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Employability Advantages of Marketing Education Industry Certification Examinations

Devon Ashley Elmore
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**EMPLOYABILITY ADVANTAGES OF MARKETING EDUCATION INDUSTRY
CERTIFICATION EXAMINATIONS**

By


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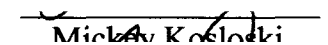
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Approved by: _____,

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ABSTRACT

EMPLOYABILITY ADVANTAGES OF MARKETING EDUCATION INDUSTRY CERTIFICATION EXAMINATIONS

Devon Ashley Elmore
Old Dominion University, 2013
Director: Dr. John M. Ritz

Industry certification of workplace skills is emerging as a key educational movement for career and technical education programs. Many states are now integrating credentialing into their programs with the goal of preparing students with labor market advantages. However, there is little empirical evidence to support the notion that obtaining an industry certification provides students with employability advantages. As a result, the purpose of this study is to collect and analyze empirical data to determine whether obtaining an industry credential can assist a prospective student with job obtainment.

This dissertation examines the use of the National Retail Foundation (NRF) Customer Service and Sales Certifications for high school marketing education students. The first research objective is to determine if the NRF industry certifications provided marketing students with any employability advantages. Second, the research sought to discover other hiring criteria that were viewed as favorable by retail store managers. Finally, the study also explored to determine if employability advantages of industry certification differed among small and large retailers.

One-hundred ninety hiring managers ($n = 190$) completed a survey identifying the importance of twenty-six hiring criteria, how favorably they viewed the NRF certifications, and their previous knowledge of NRF certifications. It was determined that

industry certification was not viewed as an important criteria when hiring a prospective employee. It was also determined that a majority of the employers did not ask about industry certification during the interviewing process and that they possessed little previous awareness of NRF certifications. Finally, it could not be determined if differences in hiring preferences existed between the three different malls or large and small retailers, as the response rate of was not significant for large retailers.

DEDICATION

This dissertation is dedicated to family and friends who provided me with support throughout this process. First, my parents, Dr. and Mrs. James Elmore, provided me with not only financial support in my many years as a student, but more importantly their emotional support. I would never be where I am today without their continuous encouragement and, for that, I am forever grateful. I am confident that I will one day be an excellent parent due to the lessons that they have taught me.

Next, my grandparents, Mr. and Mrs. Joseph Oliver, were my constant cheerleaders. I love them so much and they have contributed to much of my success. My grandfather taught me a poem as a little girl that still inspires me. It is titled, “*A Bag of Tools*” and was written by R.L. Sharpe (1870-1950). It reads:

Isn't it strange
that princes and kings,
And clowns that caper
In sawdust rings,
And common people
Like you and me
Are builders for eternity?

Each is given a bag of tools,
A shapeless mass,
A book of rules;
And each must make-
Ere life is flown-
A stumbling block
Or a stepping stone.

My friends and family certainly equipped me with a great “bag of tools” and also supported me through each “stumbling block” and “stepping stone.”

Devon Ashley Elmore

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This research study would not have been possible without the support of many people. I wish to express my gratitude to my committee chair, Dr. John Ritz who was abundantly helpful and offered invaluable assistance, support, and guidance. Dr. Ritz has taught me what being a dedicated professor truly means. I believe that I will be a better professor based upon the lessons that Dr. Ritz has taught me.

Deepest gratitude is also due to the members of the advisory committee. Dr. Mickey Kosloski and Dr. Steven Myran, without whose knowledge and assistance, this study would not have been successful. Dr. Kosloski inspired me long before I was a Ph.D. student, as he was the Director of Virginia DECA, and I was a novice educator. I view Dr. "K" as not only a mentor, but also a friend.

Special thanks are also extended to my husband and best friends who have always been there for me and deserve to be recognized. I also wish to express my love and gratitude to my beloved family members for their understanding and endless love through the duration of my studies.

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CHAPTER I

INTRODUCTION

A current trend in career and technical education is earning industry certifications. Randall and Zirkle (2005) suggest that there is a growing trend within secondary and post-secondary institutions to offer certification programs. Similarly, Acutt, Kellie, and Miller (2001) suggest that external certification of workplace skills is emerging as a key educational movement in many countries. Cervero (2001) also suggests that industry certification programs are one of the top five trends in education.

Many states including Florida, Georgia, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, New York, North Dakota, Ohio, Pennsylvania, Tennessee, Texas, and Virginia offer industry certifications to career and technical education students (Castellano, Stone, & Stringfield, 2005). Of these states, Virginia Department of Education collects and publishes detailed information regarding industry certification information, pass rates, and budget.

Virginia Department of Education has established eight career and technical education program areas. Table 1 shows the program areas.

Table 1

Virginia Department of Education Career and Technical Education Program Areas

Program Areas	
Agricultural Education	Health and Medical Sciences
Business and Information Technology	Marketing
Career Connections	Technology Education
Family and Consumer Science	Trade and Industrial

Many industry certification examinations exist within each of these areas. As of January 10, 2008, Virginia Department of Education recognized and supported 151

career and technical education certifications, licenses, and assessments for career and technical education (Virginia Department of Education, 2008). Virginia Department of Education annually allocates substantial time and financial resources toward industry certification examinations. In the 2007-2008, 2008-2009, 2008-2009 school years, \$1,065,133 was spent by Virginia Department of Education for career and technical education certification examinations (E. Russell, personal communication, July 9, 2008).

Of the numerous career and technical education program areas, marketing education and the corresponding industry certification examinations were the focus of this study. The National Retail Federation is a primary vendor of marketing education certification examinations. Virginia Department of Education utilizes two of the National Retail Foundation's (NRF) certifications: National Professional Certification in Customer Service and National Professional Certification in Sales. In the 2008-2009 and 2009-2010 school years, Virginia Department of Education allocated approximately \$503,250 per year toward the National Retail Federation Customer Service and Sales certifications (Virginia Department of Education, 2011). Out of the eight program areas in career and technical education, almost half of the total certification budget was allocated towards marketing education industry certifications. Unlike other programs areas, the goal in marketing education is to test every student who meets the eligibility requirements.

In the 2006-2007 school year, 1,367 Virginia marketing students took the National Professional Certification in Customer Service examination (Virginia Department of Education, 2007). According to Virginia Department of Education (2011), the number of students testing grew significantly in subsequent years. For the

2008-2009 and 2009-2010 school years, a total of 10,065 students took the National Professional Certification in Customer Service examination. Of the 10,065 marketing students tested in Virginia, 28%, or 2,869, were from Fairfax County Public Schools, a large school district located in the northern region of the state (Virginia Department of Education, 2011).

While legislation does encourage educational institutions to utilize industry certification examinations, it is not required. However, showing some type of accountability in their career and technical education programs is mandatory. State departments of education have the ability to dictate their own policies and practices for accountability and industry certifications (Fong, Goodwin, Silverberg, & Warner, 2004).

Despite the increased use of industry certification examinations by states, there is a lack of research data and conflicting views regarding the benefits of certification obtainment. Castellano, Stone, & Stringfield (2005) state, “Little research attention has been paid to the use of industry certification in high school, on its perceived value by teachers, administrators, and students” (p. 1). Similarly, Hitchcock (2008) attests that little research into the phenomenon of industry certification can be found in scholarly articles. Hitchcock further claims that most literature on credentialing is published by test vendors and possesses a strong marketing bias, thus few sound and unbiased reviews exist. As such, differing opinions on the effectiveness of certification examinations exist. Foster and Pritz (2006) suggest that employers benefit from utilizing certification examinations as a screening process for prospective employees, and examinations show employers that applicants have a specific skill. Randall and Zirkle (2005) suggest that these examinations provide students with viable skills needed by the workforce, satisfy

state skill standards, and prepare students for postsecondary studies. However, Tittel (2003) suggests that simply acquiring a certification and expecting an employment advantage is unrealistic; rather, a candidate must possess other credentials and relevant experience. The purpose of this study is to gather additional information regarding the benefits or merit of industry certification. The study will also determine which hiring criteria are deemed valuable by employers. This information will be beneficial to students, parents, educators, and departments of education.

Problem Statement

This study looked at the employability advantages of industry certification. Virginia Department of Education (2011) suggested that industry certifications add value to students' transcripts, as well as increased opportunities for obtaining an entry-level position.

The problem of this study was to determine to what extent the National Retail Federation (NRF) Customer Service and Sales certifications provided high school students with employability advantages. The research will determine what employability advantages, if any, result from earning a marketing education industry certification. Additionally, the research will also determine other hiring criteria that employers believe are important such as oral communications skills, enthusiasm, initiative, personal appearance, and more.

Research Questions

To answer this problem, the following research questions were developed:

RQ₁: Which hiring criteria do employers find most desirable in prospective employees?

RQ₂: Do retailers offer hiring preferences to individuals possessing the National Retail Federation Certifications in Customer Service or Sales?

RQ₃: Do hiring preferences for candidates with the National Retail Federation Certifications vary among small and large retailers?

RQ₄: Do hiring preferences for candidates with the National Retail Federation Certifications vary between regional shopping centers in Northern Virginia?

Background and Significance

Career and technical education has evolved throughout time due to factors such as legislation, market forces, and technology. These influences have facilitated changes to career and technical education's name, course offerings, curriculum, accountability policies, and certifications. Industry certification examinations are now an integral part of many states' career and technical education programs. While this new trend has become prevalent in education, little research has been conducted on the effectiveness or benefits of credentialing. Significant funding is allocated to industry certification annually.

In the past, the purpose of vocational education was simply to teach a student a trade or profession. Gordon (2008) suggests that federal support for vocational education began with the Smith-Hughes Act of 1917, which called for specific skill training and focused on entry-level jobs in the industries of agriculture, homemaking, and trade and industrial education. As time progressed, additional legislative acts helped strengthen and broaden the scope of career and technical education. Whitaker (2011) suggests that the Carl D. Perkins Vocational Education Act of 1984 continued the affirmation of Congress that effective vocational education programs are essential. The goal of this Act

was to prepare students with the skills necessary to thrive in a technologically advanced and global society. Vocational education was now preparing students not only for careers, but also for college. The most current and significant legislative act was the Carl D. Perkins Act of 2006. U.S. Department of Education, Office of Vocational and Adult Education (2008) stated that Perkins IV emphasized skill attainment, program competition, placement into college or career, retention for all students, and accommodations for special population groups.

According to U.S. Department of Education, Office of Vocational and Adult Education (2008), the Carl D. Perkins Act placed emphasis on the accountability of CTE programs. However, no specific guidelines were set regarding how to show accountability. As such, each state's department of education could dictate its own distinct accountability measures. With no detailed program in place, many states turned to industry certification as a method of meeting the Carl D. Perkins Act's accountability measures.

In addition to legislation, career and technical education programs have also changed with technology. Employers began requiring employees to possess computer skills and be technologically literate. Many students enrolled in career and technical education to learn these pertinent skills. Technology also enhanced the use of industry certifications. Many information technology vendors began creating certifications to prove that individuals were proficient with their products and the Internet. This factor, combined with the need for accountability, increased the utilization of credentialing.

To meet accountability requirements and to stay current with the trend of information technology certifications, schools and colleges began making large

investments in industry certification examinations for career and technical education students. In the 2007-2008 and 2008-2009 school years, \$1,065,133 was spent by Virginia Department of Education for career and technical education certification examinations (E. Russell, personal communication, July 9, 2008).

Given the amount of money allocated to these certifications, it is important to determine whether the certifications do, in fact, provide schools with program accountability and if the certifications benefit students. There is a lack of data on whether industry certifications are appropriate measures of program accountability. Castellano, Stone, & Stringfield (2005) explain that little research attention has been paid to the use of industry certification in high schools, its perceived value by teachers, administrators, and students, and whether it is a useful measure of high school CTE program quality.

In addition to providing accountability, school systems and certification vendors claim that obtaining credentials can lead to advantages in the workplace, pay raises, and more. As such, it seemed that utilizing certification examinations could not only meet the requirements of The Carl D. Perkins Career and Technical Education Act of 2006, but they could also provide students with employability advantages.

However, there is a lack of information regarding the employability advantages of industry certification examinations. Fong, Goodwin, Silverberg, and Warner (2004) suggest that although employers were expected to value vocational student certifications, data to substantiate this claim are limited. Similarly, Randall and Zirkle (2005) suggest that state and local administrators may be promoting certification examinations based on the marketing from private vendors and convenience rather than on specific program

information. Randall and Zirkle further state that this issue can be combated through additional research on the prolonged success of industry certification examinations, employment projections, and certifications in the workforce.

This lack of research data and the substantial amount of money allocated toward certification examinations served as the catalysts for this study. Given the substantial funds utilized to support industry certifications, it was crucial to determine the type of return, or student benefit, on this large investment. Kobylinski (2008) suggests that as policymakers on every level work to determine which programs to fund and for how much to fund them, they look to studies conducted to determine the effectiveness of such programs.

Limitations

The following limitations set the boundaries for this study:

1) This study was limited to the marketing education certification examinations provided by the National Retail Federation. This included Customer Service and Sales Certifications.

2) The study was limited to three malls in Northern Virginia. This study was conducted at Fair Oaks Mall, Dulles Town Center, and Manassas Mall. This area was selected because many students residing in this area took the NRF certification examination. According to Virginia Department of Education (2010), 28% of NRF certifications were taken in this region.

3) Not all students who take the NRF certification examination are employed. The purpose of the study was to determine the likelihood of high school NRF certified students getting hired. However, not all high school students work. Employers may not

be aware of this certification due to a lack of high school marketing students seeking jobs.

Assumptions

The researcher posed assumptions that helped frame this study:

1) The NRF certification adds value to prospective employees. The certification may also be a way for a student to distinguish themselves from other applicants.

2) Other factors may be more important to employers than certification.

Employers hire students for a variety of reasons. Factors could entail grade point average, experience, internships, and more. A certification may not necessarily be a main reason for hiring selection. As such, the researcher included additional survey questions regarding different selection criteria of employers.

3) Accountability is an advantage of certification in education for certain subject areas. A certification or capstone type of examination is one acceptable way of showing accountability in education. A passing score could be an indication of overall learning in a course or could show proficiency in a specific industry. Certain content areas or courses would be more appropriate for industry certifications than others. For example, a credential in the information technology industry may be more beneficial than one in customer service. Additionally, employers must perceive that there is a strong relationship between the certification and the course curriculum for it to become advantageous.

Procedures

The purpose of this research was to determine if National Retail Federation certifications in customer service or sales result in hiring benefits. In particular, the

research questions sought to discover if employees preferred to hire students who earned the NRF certification.

The population entailed retailers from three shopping centers in Northern Virginia: Fair Oaks Mall, Dulles Town Center, and Manassas Mall. Selecting three shopping areas in different locations allowed the researcher to determine if location or demographics impact labor market advantages. The research population consisted of 238 retail stores from these three centers. Specifically, the total population of retailers at Fair Oaks Mall was 86 stores ($N=86$). Dulles Town Center had 101 stores ($N=101$). Manassas Mall had 51 stores ($N=51$).

Next, the population was categorized by size. It was of interest to determine if a difference existed in hiring practices for certified students among small and large retailers. A large retailer would be a department store, or anything over 25,000 square feet in size. The population of small retailers at Fair Oaks Mall was 80 stores ($N=80$) and six large stores ($N=6$). Dulles Town Center had 92 small stores ($N=92$) and nine large stores ($N=9$). Manassas Mall had 46 small stores ($N=46$) and five large stores ($N=5$).

The researcher collected data by visiting each store in person and conducted a survey with store or hiring managers. Every store in the mall was given a survey. Identifying information such as store name or manager name was kept confidential.

Once the data were collected, they were tabulated and then analyzed using quantitative techniques. First, descriptive statistics were calculated to get a basic understanding of the data. Descriptive statistics allowed the researcher to understand the average starting salaries for certified and uncertified students. Additionally, this

information allowed the researcher to see the most common responses for Likert scale types of questions. Factor analysis tests were also used to answer the research questions. Last, the researcher formed conclusions based on the data to answer the research questions, thereby, resulting in a concluding narrative.

Definition of Terms

The definitions below explain key terms utilized in this study.

Career and Technical Education (CTE): According to Carl D. Perkins Vocational and Technical Education Act (2006),

The definition of career and technical education is organized educational activities that: (A) offer a sequence of courses that (i) provides individuals with coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions; (ii) provides technical skill proficiency, an industry-recognized credential, a certificate, or an associate degree; and (iii) may include prerequisite courses (other than a remedial course) that meet the requirements of this subparagraph; and (B) include competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of an industry, including entrepreneurship, of an individual. (p. 4)

Career and Technical Education Program Areas: Virginia Department of Education recognizes eight career and technical education program areas. These areas are agricultural education, business and information technology, career connections, family

and consumer science, health and medical science, marketing, technology education, and trade and industrial education (Virginia Career and Technical Education Resource Center, 2008).

Carl D. Perkins Act: The Carl D. Perkins Career and Technical Education Act was most recently reauthorized in August 2006, creating Perkins IV. U.S. Department of Education suggests that each year under Perkins IV, Congress has appropriated \$1.1 billion dollars for grants to states. However, in 2011 the funding was reduced by \$140.2 million dollars (Career and Technology Association of Texas, 2011). The funds are allocated toward activities that improve the program, develop accountability systems and credentializing, strengthen the integration of academic and career and technical education, provide access to special populations, update equipment, and more (Association of Career and Technical Education, 2008).

Credentialing: Credentialing refers to the granting of a diploma or other certificate in recognition that an individual has completed a defined body of work that is required for employment in certain occupations or professions (Muller & Beatty, 2011).

Industry Certification Examination: Hastie (2006) states, “Certification is the process whereby an external organization or body validates the skill and/or knowledge of an individual as competent to practice in a particular area” (p. 4).

National Retail Federation (NRF): The National Retail Federation is the world's largest retail trade association. The NRF (2008) states that their membership is comprised of all retail formats and channels of distribution. The NRF provides a variety of services to retailers, such as research, publishing a monthly magazine, and industry certification. Furthermore, the NRF has a non-profit division that conducts industry research, develops

education and workforce development programs, and promotes retailing as a career destination (National Retail Federation, 2011).

National Professional Certification in Customer Service: The Customer Service

Certification is an industry certification test provided by National Retail Federation. The content is based on the national skill standards for customer service. The Texas Education Agency (2007) states, “It assesses essential customer service knowledge and skills that enhance interaction with customers to provide information in response to inquiries about products and services as well as ability to handle and resolve customer complaints” (p. 6).

National Professional Certification in Sales: The sales certification is an industry-driven examination for service and sales focused industries (National Retail Federation, 2008).

This certification aims to assist employers in identifying qualified sales professionals.

The National Retail Federation (2011) states, “The certification was designed to capture the core sales duties for a broad range of entry-level through first-line supervisory positions across the sales and service industries” (p. 1).

Northern Virginia: The area in which the research occurred was Northern Virginia. This area is located near Washington, DC. The counties utilized for research included Fairfax, Loudon, and Prince William, Virginia.

Summary and Overview

Industry certification examinations have recently been the focus of many states’ career and technical education departments. Given their substantial time and monetary investments, research must be conducted to draw conclusions regarding the benefits of these examinations. Currently, few studies have been conducted, and a lack of literature suggests the need for further investigation.

The study of the employability advantages of industry certification examinations are presented in five chapters. Chapter I discussed the research problem of determining retailers' awareness of industry certifications. This problem was guided by research questions related to employment criteria and starting salary. Additionally, Chapter I discussed events serving as a catalyst for the increase in industry certifications, such as legislation, the need for qualified technical workers, and the marketing efforts of certification vendors. Next, Chapter I discussed the study's limitations. Finally, key terms were defined and it was explained that data were collected utilizing a survey. Chapter II is a detailed synthesis of a review of literature regarding the history of vocational education, the usage of industry certifications, types of credentials for career and technical education, information about National Retail Federation, and a summary of research that supports and opposes credentialing. Next, Chapter III will explain the methods and procedures utilized to execute the study. Information will be presented regarding the population, research variables, instrumental design, and statistical analyses. Chapter IV will show the statistical analysis and results. Chapter V contains a summary, conclusions, and recommendations for future study.

CHAPTER II

REVIEW OF LITERATURE

To fully understand industry certification, literature on the subject was reviewed. Chapter II will first explain the history of career and technical education and pertinent legislation. Next, the historical foundations of industry certifications and factors leading to their increased usage are examined. Third, Chapter II includes a review of literature on the various types or classifications of industry credentials. Finally, expert reviews on the positive and negative aspects of certifications are studied.

History of Career and Technical Education

Though many innovations, changes, and advancements have occurred in career and technical education, formerly named vocational education, its origins can be traced back hundreds of years. It is important to investigate the historical events and legislation that helped to shape career and technical education as we know it today and make projections about the future. Career and technical education is now prevalent in most public schools and has expanded in course offerings, student enrollment, rigor, and relevance. The American Youth Policy Forum (2006) suggested that 95% of high school students take at least one career and technical education course.

Pertinent legislation that helped shape vocational education includes the Smith-Hughes Act of 1917, the Vocational Education Act of 1963, and the various revisions to the Carl D. Perkins Act. These legislative acts were not the only force causing career and technical education to change. U.S. Department of Education, Office of Vocational and Adult Education (2012) suggests Americans' changing workforce, competition, and technological advancements also influenced how career and technical education is

structured today. Unlike in the past when job specific training or learning one vocation was sufficient, modern day employers now demand employees to possess a variety of skills and to be well versed in technology. As such, career and technical education evolved to prepare students for this new work environment. Figure 1 visually depicts a timeline of vocational/career and technical education.

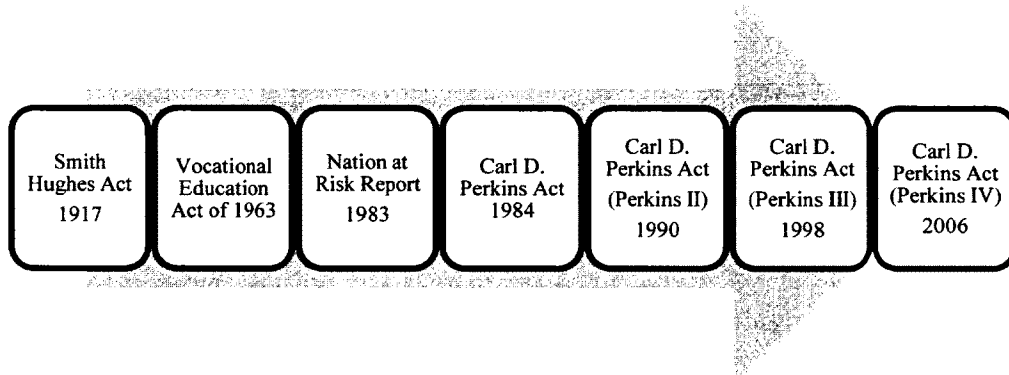


Figure 1. Timeline: Important vocational education legislation acts

From Schell, J. (2011). *Legislation*. Retrieved from <http://jschell.myweb.uga.edu/history/legis/index.htm>.

Vocational education can be traced back to the colonial period. Rury (2002) suggested that the Old Deluder Satan Act of the Massachusetts Bay Colony set specific requirements for masters to teach apprentices academic as well as vocational skills. While vocational education began to emerge, it was not until the twentieth century that it was mainstreamed into education. Hyslop-Marginson (2005) states, “Early in the twentieth century, vocational education was a prominent topic of discussion among American educators as schools struggled to meet the labor force needs consistent with the shift from an agrarian to an industrial economic base” (p. 20).

Smith-Hughes Act of 1917

Federal support for vocational education began with the Smith-Hughes Act of 1917. Gordon (2008) claims that the Smith-Hughes Act of 1917 was the first vocational education act to provide federal funding, and it contained several specific elements that contributed to the isolation of vocational education from other parts of the comprehensive high school curriculum. The Act called for specific skill training, focused on entry-level skills, and helped to establish separate state boards for vocational education. Gordon further states that the Smith-Hughes Act promoted agriculture, homemaking, and trade and industrial education. Students were typically pulled out of the traditional high school and transported to vocational schools to acquire such knowledge. Students either learned a vocation or they entered college. The early stages of vocational education did not recognize vocational students as college bound. According to Milne (1998),

The Smith-Hughes Act of 1917 was significant not only for its obvious effect adding practical subjects to the curriculum, but also for setting the precedent of federal involvement in secondary level public education, for the recognition of public education's responsibility to the general population, for the recognition of selected minority, and for legitimizing the advisory role of business and industry in the vocational aspects of public education. (p. 16)

Vocational Education Act of 1963

The next notable legislative act was the Vocational Education Act of 1963. Gordon (2008) suggested that the Vocational Education Act of 1963 supported vocational schools and broadened the definition of vocational education to include occupational programs, such as business and commerce, in comprehensive high schools. The Act

sought to expand vocational education, attract additional students, and offer new programs. Wolfe (1987) states that the purpose of this Act was to extend, improve, and maintain vocational education for persons of substantially varying needs, including such special needs groups as the handicapped, disadvantaged, language minorities, and women. Gordon added that these acts focused on basic support, providing funds for teachers and teacher training, and encouraging state support for vocational education through extensive fund-matching requirements.

A Nation at Risk

The 1980s was a time for much educational reform and additional government involvement. Gordon (2008) explained that *A Nation at Risk* was a report created by the National Commission on Excellence in Education, and it revealed that the United States educational system encompassed low standards and poor performance. These concerns facilitated many educational reforms and acts, including the Carl D. Perkins Vocational and Applied Technology Educational Act. Gordon (1999) suggests that this educational restructuring was prompted by concerns about the nation's declining competitiveness in the international market, the relatively poor performance of American students on tests, and complaints from the business community about the low level of skills and abilities found in high school graduates entering the workforce.

Carl D. Perkins Vocational Education Act of 1984, 1990, and 1998

The next significant legislative action that greatly impacted vocational education was the Carl D. Perkins Vocational Education Act of 1984. Gordon (2008) asserts that the Carl D. Perkins Vocational Education Act of 1984 (Pub. L. 98-524), known as the Perkins Act, continued the affirmation of Congress that effective vocational education

programs are essential to the nation's future as a free and democratic society. The goals of the Perkins Act were to equip students with the necessary skills to work in a technologically advanced global society and create equal opportunities for all.

National Center for Education Statistics (1992) suggested that the enrollment in vocational classes, especially those relating to technology, increased considerably. National Center for Education Statistics (1992) continued to suggest that enrollment was also increasing in the other vocational areas such as trade and industry, technology and communication, and marketing education. Figure 2 visually depicts vocational education enrollment.

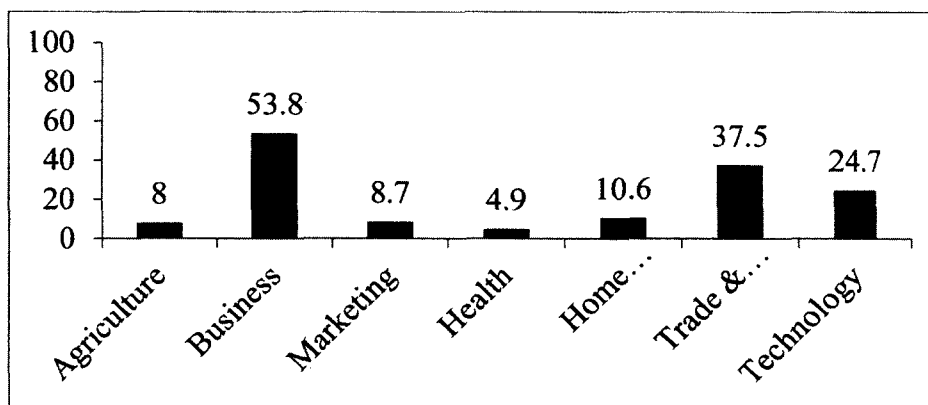


Figure 2. Percentage of 1987 public high school graduates completing one or more courses in specific labor market preparation programs.

From National Center for Education Statistics. (1992). *Vocational education in the United States: 1969–1990*. Retrieved from <http://nces.ed.gov/pubs92/92669.pdf>

Additionally, the number of high schools offering vocational education greatly increased in response to educational reform. Almost every public high school in America in 1987 offered some type of vocational education. See Figure 3 for a visual representation of vocational education offerings.

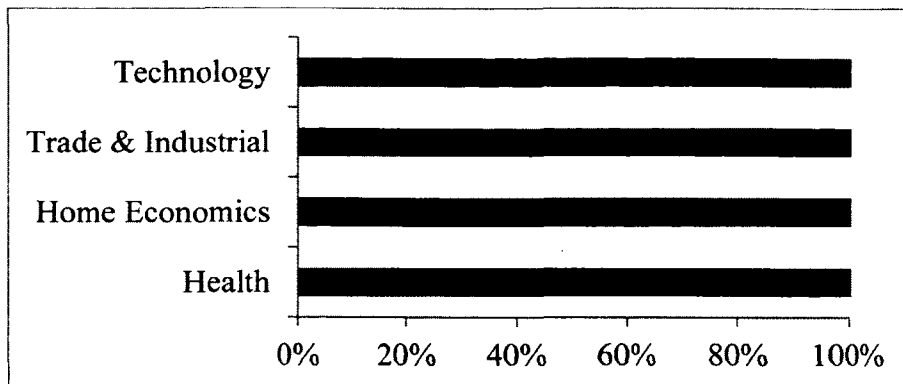


Figure 3. Percentage of 1987 public high schools offering one or more course in vocational education by type of vocational education.

From National Center for Education Statistics. (1992). *Vocational Education in the United States: 1969–1990*. Retrieved from <http://nces.ed.gov/pubs92/92669.pdf>

The Carl D. Perkins Act of 1984 was reviewed and reauthorized again in 1990 and 1998. This reauthorization helped ensure that funds would continue to be allocated to vocational education programs. U.S. Department of Education, Office of Vocational and Adult Education (2008), stated that the Carl D. Perkins Vocational and Technical Education Act of 1998 provided billions of dollars in federal funding to states for the improvement of secondary and postsecondary vocational education programs.

Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV)

History was made in vocational education when the Carl D. Perkins Act was revised and approved in 2006. The Act called for changes aimed at improving and expanding vocational education.

The first significant change in Perkins IV was a name change. U.S. Department of Education stated in section S. 250—66 (4) of Perkins Legislation that the program

would no longer be called vocational education; rather, the term career and technical education (CTE) would be utilized.

Next, U.S. Department of Education (2007) stated that section S. 250—44 of the Act provided an increased focus on the academic achievement of career and technical education students and strengthened the connections between secondary and postsecondary education and improved state and local accountability. This section of the Act also called for inclusion of all students regardless of disabilities, gender, race, and income level. U.S. Department of Education, Office of Vocational and Adult Education (2008), added that S. 250—44 of Perkins IV emphasized skill attainment, program competition, placement into college or career, retention for all students, and accommodations for special population groups.

It is vital that states comply with the regulations set forth in the Perkins Legislation. Failure to comply with the stipulations set forth by Perkins could result in funding being discontinued. The U. S. Department of Education, Office of Vocational and Adult Education, asserted that the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV) is a federal funding source for career and technical education (CTE) in the United States.

Perkins IV requires each state to establish an accountability program and provide annual progress reports. U.S. Department of Education (2007) stated that section S. 250—55 emphasized accountability for results, setting new performance accountability requirements for states and local programs. U.S. Department of Education also asserted that these requirements were established to assess the effectiveness of the state in achieving statewide progress in vocational and technical education and to optimize the

return of investment of Federal funds. U.S. Department of Education, Office of Vocational and Adult Education (2007), proclaimed that one of Perkins' accountability measures was the obtainment of a secondary school diploma or its recognized equivalent in conjunction with a proficiency credential or an industry certification examination.

According to Perkins IV, each state is responsible for formulating a plan or method of proving success and providing accountability. With no common assessment or specific accountability procedure in place, many states turned to industry certification. Lankard (1998) posits that states began to utilize worker certification as a means of assessing educational progress. The need for accountability correlated with the use of industry certification examinations. Thus, accountability was achieved through the numbers and data derived from industry certification examinations. The A*S*K Institute (2011) stated that "career and technical education programs are using certification programs to document both student and program successes" (p. 1).

Finally, according to U.S. Department of Education (2007) Perkins also emphasizes improving the skills of the labor force. This can be achieved in marketing education through cooperative learning experiences. In addition to industry certification, marketing education also provides students with opportunities to increase their marketability to prospective employers through cooperative education. This program allows students to acquire additional knowledge by gaining hands-on learning experiences in the workplace. Virginia Department of Education (2010) stated, "Cooperative Education is a method of instruction that combines career and technical classroom instruction with paid employment directly related to the classroom instruction" (p. 1). Mississippi Department of Education (2010) suggested that cooperative education

programs combine work-readiness preparation, related classroom instruction, and worksite training to prepare individuals for the job market.

All of these legislative actions contributed to the current state of career and technical education. Future government acts will continue to dictate procedures and policies of career and technical education.

Historical Foundations of Industry Certification Examinations

Industry licensing and certification is not a new concept; in fact, traces of credentialing can be found in the early 1900s. Hitchcock (2008) states that industry certifications emerged in the 1930s but gained popularity in the 1980s through the information technology industry's adoption of the phenomenon and that the subsequent proliferation occurred as a result of the emergence of the Internet. While certifications in the early 1900s were not as pervasive as today, they were implemented in specific industries that impacted vocational education. Widely used vocational education examinations include National Occupational Competency Testing Institute (NOCTI) examinations, the esthetician license, Automotive Service Consultant Examination, and information technology certifications. These industry certifications have been utilized for decades and have paved the way for modern credentialing.

The National Occupational Competency Testing Institute (NOCTI), a large not-for-profit certification company, stated, “In 1966, two one-day conferences were held at Rutgers University to discuss the challenge of certifying the non-degreed teacher in the vocational education field. It was determined that there should be a development and implementation of occupational competency examinations on a nationwide basis” (2011, p. 1). NOCTI (2011) added that in 1969 grant money was received from the U.S.

Commissioner of Education through the Bureau of Research for a study titled "Occupational Competency Testing: Consortium of States Project". Throughout the years funding continued and additional grants were received. NOCTI has been creating certification examinations for over three decades and currently distributes 170 standardized technical assessments in a variety of occupational fields (NOCTI, 2010).

Industry certification has also been utilized within the aviation community. The Federal Aviation Administration (2004) suggested that since 1972 it has offered industry certification examinations in the aeronautics industry for aircraft, airmen, and airports. These certifications are not only highly recognized, but some are even required for the field of aviation.

The cosmetician and esthetician license is another prevalent examination. The Board of Barbering and Cosmetology (2011) stated, "In 1927, the Board of Barber Examiners and the Board of Cosmetology were established. The Board of Barber Examiners governed the barbering profession, and the Board of Cosmetology governed the cosmetology profession" (p. 1). A cosmetology degree and license is necessary for pursuing a career as a hair stylist, designer, barber, nail technician, esthetician, or makeup artist. According to the *High School Graduate* (2009), "Licensing requirements vary from state to state for each area of expertise" (p. 1). An aspiring cosmetician must investigate state requirements and pass this examination in order to acquire employment in this field.

Another widely known certification examination that has been in existence for decades is the ASE examination. The National Institute for Automotive Services Excellence (ASE) is an independent, non-profit organization that was established in

1972 to improve the quality of vehicle repair and service through the voluntary testing and certification of technicians and other automotive service professionals (National Institute for Automotive Services Excellence, 2009). The ASE states that about 385,000 professionals hold current certifications. Certified individuals work as auto mechanics or automotive technicians in every segment of the automotive service industry, such as car and truck dealerships, garages, and fleets.

Finally, as technology rapidly progressed in the 1980s, it became important for employees to possess skills with computers, the Internet, hardware, software, and other facets of technology. Dixon and Koziniec (2002) suggest that the shortage of skilled information technology workers led to industry certification programs designed for delivery in high schools. Thousands of information technology certifications began emerging as employers demanded these skills from employees. Hitchcock (2007) states that vendors such as Apple, Cisco, Dell, Novell, and Oracle all created certification examinations to show proficiency with their products. Additional certifications were created to help employees show their knowledge of the Worldwide Web, keyboarding, and computer hardware. See Table 2 for examples of technology certifications approved for career and technical education in Virginia.

Table 2

Career and Technical Education Technology Industry Certifications in Virginia

Certification Name	
Certified Internet Web Professional	Microsoft Office Specialist
Network+ Certification	Oracle Certification
Virtual Enterprise Assessment	A+ Certification
AutoCAD Certification	Robotics Examination

Factors Leading to Increased Usage of Industry Certification

Various forces led to the increased usage of industry certification. Several factors served as a catalyst for increased credentialing such as the No Child Left Behind Act (2002) passed by President Bush, Perkins IV, the potential employability advantages led to an increase in industry certifications, vendor marketing, the high demand for qualified information technology personnel, and the portability of credentials.

First, President Bush passed the No Child Left Behind Act (2002) to initiate educational reform. Mantel (2005) suggested that among other goals, No Child Left Behind aimed to increase teacher, student, and school accountability. However, career and technical education programs did not have accountability systems. Castellano, Stone, & Stringfield (2005) stated that schools, school districts, and states adopted industry certification examinations as a component of their CTE accountability systems.

Second, the Carl D. Perkins Career and Technical Education Act's focus is improving and financially supporting career and technical education students. U.S. Department of Education suggests that each year under Perkins IV, Congress has appropriated \$1.1 billion dollars for grants to states. However, in 2011 the funding was reduced by \$140.2 million dollars (Career and Technology Association of Texas, 2011). The newest Perkins legislation, Perkins IV, followed No Child Left Behind's principles of accountability. The Illinois State Board of Education (2008) posited that under Perkins IV, states can use No Child Left Behind measures to determine if they have challenging academic content and meet achievement standards through certification examinations. Lankard (2005) stated, "Supported by Perkins funding, many states began to develop standards for assessing the educational progress of students and programs--standards that

were developed under the direction of business and industry that could lead to worker certification” (p. 3). The Bureau of Career and Technical Education, Department of Education, Commonwealth of Pennsylvania (2008), claimed that certification examinations became a classroom requirement to fulfill the accountability policies of No Child Left Behind and the Carl Perkins Act. With no detailed program in place, many states turned to industry certification as a method of meeting the Carl D. Perkins Act’s accountability measures.

Educational institutions began to promote industry licenses or certifications to provide students with potential employability advantages. Test vendors or certifiers claimed that individuals with industry certifications would acquire employability advantages. However, DeMarco (1998) suggested that certifications are implemented for the benefit of certifiers or test vendors, not for the benefit of society. In contrast, test vendors and departments of education disagree. National Retail Federation (2008) stated, “Certifications can provide career currency” (p. 1). The NRF also argued that the customer service certification helps employers identify qualified professionals and gives students career mobility. Additionally, Foster and Pritz (2006) suggested that the state of Virginia believes the industry certification examinations offer several benefits to students, including evidence of educational preparation, increased job opportunities for advancement in a career pathway, and increased self-confidence and self-worth. However, as pointed out by Castellano, Stone, & Stringfield (2005), data to substantiate the claim of employability advantages from certification are lacking.

Additionally, in specific program areas, passing an examination or obtaining a license is a graduation or employment requirement. “Licensures used for credentialing in

secondary career and technical education normally represent validation of the essential skills needed for a specific job as determined by a state licensing agency” (Virginia Department of Education, 2008, p. 3). For example, a student must obtain a license in the industry of cosmetology or nursing to legally practice in those fields. Failure to pass the license examination is a barrier to employment. It is crucial that educational establishments assist students in passing such examinations. This highly utilized and widely known practice of cosmetology or nursing licensing examinations paved the way for industry certifications. However, earning an industry certification by a private vendor for a position not requiring a credential may not be as beneficial to students. Dixon and Koziniec (2002) asserted that unlike student industry certifications, medical, legal, and accounting certifications are almost universally recognized and identifiable by potential employers.

Portability also led to an increase in the use of certification. An individual possessing well-known, respected, and valued certifications can easily switch jobs or move to various geographical locations without losing the prestige of the credential. Thus, some certifications do possess a great deal of portability.

Finally, the demand for highly qualified information technology workers also increased the use of industry certifications. Lankard (2005) stated that certification examinations gained prevalence in the early 1980s, when it became clear that the jobs of the future would require higher levels of basic skills in communication, mathematics, science, and technology. Dixon and Koziniec (2002) claimed that the shortage of skilled information technology workers led to industry certification programs designed for delivery in high schools. Carter (2005) said that the growing demand for qualified

personnel in the software and hardware field led employers to request certifications. Carter (2005) also stated that this employer demand caused private organizations to rapidly increase the number and types of skill certifications available. Many different types or classifications of certifications arose out of the IT movement. Hitchcock (2007) pointed out that vendors such as Apple, Cisco, Dell, Novell, and Oracle all created vendor-specific certification examinations. Additional vendor-neutral certifications were created to help employees show their knowledge of the World Wide Web, keyboarding, and computer hardware. Some of these certifications included XML, Certiport, CompTIA, ISC2, Sage, and more.

Types of Certifications

Industry certification examinations are not just prevalent in marketing education. Rather, many certification examinations are currently in existence and are utilized in other areas of education and industry. Hitchcock (2008) claims that industry certification has become a multi-billion dollar business and the number and types of certification examinations is considerable. Al-Rawi, Lansari, and Bouslama (2005) estimate that over 400 certification examinations exist and the number is rapidly increasing.

However, not all of these certifications are structured similarly. Certifications are classified as being either knowledge-based or performance-based. Additionally, there are vendor-specific and industry-neutral certifications. Virginia Department of Education (2011) also classifies certifications into the four categories of full industry certification, state licensure, pathway industry certification exam, and occupational competency assessment. Just as conflicting views exist regarding the labor market advantages of

certification examinations, many individuals also possess differing views on the value of different test categories.

Knowledge-based verse performance-based

Ceriport (2001) explains that knowledge-based testing usually involves an examination that includes multiple choice, multiple answer, matching, and true-false questions, and performance-based examinations involve the candidate actually performing a task within a computing environment, a simulation of operating systems and applications, and multiple correct response possibilities. Many experts on industry certification favor performance-based certification examinations. According to Ireland (2003), knowledge-based examinations measure a candidate's body of knowledge and some practices, whereas performance-based certification, which may include a sample of a candidate's experience, infers an ability to perform tasks at a given level, giving a greater degree of assurance and value. Joss (2001) notes that there is a trend toward using performance-based certifications and suggests this will become the standard because this type of credential does much more than show that an individual can simply pass an exam.

Vendor-specific versus industry-neutral

Certifications can be placed into the categories of vendor-specific and industry-neutral. Hurley (2002) states, "When surveying the security certification landscape, you see two varieties: vendor-specific, offered by vendors for their specific technology; and vendor-neutral, offered by industry consortiums and similar organizations" (p. 1). Hurley further attests that vendor-specific certification tests are what the vendor believes to be the minimum required to support their product, whereas a vendor-neutral certification

leads one to study the fundamental issues of that field and develop a broader understanding of the environment in which the products are used. Ward (2011) emphasizes that the most popular primary certifications are vendor-sponsored and include Microsoft, Cisco, and Novell. Hurley (2002) lists popular vendor-neutral certifications as including CISA (Certified Information Systems Auditor), CFE (Certified Fraud Examiner), CPP (Certified Protection Professional), CISSP (Certified Information Systems Security Pro), and SANS GIAC (Global Information Assurance Certification).

Hitchcock (2007) states, “Much debate in the literature centers on vendor-specific versus vendor-neutral certifications” (p. 59). Cosgrove (2004) asserts that many vendor-specific certifications do verify experience or show competency with one specific company’s products. Fells (2004) claims that vendor-specific certifications are important today and will continue to play a key role in the future. In contrast, Hurley (2002) argues that favorable vendor-neutral certifications exist, such as the credential offered by the ICCP, which gauges a broader view of industry knowledge.

Many states entailing Florida, Georgia, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, New York, North Dakota, Ohio, Pennsylvania, Tennessee, Texas, and Virginia utilized certifications offered by the National Retail Federation (Castellano, Stone, & Stringfield, 2005). This examination tests students on their overall knowledge of basic marketing and customer service. The examination does not actually require the student to perform a task or show competency on a particular product. Thus, this examination is a knowledge-based and vendor-neutral certification.

Virginia Department of Education classifications

Virginia Department of Education classifies certifications into four categories: full industry certification, state licensure, pathway industry certification exam, and occupational competency assessment. Virginia Department of Education (2010) attests that full industry certification is a complete examination program that leads to a nationally recognized industry certification from a specific testing entity; Certified Nursing Assistant is an example of a full industry certification. Next, a state licensure is a required state examination that must be completed prior to entry into a specific occupation, such as a cosmetology license. Virginia Department of Education (2010) states that a pathway industry certification consists of one or more entry level exams in a specific industry certification program leading to a full or complete certification that requires one or more advanced examinations. An example of such an examination is the automotive technician examinations from ASE. Finally, for specific career and technical education programs, Virginia Department of Education provides students with occupational competency assessments offered from the National Occupational Competency Testing Institute.

Certifications Used in Career and Technical Education

Virginia Department of Education (2011) stated that 366 industry certifications in the areas of agricultural education, business and information technology, family and consumer sciences, health and medical sciences, marketing education, technology education, and trade and industrial education are approved for career and technical education in the state of Virginia. All of the 366 certification examinations are knowledge-based. Creasy (2010) claims that Virginia Department of Education only

approves of certifications or examinations that are knowledge-based, as opposed to performance-based. Examinations are selected based upon compatibility with the course curriculums. NOCTI examinations are widely utilized in the state.

Virginia is not the only state that places importance on career and technical education industry certification. Foster and Pritz (2006) report that many states have integrated certification into their career and technical education programs. According to Foster and Pritz (2006), New Jersey, Georgia, Virginia, Pennsylvania, Maine, Missouri, and Connecticut all use industry certification in their career and technical education programs.

Foster (2006) states, “Virginia has taken an aggressive stance regarding assuring that its students and programs benefit from end-of-program assessments and certifications” (p. 31). Foster further asserts, “Consistency and a tightly woven relationship between standards, assessment and professional development was an important consideration for Georgia” (p. 31). New Jersey is another state that is meeting Perkins IV requirements of accountability through assessments. Foster (2006) states that New Jersey has taken the initiative in adopting CTE standards that are aligned to the national clusters. New Jersey assisted in the development of pathway level assessments and is comparing data derived from that level of assessment to job specific assessment data. Foster also writes that Pennsylvania has been a long-time user of both written and performance-based assessments in their expansive CTE program. Finally, Foster reports that Missouri actually was giving CTE students assessments prior to the reauthorization of Perkins 2006.

Marketing education certifications

Virginia Department of Education (2010) suggests that a certification utilized in marketing education is offered by the National Retail Federation (NRF). The National Retail Federation (2011) claims to be the world's largest retail trade association and the voice of retailers worldwide. The National Retail Federation writes that its global membership includes retailers of all sizes, formats, and channels of distribution as well as chain restaurants and industry partners from the U.S. and more than 45 countries abroad. According to the National Retail Federation (2013) in the United States, the NRF represents the breadth and diversity of industry with more than 3.5 million American companies that employ nearly 42 million workers and generated sales of \$2.5 trillion in 2012.

According to McGraw Hill Education (2013), the NRF Foundation professional credentials are the National Professional Certification in Customer Service, the National Professional Certification in Sales, the National Professional Certification in Retail Management, and the Professional Retail Business Credential. The certifications approved for marketing education are the customer service and sales examinations.

The National Professional Certification in Customer Service is an industry-driven and endorsed credential that helps employers distinguish and recognize qualified customer service professionals and helps define career advancement opportunities for candidates (National Retail Federation, 2011). According to Employment Resources Incorporated (2012), the customer service certification covers skill areas such as speaking, listening, reading, writing, mathematics, analyzing and solving problems, organizing and planning, meeting client's needs, and leading over people.

These certifications are typically given to students near the end of the course as a capstone type of assessment. National Retail Federation (2011) suggested that both the customer service and sales assessments be taken online and consist of 75 questions. According to NRF, the 75 question assessment was created by an advisory board of teachers, retailers, and managers who measured and validated knowledge in the areas of products or services, customer needs, educating the consumer, and meeting customers' needs. The examinations must be proctored by a non-biased or neutral individual. For example, the classroom teacher would not be a good proctor, as they have a vested interest in the students' pass rates. Testing can occur at private test sites, such as a classroom, or at one of the specific NRF testing centers that are located throughout the country. NRF (2011) suggested that the base price of the exam is \$50 to \$80, depending on the test site. There are additional fees associated with establishing a private testing site. The initial setup fee can be hundreds of dollars.

Individuals who have already earned the National Professional Certification in Customer Service are eligible to take the National Professional Certification in Sales during the subsequent school year. This examination is also an industry-driven and endorsed credential. This certification aims to assist employers in identifying qualified sales professionals. Business Leaders of Tomorrow Leadership Empowerment Center (2012) suggest the sales certification cover skills areas entailing sales duties, entry level retail skills, and managerial skills. The National Retail Federation (2011) states, "The certification was designed to capture the core sales duties for a broad range of entry-level through first-line supervisory positions across the sales and service industries. It is appropriate for anyone interested in obtaining a job or pursuing a career in retail and

other sales-focused industries” (p. 1). The NRF (2011) explains the assessment measures and validates knowledge in the areas of selling, gaining customer commitment, closing the sale, and implementing follow-up plans.

In Virginia, the number of students attempting the NRF Customer Service Examination has continued to increase over subsequent school years. Table 3 shows the number of marketing certifications attempted as well as pass rates in the 2011-2012, 2010-2011, 2009-2010, and 2008-2009 school years.

Table 3

Customer Service and Sales Certification: Number of Attempts and Pass Rates in Virginia for the 2011-2012, 2010-2011, 2009-2010, and 2008-2009 School Years

	Number of certifications attempted	Number of passing students	Number of failing students	Percentage pass rate
Customer Service Certification				
2011-2012	6237	5401	836	86.60%
2010-2011	6159	5236	923	85.01%
2009-2010	5263	4491	772	85.33%
2008-2009	4576	3832	744	84.50%
Sales Certification				
2011-2012	719	532	187	73.90%
2010-2011	557	463	94	83.12%
2009-2010	660	533	127	80.76%
2008-2009	372	325	47	88.00%

From Virginia Department of Education. (2011). *Credentialing examination numbers for SWSS, 2010-2011 school year*. Retrieved from http://www.doe.virginia.gov/instruction/career_technical/path_industry_certification/index.shtml

While information has been presented on the utilization of NRF certification examinations at the high school level, it is important to note that colleges are also utilizing the NRF certification examinations. For example, the Stafford Technical Center in Rutland, Vermont, offers the certification to their students. Similarly, The Henry Ford Community College located in Michigan offers a course in customer service and selling. Students are eligible to take the NRF examinations upon completion of these courses.

In addition to educational institutes, some companies such as Goodwill also offer the NRF certification to their employees. Goodwill sponsors a program called the Goodwill Retail Training Program. According to Cwierniewicz and Viets (2010),

This program is sponsored by the Workforce Investment Act grant and available to out-of-school youth between the ages of 19 and 21. It is a seven-week training program followed by job support for a year. Individualized remedial education and training are based on the needs of each person. Students participate in 24 hours per week of classroom and on-the-job training leading to certification in customer service by the National Retail Federation. (p. 3)

Though the NRF suggests that their certifications possess benefits, Castellano, Stone, & Stringfield (2005) attest that minimal research has been conducted on the effectiveness of credentialing. Austin (2011) also expresses concerns about the benefits of the NRF certification. Austin (2011) suggests that the National Retail Federation Customer Service Certification might be considered broad and entry level. The value of industry certifications will be further discussed in the next section.

Value of Certifications

Various opinions exist regarding the value of industry certifications among scholars, companies, and educators. While there are advocates for certification, there are also those who do not believe there are benefits to credentialing.

As advocates of certification, Foster and Pritz (2006) state, “Certificates have become an important career credential for students and employees, and an important indicator of one’s ability to get the job done” (p. 1). Similarly, The National Retail Federation (2011) states, “The standards-based approach to building a common set of skills and knowledge establishes clear performance expectations and provides hiring managers assurance that candidates are prepared to succeed” (p. 1). Hunsinger, Smith, and Alan (2009) suggest that certifications can be used by employers to screen out unqualified individuals and to help distinguish among otherwise similarly qualified applicants.

Various state departments of education also support certifications. The Georgia Department of Education (2010) states, “Industry certified programs not only offer outstanding opportunities to students who receive instruction through such programs, but they also offer positive benefits for schools as well as employers” (p. 1). Creasy (2010) suggests that earning a certification can build students’ self-esteem and enhance their confidence in the workplace. Creasy adds that today’s labor market places great value on industry-recognized technical certificates. The continuing success of students requires that they develop skills consistent with industry standards and they obtain recognized and marketable certificates, which employers often use as one important criterion for hiring.

There are also some mixed opinions regarding certification. While Foster and Pritz (2009) support industry certification, they suggest that not all certifications are meaningful. Foster and Pritz (2010) claim that certification must be based on certain principles to be recognized as meaningful and useful. These principles include quality and currency. Further, the assessment on which the certificate is based must be valid, reliable, and fair. As certificates proliferate, not all of them can be guaranteed to meet quality assurance criteria. De Marco (1998) points out that many of the commentators who are promoting certification represent the organizations that (1) receive the payment for the certification examination and (2) might no longer have a rationale for existence if they did not have a certification program to oversee.

Skeptics of certifications also exist. A U.S. Department of Commerce (2003) report suggests that industry certification may not adequately prepare students to obtain mid-to high-level positions in the IT employment sector. Tittel (2003) points out that simply acquiring a certification and expecting employability advantages is unrealistic. Barlett (2002) warns that even if employment is gained by obtaining a certification, it may be short-lived, with limited career opportunities. Zang (2004) asserts that many disadvantages of credentialing exist, such as the lack of a single standard for preparation, some employers may recognize certification and others may not, and the speed with which the credential becomes outdated.

Summary

Legislative movements such as Smith-Hughes Act of 1917, Vocational Education Act of 1963, and various revisions to the Carl D. Perkins Act have all impacted career and technical education. Most recently, current career and technical education programs

are structured to meet the stipulations of the Carl D. Perkins Act of 2006, which aimed at improving and expanding vocational education and required states to show accountability.

With no accountability system in place, many states' career and technical education programs turned to industry certification. States such as Virginia, Georgia, New Jersey, Pennsylvania, Maine, Missouri, and Connecticut utilize industry certifications in career and technical education. Industry certification is not a new concept. Credentials such as NOCTI, esthetician, and ASE have been utilized for decades. Many more certifications began emerging with the increase in demand for highly skilled technical workers. Companies experienced a shortage in individuals possessing important skills with computers, software, and hardware. Vendor-specific and vendor-neutral certifications helped individuals show prospective employers that they possessed these skills.

The focus of this study was certifications used in high school career and technical education marketing programs and their associated labor market advantages. National Retail Federation certifications are vendor-neutral and are primarily utilized for certifying marketing education students.

The review of the literature revealed the changing face of career and technical education and the increased usage of industry certification. The literature review also revealed a lack of research on the benefits or employability advantages of certification. Chapter III will present information about the study's methodology, including the population, instrumentation, and statistical analysis methods.

CHAPTER III

METHODS AND PROCEDURES

Chapter III provides an overview of the methods and procedures used to conduct this descriptive and inferential research study. A survey technique was used to answer the research questions and determine the benefits or labor market advantages of industry certification in marketing education. The population, research variables, instrument design, method of data collection, and statistical analysis will be discussed.

Population

The research questions of this study were aimed at discovering the enhanced employability of high school students who possess the NRF certifications gained through marketing education high school programs. Given this, the population utilized for the study had to meet select criteria. First, the population needed to entail employers that hire high school students, such as a shopping mall. Next, the population needed to be located in an area where marketing education certifications were prevalent. Data from Virginia Department of Education revealed that a large number of marketing education certification examinations were taken in the Northern Virginia region of the state. Therefore it was determined that the population would entail shopping malls located in the Northern Virginia region. The researcher determined that there were nine shopping malls located in that area. The researcher then selected a convenience sample of three malls: Fair Oaks Malls, Dulles Town Center, and Manassas Mall. Table 4 reveals information about each mall.

Table 4

Mall Information

Mall	City	County	Number of Stores
Fair Oaks Mall	Fairfax, Virginia	Fairfax County	86
Dulles Town Center	Sterling, Virginia	Loudon County	101
Manassas Mall	Manassas, Virginia	Prince William Country	51

These malls are located within separate counties in the area. Selecting malls residing in various counties within the specific region was important to the researcher as it allowed for demographic comparisons of the survey data.

County demographics

Data revealed that Fairfax County has 1,081,726 residents and this area is predominantly white (U.S. Census Bureau, 2010). The U.S. Census Bureau (2010) data show that 58.4% of residents in Fairfax County possess a college degree. The median household income is \$102,499 and 30.4% of the population earned more than \$150,000 in 2009. Table 5 shows the racial and ethnic composition for Fairfax County.

Table 5

Racial and Ethnic Origin Composition of Fairfax County

Race/Ethnic Origin	2010
White	62.70%
Black	09.20%
Asian/Pacific Islander	17.50%
American Indian/Alaska Native	00.05%
Hispanic	15.60%
Other Races or Multi-Racial	04.10%

From U.S. Census Bureau. (2010). *State and county quick facts: Fairfax County, Virginia*. Retrieved from <http://quickfacts.census.gov/qfd/states/51/51059.html>

The population in Loudoun County is 301,171 (U.S. Census Bureau, 2010). The Department of Economic Development (2011) asserted that Loudoun County has been one of the fastest growing counties in the U.S. since the 1990s and has an average age of less than 35 years old and a young, affluent, highly educated population. The U.S. Census Bureau (2010) revealed that 56.5% of residents possessed a four year college degree and the median household income in 2009 was \$114,200. This is higher than Virginia's average median household income of \$61,210. According to the U.S. Census Bureau (2010), Loudoun County's population is predominantly white. Table 6 shows the racial and ethnic composition of Loudoun County.

Table 6

Racial and Ethnic Origin Composition of Loudoun County

Race/Ethnic Origin	2010
White	68.60%
Black	07.30%
Asian/Pacific Islander	14.70%
American Indian/Alaska Native	00.01%
Hispanic	12.40%
Other Races or Multi-Racial	04.00%

From U.S. Census Bureau. (2010). *State and county quick facts: Loudoun, Virginia*.

Retrieved from <http://quickfacts.census.gov/qfd/states/51/51059.html>

According to the U.S. Census Bureau (2010), the population of Prince William County is 379,166 residents. The U.S. Census Bureau (2010) revealed 37.7% of residents possessed a four year college degree and the median household income in 2009 was \$88,823. Residents in Prince William County were also predominantly white. Table 7 depicts the diversity in Prince William County.

Table 7

Racial and Ethnic Origin Composition of Prince William County

Race/Ethnic Origin	2010
White	57.80%
Black	20.20%
Asian/Pacific Islander	07.50%
American Indian/Alaska Native	0.06%
Hispanic	20.30%
Other Races or Multi-Racial	05.10%

From U.S. Census Bureau. (2010). *State and county quick facts: Prince William*

County, Virginia. Retrieved from [http://quickfacts.census.gov/qfd/states/51/](http://quickfacts.census.gov/qfd/states/51/51059.html)

51059.html

Demographic differences of counties

Education level was one category where differences existed between the three counties in the population. Prince William County's percentage of college graduates was 20.7% lower than Fairfax County and 18.8% lower than Loudon County. Figure 4 shows the college graduate percentages for each county.

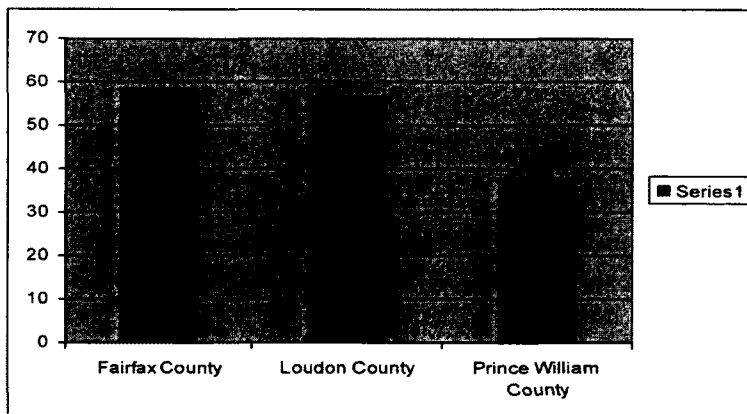


Figure 4. College Graduate Percentages of Fairfax, Loudon, and Prince William

From U.S. Census Bureau. (2010). *State and county quick facts*. Retrieved from

<http://quickfacts.census.gov/qfd/states/51/51059.html>

Another difference was the household median income of each county. According to the U.S. Census Bureau (2010), the average household income for the state of Virginia for 2008 was \$61,210. Both Fairfax County and Loudoun County's median income were higher at \$107,075 and \$111,582. The median income for Prince William County was \$87,973. Though \$87,973 was higher than the average for Virginia, it was approximately 20% lower than Loudoun County and 15% lower than Fairfax County. Figure 5 shows the income levels of the three counties.

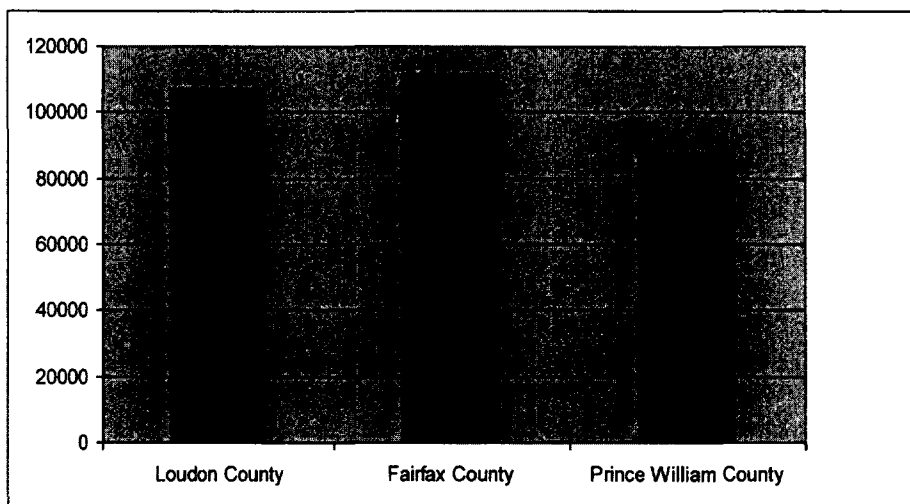


Figure 5. Income level for 2008 of Fairfax, Loudon, and Prince William County
From U.S. Census Bureau. (2010). *State and county quick facts*. Retrieved from <http://quickfacts.census.gov/qfd/states/51/51059.html>

All three counties had similar ethnic backgrounds. No major differences in the races of residents occurred. The only small difference was that Prince William County possessed 10% more African American residents than both of the other counties. Figure

6 visually depicts the racial composition of Fairfax, Loudoun, and Prince William Counties.

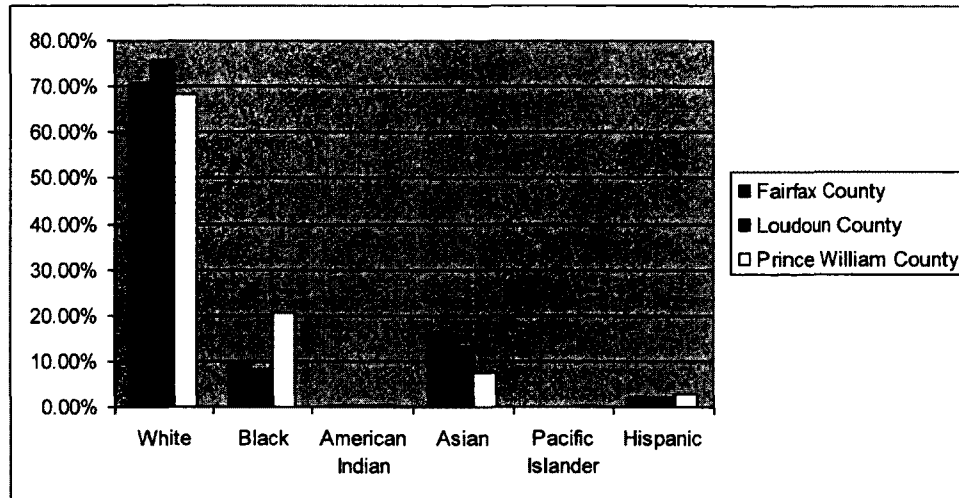


Figure 6. Demographics of Fairfax, Loudoun, and Prince William Counties. From U.S. Census Bureau. (2010). State and county quick facts: Loudoun, Virginia. Retrieved from <http://quickfacts.census.gov/qfd/states/51/51059.html>

Differences existed amongst the counties in relation to income and education level. The researcher was interested in comparing the survey results among the different counties.

Categorizing malls

The stores in each shopping center were placed into categories contingent upon their size, small or large. Retailers that were classified as small were those with less than 25,000 square feet. Stores over 25,000 square feet were labeled as large. Mall site plans were used to obtain information on square footage of each store. Additionally, hiring managers would corroborate the classification.

The population of small retailers at Fair Oaks Mall was 80 stores ($N=80$) and 6 large stores ($N=6$). Dulles Town Center had 92 small stores ($N=92$) and 9 large stores ($N=9$). Manassas Mall had 46 small stores ($N=46$) and 5 large stores ($N=5$).

Sample size

The population of Fair Oaks Mall, Manassas Mall, and Dulles Town Center was 238 retail stores. Surveys were distributed to all 238 retail stores with the goal of achieving a confidence level was 0.05. Appropriate sample sizes were determined by Krejci and Morgan (1970), who designed a method of determining an appropriate sample size from a population. It was determined that for a population of 238 retailers that 147 responses would be needed to make the sample representative of the population (Creative Research Systems, 2012). However, the researcher sought to survey as much of the population as possible and achieve a greater number of responses. Table 8 shows the minimum sample size needed.

Table 8

Sample Size Required for 0.05 Confidence Level

Population and Sample Size	Number of Retailers
Total Population	(N)238
Sample Size Required for 0.05 Confidence Level	(n)147

To answer RQ₃: Do hiring preferences for candidates with the National Retail Federation Certifications vary among small and large retailers? it was necessary to also calculate the number of responses needed from small and large retailers to make it representative of the population. It was determined that for a population of 218 small

retailers that 139 responses would be needed to achieve a 0.05 confidence level and for a population of 20 large retailers that 19 responses were needed (Creative Research Systems, 2012). Table 9 shows the minimum sample size needed to answer RQ₃.

Table 9

Sample Size Needed for RQ₃

Population and Sample Size	Fair Oaks, Dulles Town Center, and Manassas Mall
Population: Small Stores	(N)218
Minimum Required Sample Size: Small Stores	(n)139
Population: Large Stores	(N)20
Minimum Required Sample Size: Large Stores	(n)19

To answer RQ₄: Do hiring preferences for candidates with the National Retail Federation Certifications vary between regional shopping centers in Northern Virginia? it was necessary to calculate the number of responses needed from Fair Oaks Mall, Dulles Town Center, and Manassas Mall to make it representative of the population. It was determined that for a population of 86 retailers at Fair Oaks Mall that 70 responses were needed, for a population of 101 retailers at Dulles Town Center that 80 responses were needed, and for a population of 51 retailers at Manassas Mall that 45 were needed to make the sample representative of the population (Creative Research Systems, 2012). Table 10 shows the minimum sample size needed to answer RQ₄.

Table 10

Sample Size Needed for RQ₄

	Population	Minimum Required Sample Size
Fair Oaks Mall	(N)86	(n)70
Dulles Town Center	(N)101	(n)80
Manassas Mall	(N)51	(n)45

Research Variables

The dependent variable for this study was employability advantages. The independent variables were 26 hiring criteria, store size, store location, and NRF industry certification. Table 11 illustrates the dependent and independent variables.

Table 11

Dependent and Independent Variables

Dependent Variable	Independent Variables
Employability advantages	26 Hiring criteria Retailer Size Mall Location NRF Certifications

Instrument Design

The most effective method of data collection for this study design was a descriptive survey, as it was a quick, and economic way of generating data (DSJ Research, 2011). A concept matrix was developed for the independent variables to assist with development of the survey. The hiring criteria used in this survey were obtained from the review of literature and previous research studies. These hiring criteria were

based on the research of Gaedeke, Tootelian, and Schaffer (1983). Many of the same criteria were also utilized in subsequent research studies conducted by Boatwright and Stamps (1988) and also Kelley and Gaedeke (1990). These researchers studied hiring criteria for college students. As such, the hiring criteria utilized in this study differed slightly. The hiring criteria of “willingness to relocate” was eliminated, as it was not applicable to the high school students that were the focus of this survey. See Appendix A for survey questions.

Survey Questions 1 & 2

SQ₁: Your store is located in which mall? and SQ₂: What is the size of your store? were closed form multiple-choice questions designed to collect basic demographic information on the sample entailing mall location and retailer size. Obtaining this information helped the researcher answer RQ₃: Do hiring preferences for candidates with the National Retail Federation Certifications vary among small and large retailers? and RQ₄: Do hiring preferences for candidates with the National Retail Federation Certifications vary between regional shopping centers in Northern Virginia?

Survey Question 3

SQ₃: Rate the importance of each of the hiring criteria, was generated to address RQ₁: What traits do employers find most desirable in prospective employees? and the independent variable of hiring criteria, identified in the content matrix. Table 12 illustrates the factors that make up the independent variables of the 26 hiring criteria and NRF industry certifications.

Table 12

Concept Matrix for Independent Variables

Criteria	Literature Review
Hiring Criteria:	Criteria 1-25:
1. Oral communication skills	Gaedeke, Tootelian, & Schaffer (1983);
2. Enthusiasm/motivation	Boatwright & Stamps (1988); Kelley &
3. Self-confidence	Gaedeke (1990)
4. Initiative	
5. Entrepreneurship	
6. Ambition	
7. Maturity	
8. Ability to articulate goals	
9. Assertiveness	
10. Problem solving skills	
11. Written skills	
12. Leadership skills	
13. Related work experience	
14. Personal appearance	
15. Quantitative skills	
16. Technical skills	
17. Computer skills	
18. Grade point average	
19. Participation in professional organizations	
20. Honors /awards	
21. References	
22. Non-related work experience	
23. Civic, church, or social work	
24. Participation in sports	
25. High school record	
26. Industry Certification	
	Criteria 26:
	Castellano, Stone, & Stringfield (2005);
	Hitchcock (2008); Virginia Department of
	Education(2011); Miller (2001); Randall
	& Zirkle (2005); Cervero (2001); Foster &
	Pritz (2006)

SQ₃ would reveal information regarding which hiring criteria were desirable to employers. To increase validity, SQ₃ included the hiring criteria identified by Gaedeke, Tootelian, and Schaffer (1983), Boatwright and Stamps (1988), and Kelley and Gaedeke (1990). Employers were asked to rate each of these criteria on a Likert scale.

Survey Questions 4, 5, & 6

The next independent variable outlined in the content matrix was National Retail Federation Certifications. This independent variable related to RQ₂: Do retailers offer hiring preferences to individuals possessing the National Retail Federation Certifications in Customer Service or Sales?, RQ₃: Do hiring preferences for candidates with the National Retail Federation Certifications vary among small and large retailers?, and RQ₄: Do hiring preferences for candidates with the National Retail Federation Certifications vary between regional shopping centers in Northern Virginia? SQ₄ read: Possessing a certification, such as the National Retail Federation Customer Service or Sales, generally leads to a higher quality employee, SQ₅ read: Possessing a National Retail Federation Customer Service or Sales Certification, and SQ₆ read: Do you typically ask about industry certification on a job application or interview? These questions were created to reveal information on this independent variable. Table 13 shows the relationship between the research questions, variables, and survey questions.

Data Collection

Data were collected by the researcher visiting all of the shopping malls and providing each hiring manager with the survey. The survey was then left with the manager and then picked up after several hours, thus allowing ample time for completion. Managers unable to complete the survey within this time frame were given a pre-paid

Table 13

Relationship between the Research Questions, Variables, and Survey Questions

Research Question	Independent Variable	Dependent Variable	Survey Question
RQ ₁	Hiring criteria	Employability advantages	SQ ₃
RQ ₂	Hiring criteria & Industry certification	Employability advantages	SQ ₄ , SQ ₅ , & SQ ₆
RQ ₃	Hiring criteria & Industry certification	Employability advantages	SQ ₂ , SQ ₄ , SQ ₅ , & SQ ₆
RQ ₄	Retailer size Hiring criteria & Industry certification Mall location	Employability advantages	SQ ₁ , SQ ₄ , SQ ₅ , & SQ ₆

mailing envelope to return to the researcher at their convenience. A cover letter explaining the survey was also included to further provide the managers with information about the study. See Appendix B for the cover letter. Weekends and evenings are typically peak times for shopping centers. In an attempt to speak with managers at convenient times, visits were conducted during non-peak mall hours. The survey was conducted in May, 2012. The researcher also set secondary or backup dates in June to visit each mall in the instance that a hiring manager was unavailable, busy, or not able to complete the survey at that time.

Statistical Analysis

Once the surveys were completed, the results were entered into SPSS to allow for statistical analysis. Descriptive and inferential statistics were used to determine the basic features of the sample and to gain an overall understanding of the data. Measures of central tendencies such as mean, median, and mode were calculated on the topics of

hiring criteria and NRF certifications for SQ₃, SQ₄, SQ₅, and SQ₆. Standard deviations were also calculated for these survey questions.

Factor analysis was used to examine the hiring criteria. Boatwright and Stamps (1988) utilized categories as a data reduction technique. Boatwright and Stamps (1988) found seven hiring criteria in the data. See Table 14 for categories.

Table 14

Categories for Factor Analysis

Categories for Factor Analysis	
1) Leadership Characteristics	5) Communication Skills
2) Academic Characteristics	6) Self Starter Characteristics
3) Professional Characteristics	7) Social Characteristics
4) Willingness to Relocate	

ANOVA tests determined differences in hiring preferences among the three malls. SQ₁: Your store is located in which mall? collected retailer information and was compared to SQ₄: Possessing a certification, such as the National Retail Federation Customer Service or Sales, generally leads to a higher quality employee, SQ₅: Possessing a National Retail Federation Customer Service or Sales Certification, and SQ₆: Do you typically ask about industry certification on a job application or interview?. Table 15 shows the method of statistical analysis for each independent and dependent variables.

Table 15

Method of Statistical Analysis for Each Independent and Dependent Variable

Independent Variable 1: Hiring Criteria	
<i>Questions</i> SQ ₃	<i>Statistical Analysis</i> Descriptive Factor Analysis
Independent Variable 2: NRF Industry Certification	
<i>Questions</i> SQ ₁ , SQ ₂ ,	<i>Statistical Analysis</i> Descriptive ANOVA
SQ ₄ , SQ ₅ , SQ ₆	<i>Statistical Analysis</i> Descriptive

Summary

Chapter III provided an overview of the methods and procedures utilized in the study. It was determined that for a population of 238 retailers that 147 responses would be needed to make the sample representative of the population. To answer RQ₃, it was determined that for a population of 218 small retailers that 139 responses would be needed to achieve a 0.05 confidence level and for a population of 20 large retailers that 19 responses were needed. To answer RQ₄, it was determined that for a population of 86 retailers at Fair Oaks Mall that 70 responses were needed, for a population of 101 retailers at Dulles Town Center that 80 responses were needed, and for a population of 51 retailers at Manassas Mall that 45 were needed to make the sample representative of the population.

Chapter III also included a description of the independent variables, or NRF certification, store size, and other hiring criteria. Associations were then made to the dependent variables, i.e., hiring preferences. Next, the survey questions and the relationship of those questions to the research questions and independent variables were

discussed. Finally, the method of statistical analysis for each research question entailing descriptive statistics, factor analyses, and ANOVA were reported to answer the research questions. Chapter IV will describe the findings and statistical analyses.

CHAPTER IV

FINDINGS

The problem of this study was to determine if marketing education industry certifications provide students with employability advantages. To answer this problem, the following research questions were addressed:

RQ₁: Which hiring criteria do employers find most desirable in prospective employees?

RQ₂: Do retailers offer hiring preferences to individuals possessing the National Retail Federation Certifications in Customer Service or Sales?

RQ₃: Do hiring preferences for candidates with the National Retail Federation Certifications vary among small and large retailers?

RQ₄: Do hiring preferences for candidates with the National Retail Federation Certifications vary between regional shopping centers in Northern Virginia?

A survey was undertaken of three large malls in the Northern Virginia Region to collect data. This chapter provides information on the findings of that survey, as well as the statistical analyses utilized.

Response Rate

The survey was conducted at Fair Oaks Mall, Dulles Town Center, and Manassas Mall by distributing them to hiring managers at small and large retail establishments. The total population of small and larger retailers at the three malls was 238. A total of 147 surveys were needed to achieve a confidence level of 0.05 (Creative Research Systems, 2012). The total number of surveys collected was 190. Therefore, the confidence level was exceeded and the results were assumed to be representative of the

population. The overall return rate for all retailer was 79.8%. See Table 16 for total retailer response rates.

Table 16

Retailer Response Rates

Population and Sample Size	Number of Retailers
Total Population	(<i>N</i>)238
Minimum Sample Size to Achieve 0.05 Confidence Level	(<i>n</i>)147
Actual Sample Size	(<i>n</i>)190

To answer RQ₃: Do hiring preferences for candidates with the National Retail Federation Certifications vary among small and large retailers? it was necessary to calculate the number of responses needed from small and large retailers to make it representative of the population. It was determined that for a population of 218 small retailers that 139 responses were needed to achieve a confidence level of 0.05 (Creative Research Systems, 2012). For a population of 20 large retailers 19 responses were needed to achieve a confidence level of 0.05. A total of 180 surveys were collected from small retailers and 10 from large retailers. The return rate for small retailers was 83% and 50% for large retailers. The results cannot be assumed to represent the population because of a non-representative sample size. Table 17 shows the response rate for small and large retailers.

Table 17

Response Rate for Large and Small Retailers

	Small Retailers	Large Retailers
Population	(N)218	(N)20
Minimum Sample Size to Achieve 0.05 Confidence Level	(n)139	(n)19
Actual Sample Size	(n)180	(n)10

To answer RQ₄: Do hiring preferences for candidates with the National Retail Federation Certifications vary between regional shopping centers in Northern Virginia? it was necessary to calculate the number of responses needed from Fair Oaks Mall, Dulles Town Center, and Manassas Mall to make it representative of the population. It was determined that for a population of 86 retailers at Fair Oaks Mall that 70 responses were needed, for a population of 101 retailers at Dulles Town Center that 80 responses were needed, and for a population of 51 retailers at Manassas Mall that 45 were needed to achieve a confidence level of 0.05 (Creative Research Systems, 2012). The total sample collected was 66 for Fair Oaks Mall, 93 for Dulles Town Center, and 38 for Manassas Mall. The number of surveys collected did not meet the required 0.05 confidence level for each individual mall. Despite the number of responses for each individual mall being not significant, the total sample was representative and will therefore be reported in aggregate. Table 18 shows the response rate for Fair Oaks Mall, Dulles Town Center, and Manassas Mall.

Table 18

Response Rate for Fair Oaks Mall, Dulles Town Center, and Manassas Mall

	Fair Oaks Mall	Dulles Town Center	Manassas Mall
Population	(N)86	(N)101	(N)51
Minimum Sample Size to Achieve 0.05 Confidence Level	(n)70	(n)80	(n)45
Actual Sample Size	(n)66	(n)93	(n)38

Statistical Analyses

Statistical analyses were performed on the data to provide answers to the research questions. Each research question and the appropriate statistical analyses will be represented in the following subsections.

Hiring criteria

To address RQ₁ was, Which hiring criteria do employers find most desirable in prospective employees?, Descriptive statistics and factor analysis were computed. Retailers rated the importance of each criterion on a scale of 1 to 5. A response of 1=not applicable; 2=unimportant; 3=somewhat important; 4=important; 5=very important. The total number of not applicable responses were computed for each criterion to understand the frequency of that response, but were not included in the mean. After revising the responses, the data were then recoded as such: 1=unimportant; 2=somewhat important; 3=important; 4=very important. See Table 19 for recoded values.

Table 19

Recoded Values for Hiring Criteria

Value	Recoding Label
Not applicable	No Label: Not Included in Means
1	Unimportant
2	Somewhat Important
3	Important
4	Very Important

Conclusions were drawn on the importance of each hiring criteria based upon the mean. Each hiring criteria was labeled as unimportant, somewhat important, important, or very important. See Table 20 for mean value classifications.

Table 20

Mean Value Classifications

Mean Value	Classification
1.0-1.50	Unimportant
1.51-2.50	Somewhat important
2.51-3.50	Important
3.51-4.0	Very important

The mean for oral communication was 3.73 with 0.0% ($n=0$) reporting not applicable, 0.0% ($n=0$) reporting unimportant, 1.6% ($n=3$) reporting somewhat important, 23.6% ($n=45$) important, and 74.3% ($n=142$) very important, indicating that this criterion was in the very important range to hiring managers. The mean of enthusiasm was 3.78 with 0.0% ($n=0$) reporting unimportant, 1% ($n=2$) reporting somewhat important, 19.9% ($n=38$) important, and 78.5% ($n=150$) very important. Enthusiasm fell into the very important range. The item of self-confidence had a mean of 3.48 with .5% ($n=1$) reporting not applicable, 1.0% ($n=2$) unimportant, 6.3% ($n=12$)

somewhat important, 36.1% ($n=69$) important, and 55.5% ($n=106$) very important, indicating that self-confidence was in the important range. Next, the mean of initiative was 3.36 with 0.0% ($n=0$) reporting not applicable, 0.5% ($n=1$) reporting unimportant, 12.6% ($n=24$) somewhat important, 36.6% ($n=70$) important, and 49.7% ($n=95$) very important. Initiative fell into the important range.

The mean of entrepreneurship was 2.37 with 10.5% ($n=20$) reporting not applicable, 23.2% ($n=44$) unimportant, 33.7% ($n=64$) somewhat important, 17.9% ($n=34$) important, and 14.7% ($n=38$) very important, indicating that entrepreneurship was in the somewhat important for hiring managers. The mean of ambition was 3.76 with 0.0% ($n=0$) reporting not applicable, 3.1% ($n=6$) reporting unimportant, 17.8% ($n=34$) somewhat important, 45.5% ($n=78$) important, and 33.0% ($n=63$) very important, meaning that ambition was in the very important range to hiring managers. The mean of non-related work experience was 1.94 with 9.9% ($n=19$) reporting not applicable, 28.2% ($n=55$) unimportant, 41.4% ($n=79$) somewhat important, 14.7% ($n=28$) important, and 4.7% ($n=9$) very important, indicating that non-related work experience fell into the somewhat important range. The mean of maturity was 3.37 with 1.6% ($n=3$) reporting not applicable, 18.8% ($n=36$) reporting unimportant, 38.7% ($n=74$) reporting somewhat important, 39.8% ($n=76$) reporting important, and 0.5% ($n=1$) reporting very important. Maturity was in the important range to hiring managers. Ability to articulate goals was 3.11 with 0.5% ($n=1$) reporting not applicable, 2.1% ($n=4$) unimportant, 20.4% ($n=39$) somewhat important, 40.8% ($n=78$) important, and 35.6% ($n=68$) very important. This mean of 3.11 signified that the ability to articulate goals fell into the important range to hiring managers.

The mean of assertiveness was 2.84 with 0.0% ($n=0$) reporting not applicable, 3.7% ($n=7$) reporting unimportant, 29.8% ($n=57$) somewhat important, 44% ($n=84$) important, and 22% ($n=42$) very important, showing that this trait was in the important range. The mean of problem solving skills was 3.05 with 0.0% ($n=0$) reporting not applicable, 2.6% ($n=5$) reporting unimportant, 24.6% ($n=47$) reporting somewhat important, 37.2% ($n=71$) reporting important, and 35.1% ($n=67$) reporting very important showing that this criterion was in the important range. The mean of written skills was 2.52 with 3.7% ($n=7$) answering not applicable, 17.3% ($n=33$) unimportant, 39.8% ($n=76$) somewhat important, 24.6% ($n=47$) important, and 13.5% ($n=26$) very important. Written skills fell into the important range. The mean of leadership skills was 2.95 with 1% ($n=2$) answering not applicable, 3.1% ($n=6$) answering unimportant, 28.3% ($n=54$) answering somewhat important, 37.2% ($n=71$) answering important, and 29.8% ($n=57$) answering very important indicating leadership was in the important range. The mean of related work experience was 2.62 with 2.6% ($n=5$) reporting not applicable, 8.9% ($n=17$) reporting unimportant, 38.2% ($n=73$) reporting somewhat important, 29.8% ($n=57$) reporting important, and 19.9% ($n=38$) reporting very important revealing that work experience was important.

The mean of personal appearance was 3.40 with 0.0% ($n=0$) reporting not applicable, 0.5% ($n=36$) reporting unimportant, 11% ($n=21$) somewhat important, 36.1% ($n=69$) important, and 51.3% ($n=98$) very important showing that this trait was in the important range. The mean of quantitative skills was 2.63 with 1.6% ($n=3$) reporting not applicable, 18.8% ($n=36$) unimportant, 38.7% ($n=74$) somewhat important, 39.8% ($n=76$) important, and 0.5% ($n=1$) very important. Quantitative skills fell into the

important range. The mean of technical skills was 2.08 with 1.6% ($n=3$) answering not applicable, 18.8% ($n=36$) unimportant, 38.7% ($n=74$) somewhat important, 39.8% ($n=76$) important, and 0.5% ($n=1$) very important meaning that this criterion was in the somewhat important range. The mean of computer skills was 2.56 with 8.4% ($n=16$) answering not applicable, 15.7% ($n=30$) unimportant, 43.5% ($n=83$) somewhat important, 24.6% ($n=47$) important, and 7.3% ($n=14$) very important, meaning this criteria fell into the important range. The mean of grade point average was 1.87 with 12% ($n=23$) answering not applicable, 33% ($n=63$) unimportant, 35.6% ($n=68$) somewhat important, 15.7% ($n=30$) important, and 3.1% ($n=6$) very important, meaning that this factor was in the somewhat important range to hiring managers.

The mean of participation in professional organizations was 1.93 with 0.0% ($n=0$) reporting not applicable, 17.8% ($n=34$) answering unimportant, 31.9% ($n=61$) somewhat important, 27.7% ($n=53$) important, and 4.2% ($n=34$) very important, showing that this factor was in somewhat important range to hiring managers. The mean of references was 2.88 with 4.2% ($n=8$) reporting not applicable, 4.7% ($n=9$) unimportant, 24.1% ($n=46$) somewhat important, 44.5% ($n=85$) important, and 22% ($n=42$) very important, meaning that this criteria was in the important range. The mean of church/social work was 1.65 with 27.2% ($n=52$) answering not applicable, 34% ($n=65$) unimportant, 29.8% ($n=57$) somewhat important, 7.9% ($n=15$) important, and 0.5% ($n=1$) very important. The mean of 1.65 indicated that this factor fell into the important range in the hiring process. The mean of interpersonal skills was 3.20 with 4.2% ($n=8$) reporting not applicable, 2.1% ($n=4$) unimportant, 16.2% ($n=31$) somewhat important, 36.6% ($n=70$) important, and 40.3% ($n=77$) very important. This indicated that interpersonal skills fell into the

important range to hiring managers. The mean score of participation in sports was 1.70 with 37.7% ($n=72$) reporting not applicable, 25.7% ($n=49$) unimportant, 29.3% ($n=56$) somewhat important, 6.3% ($n=12$) important, and 0.5 ($n=1$) very important, revealing that participation in sports was in the somewhat important range. The mean of high school records was 2.08 with 22.5% ($n=43$) reporting not applicable, 20.9% ($n=40$) unimportant, 29.8% ($n=57$) somewhat important, 24.6% ($n=47$) important, and 1.6% ($n=3$) very important, meaning that this criteria was in the somewhat important range. The mean of industry certification was 1.77 with 34% ($n=65$) reporting not applicable, 28.8% ($n=55$) unimportant, 24.1% ($n=46$) somewhat important, 11.5% ($n=22$) important, and 1% ($n=2$) very important. This criterion was in the somewhat important range.

The mean scores of the 26 hiring criteria were computed in Table 21.

Table 21

Means of Hiring Criteria

Hiring Criteria	Mean	Hiring Criteria	Mean
1) Oral communication skills	3.73	14) Related work experience	2.62
2) Enthusiasm	3.78	15) Personal appearance	3.40
3) Self-confidence	3.48	16) Quantitative skills	2.63
4) Initiative	3.36	17) Technical skills	2.08
5) Entrepreneurships	2.37	18) Computer skills	2.56
6) Ambition	3.76	19) Grade point average	1.87
7) Non-related work experience	1.94	20) Participation in professional organization	1.93
8) Maturity	3.37	21) References	2.88
9) Ability to articulate goals	3.11	22) Church/social work	1.65
10) Assertiveness	2.84	23) Interpersonal skills	3.20
11) Problem solving skills	3.05	24) Participation in sports	1.70
12) Written skills	2.52	25) High school record	2.08
13) Leadership skills	2.95	26) Industry certification	2.16

The five most important hiring criteria for employers were enthusiasm (3.78), ambition (3.76), oral communication (3.73), self-confidence (3.48), and personal

appearance (3.40). The five least important were church/social work (1.65), sports (1.70), industry certification (1.77), GPA (1.87), and participation in professional organizations (1.93). See Table 22 for five most and five least important criteria.

Table 22

Five Most and Five Least Important Criteria

Five Most Important Criteria	Five Least Important Criteria
Enthusiasm (3.78)	Church/social work (1.65)
Ambition (3.76)	Sports (1.70)
Oral communication (3.73)	Industry certification (1.77)
Self-confidence (3.48)	GPA (1.87)
Personal appearance (3.40)	Participation in professional organizations (1.93)

Table 23 shows the range of importance of each hiring criteria based upon the guidelines established in Table 20.

Table 23

Range of Importance of Hiring Criteria

Very Important	Important	Somewhat Important
Oral Communication	Self-confidence	Entrepreneurships
Enthusiasm	Initiative	Non-related work experience
Ambition	Maturity	Technical skills
	Ability to articulate goals	Grade point average
	Assertiveness	Professional organization
	Problem solving skills	Church/social work
	Written skills	Participation in sports
	Leadership skills	High school record
	Related work experience	Industry certification
	Personal appearance	
	Quantitative skills	
	Computer skills	
	References	
	Interpersonal skills	

As a data reduction technique, factor analyses were also conducted. Factor analysis allowed the researcher to describe the variability among the observed 26 hiring

criteria in terms of a potentially lower number of unobserved variables called factors. To explore the interrelations among the 26 hiring criteria, a principal factor analysis with Varimax Rotation was applied to the criteria in SQ₁. Boatwright and Stamps (1988) also conducted a factor analysis on their hiring criteria to identify factors or dimensions.

First, the Kaiser-Meyer-Olkin measure of sampling adequacy was conducted in order to compare the magnitudes of the observed correlation coefficients in relation to the magnitude of the partial correlation (Bold Education, 2013). The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.77, above the recommended value of 0.6. Bold Education (2013) continued to suggest that large KMO values are significant because they indicate that correlations between the pairs of variables can be explained by other variables.

Next, Bartlett's Test of Sphericity was conducted to determine whether the correlation matrix is an identity matrix, which would indicate if the factor model was appropriate. Bartlett's Test of Sphericity was significant ($\chi^2(325) = 2046.60, p < 0.05$) revealing that the correlation matrix is not an identity matrix and that factor analysis is possible.

Eigenvalues and a scree plot were created to determine the number of significant factors. The eigenvalues are shown in Table 24. Although there are eight factors with eigenvalues above 1, the eight factor solution was not as appropriate because the eigenvalues from four on are quite similar in magnitude (echoing the scree plot). As such, a three factor solution was selected.

Table 24

Eigenvalues of the Factor Analysis

	Eigenvalue	Difference		Eigenvalue	Difference
1	6.05	2.97	14	0.62668178	0.05428405
2	3.08	0.93	15	0.57239773	0.01757137
3	2.15	0.76	16	0.55482636	0.02658565
4	1.39003183	0.13390025	17	0.52824071	0.05002710
5	1.25613159	0.08891036	18	0.47821362	0.05996900
6	1.16722122	0.10154919	19	0.41824461	0.04015526
7	1.06567203	0.06274762	20	0.37808935	0.06449587
8	1.00292441	0.07423592	21	0.31359349	0.01679942
9	0.92868849	0.09931365	22	0.29679406	0.02170723
1	0.82937484	0.06150034	23	0.27508684	0.02348985
1	0.76787450	0.04910121	24	0.25159698	0.03018920
1	0.71877329	0.08192300	25	0.22140778	0.17969234
1	0.63685029	0.01016851	26	0.04171544	

The scree plot also revealed that a three factor solution was most appropriate.

The scree plot graphed the eigenvalue against the factor number. The plot revealed that from the fourth factor on, the line is almost flat, meaning that each successive factor was accounting for smaller and smaller amounts of the total variance. See Figure 7.

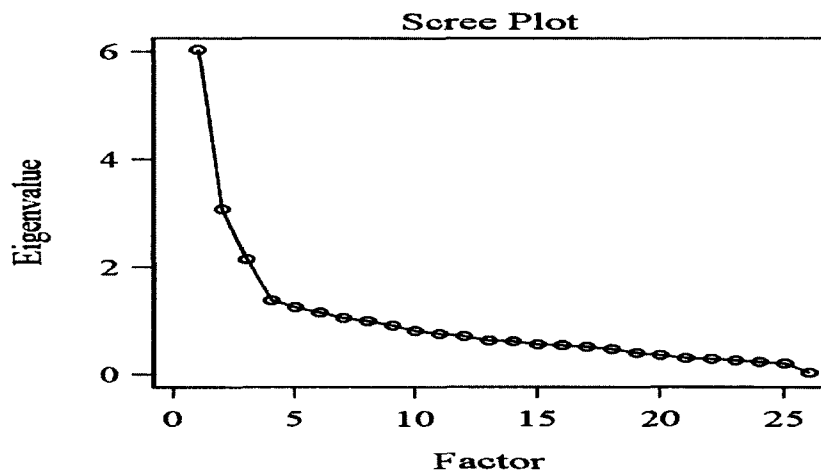


Figure 7. Scree plot and variance explained plot of factor analysis

Varimax Rotation was conducted. Varimax Rotation was utilized to determine if the strength of the loading factor was high or low. Each hiring criteria needed to possess a value of at least 0.4 to be considered a strong loading factor. Lawlor, Ebrehim, May, and Smith (2004) suggested that variables that have a factor loading of 0.4 or greater within a particular factor are considered to be its major components, and factors are usually given names relating to their major components. Similarly, Gorsuch (1974) suggested that each variable should have a high loading on one factor, ≥ 0.4 , and low loading on all the other factors. The rotated loading matrix is show in Table 25.

Table 25 reveals a fairly simple structure. Each factor is mostly dominated by a few variables, and most variables load much more highly on one factor than the other three. For each hiring criteria, there is an asterisk next to the highest value. The number with an asterisk next to it also represents which factor the criteria belongs to. See Table 25.

The researcher assigned a title to each factor. Titles were created based upon previous research and commonalities of the hiring criteria in each factor. The researcher labeled factor 1 as communication and social skills, factor 2 was extracurricular activities and professional experience, and factor 3 was perceptions about prospective employee. Table 26 shows which hiring criteria belong to each factor.

Table 25

Varimax Rotated Factor Loadings

	Factor 1	Factor 2	Factor 3
Oral Communication	0.54072*	-0.10417	-0.16862
Enthusiasm	0.55999*	-0.13732	-0.16853
Self-confidence	0.55364*	0.04225	-0.34033
Initiative	0.57050*	-0.06145	0.10008
Entrepreneurships	0.40718	0.45450*	-0.00881
Ambition	0.63166*	0.19721	-0.09483
Non-related work experience	0.19707	0.54142*	0.02518
Maturity	0.08372	-0.03384	0.93959*
Articulate goals	0.71529*	0.10686	0.01906
Assertiveness	0.58705*	0.18571	0.09821
Problem solving skills	0.60931*	0.01374	0.22312
Written skills	0.11862	0.23348*	-0.04207
Leadership	0.59166*	0.24061	0.12174
Related work experience	0.18278	0.20867*	-0.07975
Personal appearance	-0.07802	-0.03664	0.93679*
Quantitative skills	0.62282*	0.20578	0.04800*
Technical skills	0.58087*	0.46544	0.12289
Computer skills	0.57442*	0.44808	-0.00819
GPA	-0.04388	0.74859*	0.06313
Professional orgs	0.10639	0.62731*	-0.01731
References	0.29649	0.38709*	0.27237
Church/social work	0.05289	0.71135*	0.10322
Interpersonal skills	0.14330	0.16965*	0.08803
Sports	-0.08061	0.68010*	-0.10327
High school record	-0.06228	0.70825*	-0.04997
Industry certification	0.04579	0.77674*	0.02015

Note: Asterisk (*) next to the highest value

Table 26

Hiring Criteria Belonging to Each Factor

Factor 1: Communication and Social Skills	Factor 2: Extracurricular Activities and Professional Experience	Factor 3: Perceptions About Prospective Employee
Oral communication	Entrepreneurships	Maturity
Enthusiasm	Non related work experience	Personal appearance
Self-confidence	Written skills	
Initiative	Related work experience	
Ambition	GPA	
Ability to articulate goals	Professional organizations	
Assertiveness	References	
Problem solving skills	Church/social work	
Leadership	Interpersonal skills	
Quantitative skills	Sports	
Technical skills	High school record	
Computer skills	Industry certification	

For factor 1, communication and social skills, all of the criteria possessed a primary factor loading of at least 0.4, the minimum limit to be considered strong. The loadings of factor 1 were oral communication (0.54), enthusiasm (0.56), self-confidence (0.55), initiative (0.57), ambition (0.63), ability to articulate goals (0.71), assertiveness (0.59), problem solving skills (0.61), leadership (0.59), quantitative skills (0.62), technical skills (0.58), and computer skills (0.57). The second factor, classified as extracurricular activities and professional experience, possessed hiring criteria that were not strong. Written skills (0.23), related work experience (0.21), references (0.39), and interpersonal skills (0.17) were all below the 0.4 minimum, and therefore was classified as weak factors that were not well suited to this group. The other criteria in factor 2 were strong, entrepreneurships (0.45), nonrelated work experience (0.54), GPA (0.75), professional organizations (0.63), church/social work (0.71), sports (0.68), high school record (0.71), and industry certification (0.78). The loadings for the third factor, perceptions about prospective employee, were all strong. The loadings of factor 3 were

maturity (0.94) and personal appearance (0.94). Table 27 shows the strong hiring criteria in each factor.

Table 27

Strong Hiring Criteria Belonging to Each Factor

Factor 1: Communication and Social Skills	Factor 2: Extracurricular Activities and Professional Experience	Factor 3: Perceptions About Prospective Employee
Oral communication	Entrepreneurships	Maturity
Enthusiasm	Non related work experience	Personal appearance
Self confidence	GPA	
Initiative	Professional organizations	
Ambition	Church/social work	
Ability to articulate goals	Sports	
Assertiveness	High school record	
Problem solving skills	Industry certification	
Leadership		
Quantitative skills		
Technical skills		
Computer skills		

Hiring preferences

RQ₂ was, Do retailers offer hiring preferences to individuals possessing the National Retail Federation Certifications in Customer Service or Sales? Four survey questions were formulated to answer this research question. Descriptive statistics for each of these survey questions will be explained below.

SQ₄ was: Possessing an industry certification in marketing, customer service, or sales generally leads to a higher quality employee. Retailers could respond with the following answers 1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree. The mean of SQ₄ was 3.27 with 6.3% ($n=12$) reporting strongly agree, 33.5% ($n=64$) agree, 41.9% ($n=80$) neutral, 15.7% ($n=30$) disagree, and 2.1% ($n=4$) strongly

disagree. Therefore, 41.9% of employers were neutral on whether or not the customer service certification leads to a higher quality employee, and 33.5% agree that certification leads to higher quality employee.

SQ₅ read: Possessing an industry certification in marketing, customer service, or sales: *Please select which of the following statements you agree with the most:* 1=makes no difference to hiring decisions; 2=makes a slight difference to hiring decisions; 3=neutral; 4=would be looked upon as favorably when deciding to hire the employee; 5=would definitely make me want to hire the employee. The mean was 3.23. The data indicated that 2.6% ($n=5$) employers believed that the NRF certification made them want to hire the employee, 45% ($n=86$) looked upon the certification favorably, 30.9% ($n=59$) were neutral, the certificated made only a slight to 15.2% ($n=28$) of employers, and made no difference at all to 6.3% ($n=12$) of employers. Therefore, 45% of employers looked upon the NRF certification as favorably when deciding to hire the employee.

Next, it was of interest to the researcher to know if retailers asked about industry certification during the interview process. SQ₆ was: Do you typically ask about industry certification on a job application or interview? The retailers could respond with 1=no; 2=yes. The mean of SQ₆ was 1.10 with 10% ($n=19$) answering yes and 90% ($n=171$) answering no, indicating that most employers do not ask about industry certification during the interview process.

Last, to address RQ₂, SQ₇ was developed. SQ₇ read: Have you ever heard of the National Retail Federation Customer Service Certification or the National Retail Federation Certification in Sales? The retailers could respond with 1=no; 2=yes. The

mean of SQ₇ was 1.27 with 23% ($n=43$) answering yes and 77% ($n=147$) no. This indicated that most hiring managers had no prior knowledge of the NRF certifications.

Retailer size

RQ₃ was developed to see if a difference existed between hiring preferences of large and small retailers. RQ₃ read: Do hiring preferences for candidates with the National Retail Federation Certifications vary among small and large retailers? The sample size for large retailers did not meet the 0.05 confidence level. As such, the sample cannot be deemed as representative of the population. No statistical analysis was completed for this question.

Retailer location

Retailers from three malls in the Northern Virginia Region were surveyed to answer RQ₄. RQ₄ read: Do hiring preferences for candidates with the National Retail Federation Certifications vary between regional shopping centers in Northern Virginia? The sample size for Fair Oaks Mall and Manassas Mall did not meet the 0.05 confidence level. As such, the sample cannot be deemed as representative of the large population. No statistical analysis was completed for this question.

Summary

The problem of this study was to determine if students would receive employability advantages from obtaining a NRF customer service or sales industry certification. To address the research questions, a survey was distributed to retailers at Fair Oaks Mall, Dulles Town Center, and Manassas Mall. The number of surveys distributed was 238. The minimum number of surveys needed to make the sample representative was 147. The total number of surveys collected was 190. The overall

return rate was 79.8%. Of the 190 surveys collected, 180 were from small retailers, while 10 were from large retailers. The return rate for small retailers was 83% and 50% for large retailers. The total sample size was determined to be representative and therefore the findings for RQ₁ and RQ₂ could be applied to the population. However, the sample was not representative for small and large retailers or mall location, only the aggregate of total retailers. As such, no conclusions could be drawn for RQ₃ and RQ₄.

The data were analyzed as they related to each of the research questions. To address RQ₁, descriptive statistics and factor analysis were utilized. Descriptive statistics were utilized to address RQ₂. No data analysis was completed on RQ₃ and RQ₄, as the sample was not representative.

The data indicated that the five most important hiring criteria for employers were enthusiasm (3.78), ambition (3.76), oral communication (3.73), self-confidence (3.48), and personal appearance (3.40). The five least important hiring criteria were church/social work (1.65), sports (1.70), industry certification (1.77), GPA (1.87), and participation in professional organizations (1.93).

Next, the data indicated that 41.9% of employers were neutral on whether or not the customer service certification leads to a higher quality employee and 33.5% agree that certification leads to higher quality employee. The mean of SQ₄ was 3.27 with 6.3% ($n=12$) reporting strongly agree, 33.5% ($n=64$) agree, 41.9% ($n=80$) neutral, 15.7% ($n=30$) disagree, and 2.1% ($n=4$) strongly disagree.

The data indicated that 2.6% ($n=5$) employers believed that the NRF certification made them want to hire the employee, 45% ($n=86$) looked upon the certification favorably, 30.9% ($n=59$) were neutral, the certificated made only a slight

($n=28$) of employers, and made no difference at all to 6.3% ($n=12$) of employers. Therefore, 45% of employers looked upon the NRF certification as favorably when deciding to hire the employee.

It was also determined that only 10% of the hiring managers asked about industry certifications during the hiring process and that awareness of the NRF certification is low. The mean of was 1.10 with 10% ($n=19$) answering yes and 90% ($n=171$) answering no, indicating that most employers do not ask about industry certification during the interview process.

A factor analysis was also conducted as a data reduction technique. The factor analysis revealed that commonalities existed between the hiring criteria. In particular that hiring variables can be classified into the three categories of communication and social skills, extracurricular activities and professional experience, and perceptions about prospective employee. All of the hiring criteria in factor 1 and factors three were significant at a level exceeding 0.4. Factor 2 contained four hiring criteria that were not significant: written skills, related work experience, references, and interpersonal skills.

Chapter V will begin with a summary of the study. Conclusions regarding each of the research questions will be presented. The chapter will then conclude with recommendations for implementing the findings and recommendations for future research on industry certification.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study examined the employability advantages of marketing education industry certifications. In particular, the National Retail Federation Customer Service and Sales certifications were the focus of this study. This chapter summarizes the study. Conclusions will be formulated for each of the research questions. The chapter will then conclude with recommendations for implementing the findings of this study and offer recommendations for future research on industry certifications.

Summary

Many school systems allocate substantial amounts of money toward industry certification. Cervero (2001) suggests that industry certification programs are one of the top five trends in education. Similarly, Acutt, Kellie, and Miller (2001) suggest that external certification of workplace skills is emerging as a key educational movement in many countries. Despite the increasing number of industry certifications, minimal research has been conducted on the benefits of earning such a credential. In particular, it was of interest to the researcher to determine if a marketing education industry certification would provide high school students with employability advantages, such as a hiring preference.

Many states entailing Florida, Georgia, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, New York, North Dakota, Ohio, Pennsylvania, Tennessee, Texas, and Virginia offer industry certifications to career and technical education students (Castellano, Stone, & Stringfield, 2005). Of these states, industry certification in Virginia, particular the Northern Virginia Region, were the focus of this study.

Of the numerous certifications in existence, those offered by The National Retail Federation (NRF) were investigated. The NRF is a primary vendor of marketing education certification examinations. Virginia Department of Education utilizes two of the National Retail Foundation's (NRF) certifications: the National Professional Certification in Customer Service and National Professional Certification in Sales. In the 2008-2009 and 2009-2010 school years, Virginia Department of Education allocated approximately \$503,250 per year toward the National Retail Federation Customer Service and Sales certifications (Virginia Department of Education, 2011).

This study investigated the student employability advantages of industry certification. Virginia Department of Education (2011) suggests that industry certifications add value to students' transcripts, as well as increased opportunities for obtaining an entry-level position. The problem of this study was to determine to what extent the National Retail Federation (NRF) Customer Service and Sales certifications provided high school students with employability advantages. The research sought to determine what employability advantages, if any, resulted from earning a marketing education industry certification. Additionally, the research sought to determine other hiring criteria that employers believed were important such as oral communications skills, enthusiasm, initiative, personal appearance, and more. To answer this problem, the following research questions were developed:

RQ₁: Which hiring criteria do employers find most desirable in prospective employees?

RQ₂: Do retailers offer hiring preferences to individuals possessing the National Retail Federation Certifications in Customer Service or Sales?

RQ₃: Do hiring preferences for candidates with the National Retail Federation Certifications vary among small and large retailers?

RQ₄: Do hiring preferences for candidates with the National Retail Federation Certifications vary between regional shopping centers in Northern Virginia?

To answer these research questions, a survey was developed. This instrument contained eight questions regarding hiring criteria, hiring preferences, and certification awareness.

Limitations of this study included that this study was limited to the marketing education certification examinations provided by the National Retail Federation. This included Customer Service and Sales Certifications. The study was limited to three malls in Northern Virginia. This study was conducted at Fair Oaks Mall, Dulles Town Center, and Manassas Mall. This area was selected because many students residing in this area took the NRF certification examination. According to Virginia Department of Education (2010), 28% of NRF certifications were completed in this region. Not all students who took the NRF certification examination were employed. The purpose of the study was to determine the likelihood of high school NRF certified students getting hired. However, not all high school students work. Employers may not be aware of this certification due to a lack of high school marketing students seeking jobs.

Throughout the research assumptions were made. The NRF certification added value to prospective employees. The certification was a way for a student to distinguish themselves from other applicants. Other factors might be more important to employers than certification. Employers hired students for a variety of reasons. Factors could entail grade point average, experience, internships, and more. A certification might not

necessarily be a main reason for hiring selection. As such, the researcher included additional survey questions regarding different selection criteria of employers.

Accountability was an advantage of certification in education for certain subject areas. A certification or capstone type of examination was one acceptable way of showing accountability in education. A passing score could be an indication of overall learning in a course or show proficiency in a specific industry. Certain content areas or courses would be more appropriate for industry certifications than others. For example, a credential in the information technology industry may be more beneficial than one in customer service. Additionally, employers must perceive there was a relationship between the certification and the course curriculum for it to become advantageous.

The review of literature began with the history of career and technical education. Pertinent legislation that helped shape vocational education included the Smith-Hughes Act of 1917, the Vocational Education Act of 1963, and the various revisions to the Carl D. Perkins Act. These legislative acts were not the only forces causing career and technical education to change. America's changing workforce, competition, and technological advancements also influenced how career and technical education was structured today. Unlike the past when job specific training or learning one vocation was sufficient, modern day employers now demand employees to possess a variety of skills and to be well versed in technology. As such, career and technical education has evolved to prepare students for this new work environment.

The literature review presented information on the historical foundations of industry certification. Industry licensing and certification was not a new concept; in fact, traces of credentialing can be found in the early 1900s. Hitchcock (2008) suggests that

industry certifications emerged in the 1930s but gained popularity in the 1980s through the information technology industry's adoption of the phenomenon and that the subsequent proliferation occurred as a result of the emergence of the Internet. Dixon and Koziniec (2002) suggest that the shortage of skilled information technology workers led to industry certification programs designed for delivery in high schools. While certifications in the early 1900s were not as pervasive as today, they were implemented in specific industries that impacted vocational education. Widely used vocational education examinations included the National Occupational Competency Testing Institute (NOCTI) examinations, the esthetician license, Automotive Service Consultant Examination, and information technology certifications. These industry certifications had been utilized for decades and had paved the way for modern credentialing.

Several catalysts can be attributed to increase in credentialing such as the No Child Left Behind Act, Perkins IV, potential employment benefits of certifications, portability of credentials, and the demand for highly qualified information technology workers. First, the No Child Left Behind Act (2002) passed by President Bush enforced accountability. Mantel (2005) suggests that among other goals, No Child Left Behind aimed to increase teacher, student, and school accountability. Second, Perkins IV was another catalyst for this change. According to U.S. Department of Education, Office of Vocational and Adult Education (2008), the Carl D. Perkins Act placed emphasis on the accountability and certification of CTE programs. States turned to industry certification as a method of meeting the Carl D. Perkins Act's accountability measures. Castellano, Stone, & Stringfield (2005) attest that schools, school districts, and states adopted industry certification examinations as a component of their CTE accountability systems.

Third, the potential employability advantages led to an increase in industry certifications. Test vendors or certifiers claimed that individuals with industry certifications would acquire employability advantages. The National Retail Federation (2008) states, “Certifications can provide career currency” (p. 1). Next, portability also led to an increase in the use of certifications. An individual possessing well-known, respected, and valued certifications could easily switch jobs or move to various geographical locations without losing the prestige of the credential. Thus, some certifications did possess a great deal of portability. Finally, the demand for highly qualified information technology workers also increased the use of industry certifications. Lankard (2005) states that certification examinations gained prevalence in the early 1980s, when it became clear that the jobs of the future would require higher levels of basic skills in communications, mathematics, science, and technology. Dixon and Koziniec (2002) claim that the shortage of skilled information technology workers led to industry certification programs designed for delivery in high schools.

Hitchcock (2008) claims that industry certification became a multi-billion dollar business and the number and types of certification examinations was considerable. Al-Rawi, Lansari, and Bouslama (2005) estimate that over 400 certification examinations existed and the number was rapidly increasing. However, not all of these certifications were structured similarly. Certifications are classified as being either knowledge-based or performance-based. Certiport (2001) explains that knowledge-based testing usually involved an examination that included multiple choice, multiple answer, matching, and true-false questions, and performance-based examinations involved the candidate actually performing a task within a computing environment, a simulation of operating systems

and applications, and multiple correct response possibilities. Additionally, vendor-specific and industry-neutral certification existed. Hurley (2002) attests that vendor-specific certification tests measured what the vendors believed to be the minimum required to support their product, whereas a vendor-neutral certification studied the fundamental issues of that field and develop a broader understanding of the environment in which the products were used.

Virginia Department of Education classified certifications into categories: full industry certification, state licensure, pathway industry certification exam, and occupational competency assessment. The full industry certification was a complete examination program that led to a nationally recognized industry certification. A state licensure was a required state examination that must be completed prior to entry into a specific occupation. Next, a pathway industry certification consisted of one or more entry level exams in a specific industry certification program leading to a full or complete certification that required one or more advanced examinations. Finally, Virginia Department of Education provided students with occupational competency assessment offered from the National Occupational Competency Institute.

Virginia Department of Education (2011) stated that 366 industry certifications in the areas of agricultural education, business and information technology, family and consumer sciences, health and medical sciences, marketing education, technology education, and trade and industrial education were approved for career and technical education in the state of Virginia. Virginia was not the only state that placed importance on career and technical education industry certification. Foster and Pritz (2006) report that many states integrated certification into their career and technical education

programs. New Jersey, Georgia, Virginia, Pennsylvania, Maine, Missouri, and Connecticut all used industry certifications in their career and technical education programs.

Virginia Department of Education (2010) suggests that a certification utilized in marketing education was offered by the National Retail Federation (NRF). The National Retail Federation (2011) claims to be the world's largest retail trade association and the voice of retailers worldwide. The NRF Foundation professional credentials were the National Professional Certification in Customer Service, the National Professional Certification in Sales, the National Professional Certification in Retail Management, and the Professional Retail Business Credential. The certifications approved for marketing education were the customer service and sales examinations.

The most effective method of data collection for this study design was a descriptive survey, as it was an effective, quick, and economic way of generating data (DSJ Research, 2011). Survey questions were generated from a concept matrix that was developed from the related literature and based upon the criteria of the research questions. The dependent variable for this study was employability advantages. The independent variables were 26 hiring criteria, store size, store location, and NRF industry certification. The hiring criteria used in this survey were obtained from the review of literature and previous research studies. These hiring criteria were based on the research of Gaedeke, Tootelian, and Schaffer (1983). These same criteria were also utilized in subsequent research studies conducted by Boatwright and Stamps (1988) and Kelley and Gaedeke (1990). The only hiring criterion excluded from this study was willingness to relocate, as it was not applicable to this study.

Once the surveys were completed, the results were entered into SPSS to allow for statistical analysis. Descriptive and inferential statistics were used to determine the basic features of the sample and to gain an overall understanding of the data. Measures of central tendencies, such as mean, were calculated on the topics of hiring criteria and NRF certifications. Factor analysis was used to examine the 26 hiring criteria.

The survey was conducted at Fair Oaks Mall, Dulles Town Center, and Manassas Mall by distributing them to hiring managers at small and large retail establishments. The total population of small and larger retailers at the three malls was 238. A total of 147 surveys were needed to achieve a confidence level of .05. The total number of surveys collected was 190. Therefore, the confidence level was exceeded and the results were assumed to be representative of the population. The overall return rate retailers as 79.8%.

To answer RQ₃: Do hiring preferences for candidates with the National Retail Federation Certifications vary among small and large retailers? it was necessary to also calculate the number of responses needed from small and large retailers responses to make it representative of the population. It was determined that for a population of 218 small retailers that 139 responses were needed to achieve a confidence level of .05. For a population of 20 large retailers 19 responses were needed to achieve a confidence level of .05. A total of 180 surveys were collected from small retailers and 10 from large retailers. The return rate for small retailers was 83% and 50% for large retailers. The sample for large retailers was not representative and the results were not analyzed.

To answer RQ₄: Do hiring preferences for candidates with the National Retail Federation Certifications vary between regional shopping centers in Northern Virginia? it

was necessary to calculate the number of responses needed from Fair Oaks Mall, Dulles Town Center, and Manassas Mall to make it representative of the population. It was determined that for a population of 86 retailers at Fair Oaks Mall that 70 responses were needed, for a population of 101 retailers at Dulles Town Center that 80 responses were needed, and for a population of 51 retailers at Manassas Mall that 45 were needed to achieve a confidence level of .05. The total sample collected was 66 for Fair Oaks Mall, 93 for Dulles Town Center, and 38 for Manassas Mall. The number collected was not representative. Therefore, no statistical analysis was conducted.

Conclusions

The exploration of student employability advantages of marketing education industry certifications resulted in the confirmation of research questions which were developed from the review of the literature. The data were analyzed to answer each research question.

Research Question 1 stated, RQ₁: Which hiring criteria do employers find most desirable in prospective employees? Study findings indicated that industry certification is low in importance with a mean score of 1.77. Industry certification ranked 24 out of the 26 in importance for employment. The data indicated that the five most important hiring criteria for employers were enthusiasm (3.78), ambition (3.76), oral communication (3.73), self-confidence (3.48), and personal appearance (3.40). Kelley and Gaedeke (1990) had similar findings. Kelley and Gaedeke (1990) used a rating scale of 1-7, 1 representing extremely important and 7 representing unimportant. The top five hiring criteria were enthusiasm with a mean score of 1.43, initiative with a mean score of 1.50, interpersonal skills with a mean score of 1.52, oral communication with a mean

score of 1.53, and maturity with a mean score of 1.61. Gaedeke and Tooelian (1989) found interpersonal skills and maturity to be most important hiring criteria to employers. Geaeke, Tootlain, and Schuffer (1983) findings were that work experience, communication skills, enthusiasm, and interpersonal skills were most important to employers.

The lowest five criteria were church/social work (1.65), sports (1.70), industry certification (1.77), GPA (1.87), and participation in professional organizations (1.93). Therefore, industry certification was unimportant compared to other factors for employers in hiring prospective employees.

As a data reduction technique, factor analyses were also conducted. Factor analysis allowed the researcher to describe the variability among the observed 26 hiring criteria in terms of a potentially lower number of unobserved variables called factors. To explore the interrelations among the 26 hiring criteria, a principal factor analysis with Varimax Rotation was applied to the criteria in SQ₁.

Statistical evidence led to selection of a three factor solution, which was also suggested by examination of the scree plot. To determine which hiring criteria were in each factor, a rotated factor pattern figure was formulated. The researcher assigned a title to each factor based upon commonalities in the hiring criteria. Factor 1 was labeled as communication and social skills, factor 2 was extracurricular activities and professional experience, and factor 3 was perceptions about prospective employee.

The hiring criteria encompassing factor 1, communication and social skills, were oral communication, enthusiasm, self-confidence, initiative, ambition, ability to articulate goals, assertiveness, problem solving skills, leadership, quantitative skills, technical

skills, and computer skills. The hiring criteria in factor 2, extracurricular activities and professional experience, were written skills, related work experience, references, interpersonal skills, entrepreneurship, nonrelated work experience, GPA, professional organizations, church/social work, sports, high school record, and industry certification. The hiring criteria in factor 3, perceptions about prospective employee, were maturity and personal appearance. All of the factors except for written skills, related work experience, references, and interpersonal skills were strong at a level exceeding 0.4.

Factor 1 contained four of the top five most desirable hiring criteria which were oral communication skills, enthusiasm, ambition, and self-confidence. Factor 3 also possessed hiring criteria with a high mean which was personal appearance. Therefore, factor 1, communication and social skills, and factor 3, perceptions about employee, were more important factors for employment than factor 2.

RQ₂ stated, Do retailers offer hiring preferences to individuals possessing the National Retail Federation Certifications in Customer Service or Sales? Several survey questions were developed based upon the literature to address this research question. Survey question, SQ₄ asked, "Possessing an industry certification in marketing, customer service, or sales generally leads to a higher quality employee." The mean was 3.27 with 6.3% (*n*=12) reporting strongly agree, 33.5% (*n*=64) agree, 41.9% (*n*=80) neutral, 15.7% (*n*=30) disagree, and 2.1% (*n*=4) strongly disagree. The most common response was neutral, 41.9%. Also noteworthy, 33.5% agreed that industry certification lead to a higher quality employee.

SQ₅ read, Possessing an industry certification in marketing, customer service, or sales, *Please select which of the following statements you agree the most.* The mean was

3.23 and 2.6% ($n=5$) employers selected that the NRF certification would definitely make them want to hire the employee, 45% ($n=86$) looked upon the certification as favorably, 30.9% ($n=59$) were neutral, it made a slight difference for 15.2% ($n=28$) of employers, and no difference for 6.3% ($n=12$). Therefore, 45% of employers looked upon the NRF certification as favorably when deciding to hire the employee. Trent (2011) conducted a similar study on industry certification in the drafting industry. Trent asked if certified drafters were more likely to be hired than non-certified drafters. The mean was 3.46 also indicating that employers in the drafting industry were between neutral to favorable on using industry certification as a hiring criterion.

The researcher was also interested in discovering whether hiring managers possessed any prior knowledge regarding the NRF certifications. Only 23% ($n=43$) of hiring managers had prior awareness of the NRF certifications, while 77% ($n=147$) had no former knowledge. Therefore, a large majority of the managers knew nothing about this certification, how rigorous it was, or the components of the certification. It could be concluded that the awareness on the NRF certifications is low. Hitchcock (2008) suggested that there are hundreds of certifications in existence and found that awareness is low regarding most of the industry certifications.

The researcher also gathered information on the percentage of hiring managers who asked about industry certifications during the interview or application process. The data revealed that 10% ($n=19$) of hiring managers did ask about industry certification during hiring, while 90% ($n=171$) do not. Therefore, it can be concluded that most employers did not ask about industry certifications during the interview process.

Similarly, Trent (2011) also found that employers in the drafting field did not ask about industry certification during the application process.

RQ₃ was, Do hiring preferences for candidates with the National Retail Federation Certifications vary among small and large retailers? The number of responses from large retailers was not representative. Therefore, no statistical analysis was performed.

Lastly, RQ₄ was, Do hiring preferences for candidates with the National Retail Federation Certifications vary between regional shopping centers in Northern Virginia? The number of responses from Fair Oaks Mall and Manassas Mall were not representative and results were not analyzed.

Recommendations

The following recommendations for researchers and practitioners are based on the findings and conclusions of this study.

1. The NRF should use caution when suggesting that their industry certification examination lead to employability advantages as the data in this study found no evidence supporting this. Similarly, departments of education should also use caution from over representing the benefits of using certification to obtain employment, as no evidence exists supporting this claim.
2. Educators could assist students seeking employment by focusing on criteria deemed important to hiring managers such as oral communication skills, enthusiasm, ambition, self-confidence, and personal appearance. These criteria were rated as most important for prospective employees to possess.
3. Educators should inform students to emphasize the certification to prospective employers. Though awareness of the NRF certification was low, 45% of

employers looked upon the NRF certification as favorably when deciding to hire the employee. Because 45% of employers look at the NRF certification positively, educators should ensure that students verbalize that they have the NRF certification in an interview.

4. This study was conducted at three malls in the Northern Virginia region. However, conclusions could not be formulated on differences between malls due to a lack of a representative response for each mall. Research similar to this study should be conducted again with these three malls or in different geographic locations. The NRF testing was prevalent in many high schools throughout the United States. Selecting another state or region that also utilized this certification would be appropriate. This information would be useful, as it would reveal if awareness and value on the NRF certification examination is low in other regions. Comparisons could then be made state by state or region to region.
5. The focus of this study was certification examinations offered by the National Retail Federation. However, hundreds of other certification examinations are utilized in high schools. Research should be conducted on other certification areas to see if results differed based upon the particular certifications being required of career and technical education students. This could help determine if some certifications possess more employability advantages than others.
6. Conclusions could not be drawn on whether there was a difference in hiring preferences between small and large retailers due to a lack of responses by

large retailers. Additional research should be conducted on this topic. Many of the large retailers were only willing to release their data from their corporate headquarters. Therefore, future researchers should attempt this study in a different manner that would allow for responses from a corporate location as opposed to particular store sites.

7. This study was structured to discover employability advantages for high school students seeking a position in retail. However, college students were also earning certifications. Research should be conducted on what employability advantages exist for college students. The population should be changed for subsequent studies of this nature to investigate more professional jobs, not simply retail positions.
8. Employability advantages of industry certification was the primary focus of this study. However, many certification vendors believed that students who possessed credentials may earn a higher salary. Therefore, future research should be conducted on how the starting salary of a certified and non-certified candidate may differ.
9. The Carl D. Perkins Act of 2006 placed a strong emphasis on accountability; however no specific guidelines were set regarding how to show accountability. With no detailed program in place, many states turned to industry certifications as a method of meeting the Carl D. Perkins Act's accountability measures. Future research should be conducted on accountability in marketing education. Specifically, future researchers should determine if the NRF certifications are an appropriate measure of

accountability or teacher effectiveness in marketing education. The marketing education curriculum and teaching benchmarks should be investigated and compared to the questions in the NRF certifications. If the curriculum does not align with the certification questions, it may not be the best measure of accountability or course final grades could replace certification examinations.

10. Other methods of showing accountability in marketing education should be explored and researched. Many states were using industry certification to show accountability. However, future researchers should investigate other methods of showing accountability and rate the positive and negative aspects of each method such as a capstone project or a curriculum based standardized test. More cost effective methods exist or could be developed.

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Appendix A

Survey

Title: Employability advantages of Marketing Education Industry Certification Examinations

Purpose: The purpose is to determine specific hiring criteria that employers find desirable in prospective employees with a particular interest in marketing education industry certification examinations.

Directions: Using a blue or black pen, mark your response to each multiple-choice question by placing a check mark next to the answer that you believe to be most correct. Mark your responses to the questions by placing a number between 1 to 5 next to each question.

1. Your store is located in which mall?

- ☐ Fair Oaks Mall
- ☐ Dulles Town Center
- ☐ Manassas Mall

2. What is the size of your store?

- ☐ Small (0-24,999 square feet)
- ☐ Large (25,000 square feet or larger)

3. Rate the importance of each of the hiring criteria listed below on a scale of 1 to 5.

- 1=Not applicable 4= Important
2=Unimportant 5=Very Important
3=Somewhat Important

Hiring Criteria	Rating (1-5)	Hiring Criteria	Rating (1-5)
1) Oral communication skills		14) Related work experience	
2) Enthusiasm / motivation		15) Personal Appearance	
3) Self-confidence		16) Quantitative skills	
4) Initiative		17) Technical skills	
5) Entrepreneurships		18) Computer skills	
6) Ambition		19) Grade point average	
7) Non-related work experience		20) Participation in professional organization	
8) Maturity		21) References	
9) Ability to articulate goals		22) Church, or social work	
10) Assertiveness		23) Interpersonal skills	

11) Problem solving skills

24) Participation in sports

12) Written skills

25) High school record

13) Leadership skills

26) Industry certification

4. Do you typically ask about industry certification on a job application or interview?

☐ Yes

☐ No

5. Have you ever heard of the National Retail Federation Customer Service Certification or the National Retail Federation Certification in Sales?

☐ Yes

☐ No

6. Possessing a certification, such as the National Retail Federation Customer Service or Sales, generally leads to a higher quality employee?

Please select your level of agreement with the following statement

☐ Strongly Agree

☐ Agree

☐ Neutral

☐ Disagree

☐ Strongly Disagree

7. Possessing an industry certification in National Retail Federation Customer Service or Sales Certification would:

Please select which of the following statements you agree the most

☐ Definitely make me want to hire the employee

☐ Be looked upon as favorably when deciding to hire the employee

☐ Neutral

☐ Make a slight difference to hiring decision

☐ Make no difference to hiring decisions

8. What starting salary would you offer to a new entry level employee?

☐ \$7.25

☐ \$8.75

☐ \$7.50

☐ \$9.00

☐ \$7.75

☐ \$9.25

☐ \$8.00

☐ \$9.50

☐ \$8.25

☐ \$9.75

☐ \$8.50

☐ \$10.00 or more per hour

9. What starting salary would you offer to a new entry level employee who has a marketing, customer service, or sales certification?

☐ \$7.25

☐ \$8.75

☐ \$7.50

☐ \$9.00

☐ \$7.75

☐ \$9.25

☐ \$8.00

☐ \$9.50

- ☐ \$8.25 ☐ \$9.75
☐ \$8.50 ☐ \$10.00 or more per hour

Appendix B:

Survey Cover Letter
Employability advantages of Marketing Education Industry Certification
Examinations

Date: June 25, 2012

Dear Store Manager:

We seek your assistance in a research study related to Employability advantages of Marketing Education Industry Certification Examinations.

Ashley Elmore, Ph.D. student at Old Dominion University, will be conducting the research. This study is being conducted in partial fulfillment of the requirements in the attainment of a doctorate degree at Old Dominion University. Dr. John Ritz from Old Dominion University is the responsible project investigator. Dr. Ritz will supervise the research and can be contacted at (757)-683-5226.

Several studies have been conducted looking into the subject of industry certification examinations. However, none of these studies have addressed the NRF certifications.

The researcher wants your decision about participating in this study to be absolutely voluntary. Taking this survey is your consent for the researcher to use the information you provide for this research study.

No foreseeable risks are involved in this survey and your identity will remain anonymous in all aspects throughout the study and thereafter. The researcher recognizes that your participation may take 5-10 minutes. In order to help, the researcher will come back in a few hours to pick up the survey. The researcher will also provide all stores with

a self-addressed stamp envelope for those managers needing additional time. All collected data will be reported in aggregate. The benefits of this study will be discovering if the NRF certification provides students with employability advantages.

The researcher hopes that you will accept this opportunity to determine employability advantages of marketing education industry certification examinations.

Thank you,

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Virginia Polytechnic Institute and State University, Blacksburg, VA, May 2002

PROFESSIONAL CERTIFICATION/LICENSE:

Commonwealth of Virginia Postgraduate Professional License: Marketing Education

Commonwealth of Virginia Postgraduate Professional License: Business Education

Wise Financial Literacy Certification, 2010

NRF National Certification in Customer Service, 2009

NRF National Certification in Selling, 2009

Microsoft Office Specialist Certification in Microsoft Word, 2008

Microsoft Office Specialist Certification in Microsoft Excel, 2008

Microsoft Office Specialist Certification in Microsoft PowerPoint, 2008

Ask Fundamentals of Business and Marketing Certification, 2007

PROFESSIONAL PRESENTATIONS:

- Lights, Camera, Action: The Marketing Behind Reality TV
DECA Power Trip National Conference, November 2010
- You're Hired: Make Your Marketing Student Marketable
Virginia State Leadership Conference, 2009
- Standing Out to Admissions Boards Through Marketing Education
MarkEd Conference, 2009
- Hot or Not: Trends in Employment for Marketing Students
MarkEd Conference, 2009

AWARDS:

DECA Target Advisor Scholarship Recipient, 2008

DECA Marketing Organization Outstanding Advisor, 2007-2008

ITT Technical Institute Apple Teaching Award, 2007

Toyota and WJLA Channel 7 News Working Woman of the Year, 2006

Best New Professor of the Quarter for ITT Technical Institute, 2006

National Honor Roll's Outstanding American Teacher, 2005-2006

EXPERIENCE:**Georgian Court University, Lakewood, NJ**

Instructor in School of Business, August 2011-current

- Instruct undergraduate courses in the subjects of business, marketing, and human resources
- Serve as an lecturer for Masters of Business Administration courses
- Contribute to the betterment of the university through committee work
- Mentor and advise students and ensure appropriate student course select
- Develop new programs and majors entailing Business Latino Studies and Social Media Marketing
- Assist student athletes by serving as the faculty mentor for the girls' soccer team
- Heightened retention by instructing the Freshman Experience Course

Oakton High School, Robinson Secondary School, & Robert E. Lee High School, Fairfax, VA

Marketing Coordinator, Business Educator, & DECA Advisor, August 2004-July 2011

- Design creative lesson plans for a plethora of classes within the business and marketing arena
- Deliver daily lessons utilizing a high energy and passionate approach to education
- Ensure that lesson plans correlate with state mandated curriculums and contribute to students' knowledge in other content areas
- Assist students in successfully passing course related industry certifications examinations
- Maintain continuous communication with administration, parents, and students through the use of Blackboard
- Daily integrate technology such as Microsoft Suite, Internet Explorer, Blackboard, and SynchronEyes into the classroom
- Plan, organize, and participate in local, state, and nationwide travel with students
- Advise and assist DECA students in earning scholarships and prestigious local, state, and international accolades
- Grew the DECA Marketing Organization to 480 student, alumni, and professional members and earned the award of largest chapter in the state of Virginia
- Assisted ESL students in learning computer skills in business courses
- Coordinated the cooperative learning internship program to enable students to find course related jobs

COURSES INSTRUCTED:**High School Courses Instructed:**

Advance Fashion Marketing
Advanced Marketing
Advanced Sports Marketing
Cooperative Education
Fashion Marketing
Finance
Marketing 1
Office Administration
Principles of Business
Sports Marketing

Undergraduate and MBA Courses Instructed:

Communications
Consumer Behavior
Portfolio Development
Strategies for Technical Professionals
Information Systems
Advanced Information Systems
Global Marketing
Business Communications
Human Resource Management
Management Theory