served as the first President of the College which was intended to provide a senior course for naval officers to study the science and art of war to include international marine warfare and law. Initially, the College provided this instruction largely through a series of summer courses, finally creating its first annual course in 1911 (Masland and Radway, 1957; Johnson, 1982).

It was not until 1957 that another comprehensive, scholarly analysis of American senior officer education appeared. That year, Masland and Radway published what has since been hailed as a landmark and "often quoted modern day classic on military education" (Gest, 1990, p. 40). Their book, Soldiers and Scholars: Military Education and National Policy, provides an in-depth study of military education aimed at "the preparation of career officers for positions involving participation in the formulation of national policy" (Masland and Radway, 1957, p. viii). Reflecting upon the complexities of technological advance, the interconnections of statesmanship and national security, and the state of the world at mid-century, the authors argued that the roles of senior military officers were undergoing a profound transformation which would require that they be educated to participate at the highest "policy level positions in government" (p.502).

In fact, by the time Masland and Radway had published their study, three additional senior military colleges had been established: The Army Industrial College in 1924 (re-established as the Industrial College of the Armed Forces in 1946), the Air War College in 1946, and the National War College, also in 1946. Concerned that analytical study of "the problem of higher education in the armed forces had been neglected" (p. vii), the authors interviewed over 300 individuals, surveyed some 550 officers in the Pentagon, personally visited each of the senior military colleges, and ultimately amassed and catalogued a wealth of valuable source documentation.

Masland and Radway's study also appears to have provided the intellectual impetus for a series of subsequent scholarly investigations in this field which began in the 1960s and have continued to the present day. Clark and Sloan's 1964 work on Classrooms in the Military: An Account of Education in the Armed Forces of the United States, for example, characterized the growing pattern of education in the armed forces "as one manifestation of a universal trend -- the overflow of education into non-academic channels -- society's response to a technological age...(and) a vast complex integrated with the entire intellectual life of the nation" (Clark and Sloan, 1964, p. v). Further noting that three senior military colleges had been opened within a year of the end of World War II, the authors argued for the critical importance of these institutions:

The qualifications of a high-ranking officer in the armed forces have changed radically since World War II. Today, he must be more than a military leader. He must be a statesman,...an economist,...he must know the law,...he must be ready to cope with any emergency, ...and he must know how to work with others in a team. (p. 59)

The interest in senior education in the armed forces, and its reflection in the literature, continued in the 1970s and 1980s. In his work on The System for Educating Military Officers in the U.S., Korb (1976) provides a compilation of papers by a number of authors, three of whom dealt explicitly with senior officer education: "The War

Colleges in Perspective" by Frederick H. Hartman, in which he observes that, since Masland and Radway's book, "almost twenty years have elapsed, with little of significance added" (p. 129); "The Dilemma of the Senior Service Colleges" by Franklin M. Davis, Jr.; and "The War Colleges: Education for What?" by Lyman B. Kirkpatrick. The latter piece, in particular, raised some important questions about the evolving role and mission of these institutions, citing Admiral Stansfield Turner, then President of the Naval War College, who argued that "we must develop rigorous, imaginative thinkers" among the ranks of our future senior leadership (p. 119).

Some observers, however, remained critical of what they viewed as a lack of meaningful progress and innovation in this area. In The Political Education of Soldiers, for instance, Janowitz and Wesbrook criticized the lack of substantive political education for the military at large, although their work focused primarily on rank and file soldiers, airmen, and sailors (Janowitz and Wesbrook, 1983).

Criticism of the system of American senior military education is also found in more contemporary writing. Van Creveld's 1990 book, The Training of Officers: From Military Professionalism to Irrelevance, provides a strong critique of the senior colleges in the American armed forces (Van Creveld, 1990). Equally critical of curriculum, faculty, and students, he charges that the effect of these institutions "on military effectiveness, by which I mean the ability to fight and win a war, has almost certainly been negligible" (p. 102). Some of Van Creveld's specific concerns (no advanced degree offering, lack of accreditation, etc.) have since been remedied in several of the senior colleges, but his work remains a thought-provoking, analytical review of senior military education nonetheless. Interestingly, though, Van Creveld's work focuses more on the curricula of the senior military colleges than on the fundamental missions which provide the rationale for their very existence -- the latter being the central focus of this research for one of the institutions in particular.

### The Industrial College of the Armed Forces

The first scholarly history of the Industrial College was compiled in 1946 by Major J. M. Scammell, a former faculty member. His book-length treatment, History of the Industrial College, 1924 - 1946, provides a fairly detailed review of the curriculum, faculty, students, and organization of the College during the first two decades of its existence (Scammell, 1946). Scammell concludes, among other things, that the early institution was generally successful in fulfilling its mission "to train officers in a knowledge of war time needs in industrial organization and mobilization of the material resources of the country" (p. 3).

Two short pamphlet-length historical accounts of the College's development were written in 1949 and 1955: "Industrial College of the Armed Forces: 1924-1949 --

Twenty-Fifth Anniversary" and "Industrial College of the Armed Forces: Thirty-First Anniversary" (Industrial, 1949; Industrial, 1955). Each of these booklets contains useful information about internal changes in personnel and curriculum over the years.

In 1983, as the College prepared for its sixtieth anniversary the following year, Theodore Bauer wrote what was then viewed as "the first definitive history" of the institution -- The History of the Industrial College of the Armed Forces, 1924 - 1983 (Bauer, 1983, p. iii). Bauer's work is indeed a solid addition to the historical accounting of the College, providing some insights into the series of boards and studies which led to the re-constitution of the Industrial College and several of the other senior military colleges following World War II, as well as to some of the internal forces which shaped the institution in the 1960s and 1970s. Gest (1990, p. 7) suggests that the work by Bauer and the study by Scammell before him are "the only two substantial histories of ICAF" which exist.

Two doctoral dissertations have been written which also lend valuable insights into the historical development of the College. As its title suggests, Vernon Johnson's 1982 study, Development of the National War College and Peer Institutions: A Comparative Study of the Growth and Interrelationship of U.S. Senior and Service Colleges, is primarily concerned with the National War College (Johnson, 1982). It also contains important material relevant to the Industrial College, however, and the emerging interest in joint warfare and education that surfaced in the late 1970s. Gest's 1990 dissertation, The Evolution of the Curriculum of the Industrial College of the Armed Forces, 1924 - 1988: A Search for Rigor, by the author's own accounting, "was not intended to be a comprehensive history of the Industrial College," but rather, as its sub-title suggests, an assessment of curriculum change at the institution (Gest, 1990, p. 17). His work is indeed that, providing a scholarly analysis of the complex forces which have shaped an evolving curriculum at the College from its inception to 1988.

A few shorter works in professional journals have added to the body of knowledge surrounding the history of the College as well. Snow's 1925 article in the U.S. Naval Institute Proceedings, for instance, contains important information about the origins of the original Army Industrial College, as do Armstrong's 1945 work in Military Review and Gough's later study in Armed Forces and Society (Snow, 1925; Armstrong, 1945; Gough, 1991). Joanne Johnson's paper gives compelling treatment to the College's activities in mobilization war planning in the years that spanned the gulf between World Wars I and II (Johnson, 1993).

In addition, the role the College has played in larger military historical developments is treated in such works as the History of Military Mobilization in the United States Army, 1775 - 1945, (Kreidberg and Merton, 1955) and The Sinews of War: Army Logistics, 1775 - 1953 (Huston, 1966).

Finally, two historical accounts of the military installation where the Industrial College has been located since 1946, provide yet another perspective on the development of the College. A short pamphlet, Fort Lesley J. McNair: A Brief History of the Post, written in 1954, and a later book, Silent Sentinel on the Potomac, 1791 - 1991, contain valuable information about the professional interactions of the College with its neighbor, the National War College, also located at Fort McNair (Fort, 1954; McClellan, 1993).

While most of these works contribute to our understanding of the history of the Industrial College, none explicitly deal with the fundamental question of the institution's changing purpose and role over the course of seven decades -- its reason for existence and the forces which have presumably shaped its mission and relevance over time. It is precisely this gap which this study seeks to fill.

## STATEMENT OF THE PROBLEM

This historical inquiry is intended to provide an analysis of the mission of the Industrial College of the Armed Forces (ICAF) as it has evolved over 70 years -- from 1924 to 1994. It is aimed at filling a notable gap in the body of historical knowledge associated with the institution. Available published materials provide an important though limited and somewhat uneven analytical record of its development. Among the few extant histories of the College, Scammell's (1946) work history ostensibly covers the period 1924 through 1946, although, in reality, it gives relatively scant treatment to the years 1941 to 1946. Bauer's (1983) work covers the entire history of the College through 1983, although it concentrates largely upon internal activities. Finally, Gest's (1990) dissertation provides an historical accounting of the institution from its inception through modern times, although its primary focus is on the evolution of the curriculum. *None* of these accounts has demonstratively assessed the evolution of the College's changing mission, the forces impelling such change, nor the context of events surrounding those dynamics.

This study, then fills this historical gap and specifically addresses the following central question: How has the mission of the College changed over time, and how have those changes been shaped by forces and individuals within the context of internal and external events and various political, military, economic, and social factors?

Dictionaries typically define a "mission" as a continuing task that one is destined or fitted to do or specifically called upon to undertake. In the case of an institution such as the Industrial College, Sharplin (1985, p. 49) characterizes mission as "the organization's continuing purposes with regard to certain categories of persons -- in short, what is to be accomplished for whom." Also found in the private sector, Jones and Kahaner (1995, p. ix) analyzed the mission statements of 50 corporations and

found that "they articulate the goals, dreams, behavior, culture, and strategies of companies more than any other document." They also observed that missions must periodically change to remain relevant and "to cope with a changing...climate" (p.x). In short, whether for educational institution or corporate enterprise, the mission of an organization provides its *raison d'etre* -- its reason for existence.

Johnson (1982), in his study of military colleges, concluded that "differing missions" provided the basis for the "establishment and continued existence of all of the senior institutions" (p. 138). He observed, however, that as military mission requirements and budgetary considerations changed over time, a "follow-on study" of the senior military colleges would be warranted (p. 152).

Thus, this study fills an important void by providing an assessment of the dynamic history and changing purpose of the Industrial College of the Armed Forces -- a unique institution devoted to adult education and learning which has endured over time and, in the words of one of its Commandants, Major General Arthur Vanaman on the occasion of its 25th anniversary, "has provided a forum in which officer, government official, industrialist, scientist, and educator could freely express their opinions and exchange ideas" (Industrial, 1949, p. iii).

## PURPOSE OF THE STUDY

One important form of historical inquiry often arises from investigations surrounding the inception, purpose, and evolution of a particular institution. It is not sufficient, however, to merely chronicle the history of an institution. Rather one must ask questions about the role of that particular institution in the "sociohistorical context in which it evolved" (Merriam and Simpson, 1995, p. 75).

My ten years as a member of the faculty at the Industrial College of the Armed Forces and first-hand observation of evolutionary changes there provided the genesis for initiating an analytical study of the historical foundations of the institution. Moreover, I sought to understand the forces shaping the direction of the College throughout its development, change, and continued existence in various turbulent periods in the 20th century -- from the Great Depression, to World War II, the Vietnam years, the Cold War, and the modern era -- as part of the larger social, political, military, and economic *context* of these times. As Merriam and Simpson (1995, pp. 76, 83) argue, framing historical events in context not only contributes to a more complete understanding of the past, it also helps overcome one of the historian's most difficult challenges: "present mindedness." Ultimately, they contend, assessing historical events in their "larger context" lends insights which "may lead to a better appreciation of present practice."

Thus, this study's purpose is to assess the historical evolution of the changing mission of the Industrial College Industrial within the context of internal and external forces and events. It seeks to lend understanding to questions surrounding precisely what forces, individuals, and groups have influenced the guiding mission of the institution, and for what reasons, and in what ways. Ultimately it is intended to help illuminate the basis for understanding the institution in its contemporary circumstance. On balance, then, this research is aimed at an enhanced understanding of past development as well as enlightenment of the foundations of present practice. As Stubblefield (1991, p. 325) argues, "by connecting adult educators with their past, historical research provides these educators with a rudder for the present."

## RESEARCH QUESTIONS

A number of questions were formulated to provide direction and focus to the study. Each reflects an area supportive of the overall aims of this research inquiry. Collectively, they provide a framework for gaining insight into the various forces, events, individuals, and groups which have, for seven decades, shaped the mission of the Industrial College as a unique institution, initially created to training Army officers in procurement and mobilization, and gradually transformed over time into a graduate degree-granting institution devoted to educating senior military and civilian officials in complex political and economic issues involving the resource component of national security:

1. How has the mission of the Industrial College -- a singularly unique institution of adult education and learning -- changed over time?
2. What political, military, economic, and social factors have contributed to changes in the mission of the College?
  - a. How have these factors made change necessary?
  - b. To what extent have these changes reflected changes in society at large or the national security community in particular?
3. What roles have key internal and external stakeholders played in influencing the changing mission of the College?
  - a. What were their respective interests and goals?
  - b. To what extent did they, whether in concert or conflict with others, actually precipitate change?
4. How influential have the various review boards, which have been convened periodically over the years, been in effecting changes to the institution's mission?

## SIGNIFICANCE OF THE STUDY

The Industrial College of the Armed Forces, established in 1924, has developed in a period which Knowles (1977, p. 76) describes as "the era of greatest expansion and innovation in adult education to date" -- a period dating from 1921 to 1961 which he argues marked "the development of institutions for the education of adults in the modern era." This era is part of what Stubblefield (1991, p. 327) calls the critical "adult education movement [which] was born in the aftershock of World War I and the Depression and grew to maturity after World War II." Moreover, he contends that, "only historical study shows how adult education in its many forms came to be, how its conceptions changed, the social functions it served, its relationship to class structure, and what intellectual foundations supported its practice" (p. 335).

The historical development of the Industrial College is an important part of this same pivotal era of adult education in the United States. The institution's defining purpose, character, and very nature have evolved over a 70 year period spanning major wars, occasionally turbulent economic cycles, and technological advances during which the country and its national security establishment changed profoundly. Analyzing the historical evolution of the mission of the Industrial College in this same period offers the opportunity to enhance our understanding of the ways in which various underlying forces, events and power brokers, both internal and external, have shaped this educational institution over time and affords the prospect to illuminate our understanding of the foundations present practice as well. As Merriam and Simpson (1995, p. 75) argue, valuable historical inquiry often accrues from the investigation of an institution's purpose and evolution. An analytical trace of the evolution of the mission of the Industrial College over the past 70 years fits precisely in that realm of research and should indeed add more to our understanding of the development of this important and unique institution of adult education and learning.

In fact, Gest's (1990) research underscored the need and potential significance of exactly this kind of inquiry. After reviewing the evolution of education programs at the Industrial College over some six decades, he observed that in terms of leadership, curriculum management, and overall organizational direction, "there is no institutional memory" (p. 285). As a result, he concluded, "agreement on what [the ICAF mission] really means is quite elusive" (p. 287), and he included this concern among those areas which he argues is "in need of further research and study" (p.288). This study is intended to help fill just such a void.

While this inquiry is focused on an important past era, it may ultimately hold relevance for the present as well. Although a few previous works have examined various periods or facets of the College's history, much of the ground is untrod. Moreover, even in those cases where several of the events have been examined by

others, the promise of new insights can not be overlooked. In repeating the cliché that "history must be rewritten by every generation," Barzun and Graff (1992, p. 191) suggest that "anyone who would know the full history of any period will do well to read its successive treatments. ...The rewriting of history, rightly considered, does not substitute; it subtracts a little and adds more."

## METHOD

### Research Design

This research study assesses the mission of the Industrial College as it evolved from 1924 to 1994, influenced by various individuals, internal and external forces and events, and a host of political, military, economic, and social factors. This inquiry uses the historical method of research. Similar to the approach outlined by Shafer (1980, pp. 40-41), in his classic work, A Guide to Historical Method, this involves discerning meaningful categories of evidence, then collecting evidence, analyzing it, and subjecting it to external and internal criticism -- the former aimed at verifying authenticity, the latter designed to determine meaning and value. Finally, the analysis takes the form of an interpretive account designed to illuminate historical events that help explain the changing nature of the mission of the College over time. In fact, Shafer and others (Merriam and Simpson, 1995) contend that historical research such as this is indeed an appropriate means for analyzing the development of educational institutions like the Industrial College.

In light of my personal role as a member of the faculty at the Industrial College, the research design for this study also includes important considerations aimed at guarding against uncontrolled bias. As Shafer (1980, pp. 179, 183) points out, while a researcher's personal bias can never be eliminated, it can be minimized by consciously exploring one's preconceptions, considering alternatives, and generally weighing both supporting and conflicting evidence.

The design for this research is also based upon identifying key individuals and forces which may have shaped or influenced changes in the mission of the College over time. Shafer argues that the overriding requirements in the historical study of institutions include assessing the interactions of individuals with the organization as well as examining the culture and context of the institution.

In fact, contextual awareness and analysis are major considerations in the design of the study. As Masland and Radway (1957) point out, the senior military colleges "are not autonomous institutions" and thus "cannot be judged apart from the

broader context" of the armed forces, society at large, and various "external factors" (p. 443). Similarly, Stubblefield (1991, p. 333) argues that the institutions of adult education "are advanced as solutions to societal disruptions."

Thus, this historical research assesses the political, economic, military, and social dimensions of various internal and external forces and events which have shaped the historical development of the Industrial College over time. Using archival materials, original reports and correspondence, historical records, and a wide variety of primary and secondary sources, the study analyzes individuals, groups, bureaucracies, and independent review boards, along with their respective interests as stakeholders, change agents, and power brokers, in assessing the manner and degree to which they have influenced the evolving nature and purpose of the institution.

### Sources of Data

The Special Collections section of the National Defense University Library at Fort Lesley J. McNair in Washington, D.C. serves as a repository for the archives of both the original Army Industrial College and the present day Industrial College of the Armed Forces. These records provided much of the data to support this research.

The archival materials in this collection, while largely uncatalogued, are extensive and include a virtual treasure trove of original source documents. They include numerous personal and official papers which provide a first-hand record of many key internal and external events in the College's history -- correspondence, War Department orders, the original 1924 charter for the institution, assorted quarterly and annual reports, and original texts of lectures and speeches by prominent national figures associated with the College such as Dwight Eisenhower and Bernard Baruch. There are literally thousands of documents in this repository, but as Barzun and Graff (1992, p. 114) aptly point out, while "manuscripts often come in huge unsorted masses -- the papers that are the bulky leftovers of busy lives," they also provide the wherewithal and ultimate reward of "worming secrets out of manuscripts."

In addition, the National Archives and other government and academic libraries throughout the greater Washington, D.C. have extensive holdings of both primary and secondary source materials which provided another important source of valuable records related to the College.

The relatively few published historical accounts of the College's development provided useful another useful source of data, particularly for purposes of multiple source verification or uncovering inconsistencies.

### Collection and Analysis of Data

An exhaustive search of archival and other primary source material helped provide the essential focus of this the inquiry. Primary source documents such as those described above, along with the detailed reports of specially convened review boards, provided considerable insight into the events which shaped the development of the College over time.

The extensive and often excellent repository of available secondary source material which covers political, military, economic, and social developments for much of the 20th century, provided the basis for juxtaposing the history of the College within the context of other associated internal and external contemporary events. Among the standard references consulted in this regard are Morison's (1965) Oxford History of the American People and Garraty and McCaughey's (1987) The American Nation, along with historical treatments surrounding World Wars I and II by Blum (1976), Coffman (1968), Goodwin (1994), Kennedy (1980) and others.

Much of the secondary source material is drawn from the second half of this century. As Merriam and Simpson (1995, p. 79) argue, "the farther removed a secondary source is from the phenomenon, the better, for such sources draw from the accumulated wisdom of earlier scholars." These documents also provided a means of verification afforded by cross-checking multiple sources. Mindful of the admonition that printed sources, both primary and secondary, are often "full of contradictions," Barzun and Graff (1992, p. 117) suggest a process of this sort aimed at "disentanglement, or undoing the knots in facts."

Thus, this particular study began with a period of initial inquiry and research followed by a process of interpreting data, seeking coherence in seemingly unrelated events, arranging them into some meaningful order, and eventually gaining new insights. Finding a meaningful pattern of organization, in fact, provided the crucial first step in this analytical process. Just as Krathwohl (1993, p. 504) argues that "an organizing rationale is critical to the historical method" and Barzun and Graff (1992, p. 181) contend that "the writing of history requires a pattern," this inquiry is built around a framework of chronological periods associated with relevant historical developments both internal and external to the Industrial College. Thus, the time periods reflected in the chapters that comprise this study, as well as the chronological structures within chapters, emerged to provide the analytical architecture for this study. The ultimate benefit of this approach, as Merriam and Simpson (1995, p. 84) conclude, is that when historical information is "skillfully organized into a narrative that both explains and interprets the past,...the present becomes enlightened." In the final analysis, then, this study offers the potential for understanding the basis of the unique historical development of the Industrial College while illuminating the roots of present practice in the institution's contemporary incarnation.

## ORGANIZATION OF THE STUDY

The organization of this study is based on a temporal and thematic framework, providing chronological arrangement, by chapters, of topical developments in the evolving mission of the Industrial College.

Following this introductory chapter, the second chapter assesses the creation of the original Army Industrial College in 1924, beginning with related forces and events which unfolded in 1918 in the aftermath of World War I.

Chapter three examines the development the College in the interwar years, through the Great Depression, and the role of the institution's faculty and students in preparing national mobilization plans for some major future war which many hoped or believed would never come.

The fourth chapter analyzes a pivotal eight year period in the history of the College, from 1940 to 1947, in which the institution shadowed the nation's entrance into World War II, closed for a time, was later re-opened to provide de-mobilization training, and ultimately was reconstituted as the Industrial College of the Armed Forces.

Chapters five, six, and seven explore the maturation of the College through the Cold War and Vietnam eras into the more contemporary post-Cold war period, as the institution has evolved through its roles in educating managers to providing post-graduate learning for senior leaders in a changing world with ever more complex national security requirements.

Finally, chapter eight contains a summary of findings and conclusions apropos to the research questions outlined above. It also suggests several potentially useful areas for possible future research.