2014

The effect of advanced educational pursuits on re-entering the workforce following a modest period of unemployment

Charles J. Trayser Jr.

Pepperdine University

Graduate School of Education and Psychology

THE EFFECT OF ADVANCED EDUCATIONAL PURSUITS ON RE-ENTERING THE WORKFORCE FOLLOWING A MODEST PERIOD OF UNEMPLOYMENT

A dissertation submitted in partial satisfaction

of the requirements for the degree of

Doctor of Education in Educational Technology

by

Charles. J. Trayser, Jr.

December, 2014

Paul Sparks Ph.D. – Dissertation Chairperson

This dissertation, written by

C. J. Trayser

under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

Doctoral Committee:

Paul Sparks, Ph.D., Chairperson

Monica Goodale, Ed.D.

John Malpass, Ph.D.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGEMENTS

I would like to thank my advisor, Dr. Paul Sparks, who provided guidance and support on weekly calls throughout most of 2014 -- your insight and candor during this effort was greatly appreciated. I am also grateful to my other committee members, Dr. Monica Goodale and Dr. John Malpass, for their time and encouragement.

I am very thankful of the support from all the Crossroads Career Network volunteers, participants, and leaders that helped with the surveys, especially Tim Krauss, CEO, and Brian Ray, Chairman, for their belief in and support of my research.

I would like to express my deepest appreciation to my extended family that encouraged me over the years. However, I should mention two people in particular. First, my father, Charles Sr., and the impression the memory of him has made on my life, not only as a gifted educator, but also as my role model. Finally, my loving wife, Melanie, who has endured years and years of my studies and research with grace, charm, and patience -- I could not have accomplished my educational goals without you!

VITA

EDUCATION

Master of Science in Information Technology 2005
with a Specialization in Project Management and Leadership
Capella University Minneapolis, MN

Bachelor of Business Administration in Management 1986
Kennesaw State University Kennesaw, GA

PROFESSIONAL

Associate / Project Manager 2003-Present
Booz Allen Hamilton Atlanta, GA

Adjunct Online Instructor 2008-Present
University of Phoenix Phoenix, AZ

Project Manager 2002-2003
Thinq Learning Systems Baltimore, MD

Project Manager 1999-2002
IBM, Learning Services Atlanta, GA

Infotec Online Program Manager 1997-1999
Infotec Commercial Systems Santa Ana, CA

Business Alliance Manager 1994-1997
Global Knowledge Atlanta, GA

Educational Consultant / Software Specialist 1979-1994
Digital Equipment Corporation Atlanta, GA

CERTIFICATIONS

Certified Technical Trainer (CTT+), CompTIA 1993-Present

Project Management Professional (PMP), Project Management Institute 2001-Present

Information Technology Infrastructure Library (ITIL), Foundation Level (V2) 2006-Present

ABSTRACT

Over the last 100 years, there has been an ever-tightening correlation between education and employment. In the early 1900s, it was the attainment of a high school diploma that yielded lower unemployment. In the middle of the century, it was the bachelor's degree, and in the 21st century, it is advanced degrees, such as MBAs. While there is a preponderance of data supporting the relationship between higher levels of education and a diminishing likelihood of unemployment, the value of continuing education potentially assisting an educated (degree-holding) worker back into the workforce is an un-researched area.

This study examined the relationship between the pursuit of continuing education (either advanced academic degree or industry certification) and re-employment for experienced professionals. When the educational effort was introduced in interviewing, hiring or sourcing activities, did recruiters or hiring managers give preference to that job candidate? Moreover, since the worker already had an academic degree, would pursuit of an advanced degree be more beneficial than the pursuit of a professional certification?

Early discussions with several potential subjects indicated that they could not, due to privacy and legal issues, divulge hiring decisions for specific staff members. Therefore, two anonymous surveys were devised to solicit insights from both job seekers and recruiters/hiring managers. The recruiter/hiring manager responses supplied the most direct answers to the research questions while the job seeker responses provided insights on the current approach to education when a person is unemployed.

The findings identified that recruiters/hiring managers embraced continuing education. Depending on the situation, between 35% and 67% of the respondents valued the educational efforts in the hiring process. In most cases, since the worker already held a bachelor's degree, pursuit of an industry certification was deemed more valuable than the pursuit of an advanced degree, but neither pursuit could compete with job candidates who already held advanced degrees.

While further research is needed to refine the differences based on age, degree type, and industries, the general guidance for an out-of-work professional with a bachelor's degree is to pursue industry certification or pursue an advanced degree to improve the prospects of quicker re-employment.

Chapter 1—Introduction

Opening Remarks

Over the last 100 years, there has been a continued push in the U. S. to shepherd children and young adults through varying levels of education. From the educational goals of providing a high school education to every child in the early 20th century to the boom in advanced college degrees in the early 21st century, as a society, our collective approach to education has been focused on achieving higher and higher levels of education. Such oft-quoted phrases as “A mind is a terrible thing to waste,” “Don’t be a fool, stay in school,” “If you think educations is expensive, try ignorance,” and “No child left behind” have all left an impression on our collective psyche that failure to pursue education to the current standards is paramount to condemning the youth of America to a life of low-paying jobs with limited potential to reach the American dream. Many reports advocate the benefits of having an education, many even emphasizing the advantages of holding advanced degrees for economic and social advantages. These areas have been studied and researched at length.

Yet, with all this education-vs-employment research, there are still unexplored areas that need to be considered. This study focused on an overlooked area of relationship between education and employment—the potential benefit of continuing education during a period of unemployment. Rather than look at education from the usual lifetime earnings or job stability potential angles, the correlation of continuing education (either academic or professional) to the reduced duration of unemployment needed to be explored. This study therefore examined the historical relationships between employment and education and then attempted to discern,

through surveys, interviews, and data analysis, the efficacy of pursuing education or certifications while unemployed.

Background

Starting as far back as 1896, with the Massachusetts Bureau of Labor Statistics (Keyssar, 1986), we have been able to "connect the dots" between education and economic success in America. In current times, the U. S. Bureau of Labor Statistics (BLS) researches and reports on the correlation between levels of education and both unemployment and earnings, showing that the higher educated workers generally earn more money (annually and over a lifetime) and have lower unemployment rates than their less-educated counterparts (2013a). This well-established relationship between increasingly higher levels of education paralleling increasingly higher earnings is a motivator for many young adults to pursue higher education.

Going back to the U. S. Bureau of Labor Statistics (2013b) data with census data in tow (U. S. Census Bureau, 2013), comparing the unemployment rates based on educational attainment yields a rather consistent trend. Even when the unemployment rate moves up and down, from lows of about 3% in the early 1950s to the highs of over 9% in 2010, the inverse relationship between unemployment rates and higher education remains relatively constant:

- Less-Than-High-School-Diploma population having a rate of unemployment between 3-4 times that of bachelor degree holders
- High-School-Graduates population having an unemployment rate between 1.7–2.2 times that of bachelor degree holders

- Some-College-or-Associates-Degree population having an unemployment rate between 1.5–1.9 times that of bachelor degree holders

This data tends to point to the obvious—a person today with college experience is less likely to be unemployed than one with only a high school diploma or less. However, hidden within this preponderance of BLS and Census data, tying higher education to better employment, there exist nuances not often noticed. What seems to be missing from this data lies beyond the obvious numbers:

- Does this lower unemployment rate for college graduates with advanced degrees translate to a longer duration of unemployment in tough (recession/depression) times?
- Does a higher-level degree (master's, professional, doctorate, etc.) yield an even lower unemployment rate and a shorter unemployment period than lower-level college degree holders?
- More interestingly, are the re-employment rates of the unemployed affected by their continuing academic studies?
- Is there a measureable financial benefit for bachelor's and master's degree holders pursuing further education while waiting for re-employment?
- Why do many job seekers not pursue advanced education during unemployment periods yet, anecdotally, many recruiters and managers seem to favor the effort?

- Are the "norms" that have been advocated for so many years now changing in such a fashion that something beyond the bachelor's degree is the new baseline for the professional job candidate?

Answers to some of these questions are partially found in advanced studies and research projects, but others seem to be unexplored areas of potential interest to those in the professions of employment and re-employment.

In the aftermath of the 9/11 attacks, the "normal" business activities in the U. S. went through the beginning of a multi-year upheaval. The airline industry was hit hard by falling profits, which resulted in a large number of employees being laid off from companies associated with the airline industry. This impact also included companies in the hospitality industry (hotels, restaurants, travel agencies, etc.) as well as peripheral organizations that were dependent on this travel industry. A ripple effect was felt in many non-travel industries, such as training, IT, recruiting, recreation, automotive, and others during the post-9/11 recession.

Since normal business did not return for many years (some experts say that it never fully returned) in the U. S., we were plagued with a more volatile hiring and recruitment situation for several years. Then, while we were not yet fully recovered from the 9/11 impact, the banking/mortgage crisis hit in late 2007 and lasted until mid-2009 (this period is sometimes referred to as the Great Recession). Since then we have faced an unemployment situation in the U. S. that has remained stubbornly high for over six years. Moreover, while some numbers indicate that there has been some improvement in the unemployment situation recently, experts agree that it will be some time before we return to (and remain at) the level of

unemployment prior to the banking crisis. (Even at the time of this writing, unemployment is still in the mid-to-upper 6% range.)

During these two recessions, a disturbing trend began to emerge. Unemployment was a little higher for degree holders than it had been in the past decades and the duration of unemployment for degree holders was trending much longer than expected. A 2011 report by Sum and Trubskyy noticed that people displaced during the 2007-2009 Great Recession entered an unemployment market that was extremely resistant to re-employment of displaced workers (Aaronson, Muzumder & Schechter, 2010). The Bureau of Labor Statistics defines a "displaced worker" (a common term used in BLS literature) as a person 20 years of age or older who has been involuntarily separated from employment due to economic reasons (e.g., a layoff or a business relocation—not a dismissal or firing). In 1998 and 2000, the percentage of these displaced workers was under 14% of the unemployed workforce. However, in the post-9/11 recession and in the Great Recession, that number rose to 25% and 42% respectively. At the same time, the duration of unemployment for these displaced workers was extremely high—a median duration of over 20 weeks and a mean duration over 29 weeks (Sum & Trubskyy, 2011).

During the years after the 2002 recession and after the 2007-2009 recession, workers with all levels of college degrees fared better in exiting the unemployment rolls than non-degree holders, including the aforementioned displaced workers (Sum & Trubskyy, 2011). Notable among the degree holders was that the bachelor's degree holder seemed to suffer the most during these recessions, while the master's degree (or higher) holders generally benefited better during these times with smaller loss of jobs (by volume and by percentage). Surprisingly,

workers with only associate's degrees fared a little better during this latest recovery period (post-2009) than most workers with other types of degrees.

At the end of the last recession (prior to 2010), the unemployment percentage for holders of advanced degrees was about 3.9% compared to bachelor and associate degree holders at 5.2% and 6.8% respectively. However, when measured in the millions of jobs lost or gained, the 2007-2009 recession saw the number of jobs that required a bachelor's degree or higher to stay about level (unchanged) during those two years and then it increased by a total of 2 million jobs for the two years following the recession. At the same time, the jobs that required an associate's degree (or just some college) fell by 1.6 million jobs during the recession and regained that same 1.6 million jobs in the two years of post-recession recovery. Jobs that required high school degrees or less during this period lost almost 6 million jobs and had not yet recovered many of those jobs even two years after the recession period (Carnevale, Jayasundera, & Cheah, 2012). The bottom line is that the higher-level degree holders fared the best, those with lower levels of education suffered the most.

Now, this all probably seems obvious to the casual observer of unemployment challenges. The problem is that these statistics might be a bit misleading. Jobs that used to be adequately staffed by high school graduates now require college graduates and many college graduates are working in jobs that only require high schools diplomas (Vedder, Denhart, Denhart, Matgouranis, & Robe, 2010). A survey performed by the Society for Human Resource Management (2012) indicated "31% of organizations forecast the need for post-secondary certificates or credentials for future skilled labor positions compared with 26% of organizations

whose current workers in those jobs hold such qualifications" (p. 3). In addition, while many workers would say they would prefer to have “a” job rather than “no” job, Vedder’s report further pointed out that many professions that only require a “short-term on-the-job training” effort (e.g. bartenders, chauffeurs, firefighters, baggage handlers), each had bachelor’s degree holders (or higher) holding at least 15% of the available jobs in 2008. Was this just an anomaly of the Great Recession that will change as the economy improves? On the other hand, have we reached an education-saturation-point where we have people more educated than the market can accommodate? Alternatively, maybe a new era where having *just* the training or degree required is not enough to be qualified for the job? Moreover, for those struggling to get out of unemployment, are the hiring requirements even more challenging today?

Statement of the Problem

For the last 100 years, there has been an identified beneficial relationship between higher education and employment, such as a lower incidence of unemployment, shorter unemployment durations, higher salaries, and higher lifetime earnings. However, what is not evident is the relationship between the pursuit of advanced education during unemployment and the duration of the unemployment period. Anecdotal relationships abound, yet there is little or no evidence that the pursuit or attainment of an advanced educational degree or a relevant professional certificate can shorten the job search of a holder of a bachelor’s degree who has been unemployed for a modest period of time.

So the problem is the need to understand the relationship between the continuing education at a professional level (master’s degree pursuit or industry certification pursuit) and

the influence it may or may not have in possibly shortening the re-employment of skilled workers with several years of professional experience after obtaining their bachelor's degrees.

Purpose

Therefore, the purpose of this study was to explore the experiences of job seekers and of recruiters/hiring managers to identify if continued education beyond a bachelor's degree had any statistically valid benefit in job candidates' success in expediting re-employment.

By surveying recruiters/hiring managers and assessing their values, their firms' hiring practices regarding extra education, and their job's education requirements, an estimate of potential value of continued education was identified. A complementary survey of the job seekers to determine their experiences with the benefits of continued education provided similar insights, but from the viewpoint of the unemployed worker. By comparing the two separate surveys, consistencies in perceptions were explored, providing insights on supporting or rejecting the notion of the benefit of continued education.

Beyond the primary goal, keying off the primary data, was the perceived benefit of education during unemployment, reasoning for choosing more education, perception of the value of the education, and intervening items (age, citizenship, etc.) that might have affected the desired outcome. For example, did a hiring manager see the job seeker as more motivated, more skilled, or possibly have other perceived benefits. Alternatively, recruiters might have seen these job candidates as over-educated or shirking the job search. The results of the primary and secondary findings of this research can be used by unemployment offices, college

counselors, career coaches and others to give research-based advice on the value of continued education during a period of unemployment.

Research Questions

Based on the literature studies to-date, research or studies on the topic of the benefits of continued formal education in accelerating re-employment are rare to nonexistent. With little-to-no relevant data, metrics needed to be gathered and analyzed to determine if there was adequate reliable data from which to draw conclusions. The research was implemented using a pair of surveys that gathered key independent variables and numerous (potential) dependent variables. Additionally, the surveys and analysis attempted to identify intervening variables that affected the ability to draw specific conclusions. Creswell (2009) recommended a descriptive-inferential approach for a quantitative research, especially when it contains a mix of variables. With limited prior research data, the approach that this study took was a “Descriptive Questions” model with “Inferential Questions."

The ultimate question that the research attempted to answer was, “While unemployed, does pursuing an advanced degree possibly shorten the job search?” The challenge with this question was that it was not readily measured. Determining how a timeline can be shortened for an unrepeatable event is impractical. Therefore, the research questions needed to look at trends, preferences of hiring firms, insights from job seekers and other ancillary points to approach the issue from a different angle. Thus, the research questions for this study were:

1. For a holder of a bachelor’s degree, does the pursuit of an advanced college degree provide a perceived benefit in the interview, selection, or hiring process?

2. For a holder of a bachelor's degree, does the pursuit of a professional certification (e.g., Project Management Professional (PMP), Information Technology Infrastructure Library (ITIL), Certified Public Accountant (CPA), Professional in Human Resources (PHR)) provide a perceived benefit in the interview, selection, or hiring process?
3. From both the recruiter's viewpoint and the job seeker's viewpoint, for the purpose of re-employment, which would be the most desirable, a bachelor's degree holder *pursuing* a professional certification (as in question #2) or *pursuing* a master's degree (as in question #1)?
4. Is there a perceived advantage to the holder of a bachelor's degree who is merely *pursuing* a master's degree vs. the *holder* of a master's degree when seeking re-employment in a tight economic environment (recession or high unemployment period)?

Importance of Study—A Value Statement

Education, unemployment, and government policies are inextricably intertwined. From the earliest wage-based employment in the U. S., there has been unemployment of some fashion. In recent years, it has been relatively easy to correlate better education with lower unemployment. Government programs abound to help get people educated (the GI Bill, Stafford Loans, etc.) and unemployment programs, often funded by the government are targeted at specific skill training, often for blue-collar workers or the public in general (such as the Workforce Development Act of 1998). Yet what is missing in all of this is how to help the

unemployed worker who has modest skills, some relevant work history, and a college degree. Some suggest that returning for an advanced degree or a certification is beneficial, but others disagree. While not a focus for most research or government programs, this college-graduate demographic has become a larger unemployed sector in recent years with little research available to help guide any recommendations on shortening their re-employment efforts via education.

Thus, the primary benefactors of this study will be the unemployed college graduates with modest work experience trying to determine if pursuing advanced degrees or industry certifications while unemployed would shorten their job search. The secondary benefactors are the collegiate advisors—those often asked to help justify if advanced education would benefit current unemployed wage earners in their job search. Additionally, any out-placement center, career coach, unemployment office staff, or others that provide guidance to these unemployed college graduates would gain applicable knowledge. Long-term, this study might also benefit government policy makers in identifying funding, programs, or other benefits to offer to these unemployed workers.

Limitations

The primary limitation to this study was that the source of data was targeted primarily to job seekers and recruiters that participated in the Crossroads Career Network programs across the U. S. (about 1/2 of the respondents were associated with Crossroads). Secondly, there was also a geographic bias due to the fact that a large number of the Crossroads Career programs are offered in the southern U. S. with a concentration in Atlanta, Georgia, which is

where this organization originated. However, an analysis of the responses indicates that the organizational and geographic concerns may be minimal, as the Crossroads responses were modestly in line with the data of the non-Crossroads respondents.

Delimitations

1. The choice to use the attendees and volunteers of the Crossroads Career program limits the ability to generalize the results of this research. While there were many other participants (the survey was web-available; not restricted to a specific audience), their level of participation was not high enough to negate this delimitation.
2. Since many of the recruiters were affiliated with the Crossroads Career program, and they have a vested interest in placing job seekers in jobs, their view on unemployment issues may have differed from recruiters not affiliated with Crossroads Career. The sample size of non-Crossroads recruiters/hiring managers was too small to eliminate this issue.
3. Based on the geographic bias of survey respondents centered near Atlanta, Georgia, and other southern cities, the findings of this research may not be applicable to the U. S. as a whole. Basic ANOVA analysis indicated that the responses may be applicable, but the sample sizes were not large enough to eliminate this constraint.
4. Basic demographics (e.g., age, race, gender) were gathered, but it was not the primary intent of the research to isolate the findings of this research against any of these elements at this point in time.

5. This research did not address “job training” often performed by task-focused outplacement programs or unemployment/labor offices that teach specific job-related skills.

The education associated with this study should not be confused with job training for unemployed laborers, for which there are numerous studies. Nor did this research focus on the benefits of a recent undergraduate (with no or limited professional experience) pursuing an advanced degree. Moreover, this was not about the job seeker needing further (remedial) education or having inadequate skills to hold the desired job. Rather, it was the value (perceived or real) of an experienced professional, in a mid-career unemployment situation, trying to re-enter the same (or similar) career more quickly by attending/pursuing a master's or doctorate degree in the same or complementary field. Alternatively, it might have been a professional pursuing an industry-recognized certificate or certification when seeking to shorten a modest unemployment period.

Assumptions

The questions that could have been posed and angles to view employment’s relation to education are myriad, yet for the purpose of this paper, the variables and research needed to be constrained. The center of focus was to look at bachelor’s degree-holders who were previously unemployed for at least 90 days sometime between late 2001 and early 2014. Other assumptions were that the ideal “job seekers” for this research fit the following mold:

- Had a bachelor’s degree (one or more), but no advanced degree and no college work towards degrees beyond the bachelor.

- Has held one or more jobs for a few years since earning a college degree—enough that just having a degree is not the primary hiring deciding factor. (A work history to complement the formal education is a requirement.)
- Was in a field that did NOT require a master's (or higher) degree to be successful or employable (such as a doctor, college professor, etc.).
- Was in a field that would directly value further knowledge/education/certifications (not a professional sportsman, not an actor, not a blogger, not a secretary, etc.)
- Was not required to earn an advanced degree to retain employment.
- Had a desire to be rehired in either the field of the currently held bachelor's degree or rehired in the field in which the job seeker had professional experience (not a brand new career).
- Was seeking a job in an industry that is not in a heavy decline (i.e., record album pressers, newspaper printing, typewriter repairs).
- Was not a subject (or perceived to be a subject) of discrimination.
- Had no "situations" that would be a greater deterrent to hiring than the skill/education in question (i.e., ex-convict, unable to pass security clearance, excessive travel restrictions, distracting body art (excessive tattoos, piercings, etc.), illegal alien).

Recruiters and Hiring Managers were also part of the research and their primary requirements were that they actively interviewed and/or hired job candidates during the same timeframe.

Organization of the Dissertation

Chapter 1 introduces the background of the dissertation study, the statement of the problem is presented, key research questions that the study will address, and the significance of the research. Additionally, it highlights the theoretical framework, limitations, delimitations, assumptions, and definitions of key terms.

Chapter 2 provides a detailed literature review that walks the reader, in a chronological fashion, from colonial days to current days, explaining the correlation of education to unemployment and the impact of government influence on both. Here the emphasis is on the growth of education, the impact of education on unemployment, the continued assumption that higher education yields better job situations, and the changing degrees of employment insulation related to levels of education.

Chapter 3 represents the research methodology for this study. Included in this chapter are the methodology and rationale, the population and sampling procedures, human considerations and IRB remarks, the instrumentation validity and reliability discussion, and the data collection, management, and analysis procedures.

Chapter 4 presents the essential findings, results, and pertinent data of this dissertation research program.

Chapter 5 concludes the study with a discussion of the key findings, implications for policy or practice changes, recommendations for further studies, researcher's conclusions, and an overall summary of the results.

Chapter 2 – Literature Review

Introduction

In the United States, there has long been a high correlation between education and lower unemployment. Starting with the earliest gathered employment statistics in the U. S., which was performed by the Massachusetts Department of Labor in 1885, it has been evident that the jobs or careers that required advanced education benefited from the lowest unemployment numbers and generally commanded some of the higher wages. Mishel, Berstein and Boushey (2003) expounded on the tight relationship between education, job security, lifetime earnings, and low unemployment throughout the 20th century.

However, as the U. S. has moved from an agricultural economy to a manufacturing economy and now to a service economy, the effects of worldwide economic situations often impact the employment statuses of workers today differently than in the past. Quite notable is the sudden change over the last generation—especially during the Great Recession (from December 2007 to June 2009) and the subsequent years of slow recovery that followed where the relationship between advanced education and its inherent insulation against job loss and reduced unemployment durations has become increasingly strained.

This literature review reflects on the historical alignment of education, jobs, economy, and government policies since colonial times. It examines the changing of education in America and how it adapted to political and economic changes especially in the last 150 years. The review identifies the expanding challenges of unemployment and how the government uses education as a tool to help manage the issue. It also explores the correlation between jobs and

education and how the knowledge (gained through earned degrees or other methods) aids in insulating workers from the loss of jobs and lessens the durations of unemployment, thus reinforcing the worker's economic stability and lessening the volatility of their lifetime earnings. Finally, it identifies the limited research available on the issue of continued education (academic or professional) and its potential to shortening re-employment and the new challenges of the last two major recessions on the unemployed.

Basic U. S. Education: From the Agricultural Society to the Edge of the 20th Century

Formal education in the United States has not been as commonplace as it is today. During the founding of the nation and up until the last 100 years, the US was primarily an agricultural giant. Fertile lands, broad plains, westward expansion, and numerous rivers and lakes provided the country with the resources needed to support a huge agrarian society. The early colonials in their dispersed farming communities had only limited access to education. What formalized education was available was mostly through the classic one-room schoolhouse so ubiquitously referenced in history and folklore. Generally, the larger cities had some form of grammar schools where basic skills were taught, but since America was mostly a rural nation, education was primarily provided at home and it was centered on daily living skills (Reese, 2011). Young girls were generally taught gardening and housewifery while boys focused on animal husbandry and agricultural skills. Both were commonly taught very basic grammar, writing, and math skills – enough to manage their daily life skills. On occasion, young boys would apprentice with an artisan outside of the home, but this was rare and generally limited to urban areas (Kaestle, 1983).

In 1800, almost 90% of the adults in the workforce in the U. S. were identified as farmers, thus education was a luxury across most of the nation and seldom mandatory at any level until the mid-1800s (Ornstein & Levine, 1984). Yet, as a nation that was focused on expansion, the leaders in our government recognized the need for better-educated citizens early in our nation's history. For example, in 1779, Thomas Jefferson presented a "Bill for the More General Diffusion of Knowledge" to the Virginia House of Delegates to encourage a basic level of education for the general population such that they could be competent in managing their personal and professional affairs (Mercer, 1993).

The need for a common base of education was obvious to civic leaders of the day, as the U. S. Census of 1850 indicated that only 10% of the public claimed to be literate (Coulson, 1999). The focus of the primary school programs during this era was on teaching basic literacy, math, history, oratory, and reasoning. Attaining the equivalent of an eight-grade education was a rare achievement during this age, as children were often strong enough to work full time in fields or factories before achieving that level of education. High schools (preparatory schools) were not very common and the program of study varied greatly in all levels of schooling within states and across the nation. However, there was a much higher degree of structure and formality in primary (and secondary) schools located in or near major cities. Reese (2011) points out that common textbooks, standard teaching materials (chalkboards, globes, etc.), school superintendents, and even some age-graded schools were becoming the standard in urban schools, although the curriculum still varied greatly even within these urban locations.

Throughout the early years of the Industrial Revolution (mid-to-late 1800s), agriculture was still king in the U. S.–even as late as 1900, about 41% of the adult workforce continued to be categorized as farmers (Dimitri, Effland, & Conklin, 2005; National Agriculture in the Classroom, n.d.). This rather large segment of our population, while increasing their adoption of primary schools, still had little need for advanced learning. Education beyond the eighth grade continued to be urban-centric and mostly the domain of teachers, ministers, lawyers, doctors, or others that truly needed to have a mastery of a broad set of knowledge and skill beyond that of a tradesman or a laborer (Burke, 1982; Reese, 2011). In line with these professional populations and time periods, circa 1910, only about 50% of school-aged children completed eighth grade and fewer than 35% made it through any years of high school training (Tyack & Cuban, 1995). The implication of this situation was that the workforce at the turn of the century tended to be skilled based and not highly educated.

Mandatory school attendance until a certain age first started showing up around 1860 and by 1913 every state had mandatory school attendance. But the ages, duration, grade levels and curriculum were extremely diverse throughout these years (Education Commission of the States, 2010; Eisenberg, 1988). For example, Pennsylvania's mandatory schooling guidelines published in 1895 required children between the ages of 8 and 13 to attend school, but only mandated 16 weeks of school per year (Pennsylvania State Archives, n.d.). Table 1 shows the shift of mandatory schooling over 50 years from the Civil War through the First World War slowly expanding until all states had mandatory attendance requirements.

Table 1

State Truancy Laws and the Age (if any) that the Law Considered the Maximum Age Goal

Child Age / Decade	1860	1870	1880	1900	1910	1920
None (0)	48	46	32	15	7	
12 years old				2	6	5
13 years old				2		1
14 years old	1	3	13	23	35	38
15 years old			2	3		4
16 years old			2	4	1	1
17/18 years old						

While the general knowledge of the American population was increasing, the number of high school graduates remained very small (as did the number of high schools). Therefore, the number of students attending colleges continued to be a very small percentage of the population. Generally available (free) primary and secondary education had driven a large percentage of school age students to school through about the eighth grade (see Table 1), but few students continued on for high school/preparatory school (Thelin, 2004).

Advanced Education – The Early Collegiate Opportunities in America

Advanced education (beyond primary or secondary school) was mostly seen as nonessential to the colonial Americans. General-purpose education was considered a poor investment of time once the student had learned the basics: reading, writing, arithmetic, geography, history, and usually Christian-based ethics/morality (Reese, 2011). Still, even as early as 1636, Harvard had opened its doors as an institute of higher learning, so the desire for self-improvement through advanced learning had an early start in the colonies. The colleges in early America were very rare, small and offered only a limited formal curriculum. Finding qualified students was challenging since, in the best of cases, only a small fraction of the

population had achieved anything beyond a primary education. Thus, many colleges offered completion of semi-standard high school (preparatory) programs since the level of primary and secondary education failed to have any consistent standards within states or between states (Thelin, 2004).

From the late 1700s to early 1800s, the 25 (or 23, depending on the source) degree-granting colleges helped prepare a small audience of ministers, professionals, and children of the wealthy to be community leaders (Katz, 1983; Tewksbury, 2011) offering an education akin to a general purpose liberal arts degree (Burke, 1982). But college attendance in colonial America was small, with only about 750 college students out of a general population of over two million in 1775 (Good & Teller, 1973). Not until the early 1800s did colleges begin expanding by specializing in the sciences and offering programs in medicine, engineering, and law (Thelin, 2004). Even then, there were fewer than 200 colleges in America prior to the Civil War (7th U. S. Census) and the vast number of them were small denominational colleges in rural settings having an average enrollment between 25-80 students, with the students' preferred professions of ministers, lawyers and occasional businessmen (Burke, 1982).

The mid-1800s was the era of expanding manufacturing, early mechanization, and the reliance on major factories for a growing industrial nation. This industrial shift also saw the beginnings of standardization of educational needs and the slow diminishing of the apprenticeship model (Reese, 2011). Connected directly to this increase in industrialization and the decline in agriculture as the dominant commercial endeavor, the manufacturing cities and the thriving port cities began to see an upsurge in the demand for consistent education and

training. Keyssar's (1986) research of the Massachusetts employment challenges in the late 1800s helped identify this shift away from apprenticeships-for-jobs and to an education-for-jobs preference.

It was during the mid-to-late 1800s that the 1862 Morrill Land Grant Act (building upon the gains made by the 1787 Northwest Ordinance) further fostered a burgeoning college education model in America (Thelin 2004). Over 70 colleges would open their doors based on the benefits of the Morrill Act. While it would take several years for some of the benefits of the Act to take full effect, it was clear that the focus from the federal level on higher education was to strengthen the economy and productivity of the U. S. by expanding college programs to address essential areas such as agriculture, mechanics, mining, and military (thus the use of "A&M" in many schools' names). Strong and well-respected "technology" colleges and universities would spring from this legislation, notably Cornell, Purdue, and MIT. Thus the growth of colleges as a key element to advancing the economy of America expanded rapidly in the late 1800s, a development that was not to be overlooked by industries, governments, and international audiences of the day.

The Age of Wages, Unemployment, and Government Involvement

Paralleling the major changes in our society (the decline of agriculture as the primary employer, emphasis on manufacturing/industrial growth, and the expanding role of education in preparing a workforce), the late 1800s began an era in America where unemployment began to be noticed and considered to be more than a "lazy man" issue (Woirol, 1996). Woirol further detailed that early writings and debates by influential economists in the late nineteenth and

early twentieth centuries, such as John Shield Nicholson, Sidney Webb, William H. Beveridge, and Harold Taylor, all upheld the notion that structural changes in society and the economy were rapidly expanding and these unemployment issues needed to be recognized and addressed by businesses, legislation, and academia. The discussion on unemployment had begun, but there was little valid data to analyze in that day—while the U. S. Bureau of Labor was established in 1884, its first publication of employment statistics would not be available until 1915 (U. S. Bureau of Labor Statistics, n.d.).

Advantageously, as early as 1878, the Massachusetts Bureau of Statistics of Labor (MBSL) began to identify industries, job categories, employment rates, and selective demographic elements such as marital status, immigrant status,, and other elements to define or categorize the traits of the employed or unemployed (Keyssar, 1986). Notably absent from these statistics was any indication of level of education. While some conclusions of the level of education could be drawn based on the type of work (quarrymen and miners vs. bookkeepers and clerks) identified in the MBSL reports, it is not until the U. S. Census of 1870 that questions about education level were asked in a cursory level (just reading and writing skills). The Census of 1900 asked how many months youth attended school; the 1940 Census finally asked what level of education the respondent attained (Gauthier, 2002).

Using Massachusetts, specifically Boston, as a microcosm of the late 19th century Atlantic-coast American port cities (surrounded by growing industries and established agricultural regions), in the early 1800s most workers were either self-employed in agriculture or had a trade (blacksmith, cobbler, etc.). Yet by 1875, 70% of Massachusetts male workers and

almost all female workers were “wage earners." This was higher than the nation as a whole, which still had over 40% of Americans employed in agriculture (Dimitri et al., 2005). Thus, the financial and employment situation during the economic depression of the 1870s resulted in urban America’s first real encounter with unemployment. Many authors of that time disagreed on the reasons for the unemployment. Some held that it was the impact of machines and automation (e.g., David A. Wells), others that it was the lack of personal competence (e. g., Carroll D. Wright), while some pointed to economic influences (e.g., Robert Hunter), yet others (e.g., Robert H. Bremner) attributed it to laziness, idleness and intemperance (Sautter, 1991). Research by the federal Industrial Commission, circa 1900, was the first effort to recognize and try to categorize unemployment as not being one or the other; rather it was influenced by a combination of personal, seasonal, and industrial influences.

Approaching the turn of the century, the entire concept of unemployment began changing in America. With large numbers of workers unemployed in the 1890s, Americans began realizing that the new economy (of wage earners) put a large and unaccustomed demand on society and unemployment started to become a political and social issue (Vedder & Gallaway, 1997). Massachusetts, which had led the nation in recognizing the need to deal with the unemployed workforce, was the first state to focus formally on the issue. As mentioned before, Massachusetts, the most industrialized of the states in the mid-1800s, had created their Bureau of Labor in 1869, but prior to that, in 1863, Massachusetts had created the nation’s first state board of charities (Sautter, 1991). Then in 1894 they set up the “Board to Investigate the Subject of the Unemployed” with a focus on providing relief to the cities and towns impacted

by the high unemployment of the 1890s. The chairman of this board, in a report to the Massachusetts House, indicated that unemployment was a new reality that needed to be considered when assessing the economic strategies for the state (Massachusetts Board to Investigate the Subject of the Unemployed, 1895). In 1906, the President of the National Conferences of Charities and Corrections, Edward Devine, stressed that the "social ills" of society should to be addressed with an emphasis on dealing with the root causes of unemployment that were beyond the control of the individuals (Hofstadter, 1955). Sautter points out that by the early 1900s, the "magnitude of the problem [of unemployment]...exceeded the capacity of private initiative and local institutions to handle it. It seemed logical to seek the help of the government" (1991, p. 23). America had finally come to grips with the realization that unemployment was a challenge of the economy and not (entirely) a personal/laziness issue.

With Massachusetts leading the way on unemployment and charitable/welfare programs, other states and the federal government would soon follow suit. A workmen's compensation law was enacted in Maryland in 1902, a widow's pension program was started in Missouri in 1911, a law limiting the workday to a maximum of 10 hours was enacted in Oregon in 1903, and a Massachusetts law defining a minimum wage were examples of states reacting to social, economic, and health issues of unemployment around the turn of the century. About this same time, the federal government began addressing social woes of the new industrial age workers (wage earners) by establishing the Bureau of Labor in 1884 (initially part of the Department of Commerce and Labor, evolving into the Department of Labor in 1913) and the

Children's Bureau in 1912 (then part of the Department of Commerce and Labor, now part of Health and Human Services). Many states began building employment offices in cities with populations over 50,000 and numerous other socially-targeted bureaus and agencies were created mostly at the state level (Sautter, 1991).

Keyssar (1986) chronicles the challenge of workers throughout Massachusetts (and the nation) in recognizing that unemployment had become part of the American's career life. He identified some extreme ups-and-downs in unemployment for various occupations during a period of 1908-1916. Some professions, such as bricklayers and garment workers, saw unemployment soar to 50%, 60%, or more in some seasons and then drop to 0.1%-1.9% in other seasons. Still, there were more stable careers, such as barbers with unemployment ranging from 0.7%-6.0% and railway conductors with unemployment ranging from 1.0%-6.4% .

Education – A Necessity for a Strong Nation and a Strong Workforce

What role did formal education play during this era (late 1800s–early 1900s) relative to unemployment? Not very much. While education was seen as more and more essential for the basic benefit of daily life and the essential basics of running a business (keeping the books, making financial transactions, etc.), Americans were slow to come to grips with the reality "that public education was a necessary social investment [for]...national social and economic well-being" (Clifford, 1978, p. 166) and for the building of a strong workforce. The skills learned through primary and secondary school were becoming essential, yet the education level of the average American at this time was still quite low.

Many efforts were made near the turn of the century to improve the education situation. As previously mentioned, the U. S. Census first asked literacy questions in 1870. At that time, over 20% of the American population (14 years old and older) were self-described as illiterate. However, the definition of literacy in the 1870s was merely regarded as the ability to sign one's name (Sanderson, 1999) and read simple sentences, signs, or other common materials. (Reliable estimates indicate that upwards of 50% of the population in 1870 was truly illiterate based on today's standards for a child completing first grade). This illiteracy, and its related lack of general knowledge, while not a detriment during the agricultural era, had an impact on the workers of the new industrial age in America. Rural America (outside of the northeastern states), where the education levels were the lowest, was starting to recognize the challenges. An Iowa state leader, Alonzo Abernethy, in 1876, was quoted as saying, "A broader and more extensive course of instruction, open to all, is demanded. Nothing short of a thorough, practical, industrial education will fit our youth..." (Reese, 1995, p. 69). Cora Wilson Stewart began "Moonlight Schools" in rural Kentucky around 1911 to educate the illiterate (Baldwin, 2006). Thus, the nation as a whole was beginning a shift to a strong focus on improving education and literacy of its citizens.

Another area that began to see a change was in secondary school, commonly (though not exactly correct) referred to as "high school." While it had been available in some recognized and structural forms since the early 1800s (Reese, 1995), enrollment in high schools (or its predecessor, "academies") remained small and targeted primarily at college-bound students. According to the U. S. Census of 1870, it was estimated that only 2% of high-school-aged youth

attended secondary schools and only about 10% of those students graduated (Tyack, 1974). By 1890, that attendance number had increased, but was still in the single digits with graduation rates of barely 10%. Yet, over the next 30 years, acceptance and reliance on the secondary school model expanded. According to Levin (1991), participation in secondary schools exploded with an increase of 700% in attendance by the year 1918—the year by which every state and Washington D.C. had finally passed a compulsory education law requiring either eighth grade completion or schooling through at least the age of 16.

College Education—The Impact of War, Unemployment, and Early Federal Support

In the early 1900s, American colleges had not yet benefited from the secondary school boom. Some land-grant colleges accepted students that had only completed seventh or eighth grade and worked them into agricultural "bachelors" programs, which were essentially high school programs (Williams, 1991). Graham and Diamond (1997) stated that "...American colleges recruited students from notoriously weak secondary schools, in which the democratic commitment to provide a high-school education for all citizens pulled standards toward their lowest common denominator" (p. 13). This was very different from the European university model where only the most qualified students generally were accepted into colleges and universities. For example, near 1890, there were over 400 American colleges compared to only four degree-granting colleges in England and the level of knowledge of a student *graduating* from an American college was roughly equivalent to that of a student *entering* a European college (Graham & Diamond, 1997). While there were a few strong schools that truly measured

up as “higher learning,” the American colleges were mostly a potpourri of educational ambitions with few standards and inconsistent curricula.

The growth in college attendance and graduations was painfully slow in the 19th century and even into the early 20th century. Back around the year 1800, about 1% of American males were enrolled in colleges. By 1860 the enrollments had increased to 2%; by 1900 participation was nearing 4% (Burke, 1982), and in 1920 it was close to 5% (Thelin, 2004) with graduation rates averaging under 50%. So while college attendance and graduations were slowly increasing, the attendance rates seemed to echo the growth of the “professional” workers in the U. S. economy which made up about 4.5% of the workforce in 1900 (Burke, 1982). However, this slow progress was about to change. Prior to 1918, less than 5% of the college-aged (late teens, early twenties) Americans attended college, but merely 20 years later, that number had tripled to over 15% (Thelin, 2004) of that same demographic! The trend was clear—the “tail” of the compulsory education laws had been reached. The increasing acceptance of high school educations and growth in college attendance seemed to continue to align with the growth in professional (wage-earning) careers, resulting in three of the fastest growing college curricula—medicine, law, and engineering (Graham & Diamond, 1997; Williams, 1991).

Just before the boom in U. S. college attendance, around 1914, the worldwide economy was impacted by the First World War. American unemployment reached upwards to 8.5% (U. S. Department of Commerce, 1975), and exports took a small tumble. But the major reason for this peak in unemployment continues to be undetermined (Vedder & Gallaway, 1997). At this

time in the American political realm, the government had not yet developed a focus on how to effectively measure or deal with unemployment. Vedder and Gallaway even detailed that an article in the *New York Times* back in 1915 reported discussions that were held within the government to try to find a way to have the unemployed retrained to return to farming (still the single largest workforce in America). But agriculture was a slowly declining business and with the unemployed congregated in the major urban centers, the logistics of this type of solution were quite impractical. Between 1900 and 1930 the percent of the American workforce based in agriculture dropped from 41% to 21.5% and about one-third of these workers earned income outside of agriculture for upwards of four months out of the year (Dimitri, Effland & Conklin, 2005). However, during the early years of the First World War, the American economy picked up (probably due to European demand for resources) and the unemployment rate dropped to normal levels. Then in 1917, as America entered the war, unemployment dropped even further—well below 2% as American men entered the military in large numbers. After the war ended in 1919, the economy and unemployment bounced around again as the nation resettled into a peacetime economy and as wages (raised during the war years) tried to establish a new equilibrium with little help from government policies (Vedder & Gallaway, 1997).

Before the Great Depression—Golden Years for Education and Employment

The period of 1920-1929 was a bright spot for the U. S. economy and employment. Higher education saw greater levels of participation as more Americans sought a college degree and the education profession refined and upgraded its standards. With the stabilization of society, economics, and the political environments, American colleges and the working class

professions saw changes that would propel both into a new partnership. Prior to the First World War, businesses did not understand colleges and colleges did not understand business (Jenks & Riesman, 1969). Workers in that day preferred to go to work and learn at work; the children of the wealthy were commonly the ones attending the high-end colleges (e. g., Cornell, Harvard, Johns Hopkins) to develop the socio-political savvy to eventually move into the corporate boardrooms. But by the end of the war, industries and business started to develop a dependence "on professional expertise, personal adaptability" therefore the "population engaged in professional...work also rose slowly, and the value of higher education rose correspondingly" (p. 94).

To underscore these changes in education, a briefing by Dr. Leonard P. Ayers (1920), presented at the National Citizens Conference of Education in May of 1920, sponsored by the Department of Interior's Bureau of Education, highlighted some key points of that day:

- Percentage of school-aged children attending primary or secondary school: 56%.
- Percentage of students achieving an eighth grade certificate: 45%.
- The average annual number of school days available for students to attend: 160 (200 was the goal).
- America had, on average, the shortest school days and the shortest school year of all the highly educated nations at that time.
- Nationwide there were 18,000 schools that did not have teachers, almost 50,000 schools were taught by teachers with inadequate qualifications, and a shortage of 90,000 teachers in the next year was projected.

While the aforementioned primary and secondary education numbers looked poor compared to today's standard, they were a marked improvement over the numbers from the late 1800s. Students were surging to the elementary schools, high schools and even kindergartens (Levin, 1991) and the educational infrastructure was having a difficult time responding to the surge.

In a similar way, the American colleges and universities were feeling some growing pains. The early 1900s showed a modest rise in college attendance. A college degree was increasingly seen as a "stamp of social superiority; its lack, a social stigma" (Halle, 1928, p. 3). The number of reasons for attending college spanned many purposes: offering the young students a chance to complete a modest high school degree, preparing to enter a profession, or for just achieving a social goal or status. Yet along with growth in attendance was a marked divergence of colleges' missions and goals. Many colleges saw teaching students as their primary purpose. "The American university is emphatically a teaching university," as written by David S. Jordan (1906), Founding President, Stanford University. His assertion contradicted the goals of the predominantly research-focused schools, such as Johns Hopkins University, that modeled itself after the German research-focused Humbolt University and the University of Halle (Domonkos, 1989; Graham & Diamond, 1997). The research schools and most graduate schools were generally superimposed over an existing liberal arts program, requiring only a limited set of teaching hours from their research professors. These schools began to specialize in professional and industry-specific areas. They defined a level of expertise ("knowledge for its own sake") such that they professionalized the knowledge with research leading to doctoral

degrees in medicine, law, theology, education and some sciences (e.g. chemistry). This approach was a further strengthening of the ties between college education and certain professional standards. With regulations emanating from professional associations and the respective “graduate” colleges, the new prerequisite of obtaining a bachelor’s degree prior to being accepted into some professions and adding it as a prerequisite to the pursuit of the advanced degree were some of the impetus that drove the increased demand for bachelor’s degrees after the First World War (Goodchild, 1989).

In the years before and after the First World War, from the college student’s point-of-view, things were improving greatly. Most schools were beginning to adopt a “course credit” model, which allowed students to change majors, transfer to other schools, or take a break in schooling without having to start over again, as was long a common benefit of the European colleges (Graham & Diamond, 1997). Schools were also implementing an “elective” course set, modularized courses, and a widening variation of degree types, majors, and research opportunities. Degree granting schools began moving from a three-year bachelor’s degree to four-year degree as the normal period for completing the undergraduate degree. Many schools began migrating away from the standard/generic bachelor's of arts (B.A.) degrees and were offering more professionally-minded, job-descriptive degrees, such as bachelor's of science degrees in physics, forestry, nursing, and athletic coaching (Rudolph, 1977). Some of the older schools (e.g., Columbia, Yale, Dartmouth) gave up requiring Greek and Latin as an entry requirement, thus opening these schools to a broader base of students. Additionally, many regional colleges (Mary & Williams, Michigan, North Dakota, etc.) were offering undergraduate

preparatory programs or degrees in fields such as metallurgy, mechanical drawing, public health, business and journalism. This was the early era in U. S. college curriculum refinement where the public was beginning to shape the curricula.

In the years after the First World War, while U. S. education was undergoing significant changes, the unemployment picture began its movement from being considered an individual motivational problem (the unemployed were still often referred to as tramps or vagrants) to a socio-political aberration of the changes in the nature of labor and it was finally recognized as a national problem (Sautter, 1991). While the debate on unemployment, its relationship to industrialization and what role the government should play had been discussed for years, the interest in this topic reached a new sense of validity in 1911 when the British passed their National Insurance (which provided for time-limited unemployment payments). But the discussions slowed again during the years after the war. From 1918 to 1929 only two of the twelve years saw high unemployment (over 6%), so the sense of urgency had seemingly passed (Vedder & Gallaway, 1997). While several bills were introduced to the U. S. House of Representatives after the war, with unemployment numbers running at low-to-modest rates, there was little traction in political circles to address the unemployment issue. As time progressed towards the mid-late 1920s, several states (Illinois, California, Michigan and others) began developing state unemployment insurance programs. This practice was also followed by companies, such as Leeds and Northrop, Dennison, S. C. Johnson Company, and other firms with mixed results.

The Great Depression Era—Employment Drops, Education Soars

The years surrounding the Great Depression saw many changes in education, work, and government policies that, when viewed as a collective, present a clear picture of the changes that would burst forth from this period. By 1930, unemployment became a significant issue for politicians as well as the public. With the stock market crash of 1929, unemployment was discussed, measured, debated, and formed the basis of many political campaigns for the next several years. The decennial Census of 1930 had, for the first time, provided measures and categorizations of the employed and unemployed. Metrics included things such as voluntary or involuntary unemployment, duration of unemployment, the workers' general trade/profession, and the other usual census metrics such as gender, age, etc. The Director of the U. S. Census program stated that the "...results of the unemployment census will furnish a picture of the unemployment situation as indicated not only by the number of unemployed but by the attendant circumstance of unemployment" (Gauthier, 2002, p. 135). In 1931, the Bureau of the Census presented the results of their measurements by reporting six million nonfarm workers were unemployed (or about 18% of the nonfarm workforce) while the President's Emergency Committee on Unemployment (PECE) presented an unemployment number from insurer's agents at 24% of nonfarm workers based on a 46-city survey (Sautter, 1991). It was a devastating time for many that were unprepared for the worst employment disaster in America's young history.

Regardless of the reason and circumstances, the high unemployment numbers were painful for the working class; however, there was some hope in the area of education. For

example, studying the unemployment numbers from the 1930 Census shows several professions that were inclined towards having an educated workforce had relatively low unemployment rates (e.g., manufacturing managers at 1.2%, owners and managers of automotive agencies at 1.2%, railroad officials and superintendents at 0.8%), while professions focused primarily on non-educated laborers in similar industries had very high unemployment (e.g., railroad locomotive firemen at 13.0%, automotive street and road laborers at 13.5%, electrical machinery manufacturing workers at 15.3%)—and these were not even the worst numbers of the 1930-1940 decade (Arner & Truesdell, 1931).

As mentioned previously, truancy and mandatory education laws were being strengthened. By the end of the First World War, each of the 48 states had a mandatory education law and, while the ages, grades, and enforcement methods varied (Education Commission of the States, 2010), the growth in school attendance was clear in every region of the country. Child labor laws had begun to tighten which put limits on the types of work children could perform and the hours they could work each week or day (Loughran, 1921). As technology was advancing, an increase in mechanization was requiring the workforce to be much more skilled than the average child laborer could provide. Between the wars, there was a large influx of work-aged immigrants, so the plants and factories saw a shift from using children to using immigrants who provided greater skills. These were just a few of the triggers that drove the upswing in primary and secondary school attendance during the 20 years between the wars and that would help drive high school graduation rates to roughly double between 1920 and 1930 (U. S. Department of the Interior, 1928; U. S. Department of the Interior, 1930).

Along with this influx of immigrant labor and the shift of children attending primary and secondary schools, the growth in college attendance continued to increase. However, the rate of growth of college attendance slowed in response to the Great Depression. Many of these universities and colleges depended on financial benefactors to augment the cost of attendance with endowments, grants, scholarships, and other gifts (Burke, 1982). With the stock market crash (1929-1932), many of these well-financed endowments dried up and thus college fees and tuitions spiked in response. This slowed the enrollment of college-aged students in the late 1920s and early 1930s, but another force began to emerge at this time that would strengthen the pursuit of baccalaureate degrees—the rise of the American research universities. These universities developed graduate schools of medicine, education, chemistry, law and theology to higher standards than in the past and required that students entering these advanced studies already have a bachelor's degree, thus providing an impetus for the research-minded students to obtain undergraduate degrees in the 1920s and 1930s (Goodchild, 1989).

Education and the Professions in the Early 1900s

It is interesting to note in the several years prior to and following the First World War, the formalization of doctoral programs and their tightening relationships with their respective industries. For example, Harvard Law School's Dean Langdell pressed for the requirement of education to be admitted to the bar, formed relationships with legislatures, made alliances with Harvard alumni on the bench, and worked with other universities to standardize the education and the entrance into the law profession. Professor William Welch, at Johns Hopkins University, approached the professionalization of the medical practice in a similar fashion, with an

emphasis on connecting the medical school to a teaching hospital and standardizing the pre-clinical and the clinical portions of the curriculum. Likewise, Dean James Russell at Teachers College (part of Columbia University) was strengthening the programs in both the Ph.D. and the Ed.D. models for teaching (Cremin, 1978).

Now this is not to say that there was a broad acceptance of education as a requirement for entry or success in industry. In fact, as late the 1934, a study in the field of engineering indicated that even in this highly skilled and educated career, 9% of engineers had not attended college and another 13% had not completed college. Furthermore, there was no evidence that college educated civil engineers had a better economic return than those engineers that went through a mentorship program. In fact, most formal education programs for applied technologies, such as Cornell and MIT, led to positions in management, not field positions (Burke, 1982).

These pre-World War II years saw the fastest growth of education participation at the high school levels, with attendance of eligible aged children moving from 11% in 1910, to 26% in 1920, to 44% in 1930, and to 62% in 1940—almost a six-fold increase in a period of 30 years with the participation rate in college doubling every twenty years between 1900 and 1980. At the same time, while much smaller numerically, the growth in graduate school attendees doubled almost every decade (Livingstone, 1998). Significantly, doctoral work, which often focused on professional expertise and research relevant to industries, saw a small but steady growth starting in the years leading up to 1930. These attendance numbers would translate into the real gains being made in the attainment of education.

Starting in 1940, the U. S. Census started gathering specific schooling data with an emphasis on not just attendance, but on attaining high school diplomas or college degrees (bachelor or higher). Figure 1 shows over 70 years of increasing attainment from 1940 through 2013 based on a Census Bureau report (Ryan & Siebens, 2012) and data from the U. S. Census website (U. S. Census Bureau, 2013).

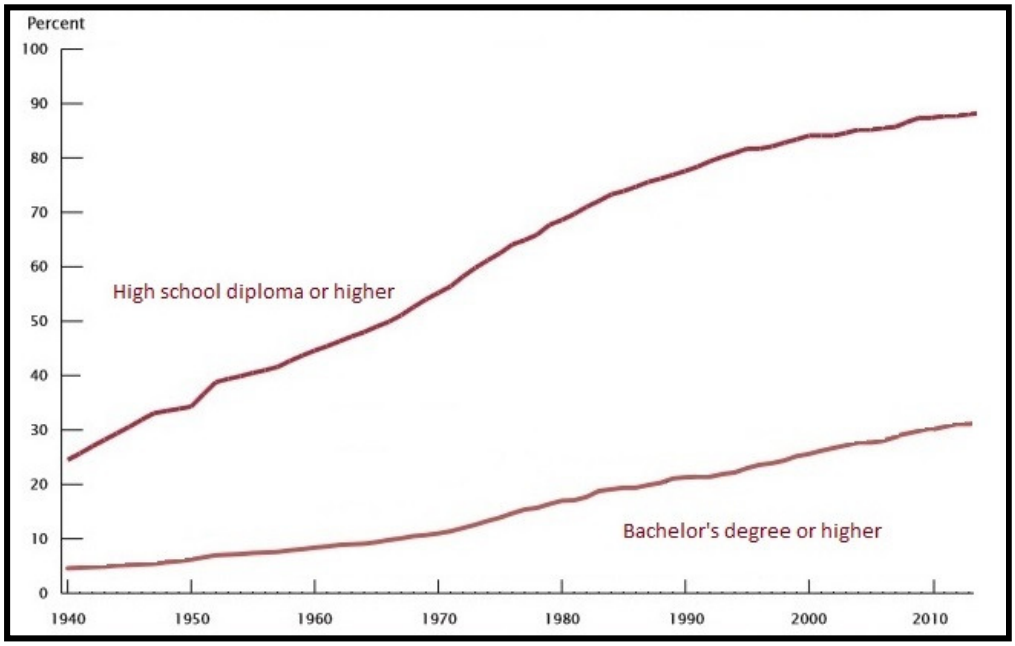


Figure 1. Population over 25 years of age that obtained a diploma or degree

It is interesting to note that while this represented the average (mean) across the nation, there were varying discrepancies and geo-political variations that were of interest. Data from the 1940 Census could be used to isolate education by gender, race, age, location, and other elements. For example, while the percentage of adults over 25 that held a degree was about 5%, only 1.3% of rural farm-based adults held a degree (U. S. Census Bureau, 1942). This reinforces the premise made earlier that the agriculturally focused portions of America had

little need for advanced education, but the opportunities in and around cities for educated talent were on the rise.

WW II and Federal Involvement in Education and Employment

What is not clear from history is what the primary drivers were for the increased desire for education in the early 1900s. Was this increase in education started strictly by the lack of jobs during the Great Depression? Numerous authors and researchers stress that during those tough economic times the "Great Depression pushed potential dropouts to stay in high school because work was so hard to come by" (Rampell, 2009). Many states were enforcing truancy laws, but that only addressed children generally under 14 or 16 years of age. Some attributed the growth in education to the active support of government's focus on building a skilled workforce—one that advocated combining work with education, such as the programs presented by the National Youth Administration of 1935 and the Work Projects Administration of 1935. Still others pressed the point that the various financing and grants supplied by the federal government (the Hatch Act, the Morrill Act, and the various Smith Acts) provided the structural support needed to stabilize colleges and their industry-aligned offerings (Thelin, 2004). And many states provided financial support to certain public institutions, thus the cost of attending those schools was modest (free in some cases) compared to attending a private college (Archibald, 2002). However, the most probable answer is that all of these combined to foster the upward curve in all levels of education.

Federal involvement in directing or expanding education seemed to be taking affect. Starting with the Northwest Ordinance of 1787 and the Morrill Acts (1862 and 1890), the

federal government began its influence of education, providing resources to aid in the establishment of numerous public and private colleges across the nation. Excluding the creation of the military academies (the U. S. Military Academy, the U. S. Naval Academy, the U. S. Coast Guard Academy, and the Merchant Marine Academy in 1802, 1845, 1876, 1936 respectively), the role of the federal government was constrained to granting public lands to states to support the creation of colleges, seminaries, or universities with only minimal requirements or oversight. Then there were the various "Smith" Acts—the Smith-Lever act of 1914, the Smith-Hughes Act of 1917, and the Smith-Bankhead Act of 1920—mostly focusing on vocational education or retraining (Kliebard, 1995; Rodgers, 1978;). These Acts were notable as points in time where the federal policies began to influence the content, goals or outcomes of education. For example, by 1917 the goal to "introduce an element of practicality into the traditional humanistic curriculum in the United States" (Kliebard, 1995, p. 111) schools was due to the Smith-Lever and Smith-Hughes Acts' support of vocational training. But probably the most significant policy (in the long term) was the creation of the Department of Education in 1867 primarily for the purpose of establishing financial aid guidelines, ensuring a nondiscrimination policy in access to education, and the measuring, assessing, and publishing of national education statistics.

The Great Depression and World War II changed the nation in many ways, notably the adoption of unemployment as a political metric and central point of economic consideration (Sautter, 1991; Vedder & Gallaway, 1997). The 1930 U. S. Census revealed the depth and nature of the challenge at the turn of the decade, yet the numbers continued to worsen through the

mid-1930s and the situation was still not fully recovered when America was drawn into World War II in 1941. The economy had been improving slightly as American businesses ramped up commercial and military manufacturing for the European demands (approaching almost a "normal" level of unemployment prior to the attack on Pearl Harbor), but the next several years, with millions of men heading to war, the unemployment numbers would drop to all-time modern era lows (Vedder & Gallaway, 1997).

Until the mid-1940s, the overall college and university system in America was mediocre at best. Using the Nobel Prize competition as a measure of knowledge, in the early 1900s, American scientists earned fewer than 5% of the prizes, but by the 1950s, American scientists had won more Nobel Prizes than all other countries combined (Graham & Diamond, 1997). The era of World War II and the 15-20 years that followed it would begin to see the high correlation between education and careers, between college degrees and success in industry, and between government funding programs and a strengthening economy.

During World War II, the National Defense Research Committee (NDRC) was created to lead research in warfare materials. From that initiative later sprang the Office of Scientific Research and Development (OSRD). The NDRC was limited in funding and the ability to produce weapons, but the OSRD was empowered to research and develop these items. Through the years of World War II, almost $500 million were pumped into major universities to help with the research and development of things such as radar at MIT and nuclear fission at the University of Chicago (Office of Scientific Research and Development Collection, 2012). As World War II was nearing the end, the OSRD's charter was also expiring, so the National

Institutes of Health assumed control of 50 of OSRD's research grants and redirected over $50 million into advanced medical research programs in America's numerous research colleges over the next five years (Graham & Diamond, 1997). This was an obvious boon to universities such as Johns Hopkins and others with growing medical research divisions.

Advanced Education and the Return of the G. I. Joes

The 1944 GI Bill (formally known as the Servicemen's Readjustment Act) was enacted to help veterans returning from World War II to adjust to civilian life and reinsert themselves into the American economy. While there were several benefits of the bill, one of the key elements of economic importance was the provision of paid college tuition. Attending college was still mostly limited to the realm of the upper or upper-middle class due to the expense of college. This bill was notable in that it allowed the average person to attend college (Archibald, 2002). The program was so effective that in 1947 almost 50% of all college attendees were veterans (U. S. Department of Veterans Affairs, n.d.). The GI Bill offered between one and four years of paid tuition (plus other covered expenses) depending on the length of military service. While it was expected that a modest number of veterans would choose college over joining the civilian workforce, the results far outpaced all of the estimates of the day—almost double the projected participation. The GI Bill put numerous physical and academic challenges on the schools. New dormitories and classroom buildings were needed, but instructional models had to be changed from teaching "children" recently graduated from high school to teaching battle-hardened soldiers. More interestingly, Thelin (2004) points out that the GI Bill's effects started

to twist many universities' curricula to a more practical offering "by opting for courses and majors in such employable fields as business administration and engineering" (p. 266).

Thelin (2004) goes on to point out that while the undergraduate program was growing, the participation in advanced degrees remained flat for several years with only 7% of all college students in any type of advanced degree program in the 1940s. This number did increase over the years, but the doctoral studies languished. The primary cause was the conflict required for the necessary studying and research to support the program often took college professors pursuing a doctoral degree out of the classrooms. This was partly resolved with the adoption of the Teaching Assistant (TA) program at many schools. Also, with most of the doctoral degree seekers being active professors, they were limited in their selection of schools (often pursuing a doctorate offered by the university in which they were teaching), thus limiting their choice of programs to study.

The success of the GI Bill and the clear gains from programs such as OSRD and NDRC during the war pointed to the need for a broader national government role in developing a knowledgeable and skilled workforce as integral to the national interest. Thus in 1946, President Truman established the Commission on Higher Education which would publish the Truman Commission Report (a.k.a. Higher Education for American Democracy) which analyzed the condition of education in America and made recommendations regarding educational structures such as community colleges and also advocated the use of scholarships or other financial aid to reduce the monetary impact of college education (Truman, 1947).

While the educational opportunities immediately after the war were improving for many (high school graduation rates were up and college attendance was up), the economy was stumbling. During the last years of the war, unemployment dipped as low as 1.2% in 1944, but rebounded to about 4%-5% between 1946 and 1950. The job losses, especially in manufacturing, were mostly temporary as factories retooled for peacetime production, but the unemployment numbers would find a certain long-term stability in the 5% range, bouncing around between 2.9% and 6.8% well into the 1970s (U. S. Bureau of Labor Statistics, 2013b). When the government relaxed the wage and price controls in 1946, prices and wages rose rapidly with the consumer price index rising 15% in six months and wages rising almost 6%. This was followed by a recession starting in January of 1949 where wages rose 2.7% (in manufacturing) and prices dropped 2% through August (Vedder & Gallaway, 1997) while unemployment rose to 7% by the end of 1949. Still, the numbers remained relatively stable following World War II and America began a long period of good employment, increasing education, and rising wages.

Educated Workers Start to Gain an Advantage in the Workforce

What happened over the next several years, starting around 1950, is of significance to the premise of this paper. As the unemployment numbers began to drop following the 1949 recession, there began to be a noticeable divergence in the profile of unemployment numbers—a "long-run decline in the demand for low skilled, poorly educated workers and a long-run rise in the demand for high skilled, well-educated workers" (Killingsworth, 1968). This

was a major consideration for students to begin to embrace a college education, but there were many other factors.

Jenks and Riesman (1969) addressed this quite well by pointing out that through the 1940s, 1950s, and 1960s there were several changes in society that made attending college more acceptable. With more people reaching the last few years of high school, more were interested in continuing to learn. While the unemployment numbers were tough, a lot of the returning soldiers from World War II found transitioning from the battlefield to the work-a-day world difficult, but since the GI Bill paid for up to four years of college and some other limited expenses, it gave them time to adjust and re-skill. Businesses were now looking to college graduates (or at least college educated students) as resources suitable for leadership or management candidates. Professional training (engineering, medicine, teaching, etc.) drew many career-minded students. Many potential students that did not care for the straight jacket of college were encouraged with the extensive elective portion of the curricula many schools began to implement. Combining these changes with numerous other small changes in society and education, the era of the college education in the late 1940s began a multi-decade boom-time for college attendance.

The college degree became a pivot-point for careers—becoming a greater stepping stone to broader job opportunities than it ever had been in the past. While there is no question that college education was an aid in job performance and sometimes career entry for many in the 19th and 20th centuries, the relationship between unemployment and educational attainment had been tenuous and anecdotal due to the lack of broad statistical analysis and

research. The 1920s ushered in an early debate and discussion on the topic, but not until the 1950s and 1960s did data provide an adequate backbone to understand the relationship.

Livingstone (1998) aggregated data from the 1937-1938 U. S. National Survey, the 1967 San Francisco Bay Area Survey, and the 1982-1984 results from the OISE Survey of Educational Issues for all Ontario, Canada to identify the trend by North American employers to demand higher education as a hiring requirement. The analysis broke the requirements down to five

Table 2

Employers Requiring Workers with a Minimum Education (1930s, 1960s, 1980s)

Occupational Class	**Job Entry requirement**	**1937-1938 (%)**	**1967 (%)**	**1982-1984 (%)**
Professional Employee	No HS diploma	9	10	2
	HS diploma +	39	15	13
	Degree/credential	52	75	85
Manager	No HS diploma	32	27	6
	HS diploma +	54	28	26
	Degree/credential	14	44	68
Clerical Worker	No HS diploma	33	29	16
	HS diploma +	64	72	60
	Degree/credential	3	0	24
Skilled Manual Labor	No HS diploma	89	62	41
	HS diploma +	11	38	40
	Degree/credential	0	0	19
Unskilled Manual Labor	No HS diploma	99	83	76
	HS diploma +	1	17	19
	Degree/credential	0	0	5

[1] From *The Education-Jobs Gap: Underemployment or Economic Democracy* (p. 74), by D. W. Livingstone, 1998, Boulder, CO: Westview Press. Adapted with permission.

occupational categories (e.g., managers, unskilled manual workers) and three basic levels of educational achievement: less than a high school diploma, a high school diploma as a minimum,

and a college degree or vocational certificate (beyond high school). Table 2 (adapted from Livingstone (1998), table 2.5) shows the increasing reliance of education as an entry into an occupation or job.

Notice the trend over the three time periods across all occupational levels (Unskilled through Professional) to increase the education required for the role to the "next level" of education. For professionals, where a less-than-high-school requirement was already low, the change was primarily in increasing from a high school diploma to a degree or credential. Managers saw a double-shift. First, the shift away from merely high school diplomas to a degree or credential between the 1930s to the 1960s, but then a double-shift where about 20% shifted away from less-than-high-school to a high school diploma at the same time there was about a 20% shift from high school diplomas to degrees and credentials. Clerical workers seemed to miss the impact in the earlier years, but after the 1960s, there was a clear shift into diplomas, degrees, and credentials as a requirement for that field. Skilled and unskilled labor has seen a similar shift as other occupations, with skilled labor seeing over half of the jobs that used to have no schooling requirements now demanding diplomas or degrees. The change in unskilled labor had not escaped these changes; while not as sweeping, there was still an up-swing in education requirements, just to the level of high school diplomas.

Several other authors pointed to similar findings. Ashenfelter and Ham (1979) mapped these same three education levels to unemployment from the 1970 Census. Their data showed that "the unemployment rates of males without, with, and with more than a high school degree [sic] were 5.3, 2.8 and 1.4 percent respectively" (para. 2) showing the unemployment rate cut

in half for each successive level of education obtained. They also identified that schooling likely reduces the total number of hours a worker spends unemployed by providing better job stability (less chance of becoming unemployed), but the extra schooling did not seem to make a difference in the duration of the unemployment. However, they realized that work experience had a measurable influence on shortening the unemployment period. DePrince and Morris (2008) found that "...as educational levels are ratcheted up over time, little effect seems evident on the general level of unemployment within each of the education classes." This adds a new dimension to data in Table 2, where essentially, even if workers were "standing still" with their education level, they were essentially slipping backwards as the demand for educated workers moved forward. Or to look at it another way, when someone with a certain level of education leaves the workforce, they most likely are at a diminished advantage of reentering the workforce at the same level if they were dependent solely on education. Ashenfelter and Ham further identified that "...schooling and work experience [reduce] measured unemployment. Schooling produces this effect on unemployment by reducing the incidence of unemployment spells...work experience does this mainly by reducing the duration of unemployment spells" (1979, p. S114).

Looking at this issue from another angle, Livingstone (1998) examined data from the National Opinion Research Center (NORC) and the Ontario Institute for Studies in Education (OISE) and applied standard skill requirements drawn from government job analysis dictionaries. Using a Specific Vocational Preparation (SVP) scale to measure the amount of time it took to prepare effectively for a job or trade, the trend is quite revealing. Notice in Figure 2

(based on data from page 142) the dramatic drop during the 1950s and 1960s for the number of jobs that could be prepared for in less-than-30-days—a loss of 80% of those types of jobs in about 20 years.

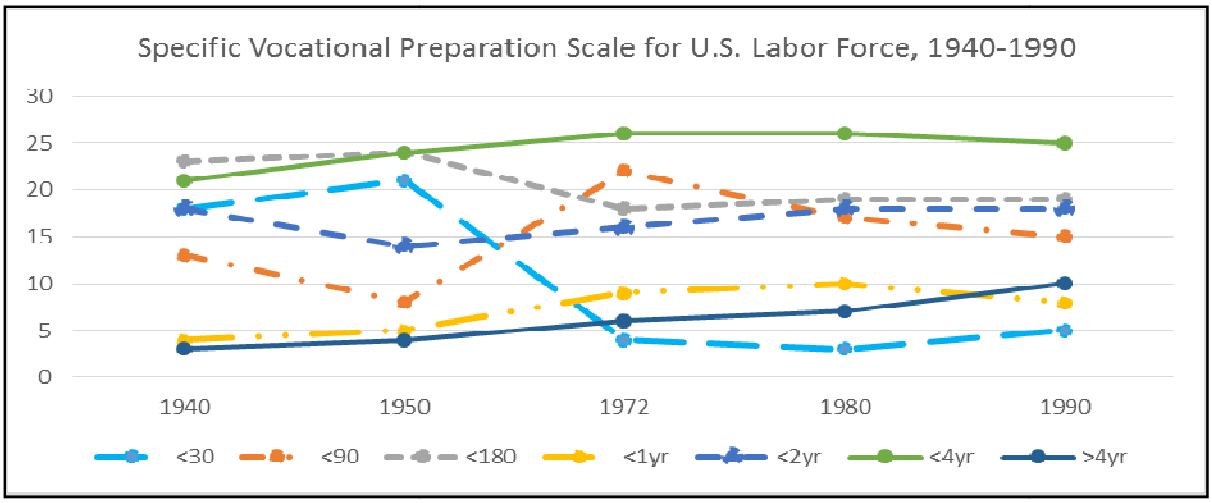


Figure 2. Specific vocational preparation scale for U. S. labor force, 1940-1990

While most of those jobs seemed to shift to the less-than-90-days metric, that did not last long. Note the abrupt downward shift in the less-than-90-days in the 1970s and the continued decline in the less-than-30-days metrics. At the same time, note the increase in the long-term training categories, especially the persistent growth in the greater-than-four-years (over 300% growth in 50 years) metric. Livingstone realized that there were limitations to the occupational dictionary-based ratings, yet he stresses that "the gradual overall skill upgrading trend in technical skill requirements of jobs...is corroborated by the most extensive prior reviews...in other research based on U. S. population surveys and census dictionary job titles" (1998, p. 145). The implication is that up-skilling is required to maintain and/or re-employ in a job market that keeps raising the requirements.

Charles Killingsworth's (1968) article in the BLS Monthly Labor Review reexamined some of his earlier work from 1963 and 1964 regarding structural unemployment. While the debate between structural unemployment (the mismatch between supply and demand) and Keynesian economics (cyclical economic issues drive unemployment) that Killingsworth was noted for is still a topic of discussion today, a key part of his paper examined the correlation between levels of education and unemployment. In his studies of this relationship, his analysis of unemployment during 1953-1954, 1957-1958, and 1960-1961 identified the trend of reduced unemployment for the more highly educated workers. According to Woirol (1996), a Bureau of Labor Statics analyst, Denis Johnston, wrote an article for the BLS Monthly Labor Review's September 1968 edition where he examined Killingsworth's (1968) numbers and concluded that the decades of the 1950s and 1960s showed a "declining labor force participation among less educated men of all age of all age levels...while the rates for the most educated were rising" (p. 132). Howe's (1988) analysis of employment trends from 1967 to 1987 showed something similar, where even with an upward trend in unemployment, college educated workers saw unemployment double from 1.2% to 2.6% while the unemployment rate for workers without a college education almost tripled from 2.6% to 6.4%. All three writers of that time were pointing to the trend of the more-educated worker to be less likely to participate in unemployment than the less-educated workers. In other words, their point was that the better educated person was the least likely to become unemployed.

Building further off the Structural-v-Keynesian debates, Howe (1993) points out that starting in the late 1960s there was a surge in the population attaining college degrees but

without an equal increase in the need in the market for college-educated workers. The result was a crowding of the available job positions due to the over-supply of graduates. This meant that many college graduates ended up taking jobs that would normally have only required a high school degree. At the same time, since employers could afford to be choosey due to the available workforce, employers increased the schooling requirements of many positions that truly did not need the education, thus providing the employer with a more educated workforce. Howe's supposition was that employers probably used education as a screening method to obtain a higher caliber of worker. Psacharopoulos (1980) supported Howe's "screening" concept by inferring that since a potential employee's benefit is unknown before hiring, education is used as an estimate of a worker's value, so hiring an educationally over-qualified person provided some assurance of a reasonable level of performance. Howe's position also echoed that of Hamrin (1978) who, over 23 years earlier, had pointed out that the number of college graduates (at all levels) was outstripping the demand for those levels of education in the economy. And, while it was clear even back then that a college degree offered a higher potential level of employment and higher lifetime earnings, the indication was that the glut of professionals with degrees was saturating the market and that the demand for these degree-level professionals was falling. Even in the last decade, Aberg (2003) presents the same concept when he states that the prevalence of "...jobs with low educational requirements have declined but still constitute a substantial share of all jobs...educational attainment has changed at a faster rate [in general] than the job structure with increasing over-education in jobs with low educational requirements..." (p. 199). In other words, Aberg was stressing the point that the job

market was not able to absorb the highly educated workers into job roles that required that level of education, thus the workforce was over-educated for the work available.

It is interesting to note that while the general education of the American worker, as a whole, exceeded the educational requirements for the job roles in the market, the press for further education has not abated. Indeed, it is continuing to accelerate. Notable in this pursuit of education is the increased attainment of a master's degree. By the year 2000, almost 6% of Americans over the age of 25 had earned a master's degree—compared to 15.5% who only held a bachelor's degree (Bauman & Graf, 2003). The master's degree is becoming the new bachelor's degree. Several recent studies have found that hiring managers in corporate America are choosing to bring on a master's degree holder to fill a role normally suited for a bachelor's degree holder because they "bring something extra" to the firm (Damast, 2012).

The pursuit of a master's degree was not always seen as the academic achievement it is known for today, as it has a rather checkered history. From a less-than-academic start, where the master's degree was commonly granted "in course" to school alumnus for a small paid fee after holding a bachelor's degree for several years (Spencer, 1986), the master's degree would later become a respected and sought after indicator of professionalism and "rigorous academic achievement" (Pelczar, 1979, p 117). It also migrated from a stepping-stone for obtaining a doctoral degree to an entry-level degree required to obtain employment in certain professions such as the American Physical Therapy Association (Spencer, 1986). In the post-Civil War era, many colleges relied on master's degree holders to augment their teaching staffs, for example, in 1884, Michigan and Harvard only had about 10% of their teaching staff with doctorates, and

the rest were master's degree holders (Conrad, Haworth, & Millar, 1993). Up through the 1940s, arts and sciences made up the bulk of masters degrees; from the 1950s through the 1980s, master's degrees in education represented the largest portion of degrees (Berelson, 1960; Glazer, 1986), in the 1960s and 1970s, business and leadership took over as the largest portion of master's degrees with education a close second. It is worth noting that education remains the strong leader in master's degrees for women and business followed by science are the two largest degree fields for men (Berelson, 1960; Conrad et al., 1993). As of 2010, the primary focus of students is the MBA followed by various education and science fields. And earned master's degrees are continuing to grow faster than the growth in bachelor's degrees...from a 1:3 ratio in 2000 to a 1:2.6 ration in 2010 (National Center for Educational Statistics, 2012).

Keeping up with the Youth

An article published by the Federal Reserve Bank of San Francisco (Daly, Jackson & Valletta, 2007) identified a divergence of unemployment that parallels this paper's premise. It stated that up through 1970 the unemployment percentages for workers with high school degrees or with some college education (no degree) was essentially the same, but that during the latter part of the 1970s the unemployment average developed a divergence in favor of the "some college" workers. This proved to be a challenge for older workers who had done well in the pre-World War II era by earning a high school degree, but as college education became more prevalent, the lack of a degree was becoming a detriment. A recent survey by the Society for Human Resource Management (Society for Human Resource Management, 2012) estimated

that even within the next three to five years, the percentages of professional jobs required to have a bachelor's degree, as a minimum, will increase from 65% currently to approximately 71%.

Howe (1993) pointed out that "employers were more likely to hire people with higher levels of education...a particular problem for many older workers displaced from dying or stagnant industries" (p. 141), thus fueling a collegiate or professional return-to-education model that would begin to advance the notion that training or education during a period of unemployment would lessen the impact of unemployment. Daly, Jackson and Valletta (2007) stressed that the overall rise in education of workers since the early 1970s has led to a more educated workforce, which tends to have a lower incidence of unemployment, but at the expense of the lower educated worker. They go on to state that it could be feasible to "substitute young workers with college degrees for older workers without college degrees" (p. 52), thus, without offering the reverse as an option, the implication is that older, skilled workers are not seen as a viable replacement for a young, educated worker. This implication is maintained from a study done regarding a retraining program for unemployed airline industry workers (Deis & Scott, 2002) which found that older displaced employees that took the provided retraining program ended up with a higher unemployment rate than younger employees that did not take the training. As a variation on this "unsuccessful retraining" concept, Martin (2006) pointed out that "trade-trained" people who lose a job in an industry with high out-sourcing to other regions (within or outside the current country) see an extended unemployment impact and reduction of income (long-term) even with supplemental trade-skill

training. The author referenced a study of U. S. and European retraining programs that posited the trade-skill training programs were primarily politically motivated and did little to improve the workers' chances of gaining employment. Yet, another study done between the years of 1975 and 1985 (Podgursky & Swaim, 1987) found that with each additional year of schooling, in almost all cases, the number of weeks spent jobless decreased. (The exception was blue collar work that showed no measurable benefit to years of schooling beyond a high school diploma unless a college degree was earned.) A report by the Urban Institute (Mitchell, 2013) showed that the long-term unemployment for college degree holders, as a percentage of the population of degree holders, was a smaller ratio during the sample years than non-degree holders, indicating that degree holders fared better in tough economic times.

It is interesting to note that a few researchers and authors (Chung, Davies & Fitzgerald, 2010; Monks, 2000; Pencavel, 1993; Schmitt, 2004) are finding that the correlation between education and unemployment might have another influencer—current wage. Based on their research, they found that people with degrees are considered a resource that most companies prefer to hold onto, often releasing lower educated workers first (Rosenstone, 2004; Wolbers, 2000); yet even the highly-educated people get released from their jobs. Not surprisingly, the less educated workers find it more difficult to re-enter the workforce. However, it should be noted that, given roughly equivalent characteristics, workers who are educated but demand a lower wage/salary are more likely to be retained and more likely to be quickly rehired (Chung, Davies & Fitzgerald, 2010). While this is not entirely unexpected, what is interesting about these studies is the implication that to shorten unemployment, the pairing of a higher

education with a lower financial requirement reduced the duration of job search. But most high-educated, high-earning workers were not willing to take lower paying opportunities, often opting to take advantage of government unemployment support while waiting for a more financially appealing job offer.

Closing Remarks

Since the late 1800s, there has been a tight correlation between higher education and lower unemployment. The bachelor's degree (or any degree) has been the point of accomplishment where a large majority of analysis regarding education-to-unemployment stops. U. S. Census data and Bureau of Labor Statistics reports show the trend of more education being pursued by more Americans than any time in history.

However, these last two recessions of the early 21st century may have been the beginning of a re-thinking by businesses and industries, assessing if the bachelor's degree is truly as valued as it had once been. Students are achieving advanced degrees at an ever-increasing rate while more and more corporations are raising the requirements of education for their jobs. While papers like the *Path Forward* (Wendler et al., 2010) talk about advanced degrees, such as master's and doctorates, being in high demand, the holders of these degrees are often struggling to gain employment after a period of unemployment. Thus, it is evident that employment opportunities for advanced degrees are not a guarantee as some have implied. Are these challenges of re-employment for advanced degree holders just part of the cost of having a much greater life-time earning potential and lower unemployment rates? Is there possibly a sweet spot that exists between the bachelor's and the master's degrees where

someone pursuing a master's degree is more likely retained and is more readily rehired than someone that holds either of these degrees?

Despite extensive literature on numerous angles on unemployment, education, and related government support, this is an area with little-to-no research. While the literature review has provided insights on numerous parallel or divergent topics, none of the over 100 sources referenced in this literature review have delved into this specific topic. Therefore, the purpose of the following research is primarily to identify whether hiring trends for a person pursuing or obtaining an advanced degree during unemployment coincides with a reduction in the duration of unemployment when compared to holders of bachelor's degrees and holders of master's degrees where they are not active in any form of pursuit of education during their time of unemployment. Can shorter unemployment be attributed to alternate skills and knowledge development, such as industry certifications? From all indications, the role of education in pursuit of employment has been changing in the last 15 years. Ultimately, the prominent section on the Bureau of Labor Statistics website that has the label "Education Pays" may have to be reconsidered.

Chapter 3 – Methods

Background and Positionality

Over the last 10 years, the researcher has volunteered time working with thousands of the unemployed. From resume reviews to practice interviews to career advisement and to educational guidance, the goal has been to help the job seekers quickly and effectively leave the unemployment ranks and embrace a new job, career, or direction in life. While most of the questions the job seekers bring up can be researched or solved, there is often one question for which there is not a qualified answer: "If I returned to school to earn another degree, would it help me with my job search?" Yes, we have many anecdotal answers (both pro and con), but searching for a qualified answer to this question has turned up little or no definitive guidance. To be clear, the question is not, "will another degree help with my career," which almost all data supports as a positive approach. It is, "will *pursuing* another degree shorten my unemployment period?"

The purpose of this study was to examine current hiring preferences and practices to assess how an unemployed worker who was pursuing or obtaining an advanced education might be more employable and possibly shorten the period of unemployment when compared to a worker who was not pursuing further education. As a complement to that, determine if there was a hiring preference for any worker who was actively pursuing an advanced degree versus one who was pursuing an alternate form of education, such as professional or industry certifications. The premise was that hiring managers favored those actively pursuing education or certification—possibly even preferring lower degree holders pursuing education over higher

degree holders who might not be pursuing further education. There was a need to examine this not only from the point of view of corporate America (recruiters and hiring managers), but also from the job seekers who have had responses both supporting and denying the influence of advanced education studies in their interview and hiring process.

While this research poses both an academic and an industry question that had not been readily studied, it also allows the researcher to be more effective in mentoring the many unemployed that ask for guidance on this topic. Whether the premise is true or not, we need to be able to give the best possible answer to those we advise.

Research Questions

To address the issues mentioned above, the research for this study was focused on a series of related points:

1. For a holder of a bachelor's degree, does the pursuit of an advanced college degree provide a perceived benefit in the interview, selection, or hiring process?
2. For a holder of a bachelor's degree, does the pursuit of a professional certification (e.g., PMP, ITIL, CPA, PHR) provide a perceived benefit in the interview, selection or hiring process?
3. From both the recruiter's viewpoint and the job seeker's viewpoint, for the purpose of re-employment, which would be the most desirable, a bachelor's degree holder *pursuing* a professional certification (as in question #2) or *pursuing* a master's degree (as in question #1)?

4. Is there a perceived advantage to a bachelor's degree holder who is merely *pursuing* a master's degree vs. the *holder* of a master's degree when seeking re-employment in a tight economic environment (recession or high unemployment period)?

Please note that the key variable in these research questions was the perceived value of the "pursuit" of knowledge. While there is little question that education is valuable, the intent was to determine if pursuit of education has a perceived value in the job search process.

Certifications represent a variant on formal degree-type education and needed to be called out separately in the research and surveys since job seekers often question whether pursuing certification or an advanced degree is a preferable job search strategy. The surveys solicited data on certifications in the same way they solicited data on degree pursuit, but the data was segregated, analyzed, and then compared against results for education.

Research Methods and Rationale

This study used a parallel quantitative survey method to derive data from two distinct audiences to identify perceptions, preferences, and correlations in using continuing education as an employment aid for the unemployed. A self-administered questionnaire was used to survey those who were unemployed for a modest duration after 9/11/2001. The goal was to solicit their views on continuing education as a potential means to shorten the unemployment duration. Parallel to that survey another self-administered questionnaire asked recruiters and hiring managers their opinions on the value of continuing education of a job candidate in positively affecting the selection process. Both surveys were administered in parallel and offered anonymously using SoGoSurvey's online survey resources.

With the size and diversity of the U. S. unemployed job seeker audience over the last 15 years, any direct observation of the population is too large to directly observe, therefore a survey was among the best approaches for gathering original data on this size audience (Babbie, 2009). Surveys are commonly used to gather a quantitative description of opinions from a select audience by studying a sample of that audience (Creswell, 2009). Self-administered surveys can collect details from people to glean insights from their responses regarding values, behaviors or knowledge (Fink, 2008).

Other methods were considered and rejected or deemed less effective to determining the relationship of continuing education to exiting unemployment. A few methods (Creswell, 2009) that were carefully considered:

- Case Studies – This was the best alternative to the survey. But after evaluating the selection criteria and the challenges (e.g., legal, privacy) of obtaining specific hiring decisions from recruiters or hiring managers on specific candidates, this method was deemed a viable follow-on to the survey (for more in-depth studies at a later time), but not ideal for addressing the premise of this paper.
- Experimental – Selecting an audience and prescribing an approach to measure the effect on unemployment had too many nuances and points of failure (i.e., guiding the selection of a course or degree program, determining if the job placement was due to education, or more suited for a longitudinal study).
- Phenomenological – This would follow the experiences of numerous research participants through their job search and educational choices. This approach would

have given insights to decisions and impacts, provided a glimpse of unemployment-educational challenges and failures, but it would not have addressed the desired result of determining an overall (aggregate) benefit of continued education on exiting unemployment.

- Mixed Method – A viable methods option for this research. The approach considered was a quantitative survey of the job seekers and a qualitative interview of recruiters/hiring managers. However, after developing and reviewing the question set for the interviews, most of the questions considered for the interview were better aligned with the features of a survey. The limited number of open-ended questions not suited for a self-administered survey (and not used in the surveys) may yet lead to an opportunity for follow-on research depending on the long-term analysis (beyond this paper) of the two surveys.

Validity and Reliability for Two Surveys

The structure of a survey is most important. Bryman and Bell (2007) identify this as a major contributor to low completion rates and low participation rates. They, along with other authors (Fink, 2008; Kalton, 1983; Salant & Dillman, 1994) provide guidance to structuring question relevance, defining appropriate branching, providing clarity of phrasing (grammar), establishing a story line, and ensuring clear instructions. Dillman (2007) stresses several other considerations, such as personalizing communications and looking at the survey through multiple lenses to ensure it is tailored to the audience.

To that end, these surveys, which were originally envisioned as a single survey, were divided to target two distinct audiences with a related goal. The Recruiter/Hiring Manager survey took a direct approach to identify hiring preferences with Situation/Scenario questions that very closely aligned with the research questions. The Job Seeker survey sought perception insight through tangential questions relative to the research questions. Convergence and divergence of the preferences and perceptions provided a depth of validity needed for this study since this was an unexplored research area.

An instrument's validity is commonly described as how well it measures what it purports to measure (Lunenburg & Irby, 2008). Concurrent validity, most commonly performed against similar tests, was not viable since there were (to the researcher's best knowledge) no other tests available that measured the same or similar situations. The instrument had the potential of yielding a predictive validity, but not at this phase of the research. It would have required a series of studies to build any construct validity. Thus, the most viable approach, since this study was gathering data for research that had not been performed before, was by expert judgment validity testing. Therefore, the recruiter identified and contacted seven experts to ask for their participation in helping assess the validity of the two surveys. The experts had a wide range of industry and professional skills, which allowed them to examine the surveys from numerous angles. Requests were sent to a human resources director (with PHR and SPHR certifications), an executive in the consumer packaged goods (CPG) industry, a recruiter with a corporate outplacement service, a professional career coach, a state workforce development specialist, an aerospace quality assurance specialist, and a career counselor in the IT industry. The

researcher also has had modest experience with surveys and polls in his professional life and had implemented a limited number of these in commercial and government settings. Combining practical experience with expert judgment and incorporating the guidance of recognized authorities in surveys (such as Don Dillman and Arlene Fink) provided an increased validity of this data collection approach.

Reliability of the research was limited since this was an area with very little available data to assess the reliability against and the survey was administered anonymously on the Internet. Since the survey was anonymous, any form of retesting (such as test-retest) was not viable. The types of questions asked (i.e., number of college degrees, months of unemployment) were not likely to change if an equivalent-forms approach was taken. For the Recruiter/Hiring Manager survey, there was a possibility of identifying a candidate group of participants (they would not have been anonymous) at the onset of the survey and have them take the survey at both the beginning and the end of the collection period. This would have been partially dependent on the number of participants available, as extracting too many participants for the purpose of assessing reliability would have resulted in a sample size of anonymous respondents being too small to provide a valid measurement.

Survey Setting

The surveys were built using a professional edition of SoGoSurvey, a commonly used web-based survey and polling service. The surveys were made available to the public (after IRB approval) starting on August 26, 2014 and they remained open for 37 days. They were usable on current and popular personal computers, tablets, and most smart phones using browsers

supported by SoGoSurvey (e.g., Chrome, IE 8, Safari 5, Firefox 10 and later releases). A pilot test of the surveys was performed prior to public release and the status of the surveys, data, and supporting systems were assessed almost daily to ensure general public availability of the surveys.

Population and Sample

This research project had two distinct but parallel populations: recruiters and hiring managers representing industries and recent job seekers representing the unemployed workers. The primary source of job seekers and recruiters for the survey were those affiliated with the Crossroads Career programs over the last 12 years. This support organization helps mentor job seekers in more than 40 cities across the U. S. Access to their mailing list was requested and approved by their CEO.

The Crossroads Career programs are staffed by volunteers, most of which are human resource specialists, recruiters, or in other ways associated with the candidate selection, interviewing, or hiring processes. These are people who generally have an interest in identifying methods to help job seekers obtain new jobs or careers. As such, they represented a willing and knowledgeable survey population.

Similarly, the job seekers who attend these programs are generally motivated to seek out guidance, act on recommendations, and strive to identify ways to shorten their unemployment periods. Most of the people who attend the Crossroads Career functions have been unemployed at some time in their career, but others are planning to make career

changes. The focus of the study was related to the unemployed, so the survey was designed to identify those participants that did not fit the study.

The researcher was also in touch with the U. S. Department of Labor (DOL) about leveraging their Job Clubs in the same fashion as the Crossroads Career program. The clubs are independent of the DOL and perform very similar roles to the Crossroads Career groups, so the data would be very consistent. Although the DOL did not formally respond prior to the termination of the data collection, they have mentioned an interest in the research and may commission further studies using their audience based on any published findings from the current data set.

Human Subject Considerations

Before any data was collected or any survey participants were contacted, all appropriate and required processes required by Pepperdine's Graduate and Professional School IRB Office were met and followed. For the job seekers and recruiters, their participation in the research was anonymous via online survey; therefore, they were protected from any physical contact considerations. The surveys were voluntary and the participants were informed of that point prior to launching the survey and also in the first screen of the survey. Minimal demographic data was collected (state of residence, gender, year of graduation, race, etc.) to align survey results to Census and BLS statistics, but nothing that would compromise their financial, physical or social well-being. The participants could choose to exit the survey at any time without any impact to them or the surveys' integrity. The participants were informed that there was likely

no direct benefit of this study to them, although key results of the research will be made available to them on www.trayser.com/dissertation sometime in 2015.

Additional considerations for the protection of the human subjects taken in this research were:

- An invitation to participate in the surveys was sent to over 35,000 email addresses of former job seekers and recruiters (with about an 18% undeliverable rate), but the results of the survey did not identify any specific respondent. The surveys' demographics or other data collected could not be used to associate survey responses to any specific respondent.
- Specific for the recruiters, at the end of the survey, it asked if they would be interested in providing additional responses or provide expanded answers to specific questions. Several of the responses included nominally identifiable data (e.g., email addresses, name of a person, etc.), but that was "scrubbed" from the response and reviewed by a third party to verify the data retained no identifiable personal or corporate details.
- Seven testers/experts provided insight and guidance to the surveys. Their participation in the survey was for testing purposes only and (a) did not accurately reflect their specific situation since they are only testing the mechanical aspects of the online survey, and(b) their data was not retained or analyzed for the purposes of this study.

Research Instrumentation

The research instruments were a pair of surveys (key questions referenced in this discussion are listed in Appendices A and B) delivered in a self-administered manner from the SoGoSurvey website. These surveys were developed over time based on concepts from various industry, educational, and political surveys and polls. The demographic section questions for both instruments were patterned after questions used by the U. S. Census and the Bureau of Labor Statistics, mostly from the Current Population Survey (U. S. Bureau of Labor Statistics, 2013). The question section, focused on education and unemployment duration, benefited from the Census and BLS concepts, but needed to gather more specific information regarding degree types, specific unemployment periods, and even industry certifications than what was available on other instruments. Several polls/surveys used in dissertations or theses provided ideas or topics that were conceptually included; political polls often demonstrated "leading a response" (which this survey sought to avoid); online discussions at the end of some polls debated the pros and cons of the 5, 6, 7 or 10 point Likert scales, etc.

For the Job Seeker survey, which was the longer of the two surveys, it was necessary to collect specific data while at the same time avoid asking irrelevant questions that might cause a higher-than-normal rate of incomplete surveys (Brynam & Bell, 2007; Dillman, 2007; Fink, 2008). The conceptual design of the first survey instrument (Job Seekers) is represented in Figure 3 and the second survey (Recruiters/Hiring Managers) is represented in figure 4. The branching logical was tested (and revised) on multiple online survey tools and performed the best on SoGoSurvey.

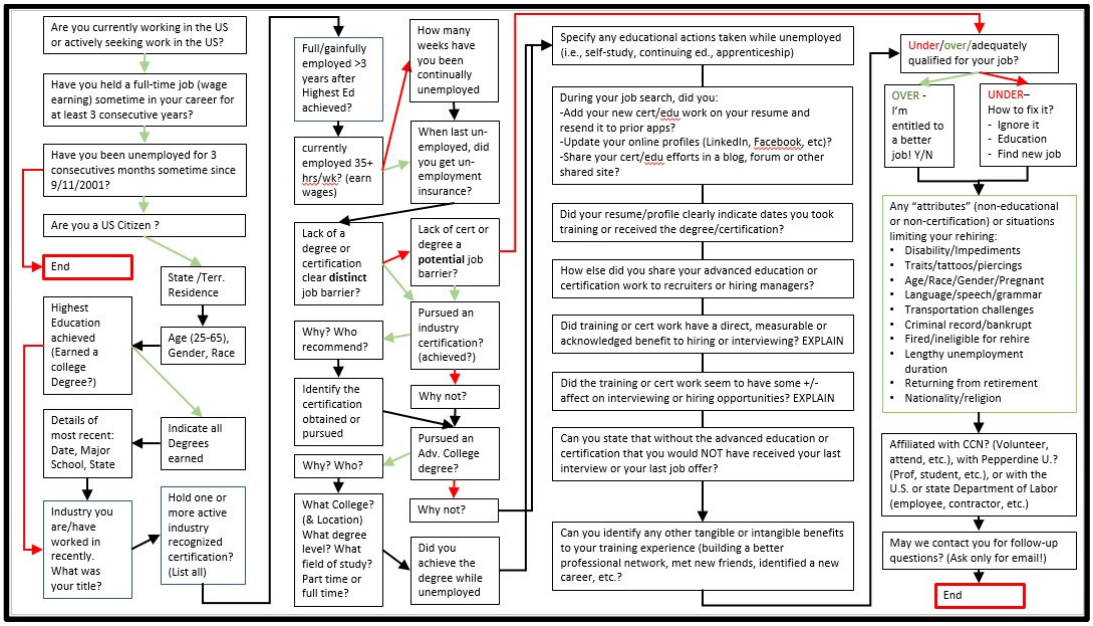


Figure 3. Preliminary question flow and branching logic for the Job Seeker survey

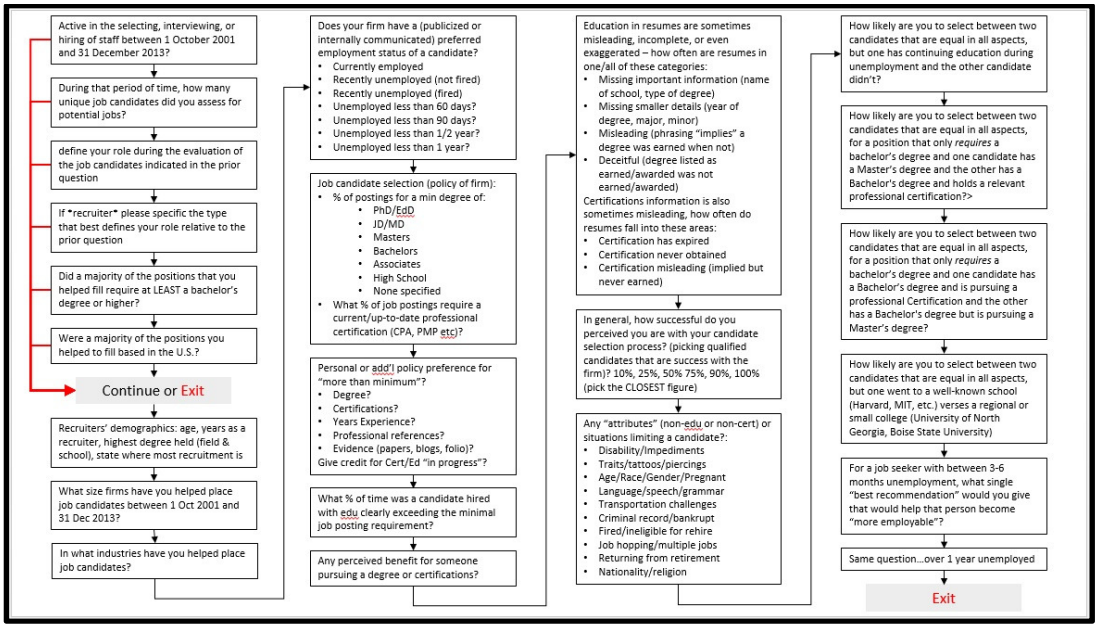


Figure 4. Preliminary question flow and branching logic for Recruiter/Hiring Manager survey

The surveys were designed to ensure a logical, non-repetitive, response-sensitive survey flow. The number of questions asked of each respondent would vary between 17 and 39

questions on the Job Seeker survey (the longest of the two surveys), depending on how they responded. On average, early pilot testing of the survey indicated that it took between four to eleven minutes to complete the Job Seeker survey and six to twelve minutes for the recruiter survey, assuming respondents were "qualified" to take the survey (determined in the first four questions); otherwise, the surveys took less than one minute. In practice, the surveys took considerably longer, averaging over 30 minutes for the Job Seeker survey and just under an hour for the Recruiter/Hiring Manager survey.

Data Collection

The researcher purchased a professional-level subscription from SoGoSurvey that provided for anonymous surveys, survey participant tracking (used only to prevent a user from taking the survey more than once), open access survey to allow the link to be forwarded to other potential participants, and secure data storage and analysis tools.

The data collection was drawn from two online surveys—one targeted Job Seekers and the other targeted recruiters/hiring managers. Both surveys were made available at the same time, were to be available for 37 days (before the data were pulled for analysis) and were announced by emailing an invitation to more than 35,000 Crossroads Career Network members—both job seekers (participants) and recruiters/hiring managers (volunteer staff). The survey was carefully designed to be taken on a smart phone or tablet since many job seekers today do not rely on computers as much as their portable electronics for Internet interactions.

The two surveys were influenced by the Tailored Design Method (TDM) by Don Dillman (2007) and guidance from Alan Bryman and Emma Bell (2007). The TDM approach was

originally designed for paper-based surveys that were mailed to recipients. The emphasis of TDM was applying an approach that embraced social exchange theory; participants in the survey adopt a level of trust with the interviewer and they assume some measure of benefit from completing the survey (low-risk and high-reward). To do this effectively with an online survey, without offering a physical benefit (i.e., cash), the survey itself needs to provide some form of value to the recipient. The surveys for both job seekers and recruiters/hiring managers were designed to allow participants that completely answered the survey to get a link to a webpage where a summary of the key results would be published and could provide a direct benefit to the participant (as prescribed in TDM's description of social exchange theory).

Emailing the invitations to participants provided the recipients with a direct link to the survey. An announcement of the survey pointing to www.trayser.com/dissertation was also posted in several of the LinkedIn groups of various Crossroads Career or job seeker forums. After approximately 37 days, it was determined that the number of complete surveys (both job seeker and recruiter/hiring manager) was sufficient to get a usable data set for the purpose of completing this study. The broader announcement (via the web pages) picked up many non-Crossroads Career participants (almost half of the total survey respondents) as identified by a question at the end of the survey. These two distinct groups were analyzed both separately and together. Their responses were not found to be significantly different; therefore, both groups were used in the data analyses.

Both surveys collected basic demographic data (e.g., age, gender, education level) and certain qualification questions followed by asking for insights and opinions relevant to benefits

of re-employment and continuing education. The first screen of each survey provided a consent form that outlined goals of the surveys and their limitations.

Data Management

Before deployment of the survey to the public, the researcher carefully followed the guidance outlined in the Institutional Review Board (IRB) policies as provided and agreed upon with the IRB office of Pepperdine University .

The two sets of data that were collected from the two surveys are stored on the SoGoSurvey site with access controls limited to the researcher and a research assistant. Key data elements were extracted from the SoGoSurvey site and transferred to a Microsoft Excel readable format for data cleanup and extensive analysis. The data stored on the researcher's PC is stored in an encrypted folder with password access. The files on the researcher's PC were backed up nightly using an online backup service with password access (restricted to the researcher only) and the content was encrypted.

Data Analysis

Descriptive statistics (mean, median, mode, standard deviation, etc.) were used to present results and provide initial analysis of the survey populations. Data cleanup included identifying outliers, partial completions, suspected duplicates, and inconsistent answers (based on modest redundancy in the surveys). Analysis focused on the college degree level held, duration of unemployment, age bracket significance, and participation in on-going education. The other demographics that were collected were used to assess or refine trends that influenced a conclusion.

For the Job Seeker survey, the question set used extensive branching, however, the questions were essentially organized in the following manner:

- Question #1 asked the survey taker to "consent" to providing the information before proceeding through the survey. If the survey taker chose "I disagree," the survey exited.
- Questions #2 through #9 asked for basic demographic data and qualifications, such as age, gender, job seeking status, and state of residence.

  Analysis: Mean, median, mode, and standard deviations as appropriate. These questions were essential for comparison to BLS and Census data to identify if the sample is regional or otherwise biased to a group.
- Questions #10 through #16 identified degrees earned, brief employment history, and industry of employment.

  Analysis: Mean, median, mode, and standard deviation for industry/unemployment pairs qualified the respondents as being suited for answering the primary survey questions.
- Questions #17 through #39 sought to determine if the job seeker pursued and/or achieved any professional certification(s) or advanced education degree(s) during the period of unemployment. A few open-ended questions also asked for insights to understand why they pursued the education.

  Analysis: Essential qualification questions to validate the right audience.

- Questions #40 through #47 were opinion-based questions to assess how any training, certifications, or degree work may or may not have affected the interview and/or employment activities of the Job Seeker.

  Analysis: Compared to responses from the relevant Recruiter/Hiring Manager survey responses—key responses for all four research questions.

- Questions #48 through #51 were tangential questions relevant to how a person perceived a need for education in a current job role and identified any possible hiring, retention, or other barriers to employment (e.g., disabilities, legal issues).

  Analysis: Supplemented all research questions to identify items that caused a respondent's data to be edited or eliminated.

- Questions #52 and #54 identified people in the key research group and/or affiliated with Pepperdine University.
- Question #55 directed respondent to a webpage where key survey results will be posted in 2015.

For the Recruiter/Hiring Manager survey, the question set was smaller (as less background was needed on the participants) and more linear. The questions were grouped in the following manner:

- Question #1 asked the survey taker to "consent" to the information before proceeding through the survey. If the survey taker chose "I disagree," the survey exited.

- Questions #2 through #7 asked basic qualification questions, such as number of candidates dealt with, professional role, level of experience, etc.

  Analysis: Eliminated the need for further questions to identify nonqualified respondent data.

- Questions #8 through #13 asked for demographic, company and industry data to identify an industry, geography, and skill-depth basis.

  Analysis: Mean, median, mode, and standard deviation identified biases based on over-sampling or under-sampling reliant on key criteria.

- Questions #14 through #20 asked questions regarding education and certification to identify perceptions and values.

  Analysis: these questions were compared to the Job Seeker survey results to identify any divergence of perceptions; mean, median, mode, and standard deviation were calculated and compared.

- Questions #21 through #25 asked scenarios that required the respondents to choose between hypothetical candidates.

  Analysis: These questions were aligned directly with the four research questions. They also allowed a validation of the respondents' questions #14 through #20.

- Questions #26 through #29 were tangential questions seeking to identify if recruiters truly valued continued education and identified any possible hiring, retention, or other barriers to employment (e.g., disabilities, legal issues) they deemed important.

Analysis: Supplemented all research questions to identify items that caused the respondent's data to be edited or eliminated.

- Questions #30 and #32 identified people in the key research group and/or affiliated with Pepperdine University.
- Question #33 directed respondents to a webpage where key survey results will be posted in 2015.

Both surveys leaned heavily on True/False or Yes/No (binary) styled responses. Questions that only offered binary (e. g., "Does the job seeker have a grade school diploma," "Has the job seeker ever been unemployed for more than three months at a time") responses worked best for most questions in this study where an "opinion" was not required. Use of an occasional "Other," "Don't Know," or "Not Applicable" was offered with most of the binary questions, but always asked for a short explanation to help understand that response.

There were a few Likert-styled questions where opinions, ratings, feelings or other non-binary responses were deemed more useful (i.e., "Did your recent training have a positive effect during your most recent interview?") with most offering a choice of response other than strictly positive or negative (e.g., "don't know," "not applicable") with a requested short explanation. The optimal number of responses on a Likert-styled question is open for debate (Robinson, Shaver & Wrightsman, 1999), but for something other than a binary response, the 5-point scale is the most common. Based on the research of this topic and other education-vs-employment surveys, a 5-point Likert-style scale with unambiguous values (e.g., "Strongly Agree," "Agree") was the default style used in the surveys.

The answers for the research questions for this study were best drawn from the Recruiters/Hiring Managers' survey while the job seekers survey was intended to reinforce or validate the other survey's results. Specific attention was focused on determining if the recruiters/hiring managers valued educational attributes in roughly the same ranges or percentages as the job seekers. The surveys were able to identify non-divergent sets of data points showing general continuity in perceived value by both groups while only a few items showed a divergent set of data points indicating a discrepancy in the perception of continuing education. Further insights on the analysis of the surveys can be found in Chapter 4.

Once the data analysis is completed, submitted, and approved by the dissertation committee, key results of the research will be shared by posting summary data on the www.trayser.com/dissertation website.

Summary

A pair of quantitative online surveys were used to explore hiring preferences and hiring results intended to determine if there was any perceived value in unemployed professionals pursuing advanced education to reduce the duration of re-employment. This chapter outlined the rationale for the two survey constructs, the targeted audiences and their human rights consideration, the collection and management of the data, and the key research questions for the study. Chapter 4 presents the results of the study.

Chapter 4—Data Analysis and Results

The purpose of this study was to determine the impact of continuing education in relation to improving the hiring prospects of an unemployed professional who holds at least one formal degree. Without current, reliable data on this topic, this study therefore gathered a wide set of data using two distinct audiences to assess the impact of continuing education on re-employment from two perspectives—the job seekers and the recruiters/hiring managers. Lacking other studies on this topic, the two sets of survey questions touched on peripheral elements, such as race, gender, and personal traits. These are primarily intended for a future study (beyond the scope of this report) using multi-regression analysis to identify the potential interrelationships between personal and educational characteristics.

This chapter contains three sections of data analysis. The first set of results are from the survey targeted at recruiters, hiring managers, human resources professionals, and others involved in the selecting, interviewing, and hiring practice. The second section analyzes the results of the survey targeted at job seekers who had been unemployed for at least three months during any one period of time since 2001. The third section presents selected unions of findings from the two separate surveys that were cross-compared and provided either supporting or contradicting results.

This research attempted to quantify two generalized questions. First, is there a perceived benefit of a job candidate pursuing an advanced educational program during unemployment? Second, how would a job candidate in pursuit of an advanced academic degree

compare to a job candidate who either was pursuing a professional certification or was the holder of an advanced academic degree.

The Recruiter/Hiring Manager Survey – Key results

The Recruiter/Hiring Manager (RHM) survey was designed to provide the most direct and meaningful response to the research questions posed in Chapter 2. In most cases, a job candidate does not know why they were or were not selected, interviewed or rejected for a job or position. Sometimes after being hired, they might become aware of what strengths they brought to the job selection process, but it is rare. The most accurate insight on the candidate selection comes from the resources involved in the hiring process—from recruiters through human resource specialists to interview teams (sometimes inclusive of peers or consultants) to the hiring manager. The RHM survey gathered a wide variety of responses from 34 subjects, with key responses summarized in Table 3.

Table 3

Demographic Profile of Participants in Survey of Recruiter/Hiring Managers

Characteristic	**Responses (*n*)**	**Percentage (*%*)**
Participants	37	100
Recruiting/Hiring Role		
Recruiter	9	26
Human Resources	6	18
Hiring Manager	12	35
Executive/Sr. Manager	6	18
Other (Contractor)	1	3

(continued)

Characteristic	Responses (*n*)	Percentage (*%*)
Respondents' Education Level (Highest)		
High School	2	6
Associate's Degree	3	9
Bachelor's Degree	10	29
Master's Degree	18	53
Doctorate/Professional Degree	1	3
Job Candidates Reviewed (since 2001)		
Less than 10	5	15
10 to 19	4	12
20 to 49	3	9
50 to 149	5	15
150 to 499	7	21
500 or more	10	29
Job Candidates per Industry (percent only)		
Agriculture		0.1
Business Services		18.1
Communications		9.4
Construction		3.2
Consumer Services		4.9
Education		1.2
Energy		5.1
Finance		5.1
Fishing and Wildlife		0.0
Forestry and Logging		0.0
Health and Social Services		16.0
Manufacturing		13.4
Mining		3.4
Public Services and Government		4.0
Real Estate		0.9
Retail and Wholesale		12.2
Transportation		2.8
Primary Geographic Hiring Region		
Southeast/Atlantic U. S.	19	56
Northeast/Great Lakes U. S.	6	18
Central/Mountain U. S.	5	15
Western/Pacific U. S.	4	12

One notable demographic issue is that about 40% of the resources for this survey were focused on the greater Atlanta area (part of the Southeastern region) hiring market. This point was noted in the limitations (Chapter 3), but analysis of the data indicates that the responses associated with the Southeastern U. S. are within a modest margin of variance (based on ANOVA calculations on several key questions) for most measured responses when compared to the non-Southeastern responses. Therefore, there is negligible skewing of results due to the geographical clustering of responses.

Research Questions and Analysis

Results for research question #1.

For a holder of a bachelor's degree, does the pursuit of an advanced college degree provide a perceived benefit in the interview, selection, or hiring process?

This is the essential question that formed the basis of this research. The underlying assumption was that continuing education brought value to the job selection process, but it was unclear to what degree and how continuing education fared against other seemingly beneficial attributes. The survey question that most directly aligned with this research question was the following:

> *Two unemployed job candidates are being considered for a position in your firm and you are on the selection panel. The job posting requires a Bachelor's degree in a relevant field and at least 8 years of industry experience. Both candidates have over 10 years of experience in their field, have Bachelor's degrees in relevant fields, and meet all other qualifications for the position. Both candidates have been unemployed for 7 months.* ***Candidate A has started a master's degree program recently in a relevant field of study, candidate B has not.*** *The job posting only requires a Bachelor's degree and there is no mention of promotion possibilities or benefits of advanced education in the job description. Please identify which candidate you would choose.*

This question (RHM #21) sets the parameters of the decision to assume the two candidates are equal in all respects except for education. The response from the survey takers was that Candidate A (the job candidate pursuing an advanced degree) was preferred 67.6% of the time over Candidate B (the job candidate not pursuing extra education). Candidate B was preferred 8.8% of the time and the Other/Not-a-Factor responses collected the remaining 23.6% (see Figure 5, pie chart #1).

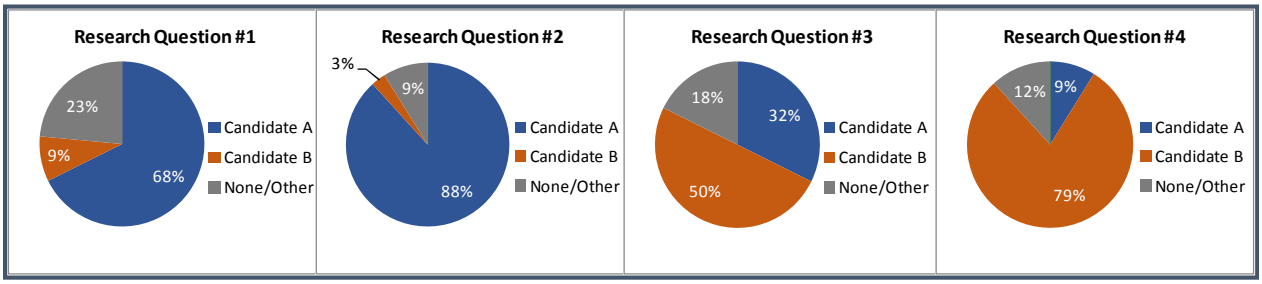


Figure 5. Distribution of preferences for candidates A and B across four research questions

Results for research question #2.

For a holder of a bachelor's degree, does the pursuit of a professional certification (e.g., PMP, ITIL, CPA, PHR) provide a perceived benefit in the interview, selection or hiring process?

Continuing education spans more than just academic degrees. There are various trade skills, apprenticeships, and certifications that are valued by both job candidates and the recruiters/hiring managers. This research question and the related survey questions focused on industry-recognized professional certifications. The primary research question for the certification validation was almost identical to the prior academic pursuit question.

"Two unemployed job candidates are being considered for a position in your firm and you are on the selection panel. The job posting requires a bachelor's degree in a relevant field and at least 8 years of industry experience. Both candidates have over 10 years of

experience in their field, have bachelor's degrees in relevant fields, and meet all other qualifications for the position. Both candidates have been unemployed for 7 months. ***Candidate A has started a Professional Certification program recently in a relevant field of study, candidate B has not****. The job posting only requires a bachelor's degree and there is no mention of promotion possibilities or benefits of having a Professional Certification in the job description. Please identify which candidate you would choose."*

This question (RHM #22) sets the parameters of the decision to assume the two candidates are equal in all respects except for pursuit of professional certification. The response from the survey takers was that Candidate A (the candidate pursuing a certification) was preferred 88.2% of the time over Candidate B (the candidate not pursuing a certification). Candidate B was preferred 3.0% of the time and the Other/Not-a-Factor responses collected the remaining 8.8% (see Figure 5, pie chart #2).

Results for research question #3.

From both the recruiter's viewpoint and the job seeker's viewpoint, for the purpose of re-employment, which would be the most desirable, a bachelor's degree holder pursuing a professional certification (as in question #2) or pursuing a master's degree (as in question #1)?

The question of continuing education, when asked by a job seeker, usually queries whether an advanced degree pursuit or a certification pursuit would be the most advantageous. To assess the recruiter/hiring manager perspective, a question asking the survey taker to compare the two situations was asked.

"Two unemployed job candidates are being considered for a position in your firm and you are on the selection panel. The job posting requires a bachelor's degree in a relevant field and at least 8 years of industry experience. Both candidates have over 10 years of experience in their field, have bachelor's degrees in relevant fields, and meet all other qualifications for the position. Both candidates have been unemployed for 7 months. ***Candidate A has started a master's degree program recently in a relevant field of study. Candidate B has started a Professional Certification program relevant to the***

> ***industry.*** *The job posting only requires a bachelor's degree and there is no mention of promotion possibilities or benefits of advanced education or professional certification in the job description. Please identify which candidate you would choose."*

This question (RHM #23) allows the survey taker to consider an "either-or" option between academic pursuit or a certification pursuit. The response from the survey takers was that Candidate A (the candidate pursuing a master's degree) was preferred 32.3% of the time, Candidate B (the candidate pursuing the certification) was preferred 50.0% of the time (a 1.55:1 ratio), and the Other/Not-a-Factor responses collected the remaining 17.7% of the time (see Figure 5, pie chart #3).

As a complement to this base question, an alternate question (RHM #16) posed earlier in the survey asked the respondent to assess the value of either holding a degree higher than required or holding a relevant certification. By a 3:2 ratio, recruiters valued a held certification higher than a held advanced degree, which is consistent with the 1.55:1 ratio of the response above. This aligns with current pressure from corporations or government agencies paying a premium for certain certifications. For example, in the technology industry, holding specific project manager (e.g., PMP), Cisco (e.g., CISSP), or Microsoft (e.g., MCSD) certifications are valued in the industry, commanding salaries close to $100,000 annually (Muller, 2013).

However, the interesting statistic is that these same recruiters/hiring managers are not trying to fill a large number of jobs that require only a certification (without a bachelor's degree). The survey indicated almost a 3:1 need for candidates with just bachelor's degrees over just certifications. The guidance on certifications, based on the written feedback of few recruiters, indicates that certifications are more valued by recruiters/hiring managers when

combined with a bachelor's degree, especially when some indication of job-related knowledge/education is needed beyond the baseline bachelor's degree. However, a few certifications require a bachelor's degree as a baseline, which makes a 1-to-1 comparison (degree vs. certification) difficult.

Note that research question #3 issue was analyzed from both the recruiter's point of view (as discussed above) and the Job Seeker's point of view. The recruiter/hiring manager viewpoint represented here provides the best point-of-view since these people generally know how these issues are actually assessed relevant to the selection and interview phases. The Job Seeker's point-of-view will be analyzed in an up-coming section.

Results for research question #4.

Is there a perceived advantage to a bachelor's degree holder who is merely pursuing a master's degree vs. the holder of a master's degree when seeking re-employment in a tight economic environment (recession or high unemployment period)?

This research question looked at the perceived value of a "held" versus a "pursuing" of a master's degree. There have been several recent articles that suggested recruiters or managers might prefer to hire an "aspiring" master's degree holder rather than the candidate that already has the degree because it shows an ambition during tough times. Other articles have indicated that the candidate with the degree was more valuable and more useful in certain organizations while a worker with active educational studies might be more "distracted" relative to work assignments. To assess the recruiter/hiring manager perspective, a question asking the survey taker to compare those two situations was asked.

"Two unemployed job candidates are being considered for a position in your firm and you are on the selection panel. The job posting requires a bachelor's degree in a relevant

field and at least 8 years of industry experience. Both candidates have over 10 years of experience in their field and meet all other qualifications for the position. Both candidates have been unemployed for 7 months. ***Candidate A holds a bachelor's degree and has recently started a master's degree program in a relevant field of study. Candidate B currently holds both a bachelor's degree and a master's degree, both in relevant fields of study.*** *The job posting only requires a bachelor's degree and there is no mention of promotion possibilities or benefits because of advanced education in the job description. Please identify which candidate you would choose."*

This question (RHM #24) sets the parameters of the decision to assume the two candidates are equal in all respects except for the master's degree. The response from the survey takers was that Candidate B (the candidate holding a master's degree) was preferred 79.4% of the time to Candidate A (the candidate pursuing the master's degree). Candidate “A” was preferred 8.8% and Other/Not-a-Factor responses collected the remaining 11.8% (see Figure 5, pie chart #4). A surprisingly large percentage of recruiters/hiring managers would prefer to hire the master's degree holder rather than a person pursuing a master's degree even if the job did not require the advanced degree.

Research questions 1-4: Initial findings.

Of the 34 recruiters surveyed, the findings, using only "Preferred A," "Preferred B," and "Other/Not a Factor" groupings, showed the following initial preferences:

1. A bachelor's holder pursuing an advanced degree is preferred over only a bachelor's holder.
2. A bachelor's holder pursuing a professional certificate is preferred over only a bachelor's degree.
3. A bachelor's holder pursuing a professional certificate is preferred over a bachelor's holder pursuing an advanced degree.

4. A master's degree holder is preferred strongly over a bachelor's holder pursuing a master's degree.

Based on these basic findings from the Recruiter/Hiring Manager survey, it would seem that a job candidate's pursuit of a professional certification is the most advantageous and a candidate pursuing an advanced degree has a modest edge over one just holding a bachelor's degree.

Beyond the Research Questions—Supporting Recruiter/Hiring Manager Questions

It is recognized that the structure of the prior four questions constrained the research by only allowing a single variable-set to be compared. In all practical applications, seldom will two candidates be exactly identical except for a single attribute measurement. In researching and discussing the hiring challenges with the survey experts, additional questions were devised that incorporated several common attributes, but also brought in extended unemployment, additional education questions, and questions to determine if recruiters had a bias against the unemployed.

Extended Unemployment Questions—Education Becomes More Viable

The U. S. Bureau of Labor Statistics considers a person to be "long-term unemployed" once they reach six months of consecutive unemployment (U. S. Bureau of Labor Statistics, 2010). The unemployment numbers continue to improve slightly, but the number of people who are long-term unemployed and those who have dropped out of the workforce (as reflected in the U-6 number published in the U. S. Labor Department's monthly employment reports) are still a sizable group.

The previous scenarios used to test the four research questions set a seven-month unemployment limit, thus presenting the recruiters and hiring managers with a modestly safe long-term unemployed candidate. Both of the candidates presented to the recruiters were identical with the only notable difference in their education attributes. The answers might have varied (to include more "Other" responses) if the unemployment duration had been greater. This assumption is due to the open-ended questions offered to the recruiters at the end of the survey. The two open-ended questions were:

1. *"For a skilled job seeker who holds a bachelor's degree and has over 10 years of professional experience, but has been unemployed for between **3–6 months**, what single 'best recommendation' would you offer that might help that person become more employable?"*

2. *"For a skilled job seeker who holds a bachelor's degree and has over 10 years of professional experience, but has been unemployed for between **1–2 years**, what single 'best recommendation' would you offer that might help that person become more employable?"*

The first question positioned the job candidate as "approaching" long-term unemployment while the second question (identical in every way except the unemployment duration) had the job candidate unemployed for over a year, thus technically a long-term unemployed worker.

Of the 34 Recruiter/Hiring Manager survey responses, 13 (38%) of them recommended training, education, or certification as a "best recommendation." Four recommended it as something that needed to be done during the under-6-months strategy; 12 recommended it as something that needed to be done in the over-one-year strategy; one recommended it for both time periods. The implication is that recruiters or hiring managers became more concerned

Table 4

Recruiter Recommendations for Job Seekers at 3-6 and 12-24 Months of Unemployment

RHM Question 28: For a skilled job seeker that holds a bachelor's degree…has been unemployed for between **3–6 months**, what single "best recommendation" would you offer..?	"...Take a course. Show that you are staying current; that you are active, not depressed and remaining a contributor." "1) Complete core skills training classes/seminars (i.e. writing, communication skills, presentation skills, grammar) at a local college or a professional training (i.e. Skill Path, Career Track) and 2) volunteer activities." "...take continuing education classes or volunteer at an organization." "...pursue continuing education..."
RHM Question 29: For a skilled job seeker that holds a bachelor's degree…has been unemployed for between **1-2 years**, what single "best recommendation" would you offer..?	"Identify new field of work and obtain training." "Stay focused on seeking positions requiring the skills and experience of your background–plus seek relative certifications and/or contract opportunities in your field." "Your occupation may be phasing out or your skills may be outdated. Consider changing careers and/or get additional training, but don't just go to school to fill time. Consider training in another career for which you may be better suited." "Must have a reasonable answer for what they have been doing that is respected by person asking the question. Working on degree, taking care of sick relative, working as volunteer, working part time, etc." "Pursue industry-related certification." "Additional schooling." "Get more job related education." "Take various "temp" jobs, preferable industry related, but stay busy (schooling, volunteering (charity-based)." "1) Continuing education or certification courses which keeps professional knowledge current and personal skills sharp and 2) volunteer activities." "...Plus pursuit of additional references, credentials, or certifications that authenticate performance." "Consider going back to school or shifting industries. Volunteer and network." "Become employed at something or pursue continuing education..."

about a person's ability to remain knowledgeable and skilled in their profession the longer they were unemployed. A few of the recommendations for the long-term unemployed included the suggestions that training might be needed to assist in changing career choices, not just to reinforce current career skills. Table 4 includes selected (slightly paraphrased and edited for privacy) responses to the aforementioned questions.

Consistency of Training/Education recommendations

Education is often recommended to job seekers who are suffering from long-term unemployment. The responses of the recruiters/hiring managers to the open-ended questions (RHM #28 and #29) indicated that many of them (44%) advocated education (academic degree or industry certification) as a strategy for exiting unemployment. This thought was reinforced with responses to question RHM #21 that asked the survey takers to specify their preference between a job seeker who was a bachelor's degree holder over a job seeker who was pursuing a master's degree, with 67.6% preferring the job candidate pursuing a degree. In addition, question RHM #18 asked, "When evaluating job candidates, was the job seeker who was actively pursuing advanced education given extra consideration in the hiring process?" For this question, 61.7% of the respondents agreed that they gave extra consideration to the education-seeking job candidate.

Some respondents (17.6%) were supportive of education in both questions, RHM #18 and #21, while they also provided written guidance supporting continuing education in open-ended questions RHM #28 or #29—thus, about one out of six recruiters seem to be strong advocates of furthering education. Alternately, 2.9% (one respondent) expressed a strong

negative to continuing education by not advocating it in questions RHM #28 or #29, selecting the B candidate in question RHM #21 and not providing any additional consideration for the continuing education candidate in question RHM# 18.

Not surprisingly, many respondents provided seemingly conflicting responses or chose the various "no opinion" options. However, on closer examination, the indication is that the recruiters generally preferred a balance between "book learning" and "hands-on experience." Several commented that they preferred a job candidate with both an academic degree and a professional certificate. This was reinforced by the responses to question RHM #23 that asked for the recruiter to pick between a job candidate pursuing a certification and a candidate pursuing an advanced degree. The candidate pursuing the certificate gleaned 50.0% of the responses and the candidate pursuing the degree gathered 32.4% of the responses (the balance indicated no opinion). While it looks like a much stronger preference for certificates, it should be noted that this question (unlike any other question with a 5-point range) did not yield a single "Strong Preference" for either the certificate or the degree. Of the 82.4% of responses that registered an opinion, every response was marked "Slight Preference" for either candidate A or B.

Job Seeker Survey

The second survey taken for this study was focused on job seekers (JS) who have been unemployed for at least three contiguous months some time since 2001. No effort was made to align the JS survey responses with the recruiter/hiring manager responses, therefore, there is very little likelihood that the job seekers responding to the survey were in any way associated

with specific responses provided earlier via the Recruiter/Hiring Manager survey. There was a small likelihood that data entered was not accurate due to the anonymous nature of the

Table 5

Demographic Profile of Participants in Survey of Job Seekers

Characteristic	**Responses (n)**	**Percentage (%)**
Participants	163	100
Gender		
Male	87	53.7
Female	75	46.3
Age Bracket		
Under 25 years	0	0.0
25–34 years	3	1.8
35–44 years	16	9.8
45–54 years	65	39.9
55–64 years	74	45.4
65 or more years	5	3.1
Race/Ethnicity		
White (Non-Hispanic)	138	84.7
Black / African-American	18	11.0
Hispanic	4	2.5
Other / Multi-racial	3	1.8
Highest Degree Earned		
Some College/Vocational	16	9.8
Associate	6	3.7
Bachelor	76	46.6
Master	57	35.0
Professional	4	2.5
Doctorate	4	2.5
Current Employment Status		
Full-Time Employed	65	39.9
Unemployed	66	40.5
Part-Time/Self-Employed	32	19.6
Job Seeker Affiliations		
Crossroads Career Network	101	62.0
Pepperdine University	1	0.6
U. S. Department of Labor (or state agencies)	2	1.2
Resident of the State of Georgia	60	36.8

surveys, but each response was reviewed carefully and responses were either modified slightly (for data entry errors, such as misspelled words) or were eliminated from the survey's final results. Table 5 presents an overview of the demographical data of the retained records gathered from the Job Seekers.

The Job Seeker survey had several demographic questions posed to the survey respondents that were intended to help align the results of the survey with demographics reported by the Bureau of Labor Statistics (BLS) and other U. S. government reports. For example, the survey asked the respondents to specify their age bracket based on the same brackets used by BLS and Census reports.

Survey respondents indicating an affiliation with Crossroads Career (the target group) represented 62% of the valid responses. The job seeker data was tested both with and without the Crossroads respondents and the non-Crossroads respondents. The results for any of the measured or calculated values in this research varied less than 6%. Any results where the only-Crossroads or not-including-Crossroads calculations resulted in a significantly different result or approached a marginal result is identified in the respective discussions points.

As mentioned in the delimitations in chapter 3, the Crossroads Career organization has a large concentration of members in the greater Atlanta, Georgia area. All of the results of this analysis have been validated both with and without the Georgia-based responses (using ANOVA calculations on several key questions). There were no significant variations in percentages or uniqueness of responses, therefore the results, while not statistically valid due primarily to the modest sample size, are still viable for nationwide consideration.

Many other questions were posed, several of which were optional. Wherever the significant data from the secondary questions offered insight to the analysis of the primary questions, these data elements are discussed and their relevance presented.

Job Seekers—Held Education

As mentioned previously, most job candidates are not informed of the reason they were or were not selected for a position. This survey is therefore focused on the job seekers' impressions of the recruiting, interviewing, and hiring processes. This survey garnered 163 usable responses from eligible job seekers. The relevant demographics (above) for the respondents showed the standard age (bracket), employment statuses, and educational characteristics from the survey.

Interestingly, the survey attracted a much larger percentage of advanced degree holders than expected. For formal education, about 4% of the respondents had a terminal degree, which is just slightly more than the general U. S. adult working-age population who hold terminal degrees based on a 2012 Census statistical abstract report (U. S. Census Bureau, 2012). However, the number of master's degree holders who responded to the survey (35%) represents a much larger percentage than expected. The general ratio of bachelor's degree (only) holders compared to master's degree holders in the U. S. should be about 3:1, but the survey respondents showed a ratio of close to 1.3:1. Considering the primary audience was of those associated with Crossroads Career, a nonprofit community-based organization which serves a broad spectrum of the public, the number of master's degree holders was well over twice what was expected. This may imply a higher level of unemployment than expected for

master's degree holders nationwide (but further analysis would need to be performed to validate this assumption). However, based on the Job Seeker survey data, master's degree holders had a much shorter unemployment period than bachelor's degree holders—16 months compared to 30 months (ANOVA *f = 2.6* and *f-crit = 4.0)*.

Over-education did not seem to be a challenge, even though the survey response had a larger number of advanced degree respondents than anticipated. Only five job seekers specifically indicated on survey question JS #46 that they were "over-qualified" or "over-educated" (for this analysis the assumption is that the term over-qualified, in every case where a job seeker held a master's degree or higher, might have been related to their high education level). Of the five "over-qualified" responses, two of the respondents held master's degree and three held doctorates. With only two out of the 57 master's degree holders specifying an over-qualification issue, this was determined an insignificant issue. However, with three out of the eight doctorate degree holders pointing this issue out, this very-highly-educated, over-qualified situation could be a topic worthy of further study.

These findings tend to point to a question that may need to be researched further: Has the long-term advantage of resisting unemployment and increasing life-time earnings of master's degree and doctoral degree holders dropped in recent years to be more in line with bachelor's degree holders? While the duration of unemployment for bachelor's degree holders in this study averaged 30% longer than advanced degree holders, it is not clear from the research if this represents a change in the unemployment duration for either group or in the relationship to the other group. With the high number of advanced degree holders who

responded to the survey, is this evidence of some other undetermined influence, such as an imbalance of access to the Internet, or are there changing trends in the resistance of advanced degrees on unemployment?

Job Seekers—Gender and Race

Using the August 2013–August 2014 BLS numbers for unemployed age 25 and older, it showed the average unemployment rate was 5.6% for men and 5.2% for women (a 52/48% split). This aligns closely with the sample population in the survey for job seekers showing a 53.7% male and a 46.3% female response participation.

According to the U. S. Bureau of Labor Statistics (2010), the percentage of the general population claiming to be Hispanic/Latino is 17%, Black/African-American is 13%, and White is 62%. The respondents to the Job Seeker survey were 84.7% White, 11.0% Black/African-American, 2.5% Hispanic/Latino, and the remaining 1.8% mixed-racial or other groups. When assessing only the respondents that were from the targeted audience (Crossroads Careers affiliates, which made up 62% of the survey responses) the percentages changed only slightly to 82.2% White, 13.9% Black/African-American, 1.0% Hispanic/Latino, and 2.9% mixed-racial or other groups.

Overall, college education (to the bachelor's degree level by age 29) is increasing faster for women than men, but the percentage is increasing for both genders. Likewise, for the four major race groups tracked by the U. S. Census (White, Black, Hispanic, and Asian), it has increased percentagewise from 50% to 90% since 1995 (National Center for Educational Statistics, 2013). So overall, every gender or race segment is advancing. Further research might

be appropriate to determine if gender or race receive any unique advantages in the re-employment process based on pursuit of continuing education.

Job Seekers—Age of Respondents

A job seeker's age influences a broad number of employment or education attributes. The youngest job seekers are generally less educated than those in mid-career; they often have entry level positions that carry lower earnings; they usually do not have enough experience to qualify for certain industry certifications, and they have not had a chance to build up a financial reserve (to afford further educational pursuits). The oldest job seekers commonly have education that is "dated," have localized social ties (family, house, etc.) that limit relocating for a new job; they recognize that the costs of extra education in late-career may never be recovered; they may also have a distinct age-related discrimination challenge when seeking a new career (Bennett, 2013). Age has a distinct impact on not only education choices, but also career direction and challenges.

The Job Seeker survey was designed to gather insights relevant to career, age, and education. The heart of this research was targeted at the three age brackets of 35–44, 45–54, and 55–64. According to the U. S. Bureau of Labor Statistics (2014b), in 2013 these three groups had relatively similar annual unemployment percentages of 5.9%, 5.6%, and 5.4% respectively. However, it should be noted that the 55–64 age range had a much higher not-in-labor-force percentage of 35.6% (age groups 35–44 and 45–54 had 17.8% and 20.3% respectively), indicating that a large portion of this category had exited both employment and job search statuses. Data for the under 35 and the over 64 age ranges were collected, but the

expectations for respondents in these areas were minimal. The results indicated that the key age brackets sought for this analysis responded to the survey in large numbers—the over 64 and the under 35 responses were insufficient for any statistically valid analysis, although still useful for review and insight.

Age Group 25–34. The respondents in the 25–34 year age bracket would not have been significantly impacted by the 2002 recession (a large majority of this age group would have still been in college or even high school). The 25–34 age group historically has a low percentage of graduate students when compared to the other age ranges in most census and labor statistics reports. With only 58% of bachelor's degrees being earned in under six years and the average age of the graduate student at 33 years (Bell, 2009), the low participation in the pursuit of an advanced degree is expected.

Age Group 55–64. Upon initial review of the survey results, it was surprising that the 55–64 year age bracket represented the largest group of respondents to this survey—45.4% of all responses. However, many corporations allow for retirement with full pension payments starting at age 55, so this is the first category of retirement-eligible respondents. The 55–64 age group represents the work force members who were in their mid-40s and again their mid-50s during the peaks of the two recessions that this study covers. Thus, it was not unreasonable that this age bracket would be a high response age group. Over 39% of this group recognized shortcomings in their education, but only 5% of this group pursued a college degree. Two respondents' survey comments from this age group indicated that they felt it was highly unlikely they would ever be able to recover the expenses of a formal education at this point in

their life—similar to the 65+ age group comments. On the other hand, 33% of this age group pursued some type of industry or professional training to help close their perceived education gap. This 55–64 age category is also the group that marked perceived employment discrimination the most often—almost 82% of respondents, where all the younger groups were 50% or less.

Age Group 35–44. The 35–44 age bracket members felt the impact of the 2007-2009 recession and some of them likely felt the effects of the 2002 recession, but not all of them, as many were still in college during this first recession. While this group represented a small portion of the survey respondents (11%), this was the age group that most readily recognized that the lack of education was a limiting factor (47%) and pursued some type of further education (all 100% of the 47%). Their emphasis was certifications (44.4%), advanced degrees (22.2%), and other skill or professional training (33.3%). The 35–44 age group showed a relatively low number of months of continuous unemployment at a median of 10.8 months. When compared to the general population's average of about seven months, this was a modestly high number of months to be unemployed, but it was less than the other groups primarily because of the previously mentioned lower end of this age group still in college in 2002.

Age Group 45–55. This 45–55 age bracket represents the only age bracket that was fully impacted by both recessions covered by this research. On the high end, at 55 today, they are just approaching early retirement age and on the low end, at 45 today, they were about 30

years old at the start of the 2002 recession. This fully-impacted status may account for some of the more interesting data points of this age group:

- The 45–55 age group was the most likely to pursue any college degree; the under 35 and the over 65 age groups did not pursue any college degrees.
- The 45–54 age group was the group most likely to pursue an advanced degree; the 55–64 age group was the most likely to pursue a bachelor's degree.
- The 45–54 age group and the over 65 age group valued professional certifications more than the other groups.
- The 45–54 age group respondents pursued more certifications (volume and percentage) than the 35–44 and the 55–64 age groups (other groups had insufficient results to calculate).
- The 45–54 age group sought the highest percentage of certifications within the respondents' current field of expertise.
- The 45–54 age group has, of four different working age groups (ages 25 through 64), the greatest average number of months unemployed at 30.8 (approximately 2.5 years).
- The 45–54 and the 55–64 groups showed a distinct unemployment challenge for these age groups with the median number of months of unemployment at 30.8 and 27.9 respectively.

- The 45–54 age group had the highest concentration of male respondents at 61%. The only age category where women out-numbered men was the 35-44 age group, where women represented 75% of that group.

Age Groups Under-25 and Over-64. The Under-25 and the Over-64 respondent age groups only yielded a few usable responses to the survey, so there were no meaningful analyses based on their age categories. When appropriate, their responses were analyzed and used for commentary, but any analyses based primarily on these age groups were not deemed statistically valid.

Job Seekers—Advantage of Pursuing Education in the Job Search

From a job seeker's point of view, recruiters/hiring managers seldom shared the reasons a person did or did not get an interview or a job offer. However, there are often clear indicators observed by the candidate that indicate that having (or pursuing) education is a benefit to the job search. Question JS #45 from the Job Seeker survey asked, "Did the education, training, or certification(s) you pursued while unemployed have a direct, measurable or acknowledged benefit in the interview process or to being hired for a particular job?" While 64 responded "No," 25 answered "Yes." The others either did not respond or did not pursue education, thus 28.1% of those who responded found education a clear benefit. (Other measurements in the survey that did not stress "direct, measurable, or acknowledged benefit" showed an even higher recognition of further education being beneficial in the job search.) These responses were broken down by the age brackets (see Table 6), showing there is a clear trend that, as the

job seekers get older (but under 65 years of age), they believed the pursuit of further education clearly assisted in their job search.

Table 6

Summary of Educational Pursuit by Age Bracket from the Job Seeker Survey

Age Bracket	**Survey Responses**		**Recent Months (1) Unemployed**	**Lack of Education Limits Hiring**		**Pursued Professional Certification**		**Pursued College Degree**		**Extra Education was Aid**	
	(n)	(%)	(n)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
<25 years	0	0.0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
25-34 years	3	1.8	4.0	2	66.7	1	33.3	0	0.0	0	0.0
35-44 years	16	9.8	10.8	7	43.8	4	25.0	2	12.5	2	12.5
45-54 years	65	39.9	30.8	24	36.9	19	29.2	8	12.3	9	13.8
55-64 years	74	45.4	27.9	29	39.2	17	23.0	4	5.4	12	16.2
>65 years	5	3.1	32.0	1	20.0	3	60.0	0	0.0	2	40.0
Totals	163	100	27.3	63	****	44	****	14	****	25	****

Note. (1) Recent Months Unemployed is the average (mean) of the responses within the age bracket

Using the “Extra Education was Aid” response from the table and filtering the data against the pursuit of a certification or degree, shows a ratio of 4.75:1 on job seekers’ dependence on certifications over degrees (respectively) in successfully pursuing new job opportunities. This addresses research question #3 from the job seeker’s point of view, stressing the positive benefit of professional certifications in exiting unemployment. However, this should be balanced by the indications from several recruiters' comments that certifications pursued in the appropriate field are the ones they recognize as valuable. According to the survey, 30% of the certifications being sought were outside of the job candidate’s industry or profession. When filtering the results based on those who pursued certifications within their current field of expertise, the ratio of "Extra Education was Aid" when comparing the

certification-in-current-field to certification-cross-field benefit was 1.5:1, indicating a modest advantage of in-field certification pursuit aiding in employment opportunities. In other words, certifications within the current field of expertise yielded a better aid in the re-employment pursuit than cross-field certifications.

Job Seekers Responses vs. Recruiters/Hiring Managers Responses—A Comparison

The Job Seeker's survey and the Recruiters/Hiring Managers' surveys are not parallel efforts. To be able to align these survey results effectively, data would need to be collected from the job candidate and the respective recruiter/hiring manager for a specific job position. The hurdles (legal, confidentiality, etc.) demanded by this approach prevented its use at this time. Thus, the two surveys attempted to gather related data that could be gathered anonymously and compared without risk on the part of any parties.

The preference of a professional certification by both the recruiters/hiring managers and the job seekers was evident. Both surveys supported degrees and certifications as benefits to the hiring process, but given that the job candidate already held an academic degree, the addition of a professional degree seemed to "round out my potential capabilities," as one job seeker noted. A recruiter stated, "I prefer [the candidate to have] extra years of experience, but I'll take an applicable certification in place of a few years of experience." This leads to a hypothesis that certification might be a substitute for experience and it can add industry-specific skill to previously learned academic knowledge—a topic worthy of further surveys and research.

Approximately one-third of the recruiter/hiring manager responses gave some preference to job seekers who had some level of education beyond the base requirements of the job description. This aligns well with the job seeker's survey where just under a one-third believed their advanced education efforts had an impact on getting interviews or job offers.

Acceptance of Limitations

As with any survey that is open to voluntary participation, the results must be analyzed based on a comparison against standards or with sub-categories of the collected responses. Many of the categories or groupings used in the surveys were modeled after similar groupings used by the U. S. Department of Labor or the U. S. Census. For example, age categories, industries, race, gender, and several other groupings are identical to these standards.

Due to the reliance on feedback from Crossroads Career respondents, there was a much higher representation of survey responses from the southeastern U. S. for both of the surveys. One of the analyses performed was to divide the 163 job seeker responses into two geographic regions (Southeast and all others) and determine if the key demographics or responses to primary questions varied greatly between geographies. The following were some of the key differences and similarities of the 163 job seekers based on geographic division:

- By dividing the responses based on geography, the number of responses associated with the Southeastern U. S. was 82 and all other regions accounted for 81 responses.
- The two largest age categories (45–54 and 55–64) accounted for 85.3% of total responses to the survey. Based on geographic alignment, the Southeastern U. S. had

49.2% of the 45–54 age group responses and it had 47.3% of the 55–64 age group responses.

- For all job seekers who decided to pursue a college degree while unemployed, the Southeastern U. S. had seven (50%) and all other regions had seven (50%); likewise, for job seekers pursuing a professional certification, the Southeastern U. S. accounted for 23 (52.3%) and all other regions accounted for 21 (47.7%).
- The duration of unemployment was considered comparable based on an ANOVA calculation that looked at the number of months of unemployment between the Southeastern U. S. and the other regions. The mean number of months was 23.4 and 31.6 respectively. The ANOVA yielded a value of $f = 0.91$ and an $f\text{-}crit = 3.99$.
- For the number of respondents holding bachelor's degrees and master's degrees, it was relatively even between the geographies. The Southeastern U. S. held 66 bachelor's and 33 master's degrees while all other regions held 70 bachelor's and 30 master's degrees.
- Those who confirmed that pursing education was a distinct benefit were fairly divided between the regions—14 for the Southeastern U. S. and 13 for the other regions.
- An ANOVA calculation was performed on the results of question JS #47 that asked "How essential do you consider that your work on pursuing/obtaining a certification or advanced education was in helping you obtain recent interviews or job offers?" Using a 5-point scale (1-5), the responses from the Southeast and the other regions

had a mean of 3.1 and 2.9 with a variance of 2.0 and 1.8 respectively. The resulting calculation indicated that the regional averages were comparable based on *f = 0.5* and *f-crit = 4.0*.

- The genders were roughly evenly divided between the two geographies. The Southeastern U. S. represented 47.1% of the male and 53.3% of the female respondents.

Based on these numbers, it was determined that the regional bias was minimal and that the results of the survey could be applied nationwide.

Summary

This chapter has presented the findings from the two surveys—one for job seekers and one for recruiters/hiring managers. These findings were applied to the four research questions under study. In general, the results aligned with the commonly held view that there is a high correlation between higher education and lower unemployment. Additionally, there is a clear preference from recruiters/hiring managers to support the notion that pursuing advanced education (either academic or professional) was deemed a benefit in the selecting, interviewing, and hiring practices. Moreover, there is an indication that adding a professional certification to an existing bachelor's degree may be more beneficial to the job candidate than adding an advanced academic degree, but both are viable for improving the job search.

From the job seeker's point-of-view, their insights seemed to align with the findings from the Recruiters/Hiring Manager's survey, indicated by the significant number of job seekers pursuing both certifications and academic degrees. Their choice of degree or certification did

not vary much when measured against gender or geographic alignment, but the age of the job seeker showed a tendency for the mid-career job seekers to look at an advanced degree while the younger and older job seeker's avoided pursing a degree. Some indications were that these decisions were financially-based concerns about being able to pay/recover the cost of a formal degree.

The essence of the findings for the two research questions that asked the value of a job candidate pursuing any education over a candidate not pursuing education greatly benefited the candidate pursuing further education. The research question that compared two job candidates pursing different advanced education solutions showed a moderate preference towards professional certification. It was also clear that a "pursuing" job candidate cannot effectively compete against a candidate who already holds the advanced degree even if the advanced education is not a requirement of the job position; nevertheless, there were some responses that indicated a small percentage of recruiters/hiring managers did value the pursuit of education. Ultimately, advanced education efforts present a viable influence on improving the job seeker's ability to be selected, interviewed, and/or hired.

Chapter 5—Conclusion

Introduction

The purpose of this research was to determine the efficacy of pursuing advanced education while unemployed with a goal of shortening the time to re-employment. The study used two surveys issued in parallel to job seekers who have experienced a modest duration of unemployment sometime since 2001 and to recruiters/hiring managers who have been active in searching for job candidates since 2001.

As a society, we have stressed the relationship between higher education and financial success for years. Studies from the U. S. Census or research from the Bureau of Labor Statistics (U. S. Bureau of Labor Statistics, 2013a; U. S. Census Bureau, 2011) published the correlation between unemployment and the lack of education as well as the potential for greater life-time earnings for the higher educated. While these data are valid for those with the education, they do not address whether the pursuit of education while unemployed has any benefit to the job seeker. After an extensive search for prior studies, this seemed to be an un-researched area of interest and a potentially beneficial insight to the many unemployed professionals, especially those affected by the last two recessions (2002 and 2007–2009).

This study explored the relationship between education and employment in the U. S. from colonial times through 2014. It identified the challenges of unemployment that really only emerged in a significant way once the U. S. shifted from an agricultural society to a nation largely dependent on employees to support manufacturing, services, and other non-agricultural professions. The literature exploration followed the slow expansion of the primary education

and university systems up until the 1900s when the focus on education began to become a politically advantageous topic. Then in the mid-1900s, with the advent of the G.I. Bill toward the end of World War II, the rise of the college degree (surpassing the hard fought gains of the high school diploma) became the new standard of educational achievement.

Throughout the latter part of the 20th century, as the bachelor's degree became more widely attainable, master's degrees (especially the MBA) became the new educational standard, carrying with them lower unemployment and higher salaries. Research by Podgursky and Swaim (1987) reinforced the idea that the number of weeks spent jobless decreased with each additional year of schooling. Yet, since the turn of the last century, with two recessions occurring within a five-year period, and with advanced degree holders dealing with extended unemployment the likes of which have not been seen in decades, the employment protection of the advanced education shows signs of weakening. Mishel, Berstein and Allegretto (2007), emphasized this by stating, "It is still the case that those with less education disproportionately bear the brunt of economic turndowns, but it is also the case that higher level of education no longer provides the same protection against cyclical forces as in prior downturns"(p. 8).

Nonetheless, these advanced degrees are still seen by many as the way to a better future, even though a large number of graduates (with excessive academic loan debts) were unable to obtain employment over the last several years. The question now becomes, does working on another degree (or possibly a professional certification) facilitate pulling people out of the recessions' tenacious unemployment grip, like Podgursky and Swaim implied? The literature search proved that little was known on this topic, so original research was needed.

The context of the research focused on both academic and professional education pursued by professionals with several years of experience who suffered a period of unemployment within the last dozen years. Four primary questions guided the research and helped to constrain a potentially wide-ranging area of data gathering into a set of focused considerations:

1. For a holder of a bachelor's degree, does the pursuit of an advanced college degree provide a perceived benefit in the interview, selection, or hiring process?
2. For a holder of a bachelor's degree, does the pursuit of a professional certification (e.g. PMP, ITIL, CPA, PHR) provide a perceived benefit in the interview, selection or hiring process?
3. From both the recruiter's viewpoint and the job seeker's viewpoint, for the purpose of re-employment, which would be the most desirable, a bachelor's degree holder *pursuing* a professional certification (as in question #2) or *pursuing* a master's degree (as in question #1)?
4. Is there a perceived advantage to a bachelor's degree holder who is merely *pursuing* a master's degree vs. the *holder* of a master's degree when seeking re-employment in a tight economic environment (recession or high unemployment period)?

Two surveys were used to cover the issues effectively. The first survey was for recruiters/hiring managers who had been active in selecting, searching, or interviewing job candidates since 2001. The second survey was for job seekers who held a college degree, had been employed for several years, and had been unemployed for at least three consecutive

months sometime since 2001—in other words, unemployed professionals with work experience who were not recent graduates. The surveys used a variety of question types: open-ended, Likert-scale, true-false, multiple-choice, and others to gather a broad and detailed data set. The researcher used self-administered Web-based surveys hosted on a professional account on SoGoSurvey.com for 37 days, yielding 34 usable responses from recruiters/hiring managers and 163 usable responses from job seekers.

The analysis of the survey data yielded results that were in line with the primary expectation indicating that continuing education was beneficial to the unemployed job seeker. To determine this, the survey results were extracted from the SoGoSurvey database and subjected to extensive Excel-based analyses combined with analytical modeling available from the SoGoSurvey site. Descriptive and inferential statistics were used to analyze the surveys' data sets. Statistics such as means, percentages, and ratios were presented as well as several analyses of variance (ANOVA), and logical correlation of the two distinct surveys. The study also examined results based on several key demographics such as age group, gender, education level, months of unemployment, and geographic focus.

Discussion of Key Findings

The underlying goal of the research was to determine if the *pursuit* of continued education was beneficial in shortening the re-employment duration of an unemployed job seeker. All four of the research questions attempted to isolate some element of that research topic.

Research questions #1 and #2 both sought to determine if there was an advantage given to the job seeker who held a bachelor's degree and was pursuing additional education compared with an otherwise equivalent candidate that held a bachelor's degree but was not pursuing education. The research questions, when posed to recruiters/hiring managers through a brief scenario, indicated that the active student was their preferred choice 68% to 88% of the time. The 68% response rate was associated with the job seeker pursuing a master's degree and the 88% response rate was associated with the job seeker pursuing a relevant industry certification. In either case, the preference for candidates pursuing some form of academic or professional continued education was clearly embraced by the recruiters/hiring managers.

Because most job seekers are not informed of the reasons that they were or were not hired, the survey, when seeking responses from job seekers related to these same research questions, had to rely on the perception of the respondent. The responses to relevant questions posed to the job seekers indicated that 30% of them recognized a clear and distinct advantage in their employment search when they made their continued studies evident during their job search. While not embraced at the same level as the 68%-88% of the recruiters/hiring managers, for almost one-third of the job seekers to know that their pursuit of education was an advantage supports the premise that continuing education is a benefit to job seekers when competing against otherwise equivalent job candidates.

Research question #1 assessed the pursuit of a master's degree against a held bachelor's degree and research question #2 assessed the pursuit of an industry certification against a held bachelor's degree. However, an obvious issue is not addressed in those two

questions: which path (certification or academics) is the most beneficial. Thus, research question #3 assessed the value of a pursued certification against a pursued master's degree—professional student vs. academic student. The responses from the job seekers and from the recruiters/hiring managers both confirmed there was a clear preference for industry certification based on answers to the scenarios and alternative questions. The implication is that once a person has an academic degree (i.e., a bachelor's degree), the addition of an industry certification is more beneficial than the pursuit of a master's degree for the job seeker. (Please note that the scenarios clearly indicated that only a bachelor's degree was needed for the job. The certification work and the master's degree work were beyond the stated requirements of the hypothetical job description.)

Based on the first three questions, it is clear that pursuit of education is beneficial to the job searcher. And while the pursuit may be all the job seeker has time for while unemployed (consider that a master's degree generally takes over a year and a doctorate takes several years), from a job seeker's point-of-view, is just the *pursuit* of the education all that is needed to enhance employability? A tangential thought, posed as the last research question, asked whether the attainment of the education is more beneficial than merely the pursuit of the education. The last scenario presented to the recruiters/hiring managers asked if an earned master's degree was more beneficial than a master's degree being pursued. By a huge ratio of 9:1, an earned master's degree was preferred over a master's degree in-progress for a job that only required a bachelor's degree. While it is clear that the held degree was greatly preferred

above the pursued degree, it provides incentive for the job seeker who is pursuing education to plan to complete and thus attain a distinct advantage in the future.

The direct conclusions that can be drawn from these scenario responses can be stated in this fashion:

1. Pursuing either an academic or a professional education beyond the base requirements of a job description gives an advantage to the job seeker.
2. If the required academic degrees are already held by two candidates, the job candidate pursuing a professional certification is generally preferred over the job candidate pursuing an advanced degree.
3. A completed advanced degree is modestly more beneficial to the job seeker than the pursuit of an advanced degree.

These are generalizations based on the responses to the two surveys, so while the uniqueness of every situation may not yield the same results, the overall guidance for job seekers to pursue further education while unemployed yields a general advantage across different geographies, industries, ages, and education levels.

Conclusions

It probably comes as no surprise that the pursuit of education is beneficial in the job search. Suggesting that a job seeker "return to school" to get further education is a frequent recommendation found in most job search books, magazine articles, and blog postings that target the unemployed. Recent studies (Damast, 2012) reinforce this idea by advancing the point that corporate America likes workers with advanced degrees since they "bring something

extra" to a company. Yet hidden in the results of the two lengthy research surveys (one with 33 questions and one with 56 questions) were insights and nuances that both contradict some age-old truisms but can also help a job candidate or a career coach refine a person's educational strategy.

Basic demographic information elements, such as gender, age, and race were gathered in the job seeker's survey. While the challenges of racial or sexual discrimination in the job search are a worthy topic for further research, those two elements are not likely hurdles in deciding whether job searchers should pursue further education. However, age is a significant defining factor when a job candidate is being considered. Howe (1993) identified this by stating that employers wanted workers with higher degrees, often a problem for the older displaced workers with insufficient years to recover the cost of advanced education. Ignoring the potential for age discrimination for the moment, recruiters often assess the value of a candidate's education based on a combination of relevance to the industry or job, the perceived quality of education, and the currency of the education. Aligned with this thought, in this study, the job seekers were asked to infer how their lack of education might influence their job search, recruiters were asked to indicate preferences of education from various types of academic institutions, and the pursuit of education by job seekers was aligned by age groups.

Throughout the mid/late-career age groups of 35 through 65 (which represents 95% of the job seekers survey responses), recognition of a need for education and the pursuit of education was evident, with over 37% of these age categories indicating that the lack of education hurt their job search success. Of the 37% who recognized this issue, over 95%

actively pursued some level of education (degree, certification, or otherwise) during their unemployment period, with most pursuing certifications over degrees at better than a 3:1 ratio. Notable in this education pursuit was the stability of certification pursuit (between 67%-73% across all three age groups) while academic pursuit declined rapidly—holding between 31% and 33% in age groups 35–44 and 45–54, but falling to 16% for age group 55–64. The implication is that a short-term, modest-cost professional certificate is more valued by the job seeker in the latter career period than an academic degree.

To place continuing education in its proper position in the job search, it is most important to recognize that continuing education is not the proverbial silver bullet for the job seeker. The Recruiter/Hiring Manager survey asked the respondents to order the most important elements that can be a deciding factor in the selection process. Several attributes were not assessed since they were very subjective and most likely only recognized during the interview cycle, such as physical appearance, speech/grammar, ability to fit in with the existing staff, etc. But other points such as a portfolio of work, experience levels beyond the requirements, etc., were ranked. The insights from Figure 6, where recruiters were asked to identify traits of a job candidate that they prefer, present an opportunity for the job seeker. The leading trait was more experience, yet that is difficult to obtain while unemployed. Other traits that recruiters preferred that were more relevant to an unemployed job seeker showed advanced education and pursuit of education as beneficial activities.

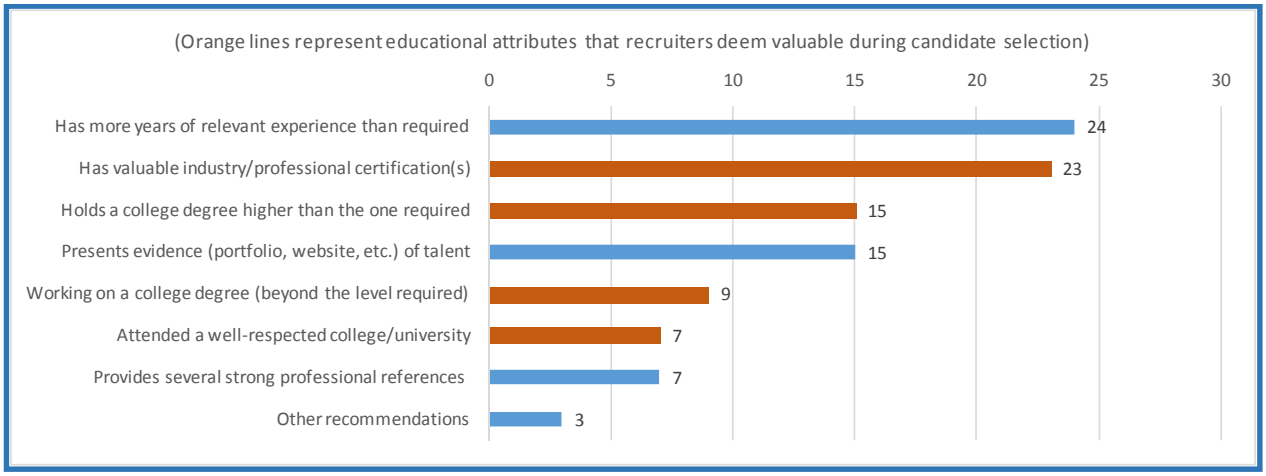


Figure 6. Recruiter ranking of attributes that influence candidate selection

The recruiters were most often looking for a strong work background, but seemed to be willing to allow a relevant certification to be a proxy for some years of experience. Holding an advanced degree (beyond the requirement) was a strong point, as was being able to present evidence of expertise. Pursuit of advanced academic education is a modest benefit (9 out of 34 recruiters agreed) and it is a stronger aid than having attended a well-known school, than strong professional references, or several "other" items submitted to the survey such as cover letters and job stability. Based on the analysis of research question #3, pursuit of a professional certification should be on this chart somewhere between 9 and 15 points, making it a strong contributor.

The researcher has concluded that, based on the survey data analysis and careful review of the limited published research available on this topic, that continuing education has no measurable negative impact on the job search effort. Furthermore, the pursuit of either academic or professional education is reasonably well respected by recruiters/hiring managers

and the anticipated benefit of obtaining/holding these degrees or certifications on the job seekers' careers are definitely beneficial.

Implications for Practice and Policy

Over the last 13 years, the U. S. has struggled with unemployment. About the time the nation fully recovered from the recession of 2002, the Great Recession of 2007–2009 struck. And even now, more than five years after the recession technically ended, there is still a worrisome employment issue, with the average unemployment duration lasting well over six months (U. S. Bureau of Labor Statistics, 2014a). While the U. S. economy and the government grind slowly forward, trying to improve the overall employment picture, there are many job seekers willing to improve their opportunity for employment, but sometimes well-meaning recommendations are not always supported by data or facts. Should a professional with years of experience pursue some type of continuing education to improve their odds of exiting unemployment quicker?

The Crossroads Career Network organization, which supported this research, works with those who are unemployed, under-employed, or misemployed. The attendees in these programs have many employment challenges, but they often pose the "return to school" question in their pursuit of a fresh job. Based on the information gleaned from research on this topic, there are several "best practice" recommendations that Crossroads or other Job Clubs (Job Clubs, 2014) can share. First, the answer is yes. It seems continuing education, while not as beneficial as achieved education, is a reasonable path for the job seeker to pursue. When advising degree-holding professionals in mid-career, they should first examine their industry or

profession to determine if viable, recognizable, and accredited certifications can be obtained. The duration to obtain a certification is generally shorter, the cost is generally lower, and the entry barrier is usually simpler. Pursuing an advanced degree is a good second choice. Based on the Recruiter/Hiring Manager survey question #25, the respondents clearly prefer top-tier schools, but when those are not a reasonable choice for the job seeker, the recruiters/hiring managers look at accredited online or regional colleges as roughly equal choices. This broadens the appeal of further academic pursuit for many of the job seekers who seek guidance from Crossroads, as many of them do not have the means (financial, time, or location) to attend top-tier schools.

From a policy perspective, unemployment insurance made available to the unemployed should be paired with educational incentives. For example, when a person exceeds a certain number of weeks of unemployment, retraining opportunities that fund certifications could be linked to receiving further unemployment payments. The Recruiter/Hiring Manager survey question RHM #13 found that some recruiters began avoiding potential job candidates who had been unemployed for an extended period. The remarks given in the same survey for questions RHM #28 and #29 indicated the recruiters felt the longer a candidate was out of a job, the more job-related skills were lost. Directing the unemployed workers into relevant certification programs or degree programs after six months of unemployment might not only rebuild the lost skills, but also may shorten unemployment and potentially insulate the worker from future unemployment issues.

Recommendations for Further Studies

Since there is very little research regarding continuing education and its impact on unemployment durations, there are several strong potential areas for further research.

1. A longitudinal study on education and unemployment that follows subjects from their first day of participating in education while unemployed through re-employment, obtaining the educational goal, and then onward 3-5 years to determine the impact of the education on long-term employment.
2. The current study had job seekers trying to make career changes by either pursuing a certification or pursuing a degree. Is one educational path better than the other one for career changers?
3. Rather than the broad across-all-industries view gathered in this research, a study based on several major industries or professions may determine if professional certifications or advanced degrees are more beneficial for shortening unemployment durations.
4. Examine the impact of the aging of degrees or certifications. Is the duration of unemployment affected by the length of time since the worker earned the degree or certification?
5. Is there a highly-educated and unemployed bubble? With advanced degrees crossing the 10% threshold of the U. S. adult workforce, are the higher wages and lower unemployment margins for this class of worker being eroded?

Each of these studies would be logical extensions of the findings gathered under this study. Several questions that were solicited from the two audiences were not reported in this

paper—topics such as age discrimination, misinformation on resumes, use of social media to promote educational advancements, education/certification influencers, etc. The answers to these unreported questions and more will be assessed and considered for post-doctoral research or publications.

Closing Remarks

This study, using two online surveys targeted at job seekers and at recruiters/hiring managers, attempted to determine if the pursuit of continuing education could shorten the unemployment of professionals with several years of experience who already held an academic degree. With no other research available on this specific topic, the surveys provided a baseline of data for analysis. Because of the legal and privacy issues, recruiters or hiring managers would not answer specific questions on specific job candidates. Therefore, the surveys needed to gather and assess more circumstantial evidence using scenarios and supporting questions.

Relying on Crossroads Career Network, a job search and career guidance volunteer organization, about 80 job seekers (out of 163) and 24 recruiters/hiring managers (out of 34) from that organization participated in the surveys. Their insights were balanced against the other participants and the results were consistent enough to be applicable nationwide. The results pointed clearly to the pursuit of education being a preferred attribute with professional certifications being modestly more beneficial than a traditional advanced college degree, but both were of value in the job search.

The study also revealed some useful insights on the role of education and the pursuit of education for specific age groups. Most notable was the limited participation of job seekers

under 35 and over 65 years of age. Aligned with that was the willingness of the 45–54 year age group to pursue education more vigorously than the other age groups, indicating their desire to progress in their industry or to change to a different one through a focus on relevant education. Additionally, this study provides a baseline of knowledge and data that will hopefully lead to further research that might make a difference in the lives of some of the nation's unemployed.

REFERENCES

Aaronson, D., Mazumder, B., & Schechter, S. (2010). What is behind the rise in long-term unemployment? *Economic Perspectives, 34*(2), 28-51. Retrieved from https://www.chicagofed.org/digital_assets/publications/economic_perspectives/2010/2qtr2010_part1_aaronson_mazumder_schechter.pdf

Aberg, R. (2003). Measuring and interpreting trends in economic inequality: Unemployment persistency, over-education and the employment chances of the less educated. *European Sociological Review, 19*(2), 199-216. Retrieved from http://dx.doi.org/10.1093/esr/19.2.199

Archibald, R. B. (2002). Redesigning the financial aid system: Why colleges and universities should switch roles with the federal government. Baltimore, MD: The Johns Hopkins University Press.

Arner, B. L., & Truesdell, L. E. (1931). *Fifteenth census of the United States: 1930: Unemployment.* Retrieved from http://babel.hathitrust.org/cgi/pt?id=umn.31951p01092040v;view=1up;seq=3

Ashenfelter, O., & Ham, J. (1979). Education, unemployment, and earnings. *Journal of Political Economy 87*(5), 2. Retrieved from http://dx.doi.org/10.1086/260824

Ayers, L. P. (1920). Some facts about the schools and their teachers. *Report of the proceedings of the National Citizens Conference on Education*, Washington. D.C. Retrieved from http://files.eric.ed.gov/fulltext/ED543398.pdf

Babbie, E. R. (2009). *The practice of social research* (12th ed.). Belmont, CA: Wadsworth/Thomson Learning.

Baldwin, Y. H. (2006). *Cora Wilson Stewart and Kentucky's moonlight schools*. Lexington, KY: The University Press of Kentucky.

Bauman, K. J., & Graf, N. L. (2003). *Education attainment: 2000, Census 2000 Brief* (Report No. C2KBR-24). Washington, DC: Government Printing Office. Retrieved from http://www.census.gov/prod/2003pubs/c2kbr-24.pdf

Bell, N. (2009). Data sources: Non-traditional students in graduate education. *Council of Graduate Schools Communicator*, *24*, 6–7. Retrieved from http://www.docstoc.com/docs/167478645/Non-Traditional-Students-in-Graduate-Education---Council-of

Bennett, R. (2013). "Career change after 50." Retrieved from Rob Bennett's PassionSaving.com website: http://www.passionsaving.com/career-change-after-50.html

Berelson, B. (1960). *Graduate education in the United States*. New York, NY: McGraw-Hill Book Company, Inc.

Blundell, R., Dearden, L., Meghir, C., & Sianesi, B. (1999). Human capital investment: The returns from education and training to the individual, the firm and the economy. *Fiscal Studies*. *20*(1), 1. doi: 10.1111/j.1475-5890.1999.tb00001.x

Bryman, A., & Bell, E. (2007). *Business research methods* (2nd ed.). New York, NY: Oxford University Press.

Burke, C. B. (1982). *American collegiate populations: A test of the traditional view.* New York, NY: New York University Press.

Carnevale, A. P., Jayasundera, T., & Cheah, B. (2012). *The college advantage: Weathering the economic storm.* Washington, DC: Georgetown University. Retrieved from http://files.eric.ed.gov/fulltext/ED534454.pdf

Chung, W., Davies, P., & Fitzgerald, T. J. (2010). Degrees of Job Security. *The Region 24*(4), 4-13. Retrieved from http://www.minneapolisfed.org/publications_papers/issue.cfm?id=330

Clifford, G. J. (1978). Words for schools: The applications in education of the vocabulary researches of Edward L. Thorndike. In P. Suppes (Ed.), *Impact of research on education: Some case studies* (pp. 107-198). Washington, DC: National Academy of Education.

Conrad, C. F., Haworth, J. G., & Millar, S. B. (1993). *A silent success: Master's education in the United States*. Baltimore: The Johns Hopkins University Press.

Coulson, A. J. (1999). *Market education: The unknown history.* New Brunswick, NJ: Transaction Publishers.

Cremin, L. A. (1978, February). *The education of the educating professions.* Paper presented at the 30th Annual Meeting of the American Association of Colleges for Teacher Education, Chicago, IL. Retrieved from http://cpedinitiative.org/files/Cremin-Educating Professions78.pdf

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publishing, Inc.

Daly, M. C., Jackson, O., & Valletta, R. G. (2007). Educational attainment, unemployment, and wage inflation. *Economic Review from Federal Reserve Bank of San Francisco.* Retrieved from http://EconPapers.repec.org/RePEc:fip:fedfer:y:2007:p:49-61

Damast, A. (2012). The booming market for specialized master's degrees. *BloombergBusinessweek*. Retrieved from http://www.businessweek.com/articles/2012-11-21/the-booming-market-for-specialized-masters-degrees

Deis, M. H., & Scott, J. S. (2002). An evaluation of retraining programs for dislocated workers in the airline industry. *Society for the Advancement of Management: Advanced Management Journal, 67*(2), 15. Retrieved from http://www.amazon.com/evaluation-retraining-dislocated-industry-Statistical/dp/B0008ETZAE

DePrince, A., & Morris, P. (2008). The effects of education on the natural rate of unemployment. *Business Economics, 43*(2), 45-54. Retrieved from http://www.freepatentsonline.com/article/Business-Economics/181085007.html

Dillman, D. A. (2007). *Mail and Internet surveys: The tailored design method* (2nd ed.). Hoboken, NJ: John Wiley & Sons, Inc.

Dimitri, C., Effland, A., & Conklin, N. (2005). *The 20th century transformation of U. S. agriculture and farm policy* (Economic Information Bulletin Number 3). Washington, DC: United States Department of Agriculture. Retrieved from http://www.ers.usda.gov/media/259572/eib3_1_.pdf

Domonokos, L. S. (1989). History of higher education. In L. Goodchild & H. Wechsler (Eds.) *Ashe Reader on the History of Higher Education* (pp. 1-22). Needham Heights, MA: Ginn Press.

Education Commission of the States. (2010). *Compulsory School Age Requirements.* Retrieved from the National Conference of State Legislatures website: http://www.ncsl.org/documents/educ/ECSCompulsoryAge.pdf

Eisenberg, M. J. (1988). *Compulsory attendance legislation in America, 1870-1915.* Doctoral Dissertation. University of Pennsylvania, Philadelphia, PA. ScholarlyCommons. Retrieved from http://repository.upenn.edu/dissertations/AAI8824730

Fink, A. (2008). *How to conduct surveys: A step-by-step guide* (4th ed.). Thousand Oaks, CA: Sage Publications, Inc.

Gauthier, J. G. (2002). *Measuring America: The decennial census from 1790 to 2000.* U. S. Census Bureau, Department of Commerce. Retrieved from http://www.census.gov/prod/2002pubs/pol02marv-pt2.pdf

Glazer, J. S. (1986). *The master's degree: Tradition, diversity, innovation* (ASHE-ERIC Higher Education Report No. 6). Washington, DC: Association for the Study of Higher Education.

Good, H., & Teller, J. (1973). *A history of American education.* New York, NY: Macmillan Company.

Goodchild, L. F. (1989). The history of American higher education: An overview and commentary. In L. Goodchild & H. Wechsler (Eds.) *Ashe Reader on the History of Higher Education*. Needham Heights, MA: Ginn Press.

Graham, H. D., & Diamond, N. (1997). *The rise of American research universities: Elites and challengers in the postwar era*. Baltimore, MD: Johns Hopkins University Press.

Halle, R. S. (1928). *Which college?* New York, NY: The Macmillan Company.

Hamrin, R. D. (1978). Underemployment: A growing problem for the highly educated. *Challenge 21*(3), 57. Retrieved from http://connection.ebscohost.com/c/articles/6116643/underemployment-growing-problem-highly-educated

Hofstadter, R. (1955). *Social Darwinism in American thought*. Boston, MA: Beacon Press.

Howe, W. J. (1988). Education and demographics: How do they affect unemployment rates? *Monthly Labor Review, 111*(1), 3-9. Retrieved from http://www.bls.gov/opub/mlr/1988/01/art1full.pdf

Howe, W. J. (1993). The effects of higher education on unemployment rates. In W. Becker & D. Lewis (eds.) *Higher Education and Economic Growth* (pp. 129-143). Norwell, MA: Kluwer Academic Publishers/ doi: 10.1007/978-94-015-8167-7_6

Jenks, C., & Riesman, D. (1969). *The academic revolution*. Garden City, NY: Doubleday & Company.

Job Clubs. (2014). *Faith based & neighborhood partnerships: Job clubs.* Retrieved from https://partnerships.workforce3one.org/page/job_clubs

Jordan, D. S. (1906). To what extent should the university investigator be relieved from teaching? *Journal of Proceedings and Addresses of the Seventh Annual Conference of the American Universities, 7,* 23-43. San Francisco. Retrieved from http://books.google.com/books?id=fb2gAAAAMAAJ

Kaestle, C. F. (1983). *Pillars of the republic: Common schools and American society, 1780–1860.* New York, NY: Hill and Wang.

Kalton, G. (1983). *Introduction to survey sampling*. London, United Kingdom: Sage Publications, Inc.

Katz, M. B. (1983). The role of American colleges in the nineteenth century. *History of Education Quarterly, 23*(2), 215-223. Retrieved from http://dx.doi.org/10.2307/368160

Keyssar, A. (1986). *Out of work: The first century of unemployment in Massachusetts.* New York, NY: Press Syndicate of the University of Cambridge.

Killingsworth, C. C. (1968). The continuing labor market twist: A further look at the relationship between employment change and labor force change, and some unanswered questions. *Monthly Labor Review, 91*(9), 12-17. Retrieved from www.jstor.org/stable/41837413

Kliebard, H. M. (1995). *The struggle for the American curriculum: 1893-1958* (2nd ed.). New York, NY: Routledge.

Levin, R. A. (1991). The debate over schooling: Influences of Dewey and Thorndike. *Childhood Education, 69*(2), 71-75. doi:10.1080/00094056.1991.10520856

Livingstone, D. W. (1998). *The educations-jobs gap: Underemployment or economic democracy*. Boulder. CO: Westview Press.

Loughran, M. (1921). *The historical development of child-labor legislation in the United States* (Doctoral Dissertation). Retrieved from https://archive.org/details/historicaldevel00louggoog

Lunenberg, F. C., & Irby, B. J. (2008). *Writing a successful thesis or dissertation: Tips and strategies for students in the social and behavioral sciences*. Thousand Oaks, CA: Corwin Press.

Martin, J. (2006, July). Globalisation and jobs: What policies? *OECD Observer, 256*, 10-11. Retrieved from http://www.oecdobserver.org/news/archivestory.php/aid/1933/Globalisation_and_jobs:_What_policies_.html

Massachusetts Board to Investigate the Subject of the Unemployed. (1895, March 13). House Document – No. 50. Boston: Wright & Potter Printing Co.

Mercer, G. E. (1993, January). Thomas Jefferson: A Bold Vision for American Education. *International Social Science Review 6*(1), 19. Retrieved from http://connection.ebscohost.com/c/articles/9409130222/thomas-jefferson-bold-vision-american-education

Mishel, L., Bernstein, J., & Allegretto, S. (2007). *The state of working America 2006/2007*. Ithaca, NY: Cornell University Press.

Mishel, L., Bernstein, J., & Boushey, H. (2003). *The state of working America 2002/2003*. Ithaca, NY: Cornell University Press.

Mitchell, J. (2013). *Who are the long-term unemployed?* (Report prepared for the Rockefeller Foundation under grant 2013 SRC 105). Retrieved from Urban Institute website: http://www.urban.org/UploadedPDF/412885-who-are-the-long-term-unemployed.pdf

Monks, J. (2000). The returns to individual and college characteristics: Evidence from the national longitudinal survey of youth. *Published: Economics of Education Review, 19*(2000), 279–289. Retrieved from http://nersp.nerdc.ufl.edu/~lombardi/edudocs/monks_2000.pdf

Muller, R. (2013, January). "15 top paying certifications for 2013." Retrieved from: http://www.globalknowledge.com/training/generic.asp?pageid=3430&country=United+States

National Agriculture in the Classroom. (n.d.). *Growing a nation: The story of American agriculture.* Retrieved from http://www.agclassroom.org/gan/timeline/1900.htm

National Center for Educational Statistics (NCES); (2012). *Fast facts*. Retrieved from the U. S. Department of Education website: http://nces.ed.gov/fastfacts/display.asp?id=72

National Center for Educational Statistics (NCES); (2013). "Digest of Education Statistics." Retrieved from: http://nces.ed.gov/programs/digest/d13/tables/dt13_104.20.asp

Office of Scientific Research and Development Collection. (2012). Retrieved from the Library of Congress Technical Reports and Standards website: http://www.loc.gov/rr/scitech/trs/trsosrd.html

Ornstein, A. C., & Levine, D. U. (1984). *An introduction to the foundations of education* (3rd ed.). Boston, MA: Houghton Mifflin Co.

Pelczar, M. J. (1989). Deliberations of the council on graduate schools of the United States on the master's degree. *Proceedings on the conference on the assessment of quality of master's programs by the Council of Graduate Schools*, University of Maryland. Retrieved from http://files.eric.ed.gov/fulltext/ED196959.pdf

Pencavel, J. (1993). *Higher education, economic growth and earnings*. In W. Becker & D. Lewis (Eds.) *Higher Education and Economic Growth*, Boston, MA: Kluwer Academic Publishers.

Pennsylvania State Archives (n.d.). *Records of the Department of Education Agency History* (Report No. RG-22). Retrieved from http://www.phmc.state.pa.us/bah/dam/rg/rg22ahr.htm

Podgursky, M., & Swaim, P. (1987) Job Displacement and Earnings Loss: Evidence from the Displaced Worker Survey. *Industrial and Labor Relations Review 41*(1), 17– 29.

Psacharopoulos, G. (1980). Educational planning and the labour market. *European Journal of Education 15*(2), 201-220. Retrieved from http://dx.doi.org/10.2307/1502780

Rampell, C. (2009). Teenage jobless rate reaches record high. *The New York Times*. Retrieved from http://www.nytimes.com/2009/09/05/business/economy/05teen.html

Reese, W. (2011). *America's public schools: From the common school to "no child left behind."* Baltimore, MD: Johns Hopkins University Press.

Reese, W. J. (1995). *The origins of the American high school*. New Haven, CT: Yale University Press.

Rizzo, M. J. (2004, November). *State preferences for higher education spending: A panel data analysis, 1977-2001*. Presented at the Conference on Education and Economic Development, The Federal Reserve Bank of Cleveland Research Conference, Cleveland, OH. Retrieved from https://www.clevelandfed.org/research/conferences/2004/november/RizzoTH.pdf

Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (1999). *Measures of political attitudes*. San Diego, CA: Academic Press.

Rodgers, D. T. (1978). *The work ethic in industrial America 1850-1920*. Chicago, IL: University of Chicago Press.

Rosenstone, S. J. (2004, December). *Challenges Facing Higher Education in America: Lessons and Opportunities*. Paper presented at the Conference on Taking Public Universities Seriously, The University of Toronto, Canada. Retrieved from http://www.utoronto.ca/president/04conference/downloads/Rosenstone.pdf.

Rudolph, F. (1977). *Curriculum: A history of the American undergraduate course of study since 1936*. San Francisco, CA: Jossey-Bass Publishers.

Ryan, C. L., & Siebens, J. (2012, February). *Educational attainment in the United States: 2009*. Retrieved from the U. S. Census Bureau website: http://www.census.gov/prod/2012pubs/p20-566.pdf

Salant, P., & Dillman, D. (1994). *How to conduct your own survey*. New York, NY: John Wiley & Sons, Inc.

Sanderson, M. (1999). Education and economic decline in Britain, 1870 to the 1990s. Retrieved from http://books.google.com/books?id=D6j95AbAjQQC

Sautter, U. (1991). *Three cheers for the unemployed: Government and unemployment before the New Deal*. New York, NY: Press Syndicate of the University of Cambridge.

Schmitt, J. (2004). The rise in job displacement, 1991–2004: The crisis in American manufacturing. Washington, DC: Center for Economic and Policy Research. Retrieved from http://www.cepr.net/documents/publications/labor_markets_2004_08.pdf

Society for Human Resource Management (2012). *SHRM Survey Findings: Changing Employee Skills and Education Requirements—Minimum Education Requirements.* Retrieved from: http://www.shrm.org/Research/SurveyFindings/Articles/Pages/SHRM-Achieve-Minimum-Education-Requirements.aspx

Spencer, D. S. (1986). The master's degree in transition. *CGS Communicator, 19*(1), 2-6. Retrieved from: http://files.eric.ed.gov/fulltext/ED265799.pdf

Sum, A., & Trubskyy, M. (June 2011). *The Unemployment Experiences of Workers in the U. S. Who Were Displaced from Their Jobs During the Great Dislocation of 2007-2009*. Retrieved from Northeastern University, Center for Labor Market Studies website: http://50.87.169.168/Documents/EPRN/Who-Were-Displaced-from-Their-Jobs-During-the-Great-Dislocation-of-2007-2009.pdf

Tewksbury, D. G. (2011). *The founding of American colleges and universities before the Civil War.* Mansfield Centre, CT: Martino Publishing.

Thelin, J. (2004). *A history of American higher education*. Baltimore, MD: Johns Hopkins University Press.

Truman, H. S. (1947). Statement by the President making public a report of the commission on higher education. [Report of the President's Commission on Higher Education for Democracy, 1947]. Retrieved from http://www.presidency.ucsb.edu/ws/index.php?pid=12802

Tyack, D. B. (1974). *The one best system: A history of American urban education.* Cambridge, MA: Harvard University Press.

Tyack, D., & Cuban, L. (1995). *Tinkering toward utopia: A century of public school reform*. Cambridge, MA: Harvard University Press.

U. S. Bureau of Labor Statistics. (2010). *Issues in labor statistics.* Retrieved from: http://www.bls.gov/opub/btn/archive/long-term-unemployment-experience-of-the-jobless-pdf.pdf

U. S. Bureau of Labor Statistics. (2013a). *Employment projections: Earnings and unemployment rates by educational attainment.* Retrieved from: http://www.bls.gov/emp/ep_chart_001.htm

U. S. Bureau of Labor Statistics. (2013b). *Labor Force Statistics: Employment Status*. Retrieved from: http://www.bls.gov/cps/tables.htm

U. S. Bureau of Labor Statistics. (2014a). *Economic new release: Unemployed persons by duration of unemployment.* Retrieved from U. S. Department of Labor website: http://www.bls.gov/news.release/empsit.t12.htm

U. S. Bureau of Labor Statistics. (2014b). *Labor force statistics from the Current Population Survey*. Retrieved March 8, 2014, from U. S. Department of Labor website: http://www.bls.gov/cps/cpsaat03.htm

U. S. Bureau of Labor Statistics. (n.d.). *BLS history: Timeline*. Retrieved from U. S. Department of Labor website: http://www.bls.gov/bls/history/timeline.htm

U. S. Census Bureau. (1942). *Decennial census data on educational attainment*. Retrieved from the U. S. Census website: http://www.census.gov/population/socdemo/education/p10-8/p10-8.pdf

U. S. Census Bureau. (2011). *Education and synthetic work-life earnings estimates.* Retrieved from the U. S. Census website: https://www.census.gov/prod/2011pubs/acs-14.pdf

U. S. Census Bureau. (2012). *Table 303.Master's and doctoral degrees earned by field: 1980 to 2009.* Retrieved from the U. S. Census website: http://www.census.gov/compendia/statab/2012/tables/12s0303.pdf

U. S. Census Bureau. (2013). *Educational attainment in the United States: 2013 - detailed tables.* Retrieved from: https://www.census.gov/hhes/socdemo/education/data/cps/2013/tables.html

U. S. Department of Commerce. (1975). *Historical statistics of the United States, colonial times to 1970.* Washington, DC: Government Printing Office.

U. S. Department of the Interior. (1928). *Biennial survey of education, 1924-1926.* Retrieved from https://archive.org/details/biennialsurveyof00unit

U. S. Department of the Interior. (1930). *Biennial survey of education, 1926-1928*. Retrieved from https://archive.org/details/biennialsurve00unit

U. S. Department of Veterans Affairs. (n.d.) *Education and training: History and timeline.* Retrieved from: http://www.benefits.va.gov/gibill/history.asp

Vedder, R., & Gallaway, L. (1997*). Out of work: Unemployment and government in twentieth-century America*. New York, NY: New York University Press.

Vedder, R., Denhart, C., Denhart, M., Matgouranis, C., & Robe, J. (2010) From Wall Street to Wal-Mart: Why college graduates are not getting good jobs (Policy Paper). *Center for College Affordability and Productivity (CCAP).* Retrieved from http://www.centerforcollegeaffordability.org/uploads/From_Wall_Street_to_Wal-Mart.pdf

Wendler, C., Bridgeman, B., Cline, F., Millett, C., Rock, J., Bell, N., & McAllister, P. (2010). *The path forward: The future of graduate education in the United States*. Princeton, NJ: Educational Testing Service. Retrieved from http://files.eric.ed.gov/fulltext/ED509441.pdf

Williams, R. L. (1991). *The origins of federal support for higher education: George W. Atherton and the land-grant movement*. University Park, PA: The Pennsylvania State University Press.

Woirol, G. (1996). *The technological unemployment and structural unemployment debates*. Westport, CT: Greenwood Press.

Wolbers, M. H. J. (2000). The effects of level of education on mobility between employment and unemployment in the Netherlands. *European Sociological Review, 16*(2), 185-200. Retrieved from http://dx.doi.org/10.1093/esr/16.2.185

APPENDIX A

Referenced Questions from the Recruiter/Hiring Manager Survey

RHM #13 - It has been reported in various news outlets that some companies prefer to hire from the active workforce rather that hiring a person that has been unemployed. Thinking of the company that you have worked the most with since 2001, did it have a publicized (or internally communicated) preferred status of a job candidate?

O -- No stated policy
O -- Will hire qualified candidate regardless of unemployment duration
O -- Will hire currently working candidates only
O -- Will only hire candidates with less than 3 months unemployment
O -- Will only hire candidates with less than 6 months unemployment
O -- Will only hire candidates with less than 12 months unemployment
O -- Other (please specify) {_____}

RHM #16 - While there is often a minimal set of requirements (education, experience, etc.) for job postings, recruiters, and firms often look for "extras". When evaluating candidates since 2001, did you have a preference or tendency to identify candidates that had the following "extra" attributes?

[_] -- Held a college degree higher than the one required
[_] -- Had valuable industry/professional certification
[_] -- More years of experience than required
[_] -- Provided professional references with the resume
[_] -- Presented evidence (portfolio, website, etc.) of talent
[_] -- Working on a college degree (beyond the minimum required)
[_] -- Attended a well-respected college
[_] -- Other (please specify) {_____}

RHM #18 - When evaluating job candidates, was the job seeker that is actively pursuing advanced education given extra considering in the hiring process?

O -- No advantage
O -- Little advantage
O -- Modest advantage
O -- Strong advantage
O -- Always an advantage

RHM#21 - Scenario: Two unemployed job candidates are being considered for a position in your firm and you are on the selection panel. The job posting requires a bachelor's degree in a relevant field and at least 8 years of industry experience. Both candidates have over 10 years of experience in their field, have bachelor's degrees in relevant fields, and meet all other qualifications for the position.

Situation: Both candidates have been unemployed for 7 months. Candidate A has started a master's degree program recently in a relevant field of study, candidate B has not. The job posting only requires a bachelor's degree and there is no mention of promotion possibilities or benefits of advanced education in the job description. Please identify the candidate you would choose.

O -- Candidate A - Slight Preference
O -- Candidate A - Strong Preference
O -- Continuing Education not a factor
O -- Candidate B - Strong Preference
O -- Candidate B - Slight Preference
O -- Other (please specify) {_____}

RHM#22 - Scenario: Two unemployed job candidates are being considered for a position in your firm and you are on the selection panel. The job posting requires a bachelor's degree in a relevant field and at least 8 years of industry experience. Both candidates have over 10 years of experience in their field, have bachelor's degrees in relevant fields, and meet all other qualifications for the position.

Situation: Both candidates have been unemployed for 7 months. Candidate A has started a Professional Certification program recently in a relevant field of study, candidate B has not. The job posting only requires a bachelor's degree and there is no mention of promotion possibilities or benefits of having a Professional Certification in the job description. Please identify the candidate you would choose.

O -- Candidate A - Slight Preference
O -- Candidate A - Strong Preference
O -- Continuing Education not a factor
O -- Candidate B - Strong Preference
O -- Candidate B - Slight Preference
O -- Other (please specify) {_____}

RHM#23 - Scenario: Two unemployed job candidates are being considered for a position in your firm and you are on the selection panel. The job posting requires a bachelor's degree in a relevant field and at least 8 years of industry experience. Both candidates have over 10 years of experience in their field, have bachelor's degrees in relevant fields, and meet all other qualifications for the position.

Situation: Both candidates have been unemployed for 7 months. Candidate A has started a master's degree program recently in a relevant field of study. Candidate B has started a Professional Certification program relevant to the industry. The job posting only requires a bachelor's degree and there is no mention of promotion possibilities or benefits of advanced education or professional certification in the job description. Please identify the candidate you would choose.

O -- Candidate A - Slight Preference
O -- Candidate A - Strong Preference
O -- Continuing Education not a factor
O -- Candidate B - Strong Preference
O -- Candidate B - Slight Preference
O -- Other (please specify) {_____}

RHM #24 - Scenario: Two unemployed job candidates are being considered for a position in your firm and you are on the selection panel. The job posting requires a bachelor's degree in a relevant field and at least 8 years of industry experience. Both candidates have over 10 years of experience in their field and meet all other qualifications for the position.

Situation: Both candidates have been unemployed for 7 months. Candidate A holds a bachelor's degree and has recently started a master's degree program in a relevant field of study. Candidate B currently holds both a bachelor's degree and a master's degree, both in relevant fields of study. The job posting only requires a bachelor's degree and there is no mention of promotion possibilities or benefits because of advanced education in the job description. Please identify the candidate you would choose.

O -- Candidate A - Slight Preference
O -- Candidate A - Strong Preference
O -- Continuing Education not a factor
O -- Candidate B - Strong Preference
O -- Candidate B - Slight Preference
O -- Other (please specify) {_____}

RHM #28 - For a skilled job seeker that holds a bachelor's degree and has over 10 years of professional experience, but has been unemployed for between **3–6 months**, what single "best recommendation" would you offer that might help that person become more employable?

{_____}

RHM #29 - For a skilled job seeker that holds a bachelor's degree and has over 10 years of professional experience, but has been unemployed for between **1–2 years**, what single "best recommendation" would you offer that might help that person become more employable?

{_____}

APPENDIX B

Referenced Questions from the Job Seeker Survey

JS #45 - Did the education, training, or certification(s) you pursued while unemployed have a direct, measurable or acknowledged benefit in the interview process or to being hired for a particular job?

O – Yes, Specify: {_____}
O – No

JS #46 - Did any of your education, training or certification efforts seem to have a negative effect on the interviewing or hiring process?

O – Yes, Specify: {_____}
O – No

JS #47 - How essential do you consider that your work on pursuing/obtaining a certification or advanced education was in helping you obtain recent interviews or job offers?

No Value:> (1) (2) (3) (4) (5) <:Essential (N/A)

APPENDIX C

Institutional Review Board (IRB) Approval Notice

PEPPERDINE UNIVERSITY

Graduate & Professional Schools Institutional Review Board

August 19, 2014

CJ Trayser

Address

Protocol #: E0714D02
Project Title: The Effect of Advanced Educational Pursuits On Re-Entering The Workforce Following A Modest Period Of Unemployment

Dear Mr. Trayser:

Thank you for submitting your application, *The Effect Of Advanced Educational Pursuits On Re-Entering The Workforce Following A Modest Period of Unemployment*, for exempt review to Pepperdine University's Graduate and Professional Schools Institutional Review Board (GPS IRB). The IRB appreciates the work you and your faculty advisor, Dr. Sparks, have done on the proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations (45 CFR 46 - http://www.nihtraining.com/ohsrsite/guidelines/45cfr46.html) that govern the protections of human subjects. Specifically, section 45 CFR 46.101(b)(2) states:

> (b) Unless otherwise required by Department or Agency heads, research activities in which the only involvement of human subjects will be in one or more of the following categories are exempt from this policy:
>
> **Category (2) of 45 CFR 46.101**, research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: a) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and b) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

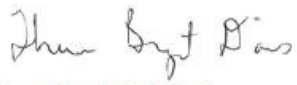
In addition, **your application to waive documentation of informed consent has been approved.**

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit a **Request for Modification Form** to the GPS IRB. Because your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the GPS IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the GPS IRB as soon as possible. We will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the GPS IRB and the appropriate form to be used to report this information can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* (see link to "policy material" at http://www.pepperdine.edu/irb/graduate/).

Please refer to the protocol number denoted above in all further communication or correspondence related to this approval. Should you have additional questions, please contact Kevin Collins, Manager of the Institutional Review Board (IRB) at gpsirb@peppderdine.edu. On behalf of the GPS IRB, I wish you success in this scholarly pursuit.

Sincerely,



Thema Bryant-Davis, Ph.D.
Chair, Graduate and Professional Schools IRB

cc: Dr. Lee Kats, Vice Provost for Research and Strategic Initiatives
Mr. Brett Leach, Compliance Attorney
Dr. Paul Sparks, Faculty Advisor