DEFINING, DEVELOPING AND RETAINING COMPETENCIES FOR THE 21ST CENTURY – AN EVALUATION OF AN ORGANIZATIONAL DEVELOPMENT PROGRAM TO SUPPORT RETENTION AND ITS APPLICATION TO INSTITUTIONS OF HIGHER EDUCATION

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There is no disputing the consistency of discourse in defining the competencies required for success in the 21st century. Higher education, corporations, non-profits, healthcare and government agencies alike are seeking employees with similar core competencies needed for operational excellence and sustainability. There is also consistency in the outlook for retaining those employees.

The Society for Human Resource Management (posted on HigherEd Jobs) noted the 10 toughest jobs to fill in 2016. Among these jobs are general and operations management positions that are expected to see a growth rate of 12.4%, or 613,000 new workers, over six years. It is estimated that 3.5 million manufacturing jobs will be open in the next decade and that 2 million of those jobs will go unfilled due to various skill gaps (Deloitte & Manufacturing Institute, 2015, p. 5-6). Achieving retention is even more challenging when we observe the millennial trend of leaving an organization before socialization (or shortly thereafter) into their new employ. It is estimated that millennials make up 75% of the work force (Deloitte, 2014) and 91% stay in their

job for less than 3 years (Forbes, 2014). Understanding these trends is important. Universities and colleges will be competing for this limited talent pool. Will they be able to compete while others are paying above market salaries? Will they be able to recruit and retain the best talent in a highly competitive marketplace while also experiencing reduced funding and rising tuition costs?

This study examines the growing problem of retaining individuals in an organization and proposes that strategically planned and executed professional development programs may increase retention rates. The research in this study is grounded in organizational development theory and practice: it examines and evaluates an individual organization's retention programs, their successes and failures, as well as the professional development programs put in place to retain its staff specifically looking to early onset training as a possible factor in increasing first year retention.

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PREFACE

I am truly blessed and grateful to have the opportunity to continue learning and growing supported by exceptional people. Thank you Dr. Trovato for not only guiding me through the nuances of the doctoral program but continuing to believe in me, encouraging me, keeping me focused and believing that the work I was doing had value and purpose. I could not have completed the doctoral program without you! Dr. Larsen, you are not only my Dean, you are my mentor and exemplar in higher education. You took a corporate executive under your wing and with patience and a very open mind, encouraged my every endeavor, helping me to grow in a very new and different profession. Your thoughtful mentoring has helped me to grow as a person and as a professional, enabling my passion for helping a new generation of information professionals prepare to engage in solving some of the world's most difficult challenges.

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1.0 INTRODUCTION

"We cannot become what we need to be by remaining what we are." (Max De Pree) I did not find this quote in a textbook or an academic journal; I found it while thumbing through a *Reader's Digest* in the doctor's office 35 years ago. The quotation struck me as significant in a truly lasting way. As a young professional struggling through the early years of my career, I was resistant to change and even more resistant to believing that I needed to continuously assess and develop new competencies. I cut the De Pree quotation out of the Quotable Quotes section; although it is yellowed and torn, it is still with me today. For the past 20+ years, I have repasted the clipping into my new yearly planner every January 1st to remind me to reflect on the quotation each and every day. Today it serves as my "true north" of leadership, constantly reminding me of the importance of looking beyond the day-to-day tasks towards working with others to help bring out their "spark of greatness" for both individual and organizational excellence.

Change is hard and constant. The extent to which we analyze our capabilities and needs for the future determines our personal and organizational success. Defining competencies for success, training for those competencies, and retaining our most important asset -- people -- is a challenge for all organizations, including higher education institutions. To meet these demands and challenges, it is important to understand the dynamics of how required competencies are determined, how one might approach competency modeling and what "game-changers" are in

play that would affect our approach in meeting the challenge of developing and retaining a competent work-force.

Higher education institutions are navigating through a world of rapid change. Senior administrators struggle with rising costs, shifting and obsolete economic models, aggressive competition, and technological transformation. Defining the competencies, and then recruiting and retaining professionals who support the operations of our universities will be paramount for success in the 21st century. From my experience in higher education and industry, I have come to believe that the practice of continual improvement through organizational development is a key factor in any organization's success – including those within higher education.

The study and practice of organizational development (OD) is the foundation for defining required competencies, designing organizational structure, and developing training programs and hiring techniques to meet the changing needs of the organization. OD is embedded in most organizations outside of higher education. Has OD been tried in universities? To what extent has it been used? Would evaluative tools such as accreditation models be useful? Have senior administrators considered the potential benefits resulting from an emphasis on professional development, immersion into the organizational culture, and transformational and cultural change as catalysts for success?

This research study begins to explore the organizational development challenge of retention and seeks to determine if there is a correlation between the timing of execution of professional development programs designed to develop competencies and retention. Two questions were the basis of this study: (1) Does early onset training (introductory and competency based training) increase first year retention rates? and, (2) What is the likelihood/impact that a prescribed, emphasized and supported training program would increase

the percentage of individuals engaging in early onset training as well as the potential to increase first year retention rates?

This research involves a case study that explores and evaluates an organizational program designed to train individuals in required competencies (pre-defined) with the dual intention of providing education to develop skills and abilities as well as to increase retention rates. This organization created its training and retention programs based on competency modeling and, in its quest for continuous improvement, is now evaluating its merits as it looks towards refining and changing the program to meet current needs and decreasing retention rates.

The study begins with a review of the literature to inform the research through a comprehensive understanding of organizational development theory and practice. The review explores the complexities of defining required competencies, competency modeling, and their practical application for developing competencies and fostering retention through professional development from a historical, theoretical perspective to current day practice.

Section three further explores the literature with respect to the theoretical framework for the research as well as describing the methodology of the study. Here, the literature identifies factors important to retention and current trending in retention rates. Specifically the literature starts to define why people are leaving organizations at an increased rate as well as strategies being employed to increase retention rates.

This initial research, and its findings, will be the foundation for my continued research on recruiting and retention in both higher education entities and organizations that support preparing students for acceptance and success at the college and university level.

The following table is provided to define terms used throughout this document.

Table 1. Definition of Terms Used

Term	Reference	Defined
Competency	Boyatzis (1982, p. 21)	"The features of an individual as motives, specifications, abilities, self-images and social roles to make him/her demonstrate high performance." (Boyatziz, 1982 p. 21).
Competency Modeling	Mert et al. (2014, p. 398)	The sum of knowledge, ability and capabilities necessary to demonstrate high level of performance in a job. Mert et al., p. 398)
Situational Leadership	Shahmandi et al. (2011, p. 45)	Understanding the task in relationship to the skill level and readiness of the followers then applying the appropriate communication and action pattern. (Shahmandi et al., 2011 p. 45)
Management/Managers	Brandon – Is there anyone from the literature that defines management/managers, leaders, and staff this way? Have you adapted these definitions from somewhere?	Reference implies academic administration managers engaged in the operations of the university or school.
Leaders	Brandon	Reference implies academic administration of the highest level – chancellor, president, provost, and assistants and business c-suite
Staff	Brandon	For the purpose of this dissertation when referring to "staff" in higher education organizations, staff is defined as individual employees who work in the capacity of administrative operational functions. This does not include academic administrators, (faculty or faculty administrators).

2.0 REVIEW OF LITERATURE

This literature review provides a conceptual framework for understanding the current research and practices for defining competencies and developing the associated professional development opportunities to meet the changing needs of administrative staff to support the strategic goals of their institution of higher education. Comparisons are also made with research and analysis from non-academic settings. Finally, an inquiry into current day practice is viewed through the lens of organizational development. The review covers the research from the broad historical perspective of organizational development theories on competency modeling through to what is currently taking place in organizations to build competencies:

- Definition of competency and competency modeling, identifying how they are related to effectiveness in the workplace.
- Listing the changing dynamics in economic, technological and administrative landscapes, discussing why these changes require a critical focus on defining competencies.
- Identification of competencies specific to higher education as well as to external organizations, and the importance of defining these competencies to support the strategic plan of an organization.

Analysis of efforts that public research universities and large non-profit organizations are undertaking to train and retain a competent staff.

2.1 DEFINING COMPETENCY AND HOW COMPETENCY IS RELATED TO EFFECTIVENESS IN THE WORKPLACE

Many definitions can be found for the concept of competency, and many of the definitions include specific occupational skillsets. Boyatzis, who applies the concepts and study of competency to corporate and academic settings, speaks of competencies as encompassing more than just skillsets; competencies also include motives, social roles and self-image (Boyatzis, 1982, p. 21). For the purpose of this literature review and subsequent research, the term "competency" encompasses both job-related, specific skillsets and the personal characteristics required for success. Each organization must understand the basic skillsets required for each role in the organization, but it is also essential for each organization to frame success by defining personal characteristics such as leadership, collaboration, decision-making, and emotional intelligence.

For decades, organizations viewed competencies as workforce requirements to meet the current needs of the business. In essence, they were looking backwards instead of looking forward, in terms of their strategic planning and change management (Torrington et al., 2002). Today, the social and economic environment is undergoing rapid change. Organizations can no longer define competencies based on current needs; they must look to the future, anticipating and understanding those projected changes in the environment, frame a vision and a strategic plan, and define the competencies that will be required to achieve their goals and position themselves for success.

2.1.1 Understanding the Theories and Practice Behind Competency and Modeling

Before we move forward, it may be beneficial to understand the historical context of the study and the practice of competency building in organizations to achieve strategic initiatives and to foster competitive advantage. There are many experts and authors who have founded authentic research and practice in this area; however, there are also others who have made a substantial fortune on the "flavor of the day." For the purpose of this exercise, the work of a select group of pioneering practitioners and theorists, as well as modern day thought leaders, will be discussed.

Table 2. Historical Context and Competency Models for Review

Subject	Focus	Purpose
W. Edward Deming Institute (2011)	Total Quality Management	Historical review
David McClelland (1973)	Competency modeling	Historical review
Jim Collins (2001)	New approach to determining success factors	Research based comparative study on 28 companies
Peter Senge (2006)	Innovative perspective on the competency of a learning organization	Discussion of current innovative game-changing possibilities
Vakola et al. (2007)	Competency modeling example 1	Longitudinal research study of applied competency model for corporate restructuring
Seema Sanghi (2009)	Competency modeling example 2	Building competencies – identification of critical factors in modeling

2.1.2 Historical Views and a Contemporary Approach – Deming, McClelland, Senge and Collins

Any review of competencies in organizations would be incomplete without reference to the pioneers in the field – W. Edward Deming and David McClelland. Deming framed his Total Quality Management system through the evaluation of objectives; McClelland first introduced competency modeling to measure performance (of competencies defined) through a lens of behavior and subconscious motivation (Robbins & Jundge, 2013).

David McClelland designed a competency model built on individual attributes such as cognitive ability and motivation, competencies (skillsets), and outcomes. He contended that IQ tests and our current day aptitude testing are neither sufficient for, nor predictors of, success. He posited that performance on an aptitude test (in school) has little correlation to later success in life (McClelland, 1973). This seems heretical in today's world where so much emphasis is placed on testing in our school systems, pre-employment aptitude evaluations, and corporate performance appraisals. McClelland's concepts are key when we look to define the competencies required for organizational success in that individual attributes should be considered as critical as role skillsets.

Deming is most often cited in discussions of quality management. His work was particularly significant in establishing and defining the competencies required for manufacturing. Deming looked beyond basic skillsets of employees and managers: he also looked at management not as a series of directives, but as a system. This view led to the development of the method of studying an *entire process* and then making quality improvements, in contrast to fixing individual problems as they arose. Deming was also instrumental in building quality through incremental inspections throughout the manufacturing process, rather than limiting

inspection to the finished product. (Edwards Deming Institute, 2011). The Japanese applied Deming's techniques and emphasized the building of competencies, which led to the significant growth and competitiveness of Japanese manufacturing companies in the 1950s and beyond. Interestingly, Deming's principles of competencies were not solicited, used, nor understood until Japanese and American companies were crippled. Only after Japan was devastated by WWII and Ford Motor Company declared bankruptcy, were other countries willing to give his theories a chance (McInnis, 2014).

In America, Deming is most associated with Total Quality Management (TQM). The TQM system defined fourteen principles, or competencies, for effective management. Many individuals who lived and worked in the era of TQM can still relate vividly their experiences and perceptions, as well as the results. Early in my career, I came to believe that TQM was a fad, another management theory (such as Management by Objectives) that was poorly executed and then forgotten. Many managers paid independent consultants exorbitant fees to implement the latest business "techniques" in the 1980s and 1990s. Many of us eventually realized that we had missed the point: it was not the theory or the foundation of the principles that failed; rather, we had failed in the implementation of those principles.

I first realized this while reading the introduction to Peter Senge's book *The Fifth Discipline* where Senge reveals Deming's dismay that his system was watered down by corporate America to a "superficial label for tools and techniques" (Senge, 2006, p. xii). In *The Fifth Discipline*, Senge frames competency around a "learning organization." Senge articulates, "We do not need to teach an infant to learn. They are intrinsically inquisitive masterful learners who learn to walk, speak and pretty much run their households all on their own" (p. 4). I have often wondered if we are born knowing everything and are conditioned to un-learn everything.

Do we then socialize children to stop learning and begin to operate on a system of conditioned response/reward? The idea of learning, learning faster than your competitors, will be reviewed under the literature for competencies defined for success. For the purpose of context, Senge's concept of framing everything we do from a perspective of learning is a challenging one but certainly not new. It has roots in Deming's work and is masterfully articulated in *The Fifth Discipline* as a challenge to our current way of thinking.

Good to Great (Collins, 2001) provides a very different look at how to define competencies that delineate great organizations. Many executives have read this book multiple times and have taken every word to heart, but others have viewed it as trite and insignificant. I have heard academics refer to this book in terms ranging from "rubbish" to "groundbreaking." No matter what position my colleagues held (rubbish or groundbreaking), the findings presented in this research created more discussion in our boardroom and leadership meetings than almost any other work beforehand.

Although the term "competency" is not used in *Good to Great*, Collins identified the attributes of companies (and their employees) that transformed the company from good to great and sustained that greatness for 15 years or longer. Collins' team invested 15,000 hours of research in a comparative study of companies that "attained extraordinary results, averaging cumulative stock returns 6.9 times the general market in the fifteen years following their transition points" (p. 3) versus companies that hit the mark but could not sustain their success. What did those great companies have that the good companies lacked?

Collins offered many significant insights into the difference between "good" and "great". Two particularly stand out: Level 5 Leadership, and "getting the right people on the bus." Viewing competency from a leadership perspective is not unusual (Level 5 Leadership);

however, the concepts of determining who the right people are (not based on a skillset), hiring them, eliminating the wrong people (regardless of their skillset), and allowing people to shuffle around until they find the right seat was probably frightening to even the most open-minded companies of the late 20th century. Even more frightening is the concept that Collins describes where you determine where the bus will go AFTER the right people are hired and oriented. It is less than effective when you put finding people before defining the vision. Although the book is based on research and the author insists that all findings are the "result of empirical deductions directly from the data" (p. 10), there is room for skepticism in understanding how the team measured what "right" people exactly meant, and how the hiring process actually unfolded. It would also be interesting to look at the same companies today (fifteen or more years after the completion of Collins' research); some of those companies maintained their greatness for more than fifteen years, then failed. Did their principles change or did they no longer have a Level 5 leader? *Good To Great* gives us pause to question our assumptions on how we view competencies and attributes of greatness – that alone should be beneficial as we continue how to learn to be great!

2.1.3 An Example of Competency Modeling

In the past, competency modeling was very task-focused, and human resource management defined skillsets to achieve basic functionality in the organization. Very little was done to translate strategy into definition of skills and attributes necessary to meet the strategic objectives. Using a task-focused methodology, modeling was an exercise in crafting job descriptions and was used to separate the high performers from the adequate-to-low performers (Cockerill et al.,

1995). This methodology focused on the effectiveness of the organization based on known needs and requirements.

In 2007, Vakola et al. developed an interesting approach to competency modeling, in which a forward-looking perspective was engaged with a focus on strategic alignment of selected competencies. The longitudinal study revolved around organizational restructuring and the need to move proactively toward a systematic approach to competency modeling to "facilitate strategy implementation and change by supporting communication, employee understanding of business goals, and the incorporation of new behaviors, roles and competencies in operations" (Vakola et al., 2007, p. 260). This research is of key interest to organizations seeking to engage in competency modeling, especially higher education as the company studied represented characteristics of both higher education organizations and corporate entities. Although the subject was a bank, many commonalities were found between the two types of organization, such as the employee view that they have a "job for life," resistance to change, inefficiencies, inertia, and bureaucracy (p. 263). The 100-year-old bank needed to move forward to meet the needs and expectations of its customers (and potential customers) in order to survive.

The approach taken in the bank's transformational change was challenging. The methodology of defining the strategy, framing competencies to meet the goals of the strategy, and determining the gaps may seem like common sense, but the process was also extremely hard work that was often abandoned. For every area of the bank, core job-related characteristics were defined in addition to behavioral competencies. This work enabled the development of a competency framework that elaborated on competencies based on three components: core capabilities, industry trends, and the bank's own competitive strategy (p. 264). From these three

high-level facets, competencies were synthesized, and groups of competencies were defined (p. 265).

Defining the competencies through this model was not, in and of itself, the end of the work. Detailed plans of execution, training, and evaluation were also constructed and implemented. The researchers were able to see how the model successfully unfolded and "how it played a central role in supporting strategy implementation and reinforcing the roll-out of the change program of which the competency project itself was a part" (p. 271). This study provides valuable context for the process of modeling, but has one significant drawback: the researchers have not yet been able to measure the ongoing sustainability of the model. After more time has passed, interested researchers will be able to examine post-implementation business results.

2.1.4 Competency Modeling and Human Resources – A System Not a Plan

The term "system" or "systematic approach" is consistent through this review of historical and contemporary approaches to defining and modeling competencies. Blending skills and attributes is also a consistent theme. Seema Sanghi contributes to this view of a systematic approach in the article *Building Competencies.* Sanghi notes that modeling does not stop at training and evaluating, but continues on to designing and executing both developmental opportunities and succession planning/career path development (Sanghi, 2009, p. 15).

The Sanghi system begins with an agreement on the overall organizational mission and specific strategy. This is followed by creation of an organizational design to support that strategy, including definition of skills required for high performance at all levels and in all jobs. This model goes beyond skills, and attribute delineation is not the final step in this model. Unilateral training programs are developed around an ongoing assessment of the people and their

attributes for “immediate job and the potential and aspirations to perform in a higher job” (p. 15). Unlike some other models, Sanghi’s model involves succession planning and career path development. The article stresses that this modeling is best done in a collaborative approach with business partners and human resources. While the business leaders may understand the skills and attributes needed, human resources professionals are most likely to understand underlying requirements such as certifications, benchmarks, legal issues, and union contracts. Also, through collaboration between upper management and human resources, buy-in can be achieved at all levels (Sanghi, 2009).

Sanghi’s presentation of a methodology to build competency presented a well thought-out system of designing a roadmap for modeling. Sanghi also offers an interesting final piece of advice about potential pitfalls: “Is the organization serious about it? How will determinants of success be measured? These are questions that may never come up but can have a significant impact on the success of a project if they don’t.” (p. 17).

2.2 CHANGING DYNAMICS IN ECONOMIC, TECHNOLOGICAL AND ADMINISTRATIVE LANDSCAPES – POTENTIAL GAME-CHANGERS FOR COMPETENCIES

What factors may play a significant role in how universities and organizations operate? Do these potential game-changing factors help to define the competencies required to sustain our institutions? The following is a review of the areas that could potentially have significant impact on the health of organizations, including funding, student demographics and considerations, and the perspective of our higher education leaders.

The sources reviewed range from recent financial reports to qualitative surveys about the current environment from higher education leaders and thought leadership.

Table 3. Literature for Review – Analysis of Current Environmental Dynamics

Source	Year	Impact Area	Descriptor
CBPP	2013	Funding	Statistics for state funding
Chronicle of Higher Education – The Innovative University	2014	Change	Discussed who is driving change in our universities
Mortenson	2014	Funding	State funding description
Council for Aid to Education	2013	Funding	Trends in gifts/contributions
Institute of International Education	2014	Tuition, funding	Impact of rising rate of international students and potential risk
Inside Higher Ed Gallop Poll	2014	International recruiting	Survey of college and university admissions director
Inside Higher Ed	2011	Finance, strategic planning	Survey of university presidents – concerns and strategic actions

2.2.1 Declining Finance Resources

Across the United States, the decline in state funding poses a grave concern to universities and non-profit organizations and it is the most significant factor impacting operations within institutions of higher education. Since 2008, the percentage change in state funding per student adjusted for inflation has declined precipitously. States are seeing an overall decrease ranging from 50.4% (Arizona) to 14.6% (North Carolina) with one outlier – Alaska at a decline of 3.2%. (For additional details, see Appendix A [CBPP, 2013]). Coupling the decline in state appropriations with increased student debt and increasing tuition, financial volatility weighs

heavily on the minds of administrators and executive leaders. The financial pressures on our institutions have an impact on the decisions made. According to the 2014 *Chronicle of Higher Education* survey "The Innovative University," two-thirds of the presidents of public universities and colleges surveyed believe politicians (who control public funding) are the most influential drivers of change in higher education, while the overwhelming majority believe the number one driver of change should be faculty (p. 5).

The decline in federal higher education research and development (R&D) spending compounds these financial problems. In fiscal year 2012, federal funding for university R&D declined for the first time since 1974 (Nagel, 2013). The U.S. Department of Health and Human Services accounts for a decrease of $1.1 billion, a 4.7 percent decline (Britt, 2013). The news on R&D did not improve by2014-2015; universities affiliated with the National Science Foundation were alerted that the number of research grants, and also the total money available, would be decreasing (Britt, 2013).

The reduction of federal and state funding creates an additional impact on the financial landscape, as universities are forced to increase tuition and fees. Thomas Mortenson, in his 2014 article "State Funding: A Race to the Bottom," succinctly summarized that impact. Mortenson estimated that by extrapolating from the trend data, at the current rate of decline, state funding will be at zero within 48 years (p. 2). The pain can already be felt by students and families with a 247% increase in inflation-adjusted tuition and fee charges since 1980, (p. 3). The substantial increase has also led to a shift in recruiting toward out-of-state and international students who "typically pay three times what state residents pay" (p. 3).

2.2.2 The Impact on Tuition and Student Demographics

This rate of climb in tuition has a societal impact as well. As public universities and colleges turn away from the state and look externally for students (for the higher out-of-state tuition), there is the potential for enrolling only minimal numbers of low-income students, widening the gap of opportunity for higher education between low and high income students (Mortenson, p. 3).

If Mortenson's trending is accurate, and if there is no stopping the reduction in funding, then who will "own" the state universities and colleges in the future? Mortenson poses this challenging question and asks: "who will govern them, who will control them, and whose interests are to be served?" He contends "the states will play a diminished role in finding answers to these questions if public higher education is to survive and thrive" (p. 3). It is interesting to consider the concept of less state participation in the management of colleges and universities. If elimination of state support is to come to fruition, and in some ways we are already there, what competencies will be required?

Declining federal, state, and financial aid funding are not the only monetary problems for our institutions. Declining research dollars, as well as declining general donations (corporate and private), also have an impact. Statistical data show a minimal increase in annual and endowed giving; however, the increase is not significant enough to cover the deficit in state and federal appropriations. It is also misleading if one does not look at the beneficiaries of said increases in this type of giving.

According to a study done by the Council for Aid to Education, colleges and universities raised $33.8 billion, which represented a 9 percent increase in charitable contributions in 2013 (CAE, 2014, p. 1). The caveat here is that 17.3 percent of the gifts were raised by ten universities with only one of those universities being a public institution. The remaining nine were private (p.

1) and three of those universities received 9-figure gifts (p. 4). It is also important to note that the top ten beneficiaries accounted for only one percent of the total number of institutions.

A volatile environment of decreasing financial resources creates a need for increasing revenue with minimal impact on resources. The math is simple and the trending solution was stated as deliberately increasing the ratio between out-of-state to in-state student population as opposed to increasing the overall enrollment to increase revenue. Such an increase in student enrollment would lead to the need for additional resources and expenditures (more teachers, more services), but these additional expenses would be covered by the higher tuition. If more local (in-state) students are recruited, the costs of extra teachers and resources would be a financial burden. How are our colleges and universities utilizing this potential lever?

One of the most significant trends in this area is the increased dependence on international students. According to the compilation done by the Institute of International Education (IIE) in 2014, the numbers are significant. For the year 2013/2014, the total number of international students in all colleges and universities topped out at 886,052, an increase of 8.1% over the previous year and a 36.23% increase since 2004/2005 (IIE, 2014). The student demographics are also important. Of the total count, 31% are from one country (China) and 50.3% of the total are from only three countries (China, India, and South Korea) (IIE, 2014). See Figure 1 for the complete breakdown.

TOP 25 PLACES OF ORIGIN OF INTERNATIONAL STUDENTS, 2012/13 - 2013/14					
Rank	**Place of Origin**	**2012/13**	**2013/14**	**2013/14 % of Total**	**Change**
	WORLD TOTAL	819,644	886,052	100.0	8.1
1	China	235,597	274,439	31.0	16.5
2	India	96,754	102,673	11.6	6.1
3	South Korea	70,627	68,047	7.7	-3.7
4	Saudi Arabia	44,566	53,919	6.1	21.0
5	Canada	27,357	28,304	3.2	3.5
6	Taiwan	21,867	21,266	2.4	-2.7
7	Japan	19,568	19,334	2.2	-1.2
8	Vietnam	16,098	16,579	1.9	3.0
9	Mexico	14,199	14,779	1.7	4.1
10	Brazil	10,868	13,286	1.5	22.2
11	Turkey	11,278	10,821	1.2	-4.1
12	Iran	8,744	10,194	1.2	16.6
13	United Kingdom	9,467	10,191	1.2	7.6
14	Germany	9,819	10,160	1.1	3.5
15	France	8,297	8,302	0.9	0.1
16	Nepal	8,920	8,155	0.9	-8.6
17	Hong Kong	8,026	8,104	0.9	1.0
18	Nigeria	7,316	7,921	0.9	8.3
19	Indonesia	7,670	7,920	0.9	3.3
20	Thailand	7,314	7,341	0.8	0.4
21	Kuwait	5,115	7,288	0.8	42.5
22	Colombia	6,543	7,083	0.8	8.3
23	Venezuela	6,158	7,022	0.8	14.0
24	Malaysia	6,791	6,822	0.8	0.5
25	Spain	5,033	5,350	0.6	6.3

Institute of International Education. (2014). "Top 25 Places of Origin of International Students, 2012/13-2013/14." *Open Doors Report on International Educational Exchange*. Retrieved from http://www.iie.org/opendoors

Figure 1. Top 25 Places of Origin of International Students

Although the continual increase in international students provides benefits in terms of both revenue and multi-cultural diversity for our institutions, it also poses potential risk. Growing conflict around the world and the uncertainty of visa restraints should provide administrators with at least a caution flag. A change in the issuance of visas for even one of the top three countries would have sudden and significant impact on revenue.

2.2.3 Perspective of University Presidents and Administrators

In 2014, Inside Higher Ed hired Gallop to survey college and university admissions directors and to present findings on issues and trending. Of the 406 administrators surveyed, 31 were from doctorate-granting public universities. When the 31 administrators were asked if actively recruiting international students was a priority at their institutions, 75 percent agreed or strongly agreed and 41 percent strongly agreed (Jaschik and Lederman, 2014). Although only 31 administrators were surveyed, this does indicate a trend to increase the amount of revenue generated from international students. Is this a strategic priority? Are there considerations in place should this trend reverse or stop all together?

What other concerns keep administrators awake at night? The following is a review of an earlier survey completed by Inside Higher Ed. In 2011 Kenneth Green et al. published a report titled *The Presidential Perspectives: The 2011 Inside Higher Ed Survey of College and University Presidents*. Eight categories were covered in the survey (p. 5):

- What are the most important problems confronting your institution in the next two-to-three years?
- What strategies have you deployed during the current economic downturn to address the financial and other challenges confronting your campus – which ones are effective?

- What strategies would you like to employ if the political cost of doing so were not significant?
- Which groups within your campus community have fulfilled their respective responsibilities to maneuver through the financial challenges of the past two years?
- How would you rate the effectiveness of your institution's investment in information technology?
- How effective is your institution in the context of various performance metrics – quality of undergraduate education and the use of data to inform campus decision makers?
- How likely is it that Congress will take action on various issues important to higher education in the coming months?
- What is your perspective on various issues important to higher education?

Survey respondents included 956 presidents, chancellors, and campus CEO's from public and private institutions. Sixty-one surveyed were from public doctorate-granting universities. In this study, that sample will receive specific emphasis.

Financial issues were the greatest concern of the full population of the survey (956 respondents). Fifty-eight percent of public institutions rated budget shortfalls as their number one concern. Changes in state support were the second greatest concern of public institutions at 54.8% (p. 22). The current strategies of various cost-cutting actions by public universities reported in the survey affirm the validity of those concerns. Of the top ten strategies deployed, only three involve creating or expanding programs. Seven of the top ten strategies involve budget decreases – and the top 10 percent of universities are employing them (p. 9):

- Budget decreases - administrative operations and services – reported by 76.9%
- Increased tuition of 5% or more - reported by 59.3%

- Budget decreases in academic programs and activities - reported by 71.2%
- Hiring freeze for administrative positions - reported by 48.1%
- Launching/expanding online education programs - reported by 45.8%
- Administrative employee layoff - reported by 50.8%
- Create new self-sustaining programs - reported by 45.8%
- Launch/expand partnerships with other institutions - reported by 45.8%
- Raised student fees for campus resources and services - reported by 47.5%
- Change in benefit levels - reported by 30.5%

Absent political consequences, public institution leaders reported that they would most likely employ strategies of: outsourcing services (50.8%), increasing teaching loads (27.1%), altering policy on tenure (22%), mandating retirement of older faculty (37.3%), and significantly increasing tuition (30.5%) (p. 12).

Other overall findings conclude that the leaders of public doctorate-granting universities (and the other segments of the study population) believe they have a high competency for managing financial resources, receive minimal return on their technology investments, and are deficient in using data to aid and inform campus decision making (p.19).

The results are not surprising. Forced to work with less funding in an economic downturn, universities first turn to cost-cutting strategies. The survey does not mention other alternatives such as innovative fund sourcing strategies, revenue generating opportunities, nor a high interest in developing new academic programs and partnerships. This brings us to the perspective of an academic organization. Will we continue to address new problems with old, known ways? Or can we become competent at finding new solutions for not only surviving, but also thriving?

This study raises questions and a few disturbing points. Why did the study neglect alternative innovative strategies? Where were the questions around strategic opportunities for innovation and revenue growth? Why was there no emphasis on options of building as opposed to cutting costs? How did the respondents' demographics impact the results (average age 58, males 78%)? (p. 26)

Overall, the study showed that administrators have a propensity for cutting costs while making only limited attempts to develop new programs or investigate alternative revenue sources. The study also highlighted competencies that may be required to think and work differently in a volatile economic environment.

2.2.4 Summary – What Remains the Same and What is Really New? A Prequel to Defining Competencies Required for 21st Century Organizations

In the 21st century, organizations are facing the disruptive ecology described as a series of potential game-changers: financial instability (decrease or elimination of state/federal funding, decrease in research funding, budget cuts, tuition increases, rising costs), technology and information (massive amounts of data and new technology – inability to take advantage of investments), and the changing demographics of the student population. The way in which universities and organizations are responding to this environment is even more compelling and raises the question, "Is the propensity to use mostly defensive mechanisms (cost cutting as opposed to developing new and different programs and strategies) exacerbating the problem?"

Are these really new problems? Is a "financial crisis," new technology, massive amounts of information, or an unstable market the new game-changer? History tells us that they are not. Organizations have gone through many deeply troubling and uncertain financial times. Markets

have swung from the prosperity of the early 20th century through the great depression to the recession of the 1970s to our most recent economic downturn in the 21st century.

Technology has always been transformative, and has produced increased data and information resulting from its deployment. The invention of the printing press was transformative! For the first time in history, information could be widely disseminated. People could be better informed, had access to more information than ever before, and became exposed to a world beyond their locality. This invention was an equalizer of sorts for those who could read – information is power. Potentially disruptive? Very!

If the general basis of the problems is not new, then what really has changed? Two basic factors emerge – rapid growth of technology and a shrinking world. Over the past two decades, technology has grown exponentially. There are three resulting factors to consider – the rate at which we can operate, the amount of information generated, and the availability of that information to the world (dramatically exceeding the "equalizing" effect of the printing press!).

Some things to consider: SINTEF (Foundation for Scientific and Industrial Research) estimates that 90% of the world's data has been generated over the last two years (SINTEF, 2013) and the amount of data are expected to grow by 44 zettabytes by 2020. There are estimates that the number of internet-connected devices will range from 26 billion (Gartner, 2013) to 40.9 billion (ABI Research 2014). However, "only a small percentage of that data are of value to businesses" (Vizard, 2014). These statistics are impressive, but the usefulness of the data are even more critical for our consideration. In 2013 "only 22% of the information in the digital universe would be a candidate for analysis", i.e. useful only if it were available or searchable (IDC, 2014, p. 1).

The speed and volume at which we create information, and the difficulty in managing it (what do we keep, how do we store it, and what do we analyze?) support the concern iterated in the presidential survey about the lack of return on technology investments. We have the technology and the information: we lack the competency to compile, store and retrieve the data. We don't have the capability to understand it in ways that drive great decision making or help us to identify credible information in the information flood. More is not always better. Understanding (and developing) our strategic plan and defining what information is needed to assess progress, trends, opportunities, and vulnerabilities will be critical in the 21st century organization.

In this shrinking world, we are all connected. In the early 20th century, enhancements in oceangoing ships enabled more people to experience different cultures through travel. After World War II, transoceanic flights became commonplace, and businesses and universities developed a global reach. This became a competitive advantage, but no change in our history prepared us for the global connectivity of individuals in today's world. The number of connected devices is not important – rather, the number of people connected in a very intimate way around the world has become the game-changer. Individuals and organizations who want to survive – and thrive – in this connected world must develop global competencies.

The research analyzing the changing dynamics of our economic, technological, and administrative landscape shows that we consistently attempt to solve new problems with old solutions. In the midst of financial uncertainty and rising costs, many universities and corporations revert to the quick fix of eliminating personnel, as payroll is usually the single highest cost in the budget. In the survey of presidents, presidents were asked what actions they were taking in times of financial uncertainty. Most of the presidents said that they were cutting

programs and personnel, and increasing tuition. When asked what they would do if there were no political consequences, even more cuts were indicated: reduction in faculty, elimination of tenure, increased teaching loads, and a significant increase in tuition. All of these relatively quick fixes have potentially devastating implications for long-term sustainability.

Peter Senge framed this phenomenon succinctly in *The Fifth Discipline* when he stated "We all find comfort applying familiar solutions to problems, sticking to what we know best. Pushing harder and harder on familiar solutions, while fundamental problems persist or worsen, is a reliable indicator of non-systematic thinking – what we often call the 'what we need here is a bigger hammer syndrome.'" (Senge, 2006) Our instinctive humanistic reaction to resolving problems is not "seeing" the forest for the trees, but rather cutting down the trees even though our actions mean that we are abandoning hope for a better forest in the future. What competencies will enable organizations to move from short-term cuts to long-term growth? How might we define those competencies for our administrators and leaders?

2.3 IDENTIFICATION OF COMPETENCIES REQUIRED FOR SURVIVAL AND GROWTH

Considering the complexity of today's rapidly changing environment, it is not hard to fathom the difficulties higher education is facing in terms of evolving along with the world. Institutions of higher learning have always influenced, and been influenced by, their environments. Today, these institutions are faced with a much more disruptive ecology as iterated in the presidents' survey. If we want to build successful organizations in the 21st century, we must first understand

the research and discourse surrounding competencies, and then go on to define the competencies required for success.

2.3.1 Providing Context to the Discourse on Defining Competencies

External pressures weigh heavily on academic administrators; in particular, decreases in funding have generated great concern for the future. The *2011 Inside Higher Ed Survey of College and University Presidents* noted that 62% of the presidents of public doctorate-granting institutions (and 58% of all institutions surveyed) named budget shortfalls as the foremost issue confronting their institutions; decreases in state funding (which contributes to budget shortfalls) was a close second at 43% (Green, 2011).

Shifting political priorities, unstable and diminishing financial support, the rising cost of tuition, shifting economic models, and intense competition for research dollars and students are only a few of the challenges being faced by administrators. What types of competencies might be required to overcome the challenges these higher education leaders are facing?

Compelling approaches for evaluation of competencies are emerging. Cernicova-Buca (2010), in her study on implications for universities, stated that as a provost she was "called out on a daily basis to carry out change due mostly to the rapid transformation of the external environment, and also to the sophistication and diversification of academic life in the institution" (p. 67). Cernicova-Buca's work begins to explore the possibilities of adapting organizational development theory or methods to higher education by defining competencies and training to those competencies. She calls out change management as a critical factor in a provost's work.

Goodall (2006) took a different approach and sought to study the competencies of leaders in the top 100 universities (according to global university rankings) to identify the key

competencies of successful executives at those top universities. In her findings, Goodall stated that "the top universities in the world, who have the widest choice of candidates, systematically appoint top researchers as their vice-chancellors and presidents" (Goodall, 2006, p. 388). Although this provides insight into a consistency of competency in top ranked universities, it would be beneficial to determine: 1) How is success defined (what are the rankings based on)? and 2) Was the competency of being a top researcher the only consistent factor?

Universities are not the only entities trying to find their way in our fast-paced disruptive time. In addition to studying higher education, would there be a benefit to research and analyze competencies in leaders of industry, the military, and non-profit organizations? Higher education has given the world scholars capable of thinking through the complex problems of their times, educated and prepared the next generation to fuel research for innovation and progress, and trained talented individuals to govern, lead, and engage in industry. Institutions of higher education prepare the next generation to think deeply, to adapt to the changing needs of their time, and to work toward progress and prosperity. But, do such institutions use those same capabilities to address issues facing academia?

It is also important to note that many of the same complex issues now being felt at universities have been a constant state of affairs in industry over the last century. Although Boyer and Crockett (2014) contest that the two types of organizations (or situations) are not comparable, I would contend that we lack sufficient research to support that theory. Industry and higher education, although very different in their origin and mission, share many similarities. Those similarities include the need to develop strategies, missions and visions to adapt and excel in changing times, and the need to define competencies to support those strategies. Also,

although this may be viewed as heresy in some circles, both industry and higher education have a service, a product, customers, and a cost/revenue base.

There is a large body of research, surveys, and opinions on how corporations and industry adapt to changing times and assess the needs and skillsets to survive and thrive. From the Industrial Revolution through the Great Depression, and into the plethora of management theories of the mid-to-late 20th century, many companies have adapted and prospered. Individual companies that did not take advantage of examination, innovation, and adaptation ceased to exist.

In their analysis of a competency model based on strategic business needs, Vakola et al. (2007) found that it was important to look to the skills needed to support the strategic direction of the organization rather than focusing on "the traditional approach of focusing on competencies of successful individuals" (p. 260). The study also stressed that "optimized competency-based management consists of moving in a continuous loop of strategy formulation – competency model adaptation – change implementation – application of competencies of optimized business results" and back to "strategy reformulation" (p. 272). This is a circle of continuous analysis, strategic formulation, and change. The thoughtful process of a continuous system is a competency in itself, which will be discussed later in this review of the literature in the context of a "learning organization".

While delving into the historical and global perspectives of how industries assess critical skills and competencies, it is also important to review the perceived, if not real, state of the current and future use of competencies. The transformation to a digital and connected world, with an increase in the volume of information available, has changed the way we work, communicate, educate, and play. In addition, we must consider the complex issues surrounding

personal and institutional privacy and security. Only a few years ago, these concerns and applications of technology were in the hands of our information technology experts and employees. Today, this is a required competency for all of us.

We must also consider the soft skills, such as leadership, communication, and critical thinking, which are now being framed as key competencies for all levels of employment. In *The Global Achievement Gap*, Tony Wagner (2008) speaks to both the changing economy and technical innovation, blending it with a deep look into our education systems. Wagner delivers a set of competencies that, if taught and emphasized, could lead to a better-prepared workforce. Interestingly, Wagner only lists one tactical skill, that of effective oral and written communication. His list revolves around softer skills such as critical thinking, collaboration, adaptability, curiosity, and initiative. What Wagner is proposing is that skills that once differentiated the workforce from the executives, leaders, and innovators are now required for basic employment in the 21st century (Wagner, 2008).

2.3.2 Consistency in the Discourse Around Defined Competencies

Although research scientists, analysts, authors, government agencies and corporations may approach the definition of competencies from different perspectives, it is compelling to see the similarities in their lists of competencies and the consistency in their respective discourse. Table 5 presents a list of sources that have analyzed competencies in industry and higher education. This information provides a basis for comparisons, and the comparison shows us that there are striking similarities in the lists of identified competencies across organization types.

Table 4. Summary of Literature for Defining Competencies

Summary of Selected Literature and Depiction of Similarities			
Author	Publication	Description	Competencies Identified
Wagner (2008)	The Global Achievement Gap	Book – describes competencies as "survival skills" also speaks to the lack of standards or competencies required of administrators. Defines competencies needed for jobs in the new century.	-Critical thinking and problem solving -Collaboration across networks/leading by influence -Agility adaptability -Initiative entrepreneurialism -Oral and written communication skills -Analysis of information -Curiosity and imagination
Boyatzis (2008)	Journal of Management Development	Essay – discusses development of competencies – when individual attributes, job demands, and organizational environment come together for the "best fit." Competencies can be developed. General article not specific to academic or business profile.	-Emotional Intelligence -Thinking and analyzing information
Finegold and Notabartolo (2010)	Hewlett Foundation	Interdisciplinary literature review on 21st century competencies. Industry based skills for employability	-Critical thinking, problem- solving, decision-making, -Communication, collaboration, leadership -Initiative -Information processing -Capacity for change/innovation, Adaptive learning -Flexibility

Table 4. Summary of Literature for Defining Competencies (continued)

Summary of Selected Literature and Depiction of Similarities			
Author	Publication	Description	Competencies Identified
Pritchard (1999)	*Air University* journal article	Competencies needed for leadership and management at all levels. Creating a learning environment/organization for the future. Recognizes a need for change. Competencies for all levels of officers – U.S. Army and military overall. Army article published by Air University USAF	-Technical and information -Cognitive, oral/written communication, problem-solving -Interpersonal abilities, teamwork -Decisive/problem-solving -Continuous learning -Awareness/global -Flexibility adaptability -Resilience -Initiative -Creativity -Entrepreneurship -Influence -Partnering/collaboration seamlessly regardless of diversity -Organizational commitment

Table 4. Summary of Literature for Defining Competencies (continued)

Summary of Selected Literature and Depiction of Similarities			
Author	Publication	Description	Competencies Identified
Shahmandi et al. 2011	International Journal of Business Administration	Journal article – Leadership competencies at world class universities – research universities in a global context	-Situational leadership -Vision/goal setting -Holistic mastery -Global knowledge -Continuous learning -Critical thinking -Profound knowledge/ background -Discernment, decision making -Information collecting, analysis and processing -Evaluating and supervision -Motivating -Communicating -Resource management -Social responsibility
Dailey (2012)	The European Business Review	Business article. Requisite competencies for executive leaders. Insight for executives in all institutions.	-Agility -Adaptability, instinct and perception -Influence -Decision making -Critical thinking -Team building, collaboration -Execution

Table 4. Summary of Literature for Defining Competencies (continued)

Summary of Selected Literature and Depiction of Similarities			
Author	Publication	Description	Competencies Identified
Bartram (2005)	Journal of Applied Psychology	Defines the "Great Eight Competencies." Research study on the validity of personality and ability testing to predict behavior and competency. Global, multi-organizational, all levels of administration mostly managerial.	-Leading, deciding -Supporting and cooperation -Interacting – communications, networking, influence -Analyzing, clear analytical thinking, understands issues takes on new technology, oral and writing skills -Creates – innovative, seeks out learning opportunities, supports and drives change -Organize and execute, planning, systematic -Adaptability, adapts and responds, copes well -Enterprising and performing

The following abilities and skillsets are repeatedly identified in the research: critical thinking, team building, collaboration, communication (written and oral), adaptability, agility, decision making, innovative, emotional intelligence and continuous learning. Although different terminologies may have been used, each of these competencies were described as essential across organizational types (higher education, corporate, military).

2.3.3 Competencies for Effective Leaders and Managers – Can They Be Trained For and Measured and Predicted?

Defining competencies is a critical step, but can those competencies be linked to performance and can individuals be "trained" for them? Richard Boyatzis (2007) began a program of systematic research to define competencies and to show that those competencies could be developed in individuals and measured through performance. In his essay, *Competencies in the 21st Century,* Boyatzis (2007) notes "Despite widespread application, there are few published studies of the empirical link between competencies and performance. There are even fewer published studies showing that they can be developed" (p. 5). This work was intended to add to the discourse and lay the foundation for additional research in the future.

Boyatzis frames competencies into two clusters: threshold clusters and differentiating clusters of competencies that can separate performance levels (p. 7):

Threshold Clusters:

- Expertise and experience
- Knowledge (declarative, procedural, functional and metacognitive)
- Basic cognitive competencies (memory, deductive reasoning)

Differentiating Clusters

- Cognitive competencies (systems thinking and pattern recognition)
- Emotional intelligence (self-awareness, self-management, self-control)
- Social intelligence (social awareness and relationship management, empathy, teamwork)

What is unique here is the concept. The threshold competencies are readily measured. Boyatzis asserts that competencies such as self-awareness, social awareness, and empathy are

manifested in behaviors that can be measured and taught. Boyatzis and his colleagues are forming an interesting, multi-disciplinary alliance to synthesize the research and "introduce the physiological level to the model by relating findings from neuroscience, biology, and medical studies to psychological states and resulting behavior" (p. 9). The researchers will observe competencies and directly compare them to neural circuits and hormonal patterns (p. 9), study any changes in the circuits and patterns (after affected arousal or learning), and then measure changes in behavior.

Although this type of measurement of success in training for desired competencies is not intended for practical use in an institution, it does give credibility to the concept that behavioral traits can be taught, learned, and measured. This study also gives credence to understanding that building a great organization does not stop at defining and hiring for specific competencies. Organizational change for evolution, adaptability, and success is constant and requires continuous learning and development. To know that this is possible and measurable is significant.

If competencies can be defined, trained for, and measured, can they also be predicted? In 2005, the SHL Group funded Dave Bartram's research to determine, in part, if personality-based measures could be used to predict competency. Bartram's findings are published in *The Great Eight Competencies: A Criterion-Centric Approach to Validation (Bartram, 2005).* Bartram hypothesized that "Personality-based predictors would show a nonzero relationship with all eight (great competencies) in line manager's competency ratings" (p. 1188). The "Great Eight" (Bartram et al., 2002), discussed in an earlier publication, were the basis for the defined competencies.

The study examined 365 managers from different industry sectors. Two aptitude tests and two questionnaires (Personality and Inventory of Management Competencies) were administered. The results were compared to the performance measures of the "Great Eight" consisting of (p. 1193):

- Leading, deciding
- Supporting and cooperation
- Interacting – communications, networking, influence
- Analyzing, clear analytical thinking, understands issues, takes on new technology, oral and writing skills
- Creates – innovative, seeks out learning opportunities, supports and drives change
- Organize and execute, planning, systematic approach
- Adaptability --adapts and responds, copes well
- Enterprising and performing

The results indicate, "The contribution of the Great Eight model for understanding of job performance is clear. Each of the eight predictors was shown to predict a different area of job performance consistently across jobs, measurements, instruments, and cultural contexts" (p. 1199).

The findings indicate that aptitude and personality may enable us to predict job performance based on Bartram's eight criteria. Corporations have engaged in this type of testing for many years – Bartram's work used data from such testing and subsequent performance evaluations (one possible limitation of the study, as it was done after-the-fact) to find a correlation.

Before making definitive claims about predictability, it would also be interesting to see if Bartram's results are consistent when using several questionnaires and surveys. Comparing the results of using different pre-screening tools for employers, and determining the most effective products, may be helpful in evaluating the potential of prospective and current employees.

2.3.4 Competencies for Effective Leaders and Managers – A Perspective From the United States Military

The ability to shape and train leaders and managers in the 21st century is important to all organizations, and the military is no exception. Lt. Col. Kenneth Pritchard spoke to this with foresight in his 1999 analysis of the military competencies needed in the next (21st) century. The U.S. Army guides all training through field manuals. U.S. Army Field Manual (FM) 22-11, *Military Leadership,* "recognizes two leadership levels – junior and senior – and discusses leadership functions, tools and styles within two modes: direct and indirect leadership" (USA FM 11, p. 1). Pritchard believed that much of what the manual dictated would still be relevant in years to come, but that changes would need to be made for the Army to succeed.

Pritchard's belief was that *four levels* of leadership would be needed to segregate soldiers for training and development purposes, not the current two (junior and senior). The four levels are as follows: non-commissioned officers (top leaders/not commissioned officers), company grade officers (low-level managers – Lieutenant, Captain), field grade officers (middle-level managers – Major, Lieutenant Colonel and Colonel), and general officers (executive managers – Generals). Although the same competencies are required at all levels, the importance, training, demonstration of, and evaluation of those competencies varies widely as one moves upward through the ranks. For example: in the current (1999 Army) model of two distinct leadership

levels, visioning is a skillset taught at the upper level. Pritchard argues that to be effective, visioning should be taught during the middle of an officer's career to ensure future success upon reaching the top levels. Such preparatory work would serve as training and practice for success when promoted (p. 2).

Pritchard was also succinct in his framing of the competencies that needed to be valued, developed, and rewarded in the 21st century Army. He highlighted change management and leadership of change, and brought more focus to emotional intelligence and cultural awareness. The competencies were separated into two categories – core competencies for all and "differentiating competencies" for high-performance leadership of change and people.

Core Competencies for All (p. 2):

- Tactical, technical and technological (information and computer) proficiency
- Interpersonal skills and abilities (human relations and teamwork)
- Personal characteristics (decisiveness and tenacity)

Differentiating Competencies (p. 2):

- Continuous learning (rapidly understanding and using new information, mastering new skills)
- Awareness (interrelationships, keeping current, trends)
- Flexibility (open to change as an opportunity, tolerance for ambiguity)
- Resilience (focus under pressure, recovering quickly from setbacks, physical and mental stamina, ability to bounce back no matter the pressure or intensity of the situation)
- Initiative (working without close supervision, looking for ways to continually improve)
- Creativity
- Entrepreneurship (leading with a sense of ownership, global coalitions, and teamwork)

- Influencing others
- Partnering (collaborating rapidly and multi-nationally – seamless integration)
- Organizational commitment (esprit de corps and organizational culture)

This list of competencies illustrates the evolving environment of the military and the changes that need to be made during the 21st century. The military, much like organizations in academia, is being asked to do more with less. Funding cuts coupled with new missions, staff reductions, global alliances, the influx of magnitudes of information to decipher, and shifting security issues create a complex world for which our military must adapt.

Pritchard goes a step further. He not only defines the competencies needed, he recommends that it will take a system to foster them. He proposes a "competency-based military leadership system to enable this high-involvement work culture that the next generation will demand" (p. 3).

Where others are cutting down the trees to save the forest, Pritchard understands the cost and investment required for implementation of this change and he states: "Competency-based systems require significant investment in people, but the potential payoff in performance is worth it" (p. 3). "Today's Army stands at the threshold of a new military era, the information age forces in the new world disorder. No single element is more important to full-spectrum military power development than the quality of leadership. The next two generations of Army leaders need a new leadership system, one that blends the very best of the tried-and-true with the most promising of the up-and-coming" (p. 4).

2.3.5 Competencies for Effective Leaders and Managers – Perspectives of a European Business Review

The consistencies of named competencies for the 21st century that continue to be articulated throughout the research are also prevalent in European discourse. Patrick Dailey iterates these competencies by defining "What Leaders Do" (p. 2) and defines a competency model of leadership adapting to the challenges of a changing world.

Dailey (2012) defines leadership as "the application of power and example to induce followers to pursue shared objectives which lead to fulfillment of security and survivability needs, and achievement of status aspirations" (p. 2). This definition is unique in that it does not include the traditional verbiage about vision, goals, inspiration, and setting a course of action. Dailey's definition does use some potentially controversial terms such as application of power, induce (note the term is not "influence"), and status aspiration. This definition is the base of Dailey's discussion around competencies.

Dailey envisions the world in which our leaders operate as "a playing field that morphs and mutates… perpetuating trap doors… filled with second-guessers, plaintiff counsel, and compliance officers with adversarial intentions… countered by a workforce that is diverse, talented and ever more demanding" (p. 4). In a world such as this, a leader must be able to: balance "offensive" and "defensive" modes of operation, know when to be proactive or reactive, and understand how their "battleground" is changing and adapt (Dailey, 2012).

The challenges articulated by Dailey are comparable to the challenges identified for academia, volunteer organizations, the U.S. military, and corporate entities. The challenges include time compression (pace of the world no longer allows for extensive deliberation and decision making), credibility (of the organization and the leadership as well as the credibility of

information used in decision making), inaccurate predictive models (inability to manage information), democratization (increased customer power), talent wars (highly competitive market for those with desired competencies), and board independence (board and shareholder activism) (p. 6). So how does one frame the competencies around these challenges?

Dailey begins by differentiating the internal world from the external world. Leadership was traditionally viewed and defined mostly from an internal perspective – visioning, goal setting, and performance. With a rapidly changing external world, new skills and competencies will be required. That does not mean, however, that internal competencies are no longer required. Internal and external competencies are both important – but leaders must also know when and where they are required.

The leadership model suggested by Dailey describes "four primary roles defining an executive's unique contribution to an organization's mission and its array of stakeholders; its present and its future; its internal capability, and its external reach and credibility – all executive success comes from these four roles" (p. 8). The roles are: Set the Direction, Execute the Plan, Build the Team, and Influence Stakeholders – all executed with critical thinking and a temperament (p. 8). Figure 1 (Dailey, 2005, p. 8) provides a helpful visual representation of this model. Note that the roles overlap, and that critical thinking and desired temperament are required for each of the four roles.

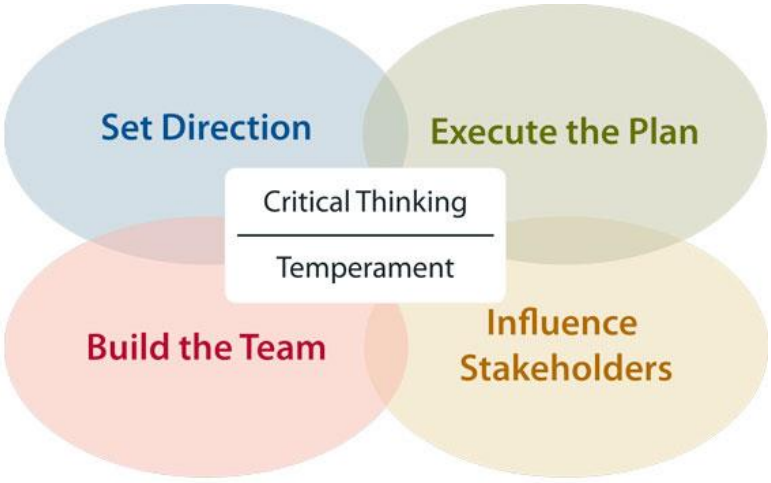

Figure 2. Dailey's Executive Success: Roles Performed

Dailey does not stop at defining the four roles for executive success; he goes on to define the actions required to be competent in these roles. Figure 2 (Dailey, 2005, p.12) shows how these actions overlap, build on each other, and influence one another. These are defined as core competencies, and critical thinking and temperament are at the center of this model. Figure 2 is a visual representation of what Dailey calls "differentiators of leader's success" which "represent enhanced focus and attention by the executive… and can be used for selection, focal points for coaching and development, as well as assessment in the performance management process" (p. 13).

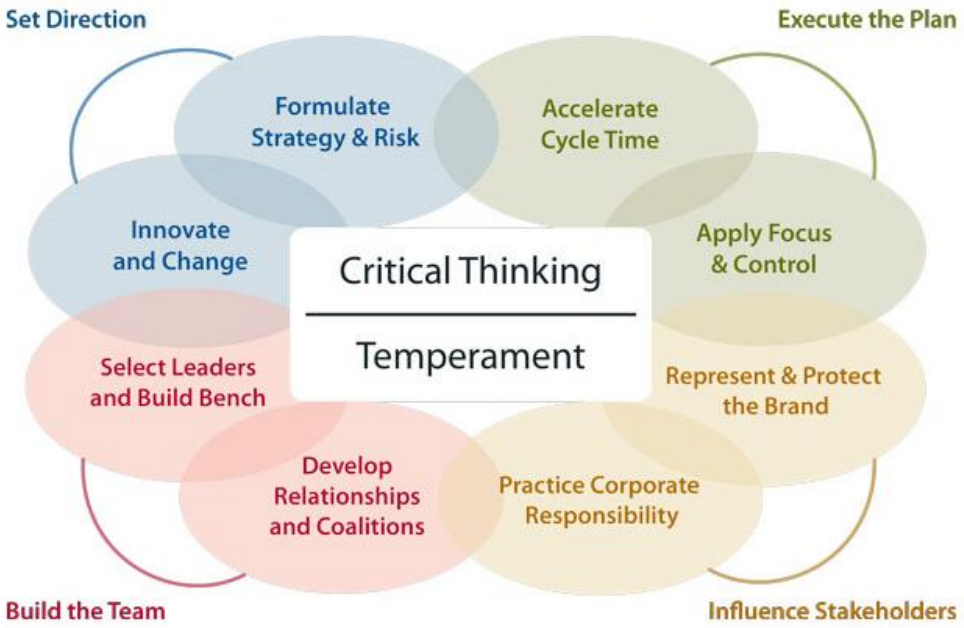

Figure 3. Dailey's New Differentiators of Leader Success Have Emerged

In summary, Dailey provides a different perspective on the definition of leadership and frames a competency model around a changing world. He moves a step forward in depicting the interrelatedness of competencies for the 21st century. His model balances competing factors in enterprise life such as the need for "commercial pursuits with consideration for people, their values and needs (set direction/drive execution versus building the team and influencing stakeholders) and long-range strategic intent (set the direction) versus daily operational focus (drive execution)" (p. 14).

2.3.6 21st Century Academic Leadership Competencies

Institutions of higher education, particularly research universities, exist in a complex dichotomy when it comes to leadership and management. The research reviewed focused on purely administrative roles, but to understand the complexity of the modern day university, one must look more deeply, and look beyond day-to-day operations. The challenge of the dichotomy is that on one side of the spectrum we have administrators who are accountable for the financial, legal, and operational health of the organization, and on the other side we find faculty in the roles of dean, chair, and department heads responsible for the academic health of the organization.

The academic leadership role is challenging. In addition to research, teaching, advising and service, faculty leaders are also expected to engage in policy development, visioning and mission development, decision making, management, governance, fundraising, alumni relations, corporate alliances, and leadership of their respective schools, departments and programs. The literature does not provide much helpful discussion or recommendations for best practices around definition and development of competencies for these unique roles in academic leadership; however faculty roles are certainly as critical, if not more critical, as administrative roles in determining the success of the institution.

In a unique approach, Shahmandi et al. (2011) proposed (through a review of the literature) to use models of situational leadership to define effective leadership styles for academic leaders (deans and department chairs) driven by the perspective that "academic leaders need the skills and abilities to lead research universities towards excellence" (Shahmandi et al., p. 44). Situational leadership was the key focal point and thus it is important to note that many of the styles and discourse used in this study have also been applied to business settings, not academic settings. What is thought provoking is how this might translate to academic leadership.

Mintzberg's leadership roles were used to define the roles of academic leaders (Mintzberg, 1979) to frame the competencies required. For the purpose of this study, Shahmandi et al. refined Mintzberg's ten roles into three key roles: interpersonal contact, information processing, and decision making (p. 44). The following bullets describe these roles (p. 50):

- Interpersonal contact – figurehead, leader, and liaison.
- Information processing – monitor, disseminator, spokesperson (external to the organization).
- Decision making – entrepreneur, disturbance handler, resource allocator and negotiator.

After a review of the literature, the researchers in the study focused on specific competencies they believed were required for effective academic leadership. Competency was defined by the research team and framed as: "leadership skills, communication skills, persuasive skills and professional skills" (p. 49). Although not directly stated by the researchers, the following sub-competencies can be inferred:

- Leadership skills – Utilizing situational leadership i.e. understanding the task in relationship to the skill level and readiness of the followers then applying the appropriate communication pattern (p. 45).
- Communication skills – Style of telling, selling, participating, or delegating (p. 45).
- Persuasive skills – Ability to influence others.
- Professional skills – Administrative skills, social skills, global awareness, service, and academic discernment (summarized, not all inclusive).

Furthermore, the study went on to analyze how academic leadership competencies are viewed globally. The authors determined that required competencies might differ widely in universities depending on their country's economic status (developed or underdeveloped nation)

and their location. The review included an extremely detailed list of competencies identified by 22 respondents from Chinese IHL from a study conducted by Yang (2005). The detailed descriptions show the depth and breadth of the competencies outlined in the study (p. 49):

- Leadership competencies – Devotion, enthusiasm, selflessness, benevolence, justice, tolerance, self-discipline, kindness, responsibility, determination, diligence, commitment, persistence, flexibility, charisma, openness, creativity, and initiative.
- Personal knowledge and skill – Understanding the combination of Chinese and Western cultures, profound knowledge and background, knowledge about social reality, knowledge of international higher education theory and practice, international experiences and background, higher levels of academic reputation and achievement, academic discernment, familiarity with the university, social skills, continuous learning ability, English language skills, and critical thinking.
- Administrative competency – Vision, setting ambitious and achievable goals, holistic mastery, discernment, collecting and processing information, strategic decision making, leading, organizing, coordinating, evaluating and supervising, motivating, communicating, staffing, reconstruction new institutions, resource-raising, and marketing.
- Social responsibility – Political sensitivity and firmness, implementing national education policy, accomplishing university mission, public figure, sense of service, sense of opportunity, and sense of competition.

Finally, this review went a step beyond defining competencies, and recognized the organizational development capacity of human resources to train and develop competencies in academic leaders. The authors claim that "The development actions targeting employee

competencies must be planned, implemented and assessed. In order to be efficient, development should be a systematic process instead of occasional" (p. 50). The authors suggest that utilizing human resources' systematic approach to building skillsets would provide a competitive advantage.

The practice of applying prevalent leadership and competency research as well as the organizational development aspect is intriguing. A comparison of competencies defined by faculty in the United States with the extensive list from China would be very interesting. One might expect it to look very different as the United States is categorized as an "individualistic" nation. It would, however, frame in detail the academic leaders' perspectives on both their role and required competencies.

Defining capabilities to begin to understand what is needed to assist academic leaders in their development is imperative. What may be difficult is gaining overall consensus on those competencies and providing effective development opportunities to nurture them. At first glance, the human resources department seems like an obvious candidate to drive this process. Human resource departments and their counterparts in organizational development are well qualified to define and produce development opportunities, but may fall short on execution. The "create it and they will come" standard approach may not be realistic. This study and others recognize the competing demands currently placed on faculty. In many cases, faculty are also asked to assume temporary or permanent administrative roles which require new and unique competencies. Where and when could this training be done? Who would participate? In universities across the United States, it is not common practice to require faculty to train in leadership or administrative duties even if development opportunities are present. Professional development of faculty is a compelling idea, and more research would be of benefit.

2.3.7 Executive Education Program for Managers and Leaders

This summary is included to provide an example of how higher education institutions are defining and teaching competencies in executive programs. The University of Maryland University College (UMUC) example was chosen by virtue of their defining of competencies studied in the UMUC Executive MBA program, their willingness to share their work publicly, relevance (what is being taught is directly correlated to the defined competencies in this literature review and current research), and multimedia delivery of information in print and podcasts (an example of utilizing multiple communication modes compatible with the demands of distance learning and leaders' schedules).

The materials created by the UMUC Business and Executive Program were in the form of written summaries and podcasts framing individual competencies from the *Essential Competencies for the 21st Century Manager* (UMUC, 2008) created by multiple faculty authors. Again, the competencies (in this case identified in collaboration with faculty, industry experts and students) are very similar, if not identical to the trending list found in all of the research reviewed thus far: communication skills, team building, decision making and executing decisions, information literacy (for business decisions), leadership, diversity/cross-cultural awareness, innovation, technology fluency, and critical thinking.

Each podcast framed a specific competency, spoke to the importance of that competency, and imparted to the student a clear picture of why the competency was important to their growth as a professional, and the importance of the skill to industry. In most cases, the podcast explained why the competency was being taught in the program. Real world analysis was used to tell a story and apply context to help the student relate to each topic. I found this a very effective way to define and present an introduction to competencies in an academic program. UMUC

demonstrated exceptional communication skills and influence by encouraging buy-in of the students for the competencies they would be studying.

2.3.8 Summary Of Identification Of Competencies Required For Survival And Growth

The review of the literature indicated general agreement about what competencies are required for the 21st century institutions of higher education. Among these competencies, the following were most prevalent: critical thinking, collaboration (teamwork), oral and written communications, information collecting (analysis and processing), decision making, continuous learning, diversity and global (cultural) awareness, agility/flexibility, problem solving, emotional intelligence (although not always articulated in that terminology), initiative/entrepreneurialism, and execution. This is quite a long list but it correlates to the competencies discussed in section 2.2 on the changing dynamics in the economic, technological and administrative landscapes.

Much of the literature discusses the role human resources (organizational development/professional development) plays or should play in identifying competencies, creating competency models, and then developing training programs – followed by measurement and a cycle of reevaluation (a learning model). Although authors presented slightly different competency models, almost every article spoke to the need for more than mere identification – action is required!

Missing from the literature: evidence of a practical application of the models that followed through and tracked sustainable success or failure in higher education (and in some cases, industry). The research and the theory have been developing since the mid-1900s, and in our dynamically changing world, proof of concept is important.

2.4 PUTTING RESEARCH AND THEORY TO WORK

What, if anything, are organizations (specifically, public research universities and large non-profit organizations) actually doing to build these critical capabilities? What follows is an analytical summary of findings resulting from a web search of selected institutions. For each, I verified the presence of defined competencies from an organizational development/human resource modeling perspective. I compared those competencies to the defined competencies from the literature review, and I noted any programs in place for training and assessment.

For the purpose of this review, 25 large research universities (over 15,000 in enrollment and employing more than 3000 administrative staff) and three large non-profit organizations (with more than 20,000 staff) were selected. The selection of non-profits and large public universities correlates to my forthcoming research and case study which involves a large non-profit organization that is also a publicly funded educational institution with over 24,000 students and 33,500 professionals.

Each entity was reviewed by a "scrape" of their public website and any other supporting documentation (human resource site, strategic plan, vision statement, mission, and reports) that could be found on official institutional sites for that entity. The analysis shows the following:

1. Were competencies defined and if so were they reflective of the consistency of the competencies in the literature review (21st century competencies)?
2. Are there defined training efforts and does the training support building these competencies?
3. Are the competencies evaluated in any way for performance?

2.4.1 Results of Institutional Competency Scan

Overview – Of the twenty-five universities scanned, nine explicitly identified required competencies; of those nine, eight directly reflected 21st century competencies. Of those eight, seven had training programs supporting their development. The scan also indicated that regardless of whether or not competencies were formally defined, all but two universities indicated they had an administrative department for training, professional development, or organizational development. The three selected non-profit organizations are indicated in red below. Table 6 depicts the data retrieved from the scan:

Table 5. Summary of University Competency and Training Scan

	n	Training Programs	Training to Competency	Assessment Models	Eval Method PerfApr	Comments
Identified Competencies (not 21st century)	**1** **2**	**1** **2**	**1*** **2**	**1** 1	**1** **0**	***see clarification note**
Identified 21st century Competencies	**8** **1**	**8** **1**	**6** **1**	**1** 0	**8** **0**	**Two of these universities have extensive development programs for deans and chairs**
No Competencies Identified	**16**	**13**	**1****	**6**	**12**	****see clarification note**

* Competencies identified were not 21st century competencies; however the training provided by the university directly supported 21st century competencies as modeled by the literature review.

**One university not identifying any competencies had an extensive professional development program supporting the 21st century competencies.

PerfApr = formal performance appraisal

Note: n=25 universities n=3 non-profit Non-profits notated in red

This analysis leads to some observations with regard to a systematic approach to building competencies. For this analysis, picture the system (competency model) as: 1) defining competencies, 2) using assessment tools to define current competency level, 3) developing and conducting training programs for those competencies, 4) assessing progress, and 5) refining the development program based on measured progress (not measured in this scan). Nine universities defined competencies; however, only seven trained for those competencies and only two indicated any type of assessment tool or model. Strikingly, of the sixteen universities that did not articulate any desired competencies, six had assessment models directly correlated with their training programs. In some cases, these universities may have defined competencies informally, or may have documented information about competencies somewhere other than public information sites. Two universities had extensive professional development programs for academic leadership (deans, chairs and department heads), and both of these universities had a complete competency model as described above.

The three non-profits all defined competencies for their volunteers. One entity reflected 21st century competencies. All organizations developed training programs, but had no formative assessment or evaluative tool in place. The one assessment note for non-profits in the chart for assessment represents certifications (post-assessment); it does not represent pre-training competency to define needs.

It is important to understand this scan is a very compact endeavor to gain a "feel" for the landscape of the application of systematic competency modeling in our public universities and non-profits. There are multiple limitations to the scan: 1) sample size, 2) availability of public information, and 3) depth of information provided. Although not a part of the subsequent research to come, it would be highly informative to extend this scan with a qualitative approach

to understand the current trending of universities with regard to competency modeling for the 21st century and a quantitative comparison of their correlated success rate.

2.5 SUMMARY OF THE REVIEW OF THE LITERATURE

A preponderance of the literature reported consistent disruptive game-changing dynamics for all entities (higher education, corporations, and non-profits) such as: significant reduction in funding, technical complexity, volume of data and information and resulting complexity for successful decision making, rising costs, importance of innovation, and heavy competition for a qualified workforce. The literature also supported key consistencies in competencies required for success in the 21st century across organization types. Finally, the literature included another highly prevalent theme: to be successful in overcoming contemporary challenges, a systematic, thoughtful approach to competency modeling will be required.

This systematic approach is important in achieving organizational sustainability and growth through a learning organization/environment. What is key to remember is that it is not only the defined competencies and cycle of improvement that are important. To create a competent, successful organization means change which consists of long-term effort. Perseverance, moral courage, and a willingness to learn and grow will be essential attributes in our leaders if their organizations and employees are to survive and thrive.

This literature review provides a foundation for the research to follow. Understanding the roots of organizational development, current game changers, and practices in place is important when evaluating a program based in organizational development principles but not yet measured. The consistencies found in the review, and thought-provoking approaches articulated, will

inform the case study and subsequent assessment of an organization that employs a competency modeling approach, has instituted training programs, and is ready to evaluate the results to learn about the effectiveness of retention efforts as well as next steps for the program. It is through this research that I hope to provide suggestions for continuous improvement designed by the systematic 360º approach of competency modeling. The next chapter will describe the methodology of the research and the theoretical framework for the study.

3.0 BUILDING COMPETENCIES AND RETENTION IN A VOLUNTEER WORKFORCE – INTRODUCTION AND CRITICALITY OF THE RESEARCH ENDEAVOR

The organization that is the subject of this study is a volunteer organization that directly supports the youth of our nation and higher education in developing our next generation of leaders and STEM competencies. Volunteer nonprofit organizations serve many vital purposes across the globe. These organizations provide health and human services, disaster relief, supplemental afterschool programs, education, emergency services, and more (Corporation for National & Community Service (CNCS), 2007). The CNCS estimates that in the United States one in four adults volunteer through an organization and in 2013 alone, 62.6 million Americans volunteered nearly 7.7 billion hours (CNCS, 2014). Recruitment and retention of volunteers is critical to the success of these organizations (Ellis, 2014).

Although it is recognized that there is little in the way of research around volunteer management practices and effectiveness (Hager & Brudney, 2004), there is a consistent thread in the research that has been conducted. The case studies in the current literature focus on effective management of volunteer organizations and point to turnover as a critical problem, and, specifically for this study, the importance of professional development of volunteers (CNCS, 2014).

The Corporation for National & Community Service (CNCS, 2007) recognized in their report, *Volunteering in America: 2007 State Trends and Rankings in Civic Life,* that "roughly one out of three volunteers did not continue to volunteer the following year" (p. 1) and also emphasized the importance of retention in that "this dramatic cycling of people in and out of volunteering reinforces the fact that volunteer management is critically important and that creating positive volunteer experience is key to growing a widespread culture of service" (p. 1). Volunteer retention rates are measured by CNCS by analyzing panel data from the Current Population Survey (CPS) taken from the volunteer supplement (CNCS, 2007). The turnover in volunteer service not only affects the organization's ability to execute its mission it also has a significant impact on cost to the organization. The Stanford Social Innovation Review (Eisner et al., 2009) estimates that that the cost of losing one-third of our national volunteer labor force (yearly) equals an estimated $38 billion in lost labor per year (p. 32).

The calculation of retention rates is difficult. Susan J. Ellis (2014) warns that there is no standard measurement of retention in volunteer organizations (p. 1). The complexity of this calculation, as well as the impact of professional development on retention, depends on many factors such as the size of the organization, purpose, ratio of paid staff to volunteers and, in some cases, the temporary nature of the work (CNCS, 2007). This complexity is well described in the research of Ellis (2014), Hager and Brudney (2004), and the Corporation for National and Community Service (2007).

Previous research (CNCS, 2007; Hager & Brudney, 2004) studied the application of management practices and retention to include (but not limited to) training and professional development of volunteers. Additionally, the literature reveals five management practices that are crucial to retention, one of which is providing volunteers with training and professional

development. It is estimated that only 25% of non-profits employ such training and development programs (Eisner et al., 2009). It is important to continue researching and studying the complex dynamics of volunteer organizations to determine effective management practices and their impact because of the vital role volunteers play in our society and the impact they have on critical services.

The purpose of this case study is two-fold. First and foremost, the purpose is to help the volunteer organization in this case study learn more about the retention of its members through onset professional development activities in an effort to continuously evaluate and improve training of their volunteers. Secondly, insight will be provided into the trends in execution and retention based on regional and state patterns as well as evaluating the results of an individual state-wide effort to increase retention through early onset training (first year member completion). In the case of this specific state, organizational leaders believed that they would see an increase in retention of new members if introductory and competency training were taken early, thus giving the volunteers a faster route to assuming an active role in the organization. The results of that effort will be evaluated through this study. Results and insights garnered will be analyzed for similarities and application to the retention of staff in institutions of higher education.

Introductory training is designed to provide each member with an opportunity to learn about the organization, structure, regulations, and opportunities to serve (job assignment), and how the home unit operates as well as the volunteer's part in its success. Competency training is classroom training and mentoring consisting of modules focused on core competencies and leadership. Once completed, members are assumed to have achieved a level of proficiency,

knowledge, and competency which enables them to work with a higher level of confidence and skills.

Specifically, the organization is now looking to evaluate and update their current model of professional development. This research is timely in that it may provide them with additional information and insight into current retention patterns and the impact of professional development and/or trends in retention rates. The study is also intended to add to the existing research on retention by investigating the potential impact of professional development on retention on an individual-by-individual basis to identify trends and observations. This approach of investigating factors impacting an individual's retention varies from the current research. Current research looks to correlate the adoption of professional development and training practices with the overall organizational retention rates. This research is also intended to add additional insight and breadth to the understanding and effectiveness of training and professional development on retention in volunteer organizations and its applicability to higher education.

3.1 THEORETICAL FRAMEWORK

The introduction to this dissertation and subsequent literature review identified the consistent need across organization types to identify and develop competencies for success in the 21st century. Also noted was the current and impending shortage of qualified individuals for open positions which will lead to a highly competitive market. How organizations across the spectrum (higher education, industry and non-profits) were defining, building, and training for these competencies was also studied. The literature and observations revealed a very diverse set of disciplines of study from which a theoretical framework can be built. Table 7 illustrates the

diversity of the disciplines and provides a summary of contributions to this framework. It is important to note that the study of Organizational Development includes disciplines of psychology, social psychology and sociology.

Table 6. A Diverse Theoretical Framework

Source	Focus for Framework	Discipline
Mert et al., (2014)	Competencies in organizations.	Business and Social Science
Ellis, (2014)	Research on volunteer organizations	Organizational Development - Volunteers
Robbins & Junge, (2013)	Teaching and research on organizational development and behavior	Organizational Development and Behavior
Eisner et al., (2009)	Research and reporting for urban development and the community	Urban Development, Community Service, Sociology, Psychology
McClelland, (1973)	Competency modeling	Organizational Development, Business
Deming Institute, (2011)	Total Quality Management	Organizational Development, Business
Vakola, (2007)	Internal capabilities of organizations aligned with strategic needs	Organizational Development and Behavior
Peter Senge (2006)	Innovative perspective on the competency of a learning organization	Organizational Development and Behavior, Leadership
CNCS, (2007, 2014)	Research and reporting to aid volunteer organizations	Organizational Development and Behavior
Hager & Brudney (2004)	Volunteer management practices and retention	Community Service, Organizational Development, Urban Development, Philanthropy
Rehnborg, (2009)	Strategic volunteer engagement	Community Service, Organizational Development, Philanthropy

Competency modeling, "The sum of knowledge and capabilities necessary to demonstrate high levels of performance in a job" (Mert et al., 2014, p. 398) is deeply rooted in organizational development and management. Pioneers in this field, such as Deming who introduced competency modeling (Robbins & Junge, 2013), and McClelland who modeled individual attributes for success (McClelland, 1973), were key in framing organizational development research for the 20th century and beyond. In the 21st century, researchers applied longitudinal studies of applied competency modeling (development and evaluation of training programs) to corporate restructuring (Vakola et al., 2007). Although much of the research and literature on competency modeling is framed around organizational development, it is important to note that organizational development has its roots in the behavioral science disciplines of psychology, social psychology, sociology, and anthropology (Robbins & Junge, 2012).

Defining competencies and training for those competencies are also imbedded in educational research. Countless hours of research have been undertaken by multiple institutions (such as the Council for Aid to Education, Institute of International Education and Inside Higher Ed Gallop Polls) to glean the changing dynamics of our institutions, keep a touch point on the pulse of current day needs and to look to the future in order to provide insight to prepare for it. Wagner (2008) also contributes to the educational theoretical framework by defining critical competencies and framing the achievement gap.

There are other researchers that blend the disciplines of business management, education, and leadership into the concept of a "learning organization". Peter Senge (2009) provides an innovative and game-changing perspective to competency development. Senge goes beyond defining and training for competency and performance, extending the concepts to succession planning and career path development. He also views this as an organizational design that

supports strategy and that is constantly being reviewed and redefined. His learning organization is not a once and done tactic, but an evolutionary process to achieve excellence (Senge, 2009).

Finally, volunteer organizations have unique differences from business and education. Volunteers can "opt out" at any given time without the consequences of lost salary. However, the loss to the organization is substantial. A great deal of time and funding goes into preparing a volunteer for service (CNCS, 2007; CNCS 2014). There is a wealth of information on volunteer recruitment disseminated by public service organizations, philanthropies, and community service organizations, as well as urban studies on the subject. However, there is very little research on competency modeling or effective management practices in volunteer organizations (Hager & Brudney, 2004).

One such organization that produces research on volunteer management practices is the Corporation for National and Community Service (CNCS) which provides insight about human capital in nonprofits. The CNCS provides information that supports Senge's learning organization model. For a volunteer organization to be successful, it must have a circular approach to strategic planning, recruiting, training, measuring outcomes, and evaluation. (CNCS, 2007). The research and case studies conducted by the CNCS are informative and serve as a strong resource for program development.

The RGK Center for Philanthropy and Community Service also provides guidance for volunteer organizations. Specifically, their guide for executive directors helps organizations understand the dynamics of volunteers, their training and contributions, and again, the cycle of organizational development needed to reach the strategic goals of the organization (Rehnborg, 2009). Finally, in the area of volunteer service, urban study research is conducted by the Urban Institute to critically examine volunteer practices and their impact on retention. Key to this

dissertation is the Urban Institute's findings on what organizations can do to maximize retention and the impact of training and professional development for volunteers (Hager & Brudney, 2004). Other findings on retention factors are important to observe as well. Hager & Brudney (2004) analyzed volunteer practices (as stated above) – what is key, is understanding that the discourse and theoretical framework for retention factors are very consistent around retention factors. Table 8 below provides an overview of the literature across organizations depicting similarities in retention factors.

Table 7. Comparison of Retention Factors Across Organizations Based in the Literature

	Recognized and Valued	Training, Professional Development	Challenged & Use of Skills and Talent	Organization Values Innovation	Communication and Clarity of Strategy
WEF Report, Findgold, Mohrman, & Korn/Ferry (2001) - Agnostic	X	X		X	X
Hager & Brudney (2004) Volunteer	X	X	X		X
CNCS (2007) Volunteer	X	X	X		
Deloitte (2014) Business		X	X	X	X
Davis (2003) Higher Education	X	X			

The table is a consolidated sample of the literature showing the consistent retention factors (top row) with reference to (left column) the literature and the type of organization the research/literature was addressing. The term "agnostic" is used if there was no direct mention of organization type. It is important to note that the majority of literature frames retention factors (and practices) in an agnostic manner speaking to "organizations" as a whole. The table above

(table 8) shows the similarity of retention factors across organization types. Training/professional development is consistently mentioned as a factor in volunteer research as well as being valued. In the case of higher education research, training and being valued is again emphasized and is described in Davis's (2003) article as, "commitment to staff by policy-makers and management alike" (p. 253).

Interestingly enough, literature from business publications such as the World Economic Forum Report, Findgold et al. (2001) and Deloitte's Annual Millennial Survey (2014) also identifies training and professional development as key factors in retention. For the purpose of this research and its application to other organizations, especially higher education, attention to training and professional development will be critical to success in retention. The similarities in the retention factors across organization types is also important to understanding the implications of this study's findings to higher education and other organization types.

The theoretical framework for this study is not constructed from a single practice or discipline. The background of organizational development, the entity being studied as an educational service and the nuances of volunteer leadership require an understanding across the social sciences. A broad understanding of the social sciences is essential to utilizing the tenets of organizational development to benefit retention. This paper combines elements of social science research with techniques and components of philanthropy, urban development, business/organizational development and community service.

3.2 SELECTION OF CASE STUDY METHODOLOGY

The training, retention and level of service of volunteers is difficult to measure through a single quantitative methodology. This study seeks to learn more than what causal impact training has on retention. Yin (2009) iterates the case study is a valid tool mixed methodology and evaluative research (p. 19). Referring to the application of evaluative research, Yin (2009) states, "The most important (application) is to explain the presumed causal links in real-life interventions that are too complex for the survey or experimental strategies." (p. 19). Describing the phenomenon of the relationship of training to retention and service is key to understanding this organization's pattern of member retention in this regard. Training programs (in this study) are the proposed intervention that may impact the outcome of retention.

This case study is evaluative and exploratory in nature, examining the historical data and relationship between training to defined competencies and retention. It does not seek to define the "what," but the "how," which is critical to the selection of the methodology (Yin, 2009, p. 8). How does training impact retention? How does the implementation of training influence retention? Is there any relationship at all?

Providing a description of how early onset training may impact the retention of individuals over a seven-year period and discovering possible patterns of impact is the premise of the research. This rationale is supported by Merriam (2009) in that "Evaluative case studies involve description, explanation, and judgment." (p. 49). This study will examine quantitative and qualitative data, and will "weigh the information to produce judgment" (p. 49). The case study's evaluation, description and "judgment" is designed to help the organization in its continual cycle of a learning organization - constantly evaluating, modifying, and enhancing training and retention programs for continued success.

3.2.1 Description of the Case Study

The following case study involves a nationwide volunteer organization (anonymity required) that provides in depth after-school and weekend educational opportunities for young people, aged 12-20, to help them develop the critical competencies in leadership, STEM, and community service. Founded and chartered by Congress over 74 years ago, the organization is tasked to help the nation develop the next generation of leaders, scientists, engineers, technologists, and mathematicians for a specific sector. Since its inception, they have offered specially designed and executed after-school programs to help youth gain hands-on leadership training and experience, as well as applied practical STEM skills through learning activities and competitions.

A large (33,500) force of adult volunteers is engaged in managing the program and supervising the young people in the program. It is important to note that their organizational structure consists of a small paid corporate staff that provides administrative and executive managerial support. The execution and governance of the organization consists solely of volunteers. This volunteer leadership includes a Governance Board (volunteer), regional directors (volunteer), state directors (volunteer) and multiple unit directors (volunteer) in each state. Every one of these units consists of adult volunteer leaders who provide the direct training to the youth in the program. Developing trained volunteers and retaining them is deemed by the organization to be one of the most critical factors for the future of the organization. It is a key strategic initiative.

Excelling at serving this group of young people and the nation depends on defining the volunteer competencies required for success, the development and execution of training programs, and providing volunteers with the opportunity to exercise those competencies through

service. In 2006, in an effort to elevate the competency levels of its members, the organization evaluated and reformulated its professional development program for adult volunteers.

The competencies defined were realigned to fit the growing need for, but not limited to, leadership development, communication skills, organizational awareness, core values, decision making, and planning. Then, new training/professional development programs for volunteers were developed around those competencies: the training was offered in both a face-to-face format and on-line.

One individual state (the results for which will be evaluated in this research) took this opportunity to also institute a new plan of implementation of the revised training programming. The new state plan was developed to accomplish the strategic goal of increasing first year retention rates as well as building competencies to attain staff positions (within the first six months) through early onset training. The difference between the new initiative on the part of the state, versus that of the national organization, was in the state's specifically designed required areas of emphasis for execution of the training programs. The most substantial differences of emphasis were:

1. Selection of mentors/introductory course instructors in each local unit who possessed the attributes of deep knowledge of the organization, ability to engage new members and convey the information a new member needs to be actively involved (socialization) as well as having the ability to determine how to match the needs of the new member to the needs of the organization – determining factor for their first assignment.
2. Careful selection of individuals responsible for and conducting competency training to maintain high quality, professional and content consistent instruction. Through the state's

professional development department, a cadre of experienced, highly qualified instructors was developed and maintained throughout the years analyzed in this study.

3. Train-the-Trainer programs were developed and implemented providing mentoring for introductory and competency course trainers and unit leaders.
4. Availability and timing of training – Competency training (weekend long course) was offered by the state six times throughout every year in six different areas of the state. This emphasis/requirement provided easy access to the training and five additional opportunities for competency training. National regulations only require one competency training session per year, which is usually held at a centrally (within the state) located facility.
5. Availability of and timing of training – Introductory training (online courses followed by in-house instruction) was required by the state to be executed within the first month of membership. To increase the availability of trainers for timely member training, the state professional development department (see point number one) was responsible for helping the units develop (or provide) multiple trainers within the units as well as follow up on (measure) the success (completion of introductory training) of early onset introductory training and the appointment of the new members first assignment.

The impetus for this rigorous program was a belief on the part of the state leaders that this effort would accomplish the following:

1. Provide more opportunities for training (than required by National) that would build competencies.
2. Training would lead to job assignments after introductory training was complete and proficiency acquired (measured by job assignment and level of proficiency).

3. Completion of initial training (introductory) would be completed within the first two months of initial membership and basic competency training could be attainable within the first year. The factor here was a change in introductory training to an online medium and an increased availability of required competency courses as well as an on-line offering. Also, local unit leaders were directed by state leadership to make this introductory training a priority to ensure the new member was engaged quickly, connected to the organization, and motivated to begin serving. Prior to these changes, it could take up to six months to complete introductory training and three years for members in this state to complete the competency training (if at all).
4. Increased retention of first- and second-year members. Measured by an increase in members renewing after year one and year two.

When the new programs were launched in 2008, it was anticipated that this new level of training (as well as the test state's newly developed plan of execution) would increase the proclivity of new volunteers to renew their membership. This proposition has not been evaluated, and despite significant effort placed on professional development, the organization continues to suffer from turnover. The organization estimates that for every volunteer recruited one leaves. Turnover for the organization, as in any institution, creates instability and impacts its ability to carry out its mission.

What is unclear is whether these training programs (if taken) and their timing have a positive impact on retention. It is important to note that a volunteer's introductory training is mandatory for any type of engagement, but competency training is not required for service in the organization. It is through such training that the volunteers gain critical knowledge to perform

their duties as well as an enhanced connection with the group. It is through this research that I hope to assist the organization by revealing the effectiveness of their defined programs in retention of volunteers. I will focus on delving into how the completion of introductory and competency training within the first year impacts the retention of individual volunteers at the end of year one. Do they renew at a greater rate than those who do not? Furthermore, does the factor of a concerted effort to measure the impact of the program lead to a higher rate of renewal of membership after the first year? The key factors identified here include the timing of training and a new method of offering that training (availability, consistency, strategic emphasis, and leadership support), all of which have been identified as critical factors in volunteer retention in the current literature (CNCS, 2007; CNCS, 2014; Ellis, 2015).

3.2.2 Description of Case Study Design

The research for this case study was conducted from July 1, 2015 through October 31, 2015. The quantitative membership data already existed and was the proprietary property of the volunteer organization. The data are unidentifiable at the individual level and identifiable at the organizational level (state and local unit). The research was done remotely and the findings were provided in a formal, confidential report to the organization. All evaluative analysis was done at the national, regional and state levels to provide a comprehensive picture of results and patterns. This tri-organizational approach is important in that the programs are executed at the state level with leadership oversight at the regional and national level.

The research has been done to aid in forming policy and practice within the organization. The current premise is that early onset training may be a significant factor in retention, a two-fold proposition. First, a member who completes introductory training and or competency

training within the first year of their membership is more likely to renew their membership after the first year than those who do not. The analysis looked at the likelihood of renewal individually after introductory and then competency training. Introductory training is required to progress to competency training. The likelihood of renewal if the member completed both levels of training from a national perspective will also be studied. Secondly, the analysis will describe the results on both the regional and state levels to determine if any significant differences are prevalent from which meaningful observations can be drawn.

The analysis is statistical and analytical. Does early onset training increase retention? Can the results be challenged? Many factors other than the timing of training or the availability of professional development activities, may contribute to members leaving the organization. The scope of factors that impact retention are broad – for this reason, an alternate explanation to the professional development opportunities and timing is proposed and examined in this research. Namely, I analyzed the impact of placing a strategic priority on first year training and instituting an intensive, supported program to achieve it. Questioning, searching for, and examining alternate explanations are important to the validity of inferences and correlations made in the analysis of the study (Yin, 2009, p. 39).

Determining how the completion of training impacts retention of membership nationally required the analysis of data that is collected and maintained by the organization and consists of: membership start/end dates (membership is paid for and renewed yearly), introductory and competency training completion dates (this field is marked "null" if not completed) and unit location identifiers (national, region, and state). The results were compared to national averages as reported by the CNCS as well as analyzed by year, state, and region to map out and provide a rich description of the trending or patterns that may be relevant.

An alternate explanation was investigated by the analysis of training and retention data from a single state to determine if HOW the training program is designed and executed may influence retention rates in comparison to both the organization as a whole and the national average for volunteer service. This methodology was chosen to provide a rich context for the possible correlation between the effectiveness of training programs and the timing, availability and institutional emphasis. The analysis of an alternate explanation may support the propositions, giving greater depth to understanding why members may renew. Or, it may support the alternate explanation, that there are other more significant factors that impact the relationship between training and retention.

3.2.3 Case Design – Protocol

A single-case design was selected for this case study. This design was chosen as it is testing formed theory (Hager & Brudney, 2004; CNCS, 2007): that the adoption of training and professional development for volunteers has a positive impact on retention (Yin, 2009, p. 47). A second rationale for selecting a single-case design is to determine "whether the theory's proposition is correct or whether some alternative set of explanations might be more relevant" (p. 47). Finally, Yin (2009) recognizes this design for its propensity to "build knowledge and theory" (p. 47). This study evaluates the proposition that the adoption of training by the volunteer leads to higher rates of retention.

The case study is also embedded, in that it focuses on one organization and involves more than one unit (training programs) of analysis (Yin, 2009, p. 50). The organization is large, as defined by Hager and Brudney (2004), with greater than $5 million in annual spending and consisting of more than 34,000 adult volunteers. The training programs are well established

within the organization and were designed to provide entry-level training (organization introduction and standard operating procedures; basic level operational, leadership and proficiency training, and three additional advanced units of training).

3.2.4 Boundaries of the Case Study

This organization has been in existence for over seven decades and engaged hundreds of thousands of individual youth and adult volunteers. Accurate, compilable, statistical records on volunteers have been available since the inception of electronic (data base) within the last ten years. To limit the boundaries of the study, only those volunteers who joined between the years 2008-2013 were included in the study. There are two rationales for this selection, reliability and internal validity. If the data was compiled by another researcher at another time the data would be the same (reliability) (Yin, 2009, p. 45) and the selection of the start/end date (internal validity). The start date of 2008 is significant. Prior to this time, the two units of training were significantly different. New courses were developed around organizationally defined competencies and needs and were fully implemented at this time (2008). Limiting the study to this timeframe helped to eliminate a possible alternate explanation that it was the type of training (design and content) that had an impact on retention, not the training itself (Yin, 2009, p. 43). This also helped with external validity by narrowing the scope to frame a more accurate generalization of a bounded set of results of current day recruits and training to a broader theory (Yin, 2009, p. 43).

The case study is also bounded by defining two units for the study – introductory training and competency training. There are other levels of advanced training in the organization however these will not be evaluated as factors in retention in this study. The rationale for this is that a

deliverable of this study is to inform the organization of the potential impact initial and competency training has on retention. Advanced training is done by individual volunteers who have been in the organization for many years; therefore, it was not a part of this research. Although it is important for the organization to continue to retain long-term volunteers, the retention of new volunteers are the focus of this study and the organization.

3.2.5 Research Planning

Managing time and resources, as well as developing a plan of action for research, is essential for conducting case study research (Stake, 1995; Yin, 2009). The table below depicts the research project plan details. This plan makes use of Stake's (1995) advice for determining what is essential to a data-gathering plan.

Table 8. Research Action Plan

Case Study Research Plan				
Project Item	Resource Needed	Time Frame	Completed	Comments
Define case		1 Jan 15 thru 1 Mar 15	1 Mar 15	Refine as needed
Theoretical Framework	Review of the literature	1 Oct 14 thru 15 Mar 15	15 Mar 15	Refine as needed
Design case	Yin, Stake, Merriam texts and additional references as needed	1Jan 15 thru 1 Jun 15	1 May 15	Completion successes measured by dissertation overview
IRB approval	IRB	1 Jun 15	June 2015	Completed
Approval of organization to do study	CEO	1Jan 15	1 Jan 15	Case study and permission to receive and use member data received. Data received
Data provided by organization and approved for use by IRB	CEO and CHRO	1 May 15	June 2015	Complete
Download member data to STATA	Renew License (done)	13 June 2015	28 Jul 2015	Complete
Statistical analysis of national member data	Stata software, data	1 Jul 15 – 30 Sept 2015	30 Sep 2015	Complete
Segment state data in STATA		30 Sep 15	30 Sep 2015	Complete
Statistical analysis of state data		1 Oct 15 thru 30 Oct 15	10 Oct 2015	Complete
Write report of analysis and findings		Oct 2015	31 Oct 2015	Complete
*Administrative	Editor/Reviewers	1 June 15	1 Jun 15	3 secured

3.3 DATA COLLECTION

3.3.1 Overview of Data Needed and Definition of Terms

The questions asked in this case study are intended to evaluate and inform how the professional development program may be impacting retention and if the desired outcome of increasing the renewal rates of members after their first year are being met. The data needed to complete this

study will be collected from the organization's membership database. The following table may be helpful to assist the reader of this study in understanding terms used to identify data:

Table 9. Definition of Terms

Definition of Terms Used in the Case Study	
Term	Explanation
Retention in 1st year	Volunteer renews their membership after the first year. (Length of service is based on number of years renewed – membership dues are paid annually by volunteer).
Initial Training	Consists of youth protection training, organizational acclimatization (history, services provided, training opportunities, regulations, code of conduct and core values) and provides a path for actively engaging in service. This training is intended to orientate the new volunteer in understanding the organization and to develop a basic understanding of standards of operation.
Competency Training	Competency training was developed to provide the volunteer with the capabilities required to work in their local units. The training consists of both functional capabilities (leadership curriculum, public trust, communication skills, staff responsibilities, job class skill development) and leadership capabilities.

3.3.1 Data Sources, Collection Methodology and Data Points Collected

The membership database is an archival record. Yin (2009) defines this type of record as an "organizational record, such as a budget or personnel record" (p. 105). The archival database matches Yin's (2009) description as "precise and quantitative" (p. 102). Yin (2009) also warns of weaknesses that may be prevalent in these types of documents such as: "difficult to find, biased selectivity (incomplete), reporting bias, difficulty accessing, and accessibility due to privacy reasons" (p. 102). In this case, it is imperative to review and overcome these potential

weaknesses by determining the potential that they existed in the records. The archival record was examined for potential weaknesses that might impact the study.

The initial examination determined if the record was accessible and complete. The database is the property of the national organization and is maintained by a paid professional staff. A formal request for the complete membership database of all members who joined in the time period selected was requested and the data was made available and provided to the researcher. The database was found to be complete in all retention and professional development data points required. It is also important to note that, after review of the data, only 25,569 of 96,813 member records were valid for this case study. The records that were deemed invalid by the researcher were eliminated. The eliminated member records were those of the youth members and supporting adults not assigned to units, all of whom were not a part of this case study. The youth members are the students of the services provided by adult volunteers.

Reporting bias was also considered. After review, it was determined that the database did not reflect bias. It contains only accurate records of: join date, date the volunteer left the organization (or is still active), and the date each milestone was completed (initial training and competency training). This data are systematically entered into the database when the member joins, leaves, and when training module are completed.

Table 11 below outlines what data are being collected, how the data are collected and how it aligns with the research questions:

Table 10. Data collection

Data Collected for Case Study		
Research Question	Data Needed	Method/Source of Collection
How does the completion of introductory training (IT) within the first 3 months of membership impact retention (do they renew for a 2nd year of service)?	-Membership start date -Membership end date or null -IT completion date or null	-membership database -membership database -membership database
How does the completion of competency training (CT) within the first year of membership impact retention (do they renew for a 2nd year of service)?	-Membership start date -Membership end date or null -CT completion date or null	-membership database -membership database -membership database
How might a statewide prescribed, emphasized and supported professional development program increase the level of participation in first year member training? Sub-question, how may this impact retention?	-Membership start date -Membership end date or null -IT completion date or null -CT completion date or null	-membership database -membership database -membership database -membership database

3.4 DATA ANALYSIS AND INTERPRETATION

Interpreting data from this case study and providing an evaluation with recommendations for policy could not be done exclusively through quantitative methods and inferences as multiple factors may be involved. The research (Hager & Brudney, 2004; CNCS, 2007; Eisner et al., 2009) on best practice and retention in volunteer organizations finds that there are multiple reasons why 1-in-3 volunteers leave an organization every year. The organization believed in 2008, when they defined competencies required of volunteers and developed new training programs, that they would experience an increase in retention and performance. An evaluation with the aid of STATA software was done to compare retention rates of new volunteers with respect to the extent and timing of their training. Information as to the retention rates of new

volunteers who completed the training in their first year versus those who did not may provide insight into the complex phenomenon of volunteer retention. These calculations were very informative, however as Yin (2009) cautions, "Using various computer aids to manipulate your data will not substitute for the absence of a general analytic strategy." (p. 126). For this reason, the analysis sought to find more than average retention rates, causal relationships, and statistical analysis of training trends. The intent was to build the "story" in a framework suggested by Yin (2009) by building on the questions (small questions first), then analyzing the data, before drawing tentative conclusions and moving on to larger questions (p. 128).

3.4.1 Analytic Strategy – Using Both Qualitative and Quantitative Data While Examining Alternate Explanations

Yin (2009) assessed this strategy of using both qualitative and quantitative data to be useful when there is substantial quantitative data subjected to statistical analysis in combination with qualitative data that is central to the case study (p. 132). In this case study, the quantitative data are substantial and can be used to describe the statistical "outcomes" of an evaluative case study (Yin, 2009). This data can also be used to describe qualitative aspects of the training program and retention by analyzing potential patterns and nuances that may not be apparent from statistical analysis alone. The qualitative data analysis in the case study was important to show patterns, provide greater insight and "explain or test the case studies key propositions" (Yin, 2009, p. 133).

The strategy of examining an alternate explanation was also employed in this case study. The initial hypothesis was that implementing new training programs, based on desired competencies, would increase the retention rate of new members. Even if this is true statistically,

it may not be the only or primary factor. The evaluation and exploratory case study could have found that training is not (statistically) "the" factor in retention. What then? The alternate explanation explored was that there may be other reasons that impact the retention of new volunteers with regard to training.

Another possible explanation may exist in which what is observed is a result of chance, was an important possibility to consider. The statistical analysis could have shown a correlation between training and retention. However, additional analysis of state data may have indicated a different (or multiple different) reason that impacts a volunteer's decision to even take the training and or the impact of that training. This might mean that the completion of training may not be a factor at all. Therefore, it may be the quality, and/or the availability, of the program was also important to explore. "An intervention other than the actual training itself (target intervention) accounts for the results" (p. 135). An example of this may be that the volunteer had a greater propensity to stay when training was done in a state that emphasized programs' availability, quality, support and execution. This was explored by analyzing the information in the database more extensively than just looking at averages and trends.

3.4.2 Interpretation of the Data

The data was interpreted utilizing a combination of descriptive statistics, *t* tests, and comparative analysis. The deliverable was to evaluate the retention rate and the impact of the timing of training, if any. I sought to provide an investigation, analysis, and interpretation for the organization segmented nationally and by state. I also wanted to analyze retention rates for the single state (in comparison) that defined and executed a systematic strategic approach to its

program. The comparisons were evaluated against overall national volunteer retention rates as defined by the CNCS currently as a national average of 67% (CNCS, 2014, p. 2).

Although a test was done (*t* test*)* to see if there was a significant correlation of the timing of training on retention, to assume that there is a single cause (timing) and effect (retention) relationship would not be advisable and the assumption may be very misleading. Many things come into play when volunteers decide to join or leave an organization (Ellis, 2015) and patterns other than training are important to consider (CNCS, 2014).

Identifying potential state patterns of the participation in training and timing of training (as opposed to only looking at the organization as one national unit) was one such consideration. Studying the patterns and trends of a state which defined and executed a strategic program to improve, make available, and encourage members to complete their competency training provided insight into additional factors that influence timing and retention. This might have been key to identifying an alternate or compounding explanation.

Thus, it was important to explore alternate explanations. As critical as it was to explore and evaluate the organization in its entirety, each state executes their programs through a network of their own leadership and professional development teams. A national team does not execute the program. This could have led to differences in quality, adherence to national standards, and even possibly a lack of sufficient offerings of courses in the program. It could have been determined that the overall retention rate was skewed by a few states that are operating poorly or those excelling. What could be learned from this? An analysis of this type would be helpful in understanding what is working well and what isn't (and where). In essence, where should the focus for improvement be placed - nationally or at the state level? The

execution of training programs and retention factors differ from state-to-state and a more laser-like focus (as opposed to national changes) on improvement seems to be in order.

Table 12 below extends the description of data collection and sources to describe methods of analysis and interpretation.

Table 11. Data analysis and interpretation

Data Collected, Analyzed and Interpreted for Case Study				
Research Question	Data Needed	Method/Source of Collection	Analysis	Interpret
How does the completion of introductory training (IT) within the first 3 months of membership impact retention (do they renew for a 2nd year of service)	-Membership start date -Membership end date or null -IT completion date or null	-membership database -membership database -membership database	-Descriptive Statistics. -*t* test -Comparative analysis	Summarizing characteristics of the case using tabular and graphical representation as well as narratives (Agresti, & Finlay, 2009) Provide visible comparison of: -Retention rates of members used in this study (new members from 2008-2013 compared to national average re. CNCS). Also impact of training within first 3 months on retention vs. those who do not stay active with the group
How does the completion of competency training (CT) within the first year of membership impact retention (do they renew for a 2nd year of service) *Note CT cannot be started until IT is complete	-Membership start date -Membership end date or null -CT completion date or null	-membership database -membership database -membership database	-Descriptive Statistics. -*t* test -Comparative analysis	Summarize characteristics of the case using tabular and graphical representation as well as narratives (Agresti, & Finlay, 2009) Provide visible comparison of: -Retention rates of the org members used in this study (new members 2008-2013) – compared to: a) national average (CNCS). b) impact of training within first year of membership on retention vs those who do not.
Separate data for alternate explanation state - compare/contrast to national org, other state orgs and CNCS average	-Membership start date -Membership end date or null -IT/CT completion date or null	-membership database -membership database -membership database	-Descriptive Statistics. -*t* test -Comparative analysis	Same interpretation as above however additional interpretation and analysis needs to be done in comparison to org as a whole, compared to org state orgs and the CNCS national average.

3.5 LIMITATIONS/GENERALIZABILITY AND REPORTING

There are numerous issues inherent in qualitative research that may create limitations in a case study. Stake (1995) frames a number of these inherent issues for the researcher to be aware of: time required for the study, expense, privacy, intrusiveness, entrapment and subjectivity in analyzing data (p. 43). Miles (1979) also warned of the complexity of analyzing the significant amount of data generated in a qualitative study while looking for a "correct" answer that may influence policy. This particular case study has the limitations of privacy/anonymity, data collection, and the possibility of subjectivity and or the perception of subjectivity. Understanding, accounting for, and providing mitigation for these limitations was essential in making this research applicable and useful.

3.5.1 Subjectivity of the Researcher

It is important to note that I am deeply connected to the volunteer community, serving on various boards and committees as well as working with the organization that is the subject of this research. This case study evolved out of a discussion with fellow team leaders during a strategic planning session in 2014. Recruiting and retention of volunteers became the primary focus of the strategic plan in our unit and much debate ensued as to whether or not plans and programs put in place in 2008 were working. It was apparent that no evaluation or exploration was ever done. The team decided that it needed to determine what was working, and what was not, before taking action on changing or developing new programs at the state level. The opportunity to evaluate and explore the professional development program at both the state and national level was very

appealing to me as a current executive leader in the organization and a former state director of professional development.

Yin (2009) addresses the potential for subjectivity bias in designing and conducting research and stresses that "in case study research, the (bias) may occur more frequently and demand greater attention" (p. 20). My tenure in the organization is both a blessing and a curse in conducting this research. Preconceived notions, beliefs and expectations should not impact the design, methodology, analysis, or interpretations of the study. Precautions to keep this possibility in check have been taken. The design and methodology was reviewed and approved by my dissertation committee as well as the CEO of the volunteer organization. Analysis, interpretation and reporting of the study will be reviewed by both my dissertation committee and external resources (volunteer leaders in other organizations, peers, corporate, and academic colleagues) in an effort to identify and eliminate any potential bias or misrepresentation.

An additional measure of ensuring reliability is also being followed. Yin (2009) describes reliability as the "final test" for credibility and quality of a case study (p. 45). The goal is to document the entire process so that it could be repeated by another researcher. This documentation includes the recommended approaches of "step-by-step documentation, development of a case study database, and conducting the research in a way that an auditor could, in principle, repeat the procedures and arrive at the same results" (Yin, 2009, p. 45). This approach to reducing the possible insertion of bias (documented in chapter 4) into the study may also help in generalizability. By providing a possible template or starting point for other organizations to use in examining their own retention questions.

3.5.2 Bias in Data Collection

The membership database was used to observe patterns and explore the possible relationship of training/professional development and retention. Alternate explanations were investigated by the analysis of the data as well. The results could support the propositions, give greater depth of understanding of why members leave and/or support an alternate explanation that differences in the leadership and execution of training programs may also impact both the number of members that take the training and decide to remain in the organization.

There are concerns about multiple points of potential bias with regard to the collection of data. The first is sampling error. "The sampling error of a statistic equals the error that occurs when we use a statistic based on a sample to predict the value of a population parameter" (Agresti & Finlay, 2009, p. 18). The population of the study comprises all members who joined between January 1, 2008 and December 31, 2013. Every data point was analyzed; however, it does NOT include all of the members currently in the organization. This can be considered a population as set by the boundaries of this study or it may also be considered a sample of the entire organization's population. No analysis in this study is intended to make inferences on the organization as a whole (i.e. members who joined before 2008 or after 2013). This limitation is clearly delineated in both the dissertation and the report to the organization. The results are intended to provide a rich context to the study, but cannot and will not be used to draw concrete conclusions on causation of any programs or policies instituted prior to 2008.

The importance of notating bias relates not only to framing the results, but also to addressing a particular audience, which may be looking for interpretation of causation or empirical evidence of the results. Yin (2009) describes a traditional prejudice of case studies when they do not produce a causal relationship: "whether a particular treatment has been

efficacious in producing a particular effect" (p. 16). Yin (2009) goes on to express what is often overlooked: "that experiments, though establishing the efficacy of a treatment (or intervention) are limited in their ability to explain "how" or "why" the treatment necessarily worked, whereas case studies could investigate such issues" (p. 16). To this end, this case study does not look to provide causal inference but to explore and evaluate how a specific professional development program may be encouraging retention and to help the organization understand patterns that may be emerging that are in line (or not) with their intended desired results. Mirriam (2009) puts this into context by explaining, "Many research methods can be used to explore, describe, and explain" (p. 7). It is the depiction and description of a phenomenon that is playing out in this research as opposed to an experimental study.

3.5.3 Required Anonymity

I volunteered to undertake this study with the caveat that the subject organization would approve the study for the purpose of my dissertation. This meant that the audience for this thesis and report would extend beyond the organization itself. Permission was granted with the limitation that the organization would not be identified in any publication. Yin (2009) states the importance of disclosure in helping the reader (audience) to review the case and "recollect any other previous information he or she may have learned about the same case" (p. 181). Yin (2009) also identified compromises that are made as a result of anonymity including "the elimination of some important background information and difficulties in the mechanics of the case study" (p. 182).

The compromises have been identified early on in the case study. Care was taken to reduce the possible negative impact of anonymity. The organization's name, unique identifiable

language, and program titles have been replaced with consistent terminology that is widely used in non-profit research and reporting, particularly the reporting of the CNCS. Although tedious and time consuming, the adherence to consistent terminology was required throughout this case study to protect the organization while at the same time minimizing the potential of confusing the reader with varying terminology.

What is truly missing from this case study is the deep rich history and description of the organization. This limitation may, however, add value with respect to generalization. This is a very unique organization in its structure and affiliations. In an assumption on my part, I can see how the uniqueness could keep a reader of the study from identifying with the phenomenon and taking away information that might be useful to them in their own organization. To overcome the lack of authentic history and background, the organization is described in terms common to studies and reporting done by the CNCS in its reports on volunteer service. Mirriam (2009) refers to this approach when she describes the use of prior reports as a template (p. 240). Using a common approach is also intended to appeal across organizational types (volunteer, higher education, corporate/industry) for wider generalization.

3.5.4 Reporting

Various experts in case study research suggest that it would be prudent for the author of a case study report to start thinking about the audience and the report at the beginning of the study, not after (Merriam, 2009; Stake, 1995; Yin, 2009). In this study, the audience was identified at the outset. The report was designed to fulfill the expectations of two distinct groups, my dissertation committee and the organization being studied. Although the research may be of interest to other non-profits, academic organizational development departments or even colleagues, it is the

purpose of the research that is paramount in designing the report. The purpose is twofold – to complete a dissertation, which has specific requirements, and to evaluate the professional development program as it relates to retention and inform the organization of the findings. Yin (2009) suggests that the "successful communication with more than one audience may mean the need for more than one version of a case study report" (p. 169). Keeping this in mind, two versions of the case study report have been completed.

Reporting for dissertation purposes was designed to demonstrate understanding of the theoretical background, sound methodology of design, data gathering, analysis and interpretation as well as "demonstrating the care with which the research was conducted" (Yin, 2009, p. 169). The structure for this thesis will follow what Yin (2009) describes as a "Linear-Analytic Structure", "the most advantageous when a dissertation committee comprises the main audience for a case study" (p. 176). The report is in the following format:

Table 12. Report matrix for dissertation

Report Structure for Dissertation	
Section	Purpose
The problem being studied	Describe the overarching problem and issues in retention of volunteers.
Review of the literature	Theoretical background and relevant literature on the problem and phenomenon.
Scope of the study –research questions	What does the evaluation consist of and why?
Methodology – 3 sections	Explanation and support of the case study methodology, data collection, analysis, and interpretation methodology.
Report of finding - Results	Findings and summary of findings for each research question.
Limitations	Reporting of limitations of the study and any measures taken to minimize the impact of these limitations.
Conclusion	Consolidated summary of the case study.
Potential future research	Description of, and suggestions to further exploration of the impact of the professional development program and/or explore other retention factors that may have emerged from the case study.
Concluding thoughts	Author's thoughts on the case study and personal and professional relevance of the findings and observations.

It is my hope and intent that this research will be also be useful to the volunteer community, including those currently doing research to help nonprofits as well as higher education institutions, corporations, and others who are looking to improve retention through deliberate organizational development endeavors. The format outlined in the dissertation reporting above is designed to meet the potential needs of this secondary audience.

The report structure for the dissertation will not satisfy the needs of the intended audience of the case study. Although the volunteer organization will have full access to (and final approval to publish) the dissertation, and some members may be interested in the methodology and theoretical background, it will be submitted as a report of findings and recommendations with

detailed identifiable information, which is of a confidential, proprietary nature. The most significant difference between the two reports will be the addition of specific recommendations for further inquiry into changes, and improvements (if any) in the professional development programs, processes or regulations. Although I cannot share this required proprietary document in this dissertation, the table below depicts the information for reporting. Many of the sections are similar to that of the dissertation, so duplication of reporting work will not be extensive.

Table 13. Report matrix for CEO volunteer organization

Report Structure	
Section	Purpose
The problem being studied.	Describe the overarching problem and issues in retention of volunteers.
Report of finding - Results	Findings and summary of findings of overall retention factors as compared to national average (CNCS, 2014)
Results	Results matrix with all entities identified
Limitations	Reporting of limitations of the study and any measures taken to minimize the impact of these limitations with specific connections to identifiable organizational attributes.
Conclusion	Consolidated summary of the case study.
Potential future research	Description of and suggestions to further explore the impact of professional development program and or explore other retention factors that may have emerged from the case study.
Recommendations for specific professional development programs and retention factors going forward.	Assist with decision-making.

4.0 RESULTS

The purpose of this study was to determine if the completion of early onset training was a factor in first-year retention rates of new volunteers. Although there are many factors to an individual's choice to continue their service with an organization, early onset introductory training and competency training (in relation to their timing) were the only factors analyzed in this study. The presentation of results of the analysis is twofold. Descriptive statistics are presented to show the differences, if any, between those who experienced early onset training and those who did not. Two-sample *t* tests were also used (results presented) to determine if early onset training leads to higher first-year retention rates.

4.1 SUMMARY OF INQUIRY

The question of whether early onset training is a factor in first-year retention is analyzed from three different perspectives.

1. Are members who complete their introductory training (required before they can actively engage in service) within their first three months more likely to return after the first year?
2. Are members who complete competency training (these individuals must complete introductory training prior to compentency training) within their first year more likely to return after the first year?

3. What is the likelihood that a statewide prescribed, emphasized, and supported training progam would increase the proportion of individuals engaging in early onset training? Does it result in increasing first-year retention?

4.2 PRESENTATION OF THE DATA

Data are presented in a manner that describes the study from an overall perspective to increasing levels of detail. To better understand the overall retention rates of the entire population of individuals who joined between January 1, 2008 and December 31, 2013, data are presented to show the overall retention as well as the overall renewal rate after the first year and the pattern of when members leave the organization. What follows is a breakdown of the analysis by the factors of introductory training, competency training and finally an analysis of a state which implemented a concerted effort of programing to encourage and train new members in their first year of service. The presentation of data is concluded by a broad level analysis of first-year retention rates by state. This analysis will inform future research by identifying states with high first year retention rates.

4.3 DATA PREPARATION

The database used for this study was prepared by the director of information technology of the national organization and provided in Excel format. All of the information that was requested was received (with additional data that was not requested) and consisted of one row per each

individual who joined the organization between January 1, 2008 and December 31, 2013 which consisting of the following:

1. Start date
2. Final date ("null" if still listed as a member)
3. Status
4. Regional organization identifier
5. State organization identifier
6. Local area unit identifier
7. Date introductory training was completed (null if not taken)
8. Date competency training was completed (null if not taken)
9. Date of 3 additional advanced courses (null if not taken)
10. Dates of advanced training (columns deleted as they were not a part of the study)

The initial data consisted of 96,813 rows, each including one unique individual's record. The following data were removed as it was not required as a part of this study (the population being studied only includes those who serve in operational units and participate in professional development training):

1. Youth members (consisting of 65,633 lines of data) removed as only adult member records are pertinent to the study
2. Members identified as legislative support were removed, consisting of 1,091 individuals. These members were removed as the analysis consists of individuals in operational units not special membership units. 1,091 rows of were removed.
3. Members identified as "special local unit" were removed, as they are not active participating volunteers. These individuals support the organization in official external

capacities and are not active in service to operational units – they do not participate in professional development training. 4,520 rows of data (4,520 individuals) were removed. The remaining data represented a population of 25,569 volunteers, all seeking to serve local units and for whom the training programs would be pertinent.

In order to study the phenomenon of retention in relation to training, additional data needed to be defined. The following additional columns and/or information were added to the database for each individual row of data:

1. Time elapsed between joining and introductory training (introductory training date minus start date).
2. Time elapsed between joining and competency training (competency training date minus start date).
3. Length of service (Date left the organization minus join date), if the individual is still currently a member the member was marked as "current". Important to note is that if the individual is still in the organization, the end date year was noted as "1900" in the "final date" column provided by the national organization. This number was replaced by me to read 7/27/2015 which was the date the final data was given to me by the organization. This was done to accurately calculate years of service for all individuals.
4. A coding system was created to convert the format of non-numerical data to a format usable for statistical analysis in Stata. Table 15 below describes this coding.

Table 14. Codebook

Variable Description	Variable Name	Variable Label	Value Label	Code
Current member as of 7/27/2015	Retention	leftorg	no	1
			yes	2
Introductory Training in 1st 3 Months	Intro Training	intro	never	0
			yes	1
			after 3 months	2
Competency Training in 1st year	Comp Training	comp	never	0
			yes	1
			after 1 year	2
Renewed After 1st year	1st Yr Renew	renew	yes	1
			no	2

All prepared data was transferred into Stata, a statistical data analysis software package created by StataCorp LP and provided by the University of Pittsburgh.

4.4 PRESENTATION OF ANALYSIS – OVERALL RETENTION

To gain an overall understanding of the state of retention for this population, prior to analyzing the impact of training on first year renewal, a brief summary is provided below.

Table 16 describes the overall retention rates for all individuals in the population being studied. Of the 25,569 members, only 7,248 (or 28.35%) remain in the organization at the time of this study. The table goes on to identify members who are designated as inactive (1,108) or who never had introductory training (1,286) at the time of the study. Eliminating these from the total recruited leaves 4,854 members (of the original 25,569), or 18.98%, remaining who are currently actively serving in units across the nation.

Table 15. Overall Retention of Active Volunteers

Designation	Total per Designation	% Retained % Lost or Inactive	Description
Total Volunteers Recruited	25,569		Number of volunteers recruited between Jan 1, 2008 and Dec 31, 2013
Recruits Lost	(18,321)	71.65%	Number of volunteers recruited during 2008-2013 who left the organization.
Total Retained	7,248	28.35%	Total number of volunteers retained who joined in 2008-2013 as of 7/27/2015 **Overall retention of volunteers 28.35%**
Inactive - Designated by Unit	(1,108)	4.33%	Number of retained volunteers assigned to the inactive unit – not authorized to serve
Inactive – No Introductory Training	(1,286)	5.03%	Number of retained volunteers who joined and never took introductory training – not eligible to serve.
Total Eligible to Serve as of 7/25/2015	4,854	18.98%	Number of retained volunteers who joined in 2008-2013 who are currently (as of 7/27/2015) eligible to serve. This is an overall **18.98% retention of active volunteers.**

A deeper analysis of the data shows that of the 18,321 volunteers who left the organization, 10,740 did not renew after their first year. Additional descriptive statistics show that the length of service for the members who left the organization was a mean of 1.87 with a standard deviation of 1.29 and a minimum time in service of 0.0 years (left within the same month they joined) and a maximum of 7.4 years.

The histogram (figure 3) below provides a visual of this information to understand when it is that volunteers are most apt to leave the organization. This is not a normal distribution. The

distribution is significantly, positively, skewed thereby revealing the propensity of a member to leave in their early year(s) of service to the organiztion.

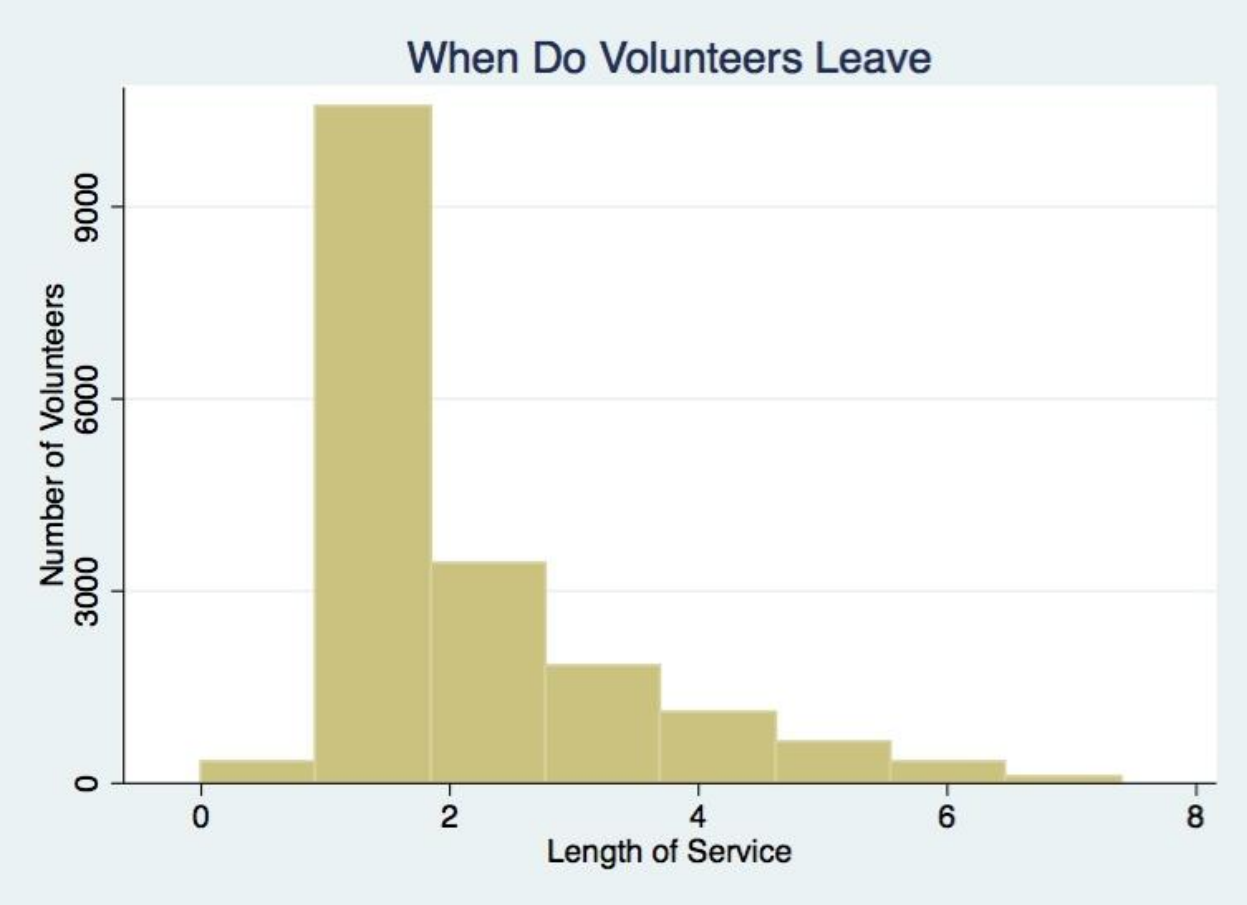

Figure 4. Frequency of length of service in years – when do volunteers leave?

4.5 PRESENTATION OF ANALYSIS – INTRODUCTORY TRAINING

The analysis of the data comparing first-year retention rates with early onset training at the national level showed no significant difference between those who completed their introductory

training in the first three months and to those who did not. A two-sample *t* test was completed to determine if, at a 95% confidence level, it could be stated that there is the possibility that early onset introductory training increases the likelihood that a member will renew after their first year.

4.5.1 Computation of Test Statistic α=.05 For Early Onset Introductory Training

Null Hypothesis Tested $H_0: \mu_{noearlyonsettraining} - \mu_{earlyonsettraining} = 0$

Alternative Hypothesis $H_a: {}_{noearlyonsettraining} - \mu_{earlyonsettraining} \neq 0$

Computation revealed the following results: Accept the null hypothesis that there is no difference in retention based on when introductory training was taken as the *t* value of .5382 is within the range of -1.96 and 1.96 and the P value of .5904 is greater than .05. Conclusion – there is no significant difference in retention based on early onset introductory training.

Table 17 provides a descriptive depiction of the results of the computation of the tested hypothosis illustrating no significant difference in retention based on early onset training. The statistical summary reflects the results of the *t* test which included all members recruited N=25,569. The most important implication of the information in table 17 is the exeptionally small difference between the means of only .0053, showing no significant impact of early onset introductory training on first year retention.

Table 16. Statistical Summary of First-Year Retention Based on Timing of Introductory Training

Variable	N=	Mean	SE	SD	95% Confidence Interval
Renewed	14,829	1.160	.0064	.7778	1.1476 – 1.1727
Did Not Renew	10,740	1.155	.0075	.7812	1.1401 – 1.1696
Combined	25,569	1.158	.0049	.7792	1.1484 – 1.1675
Difference		.0053	.0099		-.01405 - .02468

Table 18 continues to describe the lack of statistical evidence that early onset introductory training has an impact on first-year retention. By examining the members who did renew (column Renewed Yes), there was only a .37% increase in retention for those who completed their introductory training in the first three months of their membership. Also noteworthy in the table below is that 16,162 members, or 63% of the total population that joined between 2008-2013 waited over three months for training or never took it at all. Although there was no significant impact on first year retention, this informs the organization as to delays in onboarding new members which qualify them for active participation.

Table 17. First-Year Retention Rates Based on Timing of Introductory Training

Timing of Intro Training	Renewed Yes	%	Did Not Renew	%
1st 3 Months	5478	58.23	3929	41.77
After 3 Months or Never	9351	57.86	6811	42.14
Total	14829		10740	
N=25569				

4.6 PRESENTATION OF ANALYSIS – COMPETENCY TRAINING

The analysis of the data comparing first-year retention rates with early onset training showed no significant difference between those who completed their competency training in the first year and those who did not. A two-sample *t* test was completed to determine if, at a 95% confidence level, it could be stated that there is the possibility that early onset competency training increases the likelihood that a member will renew after their first year.

4.6.1 Computation of Test Statistic α=.05 For Early Onset Competency Training Within the First Year of Membership

Null Hypothesis Tested $H_0: \mu_{noearlyonsettraining} - \mu_{earlyonsettraining} = 0$

Alternative Hypothesis $H_a: {}_{noearlyonsettraining} - \mu_{earlyonsettraining} \neq 0$

Computation revealed the following results: Accept the null hypothesis that there is no difference in retention based on when competency training was taken as the *t* value of .1426 is within the range of -1.96 and 1.96 and the P value of .8866 is greater than .05. Conclusion – there is no significant difference in retention based on early onset competency training.

Table 19 provides a descriptive depiction of the results of the computation of the tested hypothesis illustrating no significant difference in retention based on the timing of competency training. The statistical summary reflects the results of the *t* test which included all members recruited N=25,569. The most importantant implication of the information in table 19 is that there is virtually no difference between the means – there is only a .00123 difference, showing no significant, if any impact at all of early onset competency training on first year retention.

Table 18. Statistical Summary of First-Year Retention Based on Timing of Competency Training

Variable	N=	Mean	SE	SD	95% Confidence Interval
Renewed	14,829	.3704	.0058	.7007	.3591 - .3816
Did Not Renew	10,740	.3691	.0068	.7020	.3558 - .3824
Combined	25,569	.3698	.0044	.7013	.3612 - .3784
Difference		.00123	.0089		.0162 - .0187

Table 20 continues to describe the lack of statistical evidence that early onset competency training has an impact on first-year retention. In looking at the members that did renew (column Renewed Yes), there was only a .86% increase in retention for those who completed their competency training in the first year of their membership. The results illustrated below show no significant, if any, impact of early onset competency training on first year renewal rates.

Table 19. First-Year Retention Rates Based on Timing of Competency Training

Timing of Competency Training	Renewed Yes	%	Did Not Renew	%
1st Year	1,670	58.76	1,172	41.24
After 1 Year or Never	13,159	57.90	9,568	42.10
Total	14829		10740	
N=25569				

4.7 PRESENTATION OF ANALYSIS –TRAINING STATE RESULTS

The final analysis of data studies one specific state. This state was chosen to study as it was known that the entity developed and executed a strategic plan for early onset training to hopefully increase first-year retention.

The analysis of the data comparing first-year retention rates with early onset training showed a positive difference between those who completed their introductory training in the first three months compared to those who did not. A two-sample *t* test was completed to determine if, at a 95% confidence level, it could be stated that there is the possibility that early onset introductory training in this state increased the likelihood that a member will renew after their first year.

4.7.1 Computation of Test Statistic α=.05 For Early Onset Introductory Training State Results

Null Hypothesis Tested H_0: $\mu_{noearlyonsettraining} - \mu_{earlyonsettraining} = 0$

Alternative Hypothesis H_a: $_{noearlyonsettraining} - \mu_{earlyonsettraining} \neq 0$

Computation revealed the following results: Reject the null hypothesis that there is no difference in retention based on when introductory training was taken as the *t* value of 2.0769 is outside of the range of -1.96 and 1.96 and the P value of .0381 is less than .05. Conclusion – the null hypothesis was rejected and it was determined that there is a chance; it is plausible, that early onset introductory training, in a state with a strategic plan for training and retention, based on early onset introductory training, will increase first-year retention rates.

Table 21 provides a descriptive depiction of the results of the computation of the tested hypothesis illustrating the significant positive difference in first-year retention based on early onset introductory training within this state. The statistical summary reflects the results of the *t* test which included all members recruited in the selected state between January 1, 2008 and December 31, 2013. The state members analyzed here consist of the population of all members of the state who joined between 2008-2013. No inference is being made from this test regarding a correlation with the national population. n=842. Unlike the results at the national level, the state saw a statistically significant increase in the likelihood of retaining a member after the first year if they completed their introductory training in the first three months. This can be seen in the increased difference between the means of .113 (state increase) as compared to the national difference in means of .0053.

Table 20. Statistical Summary of First-Year Retention Based on Timing of Introductory Training (State)

Variable	N=	Mean	SE	SD	95% Confidence Interval
Renewed	529	1.183	.0321	.7375	1.1204 -1.2464
Did Not Renew	313	1.070	.0455	.8055	.9807 - 1.1599
Combined	842	1.141	.0264	.7650	1.0896 - 1.1931
Difference		.1130	.0544		.0062 - .2199

Table 22 continues to describe the results of the state analysis and shows evidence that early onset introductory training has an impact on first-year retention. By examining those members who did renew (column Renewed Yes), there was a 7.35% positive difference (as compared to the national .37% difference) in first-year retention for those who completed their introductory training in the first three months of their membership. The information in table 22

indicates that the state is also experiencing a high number of members whose introductory training is conducted after three months in the organization or not at all. The state results show that 509 members, or 60.5% did not experience their introductory training in their first three months. Although this is better then the national rate of 63% non-completion, it signifies an area of opportunity for improvement of timely onboarding of new members.

Table 21. First-Year Retention Rates Based on Timing of Introductory Training (State)

Timing of Intro Training PA	Renewed Yes	%	Did Not Renew	%
1st 3 Months	224	67.27	109	32.73
After 3 Months or Never	305	59.92	204	40.08
Total	529		313	
n=842				

4.7.2 Computation of Test Statistic α=.05 For Early Onset Competency Training State Results

The analysis of the data comparing first-year retention rates with early onset competency training showed no statistical difference between those who completed their competency training in their first year of service compared with those who did not.

A two-sample *t* test was completed to determine if, at a 95% confidence level, it could be stated that there is the possibility that early onset competency training in this state increased the likelihood that a member will renew after their first year.

Null Hypothesis Tested H_0: $\mu_{noearlyonsettraining} - \mu_{earlyonsettraining} = 0$

Alternative Hypothesis H_a: $_{noearlyonsettraining} - \mu_{earlyonsettraining} \neq 0$

Computation revealed the following results: Accept the null hypothesis that there is no difference in retention based on when competency training was taken as the *t* value of -0.2433 is within the range of -1.96 and 1.96 and the P value of .8078 is greater than .05. Conclusion – there is no significant difference in retention based on early onset competency training.

Table 23 provides a descriptive depiction of the results of the computation of the tested hypothesis illustrating no significant difference in first-year retention based on early onset competency training within this state. The statistical summary reflects the results of the *t* test which included all members recruited in the selected state between January 1, 2008 and December 31, 2013. The state members analyzed here consist of the population of all members of the state who joined between 2008-2013. No inference is being made from this test regarding a correlation with the national population. n=842. The most importantant implication of the information in table 23 is that there is virtually no difference between the means – there is only a .013 difference, showing no significant, if any impact at all of early onset competency training on first year retention at the state level.

Table 22. Statistical Summary of First-Year Retention Based on Timing of Competency Training (State)

Variable	N=	Mean	SE	SD	95% Confidence Interval
Renewed	529	.4726	.0323	.7435	.4091 - .5361
Did Not Renew	313	.4856	.0432	.7642	.4006 - .5706
Combined	842	.4774	.0259	.7508	.4266 - .5282
Difference		-.0130	.0536		-.1182 - .0921

Table 24 continues to describe the results of the state analysis and shows evidence that early onset competency training has only a slight impact on first-year retention. Considering the members that did renew (column Renewed Yes), although there was no statistically significant difference, there was a 2.86% positive difference (as compared to the national positive difference of .86%) in first-year retention for those who completed their introductory training during the first year of their membership as compared to those who did not complete their training in the first year.

Table 23. First-Year Retention Rates Based on Timing of Competency Training (State)

Timing of Competency Training PA	Renewed Yes	%	Did Not Renew	%
1st Year	90	65.22	48	34.78
After 1 Year or Never	439	62.36	265	37.64
Total	529		313	
n=842				

4.8 COMPARISON OF NATIONAL AND STATE DATA

The following section provides a high-level overview of the overall retention information drawn from the national and test state levels. Also provided is a discussion of when individuals are most apt to leave the organization, comparing the national and state-level statistics.

4.8.1 Comparison of Overall Retention Rates

Table 25 describes a comparison of overall retention rates for all members who joined between 2008 and 2013 for both the test state and nationally as of July 27, 2015. Examining the numbers on a gross level (everyone still listed as a member), the national organization has an overall retention rate for this population of 28.35% compared to the test state's rate of 33.49% (5.14% higher). The CNCS (2007) estimates national retention at 66.67% stating, "on average 1-in-3 volunteers who volunteered one year do not return the next" (p. 1). The national organization featured in this study falls short in comparision to this national average by 38.3% on the national level and by 33.18% for the test state.

It would be misleading to overlook the individuals who are not authorized to serve. By subtracting the number of members who are defined as inactive (identified by their unit designation in the system) as well as the members who have never had introductory training (members are not permited to serve until this training is completed), we can determine the net number of members retained. Net retention at the national level is 18.98%, 47.69% below the CNCS' estimated national average of 66.67% (CNCS, 2007, p. 1). The net rate for the test state is 22.45%, which is 3.47% higher than the national rate but significantly below (by 44.22%) the CNCSs estimated average retention rate.

Table 24. Comparison between National Overall Retention and Test State Retention Rate

Designation	Total Designation National	% National Retention	Total Test State	% Test State Retention	Test State % Difference	Description
Total Volunteers Recruited	25,569		842			Number of volunteers recruited between Jan 1, 2008 and Dec 31, 2013
Recruits Lost	(18,321)	71.65%	(560)	66.51%	+5.14%	Number of volunteers recruited during 2008-2013 who left the organization.
Gross Total Retained	7,248	28.35%	282	33.49%	+5.14%	Total number of volunteers retained who joined in 2008-2013 as of 7/27/2015 **Overall retention of volunteers 28.35%**
Inactive - Designated by Unit	(1,108)		(45)			Number of retained volunteers assigned to the inactive unit – not authorized to serve
Inactive – No Intro Training	(1,286)		(48)			Number of retained volunteers who joined and never took introductory training – not eligible to serve.
Net Total Eligible to Serve as of 7/25/2015	4,854	18.98%	189	22.45%	+3.47	Number of retained volunteers who joined in 2008-2013 who are currently (as of 7/27/2015) eligible to serve. This is an overall **18.98% retention of active volunteers.**

4.8.2 Relationship between Overall First-Year Retention Rates and When Members Leave

There was no significant difference in the impact of early onset competency training on retention in either the national analysis or the state analysis. There was, however, a significant difference in the state's first-year retention rates if introductory training was completed in the first three months of joining. The test state also shows a higher overall retention rate as compared to the national level (gross 5.14% higher). The information provided in Table 26, comparing first year retention rates, indicates that there was a lower attrition rate at the one year mark for the test state (37.17%) as compared to the national first-year attrition rate (42%).

Table 25. Comparison of National Overall Retention Rate to Test State Retention

Entity	Number Recruited	Number Not Retained	% of Total Recruited Not Retained	Difference National and State	Number Not Retained After Year 1	% of Total Recruited Not Retained After Year 1
National	25,569	18321.00	71.65%		10,740	42.00%
Test State	842	560.00	66.51%	5.14%	313	37.17%

Summarized, the test state showed a 4.83% positive difference in retaining members after the first year of service, as compared to the national average.

4.9 NATION-WIDE SUMMARY ANALYSIS OF OVERALL AND FIRST YEAR RETENTION AT THE STATE LEVEL

The final investigation provided a broad analysis of overall and first-year retention rates by state to identify those states that are performing at a higher level in both overall and first year-retention. This final analysis will offer the organization advice on which states may have more successful plans and programs in place for recruiting, retention and training of volunteers.

The detailed summary of this information will not be shared in this dissertation as it names specific individual units. It will, however, be presented in its entirety in the final, confidential report delivered to the organization. The final report and specific data can only be obtained by written request to sbrandon@pitt.edu and only after permission is granted by the CEO of the organization featured in this study.

Five states met or exceeded the CNCS (2007) estimated national average of 66.67% with first-year retention rates ranging from 66.88% - 74.38%. The two top states, with first-year retention rates of 74.38% and 73.52%, also had the highest average retention of 3.07 and 3.08, respectively. Similarly, the states on the lowest end of the scale ranged from 25.9% - 39.55% first-year retention rates; they all had less than a 1.93 average retention in years (2008-2013).

4.10 LIMITATIONS OF THE STUDY

This research was limited by the boundaries of the study as it was a first step in understanding the current state of retention within the organization. Then, the organizations can use the findings as a foundation for additional research and application. Specifically, the evaluation was

designed to gain a better understanding of the impact of the timing of training and effectiveness of a specific training strategy, as well as to gain a deeper understanding of the current state of retention. This was achieved.

What is problematic is the ability to identify the many other factors that may have impacted the results. In particular, the test state analyzed was only evaluated for timing of training and retention. People leave organizations, and stay, for many reasons. The results generated showed the test state having slightly higher first-year retention rates (over the national rate), more individuals participating in training early, and a slightly higher overall retention rate. Although the *t* test for this subset did yield a correlation between timing and first-year retention, there can be no assumption that it was actually the timing that generated the significant impact.

5.0 SUMMARY DISCUSSION

This final chapter begins by summarizing the results of the research as they relate to the specific research questions defined at the beginning of the case study. After reviewing the results, this research study closes with thoughts on the implications of the findings to both the organization and higher education. Prior to reviewing the results and implications, a brief summary of the theoretical framework/perspective is worthy of mention.

The findings of this study are impactful and serve as a call to action for many types of organizations. From a theoretical perspective, the study of organizational development and behavior is as active today as it was 50 years ago. The early work and research of Deming and McClelland continue and expand with new thought leaders such as Boyatzis and Senge and furthermore, for volunteer organizations, the CNCS. Such study of organizations and behavior is about people – not illusive entities or specific industry types. In reality, what is happening today in terms of employee preparation and what is on the horizon, affects us all. Non-profits, industry, AND higher education will all be competing for talent and a sustainable work force. Those entities that are strategically developing plans and programs to attract and retain talent, especially those doing so with a model of a learning organization, may be the ones that succeed.

5.1 RESEARCH QUESTIONS

The case study was designed to first analyze the current state of retention for the organization on a national level prior to answering the three specific questions of the study about training, timing of training, and retention. This was done to provide an overall perspective on retention and a timeframe for when individuals were most likely to leave the organization. The results were staggering, even to this author, a long-time leader in the organization. The summary information provided below reinforces the need to further study retention factors for the organization:

1. National retention rate for population studied = 28.35%
2. 42% of those recruited for this population did not return after their first year (national)
3. Average number of years in the organization for this population was only 1.87 years
4. Test state retention rate = 33.49%
5. 37.17% of those recruited in the test state did not return after their first year
6. Average number of years in the organization for the test state = 2.59 years

This summary information provides a stark picture of high turnover, difficulty in retaining individuals beyond 2 years, and especially critical, difficulties in keeping individuals at the one year mark.

5.1.1 Core Questions Asked of the Research

The three main research questions driving the case study were designed to determine if early onset introductory training and/or competency training may be a factor in retention after the first year:

1. Are members who complete their introductory training (required before they can actively engage in service) within their first three months more likely to return after the first year? Statistical analysis completed and presented in the results showed no impact on first-year retention at the national level.
2. Are members who complete competency training within their first year more likely to return after that first year? Statistical analysis completed and presented in the results showed no impact on first-year retention at the national level.
3. What is the likelihood that a statewide prescribed and supported training progam would increase the percentage of individuals engaging in early onset training as well as the possiblity of increasing first-year retention? Statistical analysis completed and presented in the results showed that it is plausible (95% confidence level) that early onset introductory training will increase first-year retention rates. There was no impact attributable to early onset competency training.

The increase in retention of new members in the state with a prescribed and supported training progam (designed for early onset participation) was encouraging while at the same time stimulating additional thoughts for continued inquiry. Could the higher retention rates in the state with a prescribed and supported training program be a result of a significant effort undertaken by the state made to orient and socialize new members? Did retention rates vary by age, profession, or employment status? These questions are important to further research for the organization and higher education as they/we work towards the strategic goal of training and retaining a competent workforce.

The data to answer these questions were not requested or provided, as it didn't fall within the scope of the study. Additional data will help to reveal what may be causing the significantly

low retention rates overall as well as the higher rates in specific states. The provided data did not contain demographic information such as age, profession, or educational level. These are key factors to study as this organization (as well as others) endeavor to recruit and retain a sustainable, competent work-force. Future research will take these demographic factors into consideration.

The results of the research and its limitations strongly suggest that a deeper inquiry is needed to develop a strategy for increasing retention rates. Future research will use these results, as well as the summary information about states which enjoy successful retention of volunteers, to determine what may already be working. Other organizations may be interested in identifying plans and programs that need to be developed to develop and retain an exceptional workforce.

5.2 IMPLICATIONS FOR THE ORGANIZATION

The poor retention rates and the speed at which new recruits leave the organization sheds light on possible strategies to develop effective solutions. Although the full report on implications and suggestions for improvement to the organization is confidential, and therefore not contained in this document, there are insights that should be shared.

Retention is not improving with increased recruiting efforts. Additional research needs to be done to determine why individuals are leaving at such a quick pace and what programs should be developed to address the problem. In the youth program featured in this case study, much research was done to determine successful retention factors. The leadership developed plans, processes and methodology which, if followed, yield increased rates of retaining the youth.

This type of concerted effort needs to take place within the adult ranks of the organization. Much has already been done in determining required competencies and creating training programs and opportunities. As this research suggests, it is more than training opportunities and the timing of the training that impacts retention. A deeper analysis of how a new member is brought into the organization and socialized, what their expectations are, and what keeps them engaged enough to volunteer year after year needs to be a priority initiative. Finally, the results of the proposed further study and exploration needs to yield plans and programs that are measurable and part of an ongoing learning cycle for continuous improvement.

5.3 CONSISTENCIES OF RETENTION FACTORS THAT SUPPORT SUGGESTED IMPLICATIONS ACROSS ORGANIZATION TYPES

The introduction to this research framed the current and growing challenge of retaining individuals in our organizations. The theoretical foundation for this research also indicates that there are consistent retention factors that are prevalent. Table 27 below reiterates Table 8, from Chapter 3 as a reminder of the consolidated sample of the literature showing the consistent retention factors (top row) with reference to (left column) the literature and the type of organization the research/literature was addressing. The term “agnostic” is used if there was no direct mention of organization type. Again it is important to reiterate that the majority of literature frames retention factors (and practices) in an agnostic manner speaking to “organizations” as a whole. There is very little in the way of research and literature that directly speaks to volunteer organizations and or staff retention in higher education.

Table 26. Comparison of Retention Factors Across Organizations Based in the Literature

	Recognized and Valued	Training, Professional Development	Challenged & Use of Skills and Talent	Organization Values Innovation	Communication and Clarity of Strategy
WEF Report, Findgold, Mohrman, & Korn/Ferry (2001) - Agnostic	X	X		X	X
Hager & Brudney (2004) Volunteer	X	X	X		X
CNCS (2007) Volunteer	X	X	X		
Deloitte (2014) Business		X	X	X	X
Davis (2003) Higher Education	X	X			

The table above (table 26) shows the similarity of retention factors across organization types. Training/professional development is consistently mentioned as a factor as well as being valued. For the purpose of this research and its application to other organizations, especially higher education, attention to training and professional development is critical to success in retention. The timing of that training, especially introductory training meant for onboarding and socialization, will also be important. If the estimates are correct, then 91% of our millennial workforce does not expect to stay in the same job for more than 3 years (Meister (2012). Timing of training in a culture that values and challenges (retention factors) the individual who has a propensity to churn through organizations may result in more successful retention.

5.4 IMPLICATIONS AND CHALLENGES FOR HIGHER EDUCATION

The theoretical research, as well as the case study, leads this researcher to argue that there are significant implications for higher education. The organization studied shares several key

characteristics of higher education: An aging workforce (think core of administration/baby boomers, non-faculty administrators) who will be exiting in the near future, students as one of its primary foci, plans and programs that were not developed to attract and retain millennials, and an escalation in competition for talent and a shrinking budget dependent on federal and state funding. Both the volunteer organization in the study and higher education are facing the same challenges. If not addressed, where will this leave us (in higher education) in the near future?

The theoretical research on organizational development applies to all types of organization types. The discourse and research on the importance of creating a "learning organization" is paramount in light of the challenges higher education is facing in recruiting and retaining its next generation work-force. If we are to overcome these challenges, we need to critically look at the current trends (available candidates, their competencies, why they leave organizations, who is competing for these available candidates and how), what we in higher education are currently doing, what is on the horizon, and the development of plans and programs to ensure sustainability for the future.

But are we (higher education) really a learning organization? Are we paying attention to retention trends, market analysis, and looming challenges? Are we analyzing and projecting where we need to be in 2020, or even now? Senge (2006) spoke to this in the framework of a learning organization model in that to be successful and organization needs to constantly assess its needs, develop strategies and approaches/plans and evaluate results only to start the cycle over again.

After diligent review of this research and thirty years of leadership in industry, nonprofits and higher education, I would say no, we are not learning organizations. Deming gave us the tools and a pathway and as he stated in Senge's (2006) preface it failed in execution which Senge

(2006) frames as our propensity to solve current problems with the ways in which we are most comfortable or used to. This propensity has been evident to me throughout my career. I have seen the best laid strategic and tactical plans for creating a dynamic, competent and retained workforce fail – not due to resistance or bad intent but due to failure to measure results, failure to continue to cultivate and redesign the plan where necessary and the propensity to revert back to business as usual.

This research has shown that required competencies, retention factors and the importance of training are similar and vital to all organization types. Based on the research and current trends in retention, retirement of baby boomers and turnover of millennials (CNCS, 2014; Deloitte, 2014, 2015) I estimate that if higher education does not strategically address building and maintaining our administrative staff now and in the future, academic institutions will be hard-pressed to operate with any type of success. Higher education is at a tipping point. How administrators and universities analyze and deal with current and imminent challenges in non-traditional ways will be crucial for survival. What are the factors that have brought us to this tipping point?

5.4.1 Converging Factors and Their Implications a Tipping Point – Summary of Research

From the research conducted as well as the literature review, the factors that pushed higher education to this point are known. The primary tangible factor is financial strength. Shrinking budgets, increasing tuition, student debt, increasing cost of operations, and reductions in federal research funding were identified as the primary concern of senior administrators (Green, 2011). This, coupled with the looming retirement of baby boomers and a highly competitive market for a viable employment base (Deloitte, 2014), indicates that our efforts need to be focused on

developing strong organizational development practices around recruiting and retention (Deloitte, 2015). Unfortunately, this is not currently the case, leading to another converging factor in play here – the shortcomings of how we are currently approaching these problems.

According to the findings of the survey by Inside Higher Ed in 2011 *(Green, et al, 2011)*, defensive strategies are being used. Of the top ten strategies being deployed, only three involve creating or expanding programs. Seven of the top ten strategies are budget cuts – and the top 10 percent of universities are employing them (p. 9). Topping the list of existing strategies are budget cuts for administrative operations (reported by 76.9%), increased tuition of 5% or more (71.2%) and hiring freezes for administrative positions (48.1% reported) (p. 9). What is even more telling, senior administrators list very different actions that they would take, if they could. Absent political consequences, public institution leaders reported that they would most likely employ strategies of: outsourcing services (50.8%), increasing teaching loads (27.1%), altering policy on tenure (22%), mandating retirement of older faculty (37.3%), and significantly increasing tuition (30.5%) (p. 12). Although these actions may be considered for the short term, it appears that institutions fall back to old school approaches, the status quo. A continued approach of cutting resources without a plan for future needs would be shortsighted, and ultimately, operationally disabling.

5.4.2 Implications for Higher Education – Tipping the Point in Our Favor

How do institutions of higher education solve the problems of today while also identifying and planning for the challenges of the future? The first step is to recognize the problem, trends, and potential impact. We know we have less state funding than ever before. We also know that, if projections are correct, this funding will continue to decrease (Mortenson, 2014). Also

established is the cost of labor for required competencies is on the rise, as is health care, benefits, and operating costs. An interesting aspect of this is that due to these challenges, along with the increased complexity of operating a university, an even greater skillset (and more expensive) competency base is required (Deloitte, 2015).

The research suggests that although we do need to deal with and solve today's immediate problems, we also need to be planning for the future. As recommended to the organization evaluated in this case study, the same factors apply. Creating a cycle of planning and learning will be critical. Acknowledging the challenges we are, and will continue to be facing in recruiting and retaining our future work force is the first step in that process. Deeming this critical enough to be included in university strategic planning is even more important. Developing plans and programs that are measurable and constantly reviewed for applicability (is this really doing what we need it to do?) while continuously evaluating relevance and results, is the strongest recommendation I can make to those I serve.

5.4.3 Summary and Future Research/Application

Universities cannot provide our nation, or the world, with the services, education, or research they depend on, without competent and committed people. The question is – do we accept that challenge? Will we solve the current difficulties while at the same time planning for and working toward future success and stability? How can the insights gained in this research be immediately employed? How can new insights and trending for higher education be developed? It is my hope that I can begin to generate more discourse and disciplined inquiry around the organizational development factors that are trending in the building and retention of competent staff for the future in higher education.

The insights I have gained in doing this research will also help me immensely as a senior university staff administrator. I now have a more comprehensive understanding of trends and practices, as well as organizational development principles and theory. Perhaps most importantly, I have gained insight into what happens when you attempt to solve current and future challenges with a short-term focus while failing to develop and measure that which frames success. The research and knowledge attained will be tapped immediately for current projects, which will require the design of a new staff organization to support strategic initiatives. The projects are highly dependent on creating sustainable organizational structures for the future, based on clearly defined strategic goals. We must focus on the development of plans and programs to define competencies required for now and the future, and then recruit, develop, and retain a world-class team.

APPENDIX A

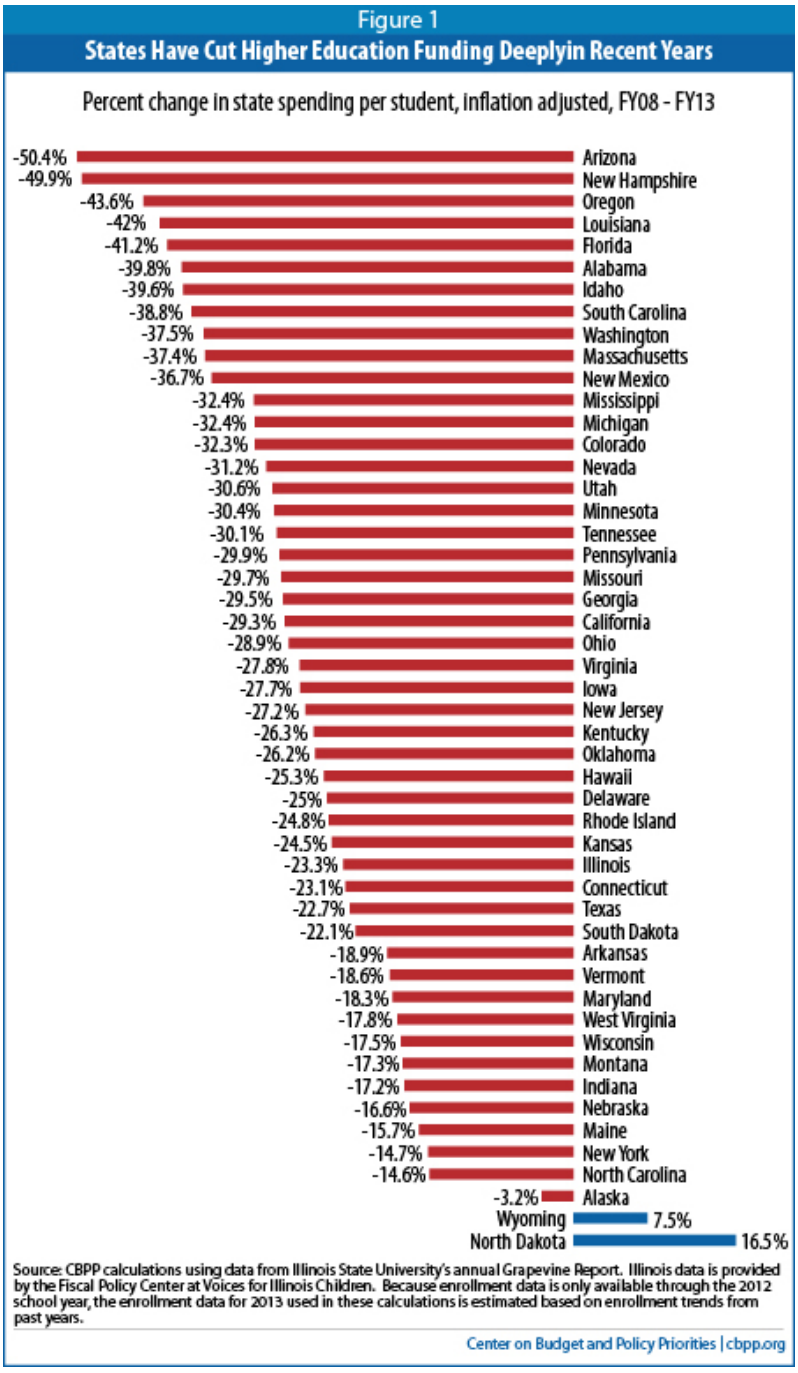

Figure 5. State Funding FY08-FY13

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