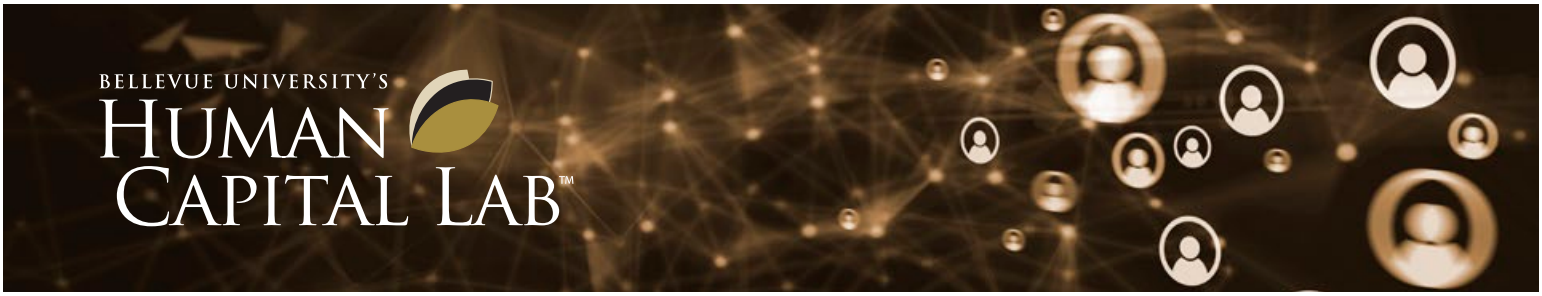

THE ACCREDITATION OF DEGREE-GRANTING INSTITUTIONS AND ITS ROLE IN THE UTILITY OF COLLEGE DEGREES IN THE WORKPLACE

BY
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and a specialization in Nontraditional Higher Education

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ABSTRACT

This study explored the role of accreditation and other types of recognition of degree-granting institutions in terms of the usefulness of those degrees to graduates using them in the employment sector. Emphasis was placed on nontraditional degree-granting institutions and the agencies that recognize, approve, license, and/or accredit them.

A survey of the development of nontraditional higher education is provided, along with a review of the literature relevant to the research topic. To represent the workplace, human resource professionals were identified and offered an opportunity to fill out an online survey instrument. Completed surveys were received from 267 participants to explore the study's research questions. The participants were asked to rate the acceptability of each degree source when considering employees for hire, promotion, and tuition reimbursement purposes.

An Analysis of Variance was performed to explore the research questions, and statistically significant differences were found for each. Post-hoc tests were used to locate and analyze differences.

There were significant differences in how participants rated the provided forms of recognition, the provided schools, and the provided forms of recognition with descriptions. There also were significant differences between how the participants rated forms of recognition and their corresponding schools. Finally, there were significant differences between how participants rated the forms of recognition before and after descriptions were provided.

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The researcher concluded that human resource professionals often do not understand the differences among schools and among different types of institutional recognition, and they often do not check. It was also concluded that human resources professionals require training regarding degree acceptance and recognition. Importantly, it was determined that degrees from unaccredited schools, or even those issued by diploma mills, can be accepted by employers for hiring, promotions, and tuition reimbursement programs. Degrees from accredited schools can sometimes be considered less acceptable than those from diploma mills, and that the acceptability of a degree is often unrelated to the type of recognition held by the issuing school. Finally, the researcher determined that potential students (and their potential employers) need to understand these issues when making decisions about the value or legitimacy of college degrees. Further research was indicated in several areas.

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Chapter 1
Background and Framework

Introduction

This chapter lays out the framework for this study. It describes key events in the history and development of nontraditional higher education, and considers the nature of college degrees. It also examines various ways degree-granting institutions are licensed, approved, accredited, etc. The unique problem of diploma mills, and the proliferation of nontraditional higher educational programs are also examined. It will become clear that along with this proliferation comes confusion about the validity of credentials awarded by a wide variety of degree-granting institutions and their value to graduates when using them in the workplace.

The field of post-secondary distance, or nontraditional, higher education is burgeoning. Since the inception of the University of London's External Degree Programme in 1858, many universities have offered their degrees to students not attending classes on campus. The field of distance education experienced two significant surges, the second continuing to this day. Also, we are witnessing an "internationalization" of distance education. Degree programs offered in one country are now available to learners in many--or all--others. Determining the validity and

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usefulness of these programs and the degrees they confer continues to be a daunting prospect for the consumers of these programs, both students and their employers alike.

This researcher first will describe the need for a college degree, including some of the arguments for and against. Consumer issues regarding earning college degrees, with an emphasis on distance degrees, will be examined. Then, the nature of traditional college curricula as they exist in the United States will be reviewed. Different distance education models will be discussed, with examples of each. The history of distance education will be summarized, with an emphasis on events that relate to contemporary issues. The proposed study's limitations will be described, along with the proposed data-gathering process. Definitions of terms used in the study will be presented, along with its research questions and proposed data analysis procedures. Finally, there will be a summary of the organization of the remainder of the report, along with a review of the relevant literature and research.

Purpose of the Study

The purpose of the study is to examine the marketability of degrees awarded by institutions of higher education accredited or approved by a variety of public and private agencies. The focus will be on the usefulness of these degrees in the workplace for hiring, promotion, and tuition reimbursement purposes. Also, the study will measure the effect on such usefulness when decision-makers are provided information about the accrediting/approving agencies. There has been a proliferation of distance education

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degree programs (and entire schools) during the past thirty years. Many of these degree programs and schools are located in countries outside the United States. Many others are located within the United States, and are accredited/approved by a number of agencies. Potential students (and their current or future employers) need to know the value (or lack thereof) of such degrees. Potential students need to understand which programs will result in useful degrees. Employers need to be able to distinguish between degrees from legitimate and spurious (or unrecognized) schools.

Outcomes of the Study

Human resource professionals were surveyed to determine the acceptability of degrees from colleges and universities recognized by different agencies. They were asked to consider how acceptable such degrees would be when considering candidates for employment, promotion, or tuition reimbursement programs. Completed surveys were received from 267 participants, and statistical analyses were performed on the data. Participants rated the provided forms of school recognition with significant differences. Also, they rated the provided schools with significant differences. After being provided descriptions of each form of recognition, they rated them with significant differences. There were significant differences between how they rated forms of recognition and their corresponding schools. Finally, there were significant differences between how participants rated the forms of recognition before and after descriptions were provided.

This researcher concluded that human resource professionals often do not understand the differences among schools and among different types of institutional

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recognition, and they often do not check. It was also concluded that human resource professionals require training regarding degree acceptance and recognition. Relevantly, it was determined that in many cases employers accept degrees from unaccredited schools, or even those issued by diploma mills, that degrees from accredited schools can sometimes be less acceptable than those from diploma mills, and that the acceptability of a degree is often unrelated to the type of recognition held by the issuing school. Finally, it was determined that potential students (and their potential employers) need to understand these issues when making decisions about the value or legitimacy of college degrees.

General Background and Significance of the Study

While the study focuses on the various forms of accreditation and approval of schools and their degree programs--and the usefulness of such degrees in the workplace--its purpose intertwines with the rise of distance education. Students in the United States may take degrees from schools all over the world by various forms of distance education. The accreditation and/or approval of these degrees may weigh significantly in their acceptance by potential employers. Therefore, it should also weigh in the students' selection of schools. Also, institutions of higher education offering degrees by distance education have operated under a wide array of approvals and accreditations; some are recognized, many are not. Again, how valued these are in the workplace as degree holders seek employment is an important--but as of yet unanswered--issue. While the data collection will focus on accreditations/approvals, its implications to nontraditional

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higher education--particularly distance education degree programs--are significant. These issues are at the heart of the "business" of delivering programs that result in degrees that are valuable when applied in the workplace.

Purposes of the University

It is key to understand the roles universities play in our society. This section will discuss several briefly, and then focus on the one most pertaining to this study.

Universities perform many roles. Levine (2001) identifies three: teaching, research, and service. As noted earlier, Levine also acknowledged the credential function of universities, predicting the demise of the college degree. Duderstadt (2003) also lists three traditional roles: education, research, and service. Thomas (1998) describes several education- and service-related activities universities undertake to enhance their civic roles, while Kelly (2001) focuses on the education and credentialing functions of for-profit universities. The author concludes that both for-profit and not-for profit schools have become more career-oriented in response to employers' and students' interests.

Traditional Curricula

This section describes how a traditional college curriculum is typically structured. This will benefit the reader when drawing comparisons to the nontraditional curricula and delivery methods described later in this chapter.

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Undergraduate education in the United States is typically organized around four years of full-time study, culminating in the award of the baccalaureate (or "bachelor's") degree. Graduate education beyond the baccalaureate may take one or more years of full-time study, and result in the master's and/or doctorate degree. Levine (1978) states that there is no "the" undergraduate curriculum in the United States. Still, he notes that the typical undergraduate curriculum has a general education component, coupled with a major area of study.

General education consists of core curricula common to most or all students at a university, distribution requirements that require students to study a breadth of knowledge, and free electives that give the student some flexibility in course selection. (Levine 1978)

Levine also states that the major field of study, or concentration, is the dominant feature in undergraduate education. More emphasis is placed in the major subject of study selected than the learning that takes place in the general education component.

The degree is the rank bestowed upon the student after completing a prescribed curriculum. (Levine 1978) The bachelor's degree is awarded for completion of the courses taught in the first four years of the curriculum. (Although usually designed to be four years in length, students may spend more or less time to earn the bachelor's degree.)

Spurr (1970) discussed typical structures of undergraduate and graduate degree programs in the United States. Although the terms "master's" and "doctorate" were once used interchangeably, the master's is now considered subordinate to the doctorate, with the master's generally recognized as the first post-baccalaureate degree. The master's degree is typically comprised of one or two years of study beyond the baccalaureate, and

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often requires either a comprehensive examination, a thesis (or equivalent final project) or both. The master's typically requires 30 to 36 semester hours beyond the bachelor's, and the major portion--or all--of the courses taken are in the major field of study.

The doctorate is typically one or more years beyond the master's. In the United States it is comprised of coursework, a comprehensive examination, and a dissertation or similar project. (Spurr 1970)

Research-based doctorates (typically, the Doctor of Philosophy, or Ph.D.) require original research that contributes new knowledge to the field of study. Practitioner degrees (such as the Doctor of Education, Ed.D., and Doctor of Business Administration, D.B.A.) often require a large practicum or project in lieu of the research dissertation. Professional doctorates (such as the Medical Doctor, M.D., or the Doctor of Optometry, O.D., have no such "final project" equivalent to the dissertation.

The Need for a Degree

The need for a degree has been on the rise in the United States. With the development of community colleges, adult and continuing education, degree programs targeted toward working professionals, correspondence and other distance education, and education over the Internet, access to higher education is greater now then ever before. And it is part of the lore of our culture that more education equals higher earnings potential. Juster (1975) compared the initial earnings potential of people entering the workforce with varying levels of education. People with some college earned 17 percent more initially than high school graduates. A bachelor's degree holder's earning potential

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was 31 percent higher. Interestingly, holders of master's and doctoral degrees did not fare better initially. However, the study reported only initial earnings potential, not earnings potential over a lifetime.

Juster concluded that data comparing the costs of higher education to the financial rewards it brings are skewed. Applicants with higher socio-economic status tend to invest more substantially in their college educations, thus reducing the appearance of a greater "return on investment."

According to data from the 2000 United States Census (United States Department of Labor 2001), the average college graduate earned 71 percent more than the average high school graduate, up from 38 percent twenty years earlier. According to data from the U.S. Department of Labor, Bureau of Labor Statistics Current Population survey, earnings for workers with less than a high school diploma dropped by 27 percent from 1979 to 1998. Conversely, earnings for college graduates (representing about a quarter of the workforce) rose during the same period by 8 percent, widening the gap between college graduates and non-college graduates.

Kelinson (1998) reported that more than 1.6 million college degrees (bachelor's or higher) were awarded in the 1994-95 academic year. From the 1982-83 academic year to 1994-5, the number of bachelor's degrees awarded yearly rose by 20 percent. The number of master's degrees awarded rose by 37 percent (with all of the growth occurring after 1987). The number of doctoral degrees awarded rose by 44 percent. However, the number of first professional degrees (dentistry, medicine, and law) rose only 4 percent. It is interesting to note that those professions' educational requirements did not "inflate" during the reporting period; the professions of dentistry, medicine, and law required the

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same level of education in each respective profession as before. But this may not be the same for other, less-regulated occupations.

Kelinson also reported the number of older students was growing. In 1985, students older than 35 made up 15 percent of students attending institutions of higher education. By 1994, that proportion had grown to 21 percent. The number of part-time students stayed practically level, rising from 42 to 43 percent over the same period. Something was happening to cause older (presumably mid-career) students to return to college to pursue degrees.

According to the National Center for Educational Statistics (2000), higher education enrollments increased by 13 percent between 1977 and 1987. They increased at about the same rate between 1987 and 1997. Between 1990 and 1995, enrollments by people under 25 years old rose 2 percent, while enrollments by people over 25 increased by 6 percent. Enrollments in graduate-level programs increased by 27 percent between 1985 and 1997, while enrollments in first-professional degree programs rose by 8 percent during the same period. As of 1997, there were more than 4,000 accredited colleges and universities in the United States. As the reader will see later, this dwarfs the number of unaccredited schools. However, the unaccredited segment of higher education is seeing remarkable--and sometimes disturbing--growth.

Choosing a school and/or program is a complicated one. Bear and Bear (2001) list 373 accredited schools and programs offering college degrees available at least in part by distance education. Howard (1994) determined factors influencing choice of institution by employed students seeking bachelor's degrees. The four factors identified were the expectation of career enhancement through the attainment of the degree offered

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by a particular institution, students' preference for an adult-oriented learning environment, program convenience, and the vocational focus of the institution and its faculty. As the reader will see when examining the various distance education models available to degree-seeking adults, these factors may lead the adult students to seek distance learning degree programs.

The Case Against College

The statistics and trends sampled above seem to indicate a financial advantage to attending college. However, they do not tell the entire story, for they do not compare the gains to the costs of obtaining a college degree. Bird (1975) argued against the "investment" into a college education. Her thesis was based upon the costs of a typical college education versus the expected financial rewards from higher earnings over a lifetime. She proposed that one would gain more financially by investing the costs of a college education compared to what a person might earn with it (above what one might earn with a high school diploma). Bird described college as a four-year way station, extending adolescence and delaying students from entering the workforce. The costs of getting a degree (tuition, fees, books, supplies, and lost wages) would, if invested wisely with a reasonable rate of return, be of greater financial benefit than the increases in wages such a degree would bring. One weakness in this argument is that many students get only a portion of their financial support in college from their own resources. Much of the rest may come from family, financial aid, or other sources. Also, it ignores the remarkable growth of continuing educational opportunities. In fact, it is the opportunity to pursue a

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college degree while working that lend credence to the idea that students should get into the workplace as soon as possible and earn their higher degrees as they pursue their careers. Finally, the argument ignores "diplomaism" in the workplace. This is the demand for higher and higher levels of education and credentials to perform the same jobs. That phenomenon had been described a few years earlier, but its principles are germane to this day.

Diplomaism

Brown (1995) stated the origins of the increasing demand for college degrees come from the decentralized control of higher education, coupled with extra-educational interests in college funding. Because, in the United States, the federal government did not (and does not) determine what is and is not a university, schools (and the number and types of degrees they award) have been able to proliferate. This also led to the current climate where we have seen a rise of for-profit universities established to fill the demand for higher degrees by employed adults, and to do so while providing the universities' owners a return on their investment. Brown also noted that overall enrollments remained low through the end of the 19th century, in part because there were few occupations where a college degree was required for entry. That would change over the next few decades as credentialing relationships between colleges and industry grew.

One of the forces driving the proliferation of adult-oriented nontraditional degree programs has been the ever-increasing demand on employees to possess college degrees. This condition was described by Hapgood (1971) and termed "Diplomaism." Increasing

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pressure on workers to go back and earn higher degrees forces them to seek out opportunities to earn degrees without leaving their careers. Further, the college degree has become the gateway to an expanding number of career fields. Again, this forces workers to go to (or back to) school to get that vital credential. Hapgood pointed out that the "requirement for a degree" is a recent phenomenon in many fields where no degree had been required in the past. The degree becomes a substitute for determining whether or not the worker can do the job. Colleges and universities, therefore, become gateways into, and throughout, many careers. When a non-degreed engineer is told s/he must have a bachelor's degree in order to keep a job or be promoted, s/he must go back to school to get it. This is true even if the learning process is irrelevant to the job, and/or redundant with what that person already knows and can do. The need to return to school to earn a degree, yet maintain one's career, contributed to the remarkable rise of nontraditional programs during the late 1970s that targeted the working adult. Hapgood also described higher education as an industry, wedging itself into whatever markets it can to increase revenues. This foreshadowed the rise of for-profit colleges and universities, whose primary customer base is the working professional. Finally, the author called the education industry a "dinosaur," with change being unnecessary because it faced no competition. Nontraditional higher education became that competition just a few years after Hapgood described "Diplomaism."

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Accreditation and Approval of Distance Education Schools and Programs

Governments determine what is and is not an institution of higher education. In most countries, it is the central government that makes this determination. In the United States, that responsibility falls to the states. (Bear and Bear 2001) But while the states have the legal responsibility, the process of determining what is and is not a legitimate institution of higher education is shared between the government, accrediting associations (both regional and other, specialized associations), and the institutions themselves (Sheahan 1997) Because of inconsistent regulation (also noted earlier), the established colleges and universities banded together to form the regional associations. Also, many other accrediting agencies arose to evaluate and approve a wide array of schools and programs. While it is the states that make the legal determination of whether or not schools are operating legally, recognition--or lack thereof--by recognized accrediting agencies may be much more important when it comes to the acceptance of a school's degrees. But the power of this idea has not been measured.

Recognized Accreditation

Two bodies, one private and one governmental, are organized to evaluate and recognize accrediting agencies in the United States. The Council on Higher Education Accreditation (CHEA) is the private agency, and it recognizes a variety of accrediting agencies. One notable exception is that CHEA does not approve the six regional

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associations discussed below. They did at one time, but the six regional associations left CHEA in 1996. (Bear and Bear 2001) The governmental agency tasked with maintaining a list of approved accrediting agencies is the United States Department of Education. Its purpose is to recognize accreditors for the purpose of distributing financial aid. (Orlans, et. al. 1974) Students attending schools accredited by Department of Education-approved agencies are eligible to participate in the Federal Financial Aid program. In fact, the Department of Education dropped from its rolls nine accrediting agencies previously approved and listed because these agencies did not have a role in determining eligibility for financial aid. Those nine agencies continue to be approved by CHEA. (Bear and Bear 2001)

Regional Accreditation

Generally speaking, when accreditation is discussed, what is being referred to is regional accreditation. Each association covers a distinct area of the country, accrediting entire institutions of higher education within their respective jurisdictions. They are listed below with the states they cover:

> *New England Association of Schools and Colleges.* Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.
>
> *Middle States Association of Colleges and Schools.* Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania, Puerto Rico, and Virgin Islands.
>
> *North Central Association of Colleges and Schools.* Arizona, Arkansas, Colorado, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, Ohio, Oklahoma, South Dakota, West Virginia, Wisconsin, and Wyoming.

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Northwest Association of Schools and Colleges. Alaska, Idaho, Montana, Nevada, Oregon, Utah, and Washington.

Southern Association of Colleges and Schools. Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.

Western Association of Schools and Colleges. California, Hawaii, American Samoa, Guam, and Trust Territory of the Pacific.

Each of the six regional associations has adopted the same definition of an accredited institution as one that:

- Has clearly defined purposes appropriate to an institution of higher learning;
- Has assembled and organized those resources necessary to achieve its purposes;
- Is achieving its purposes; and
- Has the ability to continue to achieve its purposes. (Lezberg 1998)

Mood (1973) assessed what lay ahead for higher education (and, by extension, distance education). In doing so, he predicted the demise of accrediting agencies because accreditors and their standards enforced deadly uniformity across the United States. Also, they suppressed innovation because schools could not risk straying too far from the accepted norms for fear of losing their accreditation. (This would make them less attractive to prospective students and render their students ineligible for federal financial aid programs.) Mood predicted the eventual disappearance of accreditation agencies, predicting their processes and measurements would be less important than what colleges and universities do for their students, how well graduates advance in their careers, and how satisfied students and graduates are with the education process. But almost three

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decades later, the regional associations continue to thrive. As demonstrated earlier, the accreditors have been responsive in recognizing distance education programs. Still--as also noted earlier--there are a great number of degrees offered by schools that are based in other countries, and many others that are not approved by a recognized accrediting agency. How accepted and useful are degrees issued by these institutions?

One study showed that the accreditation process served several uses in distance education, including determining quality, providing a vehicle for self-assessment, and in establishing the legitimacy of nontraditional institutions and programs. (Jukoski 1983) But it did not begin to address the question of how useful these credentials are in the workplace.

National Accrediting Agencies

Two recognized national agencies also accredit degree-granting schools offering instruction in a variety of areas. (Bear and Bear 2001) Both have their roots in accrediting non-academic trade schools. The first, the Accrediting Council for Independent Colleges and Schools, primarily evaluates and accredits residential, classroom-based schools. The other, the Distance Education and Training Council (DETC), is focused exclusively on schools (academic and vocational) delivering their programs by distance. DETC's role in distance education is a significant one that requires a deeper discussion.

The DETC was founded in 1926 as the National Home Study Council-or NHSC. (Distance Education and Training Council 2001) Its stated goal is to promote sound educational standards and ethical business practices within distance education. The

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NHSC began accrediting schools in 1955, and soon after gained approval from the United States Department of Education as an accrediting agency. For many years, the NHSC accredited few degree-granting schools, most of which offered the associate's degree. By 1980, the NHSC accredited only two schools offering degrees higher than the associate's: LaSalle Extension University (offering a bachelor's degree in commerce and a law diploma designed to qualify graduates to take the California Bar Examination) and Grantham College of Engineering (offering a bachelor's in engineering technology). Now, the DETC accredits schools offering a variety of degrees--bachelor's, master's, doctorates, and first professional--in a wide array of areas. DETC-accredited schools enroll more than 2.5 million students around the world, and DETC estimates that more than 130 million students have taken distance/correspondence courses.

Professional Accreditation

There are dozens of accrediting bodies set up to approve programs-or entire schools-related to specific professions and occupations. The National League for Nursing (2001), for example, accredits nursing programs in colleges and universities. The American Psychological Association (2001) performs the same functions for programs awarding degrees in psychology. Program accreditation by these associations can affect a graduate's ability to become licensed to practice in either of these professions. Other accreditors, such as the Planning Accreditation Board and the National Recreation and Park Association (Bear and Bear, 2001) set standards, but they are not involved with professional licensure.

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Generally Accepted Accreditation Principles (GAAP)

The public/private process of recognizing institutions of higher education in the United States described above is a unique one. In the rest of the world, central governments determine what are and are not degree-granting institutions. But even here, standards and practices vary widely. Some countries have well-established systems of higher education while others have none. Others still have established systems, yet allow unrecognized schools to operate, often with little more than a mail-forwarding presence. With more than 7,300 schools from hundreds of countries, determining which degrees from which schools are legitimate when presented in the United States is a daunting task. (International Association of Universities 2000) Even still, there is ample information available to make these decisions through the use of several standard reference books. In fact, listing in one or more of these means the school in question meets Generally Accepted Accreditation Principles (GAAP) and can be considered comparable to an accredited school in the United States. (Walston 1999) (Accreditation by a recognized accrediting agency is also a criterion for meeting GAAP. See below.)

The concept of GAAP is made up of several criteria. Schools outside the United States that meet one or more of these criteria can be considered comparable to accredited schools. The degrees issued by these schools should enjoy a high level of acceptance by admissions officials. According to a recent, unpublished study, they do. (That study will be discussed in greater detail later in this chapter.) The criteria for schools in meeting GAAP are:

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Accredited by an agency recognized by the United States Department of Education. Discussed above.

Accredited by an agency recognized by the Council on Higher Education Accreditation. Discussed above.

Listed in the Commonwealth Universities Yearbook. The Yearbook lists degree-granting institutions in 36 countries in the British Commonwealth, including Australia, India, South Africa, and (by special arrangement) Hong Kong.

Included in the Australian Qualifications Framework (AQF). The AQF provides for school approvals by the various Australian governments. The Australian National Office on Overseas Skills (NOOSR) describes the education systems of more than 90 countries--including the United States. Listing by NOOSR also meets GAAP.

Listed in the International Handbook of Universities, published by the United Nations Educational, Scientific, and Cultural Organization (UNESCO). The Handbook contains information on more than 5,600 schools in more than 170 countries around the world.

Listed in the World Education Series, published by the Project in International Education Research originally on behalf of AACRAO. The Series describes the education systems of many countries around the world, and also lists institutions of higher education in each.

One publication lists, country-by-country, the required foreign credentials for entry into the higher education system in the United States. For example, a student from South Africa applying to a college or university in the United States should posses a Senior Certificate, Matriculation Certificate, or a National Technical Certificate. (Woolston 1981) Another reminds admissions officers that foreign credentials coming from institutions of higher education, even from schools listed in the generally accepted resource guides, are not necessarily directly equivalent to those in the United States. For example, the honors bachelor's degree from British universities, while roughly equivalent to those issued in the United States are substantially different. The British honors degree

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typically involves much deeper study in the major area of study. General education is completed in the secondary school system; the undergraduate years are dedicated to the major area of study and related disciplines. (Turner 1979)

Foreign Degree Evaluation Services

The large number of degrees, institutions of higher education, and countries' educational systems creates a difficult situation for college officials and employers to determine the legitimacy and equivalency of credentials issued by institutions operating in other countries. This is in spite of the existence of GAAP. Another source of evaluative information is the degree evaluation services. These companies conduct two different levels of evaluation. In the simplest, they determine the equivalent American degree of the foreign credential presented. In the more complicated evaluation, the agencies conduct a course-by-course evaluation. Both evaluations result in a report that can be used by students, graduates, families, college officials, and employers. (American Association of Collegiate Registrars and Admissions Officials, 2001) It is important to note that these agencies are unregulated, and standards vary. (Bear and Bear 2001)

Unrecognized Accreditation

While commonly recognized standards exist for recognizing legitimate accrediting agencies, the bare legal requirements are much simpler. There is nothing to prevent a bad school or diploma mill from starting its own accrediting agency, recognize

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its own school, and then begin to advertise "fully accredited degrees." (Bear and Bear 2001) But accredited by whom? And what value does unrecognized accreditation have?

One source lists 59 unrecognized agencies. (Degree.net 2001) Some are active to varying degrees; a few even perform a perfunctory evaluation of member schools. But many others are fictitious creations listed in the literature of the school(s) they ostensibly accredit. They serve to give a specious answer to the question, "Are you accredited?"

State-Level Recognition

As noted earlier, it is the individual states that are left with licensing colleges and universities in the United States. (Hall 1998) The states do so to varying degrees of thoroughness and effect. (Bear and Bear 2001) Recently, some states have strengthened their oversight of higher education, particularly as it applies to unaccredited schools. Hawaii enacted several new requirements, including requiring schools to have a physical presence in the state. Also, Hawaii sued five schools and successfully shut them down. (Pacific Business News 2000) The state of Oregon has established a list of unaccredited schools based in other states barred from enrolling Oregonians and issuing degrees to them. In fact, it is illegal for individuals in Oregon to use degrees from these schools. Many of these schools operate from offshore locations, while others are authorized or approved to operate in their home states. (Office of Degree Authorization--Oregon 2001) Still, many others remain havens for diploma mills and other questionable schools. (Bear and Bear 2001) While there have been calls for a national set of standards and centralized enforcement, these have not come to pass, either in the form of a strong Federal presence

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in regulating higher education, or in the form of a national accrediting body to set and apply standards for distance education at all degree levels and in all areas. (Hall 1998) Finally, there is a clear distinction between the respective roles of the accreditors and the state agencies responsible for higher education. The accreditors' focus center on academic program review, while the states tend to place major stress on economic and consumer issues. (Lee 1991)

Nontraditional Curricula and Delivery Systems

Several alternative paradigms have evolved to form the approach to post-secondary education termed "nontraditional higher education." Mark (1991) identified four categories of distance education institutions and programs:

> *Distance Learning Institution. A* school whose programs and activities are exclusively directed towards delivering higher education by distance means. An example would be California National University for Advanced Studies (2001).
>
> *Consortium.* A membership of participating institutions banded together to deliver distance education in a collaboration. The Union for Experimenting Colleges and Universities (1972) and the California Virtual University (2001) were two such consortia.
>
> *Distance Learning Academic Unit.* A part of an otherwise traditional institution of higher learning dedicated to delivering distance education. While fundamentally part of the parent organization, it operates with significant autonomy. When the very traditional military college, Norwich University, acquired the very nontraditional Adult Degree Program from Goddard College, this was an example of a sub-unit operating quite separate from the parent university. (Norwich University 2001)

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> *Distance Learning Program.* *A* program within a traditional university that often includes traditional, classroom-based, instruction, and does not have its own faculty and/or administrative system. For example National University's (2001) distance programs are fully integrated into, and managed by, the on-campus programs and staff.

Another system of differentiating types for nontraditional and distance degree programs offered five types (Bear, Bear, and McQueary 2001):

> *Coursework Based.* Degree programs where credit is earned by taking classes. These classes may be delivered by traditional classroom study, correspondence courses, courses offered over the Internet, etc. Even traditional classes may take nontraditional formats and schedules, such as night or weekend classes, and shorter academic terms.
>
> *Examination Based.* Credit towards a degree is earned not by the time spent in a classroom, but for knowledge demonstrated by passing one or more examinations. Students may be given a rough idea of what is to be covered by the examination, leaving the student to prepare independently for passing it.
>
> *Publication Based.* The degree is awarded based upon previously published scholarly works representing original contribution to one's field. This option is offered by a very few schools, usually at the doctoral level.
>
> *Research Based.* The degree is awarded based upon extensive original research conducted under the supervision of the university. This is the most common process for awarding the Doctor of Philosophy degree outside the United States, and is sometimes used for master's and bachelor's degrees as well.
>
> *Template Based.* Used primarily in the United States, schools offering degrees by template set the credit requirements for each degree offered, then allow students to use a variety of methods to meet those credit requirements (such as courses, examinations, credit for life experience, military credit, and other methods).

This researcher splits the concept of nontraditional higher education into two components: nontraditional curricula and nontraditional delivery systems.

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College degree programs can be considered nontraditional by their approach to teaching and learning. For example, a degree program might be considered nontraditional by having the design and purposes of a degree program focused on the needs and goals of the students rather than the school. Fairfield (1977) described "person-centered education." He argued for graduate education designed around students' need and goals, rather than solely the curricular content established by the school. The central theme is to establish curricula that are largely student-designed in order to make them as relevant as possible, while maintaining the academic standards of the degree-awarding school. Fairfield was one of the co-founders of The Union for Experimenting Colleges and Universities (now Union Institute and University), who's programs--undergraduate University Without Walls programs and doctoral programs offered by The Union Graduate School--are described in greater detail elsewhere in this report.

Second, a degree program or school can be considered nontraditional because it delivers its instruction in a method other than via the classroom, where the students and instructor are present and interacting face-to-face. Nontraditional schools or degree programs use nontraditional curricula, delivery systems, or both. This study's focus is with distance education (a nontraditional delivery system), but an examination of examples of the various nontraditional models is instructive to understand the operating environment of distance education schools and programs. Several models are defined below.

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Correspondence Model. Correspondence instruction at the collegiate level is based upon lessons delivered to students by mail. Houle (1965) specified his five components of correspondence instruction, as paraphrased below:

1. Specially prepared materials, written in self-explanatory fashion and arranged in a series of lessons;
2. Supplementary printed or other materials
3. A series of exercises to be worked out by the student;
4. The evaluation of these exercises by a competent instructor with the student being informed of the evaluation; and
5. A final examination over the whole course.

This study is focused on nontraditional forms of collegiate-level instruction delivered by distance education. For example, Grantham College of Engineering (2001) offers its associate's and bachelor's degrees entirely by correspondence. Others, such as Upper Iowa University (2001), offer correspondence-based bachelor's degrees with some periods of on-campus residency.

Correspondence study can take many forms. California State University, Dominguez Hills (2001), offers a completely non-residential Master of Arts in Humanities by "parallel instruction." Distance students do all the same work within the same time frames as on-campus students, but do so from their own locations. American College (2001) offers master's degree programs in financial planning and related areas by correspondence (with short periods of on-campus residency). However, students study correspondence course materials at their own pace, then sit for proctored examinations for each.

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Heriot-Watt University (2001) in Edinburgh, Scotland offers a Master of Business Administration by correspondence. However, "correspondence" in this case takes on a different meaning. Students almost anywhere may purchase the self-contained courses, and then take their examinations at locations throughout the globe when they are ready to do so. Unlike other correspondence programs, where instructors and students exchange lessons, papers, assignments, and examinations, Heriot-Watt students have no other requirements to earn the degree than the final examination for each of nine courses. Faculty and other students are available for consultation, but none is required to complete the courses and degree.

Computer-Based Model. With the development of the personal computer and the Internet, nontraditional college programs began to take advantage of this new medium. Some programs use the personal computer and the Internet as adjuncts to their instructional process. Others have these two developments at their core. Some are "brick and mortar" schools; schools that deliver computer-based programs in addition to their on-campus offerings. And, recently, there have been a few, new schools that exist, except for a few administrative offices, entirely "on-line."

National University (2001) was established in the mid-1970s to deliver degree programs to working adults. At the time, it was nontraditional because its night and weekend class schedules were designed to allow students to continue their careers while pursuing a degree. Radical at the time, these programs are commonplace today. Now National University offers several degrees completely on-line, including the Master of Business Administration. "Classes" are held over the Internet, with students logging in with their personal computers at their own locations. Instructional materials are provided

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and textbooks are purchased over the Internet as well. Assignments are evaluated and grades assigned, all without face-to-face interaction between students and faculty (or between students and their fellow classmates).

Jones International University (2001) takes this concept two steps further. First, the school is proprietary and for profit, a relatively new occurrence in nontraditional higher education. Second, it is the first totally on-line university to receive regional accreditation (by the North Central Association in 1999). Students take courses along a traditional academic calendar (eight-, twelve-, or sixteen-week terms), but do so via their personal computers. There is substantial interaction with the faculty and fellow students during each course. Assignments are completed and returned using the Internet.

Learning Agreement Model. Unlike the Correspondence and Computer-Based Models, which are institution-centered, the Learning Agreement Model is person-centered. The degree programs that fit this model are based on learning agreements (sometimes called "learning contracts"). Generally speaking, the institution and the student agree on the learning activities, experiences, projects, and assessments that must be completed in order to receive the degree. The student completes the agreement's requirements and the school awards the degree on that basis. Learning agreements can take a wide variety of forms and contents.

The Fielding Institute (2001) delivers its master's and doctoral degree programs via guided independent study set forth by a learning agreement. The areas to be covered by the agreement are set by the school. The student and his/her faculty mentor determine the methods of mastering each area and the demonstration of that mastery.

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Union Institute and University (2001) also offers its doctoral degree programs via learning agreement. Unlike Fielding, however, most of the Union's programs' content are not defined by the institution. Rather, the student ("learner" in Union's parlance) works with faculty mentors to not only describe how competencies will be mastered and demonstrated, but also which competencies will be (and should be) included in the plan of study. Two learners taking doctoral degrees in the same major area of study could have markedly different study areas, learning methods, and means of evaluation. Even their final doctoral projects ("Projects Demonstrating Excellence," which often takes the form of a traditional dissertation, but may also take other unique, creative forms) could vary not just by topic, but by design as well. Yet both would result in the award of the Doctor of Philosophy degree.

Many unaccredited schools use the learning agreement as the basis for delivering their programs as well. Some, like California Coast University's (2001) bachelor's, master's and doctoral programs, have the major learning areas already identified by the school. Like Fielding, California Coast leaves the mastery of these learning areas--and the demonstration of that mastery--to each individual student and faculty mentor, as defined in the learning agreement. On the other hand, Southern California University for Professional Studies (2001) identifies which degrees it will award, but, like Union Institute and University, the student and faculty member identify which major areas of learning the student will master.

Assessment Model. Some programs do not offer instruction of their own. Rather, they assess learning done elsewhere, award credits for it, then apply those credits to the student's degree program. The Assessment Model is predicated on the idea that it does

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not matter where students acquire knowledge, only that they can demonstrate it. A leading institution using this model is Excelsior College (2001), formerly known as Regents College. It was originally known as The University of the State of New York, Regents External Degree Program, operated by the New York Board of Regents. But in 1998, the Board of Regents determined they could no longer provide adequate supervision to the program. They decided to create a new board of trustees to manage the program, effectively creating a free-standing, degree-granting institution, Regents College. Plans were soon underway to rename the school; its current name was adopted in 2001. (Carr, 2001)

Excelsior uses the Assessment Model to award associate's and bachelor's degrees in a variety of areas. The school offers no instruction itself; it assesses learning done elsewhere. (Excelsior also offers a master's degree via independent study under one or more mentors, which is outside the scope of the Assessment model).

Each of the Excelsior undergraduate programs set forth required knowledge areas, including depth and breadth requirements for each. How the students gain the knowledge is not relevant; they demonstrate that knowledge using one or more assessment methods described below. There are no limits to the credits from each method that may be earned and applied to a degree. Nor is there a time-in-program minimum or a minimum number of credits that must be earned after enrollment. Students may enroll and find they have satisfied all the requirements for the degree by credit earned prior to admission to Excelsior. The assessment methods are:

> *Transfer Credit.* Students may transfer into the Excelsior program credit earned from other accredited colleges and universities relevant to their respective degree programs.

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Noncollegiate Credit. Some students receive college-level training in business and industry, outside the auspices of colleges and universities. Courses that have been evaluated as worthy of college credit by a variety of agencies, including the American Council on Education, can be applied to Excelsior degree programs.

Military Training. Like Noncollegiate credit above, many technical, occupational, and educational military courses have been recognized as college-level and have been recommended for the award of college credit. Members of the Army, Navy, and Marine Corps are awarded credit for their military training as recommended by the American Council on Education. Members of the Air Force are awarded credit by the Community College of the Air Force, which are then transferred into Excelsior College, as are credits from other accredited colleges and universities.

Federal Aviation Administration. Students who have completed Federal Aviation Certificates (i.e., Private Pilot) may receive credits for these.

College Proficiency Examinations. One of the key components to Excelsior College's degree programs is the assessment of college-level learning done outside the classroom. Students receiving satisfactory scores on a variety of proficiency examinations may receive credit towards their degrees. How or where the student gained the knowledge necessary to pass the examination(s) is immaterial. The college awards credit for a wide array of examinations, including those offered by the Educational Testing Service, American College Testing Program, and their own Excelsior Examinations. Subject matter ranges literally from Accounting to Zoology. The examinations are worth from three to thirty semester hours each.

Nursing Performance Examinations. Excelsior College nursing programs, like all of their programs, can be completed by examination. However, nursing students must take performance examinations at sites around the United States. These examinations test their nursing skills in a clinical environment. No matter how much previous credit or experience students have, they must pass the performance examinations to earn the nursing degree.

Special Assessment. The college recognizes that students may have acquired college-level knowledge in areas not easily tested by standardized examinations. This is particularly true of performing arts (i.e., music, literature, art). In these cases, the student may apply for special assessment. The Excelsior faculty works with the student to develop an appropriate measurement of the skill and/or knowledge.

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> Afterwards, the faculty determines how much, if any, credit is to be awarded. Up to thirty semester hours may be awarded by this method.
>
> *Combination.* Excelsior students may use one or more of the above methods for earning credits towards their degrees. The college does not limit the amount of credit earned from any method, except for the limitations of each examination.
>
> *Life Experience.* Excelsior College does not award credit for life experience. Rather, it awards credit for college-level learning demonstrated and assessed using one or more of the methods listed above. However, many other traditional and nontraditional schools award credit for life experience. Thomas Edison State College has students put together a portfolio documenting creditable experiences, then assesses credits based upon it. While Excelsior College does not award credit for life experience, it will accept in transfer such credit awarded by other, accredited colleges.

Complex Model. Many of the schools and programs described above actually employ more than one these models in their degree programs. Bear and Bear (2001) describe many of these schools and programs. Some are based primarily on correspondence instruction, but allow limited amounts of credit to be earned by transfer credit, life experience credit, etc. Others, while based on learning agreements, include in those agreements credits earned prior to enrollment. (Or, even, learning done prior to enrollment but assessed and credited within the scope of the learning agreement.) It is difficult to fit all nontraditional schools and programs neatly into these categories. Many implement several models, blurring further the distinctions this researcher has suggested.

A new model for assessing students' learning and awarding degrees emerged in the late 1990's with the development of Western Governors University (WGU). WGU was established by 18 (now 19) state governors as an alternative university, designed to award degrees not based upon the number of credits students accumulated but, rather,

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based upon sets of competencies defined for each degree program. Each student designs, inc conjunction with faculty advisors, a learning plan detailing how he or she will demonstrate each competency in the degree program. WGU partners with many other accredited schools to offer courses via distance learning to WGU students, courses that are designated to satisfy WGU degree competencies. Students may also undertake a wide array of learning experiences in order to satisfy their degree requirements. The university is accredited by the Distance Education and Training Council. When WGU pursued regional accreditation, it was noted that since its scope crossed several regional associations' jurisdictions, a new approach would be required. A first-ever Inter-Regional Accrediting Commission (IRAC) was formed, through which four regional associations evaluated WGU and granted candidacy for accreditation. (Kinser 2002) WGU was accredited by the IRAC in 2003, at which time jurisdiction for future accreditation visits was given to the Northwestern Association of Schools and Colleges. (Western Governors University 2003)

Levine (2001) suggests that degrees will lessen in significance, noting that more than 3,600 different academic degrees are awarded, and that even degrees at the same level and in the same major area often differ substantially. Rather than degrees, Levine suggests that a transcript of competencies would be more descriptive of students' experiences, and would be more useful to others seeking to evaluate their capabilities.

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The Origins of Nontraditional Higher Education

The purpose of this section is to cite some of the antecedents having a bearing on the current state of nontraditional higher education. The reader will see that nontraditional higher education, in many of its forms, is hardly new at all, having as its basis some of the cornerstones of all academe in the Western world.

Graves (1909) described the development of education in several civilizations up until the Middle Ages. Although there was a long history of established schools, most cultures limited higher learning to specific vocations or the priesthood. In ancient Egypt, elementary education was provided to most children by the state. Higher education took place in the temples to train scribes or professionals (for example, architects or priests). Babylonia and Assyria followed a similar pattern. China had no national system, but private schools existed. A few private academies were in place to handle higher learning, but again, no national system was in place. Post-exilic Judea had higher institutions for religious and legal education as well.

In Greece, the Spartans did not have formal education beyond the secondary-level gymnasia, while in Athens the Sophists came into prominence, professing to be competent to teach young men and prepare them for careers. Socrates used the "dialectic" (conversational) model, using discussion between mentor and pupil to advance knowledge. This mentor-pupil relationship is a fundamental aspect of the Learning Agreement model described earlier, albeit without the formality of learning contracts (or degrees, for that matter). Plato advanced education beyond the secondary

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level in the sciences and philosophy with his Academy, but Ancient Greece did not have ensconced institutions of higher learning akin to the modern--or even medieval--university. None of these systems had colleges offering wide-ranged curricula for the purpose of advancing knowledge, except for the professions or clergy. The roots of the modern university (both traditional and nontraditional) in Western civilization were planted in the twelfth century A.D.

Medieval Universities

Along with the rise of universities in Europe during the Middle Ages came the first colleges granting degrees. These universities were at first a gathering place for scholars and masters. Haskins (1923) noted that professors (masters) at the early universities (such as Paris and Bologna) formed their own colleges, requiring certain qualifications for admission. Successful candidates were granted a license to teach (the "licentia docendi"), the earliest form of academic degree. (In fact, derivatives of that term exist in many countries' universities today to describe the first university degree. In Mexico, for example, the credential equivalent to the bachelor's degree is termed "licenciado/licentura.") This credential became valuable, even to those students not going on to teach at the university.

As proscribed curricula evolved, there became a better-defined system for awarding degrees. Wieruszowski (1976) described the process faced by students in the later Middle Ages. New scholars studied and attended lectures for one-and-a-half years to prepare for the baccalaureate examinations. The successful candidate then took his

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(only men were allowed admittance) place among the bachelors to continue study. The time spent on degrees varied from school to school. In Bologna, the student was required to study for 48 months for the baccalaureate, then 40 more for the license. At Paris, it was four to six years from the baccalaureate to the license. The degrees/licenses were awarded to successful candidates only after they pass a series of rigorous examinations, regardless of the amount of time and effort the students put forth in their studies and classes. It turns out the notion of awarding degrees by examination is an old and very traditional one indeed.

The University of London External Programme

A distinct transition from traditional (medieval) universities to modern nontraditional higher education occurred at the University of London. Bear (1991) noted that London was the first external degree program. The university still offers degrees based upon examinations, which can be taken almost anywhere in the world. Sanderson (1975) described the creation of the University of London in 1836 as an examining body, awarding degrees based upon examining students at its constituent (non-degree granting) colleges. The External Programme was established in 1858. This process evolved into the present one, where students may take the examinations without enrolling in another school. (Although many students find the instruction offered by these schools vital to passing London's examinations.) Bear (1991) said students use a variety of methods to prepare for London's examinations, including taking correspondence courses from third-party schools specifically designed to prepare students for their London examinations.

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London became both a teaching and examining university in 1898, retaining that structure to this day.

According to the British Council (2001), the University of London's External Programme offers a full spectrum of undergraduate and graduate degrees, from accounting to veterinary science, by distance learning. Approximately 25,000 students are enrolled in more than 150 countries. External and internal students are examined to the same standard

The Open University

The Open University was established in the United Kingdom in 1969 and began delivering instruction in 1971. (The Open University, 2001) Bear and Bear (2001) note that The Open University is one of the largest distance education schools in the world. The school awards its degrees to students who pass its examinations. It differs from the University of London's External Degree Programme in that The Open University offers a considerable amount of instruction to prepare students for their examinations. Bear (1991) notes that the school offers instruction over the British Broadcasting Network and supports its courses with correspondence study materials. The Open University holds a Royal Charter, and is heavily subsidized by the British government.

In fact, The Open University began as the brainchild of a politician. Turnstall (1974) stated The Open University got its political life during the 1960s from an idea by then-leader of the Labour Party, Harold Wilson. Wilson foresaw a school he termed "The University of the Air," which would use television to deliver university-level

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courses and degrees to students beyond the typical university age (18 to 22 years old). Perry (1977) said that the school was originally designed to deliver instruction to prepare students for the University of London's examinations. This changed when the project was handed over to a junior minister in the Ministry of Education, Jennie Lee.

According to Perry, Lee had greater ambitions for The Open University, including obtaining a Royal Charter, which would allow the school to awards its own degrees. She also hoped for--and has yet to see--a British Broadcasting Corporation channel dedicated to delivering instruction for the university's courses. Still, she was instrumental in establishing the school as an independent, degree-granting institution.

Ferguson (1976) stated The Open University had gone far beyond its original scope. It began offering master's and doctoral degrees, and had expanding its instructional delivery system to include regional counseling centers located throughout the United Kingdom. Desmond Keegan (1981) studied the development of these distance learning centers. The centers employ tutor-counselors who provide a personal level of guidance not always found in independent study. The centers also use course tutors who provided guidance on particular courses to registered students.

In comparing the distance education movements in the British Empire with the United States, Sherow and Wedemeyer (1990) noted that it was a governmental effort in the former, but more of a "grass roots" effort by individual institutions in the latter. They also point out several other developments in this field, including the first college-level correspondence instruction offered in the United States by the Chautauqua Institute in 1878. In 1885, the Institute offered a college degree by correspondence, continuing to do so until 1891. The authors listed several other developments in the United States,

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including the extension program at the University of Chicago, correspondence courses offered by Illinois Wesleyan (to prepare students for the university's examinations), and the Correspondence University in Ithaca, New York, offering correspondence courses from several other colleges. But it was not until the 1960s that this developmental trickle turned into a flood.

University Without Walls

The movement toward nontraditional higher education in the United States surged during the 1960s. One significant manifestation was the Union for Research and Experimentation in Higher Education, which in 1969 became the Union for Experimenting Colleges and Universities (UECU, now Union Institute and University). UECU was an association of twenty-five institutions encouraging research and experimentation in higher education. (Union for Experimenting Colleges and Universities 1972) The charter member schools of UECU consisted of colleges large and small, public and private, traditional and nontraditional. The First Report discussed the developments and influences that led to the creation of the University Without Walls and Union Graduate School programs. They are paraphrased below:

> *New kinds of students.* Older, more experienced, returning to school from the workforce or continuing in the workforce while attending college.
>
> *New views on what is important to learn and what has become obsolete.* Everything needed to be learned cannot be comprehended within the confines of traditional college curricula. Also, what is to be taught should be based on the students' needs and desires, not solely on the institutions'.

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Rapid changes in technology that allowed instruction to be delivered in new and dynamic ways. Also, students previously beyond the reaches of traditional instructional delivery could now pursue degrees (working students, the disabled, stay-at-home spouses, etc.)

Financial plight of colleges had forced them to become more creative in their approaches. Also, they had to widen their target markets to include what were considered then to be nontraditional students.

The Union was originally organized as a confederation of 10 liberal arts college presidents, with most of the power resting within each member school. Problems arose from different campuses employing widely divergent administrative and academic practices. In 1971, UECU emerged as an independent institution. It continues to this day operating both an undergraduate program and a graduate program leading to the Doctor of Philosophy degree. The Union was accredited by the North Central Association of Colleges and Schools in 1986.

Both of Union's programs are based upon the Learning Contract Model described earlier. Students use a wide array of learning resources, including other institutions of higher education, libraries, museums, their workplaces, travel, colleagues, faculty members, family, friends, and their own innate abilities.

Regents External Degree Program

Paralleling the development of the Union's University Without Walls, but taking an entirely different approach, was the Regents External Degree Program. An extension of the state of New York's university system (called The University of the State of New York and the Board of Regents), the Regents External Degree Program may have been a

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result of the same nontraditional movement in higher education during the 1960s and 1970s, but the degree programs themselves could not be more different.

The Regents program (now the independent Excelsior College) employed the Assessment Model described above. According to Bear (1980), the Regents program was the model for several other schools, including Thomas Edison State College in New Jersey and Connecticut's Board for State Academic Awards (which later became Charter Oak State College). All three programs continue to this day. (Excelsior College 2001, Thomas Edison State College 2001, and Charter Oak State College 2001)

Rise of Nontraditional Higher Education Institutions in California

The state of California has always been active in higher education, including both private and public schools. (California Postsecondary Education Commission [CPEC] 1994) During the first year of statehood (1850) the state legislature passed an act that proposed institutions of higher learning:

1. Submit an application for incorporation as a college,
2. Have an endowment of twenty thousand dollars, and
3. The proposed trustees be "capable men."

The twenty thousand-dollar requirement would come and go over the next 150 years in various forms. It was deleted in 1885, but restored (at fifty thousand dollars) in 1927. The 1927 amendment also required schools to submit annual reports to the state

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about their operations. Still, the state did not conduct evaluations of the worthiness of private colleges and universities operating in the state. And it would not do so until 1958.

The CPEC considered the 1958 changes to the state's higher education laws a major turning point. The state established six different categories of higher education institutions, but, essentially, it was a three-tiered system

Authorized" schools were private, post-secondary institutions allowed to operate by the state. The schools had to submit an application and declare fifty thousand dollars in assets towards the operation of the school, along with information about the courses and/or degrees they would offer, methods of instruction, administrative policies, etc. But the state would not evaluate the effectiveness of instruction offered by these schools. Also, schools could stay in "Authorized" status indefinitely. The fifty thousand-dollar requirement was meant to prevent "fly-by-night" scams from setting up in California, but it was easily evaded. Schools had great latitude in what they could claim as assets dedicated to their operations; the assets declared could even be located outside the state. The effect of this law was to allow many very bad schools to operate with the tacit blessing of the state. Schools offering little or no instruction, even schools without any academic processes at all, were not only allowed to operate, they were able to announce their very-legitimate-sounding "State Authorization" to prospective students.

Bear and Bear (2001) related the story of one such school whose operator was arrested for his school's activities while being interviewed (on camera) by a nationwide news magazine. The operator was convicted of various crimes related to the school's operations and sentenced to five years in prison. Yet, the school remained on California's "Approved" list for another two years.

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The second tier of school operation in California was "Approved" status. Here, schools' programs (and later, entire schools) were evaluated against a published set of standards. Bear (1988) noted the language in the law stating "Approved" programs and schools would be legally equivalent to those accredited by recognized agencies. But in reality this was not the case. Still, the state exercised some scrutiny over its "Approved" programs and schools (as it still does), and some qualify their graduates to sit for state licensing examinations in various professions. (Bear and Bear 2001)

The California Postsecondary Education Commission (1994) noted that, while there was a legal distinction between "Authorized" and "Approved" statuses, there was not much of a practical one. A school "Authorized" by the state sounded just as bona fide as one who was "Approved." Also, because there was no time limit to how long a school could remain "Authorized," there was little incentive to take on the greater challenges (and scrutiny) of state approval.

The third, and highest, tier of the state's recognition system was "Accredited." California granted this status to schools accredited by a recognized accreditor. According to the CPEC (1994), the state deferred to the accreditors, who, presumably, exercised even greater scrutiny over schools' operations than the state did through its approval process.

Despite this very structured, multi-tiered system, there were great concerns over the lack of quality in California's private, non-accredited schools, particularly those that remained in the "Authorized" category. Accordingly, the state moved to eliminate this category, and succeeded in doing so in 1989. (California Postsecondary Education Commission 1994) Bear and Bear (2001) note that at the same time state approval was

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extended to entire schools (rather than individual programs within schools). The elimination of the "Authorized" category had a chilling effect. Dozens of schools closed down or moved to other, less stringent, states.

An examination of California's unaccredited distance universities listed in Bear's Guide (1982) reveals the impact of the change in the state law. Twenty-eight unaccredited, California-based, distance education universities were listed. Of them, 22 were "Authorized," and the other six were "Approved." The following is a summary of the status of the "Authorized" schools as of 2001:

- 6 became approved (One subsequently moved out of state)
- 1 became accredited (by DETC)
- 3 moved out of state instead of becoming approved
- 10 went out of business (one after gaining state approval)
- 2 went out of business after moving out of state

Of the six listed "Approved" schools, all six remain in business, in state, and approved. None advanced to accreditation, nor did any go out of business.

The "Authorized" schools, taken as a group, did not fare well. The CPEC noted that soon after the law was changed--and still while "Authorized" schools were allowed to stay open during a 3-year "grandfather clause" while they worked toward meeting the state's new standards--the number of "Authorized schools dropped from just over 200 to fewer than 80. Now, with California's two-tier system, all unaccredited schools (except for religious schools) are required to obtain approval from the state to operate.

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Diploma Mills

Despite the efforts of educators, the media, and law enforcement officials, diploma mills have flourished. But what defines a diploma mill?

The terms "diploma mill" and degree mill" may be used interchangeably. Generally speaking, the terms apply to operations that award degrees while requiring little or no academic accomplishment. The payment of a sufficient fee is often all that is required. Some diploma mills take the customer through spurious evaluations of their life and academic experiences, but still award the requested degrees to all comers.

Stewart and Spille (1988) listed several "characteristics" of diploma mills, including:

- Organizations with names similar to legitimate, accredited schools,
- Addresses that suggest prestige, but are really post office boxes,
- Pictures of buildings in catalogs and promotional literature that are not really indicative of the schools facilities,
- Depictions of sample diplomas in catalogs and promotional literature,
- Little or no selectivity in admissions,
- A wide array of degrees offered,
- Unspecified degree requirements,
- Assessment of learning outcomes or achievements is minimal or nonexistent,
- Degrees can be obtained in much shorter time frames compared to traditional institutions,

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- Degrees may be backdated,
- The staff's preoccupation with listing multiple degrees held,
- Lack of legitimate accreditation (or listing of spurious accreditation),
- Words like "licensed," "approved," and "authorized" are emphasized to suggest the organization has gone through a process similar to --and as useful as--accreditation,
- A number of faculty hold their degrees from the same or similar organizations,
- Faculty listed are not actually involved with the school,
- Over-reliance on awarding life experience credit, and
- The organization operates from a single office or from a private home.

Other operations require some academic work, but are considered diploma mills because the amount or level of work required does not approach what is typically required in traditional academic programs. As Bear and Bear (2001) noted, however, where is the line drawn? A doctorate delivered upon payment of a fee and nothing else is clearly from a diploma mill. But what if the school requires a 10-page dissertation? Or 50 pages? Or 100? When it comes to substandard academic processes (as opposed to non-existent ones), it is difficult to distinguish between diploma mills and legitimate, nontraditional, schools and programs.

To illustrate the ambiguity of the diploma mill situation, this researcher refers the reader back to the California situation described earlier. Under the state's approval system, schools evaluated and approved may award degrees at levels and areas the state deems appropriate. The schools operate not only legally, but also with the approval of the

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state. Still, holders of degrees from such schools sometimes find themselves having to answer questions about the legitimacy of their credentials. One website (About.com 2000) described many cases where politicians, public officials, educators, business people, and others have been pressed to answer questions about the legitimacy of degrees they earned nontraditionally. Many times, these credentials come from schools operating legally--or even with the approval of state officials.

Other Historical Developments Regarding Diploma Mills

The problems with diploma mills have a long history. In 1924, the United States Senate held hearings on the matter. (Reid 1959) One person testifying noted that the United States has the different States regulating educational matters, while most countries have a ministry of education or some other central authority that controls degree-granting institutions. This situation persists today. The committee also heard testimony noting that only ten states were providing adequate control over higher education, and that even when bad institutions were exposed, there were few legal remedies available.

Indiana fought diploma mills awarding medical degrees as early as 1880. (Indiana Commission on Public Records 2001) Even earlier, in 1833, the Christian College at New Albany was established. While its charter did not specify its authority to establish a medical school, it did not explicitly prevent it. The school began issuing medical degrees 40 days after it was established, even falsifying some by changing the name of the school to the "University of Indiana." While the main effort was in battling unqualified medical practitioners, the issuance of fraudulent medical degrees was a significant portion of the

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fight. The state (Indiana) passed laws in this matter in 1885 and 1897 with little effect. The state relied upon its requirement that medical diplomas be issued by a "reputable medical college." Typically, the vagueness of the law's language only contributed to the confusion--and fraudulent schools' ability to continue issuing degrees.

The first accrediting agency to take up the fight against diploma mills was the North Central Association of Colleges and Secondary Schools. In 1896, the association formed a special committee to examine state laws concerning degree-granting schools and strongly condemned their laxity. (Bender and Davis 1972)

Throughout the 20th century, the United States lacked strong, centralized laws regulating universities. Also during that time, diploma mills continued to operate. Lacking legal control, the U.S. Office of Education (the predecessor of the Department of Education) fought the problem with information, publishing a list of known "degree mills." (Bureau of Postsecondary Education 1974) The first recorded degree mill in the United States was Richmond College, Ohio, chartered in 1835. Note that the school was legally chartered by the state, but considered a degree mill by the federal government. Degree mills were considered threats to educational standards in several ways, including damaging the reputations of legitimate correspondence schools, the defrauding of students who believe they are receiving proper credentials, and by lowering American prestige abroad.

The United States Office of Education assumed a consultative, advisory, and research role in higher education, rather than a regulatory one. (Bender and Davis 1972) For years they published a directory of accredited institutions of higher education. They

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stopped publishing the directory in 1983. It was picked up by a private company, and is published annually. (Bear and Bear 2001)

"DipScam"

While officials in the United States Office of Education were powerless to take action against diploma mills, this was not the case for law enforcement agencies, particularly the Federal Bureau of Investigation. In 1979, they formed a task force that would become known as "DipScam." The task force targeted schools that sold degrees, no questions asked. As it turned out, this included two that were selling medical degrees. DipScam was responsible for the closure of more than 60 operations from 1979 until the retirement of its chief investigator in 1992. (Bear and Bear 2001)

While the Federal Bureau of Investigation reported more than 100 diploma mills operating (Stewart and Spille 1988), Bear and Bear (2001) reported more than 400 were active. And this was despite the efforts of law enforcement and others to eradicate the problem.

The Impact of Diploma Mills

The tremendous impact of diploma mills on the field of nontraditional higher education cannot be underestimated. Millions of dollars are exchanged for thousands of spurious credentials. One operation issued thousands of "degrees" and earned in excess of sixteen million dollars in one year alone. (Bear and Bear 2001) But who are the

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victims? And the villains? The United States House of Representatives issued a report (Congress of the United States House Select Committee on Aging 1986) finding some people in highly sensitive positions holding degrees from spurious institutions. They even went to the extent to publish the names of 70 "graduates" of one diploma mill. They also determined that these operations typically award about 3,000 degrees during their lifetimes. The report also indicated that approximately 500,000 working Americans (or approximately 1 in 200) possess a fraudulent degree.

But it is not just the customers of diploma mills who are damaged by these activities. (And they might not all be victims, as discussed below.) They pose a threat to the reputations of legitimate distance education schools as well. (Guernsey 1997) But the rise of proprietary institutions--and the accrediting agencies that approve them, has been a positive force in bringing legitimacy to the field of distance education, and clearly establishing distinctions between real schools and diploma mills. (Bender and Davis 1972)

If it is accepted as an axiom that the operation and proliferation of diploma mills is undesirable, that there are injured parties and parties injuring, then who are they? John Bear (2000) identified four of each, termed "villains" and "victims." The "villains" are the people who run diploma mills (both lifelong operators and one-time, get-rich-quick scam artists), the media for ignoring the problem (and for allowing these frauds to advertise), law enforcement (for not aggressively pursuing these multi-million dollar frauds), and the people who knowingly buy fake degrees. The "victims" include the customers who do not realize they are being scammed, employers who are fooled by applicants and employees with false credentials, the public when holders of "fake"

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degrees practice their trades, and legitimate schools, whose reputations are muddied by being associated--however incorrectly--with these frauds. (One might argue that one of the victims, employers, is also a villain for keeping ignorant about the issue and perpetrating the diploma mill industry by allowing false credentials to "pass.")

The diploma mill issue does not seem likely to go away anytime soon. According to the executive director of an accrediting agency tasked with evaluating distance education institutions, the Internet has become a haven for such operations. (Guernsey 1997) The Internet allows these operations to set up in countries with few laws--and little interest--in such matters. Websites, toll-free telephone numbers, and credit cards are all that are necessary to transact the sale of spurious degrees, well outside the reach of law enforcement officials in any particular country, including the United States.

While regulating diploma mills may seem hopeless, there is opportunity for action. (Bear 2000) Individual schools--especially those whose names are appropriated by diploma mills--can take action. The media can refuse to accept diploma mill advertising. The federal government can re-involve itself in the issue. Finally, every individual involved and/or interested in distance education can play his/her part in educating the public, alerting law enforcement and regulatory agencies, and participating with the media to expose as many fraudulent operations as possible.

As this section has shown, there is a real need for decision-makers, employers, students, and the general public, to have and use as much information as possible regarding both the legitimate and illegitimate aspects of distance and nontraditional higher education. This study is focused on determining what some of the decision-makers know and how they use that knowledge.

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Other Events in the Development of Distance and Nontraditional Higher Education

Baker (2000) developed a historical timeline of significant events in the development of distance and nontraditional higher education. Some of the highlights not already described above include:

1926 - The National Home Study Council (later to become the Distance Education and Training Council) is formed.

1946 - The University of South Africa begins a nationwide distance education program.

1964 - Nova University (now Nova Southeastern) is established, offering short-residency graduate programs.

1970 - Walden University opens, offering short-residency doctoral programs largely by independent study.

1974 - California State University, Carson (now California State University, Dominguez Hills) begins offering a completely non-residential Master of Arts degree in Humanities.

1976 - The University of Phoenix, a for-profit school, is established. Phoenix begins by offering classroom-based instruction geared towards employed adults. It has since grown to included non- and short-residential degree programs, and has become the largest university in the United States.

1987 - The International School of Information Management (now ISIM University) offers the first master's degree program from a school accredited by the Distance Education and Training Council.

1993 - International University College is established offering its degree programs exclusively by computer. It is later named Jones International University and becomes the first completely on-line university to become regionally accredited.

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1995 - Regent University offers the first on-line Ph.D. program in Communication by an accredited university. In 1998, Regent offers the first on-line Master of Laws program.

1999 - Touro University International's completely non-residential, on-line degree programs are included in Touro College's regional accreditation. This includes the Ph.D. programs, the first completely non-residential doctoral programs to be regionally accredited.

2000 - Concord University, a part of the Washington Post Company, becomes the first on-line law degree program. While accredited by the DETC, it is not accredited by the American Bar Association. New graduates will only be able to sit for the Bar Examination in California. (Concord University School of Law, 2001)

Proliferation of Distance Higher Education

According to the National Center for Education Statistics (1999), there has been a growth in the number of public and private 4-year schools offering some form of distance education. From 1995 to 1998, the number of private, 4-year institutions offering distance education courses grew from 12 percent to 22 percent. The number of public, 4-year institutions offering distance education courses grew from 62 percent to 79 percent.

Comparing two contemporaneous listings of available distance degree programs reveals a great deal. As a baseline, this researcher compared Bear in 1982 (Bear 1982) with Bear and Bear in 2001. (Bear and Bear 2001) Tallied were distance (short- or non-residency) programs generally available to students in the United States, conducted in English. "Accredited" schools included regionally accredited schools and programs, candidates for accreditation, schools and programs accredited by other recognized agencies, and foreign schools meeting Generally Accepted Accrediting Principles

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(GAAP). All other schools not meeting GAAP were considered unaccredited, including state-approved schools and schools accredited by unrecognized agencies. The following were tallied:

Table 1-1. Number of Accredited and Unaccredited Schools Listed in Bears' Guides 1982-2001

1982	
Accredited schools and programs in the United States:	64
Accredited schools and programs overseas:	11
Unaccredited schools and programs in the U.S.:	52
Unaccredited schools and programs overseas:	6
Total:	133
2001	
Accredited schools and programs in the United States:	278
Accredited schools and programs overseas:	95
Unaccredited schools and programs in the U.S.:	158
Unaccredited schools and programs overseas:	52
Total:	583

The number of accredited schools and programs in the United States increased by 434%. The number of accredited foreign schools and programs increased by 837%. The number of unaccredited schools and programs in the United States increased by 304%. The number of unaccredited, foreign-based schools and programs increased by 867%.

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Foreign Schools

While there have been a few examples of foreign schools with distance education programs available to potential students in the United States (including some, like the University of South Africa, Open University, and the University of London External Degree Programme mentioned above), the advent of the Internet has enabled a proliferation of such schools, both legitimate and questionable.

While the numbers of schools and programs in each area have increased, it is the foreign sector, both accredited and unaccredited, that has seen the greatest increase. The reasons behind this disparity are likely several, including the advent of the Internet and the development of the global economy. Regardless of the reason(s), however, these schools are marketing their degree programs to residents of the United States. But what of the acceptability and usefulness of these credentials in the workplace? That issue, which will be the crux of this research report, will be further examined in the next chapter.

The American Association of Collegiate Registrars and Admissions Officers (AACRAO), a professional society for admissions officials at colleges and universities, has established, country by country, the prerequisite credentials for entry into academic programs in the United States. For example, for students from Mexico seeking admission to bachelor's programs in the United States, they should possess the "bachillerato" from a recognized high school in Mexico. Entry into a master's program would require a "licenciado/licentura" ("license," equivalent to a bachelor's degree in the United States).

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Entry into doctoral programs would normally require the "maestria" (master's) or equivalent. Also, the credentials presented would, in the case of those from foreign post-secondary schools, be from schools meeting "Generally Accepted Accreditation Principles," or "GAAP." (The American Association of Collegiate Registrars 1994)

Implications for the Future

The proliferation of distance education degree programs, both foreign and domestic, accredited and not, legitimate and not, seems inevitable. In fact, there are some that predict that distance education will overtake traditional, classroom-based instruction as the mode for higher learning. (Moore 1987) Higher education will be evaluated more for its ability to deliver relevant, marketable skills, and traditional colleges and universities will continue to reach out to nontraditional students. (Lorenzo 1987) New institutions specializing in delivering instruction and degrees to working adults will continue to rise, along with "cyber diploma mills." (Kerka 2000) But regardless of the efficacy and legitimacy of the instructional processes and credentials offered, the question remains, "How useful and acceptable are these degrees in the workplace?" It is a question worthy of an answer.

Conclusion

College degrees are being awarded by a variety of nontraditional means by degree-granting institutions all over the world. It was shown that many nontraditional

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institutions offering degrees are not accredited by recognized agencies. What is not clear is the validity and utility of those degrees in the workplace. In the next chapter, methods for evaluation schools are presented, along with a review of literature bearing on the research topic.

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Chapter 2
Review of Relevant Literature

Introduction

The purpose of this section is to provide the framework and justification for this study. The need for this study is established in two steps. First, the literature was explored to determine different ways to measure degree acceptance in the workplace. Then the literature was reviewed to examine others' work in this area and establish the need for this study.

Methods for Examining the Acceptance of Nontraditional Degrees in the Workplace

The proliferation of degree-awarding nontraditional schools and programs is clearly demonstrated. The confusion over varying standards and the wide array of governing bodies (public, private, domestic, and foreign) has not halted this growth, and may have contributed to it by allowing sub-standard schools to flourish. What is not so clear is the value of degrees earned nontraditionally to the holders of those degrees. Are the graduates of these programs able to have them recognized for employment purposes? Are they acceptable for admission to other institutions of higher learning?

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One method of examining the acceptability of various types of nontraditional degrees is to look at employer-reimbursed tuition assistance plans. This has become a predominant benefit available to employees in the United States, with almost three-quarters of employers offering such plans. (Smith 1999) A recent survey of medium and large employers indicated the median annual tuition assistance reimbursement limit offered by employers is approximately $3,000 (US). Only 20 percent of employers with tuition assistance programs limit their reimbursements to "job-related" courses, 75% reimburse on a course-by-course basis or for an entire degree program. Of these employers, 82% provide reimbursement for study at the master's level; 58% reimburse for doctoral-level study. But what is not clear--and what was not asked--is what type of institution (including accreditation and/or other type of approval or recognition) is acceptable for employees to attend and receive reimbursement for tuition expenses. (George 1999)

Another method for measuring the acceptability of nontraditional degrees in the workplace is to examine what is being taught to future managers. An examination of several human resources and personnel management textbooks revealed that little, if anything is taught about the subject. Managers are not being prepared to evaluate the credentials claimed by employees in hiring, evaluation, and promotion practices. (Armstrong and Page 1999, Arthur 1987, Cascio 1995, Cook 1987, Ivanovic and Collin 1997, McBeath 1992, Shafritz 1980, Towers 1992, and Tracey 1998)

A third way of evaluating the acceptability of degrees from nontraditional schools is to examine the human resources policies of employers. A random selection of these policies posted on the Internet (three each from the education, government, and private

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sectors) did not indicate a consistent approach to this. Some require the employee attend accredited schools and programs. (But, interestingly, none describe what kind of accreditation is acceptable, nor do any address degrees earned from foreign schools.) Others do not indicate any accreditation requirements. (It is not known, however, if an unwritten, commonly understood standard is in effect.) Finally, one policy states that the employer reserves the right to request that the employee furnish evidence of a school's accreditation. But the policy does not indicate what that accreditation must be. (University of Virginia 2001, Rice University 2001, James Madison University 2001, San Mateo County 2001, City of Wheaton Library 2001, Virginia Beach School Board 2001, USLaw.com 2001, Synhrgy HR *(sic)* Technologies 2001, and Mentor Graphics 2001)

A fourth way of evaluating the acceptability of degrees from nontraditional schools is to ask the experts themselves: admissions officers at colleges and universities. While not a direct source of what is and is not acceptable in the workplace, admissions officers are a knowledgeable body when it comes to evaluating the legitimacy of degrees from a variety of sources. A recent, unpublished survey reported on admissions officials' opinions regarding which schools' degrees would be acceptable for admission into their respective colleges and universities. (Bear 2001) In it, admissions officials from colleges and universities from all over the United States clearly indicated their support and acceptance of degrees from schools meeting GAAP. Conversely, they rejected outright degrees from foreign schools that did not. (For the record, their responses regarding degrees from schools in the United States were similarly discriminate. Degrees from schools accredited by recognized agencies were, for the most part, acceptable. Degrees from unaccredited schools, even from schools operating in states exercising considerable

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control over unaccredited schools, were rejected overwhelmingly.) But what the above survey did not measure is acceptability of nontraditional degrees to employers. (Nor did it follow-up with respondents to explore further the reasons and meanings of their responses.) With more and more working professionals pursuing higher degrees, it is the usability of these degrees in the workplace, not in academia, that is the crucial question. There is a distinct lack of reliable information in this area.

A fifth way of evaluating the acceptability of degrees from nontraditional schools is to ask graduates of these programs. One study compared responses from graduates of six nontraditional master's programs--two accredited, four unaccredited--to determine the reasons why they chose their respective schools and how they felt about the outcomes. Questions were arranged in two categories, those relating to "self" reasons (to increase one's knowledge, study with others in the field, validate one's life's work, etc.) and "other" reasons (to enter an occupation, advance one's career, get accepted to a higher degree program, etc.) Generally speaking, respondents from accredited programs rated the "other" reasons for choosing their schools higher than respondents from unaccredited programs. Responses from graduates of accredited and unaccredited programs regarding "self" reasons for choosing their respective schools were comparable. Graduates of accredited programs were more satisfied with their degrees' performances in the "other" categories, while graduates of both accredited and unaccredited programs comparably satisfied with their degrees' performances in the "Self" categories. One could conclude that accredited or unaccredited programs are likely to meet one's personal needs, but graduates are more likely to find meeting their professional goals enhanced by earning degrees from accredited schools, not unaccredited ones. However, the survey also

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showed that respondents' tendencies to chose unaccredited schools was higher if their purpose was to satisfy their personal needs, rather than professional needs. In fact, many graduates from unaccredited schools were disappointed with their degrees' performance in the workplace. The study did not address the question directly to employers, it was limited to schools operating in the United States, and the data are almost 10 years out of date. (Douglas 1994)

A sixth, and certainly the most direct, way of examining this issue is by asking the employers themselves. This has been rarely and incompletely done, and is the basis for this study.

Selected Literature Bearing on the Research Topic

Various sources of literature bearing on the research topic were examined. Attention was paid to relevant elements of the literature, along with "gaps" that illuminate the need for this study.

Stark (1975) described how consumer dissatisfaction impacted traditional assumptions in higher education, leading to the development of alternative paths to college degrees. The author suggested institutions should place more emphasis on career preparation, putting the students' interests first. This concept ties closely the role of the university in preparing its graduates for employment, while acknowledging the need for alternative pathways to the credential (degree) students need.

Gooler (1975) made the same omission when developing evaluative criteria for the then-planned University of Mid-America. Criteria included relevance to needs and

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expectations, along with learner outcomes, cost effectiveness, and generation of knowledge. While graduates' satisfaction was to be measured, it was to focus on their satisfaction with their degree programs, not with how the degrees themselves "performed" in the workplace.

A significant published study regarding the acceptance of nontraditional degrees was conducted by Sosdian and Sharp. (1978) In it, the authors surveyed graduates of nontraditional associate's and bachelor's degree programs to determine their satisfaction. Remarkably, the study's emphasis was on determining the usefulness of these degrees in gaining access to higher degree programs and in the workplace. It did not deal with issues revolving around program processes or quality. In addition, the authors surveyed employers to determine the acceptability of these degrees. The authors found that graduates of these programs were, almost without exception, satisfied with their programs. They also found that employers were overwhelmingly receptive to what the authors termed "external" degrees. Still, there are several limitations to the applicability of this study to the research questions offered. First, Sosdian and Sharp limited their study to degrees from schools that were either regionally accredited or candidates for accreditation. One might expect degrees from such schools to enjoy widespread acceptance. No attempt was made to measure the same factors with degrees from foreign schools, unaccredited schools, or schools accredited by recognized--but not regional--accreditors. Second, the study was limited to associate and bachelor programs. No attempt was made to apply the same measures to graduate-level degrees and their holders. Finally, the study is now 23 years old. Whatever limited applicability the results have to

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modern distance/nontraditional higher education is severely diminished. The questions asked by Sosdian and Sharp are relevant, but need contemporary answers.

When colleges themselves seek to establish criteria for evaluating quality, they often omit the marketability of their degrees. When Harshman (1979) developed a model to evaluate the quality of nontraditional programs at Saint Louis University, the model focused on internal issues. While the model involved surveying graduates, it did so to measure their satisfaction with the learning processes, student services, etc. Nowhere did it ask graduates how useful their degrees were in the workplace.

Stewart (1979) measured the effect of institutional reputation on employers' hiring practices, finding that it was not a significant factor in employee selection. She did find that employers felt accreditation brought a measure of quality standards assurance, and offered some indication of students' ability to perform. Stewart did not distinguish between various types of recognized and unrecognized accreditation, or examine other forms of institutional recognition like state approval or that of non-U.S. schools.

Funk (1980) surveyed graduates of two traditional and two nontraditional programs. The nontraditional programs included were offered by unaccredited schools, one of which was subsequently accredited. The programs compared were Doctor of Education degree programs. The author's purpose was to determine if the nontraditional programs were serving a different clientele than the traditional programs. The author concluded the nontraditional programs served a more mature, experienced learner than the traditional programs. Graduates from both types of programs reported comparably high levels of satisfaction with their degrees on both a personal and professional level. However, the study was limited to only four schools, one discipline (education), and

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included only one school still unaccredited today. Also, the study is now more than two decades old. Finally, it did not included programs available from foreign schools.

Redd (1980) compared nontraditional and traditional doctoral programs in education, examining faculty, organizational structure, curricula, student advisement, practica/work experience and program duration. The author concluded that nontraditional programs were too narrowly focused on job content, that the students paid an excessive amount in tuition and fees, and that nontraditional, off-campus programs are parasitic in their use of other institutions' resources. But what the author did not determine is whether the graduates of nontraditional degrees were able to use those degrees in their careers. No attempt was made to determine the value of the credential awarded. Also, the programs the author considered nontraditional were in regionally accredited schools with substantial residency requirements. Programs in unaccredited schools, foreign schools, or schools accredited by unrecognized agencies were not included.

Rumbolz (1983) conducted a study to determine if traditional and nontraditional college graduates experienced different levels of job satisfaction after graduation. The researcher found no differences between the two populations. However, "nontraditional college graduates" referred to the graduates themselves as nontraditional, not the degrees they earned, nor the schools from which they graduated. Because graduates from both populations earned the same types of degrees (from traditional, residential programs), there is no distinction made regarding the marketability of nontraditional degrees. What is significant to this study, though, is that nontraditional students find comparable job satisfaction after graduation. What is not known is whether graduates of nontraditional programs will be accepted in the workplace. Also significant is that the researcher

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focused on the outcome (student satisfaction in the workplace) rather than the process of learning and earning the degree.

One nontraditional school (Empire State College 1986) conducted a study to determine why adult learners return to school to earn degrees. They found that a majority of them did so to improve their professional status. Also, more respondents selected career preparation and improvement statements more frequently than personal development or social/cultural statements to explain their pursuit of the degree. But while the study attempted to address why students pursued their degrees, it did not explore how successful they were using their degrees in the workplace.

Behnke (1986) surveyed personnel managers to determine whether there were any differences in how model resumes listing external and traditional degrees were rated by employers. The study indicated employers placed value in higher education. It also found that most employers would accept an externally earned degree (one earned by distance education) during a promotion decision, but less than half would accept one in a hiring decision. Yet when the respondents evaluated the model resumes (with either traditional or external degrees listed), they did not state a preference for those listing traditional degrees. However, the study was limited to personnel managers in one state (Ohio). Also, its definition of "external" did not included degrees earned from unaccredited schools, foreign schools, or schools accredited by unrecognized agencies.

Pierson and Springer (1988) emphasized the need to determine the quality of nontraditional higher education from the consumer's (learner's) standpoint. They stressed the need to evaluate the value of a degree by student satisfaction and the usefulness of the degree in the marketplace. This gives further weight to the purpose of this study: to

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determine the marketability of degrees from schools accredited or approved by a variety of agencies.

An Internet site (Vault.com 2000) conducted a survey of human resource professionals to determine their opinions regarding employment candidates who have earned online degrees. The study found that 30 percent of respondents had encountered candidates with degrees earned online. Notable, too, was that 77 percent of respondents believed that an online degree earned at a campus-based institution was more credible than one earned at an online-only school. However, the study implied that the comparison was between online degrees earned at "accredited" institutions versus online schools. This ignored the fact that there are now accredited institutions whose only degree programs are those offered online. When asked about bachelor's degrees offered online, 26 percent of respondents considered them as credible as traditional degrees, 61 percent said they were not as credible, and 13 percent said they were unacceptable. The results for graduate degrees were 37 percent saying they were as credible, 54 percent saying they were not as credible, and 9 percent saying that graduate degrees earned online were not acceptable. What was not measured is the acceptability of degrees earned from institutions accredited or approved by different agencies, regardless of instructional method.

In 2001, the Distance Education and Training Council (DETC, 2001) surveyed some of its graduates and their employers to obtain information on how graduates felt about their learning experiences, how the degrees affected their lives, and how employers felt about individuals who had gone through a degree program by independent study. Because this study is very recent and highly relevant, it is given more attention. DETC

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selected 21 of its accredited schools awarding associate's, bachelor's, and master's degrees, sending each school 100 questionnaires to be forwarded to graduates. The schools selected the recipients of the questionnaires, giving question to the randomness of survey. This researcher made several other observations.

DETC forwarded 1,353 questionnaires to graduates of its accredited schools, 100 of which were returned undeliverable. Of the delivered questionnaires, 226 were returned (18%). Of those, 80 agreed to allow their employers to be surveyed. This was 35% of the questionnaires returned by employees, but only 6% of all questionnaires sent out. DETC received 33 responses from employers, a 42% response rate, but less than 3% of employers of graduates who received a questionnaire.

Of the participating graduates, 54% reported an increase of income attributable to earning the degree, while 50% reported a job promotion for the same reason.

Graduates were provided a list of reasons to pursue a degree and asked to rate them. They were also provided a list of benefits from earning a degree and asked to do the same. However, the two lists were different, making it difficult to determine if the graduates had met their objectives for pursuing a degree. Of the participants reporting, 74% rated "personal satisfaction" as an important reason for pursuing a degree. To "learn more about the subject," (58%) and "improve job skills" (46%) were also rated highly. Just 27% rated "get a promotion" highly, while "earn more money" was rated highly by 22% of participating graduates. When outcomes were measured, "personal satisfaction" was again rated highly by a large proportion of graduates (78%), along with "enjoyment of learning" (44%) and "proper credentials." *(sic)*

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Interestingly, 41% of graduates rated "access to a higher degree" highly, despite Bear's survey of admissions officials, which indicated significantly lower levels of acceptance of degrees from nationally accredited (i.e. DETC) schools. But 67% did not try to have their degrees accepted by another academic institution; 21% were able to do so. It is difficult to tell from the report if that 21% is a proportion of those who tried—which would mean 79% tried and failed—or of the sample overall.

Only 33 employers participated in the survey. While they reported generally positive reactions to their employees' degrees, less than 3% of potential employers participated in the survey.

It is relevant to note that this was from the participating group of employers were selected by the graduates to be surveyed. If graduates who participated had reason to believe their degrees would be negatively received/evaluated, they had compelling reason not to allow their employers to be surveyed. Also, the non-respondents may also have been reluctant to have their employers surveyed.

No statistical procedures were employed to make inferences about the population (presumably, graduates of DETC-accredited schools). This is especially troubling since the survey had a low return rate.

There is no way to determine if the satisfaction levels reported would be different in the non-responding group (making up 82% of graduates surveyed). One could hypothesize that the non-respondents had lower levels of satisfaction, causing their non-responses. Follow-up surveys and telephone interviews might have revealed this. As it stands, this omission calls the data into question.

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While the results of this survey were positive regarding both graduates' satisfaction and employers' perceptions of the graduates' degrees, the limitations of the study outlined above severely limit its utility in determining the acceptability of degrees in the workplace based upon DETC accreditation—or any other form of recognition. The DETC conducted similar surveys twice before, with similar results. (National Home Study Council 1983 and Distance Education and Training Council 1994)

Hampton (2002) analyzed the effects of specialized and professional accreditation on the labor market outcomes of master's degree recipients. The author determined that such accreditation had a small (6 percent) effect on graduates' incomes. He also concluded that accreditation played a role in employers' screening processes, and that further study was necessary to determine if more prestigious schools and programs provide a higher quality education than unaccredited or less prestigious ones. But no attempt was made to measure the impact of other forms of recognized and unrecognized accreditation, or the impact of having a degree from a diploma mill.

Muirhead (2002) emphasized the importance of assessing the effectiveness of online colleges and universities, emphasizing criteria that would be considered person- or learner-centered. But these criteria again omitted any consideration regarding the degree or credential issued and its utility to the graduate, except to mention that the student should check to see if the school in question is regionally accredited. This excludes other schools with other, recognized (and often comparable) forms of approval, including schools accredited by the DETC and recognized foreign universities.

Calote (2002) conducted a study to examine various factors influencing the decision to select a diploma mill from which to take a credential. The author presented

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fictitious web pages depicting diploma mills to community college students and measured their reactions to each. Several factors were measured to determine their impact on the participants' impressions of the fictitious diploma mills' degree programs. There was no significant impact from the variables of time necessary to complete the degree, credit for experience, or tuition. But the author did find that there was a significant relationship between the participants' decisions and the assertion by the fictitious diploma mill that it was licensed. Among the author's recommendations was that students should receive instruction regarding the meaning of accreditation, the difference between accreditation and licensure, the definition and legal status of diploma mills, and the professional risks undertaken by those who acquire diploma mill degrees. The author did not measure the same impressions from employers, nor did she include such a recommendation. But if one accepts that employers are also consumers of higher education (and the credentials thus issued), then such a study would also be necessary.

Conclusion

Several methods for evaluating the acceptability of college degrees in the workplace were examined, and examples of efforts to do so were reviewed. One method, posing the question to employers, was selected for further analysis. A review of the literature bearing on the research topic was thus presented. It was concluded that this question has not yet been answered adequately, necessitation further research with employers about this topic. The next chapter will describe the specific questions researched, along with the methods employed to do so.

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Chapter 3
Methodology

Introduction

Having determined that further research was necessary to determine the acceptability in the workplace of degrees from a variety of institutions, a methodology was developed to further explore this issue. This chapter presents the research questions to be explored. It also describes the framework for the methodology process, the rationale for the methods selected, and the methods this researcher employed.

Methodology

To explore the research topic, a quantitative approach to the study was used. This researcher used a model for effective questionnaires to develop and present the methodologies used in this study. The areas to be addressed are listed and described below. (Zimmerman 1996)

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Establish the Survey's Purpose

There are many constituencies in the credentialing function of higher education. Students need to know their degrees will be considered *bona fide*, especially by employers. Employers, who make hiring, promotion, and tuition reimbursement decisions about employees' degrees, need to know which are from legitimate, recognized schools. And the public—like employers--needs to be assured that claimed credentials are real, come from recognized degree-granting schools, and represent the skills and knowledge normally gained from the course of study that leads to a degree. This study focuses on employers, and strives to determine which kinds of schools—and forms of recognition of schools—they find acceptable. This is encapsulated in the project's Research Questions:

1. Among human resource professionals, are there differences in their acceptance of college degrees based upon the degree-granting institution's source of accreditation or other forms of recognition?

2. Among human resource professionals who are given a list of schools recognized by a variety of agencies, are there differences in acceptability of degrees issued by these schools?

3. When provided descriptions of recognizing agencies of degree granting institutions, are there differences in their acceptance of college degrees based upon the degree-granting institution's source of accreditation or other forms of recognition?

4. Among human resource professionals, are the differences in acceptability reported for degrees issued by a list of institutions when compared to the reported acceptability of agencies recognizing those institutions?

5. When provided descriptions of recognizing agencies of degree granting institutions, are there differences in their acceptance of college degrees

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based upon the degree-granting institution's source of accreditation or other forms of recognition when compared to responses provided prior to being given descriptions?

The study attempted to learn whether or not some forms of recognition are more acceptable to employers than others. This would indicate whether or not some forms of recognition make college degrees more acceptable for employment purposes than others. It also attempted to uncover whether or not there was a difference in this subject when names of schools were provided instead of names of recognizing agencies. Finally, respondents were provided descriptions of each agency, and were again asked to rate their acceptability. (The respondents were not permitted to go back and change their original answers, which facilitated the before-and-after comparison.) The results of this section were used to determine whether or not differences in acceptability between these agencies still existed, and whether or not their acceptability changed when compared to the answers provided prior to the their descriptions.

The over-arching purpose was to explore which degrees would be acceptable to employers (based on accreditation status), and how that would change if information about each agency was provided to employers. In this case, employers were represented by human resource professionals, typically charged with making decisions and/or providing information regarding hiring, promotion, and tuition reimbursement decisions.

How the Results Will Be Used and Communicated

The study's results will be used in two manners immediately, and another (possible) three in the future. First, the results will be used to answer the research

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questions posed in this project. This was the study's primary purpose, and its design was developed accordingly. Second, the author promised--as an incentive for questionnaire completion--an electronic copy of the study's results to each respondent who requested one. Still, there may be other future uses of the study's findings.

There may be commercial applications for the research findings. There may also be applications in the human resources field, identifying lapses in applying sufficient screening standards regarding accepting or rejecting college degrees from job applicants, aspirants for promotion, and/or applicants for tuition reimbursement. Assessment tools and training products might be developed to help employers identify and remedy these deficiencies.

This researcher might also author or co-author articles for the academic or commercial press regarding the study's findings. This would serve to widen the reach of the study's findings and, thus, help to address the problems identified.

Finally, this researcher might present the study's findings--and other matters related to the topic--to professional organizations. Again, this would serve to widen the impact of the study's results, as well as serve as a spur for action.

What Information is Needed to Accomplish the Purpose

Two main customers of the credentialing process of degree-granting institutions are suggested: students and their current or prospective employers. Also three basic reasons are offered for presenting college degrees to employers (and potential employers): hiring new employees, promoting existing employees, and receiving tuition

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reimbursement. Given the wide array of degree-granting institutions--and the wide range of their legitimacy and recognition--it is vital to determine what is and is not acceptable to these employers. Students need to know whether or not the degrees they pursue--or contemplate pursuing--will meet their future goals. Employers need to know whether or not the degree applicants and current employees present are legitimate and acceptable.

In pursuing this question, it was decided to determine which sources of recognizing degree-granting institutions were acceptable to employers. It was also decided to offer a list of representative schools to compare their results with the list of agencies. Finally, descriptions of each agency were provided, then the respondents were asked again to rate their acceptability. This allowed comparisons of differences between the agencies, between the schools, between the agencies after the descriptions were provided, between the agencies and their representative schools, and, finally, between the agencies before and after descriptions were provided.

The desired result of this study was an insight into what was and was not acceptable to employers based upon the degree-granting institution's form of recognition. Also, this researcher sought to measure the impact (change) of providing information about the agencies, setting the stage for future research and action.

Resource Requirements

Computer Equipment and Software. A computer equipped with an operating system, various software programs, and a high-speed connection to the internet were used.

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Statistical Software: A statistical analysis software package, GB-Stat, was selected to compute and present data analyses based upon the questionnaire data. (www.gbstat.com) The software was selected due to its ease of use, wide array of statistical tests and procedures, the program's ability to import data compiled by other programs, its report-writing functions, its ability to produce graphical presentations of the data, and its ability to export the reports and graphics to other computer programs.

Business Applications Software: The Microsoft Office suite was used to prepare various aspects of the study. The spreadsheet program, Microsoft Excel, was used to compile and move data program to program. Microsoft Word was used to prepare this Project Demonstrating Excellence, as well as drafting the survey instrument and e-mail invitations. Microsoft Internet Explorer was used to connect to the internet and explore resources available from it. Microsoft PowerPoint was used to develop presentations of the data collected, and Microsoft Outlook was used for e-mail communications, managing the contact list, and maintaining the project calendar.

The Target Audience

Human resource professionals from many different industries were selected as the target audience for the study. Employers, through hiring, promoting, and reimbursing tuition expenses, are consumers of higher education. Human resource professionals are normally charged with managing those processes, and are likely to be aware of their respective companies' policies and practices in those areas. It is assumed that their

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responses will provide insights into employer's practices as they relate to this project's research questions.

Survey Method Selection

Several survey method options were considered, including conducting interviews, sending mail-in questionnaires, distributing the questionnaires via e-mail, and using a web-hosted site on the internet. Three factors are considered when deciding which of these methods to use: administrative or resource factors, questionnaire issues, and data quality issues. (Czaja and Blair 1996) The advantages and disadvantages of each method are described below:

> *Interviews*. One-on-one interpersonal contact between the participant and the data collector. Interviews can be conducted in person or telephonically. Advantages include a shorter data collection period, longer and more complex questionnaire design, control of the data collection process while is it ongoing, longer exploration of sensitive topics, opportunities for immediate and delayed follow-up, and a better response rate than with other methods. Disadvantages include smaller sample sizes (and geographic areas), higher costs, and interviewer bias.
>
> *Mail-in Surveys*. Written questionnaires are mailed to a selected sample of potential participants. Advantages include a wider range (coverage), lower costs, and standardized collection processes with less bias. Disadvantages include requiring a more simple questionnaire design, less opportunity for follow-up or exploring areas discovered during the questionnaire process, lower participation rates, and a longer data collection period.
>
> *Web-based Surveys*. Instead of a written questionnaire mailed to potential participants, the questionnaire is posted on a website where participants may view and complete it. Potential participants may be notified of the questionnaire's existence and location through a variety of methods, including face-to-face, telephonically, by mail, or (predominantly) via e-

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> mail. Advantages include more rapid contact and responses, automated data collection, shorter data collection period, wider geographic coverage, and lower costs. Also, questionnaire can be designed to prevent participants from going back and changing answers, particularly useful in experiments where participants are asked a series of questions then provided information and asked again to measure the differences in their responses. Disadvantages include complex technical requirements, survey range limited to those with computers and internet access (and knowledge), potential for others not in the sample to find and complete the questionnaire, and very low response rates. (Potential participants receive an e-mailed invitation to go to the website hosting the questionnaire. But the e-mailed invitation is sent along with other, high levels of e-mail traffic, often comprised largely of "junk mail" or "spam," and is easily ignored.)

E-Mail Addresses. In selecting a web-based approach, sufficient numbers of e-mail addresses of human resource professionals had to be obtained in order to obtain a sufficient body of responses in order to address the study's research questions. This was a difficult process. Human resource professionals, as a group, are targeted heavily by marketing efforts. As a result, contact lists are treated as proprietary information and must normally be purchased. In addition, e-mail addresses only were needed--mailing addresses would not suffice. This limited the available sources. Three sources were used for this project. First, an agency was contracted to have the e-mail invitation to participate in the study forwarded to 5,000 human resource professionals. Second, 1,800 e-mail addresses were culled from the websites of local chapters of the Society for Human Resource Management and sent the e-mail invitation to them. Finally, a contact list of 4,800 human resource professionals was purchased and the invitations to participate were forwarded to their e-mail addresses. Each invitation to participate included the purposes of the study, information about confidentiality and the voluntary

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nature of the questionnaire, and a hyperlink the participant may use to go directly to the questionnaire site.

Design of the Survey Questions

Several sources were sought for information about questionnaire development (listed in the bibliography), and read doctoral dissertations with similar topics and research designs. (Funk 1981 and McClenic 1975) This researcher also used his previous experiences in questionnaire development during a previous research project conducted as part of his doctoral program. Finally, a previous study conducted with college admissions officers was used to develop content for the questionnaire supporting this project.

Blocks I through III of the questionnaire gathered data related to the study's research questions. Block I asked how acceptable are the various types of recognition of universities and their degrees. Block II asked about specific schools, one for each example in Block I. Block III provided descriptions of each agency, then asked the questions from Block I again.

Respondents were not given an opportunity to "opt out" of a question with responses like "not applicable" or "do not know." The reason for this is that they are not able to "opt out" when faced with determining whether or not to recognize an applicant or employee's degree. Even choosing not to decide is making a decision. Nor were they permitted to go back and change their responses after receiving further information from the survey instrument.

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Block IV of the survey instrument consisted of demographic questions, including: Company, Location (State), Industry, Size (Employees), and Contact Information (for follow up). Also, the questionnaire asked the respondents if their respective companies have a tuition reimbursement policy. Finally, the participants were given several opportunities to write in comments. Many of these appear in the analysis of the data in Chapter 5 of this report.

Analysis and Report Format

Several sources were consulted to determine the organization and format for this report. Because the university does not mandate a particular style manual or method, this researcher settled on those that would best support the development of this report. "A Manual for Writers of Term Papers, Theses, and Dissertations" by Kate L. Turabian was selected to ensure consistency and clarity in formatting, structure, and citations. (Turabian 1996) "Successful Dissertations and Theses" was consulted to develop an effective schema for the report. (Madsen 1983)

Descriptive statistics were employed for demographic data and data answering the research questions.

Inferential statistics were employed to analyze data answering the research questions. First, a one-level, one-factor Analysis of Variance (ANOVA) was performed on the means of Blocks I, II, and III, which showed if there were statistically significant differences between those means. This set the stage to do post-hoc tests on the data,

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essentially comparing every mean with every other mean to see where the differences lie. (Wetherill 1981)

Because of the number of comparisons necessary, and because this researcher did not set out to make only certain, planned comparisons, selection of the proper post-hoc test was crucial. (Roberts and Russo, 1999)

For example, if a researcher compares each mean to the other, and sets the P value (the probability that the difference observed is due to sampling error, rather than a difference in the populations) at .05, making several comparisons creates the probability of a "family error." That is, with each comparison the chances of the difference observed in the sample means being due to chance (instead of indicative of a true difference in the population means) is 5%. If a researcher makes, 10 comparisons, he or she runs into a distinct probability that at least one will be due to sampling error. (In this case, 5% times 10 equals 50%, or half). Even using the Bonferroni adjustment isn't sufficient when the number of comparisons grows this high. (Roberts and Russo, 1999)

The Newman-Keuls and Tukey T tests are commonly used after an ANOVA. However, the Tukey T is the more stringent of the two, and was selected in this case. (Roberts and Russo, 1999)

The Tukey T test protects against a family error, and is indicated when the researcher is faced with making many unplanned post-hoc comparisons. The test takes the ANOVA data and sets a critical value. Then each mean is compared to the other, and a q value is calculated for each difference. Where the q value between two means exceeds the critical value, the observed difference is considered statistically significant.

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(Roberts and Russo, 1999) Whether the observed difference is practically significant is another matter, open to interpretation.

Matched Pairs test to compare each question before-and-after were performed. (Johnson and Bhattacharyya, 2001) Student T scores were computed for each matched pair. This identified changes in how differently the respondents rated the categories after being exposed to descriptions of each. (Healy, 1999)

Sample Size and Selection Method

This researcher's objective was to obtain a sample size large enough to draw statistical inferences from the data gathered in the process. While inferential statistics can be compiled from small data sets, with larger sample sizes, inferences from smaller observed (sample) differences in the data can be drawn. (Rowntree 1981)

As described above, there was experienced difficulty directly accessing the population to select a sample. This researcher worked to access directly as many human resource professionals as possible. However, a "broadcast" approach where information about the survey instrument would be placed in internet discussion groups focused on human resources in order to generate more traffic on the questionnaire site was also considered. But this approach has two significant limitations. First, the decision to be included in the sample is taken from this researcher and given to the participant. This violates the presumption of randomness. Second, and more significant, people outside the studied population may see the announcement and choose to participate in the study.

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It then becomes difficult to screen out their data, or even to calculate how much the study's findings are influenced by their erroneous participation.

Data Entry

As noted above, this researcher was able to download the questionnaire information from the survey instrument website and enter it into a statistics program for analysis and presentation. Values were assigned to each of the Likert-type scale questions (ranging from zero to five), upon which statistical analyses could be performed. It was not necessary to enter questionnaire data manually. (www.surveyz.com and www.gbstat.com 2002)

Because the study employed a two-level experiment, only completed questionnaires were included in the analysis. There were 1,037 participants who began the survey, with 267 completing it. A questionnaire was considered complete if the participant answered all of the questions related to schools and approving agencies. The questions related to contact and company information were optional. They were used to describe the sample, but did not directly support the study's research questions. The possible reasons for non-completions are addressed in Chapter 5 of this report.

This researcher decided to cut off data collection when the sample size was 267. At that size, differences in the data would be more likely to reflect real differences in the population than would be the case at smaller sample sizes. In addition, larger sample sizes would have diminishing effects on the data's accuracy. (Johnson and Bhattacharyya, 2001) Finally, only seven completed questionnaires were received over

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the final week of data collection, with only eight received the week before. Diminished returns, combined with minimal effect on the predictability of the data, justified closing the data collection process.

Informed Consent

The researcher identified potential participants in the study and sent them invitations to participate via e-mail. The e-mail, a copy of which is in the Appendices, provided a link the participant would use to go to the website where the questionnaire was located. In order for them to participate, they had to go to the website voluntarily. When they were at the website, participants had the option to disengage from the questionnaire process at anytime. At no time were participants required to provide personal information or information about their respective companies. Also, they were able to complete the survey without providing such information, and that they were under no obligation to take or complete the questionnaire. A statement was provided to inform them that at no time would their personal information be released to any other party, and that the data provided would be aggregated and used for compilation purposes only:

> By clicking the link you agree to participate in the study. The study is part of the author's doctoral dissertation. Information provided will be used for that purpose only. No individual information and/or responses will be reported, except comments provided by the participants, which will not be attributed to them. Any contact or other information provided to the author will not be transferred to any other party. Period. Participants are encouraged to contact the author for further information or clarification

At no time during the process was any participant at risk.

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Conclusion

The research questions were explored using a web-based questionnaire conducted with human resource management professionals. The data acquired was analyzed using descriptive and inferential statistical methods, including Analysis of Variance, paired comparisons of means, and post-hoc tests. The results were compiled and evaluated, and are presented in the next chapter.

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Chapter 4
Presentation and Analysis of Data

Introduction

Research questions bearing on this study's topic are presented, along with results gathered from the questionnaire process described in Chapter 3. Detailed information about the questionnaire contents is provided. Results from the descriptive and inferential statistical methods employed are presented in both textual and graphical form, and significant differences in the data are presented.

Research Question 1

Among human resource professionals, are there differences in their acceptance of college degrees based upon the degree-granting institution's source of accreditation or other forms of recognition?

To measure this, 11 different forms of recognizing degree-granting institutions were listed:

North Central Association
Distance Education and Training Council
Foreign Universities
State-Approved

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State-Licensed
Accrediting Council for Independent Colleges and Schools
European Council for Business Education
World Association of Universities and Colleges
National Association of Private Nontraditional Schools and Colleges
Accrediting Commission International
Diploma Mills

Participants were not provided descriptions or any indication of the acceptability of these forms of recognition. The desire was to simulate conditions under which they make decisions about the acceptability of degrees. Participants were encouraged to use any references they normally used to make these decisions, including guidebooks, reference materials, and company policies. Participants were first asked to rate them (without descriptions) on a Likert-type scale as follows:

Very Acceptable
Somewhat Acceptable
Acceptable
Sometimes Acceptable
Not Very Acceptable
Not At All Acceptable

Numerical values were assigned to each, ranging from 5, Very Acceptable, to 0 (zero), Not At All Acceptable, to facilitate data comparison and examination of the research questions.

For brevity, each form of recognition is abbreviated as indicated in Table 4-1.

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Table 4-1. Abbreviations for Types of Recognition

Type of Recognition	1st Block of Questions	2nd Block of Questions
North Central Association	NCA	NCA2
Distance Education and Training Council	DETC	DETC2
Foreign Universities	FOR	FOR2
State-Approved	SA	SA2
State-Licensed	SL	SL2
Accrediting Council for Independent Colleges and Schools	AC	AC2
European Council for Business Education	ECBE	ECBE2
World Association of Universities and Colleges	WAUC	WAUC2
National Association of Private Nontraditional Schools and Colleges	NA	NA2
Accrediting Commission International	ACI	ACI2
Diploma Mills	DPM	DPM2

Because this researcher was attempting to determine from the sample whether or not differences in the population existed regarding this question, this researcher calculated means and variances for this question. Because more than two means were being compared, an Analysis of Variance (ANOVA) was performed to determine

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whether or not there were any statistically significant differences among the means. The means and variances for each type of recognition are listed in Table 4-2.

Table 4-2. Descriptive Statistics for Block I

Type of Recognition	Mean	Variance
NCA	3.72659	1.5979
DETC	2.68165	1.86444
FOR	2.80899	1.50097
SA	3.80899	1.57616
SL	3.71161	1.73983
AC	3.59925	1.54932
ECBE	2.55056	1.60928
WAUC	2.62172	1.75486
NA	2.72659	1.86858
ACI	2.35206	1.70266
DPM	1.07865	1.57650

n=267

A graphical comparison of the recognition types is made in Figure 4-1:

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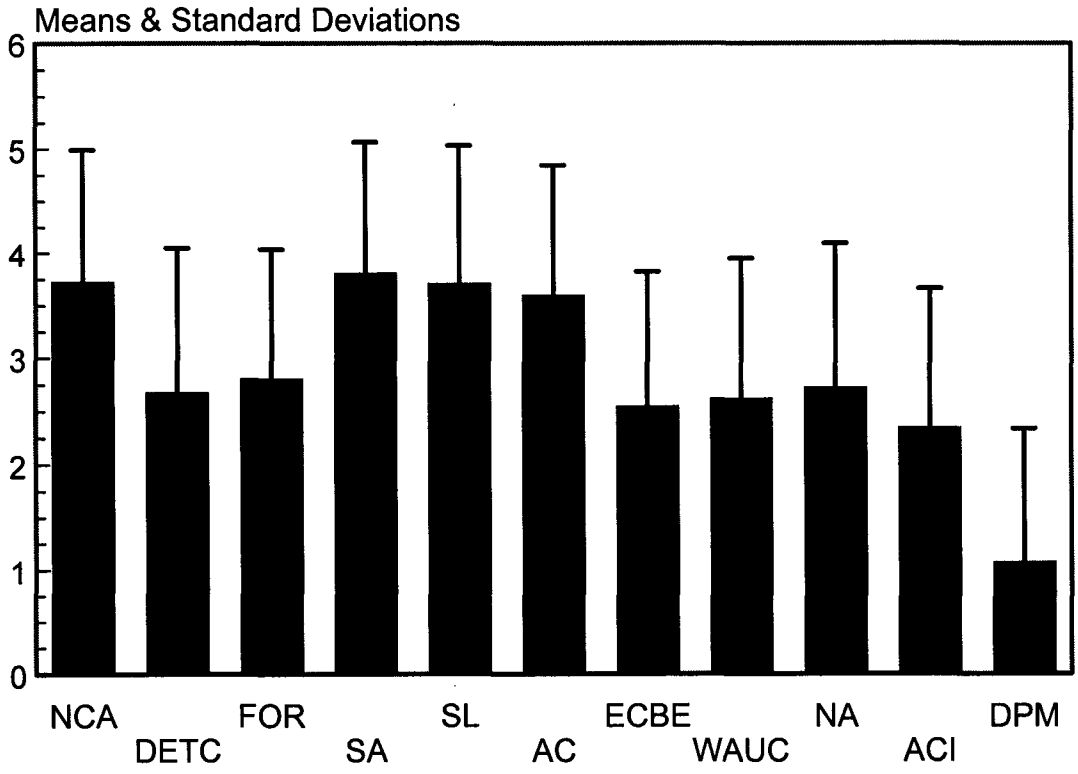
Figure 4-1. Comparison of Means for Types of Recognition



Using a single-factor between subjects ANOVA, the differences between the means were found to be significant: $F(2,11) = 104.9758$, $p<.0001$. The probability that the differences in the sample means were due to chance, rather than reflecting true differences in the population, were less than 1 in 10,000.

Because significant differences were found between the means, a Tukey-t test was performed to make pairwise comparisons and locate the significant differences. Those comparisons are summarized in Table 4-3.

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Table 4-3. Post-Hoc Comparisons of Block I

	NCA	DETC	FOR	SA	SL	AC	ECBE	WAUC	NA	ACI	DPM
NCA	----------	87.43*	67.42*	.54	.018	1.30	110.74*	97.74*	80.07*	151.28*	561.41*
DETC	87.43*	----------	1.30	101.76*	84.94*	67.42*	1.38	.29	.16	8.70	205.74*
FOR	67.42*	1.30	----------	80.07*	65.23*	50.00*	5.35	2.81	.54	16.72*	239.73*
SA	.54	101.76*	80.07*	----------	.76	3.52	126.80*	112.86*	93.81*	169.96*	596.89*
SL	.018	84.947*	65.23*	.76	----------	1.01	107.94*	95.11*	77.69*	147.98*	555.07*
AC	1.30	67.42*	50.00*	3.52	1.01	----------	88.06*	76.51*	60.98*	124.55*	508.71*
ECBE	110.74*	1.38	5.35	126.80*	107.94*	88.06*	----------	.41	2.48	3.15	173.47*
WAUC	97.74*	.29	2.81	112.86*	95.11*	76.51*	.41	----------	.88	5.82	190.65*
NA	80.07*	.16	.54	93.81*	77.69*	60.98*	2.48	.88	----------	11.23	217.44*
ACI	151.28*	8.70	16.72*	169.96*	147.98*	124.55*	3.15	5.82	11.23	----------	129.84*
DPM	561.41*	205.74*	239.73*	596.89*	555.07*	508.71*	173.47*	190.65*	217.44*	129.84*	----------

Differences were calculated to four significant digits, but rounded for display.

Differences marked with an asterisk (*) were statistically significant at the $p<.05$ or better. A graphical post-hoc comparison of recognition types is made in Figure 4-2:

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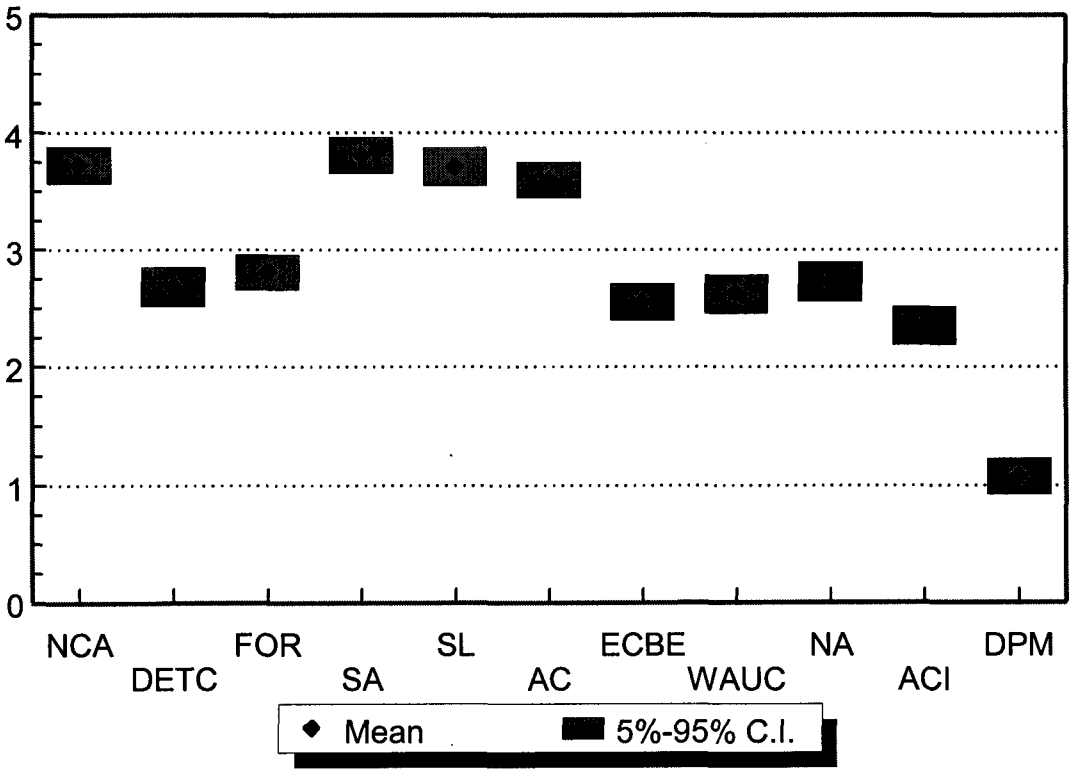
Figure 4-2. Post-Hoc Comparison of Means With Confidence Intervals



In answering Research Question 1, many statistically significant differences in means were observed. These will be explored in depth in Chapter 5 of this study.

Research Question 2

Among human resource professionals who are given a list of schools recognized by a variety of agencies, are there differences in acceptability of degrees issued by these schools?

For brevity, each school is abbreviated as indicated in Table 4-4.

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Table 4-4. School Abbreviations

School	Abbreviation	Recognized By
Columbia State University	COL	DPM
Western States University	WSU	ACI
Washington Institute for Graduate Studies	WIG	NA
Lacrosse University	LU	WAUC
Robert Kennedy University	RKU	ECBE
Education America	EDA	AC
Kennedy-Western University	KWU	SL
California Coast University	CCU	SA
Heriot-Watt University	HWU	FOR
Andrew Jackson University	AJU	DETC
Capella University	CAP	NCA
Southwest Texas State University	STS	Southern Association (used as a control for Research Question 2)

Descriptions of each school, which were not provided to participants, are below:

Columbia State University. A notorious degree mill, this operation offered a Ph.D. or other degree in 27 days for payment of a fee and nothing more. No academic processes, faculties, or requirements were evident. The operation was able to deposit more than $16 million in one year, and operated for nearly 10. Degrees issued by this operation were not earned, nor was it recognized by any competent educational authority. For this study, Columbia State University was compared with the Diploma Mill category described below.

Western States University. Another "school" with few or no academic requirements. Awards degrees at all levels in many fields, all with no residency. No discernable academic processes, requirements, or faculty. Accredited by Accrediting Commission International, an unrecognized accrediting agency described below.

Washington Institute for Graduate Studies. Part of the unaccredited Washington School of Law, WIGS offers several degrees in taxation, including a Ph.D. Accredited by the unrecognized National Association of Private, Nontraditional Schools and Colleges described below.

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Lacrosse University. Unaccredited, non-residential school offering degrees at all levels in many areas. Claims accreditation from the unrecognized World Association of Universities and Colleges described below.

Robert Kennedy University. Operates from Switzerland, apparently without authority from the Swiss government. Offers degrees at all levels in law-related subjects, including the Ph.D. and the Juris Doctor. (The Juris Doctor does not qualify the holder to practice law.) Claims accreditation from the unrecognized European Council for Business Education described below.

Education America. Awards bachelor's and master's degrees in business-related areas by non-residential study. Accredited by the Accrediting Council for Independent Colleges and Schools, a recognized agency described below.

Kennedy-Western University. Awards degrees at all levels in many areas by nonresidential study. The school is not permitted to enroll students from California. State-licensed in Wyoming, which does not approve unaccredited schools. State licensing is described below.

California Coast University. Awards degrees at all levels in several areas by nonresidential study. The school is unaccredited, but approved by the State of California. State Approval is described below.

Heriot-Watt University. Large, traditional, campus-based university in Scotland. Recognized as a university in Great Britain, its degrees are accepted as being comparable to those issued by accredited schools in the U.S. Its Edinburgh School of Business offers the Master of Business Administration by nonresidential study, and is the largest program of its kind in the world. Recognition of Foreign Schools is described below.

Andrew Jackson University. Accredited school offering bachelor's and master's degrees in several administration-related areas, entirely by nonresidential study. Accredited by the recognized Distance Education and Training Council, described below.

Capella University. Accredited school offering degrees at all levels in business, psychology, education, and computer-related areas by short-residency study. Accredited by the recognized North Central Association of Colleges and Schools described below.

Southwest Texas State University. Accredited, traditional state college, awarding degrees at all levels in many areas, primarily through residential

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study. Accredited by the Southern Association of Colleges and Schools, a recognized regional accreditor. Including in the questionnaire for comparative purposes as described in Chapter 5 of this study.

Because this researcher was attempting to determine from the sample whether or not differences in the population existed regarding this question, this researcher calculated means and variances for this question. Because more than two means were being compared, an Analysis of Variance (ANOVA) was performed to determine whether or not there were any statistically significant differences among the means. The means and variances for each type of recognition are listed in Table 4-5.

Table 4-5. Descriptive Statistics for Block II

School	Mean	Variance
COLST	3.13483	2.29754
WSU	2.81648	2.24815
WIGS	2.81273	2.25051
LU	2.92884	2.14905
RKU	2.54307	1.94833
EDAM	2.19476	2.14238
KWU	2.68539	1.93073
CCU	2.63296	2.13545
HWU	2.54307	1.82803
AJU	2.89139	2.08214
CAP	2.88015	1.94047
STSU	3.29588	1.78055

n=267

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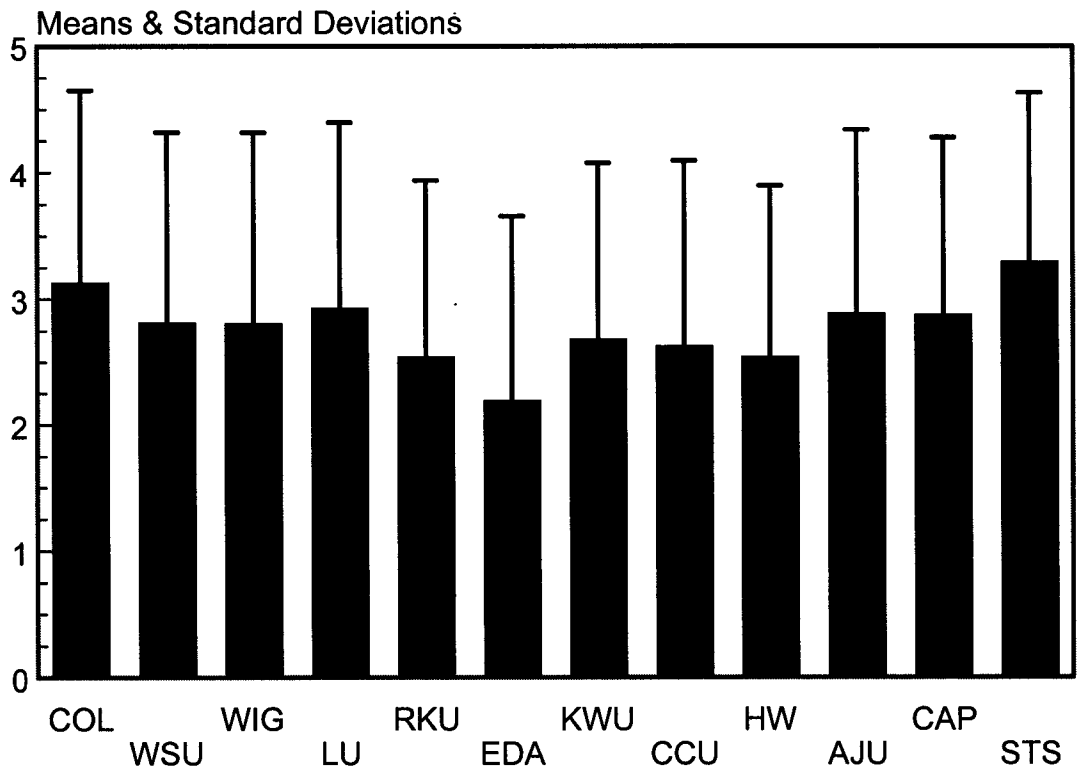
A graphical comparison of the schools is made in Figure 4-3:

Figure 4-3. Comparison of Means for Schools



Using a single-factor between subjects ANOVA, the differences between the means were found to be significant: $F(2,12) = 10.88601$, $p<.0001$. The probability that the differences in the sample means were due to chance, rather than reflecting true differences in the population, were less than 1 in 10,000.

Because significant differences were found between the means, a Tukey-t test was performed to make pairwise comparisons and locate the significant differences. Those comparisons are summarized in Table 4-6.

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Table 4-6. Post-Hoc Comparisons of Block II

	COLS	WSU	WIGS	LU	RKU	EDA	KWU	CCU	HWU	AJU	CAP	STS
COL	-------	6.56	6.72	2.75	22.68*	57.24*	13.08	16.31*	22.68*	3.84	4.20	1.68
WSU	6.56	-------	.00	.82	4.88	25.04*	1.11	2.18	4.82	.36	.26	14.89*
WIG	6.72	.00	-------	.87	4.71	24.74*	1.05	2.09	4.71	.40	.29	15.12*
LU	2.75	.82	.87	-------	9.64	34.90*	3.84	5.67	9.64	.09	.15	8.73
RKU	22.68*	4.88	4.71	9.64	-------	7.86	1.31	.52	.00	7.86	7.36	36.71*
EDA	57.24*	25.04*	24.74*	34.90*	7.86	-------	15.59*	12.44	7.86	31.43*	30.43*	78.53*
KWU	13.08	1.11	1.05	3.84	1.31	15.59*	-------	.17	1.31	2.75	2.46	24.14*
CCU	16.31*	2.18	2.09	5.67	.52	12.44	.17	-------	.52	4.33	3.96	28.46*
HWU	22.68*	4.82	4.71	9.64	.00	7.86	1.31	.52	-------	7.86	7.36	36.71*
AJU	3.84	.36	.40	.09	7.86	31.43*	2.75	4.33	7.86	-------	.01	10.60
CAP	4.20	.26	.29	.15	7.36	30.43*	2.46	3.96	7.36	.01	-------	11.19
STS	1.68	14.89*	15.12*	8.73	36.71*	78.53*	24.14*	28.46*	36.71*	10.60	11.19	-------

Differences were calculated to four significant digits, but rounded for display.

Differences marked with an asterisk (*) were statistically significant at the $p<.05$ or better. A graphical post-hoc comparison of the recognition types is made in Figure 4-4:

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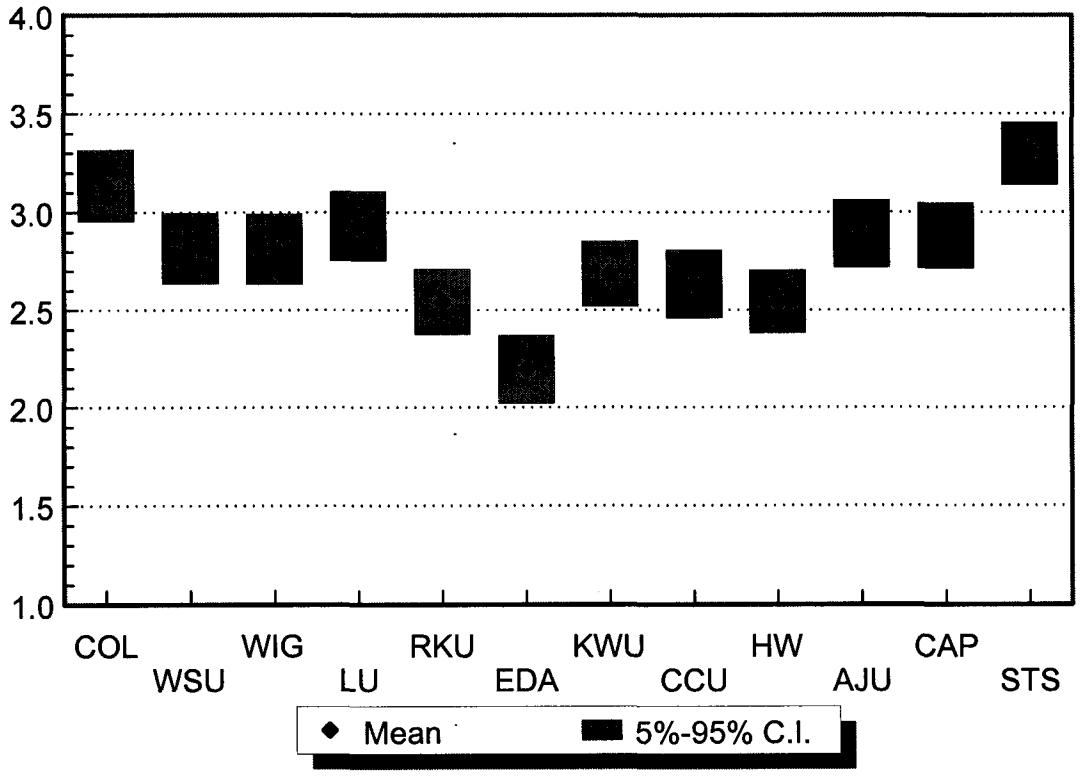
Figure 4-4. Post-Hoc Comparison of Means With Confidence Intervals



In answering Research Question 2 many statistically significant differences in means were observed. These will be explored in depth in Chapter 5 of this study.

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Research Question 3

When provided descriptions of recognizing agencies of degree granting institutions, are there differences in their acceptance of college degrees based upon the degree-granting institution's source of accreditation or other forms of recognition?

Participants were given descriptions of the 11 forms of recognition listed in Block I, then asked to rate them once again using Likert-type scales. The purpose was to measure any differences between the various forms of recognition after they were described to the participants.

The 11 forms of recognition are described below exactly as they were described in the questionnaire (descriptions were written by this researcher):

> *North Central Association of Colleges and Schools (Chicago, IL).* One of the six regional associations, accrediting colleges and universities from Arizona to Minnesota to Oklahoma. A recognized accreditor, credits and degrees from schools accredited by the North Central Association are normally accepted by other accredited schools. Also, schools accredited by the regional associations are generally recognized by other higher education systems around the world. When people speak about "accreditation," they're usually referring to regional accreditation.
>
> *Distance Education and Training Council (Washington, DC).* The DETC is a recognized accreditor, evaluating and approving distance learning schools around the U.S. (along with a handful of foreign schools). Some of the schools the DETC accredits offer technical training, but it also accredits a few dozen degree-granting schools offering--in some cases--degrees up through the master's. Because DETC is a recognized accrediting agency, degrees awarded by the schools it accredits are acceptable in many--but not all--situations. Admissions officials have indicated they accept credits and degrees from national agencies like DETC to a lesser degree than from schools accredited by the regional associations.

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Foreign Universities. In most countries outside the U.S., it is the education ministry--or similar governmental agency--that recognizes degree-granting schools. Schools listed in one of several guides--including the PIER Country Series, the Commonwealth Universities Yearbook, and Australia's NOOSR--are generally considered comparable to accredited colleges and universities in the U.S., which typically accept the degrees and credits from recognized foreign universities.

State-Approved. Unlike most foreign countries, the federal government does not license schools in the U.S. This is left to the states. In some states, unaccredited schools are not allowed to operate--or are severely restricted. In other states, unaccredited schools must be evaluated and approved by state education officials. Despite this evaluation--which is not normally as rigorous as accreditation, and varies widely from state-to-state--degrees and credits from unaccredited, state-approved schools are not normally accepted by accredited schools.

State-Licensed. Many states provide little or no regulatory oversight of unaccredited, degree-granting schools, doing little more than issuing licenses permitting schools to operate. As with state-approved schools, credits and degrees from unaccredited institutions located in states with merely a licensing procedure are not normally accepted by accredited colleges and universities.

Accrediting Council for Independent Colleges and Schools (Washington, DC). ACICS is an approved national accrediting agency, specializing in accrediting technical and trade schools. However, ACICS also accredits degree-granting schools. As with the DETC, however, admissions officials have indicated less willingness to accept credits and degrees from schools with national accreditation, even though they are recognized accrediting agencies.

European Council for Business Education. Completely fake accrediting agency, set up to 'accredit' a totally fake school operating from Switzerland (without any other form of authorization and/or recognition). Accreditation is not used in Europe, where each country's government approves degree-granting schools. This "accreditation: has virtually no acceptance by accredited colleges and universities in the U.S. and around the world.

World Association of Universities and Colleges (Las Vegas, NV). Operating from a secretarial and mail-forwarding service, the WAUC is not a recognized accrediting agency. Credits and degrees from WAUC-accredited schools are not normally accepted at accredited colleges and universities in the U.S. and around the world. Some of WAUC's

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accredited schools cannot be located; others seem to have no academic processes at all. WAUC frequently grants its accreditation to schools without even visiting them.

National Association of Private, Nontraditional Schools and Colleges (Grand Junction, CO). Established in the 1970's, the NAPNSC has been a sincere effort to establish an accrediting agency to recognize distance learning schools. However, it has been rejected on numerous occasions by the U.S. Department of Education in its bid to become a recognized accrediting agency. Unlike other unrecognized agencies, the NAPNSC recognizes only legitimate (albeit unaccredited) schools. Credits and degrees from its member schools are not typically accepted by accredited schools.

Accrediting Commission International (Beebe, AR). Unrecognized agency, accrediting schools sight-unseen for payment of a fee. When a previous (and similarly named) accreditor was shut down by the authorities, ACI immediately opened across state lines and promptly accredited the previous agency's member schools. As with most other unrecognized accreditors, ACI doesn't actually evaluate its schools, and many of its schools have few or no academic processes. Credits and degrees from ACI-recognized schools are not typically accepted by accredited colleges and universities.

Diploma Mills. Typically, diploma mills offer degrees (and sometimes even transcripts) for little or nothing more than paying a fee. Often, they have no faculties, staffs, or even physical locations. They often claim accreditation, but always from unrecognized agencies, often set up by the diploma mills themselves. As with unrecognized schools, credits and degrees from diploma mills are not accepted by accredited and recognized colleges and universities around the globe.

Because this researcher was attempting to determine from the sample whether or not differences in the population existed regarding this question, this researcher calculated means and variances for this question. Because more than two means were being compared, an Analysis of Variance (ANOVA) was performed to determine whether or not there were any statistically significant differences among the means. The means and variances for each type of recognition are listed in Table 4-7.

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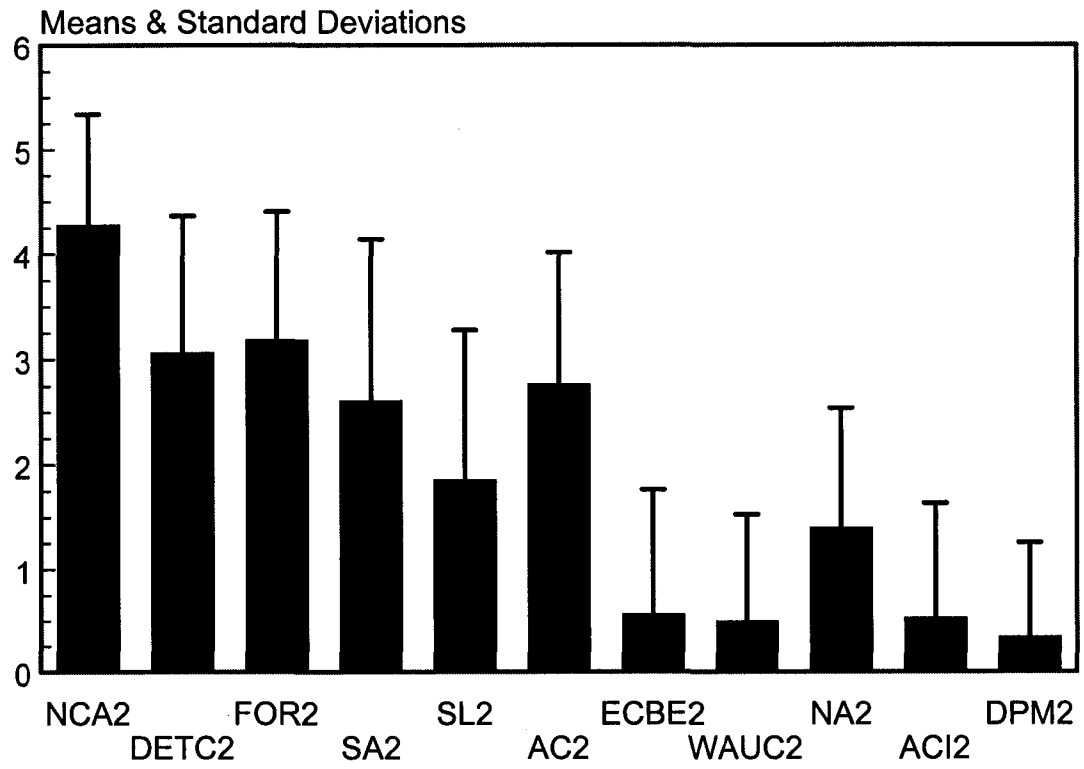
Table 4-7. Descriptive Statistics for Block III

Type of Recognition	Mean	Variance
NCA2	4.28464	1.11416
DETC2	3.07116	1.67537
FOR2	3.18727	1.47608
SA2	2.61423	2.33559
SL2	1.85768	2.00974
AC2	2.77154	1.54535
ECBE2	.57678	1.41044
WAUC2	.50562	1.04038
NA2	1.40075	1.29368
ACI2	.53933	1.19676
DPM2	.34457	.82819

n=267

A graphical comparison of the recognition types after descriptions were provided is made in Figure 4-5:

Figure 4-5. Comparison of Means for Types of Recognition After Descriptions Provided



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Using a single-factor between subjects ANOVA, the differences between the means were found to be significant: $F(2,11) = 335.56984$, $p<.0001$. The probability that the differences in the sample means were due to chance, rather than reflecting true differences in the population, were less than 1 in 10,000.

Because significant differences were found between the means, a Tukey-t test was performed to make pairwise comparisons and locate the significant differences. Those comparisons are summarized in Table 4-8.

Table 4-8. Post-Hoc Comparisons of Block III

	NCA2	DETC2	FOR2	SA2	SL2	AC2	ECBE2	WAUC2	NA2	ACI2	DPM2
NCA2	----------	135.78*	111.04*	257.29*	543.13*	211.11*	1267.72*	1316.84*	766.89*	1293.46*	1431.47*
DETC2	135.78*	----------	1.24	19.25*	135.78*	8.28	573.72*	606.92*	257.29*	591.08*	685.51*
FOR2	111.04*	1.24	----------	30.28*	163.01*	15.94*	628.37*	663.10*	294.30*	646.53*	745.14*
SA2	257.29*	19.25*	30.28*	----------	52.79*	2.28	382.78*	409.99*	135.78*	396.98*	475.00*
SL2	543.13*	135.78*	163.01*	52.79*	----------	77.01*	151.29*	168.57*	19.25*	160.26*	211.11*
AC2	211.11*	8.28	15.94*	2.28	77.01*	----------	444.17*	473.44*	173.27*	459.46*	543.13*
ECBE2	1267.72*	573.72*	628.37*	382.78*	151.29*	444.17*	----------	.47	62.60*	.13	4.97
WAUC2	1316.84*	606.92*	663.10*	409.99*	168.57*	473.44*	.47	----------	73.88*	.10	2.39
NA2	766.89*	257.29*	294.30*	135.78*	19.25*	173.27*	62.60*	73.88*	----------	68.42*	102.86*
ACI2	1293.46*	591.08*	646.53*	396.98*	160.26*	459.46*	.13	.10	68.42*	----------	3.50
DPM2	1431.47*	685.51*	745.14*	475.00*	211.11*	543.13*	4.97	2.39	102.86*	3.50	----------

Differences were calculated to four significant digits, but rounded for display.

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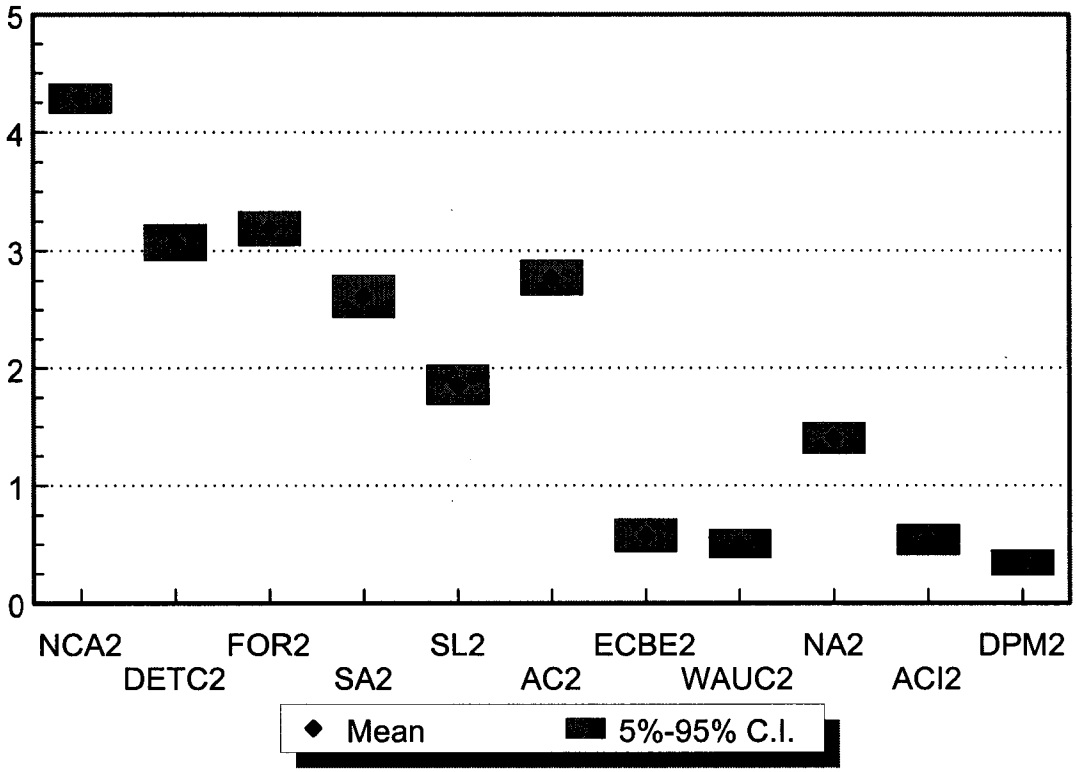
Differences marked with an asterisk (*) were statistically significant at the $p<.05$ or better. A graphical post-hoc comparison of the recognition types is made in Figure 4-6:

Figure 4-6. Post-Hoc Comparison of Means With Confidence Intervals



In answering Research Question 3 many statistically significant differences in means were observed. These will be explored in depth in Chapter 5 of this study.

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Research Question 4

Among human resource professionals, are there differences in acceptability reported for degrees issued by a list of institutions when compared to the reported acceptability of agencies recognizing those institutions?

Because this question required pairwise mean comparisons, the Student-t test was chosen. Because differences in either direction were to be explored, two-tailed tests were chosen. The magnitude and direction of the difference is indicated in the Mean Difference column. All differences between means of schools and their categories of recognition were compared to determine significance at $p<.05$. The means and variances from each were compared. In all comparisons, n=267. The means and variances for each can be found in Tables 4-2 and 4-5, respectively.

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Table 4-9. Mean Differences Between Recognition Categories and Schools

Recognition Type	School	Mean Difference	Significant at p=.05?
North Central Association	Capella University	-.846442	Y
Distance Education and Training Council	Andrew Jackson University	.209738	N
Foreign Universities	Heriot-Watt University	-.265918	Y
State-Approved	California Coast University	-1.17603	Y
State-Licensed	Kennedy-Western University	-1.026217	Y
Accrediting Council for Independent Colleges and Schools	Education America	-1.404494	Y
European Council for Business Education	Robert Kennedy University	-.007491	N
World Association of Universities and Colleges	Lacrosse University	.307116	Y
National Association of Private Nontraditional Schools and Colleges	Washington Institute for Graduate Studies	.086142	N
Accrediting Commission International	Western States University	.464419	Y
Diploma Mills	Columbia State University	2.05618	Y

n=267

A graphical comparison of each recognition type along with its representative school is made graphically in figure 4-7:

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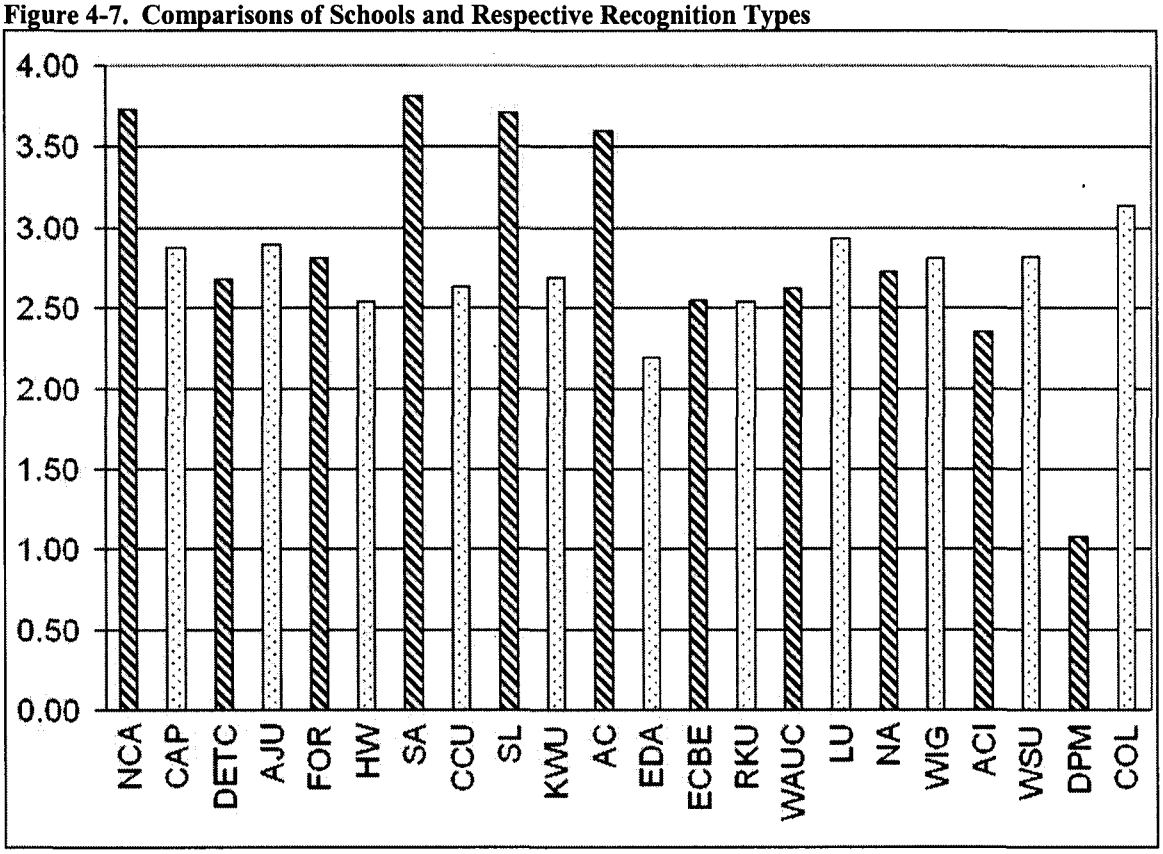
Figure 4-7. Comparisons of Schools and Respective Recognition Types



In answering Research Question 4 many statistically significant differences in means were observed. These will be explored in depth in Chapter 5 of this study.

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Research Question 5

When provided descriptions of recognizing agencies of degree granting institutions, are there differences in their acceptance of college degrees based upon the degree-granting institution's source of accreditation or other forms of recognition when compared to responses provided prior to being given descriptions?

Because this question required pairwise mean comparisons, the Student-t test was chosen. Because differences in either direction were to be explored, two-tailed tests were chosen. The magnitude and direction of the difference is indicated in the Mean Difference column. Differences between the mean of each category before and after a description of the category was provided were compared to determine significance at $p<.05$. The means and variances from each were compared. In all comparisons, n=267. The means and variances for each can be found in Tables 4-3 and 4-7, respectively.

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Table 4-10. Mean Differences Between Recognition Types Before and After Descriptions Were Provided

Recognition Type	Mean Difference (Between Before and After Description)	Significant at p=.05?
North Central Association	.558052	Y
Distance Education and Training Council	.389513	Y
Foreign Universities	.378277	Y
State-Approved	-1.194757	Y
State-Licensed	-1.853933	Y
Accrediting Council for Independent Colleges and Schools	-.827715	Y
European Council for Business Education	-1.973783	Y
World Association of Universities and Colleges	-2.116105	Y
National Association of Private Nontraditional Schools and Colleges	-1.325843	Y
Accrediting Commission International	-1.812734	Y
Diploma Mills	-.734082	Y

n=267

A graphical comparison of each recognition type along with its representative school is made graphically in figure 4-8:

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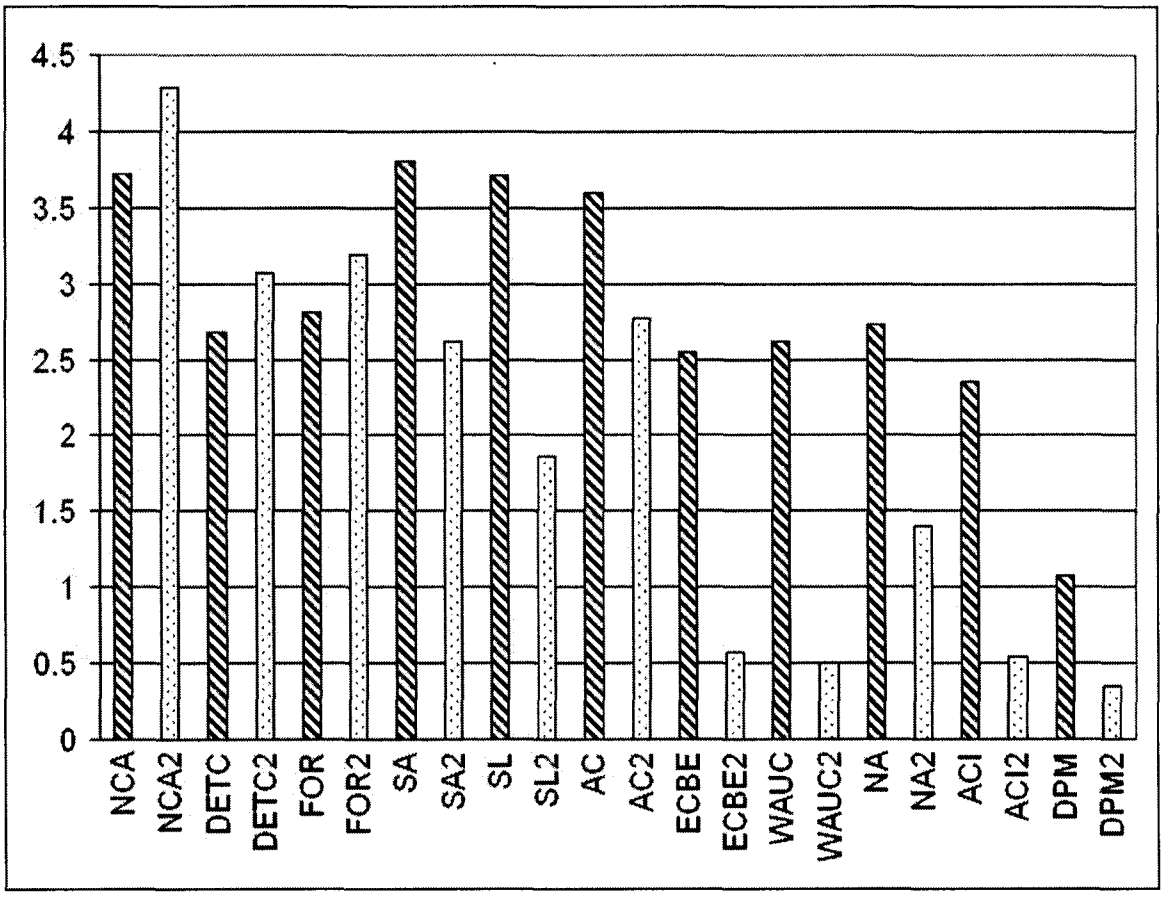
Figure 4-8. Comparisons of Recognition Types Before and After Descriptions Provided



In answering Research Question 5 statistically significant differences in means were observed in every recognition type. These will be explored in depth in Chapter 5 of this study.

Descriptive Statistics

Correlation on sample distribution and U.S. Population. In order to test the geographic distribution of the participants in the study, the sample's distribution was compared, state-by-state, with the states' ranking by population. A correlation coefficient

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was computed to measure this comparison. Possible scores from such a calculation range from –1 (where the two data sets are negatively correlated) to 1 (where they are positively, or perfectly, correlated). The sample's geographic distribution by state and each state's population rank according to the 2000 Census are listed in Table 4-11.

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Table 4-11. Correlation Between State Populations and Sample Distribution

State	Population Rank 2000 Census	Sample Size	State	Population Rank 2000 Census	Sample Size
AL - Alabama	23	2	MT - Montana	44	4
AK - Alaska	48	0	NE - Nebraska	38	2
AR - Arkansas	20	2	NV - Nevada	35	0
AZ - Arizona	33	6	NH - New Hampshire	41	0
CA - California	1	30	NJ - New Jersey	9	5
CO - Colorado	24	10	NM - New Mexico	36	2
CT - Connecticut	29	0	NY - New York	3	5
DE - Delaware	45	1	NC - North Carolina	11	6
DC - District of Columbia	50	1	ND - North Dakota	47	3
FL - Florida	4	8	OH - Ohio	7	17
GA - Georgia	10	4	OK - Oklahoma	27	5
HI - Hawaii	42	0	OR - Oregon	28	4
ID – Idaho	39	15	PA - Pennsylvania	6	7
IL - Illinois	5	8	RI - Rhode Island	43	1
IN - Indiana	14	4	SC - South Carolina	26	1
IA - Iowa	30	1	SD - South Dakota	46	1
KS - Kansas	32	5	TN - Tennessee	16	3
KY - Kentucky	25	5	TX - Texas	2	9
LA - Louisiana	22	8	UT - Utah	34	2
ME - Maine	40	0	VT - Vermont	49	0
MD - Maryland	19	5	VA - Virginia	12	4
MA - Massachusetts	13	7	WA - Washington	15	10
MI - Michigan	8	10	WV - West Virginia	37	3
MN - Minnesota	21	9	WI - Wisconsin	18	9
MS - Mississippi	31	1	WY - Wyoming	51	0
MO - Missouri	17	4			

n=247

The resulting correlation between state populations and the number of the sample from each state was .59. This correlation is considered significant at $p<.001$, suggesting that the sample's geographic dispersion is similar to that of the country's population.

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The questionnaire also solicited information about the participants' companies, including industry, size, and whether or not the company offered a tuition reimbursement plan. That data is summarized in Tables 4-12, 4-13, and 4-14, respectively.

Table 4-12. Number of Participants by Industry

Industry	Number of Participants
Government	16
Health Care	16
Technology	45
Manufacturing	57
Services	47
Education	10
Retail/Wholesale	5
Other	51

n=247

Table 4-13. Number of Participants by Company Size

Company Size	Number of Participants
1 – 100	53
101 – 500	94
501 – 1,000	38
1,001 – 5,000	40
5,001 – 10,000	6
10,001 – 25,000	6
25,001 or Larger	5

n=242

Table 4-14. Number of Participants Whose Companies Offer Tuition Reimbursement

Does your company offer a tuition reimbursement plan?	
Yes	186
No	61

n=247

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Conclusion

Data from the questionnaire process was presented, along with significant difference found. These data will be used in Chapter 5 to discuss the implications of this study's findings.

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Chapter 5
Discussion, Conclusions, Limitations, and Recommendations

Introduction

Chapter 4 showed that there were many significant findings in the data from this study. This chapter examines those findings, analyzes their possible causes, and draws conclusions about them. Finally, this chapter describes the study's limitations and provides recommendations for future research.

Discussion

Research Question 1

Among human resource professionals, are there differences in their acceptance of college degrees based upon the degree-granting institution's source of accreditation or other forms of recognition?

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Table 5-1. Ranking of Forms of Recognition of Degree-granting Institutions

Rank	Form of Recognition	Mean	Significant from Below?
1	State-Approved	3.80899	N
2	North Central Association	3.72659	N
3	State-Licensed	3.71161	N
4	Accrediting Council for Independent Colleges and Schools	3.59925	Y
5	Foreign Universities	2.80899	N
6	National Association of Private Nontraditional Schools and Colleges	2.72659	N
7	Distance Education and Training Council	2.68165	N
8	World Association of Universities and Colleges	2.62172	N
9	European Council for Business Education	2.55056	N
10	Accrediting Commission International	2.35206	Y
11	Diploma Mills	1.07865	---

n=267

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Table 5-2. Post-Hoc Comparisons of Block I

	NCA	DETC	FOR	SA	SL	AC	ECBE	WAUC	NA	ACI	DPM
NCA	----------	87.43*	67.42*	.54	.018	1.30	110.74*	97.74*	80.07*	151.28*	561.41*
DETC	87.43*	----------	1.30	101.76*	84.94*	67.42*	1.38	.29	.16	8.70	205.74*
FOR	67.42*	1.30	----------	80.07*	65.23*	50.00*	5.35	2.81	.54	16.72*	239.73*
SA	.54	101.76*	80.07*	----------	.76	3.52	126.80*	112.86*	93.81*	169.96*	596.89*
SL	.018	84.947*	65.23*	.76	----------	1.01	107.94*	95.11*	77.69*	147.98*	555.07*
AC	1.30	67.42*	50.00*	3.52	1.01	----------	88.06*	76.51*	60.98*	124.55*	508.71*
ECBE	110.74*	1.38	5.35	126.80*	107.94*	88.06*	----------	.41	2.48	3.15	173.47*
WAUC	97.74*	.29	2.81	112.86*	95.11*	76.51*	.41	----------	.88	5.82	190.65*
NA	80.07*	.16	.54	93.81*	77.69*	60.98*	2.48	.88	----------	11.23	217.44*
ACI	151.28*	8.70	16.72*	169.96*	147.98*	124.55*	3.15	5.82	11.23	----------	129.84*
DPM	561.41*	205.74*	239.73*	596.89*	555.07*	508.71*	173.47*	190.65*	217.44*	129.84*	----------

Differences were calculated to four significant digits, but rounded for display.

Differences marked with an asterisk (*) were statistically significant at the $p<.05$ or better.

In examining the data regarding Research Question 1, it was found that State Approval was considered the most acceptable form of recognizing degrees, even more so than regional accreditation. This contradicts Bear's study (2001) of college and university admissions officials, where regional accreditation was by far the most acceptable means of recognizing credits and degrees from other schools. In the same study, State Approval and Licensure were relatively unacceptable measures of the acceptability of a school's credits and degrees.

But human resource professionals responding in this study placed great emphasis on recognition by the school's home state, even though many notorious degree mills have

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operated with full licensure by their respective states. State licensure is provides no assurance that degrees from such schools are legitimate or equivalent to those awarded by properly accredited schools.

The results also showed that respondents considered accreditation by the unrecognized World Association of Universities and Colleges—which accredits many questionable schools and whose accreditation has no meaning academically—to be as acceptable as the Distance Education and Training Council, a recognized accrediting agency. Participants failed to distinguish between a legitimate accrediting agency and a spurious one. If this holds in practice, they might hire and/or promote unqualified candidates over qualified ones holding legitimate degrees. Also, employers might be providing tuition reimbursement to their employees for taking degrees from unrecognized, even fake, schools.

The study Bear conducted (2001) generated results that closely mirrored the criteria listed above for GAAP. GAAP forms of recognition tended to be acceptable to admissions officials, while non-GAAP forms of recognition (State Approval, unrecognized accrediting agencies, etc.) were not. But with human resource professionals, the scene is considerably less clear. They rate some non-GAAP forms of recognition (State Approval, State Licensure, and some forms of unrecognized accreditation) above some forms of recognized accreditation. It was clear they were willing to accept degrees—even pay for them—from schools that colleges and universities would find utterly unacceptable. Further evidence of this is demonstrated in Research Questions 2, 3, and 4, and the results from Research Question 5 will confirm this observation.

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Participants were given several opportunities on the survey instrument to provide comments regarding the areas measured. Participants' comments often reflected their lack of understanding of the differences between recognized accreditation, unrecognized accreditation, and other forms of recognizing degree-granting institutions. Some of their comments:

> It would have also been helpful to have a button for unfamiliar with as *(sic)* I was not familiar with most on your list.
>
> Unfortunately, I did not recognize many of the organizations in the first section of the survey instrument.

Research Question 2

Among human resource professionals who are given a list of schools recognized by a variety of agencies, are there differences in acceptability of degrees issued by these schools?

Table 5-3. Ranking of Degree-granting Institutions

Rank	School	Mean	Significant from Below?
1	Southwest Texas State University	3.29588	N
2	Columbia State University	3.13483	N
3	Lacrosse University	2.92884	N
4	Andrew Jackson University	2.89139	N
5	Capella University	2.88015	N
6	Western States University	2.81648	N
7	Washington Institute for Graduate Studies	2.81273	N
8	Kennedy-Western University	2.68539	N
9	California Coast University	2.63296	N
10	Robert Kennedy University	2.54307	N
11	Heriot-Watt University	2.54307	N
12	Education America	2.19476	---

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Table 5-4. Post-Hoc Comparisons of Block II

	COLS	WSU	WIGS	LU	RKU	EDA	KWU	CCU	HWU	AJU	CAP	STS
COL	-------	6.56	6.72	2.75	22.68*	57.24*	13.08	16.31*	22.68*	3.84	4.20	1.68
WSU	6.56	-------	.00	.82	4.88	25.04*	1.11	2.18	4.82	.36	.26	14.89*
WIG	6.72	.00	-------	.87	4.71	24.74*	1.05	2.09	4.71	.40	.29	15.12*
LU	2.75	.82	.87	-------	9.64	34.90*	3.84	5.67	9.64	.09	.15	8.73
RKU	22.68*	4.88	4.71	9.64	-------	7.86	1.31	.52	.00	7.86	7.36	36.71*
EDA	57.24*	25.04*	24.74*	34.90*	7.86	-------	15.59*	12.44	7.86	31.43*	30.43*	78.53*
KWU	13.08	1.11	1.05	3.84	1.31	15.59*	-------	.17	1.31	2.75	2.46	24.14*
CCU	16.31*	2.18	2.09	5.67	.52	12.44	.17	-------	.52	4.33	3.96	28.46*
HWU	22.68*	4.82	4.71	9.64	.00	7.86	1.31	.52	-------	7.86	7.36	36.71*
AJU	3.84	.36	.40	.09	7.86	31.43*	2.75	4.33	7.86	-------	.01	10.60
CAP	4.20	.26	.29	.15	7.36	30.43*	2.46	3.96	7.36	.01	-------	11.19
STS	1.68	14.89*	15.12*	8.73	36.71*	78.53*	24.14*	28.46*	36.71*	10.60	11.19	-------

Differences were calculated to four significant digits, but rounded for display.

Differences marked with an asterisk (*) were statistically significant at the $p<.05$ or better.

The responses supporting Research Question 2 showed much smaller differences than for Research Question 1. In fact, when ranking the schools in the list by mean, no school is significantly higher or lower than the ones next to it on the list. Participants were less discriminate when considering degrees from specific schools. Still, there were some statistically significant differences—and some informative non-significant differences—from this research question.

The traditional school in the list, Southwest Texas State University (STSU), was rated highest by the group. But those same respondents listed the notorious (closed by

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the United States Postal Inspectors) Columbia State University second, with no significant difference between it and STSU. Both schools had the word "state" in their titles, which implies both a public and accredited college or university. Columbia State was neither. (See Chapter 4 for a description.) So a degree from a notorious diploma mill closed by the authorities was more acceptable than degrees from almost any other school on the list, including those from properly recognized institutions.

Another unrecognized operation, Lacrosse, was rated higher than a properly accredited school, Education America. Education America, however, had the most unusual name in the list (using neither "college" nor "university" in its name). It was rated below all the other schools on the list, save two.

The foreign university on the list, Heriot-Watt University, came out below Columbia State, the diploma mill. Also, it was not significantly different than the unaccredited schools on the list, including Kennedy-Western University and California Coast University. One could conclude that employers are more likely to trust unfamiliar domestic schools than an unfamiliar foreign one, without checking to see which was properly recognized. (In this case, the foreign school, and not the domestic ones.) This becomes more clear later when participants' responses regarding forms of recognition (with descriptions) are examined.

It appears as if many respondents did not recognized the names of these schools, nor did they seem to use reference materials to sort between the legitimately accredited schools, the unrecognized schools, and the diploma mill(s). As one participant noted:

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> I will certainly look more closely at unfamiliar colleges listed in resumes! Many of these sound like familiar names and it are easy to miss them when scanning the bio data.

If they do not use reference materials to sort out the thousands of degree-granting institutions, it is simple for employees to present degrees from spurious or unrecognized schools, and to do so successfully.

A nontraditional name seemed to be a detriment, even if the school was properly accredited. And having a traditional-sounding name (as in the case of Columbia State University) seems more effective than being properly accredited—even for a diploma mill. A candidate for employment is more likely to have his or her degree accepted by the employer if the degree comes from a school that sounds substantial, even if it is issued from a rented post office box.

But accurate decisions about unfamiliar schools are certainly possible, as this participant demonstrates in uncovering a job applicant with a degree from a diploma mill on her application:

> I'm currently interviewing for a position requiring a bachelor's. A woman applied through Employment Security Commission with a BA in Business Administration from Northwestern International University, Cypress. The school has its own accrediting agency. ESC said it was a valid degree unless they could prove otherwise. Their website indicates you can purchase a Bachelors for $245 and a PhD for $395. We're all thinking of becoming doctors here at my office. The applicant was not interviewed.

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Research Question 3

When provided descriptions of recognizing agencies of degree granting institutions, are there differences in their acceptance of college degrees based upon the degree-granting institution's source of accreditation or other forms of recognition?

Table 5-5. Ranking of Forms of Recognition of Degree-granting Institutions (After Descriptions)

Rank	Form of Recognition (After Description)	Mean	Significant from Below?
1	North Central Association	4.28464	Y
2	Foreign Universities	3.18727	N
3	Distance Education and Training Council	3.07116	N
4	Accrediting Council for Independent Colleges and Schools	2.77154	N
5	State-Approved	2.61423	Y
6	State-Licensed	1.85768	Y
7	National Association of Private Nontraditional Schools and Colleges	1.40075	Y
8	European Council for Business Education	0.57678	N
9	Accrediting Commission International	0.53933	N
10	World Association of Universities and Colleges	0.50562	N
11	Diploma Mills	0.34457	---

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Table 5-6. Post-Hoc Comparisons of Block III

	NCA2	DETC2	FOR2	SA2	SL2	AC2	ECBE2	WAUC2	NA2	ACI2	DPM2
NCA2	----------	135.78*	111.04*	257.29*	543.13*	211.11*	1267.72*	1316.84*	766.89*	1293.46*	1431.47*
DETC2	135.78*	----------	1.24	19.25*	135.78*	8.28	573.72*	606.92*	257.29*	591.08*	685.51*
FOR2	111.04*	1.24	----------	30.28*	163.01*	15.94*	628.37*	663.10*	294.30*	646.53*	745.14*
SA2	257.29*	19.25*	30.28*	----------	52.79*	2.28	382.78*	409.99*	135.78*	396.98*	475.00*
SL2	543.13*	135.78*	163.01*	52.79*	----------	77.01*	151.29*	168.57*	19.25*	160.26*	211.11*
AC2	211.11*	8.28	15.94*	2.28	77.01*	----------	444.17*	473.44*	173.27*	459.46*	543.13*
ECBE2	1267.72*	573.72*	628.37*	382.78*	151.29*	444.17*	----------	.47	62.60*	.13	4.97
WAUC2	1316.84*	606.92*	663.10*	409.99*	168.57*	473.44*	.47	----------	73.88*	.10	2.39
NA2	766.89*	257.29*	294.30*	135.78*	19.25*	173.27*	62.60*	73.88*	----------	68.42*	102.86*
ACI2	1293.46*	591.08*	646.53*	396.98*	160.26*	459.46*	.13	.10	68.42*	----------	3.50
DPM2	1431.47*	685.51*	745.14*	475.00*	211.11*	543.13*	4.97	2.39	102.86*	3.50	----------

Differences were calculated to four significant digits, but rounded for display.

Differences marked with an asterisk (*) were statistically significant at the $p<.05$ or better.

In Block III of the questionnaire, participants were provided a description of each form of recognition, then asked to rate each one again. The means for each were compared to locate significant differences.

In higher education in the United States, regional accreditation is the most widely recognized form of institutional accreditation. The North Central Association—the regional accreditor included in the questionnaire—was rated highest by participants after receiving descriptions of each form of recognition. Other recognized accreditors (DETC, ACICS, and Foreign Universities) were significantly higher than the unrecognized

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accreditors and the Diploma Mills category. This would be expected from knowledgeable participants in the study—knowledge they gained from the questionnaire.

Two recognized national accreditors, DETC and ACICS, moved in opposite ways once descriptions were provided. In Block I, the rating for ACICS was higher than the one for DETC, and the difference was statistically significant. But after descriptions were provided, the rating for ACICS dropped, while the rating for DETC increased. After descriptions were provided, the difference in the ratings for these two agencies was not statistically significant. Both forms of accreditation are comparable, and were treated as such by study participants once they received descriptions of each agency.

State Approval, which involves some form of institutional evaluation, was rated higher than State Licensing, but both were significantly lower than the recognized accreditors. Businesses operate in a compliance-oriented environment, and the greater-than-expected emphasis participants placed on State Approval may be a reflection of that. But what this indicates is that employers might find acceptable degrees from schools that accredited schools would not. There is a definite difference between the acceptability of degrees from State Approved schools for employment purposes (somewhat acceptable) and in academia (not at all acceptable). This could be offered as an argument supporting the pursuit of degrees from State Approved schools, especially if those degrees are intended for use for employment, not for entry into higher degree programs at accredited schools.

The difference between the unrecognized accreditors (WAUC, ECBE, ACI, and NAPNSC) and the Diploma Mills category was not statistically significant. This was expected. For example, the WAUC has been criticized for accrediting a great number of

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questionable schools. (Bacani and Rohlfs 2000, and Silver 2002) The same is true of the ACI. (Silver 2001 and Cage 1989) The ECBE accredits the unrecognized Robert Kennedy University, and although the NAPNSC is a serious effort at establishing a recognized accrediting agency, it is unrecognized still. (Bear and Bear 2001)

The results from this block, which included descriptions of each form of recognition, seemed quite different from the results of Block I (same categories without the descriptions). This is explored in greater detail in the discussion of Research Question 5, below.

Research Question 4

Among human resource professionals, are there differences in acceptability reported for degrees issued by a list of institutions when compared to the reported acceptability of agencies recognizing those institutions?

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Table 5-7. Mean Differences Between Categories of Recognition and Their Respective Schools

Recognition Type	School	Mean Difference	Significant at p=.05?
North Central Association	Capella University	-.846442	Y
Distance Education and Training Council	Andrew Jackson University	.209738	N
Foreign Universities	Heriot-Watt University	-.265918	Y
State-Approved	California Coast University	-1.17603	Y
State-Licensed	Kennedy-Western University	-1.026217	Y
Accrediting Council for Independent Colleges and Schools	Education America	-1.404494	Y
European Council for Business Education	Robert Kennedy University	-.007491	N
World Association of Universities and Colleges	Lacrosse University	.307116	Y
National Association of Private Nontraditional Schools and Colleges	Washington Institute for Graduate Studies	.086142	N
Accrediting Commission International	Western States University	.464419	Y
Diploma Mills	Columbia State University	2.05618	Y

n=267

In making pairwise comparisons between the listed schools in Block II and the forms of recognition listed in Block I, several significant differences were identified.

The North Central Association was rated more acceptable than its corresponding school on the list, Capella University. The North Central Association covers the largest

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geographic area of the six regional associations (United States Department of Education 2002), which may make it more familiar to participants. One participant's comments:

> Very interesting information. I was aware of only one accrediting council, and am thrilled to have the additional information -- especially on distance learning organizations.

Also, Capella University is a relatively new school, established in 1995, and may be lesser known. (Capella University 2002) If employers do not use reference materials to look up accredited schools, they have no way of distinguishing between schools they do not recognize.

As noted earlier, the participants in the study rated both State Approval and State Licensed highly. They also rated those forms of recognition higher than their corresponding schools from the list, California Coast University and Kennedy-Western University. Again, the respondents put significant credence in those categories, but may not have been familiar with the specific schools. It would seem prudent for holders of degrees from such schools to make a point of the schools' legal status, which seems to be given more credence by employers than it should.

Conversely, Lacrosse University and Western States University were rated significantly lower than their corresponding accrediting agencies. This again leads credence to the conclusion that participants were unfamiliar with the nature of these schools. As one noted:

> Just a note that we do not do verification of actual degree as a part of our candidate selection process. Additionally, we do not have limits on what schools we will reimburse

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> tuition from. However, classes or programs taken must be reviewed and approved by an employee's supervisor prior to enrolling in order for the employee to be eligible for tuition assistance.

Finally, the participants rated the Diploma Mills category the lowest, but rated the diploma mill on the list—Columbia State University, second highest among the list of schools. This despite the fact that Columbia State—its closure and the exposure of some of its customers—was highly publicized (Bresnahan 1999, Hunter and Stone 2001) When asked to weigh the acceptability of degrees from Diploma Mills, participants reject them. But when asked about degrees from a specific diploma mill (without identifying it as such), the participants rate its acceptability quite highly. This phenomenon goes a long way towards explaining the persistence and success of diploma mills, and the continuing demand for spurious degrees by their customers, who then use them in the workplace. Employers, who are in a position to stop this, do not.

These inconsistencies lend further weight to the conclusion that participants in the study—who represent human resource professionals across the United States—are not familiar with these agencies and schools, and do not check.

Research Question 5

When provided descriptions of recognizing agencies of degree granting institutions, are there differences in their acceptance of college degrees based upon the degree-granting institution's source of accreditation or other forms of recognition when compared to responses provided prior to being given descriptions?

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Table 5-8. Mean Differences of Recognition Forms Before and After Descriptions

Recognition Type	Mean Difference (Between Before and After Description)	Significant at p=.05?
North Central Association	.558052	Y
Distance Education and Training Council	.389513	Y
Foreign Universities	.378277	Y
State-Approved	-1.194757	Y
State-Licensed	-1.853933	Y
Accrediting Council for Independent Colleges and Schools	-.827715	Y
European Council for Business Education	-1.973783	Y
World Association of Universities and Colleges	-2.116105	Y
National Association of Private Nontraditional Schools and Colleges	-1.325843	Y
Accrediting Commission International	-1.812734	Y
Diploma Mills	-.734082	Y

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The reader is reminded that participants in the study were not permitted to go back and change their answers to the first block of questions after receiving information about the recognition categories.

Once descriptions of the forms of recognition were provided to participants, the ratings of every category's acceptability changed significantly. The three GAAP-related forms of recognition (North Central Association, DETC, and ACICS) moved up significantly to occupy the top three positions on the list. The remaining forms of recognition, all non-GAAP, moved significantly downwards, and occupied the lower seven positions on the list. This is what one would expect to happen, and lends even more weight to the conclusion that employers do not know which schools are legitimate, and do not check.

These results mirror the ones found in Bear's (2001) study of college and university admissions officials. In that study, GAAP forms of recognition were significantly more acceptable to admissions officials than non-GAAP forms. Also, regional accreditation was more acceptable to the participants in that study than national accreditation (i.e., ACICS or DETC) or recognized foreign universities. But, again, these forms of recognition were significantly more acceptable than non-GAAP forms such as state approval/licensing and unrecognized accreditation (like WAUC, ECBE, and ACI).

It would appear that a small amount of information about accreditation goes a long way in changing respondents' opinions about what is and is not acceptable, putting their responses more in line with those working in academia. Comments from participants seem to support this conclusion:

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I found the information helpful in understanding their accreditation status and knowing by whom they are accredited.

I found the information very informative.

I learned from taking the survey about the number of bogus accreditation agencies out there. I was aware of diploma mills, but the phony accreditation organizations were new to me.

I learned something by doing your survey.

I recognized through this survey that I have little or no understanding of the accreditation process. I look forward to the results of your study.

I thought the survey was interesting because once you gave more detail about the accreditation process I could make better decisions about my choices.

Descriptive Statistics

Participants were asked to categorize their companies or organizations. The largest proportion of the sample represented the Manufacturing sector, followed by "Other" and Technology. The smallest proportions were from the Education and Retail/Wholesale sectors. Each sector represents an opportunity for future study, discussed later in this chapter.

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Table 5-9. Percentage of Sample by Industry

Industry	Number of Participants	Percentage
Government	16	7
Health Care	16	7
Technology	45	18
Manufacturing	57	23
Services	47	19
Education	10	2
Retail/Wholesale	5	1
Other	51	21

n=247 Percentages do not add to 100 due to rounding.

Participants were also asked to indicate the size of their companies or organizations. The largest sector represented was 101-500 employees with 39 percent. Only 5 percent of respondents represented companies or organizations with more than 5,000 employees.

Table 5-10. Percentage of Sample by Company Size

Company Size (Number of Employees	Number of Participants	Percentage
1 – 100	53	22
101 – 500	94	39
501 – 1,000	38	16
1,001 – 5,000	40	17
5,001 – 10,000	6	2
10,001 – 25,000	6	2
25,001 or Larger	5	1

n=242 Percentages do not add to 100 due to rounding.

Participants were asked whether or not their companies or organizations offered tuition reimbursement to their employees pursuing further education. Three-quarters of

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participants indicated that their companies or organizations offered tuition reimbursement to their employees.

Table 5-11. Percentage of Sample Offering Tuition Reimbursement

Does your company offer a tuition reimbursement plan?	Number of Participants	Percentage
Yes	186	75
No	61	25

n=247

Conclusions

Human resource professionals often do not understand the differences among schools and among different types of institutional recognition, and they often do not check. The resulting differences between Block I of the questionnaire (forms of recognition without descriptions), Block II (selected schools), and Block III (forms of recognition with schools) make it clear that human resource professionals tend not to understand legitimate vs. illegitimate forms of recognition. Also, they tend not to recognize legitimately recognized and illegitimate degree-granting institutions. Participants' comments support this conclusion:

> Because of the nature of our business, we are not a degree oriented company. This explains our acceptance of 'any' type of post education."

> Experience has shown that for most positions, a specific degree is rarely required for successful performance on the job. In general, we do not maintain rigid adherence to educational requirements, focusing on experience and behavioral competencies in the selection process. As a result, we don't pay much attention to accreditation per se...we focus on

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> the evidence a candidate can provide that is compelling and verifiable and indicates patterns of behavior. We don't rely on a stated degree or level of education any more than we rely on our knowledge of the previous company or companies for which a candidate has worked.

Human resource professionals require training. It is evident that even a meager amount of information about accreditation and recognition of degree-granting institutions has an effect on their decisions about acceptability. In this study, participants' ratings of the different forms of recognition changed significantly in every case after descriptions of the categories were provided. Additionally, the participants' responses aligned well with Generally Accepted Accreditation Principles once descriptions were provided. Participants' comments made this point clear:

> At this point our department does not actively investigate the qualifications of degree granting organizations but based on the survey will review our processes!
>
> Excellent information.
>
> I learned some information that I did not know before.
>
> I appreciate the specifics of accredited versus non *(sic)*, as we can definitely use such resources towards our tuition reimbursement policy.
>
> I found the information helpful in understanding their accreditation status and knowing by whom they are accredited.
>
> I found the information very informative.
>
> It's obvious I (am) somewhat uninformed about the accrediting agencies.
>
> Thank you for the information on accrediting institutions. I've been concerned with the legitimacy of distance learning.
>
> I never knew the difference between the accrediting agencies. I will be taking this into consideration when evaluating the degree of a potential employee.

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Instruction provided to human resource professionals regarding qualifications checking does not seem to include checking for proper accreditation of degrees. (Barada 2002 and Mulling 2002) But the information is available from some sources. (Aaron 2002)

Information is available from professional sources. For example, the American Society for Training and Development published an article on accreditation (Abernathy 2001) that would be useful to anyone making hiring, promotion, or tuition reimbursement decisions.

Human resource professionals place value in state approval, even after reading a description of it. While the survey participants tended to rate State Approval lower after reading a description of it, the mean score for that type of recognition remained high. In fact, it was scored significantly higher than other forms of unrecognized accreditation (WAUC, ACI, etc.). In fact, there was no significant difference between State Approval and one form of recognized accreditation (ACICS).

When State Approval was offered without a description, almost 96% of participants rated it at least "Somewhat Acceptable." (See Figure 5-1.) Even after reading the provided description of State Approval, slightly more than 65% of participants still rated it at least "Somewhat Acceptable." (See Figure 5-2.) This leads one to conclude that two-thirds (or even more) of employers may accept degrees from unaccredited, but state-approved, schools. This is despite the fact that degrees and credits from such schools are not accepted by traditional colleges and universities in the U.S.

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Figure 5-1. Frequency Distribution – State Approval

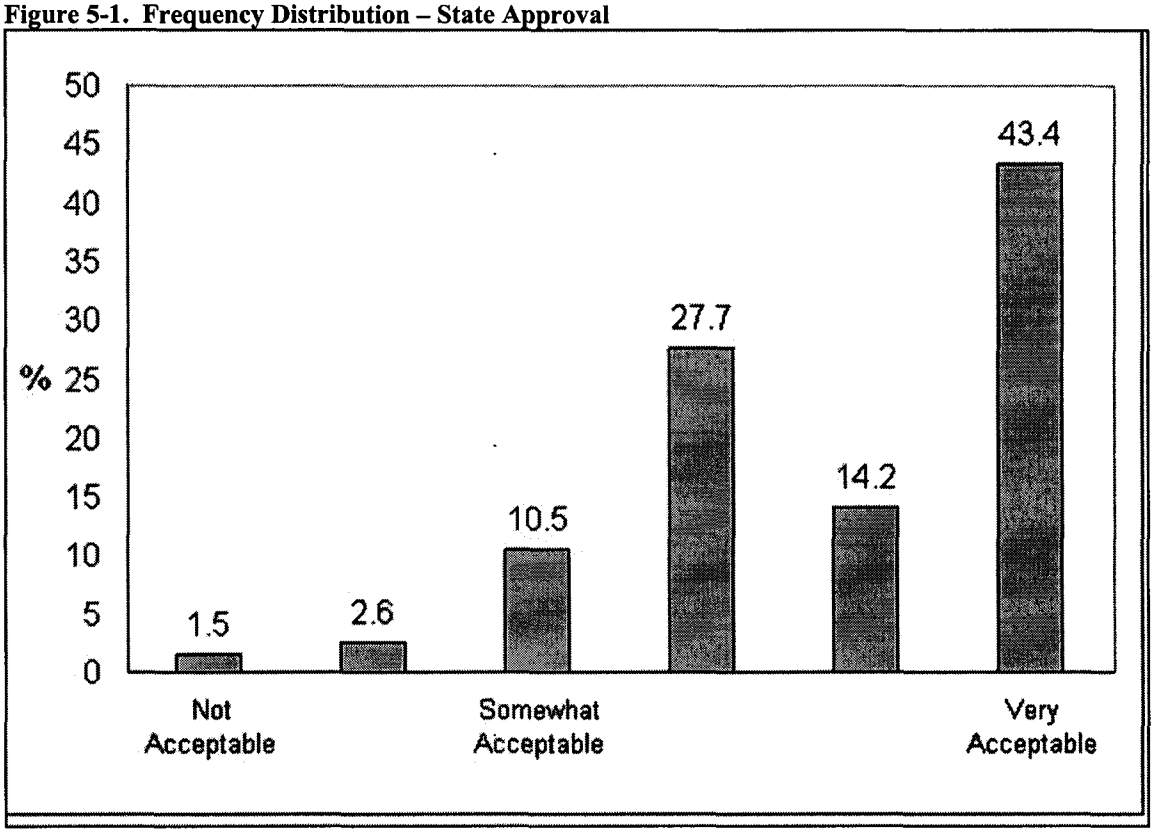

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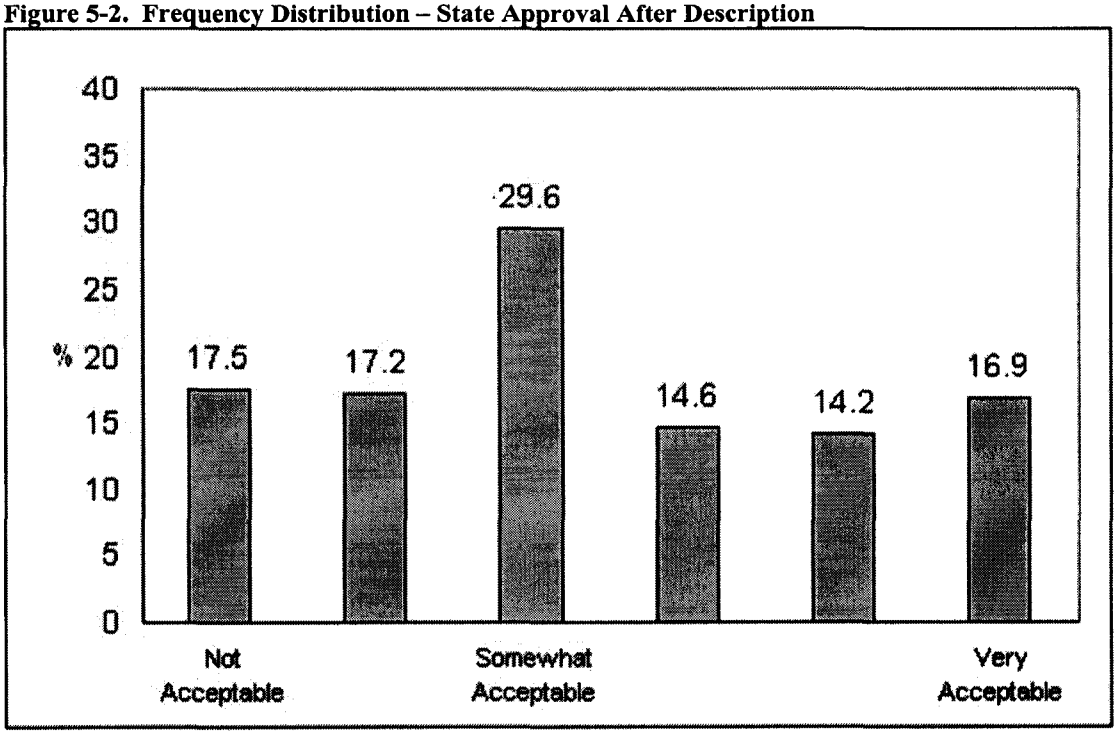
Figure 5-2. Frequency Distribution – State Approval After Description



Degrees from diploma mills can be acceptable to employers. Regardless of one's definition of a "diploma mill," the study's results indicate that the opportunities to use diploma mills in the workplace are significant. For example, slightly more than 82% of participants indicated that a degree from the now-closed diploma mill Columbia State University was at least "Somewhat Acceptable." (See Figure 5-3.) Slightly more than 80% of participants rated Lacrosse University (accredited by the unrecognized WAUC) "Somewhat Acceptable," and more than 79% rated Kennedy-Western (unaccredited and state-licensed) "Somewhat Acceptable." (Not illustrated.)

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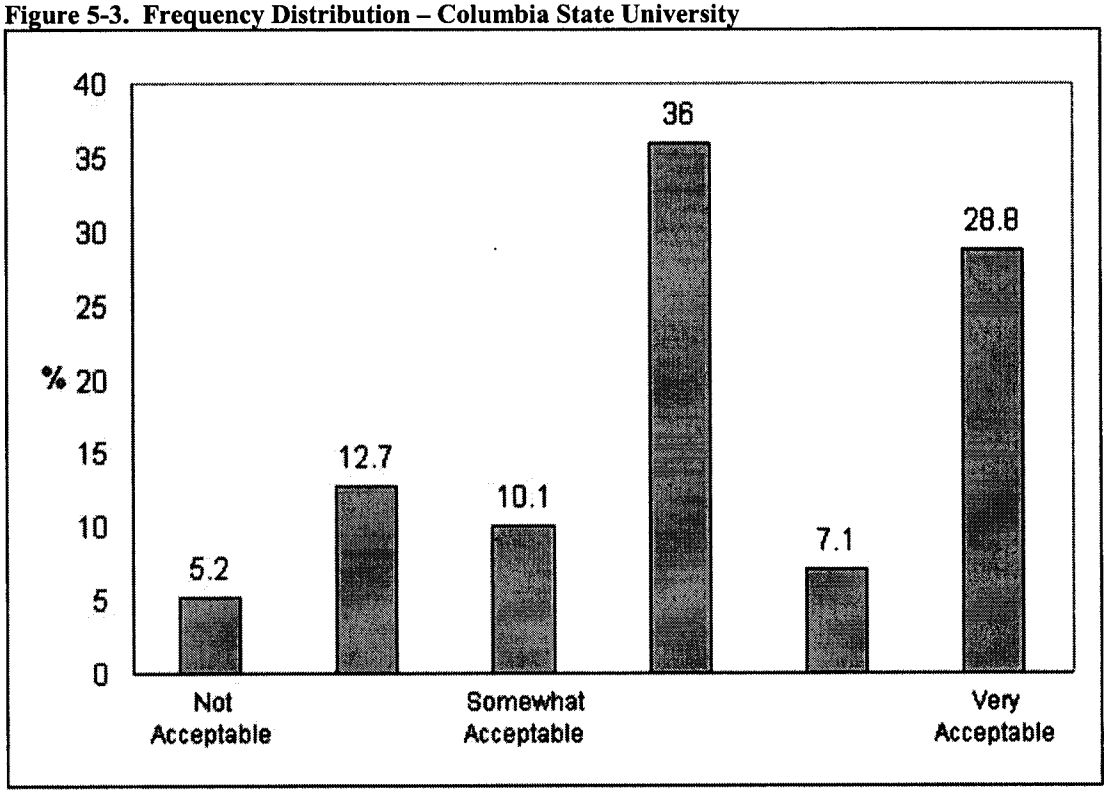
Figure 5-3. Frequency Distribution – Columbia State University



Schools with unrecognized accreditation can be acceptable to employers. When provided only the names of the unrecognized accrediting agencies (and not the descriptions), participants in the survey tended to find them acceptable, despite their lack of academic importance. (As described in Chapter 4, this changed significantly once descriptions were provided.) For example, more than 81% of participants rated accreditation by the World Association of Universities and Colleges at least "Somewhat Acceptable." (See Figure 5-4.) This dropped to 13.5% once the description of the WAUC was provided. (Not illustrated.)

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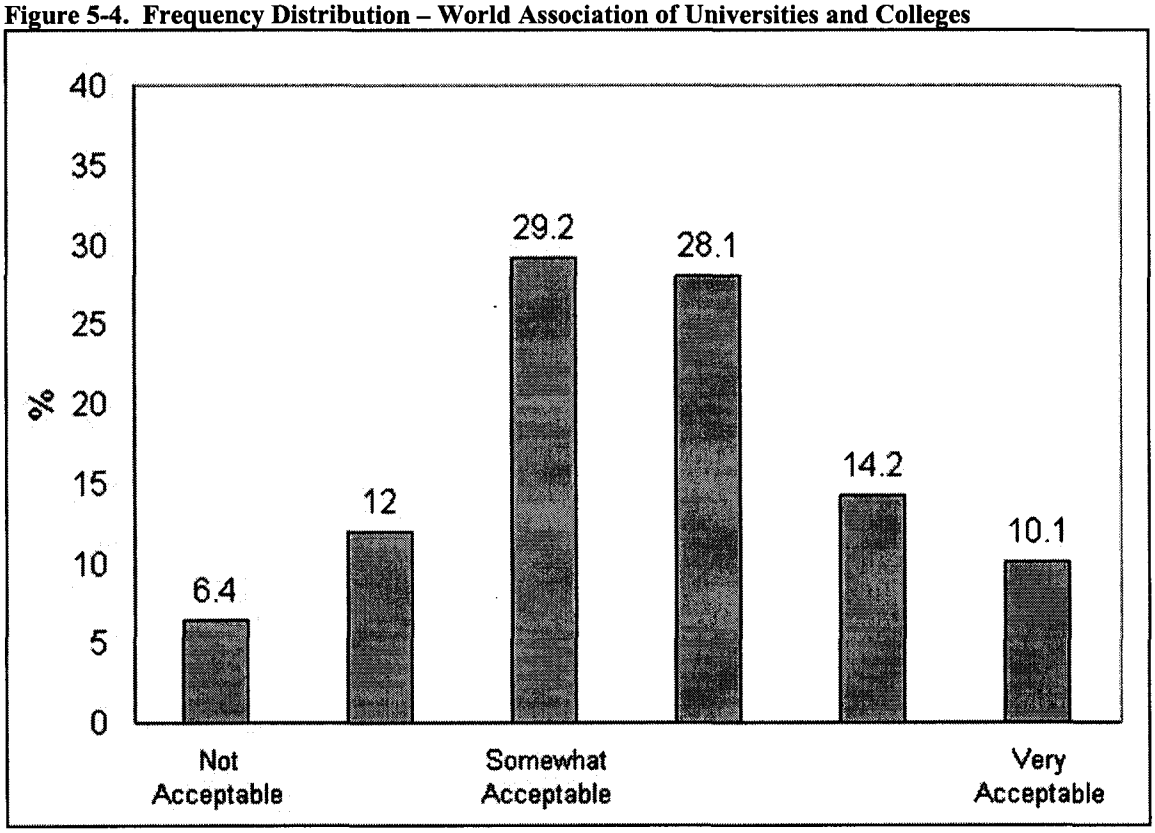
Figure 5-4. Frequency Distribution – World Association of Universities and Colleges



Degrees from accredited schools can be less acceptable than those from diploma mills. Education America, accredited by the recognized ACICS, was rated significantly lower than Columbia State University, Kennedy-Western University, California Coast University, Lacrosse University, Washington Institute for Graduate Studies, and Western States University, none of which are accredited by recognized agencies. (See Table 5-4.)

The acceptability of a degree is often unrelated to the type of recognition held by the issuing school. There were many cases where there were significant differences in the acceptability of a school and its corresponding recognition type. This was the case in 8 of the 11 pairwise comparisons.

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The media are not sufficiently active in reporting these issues. Discounting the general media, which is not expected to focus on higher education issues, articles published by the *Chronicle of Higher Education* from 1990 through 2002 were examined. A search of the term "degree mill" uncovered 4 articles relevant to this topic. "Diploma mill" revealed another 14, while "unaccredited" offered 2 more.

There is insufficient research on this topic. In addition to the studies reviewed by this researcher in this study, every issue of *Human Resource Management*, the scholarly journal covering issues in human resources published jointly by the University of Michigan and the Society of Human Resource Management, was reviewed. The journal has been published four times annually from 1983 to present. Not a single article was found discussing diploma mills, unrecognized degrees, alternative or nontraditional higher education, accreditation (or other forms of recognizing degree-granting institutions), or even the verification of educational credentials.

Potential students should weigh these findings when choosing degree programs to pursue. It is clear from the findings that unrecognized degrees that come from schools that are State Approved or State Licensed enjoy a broad level of acceptance. (See Research Question 2.) That is, until information about the various forms of recognition are provided. Then, non-GAAP forms of recognition become decidedly less acceptable. Such a degree could "backfire" on its holder, where he/she finds that the degree is acceptable initially, but then later becomes not only unacceptable, but actually a hindrance. (Kenyon 1999)

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Limitations of the Study

This study had several limitations, including data collection, bias introduced by this researcher, geographic limits, and questionnaire construction.

Data Collection. Data Collection was limited by several factors. First, it was decided (as described in Chapter 3) to conduct an internet-based questionnaire. This meant there would be no opportunity to conduct interviews with the sample. Also, there was limited direct access to the population. The sample was invited by e-mail to participate in the survey, but no controls were in place to ensure their participation. Some participants chose not to complete the survey because they did not understand the forms of recognition or the schools listed in the survey:

> Sorry, but I'm not familiar with any of these that you have listed.
>
> I would love to support you...Unfortunately, I am unfamiliar with most of the accreditation sources you list and therefore my responses would be flawed.

(This very common response ignores the fact that the described unfamiliarity is precisely what this study is attempting to measure.)

> If you don't understand the questions (which are required) how in the world are you supposed to answer?
>
> Part way through I realized that, with increasing frequency, I did not recognize the college or accrediting body that you were asking about.

(Again, this from someone who did not complete the questionnaire.)

> I do not have time to look up every entry I don't recognize.

(And, thus, the central theme of this study, that Human resource professionals do not exercise diligence in ensuring the degrees job applicants, employees, and requesters of tuition reimbursement are involved with are legitimate.)

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Bias Introduced by this researcher. The descriptions provided to define the various forms of institutional recognition were written by this researcher. The descriptions provided were based upon information available elsewhere (Bear and Bear 2001), along with the researcher's personal experience. What was measured, however, was not the efficacy of the descriptions, but the differences they made in the participants' responses.

Geographic Limitations. The sampled population was limited to the United States. Also, the responses observed and the conclusions drawn in this study are applicable only to higher education and employment in the United States. A researcher surveying human resource professionals in other countries might realize different conclusions.

Questionnaire Limitations. The questionnaire—and, therefore, the study—did not differentiate between levels of degrees, types of degrees (academic majors), types of industries, and learning methods. It did not isolate or include others in the hiring and promotion processes, such as interviewers, supervisors, and hiring managers. (This researcher presumed they would know even less about this study's issues than human resource professionals.) Finally, it was presumed human resource professionals would be cognizant of their respective companies' or organizations' policies, and would accurately reflect the hiring, promotion, and tuition reimbursement practices in their respective companies or organizations.

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Language. The research project, including the survey, Review of Literature, and other portions of the report, are in English. Also, the report excludes prior research and other information done in languages other than English.

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Recommendations For Further Study

Interviews With Human resource professionals. A qualitative study interviewing this population could provide greater insight into the research questions explored in this study, including why the respondents answered in the manner they did. Additionally, such a study might reveal more information about the actual practices of human resource professionals regarding degree acceptance and verification.

Experiments With human resource professionals. A qualitative experiment could be conducted where human resource professionals are provided realistic job applications and resumes and are asked to evaluate the educational accomplishments contained in each.

Studies Focused on Individual Industries. This study did not make distinctions between industries. Such a study might reveal significant differences that could affect both students' educational choices and industry practices regarding degree acceptance. This might be especially interesting in terms of the education industry, where practices regarding the acceptability of degrees and credits from students are well established. Are the hiring and promotion practices of educational institutions similar?

This researcher has concluded that enough is known at this point to take action.

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Conclusion

The data in Chapter 4 were analyzed in this chapter. Several conclusions were drawn, the limitations of this study were presented, and recommendations for further action and research were made. It is clear from the questionnaire results that human resource professionals require more knowledge about the recognition of degree-granting institutions to make informed decisions about the acceptability of college degrees. It is also clear that when provided information about this subject, their responses to these questions change significantly. Finally, it will be necessary to provide this information wherever possible.

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Appendix A
Glossary

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Appendix A
Glossary

The field of nontraditional and distance education has many terms unique to it. This project uses many of them, along with other terms commonly understood in education and industry, but may not be in wide use. These terms are explained below.

Accreditation. Status conferred by agencies organized to evaluate and recognize schools or programs within schools. Regional associations accredit colleges and universities within their respective jurisdictions, while national accreditors evaluate schools and/or programs throughout the United States. Accreditors are approved by two agencies, one public and one private. Many accreditors are recognized by the Council on Higher Education Accreditation, which is a private body. Accreditors are also recognized by the United States Department of Education, making them eligible to participate in federal financial aid programs. Most approved accreditors are recognized by both agencies; some are recognized by one or the other. Accreditation is a voluntary, non-governmental process.

Analysis of Variance (ANOVA). A comparison of mean data collected by sampling a population. Used to determine if there are any statistically significant differences between the data. See: Post-hoc Tests.

Associate's Degree. Typically offered by community colleges for completing the first two years of undergraduate study. May also be awarded by 4-year colleges and universities, and earned along the way to a bachelor's degree. The associate's degree may be academically or vocationally oriented, and may be designed as a "stand alone"

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program, or may be designed for students to transfer to 4-year colleges and universities to complete their bachelor's degrees.

Bachelor's Degree. Offered by colleges and universities for completing a four-year course of study combining general education with a concentrated area of study. While four years describes how the program is scheduled, students may take more or less time to actually complete their degrees. See: License. See also: Major.

College. In the United States, a college may either be a freestanding institution of higher learning (like Coleman College) or a division of a university (such as Vermont College, a division of Union Institute and University). In other countries, the term "college" is often applied to training schools and secondary schools not considered equivalent to universities. See: University.

Correspondence Course. Method of study where the course materials are sent to students who study at a distance. Materials may be written or, increasingly, on electronic media. Also, correspondence study my take place over the Internet instead of through the mails. The students complete studies and lessons, then take examinations and/or turn in papers, projects, etc. In some correspondence courses, students study at the same pace as on-campus students. In others, students study in step with other distance students taking the same course. In still others, students study at their own pace. See: Internet.

Course. An integral unit of study towards completing a degree program. Courses in classroom-based programs last an entire academic term (which vary in length from school to school) while correspondence courses may sometimes be completed at the student's own pace. Students receive credits for completing courses (applied to their

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degree programs) and often receive grades for their performances. See: Correspondence Course. See also: Credit.

Credit. Unit of measurement in higher education. Awarded for completing a particular block of study (course). Credits are typically measured by time spent on each course. See: Course.

Credit by Examination. Process used to establish collegiate-level knowledge and to award credit to students. Used to substitute for coursework. Many colleges and universities allow limited use of credit by examination towards degree requirements--almost exclusively at the associate's and bachelor's level. A few schools offer degree programs that can be completed entirely by examination. Standardized examinations are offered by several organizations around the country. Many schools offer their own examinations as well. See: Courses. See also: Credit.

Degree. The credential awarded by a college or university after a proscribed course of study. See: Associate's, Bachelor's Master's, and Doctorate. Sometimes used interchangeably with "diploma." Technically speaking, however, the degree is the credential earned from the college or university, while the diploma is the certificate testifying to the award of the degree.

Degree Mill. See Diploma Mill.

DETC. See Distance Education and Training Council.

Diploma. See Degree.

Diploma Mill. Operation that awards spurious college degrees to its customers for little or no demonstration of academic achievement. See: Degree.

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Distance Education and Training Council (DETC). Recognized accrediting agency approved to accredit schools offering degrees up to and including the master's degree. Originally the National Home Study Council, DETC has historically focused on evaluating and accrediting trade schools offering correspondence courses. In 1980, they accredited two bachelor's degree-granting schools (and none offering the master's). In 2001, they were accrediting more than two dozen degree-granting schools.

Doctorate. Highest degree awarded by colleges and universities. Superior to the bachelor's and master's degrees. Awarded for demonstrating mastery of a particular area of study combined with a final project (like a dissertation or thesis) that often contributes new, significant knowledge to one's field of study. The most commonly known doctorate is the Doctor of Philosophy, or Ph.D. Other commonly awarded doctorates include the Doctor of Education (Ed.D.) and Doctor of Business Administration (D.B.A.). Also, many first professional programs (for example, law, medicine, optometry) result in the award of a doctorate (the Doctor of Jurisprudence, Doctor of Medicine, and Doctor of Optometry, respectively). However, these programs do not typically culminate in a final project of the magnitude seen in academic programs like the Ph.D. and Ed.D. See: Bachelor's Degree. See also: Master's Degree.

Independent Study. Work towards a degree done away from the traditional classroom setting. Independent study may follow a proscribed curriculum and demand a specific set of lessons and/or assignments, or may be defined by the student and faculty in terms of what is to be studied and demonstrated by the student.

Internet. A worldwide network of interconnected computers. Used for a number of purposes, including commerce, education, communication, and recreation. Many

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institutions offering distance programs are using the Internet to deliver instruction. The Internet also allows students to communicate with staff, faculty and other students either in real time or by exchanging e-mail. With more than a billion "pages" of information, much of it available to the general public without charge, the Internet has also become a significant resource for information and research.

Learning Agreement. See: Learning Contract.

Learning Contract. An agreement between the school and the student describing the learning areas, methods, and means of measurement to be undertaken by the student in pursuit of the degree.

License. In academic usage, this term applies to the first university-level credential awarded by universities in many countries around the world. Comparable to the bachelor's degree in the United States. See: Bachelor's Degree.

Master's Degree. A post-bachelor's degree usually awarded after one or two years of full-time study (or equivalent part-time study). In the United States, some master's degree programs are based upon completing a set of courses and the writing of a thesis; others are based entirely upon coursework.

National Home Study Council: See Distance Education and Training Council.

Online: Refers to degrees and courses offered via the Internet. See: Internet.

Post-Hoc Tests. Statistical tests to determine the significance of observed differences in sample data. Post-hoc tests are typically conducted after an Analysis of Variance (ANOVA) with the ANOVA indicating one or more significant differences exist. See: Analysis of Variance.

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Residency. The period of time required to be spent in a formal classroom setting. Traditionally, residency meant the period of time spent on campus as a full-time student. In distance education, "residency" may refer to any gathering of faculty and student(s), regardless of the setting. Many degree programs may be completed without any residency at all (and are called "non-resident" programs). Other distance programs may require one or more visits to the school's campus (or other alternative setting), and are termed "short residency" programs. While there is no standard for what is considered short residency, it can be understood to describe any degree program done largely by independent study, as opposed to classroom-based study. See Independent Study.

University. Institution of higher learning. In the United States the term may be used interchangeably with "college." Also, universities are sometimes made up of constituent "colleges." There is a perception that a "university" is superior to a "college." But in the United States, both award the bachelor's degree--and many colleges award master's and doctoral degrees, too. Many colleges have "upgraded" themselves to universities, like Chapman, Webster, and Antioch, without any significant changes in their operations.

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Appendix B
Survey Instrument

(Note to the reader: The survey instrument was included in the copy submitted to the university. It is not included here. The survey's contents are fully described in the text of this document.)

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Appendix C
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