Competencies for Financial Aid Officers: A Competency Model for Professional Development

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COMPETENCIES FOR FINANCIAL AID OFFICERS: A COMPETENCY MODEL
FOR PROFESSIONAL DEVELOPMENT

By

Michael Neil Woolf

A dissertation submitted in partial fulfillment of the requirements for the

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Abstract

Financial aid officers play a vital role in assisting prospective and current college students in enrolling and graduating from college. This study explores the competencies that financial aid officers need to be successful in their jobs. A survey of thirty competencies was distributed to 508 practicing financial aid officers in the Western United States, with 135 returned. Respondents were asked to rate the 30 job competencies for their relative importance and frequency of use.

Using factor analysis as the primary method of analysis, this study establishes a job competency model that financial aid officers can use in various aspects related to their job performance: training, evaluation, and professional development. The emergent competency model is a four-factor solution that summarizes and groups together competencies; one for importance, the second for frequency. The four-factor solution for importance includes:

- Relationship to ecosystem: external and internal;
- Communication/Relational;
- Data Analysis; and
- Project Management.

The four-factor solution for the frequency ratings includes:

- External to Organization;
- Interpersonal;
- Data Analysis; and
- Project Management.
The four-factor solutions established by the research also showed overlap with an existing competency model for higher education analysts. Areas of overlap between the competency models for financial aid officers and higher education policy analysts include technical skills, such as data analysis, and people/communication skills, and external organization skills (e.g. knowledge of laws/trends).

Through the application of this competency model, financial aid officers will be better equipped to develop meet the demands of the profession by targeting specific competency areas for training and growth, which in turn will enable professionals in the field to provide the best possible service to students as they make decisions about college enrollment, persistence, and graduation.
Acknowledgements/Dedication

One does not complete a dissertation alone. I am indebted to many individuals for their assistance, guidance, inspiration, and encouragement as I endeavored to complete my degree. First and foremost, I wish to thank my wife Tisha for her encouragement and persistence in helping me finish. Along with our children (Maxwell, Payton, and Ellie), my family provided the greatest inspiration for completing. A foundation of education and its importance in life was established by my parents, Phil and Sharon Woolf. I wish to also acknowledge them and their role in teaching me that education is to be valued. I also wish to acknowledge the encouragement of Ron and Cheryl Mano, my mother and father in law. They too provided encouragement along the way and I appreciate their support.

Besides family, my committee played a very important role in guiding and assisting me through the dissertation. Their knowledge and experience was invaluable. Dr. Robert Ackerman, Dr. Gerald Kops, and Dr. Gregory Schraw provided insightful and meaningful feedback and direction. They also supported and encouraged me along the way.

Perhaps most important to any successful doctoral degree completion is the leadership, direction, guidance, encouragement, support, and mentoring that is given by the dissertation committee chair. I feel extremely grateful and blessed to have been able to work under the inspired direction of Dr. Mario Martinez. Words cannot express the level of gratitude I have for his service and patience in working with me. Dr. Martinez wisely allowed me to wrestle with this study and provided the opportunity for me to own the data and own the findings. Along the way, he allowed me to feel that I was in charge
of the study. This provided me with a profound learning opportunity; to not just do as he directed, but he let me feel as a partner in the quest for knowledge that this study seeks. Over the few years, he met with me outside of office hours, outside of the office even as we would sometimes get together in the evenings to strategize and work on the dissertation. Dr. Martinez provided a level of attention that allowed me to persist and ultimately finish this dissertation and degree. I will forever be indebted to him and I wish to thank him for his efforts on my behalf.

Finally, I wish to dedicate this dissertation to my children Maxwell, Payton, and Ellie. At the time of this writing, they are ages 6, 4, and 4, respectively. I want them to know that their Dad worked hard to provide them an example to follow that education is extremely important. They should know that I did this, not only for my career enhancement, but to provide them with the best possible life that I can. I want them to value education as their Mom and I do. Tisha, Max, Payton, and Ellie, thank you for inspiring me to be better, to do better, and to finish this degree so that I can be the best husband and Dad that I can be.
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CHAPTER 1

According to the Congressional Advisory Committee on Student Financial Assistance (ACSFA), our nation’s global competitiveness depends on the rate of bachelor’s degrees obtained by high school graduates (Advisory Committee on Student Financial Assistance, 2008). As such, ensuring that the pathway from high school graduation to bachelor’s degree completion remains viable for students is of paramount importance. However, for many high school graduates from low- and moderate-income families, the pathway is uncertain at best. While not the only factor to weigh on a student’s enrollment decisions, the ability to pay for college also influences student decisions regarding higher education matriculation, persistence and completion (Swail, Redd, & Perna, 2003; Hossler, Ziskin, Gross, Kim & Cekic, 2008; Linsenmeir, Rosen, & Rouse, 2004).

Research regarding student financial assistance indicates that the impact of financial aid is significantly related to student factors and outcomes such as academic achievement, educational commitments, student engagement, and persistence to graduation (Nora, Barlow, & Crisp, 2006; Hossler & Kalsbeek, 2008). One study (St. John & Noell, 1989) that examined the impact of different types of aid extended to Whites, African Americans, and Hispanics on their enrollment decisions concluded that all forms of financial assistance have a positive influence on enrollment regardless of race or ethnicity. The availability of funds to meet tuition and other college-going expenses not only bears on a student’s decision to attend college but also affects the choice of college made by that student (Baum & Payea, 2003). Finally, there is evidence that financial aid facilitates the academic and social integration of a student on campus
and enhances the student’s academic performance in college while greatly influencing the intent to remain enrolled (Nora & Cabrera, 1996).

Given the importance of financial aid in college choice, matriculation, academic success, and persistence to graduation, several important questions arise: How do students find out about financial aid? If financial aid is so beneficial, do students fully take advantage of it? Who are the agents who can help students learn about and obtain financial aid so that access to higher education remains a reality for these students?

One agent within higher education who influences the responses to such questions is the financial aid officer (see definition of terms at end of chapter). Financial aid officers design financial aid policy, package financial aid for students, formulate strategies to award aid, and perform outreach to potential and current students. In practice, the role of financial aid officers is vital to extending financial aid opportunities to students who may not be aware of aid availability. Thus, the degree to which financial aid officers effectively perform their jobs conceivably has a bearing on the awareness and opportunities students have to access the world of higher education. The focus of this study, therefore, is squarely on financial aid officers, as opposed to directors and supervisors who may manage entry-level financial aid officers. Specifically, I investigated whether there exists a set of competencies that define effective job performance for those working as financial aid officers, since it is reasonable to conclude that work effectiveness for this group of professionals at least influences student access and success.

**Background of the Study**
Conceptually and methodologically, this dissertation is an offshoot of a study previously organized, supervised, and directed by Dr. Mario Martinez at the University of Nevada, Las Vegas. Through a grant from the Ford Foundation, Dr. Martinez led an initiative entitled, “Bridging Higher Education to the States” (BHES). BHES brought together early and mid-career higher education professionals in a series of policy dialogues to discuss current issues of interest and relevancy to higher education policy and to create networks among participants involved in the project (Martinez, 2007). Following the BHES initiative, Dr. Martinez created the Ford funded Higher Education Policy Pipeline Initiative (HEPPI). One important objective of the HEPPI project was to create a competency model for higher education policy analysts—that is, to create a framework of competencies that defined job effectiveness for this group of professionals.

In October, 2005, an advisory group of subject matter experts convened by Dr. Martinez underwent a Delphi process (Hartman, 1981; Franklin, & Hart, 2007; Vasquez-Ramos, Leahy, & Hernandez, 2007) and identified a list of competencies that, perceivably, defined job success within the field of higher education policy analysis. The competencies were presented to a national sample of practicing higher education policy analysts through a survey conducted by the National Center for Education Management Systems (NCHEMS). Respondents rated the importance they attached to each competency, and they also rated the frequency in which the competency was utilized on the job. Ultimately, Martinez published (2007) a competency model that identified the requisite competencies for professionals in higher education policy analysis. The resulting competency model from the Martinez study provides a general framework for comparison for this study. Specifically, the competency model identified four categories
under which the various survey items grouped: internal/people, internal/technical, external/people, external/technical. My study is not as concerned with the particular competency items from the Martinez study, for those will vary depending on the occupational population that one is studying. Rather, I am first interested in the concept that categories emerged to define the competency framework for a particular occupation. Furthermore, might the four categories from the Martinez study hold relevancy to financial aid officers?

I played a small role in the BHES and HEPPI initiatives and became interested in investigating whether an empirical competency model could be defined for financial aid officers. The extension of competency research and competency modeling to new and different fields is of both theoretical and practical interest.

Statement of Problem

Research studies exist that explore many facets of higher education access and success, from engagement studies to the effect of various forms of aid on student outcomes. However, there are no academic studies I found that directly ask questions about financial aid officers, who are certainly an important agent in the delivery of financial aid services to prospective and existing college students. The literature that does exist on higher education staff professionals deals mainly with leaders and policy analysts. It is also reasonable to conclude that the effectiveness by which financial aid officers execute their jobs influences, in some way, student awareness of college opportunity and thus access and possibly success. As such, the absence of academic study on financial aid officers is a glaring hole in the higher education literature.

Need for the Study
Competency studies outside of higher education cover a wide range of disciplines. A few competency studies related to the field of higher education do exist, but most studies are in the leadership arena (McDaniel, 2002; American Association of Community Colleges, 2005) and, from a methodological perspective, are somewhat underdeveloped.

Much research within the higher education literature pertain to topics of interest to financial aid officers, including policy studies (McLendon, 2003); leadership in higher education systems (Richardson, 1999); and student aid (Heller, 1999; St. John, Musoba, & Simmons, 2003). Still, there are no studies that specifically focus on financial aid officers and the conduct of their work. Marcus, Cooper, and Allpress (2005) argue that it is clear that if competencies are to be used as a tool to promote, develop and assess behaviors associated with job performance, then there is an urgent need to improve the validity of the competency models in use. The imperative to simply begin the first step, investigating the viability of a competency model as it pertains to financial aid officers, is a movement in the direction of understanding, promoting, developing, and assessing the behaviors that might be associated with successful job performance in the professional realm of financial aid administration. Previous work, such as that conducted by Martinez (2007), provides models that can be used as a basis for comparison given that categorical dimensions are often general and potentially informative across domains.

**Purpose of the Study**

The purpose of the study is to investigate whether there is a set of competencies that define successful job performance for financial aid officers. If one does not exist, it
may be possible to define a competency model (with discernible categories) for financial aid officers.

**Research Questions**

The study research questions consider both my interest in financial aid officers and recent work in competency modeling within the field of higher education. The research questions for this study are:

1. For a given list of competencies, how do financial aid officers rate the importance of each competency?

2. For a given list of competencies, how frequently do financial aid officers use each competency in the conduct of their work?

3. Do the competencies that financial aid officers deem important and/or of frequent use group into distinct categories that suggest a competency model for the profession of financial aid officers?

4. If any patterned groupings exist, do they share characteristics with any of the following four categories (internal/people, internal/technical, external/people, external/technical) that surfaced from the Martinez (2007) study?

**Overview of Methodology**

For this study, I followed the precedent established by Martinez (2007) and Jobson (1982) and used Martinez’s study as a methodological starting point by surveying a group of professionals for their input on relevant competencies. I used the Martinez survey as a starting point but revise it based on a) the literature review and b) input from a select group of management level practitioners in the field of financial aid administration. Here, I assumed that directors and/or managers who work in financial aid
administration are able to offer insight into the competencies that financial aid officers need to successfully perform their duties. Actual survey respondents (financial aid officers currently working as professionals in the field) were asked to rate the competencies along two scales. The first scale asked respondents to rate how important the competency is to job success in the field; the second scale asked respondents to rate how frequently they utilize the competency in the conduct of their work.

The survey was sent to financial aid officers associated with the Western Association of Financial aid officers (WASFAA). WASFAA is the regional professional organization for financial aid professionals in the following states: Alaska, Arizona, California, Idaho, Nevada, Oregon, Washington, Hawaii and the freely associated nations of the Pacific. Sending the survey to WASFAA members spreads a wide enough net to include the input of hundreds of financial aid officers. The survey was sent utilizing Survey Monkey, an online survey tool.

The analysis of the survey data was done using exploratory factor analysis. Basing my work in the theoretical framework established by Jobson (1982) and Martinez (2007), I followed their work by using more than one approach to factor analysis, comparing results, and looking for loadings of .3 or above (Costello & Osborne, 2005). If one approach produces a clear pattern, then there is a basis for interpreting that pattern; if two approaches converge, then the confidence in the interpretation of the pattern increases. The two methods I utilized are principal components and maximum likelihood, using the conventional rules for examining eigenvalues and scree plots for determining how many factors might reasonably contribute to possible categorizations. I then factor analyzed each scale independently (importance and frequency) to look for
groupings of competencies and compare results to see if a stronger pattern emerges in one scale or the other.

Limitations

- The intended survey group for this study is confined to one region of the country.
- Limitations on resources to gather subject matter experts means that the competency items that populate the survey will emerge through a process that is in some respects less comprehensive than funded studies such as the HEPPI initiative.

Significance of the Study

This study adds to the body of knowledge related to financial aid by investigating whether there is a practical and working competency model of relevant, important, and necessary competencies that a financial aid officer should possess and utilize to be successful in his or her job. The competencies identified by this research may also be utilized by current financial aid officers through an examination of which competencies they exhibit, which of the competencies they possess, and what competencies they can incorporate in the performance of their job functions to increase job performance.

Employers and supervisors of financial aid officers in higher education will value this research because it provides a potential list of validated competencies that they can and should expect of their employees. Pickett (1998) points out that it is a critical responsibility of senior management to identify competencies of the enterprise and to ensure that the competencies required are adequate and appropriate. Employers may also utilize the findings of this research in professional evaluation processes. Employers will have a benchmark against which employees can be measured and evaluated. Faculty in the field of student affairs, higher education, or finance may also realize a great deal of
utility in the research by using it as a foundation upon which they can focus their curriculum, teaching, and evaluation of future financial aid professionals. Additionally, prospective professionals into the field may gain a better understanding of what competencies are required for success in the field and what training may best allow for the acquisition of those competencies.

There is a development within the National Association of Student Financial Aid Administrators (NASFAA) that potentially has some relevance to this research. In 2009, NASFAA leadership commissioned one of its standing committees to look into the possibility of developing a professional credential program. The committee is in the process of reviewing the need, desire, implications, and ramifications of creating a professional credential that would attempt to define and document the knowledge and abilities financial aid officers need to be successful. Currently, the committee is developing a survey to share with members to gauge the interest of the membership in creating such a credential. There exists potential for my research to flow into and work with the process of review currently being undertaken by the NASFAA committee. Should NASFAA membership indicate a desire for a professional credential, then the results of my research and the potential establishment of a competency model for financial aid officials would lay the groundwork for NASFAA to potentially extend my research to a national audience. Herein lies additional significance to my research; I am laying the groundwork for a major, national association to develop a professional credential that would impact the delivery of financial aid to students across the country.

Definition of Terms
This list of terms is inclusive of terms used in Chapter 1 as well as throughout the dissertation.

- Ability: the possible variations over individuals in the luminal levels of task difficulty at which, on any given occasion in which all occasions appear favorable, individuals perform successfully on a defined class of tasks (Carroll, 1993).

- Behavior: an act directed to the attainment of a goal or purpose (Rosenblueth, Wiener, & Bigelow, 1943).

- Competency: the ability to use skills and knowledge effectively to achieve a purpose (Karmel, 1985; Borthwick, 1993); as a skill and knowledge based understanding to include the capacity to transfer knowledge and skill to new tasks and situations (Warn & Tranter, 2001); and as something an individual must demonstrate to be effective in a job, role, function, task, or duty (Brown, 2006).

- Competency model: the integrated set of competencies required for excellent performance (Lucia & Lepsinger, 1999).

- Completion: graduation from a college-degree program.

- Enrollment Management: a systematic set of activities designed to enable educational institutions to exert more influence over their student enrollments. Organized by strategic planning and supported by institutional research, enrollment management activities concern student college choice, transition to college, student attrition and retention, and student outcomes. These processes are studied to guide institutional practices in the areas of new student recruitment and financial aid, student support services, curriculum development, and other
academic areas that affect enrollments, student persistence, and student outcomes (Hossler & Bean, 1990).

- Financial aid: funds provided by public and private sources to pay the cost of attending college. Financial aid is awarded in the forms of grants, scholarships, and loans.

- Financial aid officer/administrator: individual responsible for relaying campus-based financial aid awards and processes to potential and current students. For the purposes of this study, a financial aid officer excludes those in financial aid offices who have managerial/supervisory duties (e.g. Directors, Associate Directors, and Assistant Directors). Financial aid officers studied here are those in entry-level professional positions who have job duties to award, package, disburse, and provide outreach regarding all forms of financial aid.

- Matriculation: enroll in a college or university-degree program.

- Merit-based financial aid: financial aid awarded based upon past academic and/or personal achievement(s),

- Need-based financial aid: financial aid awarded based upon the financial need determined by needs analysis testing.

- Persistence: continue from matriculation in a college or university-degree program through successful completion or graduation.

- Skill: Ability and capacity acquired through deliberate, systematic, and sustained effort to smoothly and adaptively carryout complex activities or job functions involving ideas (cognitive skills), things (technical skills), and/or people (interpersonal skills) (BusinessDictionary.com, accessed November 23, 2009).
Summary

Financial aid officers play an important role in helping students pay for college. Without an established competency model for financial aid officers, the professional field is under-developed and questions persist about what competencies are needed for a financial aid officer to be successful in the performance of their job duties. This study creates a template for financial aid job performance standards, for professional development, and for supervisors of financial aid officers to design training programs to develop and enhance the important and frequently used competencies that successful financial aid officers utilize. Through the creation of competency models for the financial aid officers, the profession field of higher education and financial aid will be enriched, students will be better served, and the obstacle of paying for college will be overcome, thus leading to more college graduates.
CHAPTER 2

In this chapter, I provide a brief introduction into what financial aid is for today’s college student and how students receive the aid. This introduction provides the necessary context to frame the rest of the literature review since it is within this context that financial aid officers work—and it is within this context that I endeavor to study competencies for this group of professionals. Following the introduction, it is important for me to provide context on what a financial aid officer does by listing some common duties and review existing job descriptions of a financial aid officer. From there, an overview of literature that identifies the critical nature of financial aid and its relative correlation to student success is reviewed. These initial sections, what does a financial aid officer do and how important financial aid is to college success, provides context to demonstrate that financial administrators have some reasonable influence on student access and success. By introducing the financial aid officer, readers better identify with the crucial role of the financial aid officer and how that role impacts students. From there, the chapter explores the research literature on competencies, specifically, what they are and how they are important in job performance. The chapter then reviews the literature on competency models and their importance to enhancing job performance. I conclude with a review of the literature general to higher education job competencies and specifically the job competencies of a financial aid officer.

Role of the Financial Aid Officer

In a following section of this chapter, the literature demonstrates the importance of financial aid to student success; but the question that provides context for this study is “How does a financial aid officer fit into that equation?” Specifically, what does a
financial aid officer do and how does that translate to student success? In a review of recent job postings across the country from the National Association of Financial Aid Administrators (NASFAA, 2010) and the Western Association of Financial Aid Administrators (WASFAA, 2010), the following are identified as typical duties of a financial aid officer:

- Responsible for accuracy and compliance in awarding federal needs analysis documents and income documentation for federal verification.
- Accurately awards and revises financial aid to students within federal, state and institutional guidelines.
- Uses computers with Microsoft products to complete tasks, including Word documents, MS exchange electronic mail, MS Excel spreadsheets, etc.
- Communicates closely with student account representatives to analyze special financial needs to individual students and be a resource to the Student Account Counselors.
- Provide various training workshops for students and staff to expand financial aid knowledge.
- Counsels students about the financial aid process and professional judgment issues.
- Assists in the regular maintenance of the policy and procedure manual and update of financial aid forms.
- Counsel students and families by providing accurate information regarding all financial aid programs, eligibility criteria, policies and procedures.
Specifically, financial aid officers are the key advisor to students and their families on the availability of all financial aid programs. Financial aid officers help students and families navigate through the complex world of financial aid and assist the student through the initial application process, broadly defined, to receiving an award.

One of the duties above listed the use of professional judgment as an element of financial aid officers’ job duties. Professional judgment is defined simply as a financial aid officer’s use of discretion in adjusting components of a student’s cost of attendance; adjusting data elements used to calculate a student’s expected family contribution (EFC); performing a dependency status override; establishing eligibility for unsubsidized Stafford loans when a parent refuses to complete the Free Application for Federal Student Aid (FAFSA) and refuses to support the student; refusing to certify and/or originate a student loan; and in granting approval of a satisfactory academic progress appeal (HEOA, 2008). As defined in the next section, students’ ability to qualify and receive the various types of financial aid awards is heavily dependent on a financial aid officer. The role of the financial aid officer is much more involved than merely encouraging students to apply for the aid. Through the use of professional judgment, the financial aid officer has the potential and ability to greatly impact a students’ financial aid award package.

Financial Aid

Prior to delving into the role of the financial aid officer, some basic concepts and a review of financial aid are necessary to provide context. Financial aid begins with the Free Application for Federal Student Aid (FAFSA). The FAFSA is the student application for federal financial aid, and it is often required to apply for state and institutional aid. The FAFSA collects information on family income and assets to
determine the Expected Family Contribution (EFC), the amount that the federal government estimates a family and the student can provide towards projected higher education expenses. The size and income level of the family, the number of family members in college, and the age of the oldest parent, as well as information on the student’s earnings and assets all affect this calculation. For independent students, defined as either being age 24 or older, married, having legal dependents, being an orphan, or having served in the Armed Services, the EFC calculation differs in that parental income and expected contributions are not included in the financial aid calculation.

To initially determine a student’s financial need, the Federal Department of Education utilizes a formula and subtracts the EFC from the total cost of attendance. Very important in this calculation is the cost of attendance, which is defined by the financial aid officer and the institution to include the costs associated with attending college. These costs include items such as tuition, room and board, transportation, books, supplies, and special course fees.

After the EFC is subtracted from the cost of attendance, a student is provided with a financial aid or need-based budget. This amount of need, in combination with the student’s EFC, determines whether the student is eligible for particular government grant and loan programs, as well as many institutional scholarship programs. Students who have a low EFC and high financial need are eligible for federal need-based aid, such as the Pell Grant, which is the largest need-based aid program in the country (Long, 2008). The majority of Pell recipients come from families with incomes in the lowest economic quartile; families with between $30,000 and $40,000 of income begin to be phased out of Pell eligibility (King, 2003). Current budgetary levels for Pell awarding, established by
the Federal 2012 budget law (Consolidated Appropriations Act, 2012) establishes a level of $23,000 annual income for an automatic eligibility for Pell eligibility. Students with financial need may also be eligible for other Federal grants and the Federal Work Study program, which subsidizes the wages of the students employed while attending college, including on-campus and off-campus jobs. According to federal data, among all students in 2007-08, 66 percent of students received aid from the federal government (NCES, 2009).

There are several types or categories of financial aid. Typically, financial aid is categorized as one of two types: need- or merit-based aid. Need-based college aid is awarded based on a student family’s financial need. As stated previously, the Federal Department of Education determines financial need by subtracting the EFC from the cost of attendance (COA) at each college or university. The most common examples of need-based financial aid include federal education grants (Pell, Supplemental Educational Opportunity Grants, and Work-study grants); state grants; and Federal loans (Stafford and Perkins loans). Helping students apply and qualify for need-based aid is an important role of the financial aid officer. As noted earlier, the use of professional judgment can impact a student’s ability to qualify for need-based aid.

Some money for college is awarded without regard for financial need. Commonly referred to as merit aid, this type of college aid is usually awarded for a student’s academic achievements, as well as for special talents and unique traits, such as musical or athletic skills. Awards and scholarships like this are usually awarded by states, colleges and universities, private groups, or individuals. Merit-based financial aid is generally intended to supplement need-based aid or to help cover a student’s EFC. Some common
examples of merit-based financial aid include scholarships and tuition waivers. Financial aid officers play an important role in the administration of merit aid as they assist students in becoming aware of available aid, helping them apply for the aid, and assisting the institution in the administration of merit funds.

Since the introduction of the Guaranteed Student Loan program in 1965 and the Pell Grant in 1972, leaders of governments and institutions, as well as financial aid officers have experimented with using financial aid to increase college access, choice, and affordability (Long, 2008). However, after several decades of financial aid policy, the likelihood of attending college still varies substantially by family income. Among high school graduates in 2004, only 43 percent of students from families with incomes under $30,000 immediately entered a postsecondary institution. In contrast, 75 percent of students from families with incomes over $50,000 did so (Long, 2008). Even after accounting for differences in academic preparation and achievement by income, the gaps remain. Low-income high school graduates in the top academic quartile attended college at only the same rate as high-income high school graduates in the bottom quartile of achievement (Advisory Committee on Student Financial Assistance, 2001). There are also significant gaps by income level in outcomes such as college persistence and completion. Only 36 percent of low-income students judged as college-qualified completed a bachelor’s degree within eight years, while 81 percent of high-income students did so (Adelman, 2006). Similar gaps are found by race and ethnicity, suggesting that the aid system has not yet equalized access to higher education. The research literature, summarized by Long (2008), has examined why college attendance gaps exist by family income. While academic preparation is important, as noted above, it
does not completely explain differences; therefore, much of the research literature has focused on the role of price and financial aid (Long, 2008; Heller, 2001; St. John, 1994; Hauptman, 1998). As such, the financial aid officer has a great duty and role in providing outreach to these low-income populations. It is imperative that financial aid officers provide the avenue toward student success by alerting and educating low-income students and families of the opportunities to attend college that financial aid provides. Financial aid then becomes a significant factor in decreasing the college attendance gap that exists between families from different income brackets.

Some financial aid research examines how tuition prices are set by public universities. As tuition is an important component of cost of attendance, tracking tuition rates is an important part of the financial aid officer’s job. As tuition is set, is there any correlation to the amount of financial aid available to students? In other words, as financial aid amounts increase, does tuition rise accordingly? The literature is inconclusive. For example, Rizzo and Ehrenberg (2003) found no evidence that institutions increase their tuition levels in response to increased federal or state financial aid for students. Likewise, Singell and Stone (2007) found no evidence that in-state tuition levels at public universities responded to changes in the Pell Grant from 1989 to 1996. This study did find some support for the notion that private colleges and universities raise tuition prices in response to aid. However, because the institutions in the study had few Pell recipients (i.e., they have few students impacted by the change in aid policy), the results seem attributable to factors other than government aid policy. Limitations with the data prevent more conclusive analysis. However, in unpublished work, Li (1999) also focused on the effects of the Pell Grant by tracking recipients and
the tuition levels of their respective colleges. She found that increases in Pell resulted in increases in tuition. In their work, Hauptman and Krop (1998) responded to a challenge by then Secretary of Education William Bennet that colleges and universities explicitly take federal aid into account when setting tuition. Hauptman and Krop found that the growth in student loans (both private and public) has indeed made it easier for institutions to raise tuition at twice the rate of inflation without experiencing decreases in enrollments.

Many studies on financial aid focus on the reaction of colleges and universities in the area of pricing. Years of research support the notion that financial aid can influence students’ postsecondary decisions, but questions remain about the best ways to design and implement such programs and policies (Long, 2008). The role of the financial aid officer is a reasonably important factor in students receiving financial aid as the officer is may play a role in the design of but certainly has a major role in the delivery of such programs and policies. Even the potential of the financial aid officer to influence student choice, access, and completion would signify a need and rationale for the study.

**The Role of Financial Aid in Enrollment Management Decisions**

The concept of enrollment management emerged in the late 1970s and early 1980s though a physics professor, Jack Maguire, at Boston College. Professor Maguire started to use the term to describe a synergistic approach to influencing college enrollments (Hossler, 2000). In the early 1980s, Kreutner and Godfrey (1981) published an account of their enrollment efforts at Long Beach State University and continued the use of the term enrollment management. Simply defined, enrollment management incorporates the efforts of colleges to recruit, enroll, and retain students. More
specifically, Hossler and Bean (1990) define enrollment management as a systematic set of activities designed to enable educational institutions to exert more influence over their student enrollments. Organized by strategic planning and supported by institutional research, enrollment management activities concern student college choice, transition to college, student attrition and retention, and student outcomes. These processes are studied to guide institutional practices in the areas of new student recruitment and financial aid, student support services, curriculum development, and other academic areas that affect enrollments, student persistence, and student outcomes (Hossler and Bean, 1990). Importantly, Hossler contends that financial aid has moved from being one of many components of enrollment management efforts to being one of the key factors (Hossler, 2000; emphasis added).

**College Choice and Matriculation**

Despite the comprehensive definition of enrollment management above, many campuses use the enrollment management term to describe only activities focusing on the areas of recruitment and student financial aid (Hossler, 2000). Hossler maintains that student academic success and student persistence are also important elements of enrollment management strategy.

As one of the key factors, many other studies have reviewed financial aid’s importance in enrollment management decisions of students. Linsenmeir, Rosen, and Rouse (2004) reviewed the impact of a substantial change in financial policy on student enrollment and matriculation. The anonymous institution studied replaced loans with grants for low-income students. The researchers found the program increased the likelihood of matriculation by low-income students by approximately 3 percentage
points, although the effect was not statistically significant. However, the effect among low-income minority students was between 8 and 10 percentage points and statistically significant at the 10% level. Hossler (2000) posits that the amount of financial aid students are offered has an effect on the decisions they make as to which college or university to attend.

Other studies on financial aid (St. John & Noell, 1989; Perna, 2000; Heller, 2000) that examine the impacts of different types of aid extended to different ethnicities on their enrollment decisions conclude that all forms of financial assistance have a positive influence on enrollment regardless of race or ethnicity. The availability of funds to meet tuition and other college-going expenses not only bears on a student’s decision to attend college but also affects the choice of college made by that student (Baum & Payea, 2003). Again, the availability or knowledge of these funds is a central tenet to what a financial aid officer does – informing and making available these funds for student use.

**Persistence**

Research regarding student financial assistance also indicates that the impact of financial aid is significantly related to student factors and outcomes such as academic achievement, educational commitments, student engagement, and persistence to graduation (Nora, Barlow, & Crisp, 2006). One study established that financial aid facilitates the academic and social integration of a student on campus and enhances the student’s academic performance in college while greatly influencing a student’s intent to remain enrolled (Nora & Cabrera, 1996). Given the importance of financial aid in college choice, matriculation, academic success, and persistence to graduation (Hossler, Ziskin, Gross, Kim & Cekie, 2008), it seems reasonable to conclude that the role of
financial aid officers is vital to extending financial aid opportunities to students who may not be aware of available aid.

More specifically, Hossler et al. (2008) identified seven principle findings related to a student making persistent enrollment decisions in relation to financial aid packages. In identifying these principles, the authors reviewed financial aid related publications in high status, peer-reviewed journals since 1990. The principles are: 1) the receipt of larger amounts of financial aid has a greater positive impact on enrollment decisions than smaller amounts; 2) college work-study shows promise for enhancing persistence and deserves more institutional and public policy attention; 3) large single-source financial aid programs may have more impact on enrollment decisions than the myriad federal programs that currently exist; 4) whatever the magnitude of the effects, loans are not as effective as grants in influencing student enrollment decisions; 5) loans appear to be a poor vehicle for enhancing persistence; 6) recipients of institutional merit-based aid are more likely to persist than non-recipients; and 7) although the effects of financial aid are positive, these effects are small and indirect.

A recent report by the Advisory Committee on Student Financial Assistance (ACSFA, 2008), a federal advisory committee chartered by Congress, stated that our nation’s global competitiveness depends on the rate of bachelor’s degrees obtained by high school graduates. The report states that with recent shifts in college enrollment caused by record-high prices net of all grant aid at four-year colleges, ensuring that the pathway from community college to bachelor’s degree completion remains viable for students is of paramount importance. However, for high school graduates from low- and moderate-income families today, the pathway is uncertain at best. In addition, Bettinger
(2004) found that Pell grants reduce college drop-out behavior, in addition to evidence of a positive relationship between need-based financial aid and college completion.

The financial aid officer who is current on trends, policies, and procedures is able to package financial aid to best enable students to enroll in and successfully complete college. As Hossler et al. (2008) found, the role of financial aid in persistence decisions, although small, is still positive. As financial aid is vital to many students’ success in college, a financial aid officer who is able to customize a financial aid package to best serve students will go a long way towards improving our nation’s global competitiveness by increasing the nation’s numbers of college graduates. If financial aid is a positive factor to college success, it behooves college administrations to explore and review the job competencies of financial aid officers to ensure that financial aid is distributed in the most proficient and effective manner, thereby positively influencing a students’ matriculation and ultimate academic success.

A logical and essential question then becomes: What then are the competencies that are associated with a successful financial aid officer? To answer this, I now review the literature regarding competencies to understand what they are, how they are developed, how they are utilized in various workplace settings, and to explore if competencies and a subsequent competency model would be relevant for the financial aid officer.

**Competency Defined**

The discussion of competencies that follows includes a review of how competencies are defined in the literature followed by a discussion on how competencies are built into a competency model. The importance of competency modeling and how
they are implemented is also reviewed. I then tie the discussion to financial aid with a review of the literature pertaining to financial aid competencies. The idea of competencies and their measurement for successful job performance began as early as 1950 by focusing on training supervisors and managers (Nybo, 2004). The time period saw the development of three definite methods for identifying competencies: the educational; psychological; and business approach (Marcus, Cooper-Thomas, & Allpress, 2005). The educational approach was founded on functional role or job analysis concentrating on the performance of specific tasks and skills. In this approach, competence is defined narrowly as an action, behavior, or outcome to be demonstrated (Marcus, Cooper-Thomas, & Allpress, 2005).

The psychological or behavioral movement for competency development owes much to the seminal work of David McClelland (1973), who was the first to question the correlation between tests of intelligence and job performance. McClelland found that many tests of aptitude do not correlate to job success and that organizations wanting to measure job performance should focus not on scholastic aptitude but upon competencies for job success.

In the business approach, Hamel and Prahalad (1989) introduced the business concept of core competencies and capabilities not solely for an individual, but for the organization. The authors argue that a core competency is embedded within the organization as a bundle of organizational and technological capabilities that collectively capture know-how and are capable of being deployed to provide unique functionality and sustain advantage in the business environment.
However important the business approach, competency must first be identified at the individual behavioral level if any semblance of a core competency is to be understood. To that end, job competency has been described by others as the ability to use skills and knowledge effectively to achieve a purpose (Karmel, 1985; Borthwick, 1993); as a skill and knowledge based understanding to include the capacity to transfer knowledge and skill to new tasks and situations (Warn & Tranter, 2001); and as something an individual must demonstrate to be effective in a job, role, function, task, or duty (Brown, 2006).

In addition, the Nova Scotia Public Services Commission (2004) defined competency as any observable and/or measurable knowledge, skill, ability, or behavior that contributes to successful job performance. They define two components of a competency: definition and scale. Definition provides a common language that everyone in the organization can understand the same way. Each competency also has associated levels of proficiency, which are described as scale. The scale is descriptive in that it lays out a behavior pattern for each level. It is incremental and additive, which means that any one level is inclusive of all preceding levels. The Commission states that the competency profile (or model) is a set of predefined key competencies and proficiency levels required to perform successfully in a specified job.

Ricciardi (2005) also adds to the competency literature by linking competency to behaviors. He defines competency as a product of the right behaviors. In other words, competencies are distinct sets of behaviors applied to reliably complete a task that is directly linked to a critical outcome. The completion of these tasks performed at an ideal rate leads to the achievement of critical outcomes. In this way, Riccardi argues that
competencies are also directly tied to outcomes. Achieving outcomes is a matter of identifying competencies that are required to achieve those outcomes and then systematically arranging conditions that support the emission of the behaviors. Exactly what these behaviors are varies from industry to industry, and from organization to organization (Ricciardi, 2005).

Based on Ricciardi’s (2005) assertion, each industry, each organization should identify and develop specific competencies to obtain optimal behaviors and ultimately optimal outcomes. This is the basis for my research study, to identify and develop a specific set of competencies for financial aid officers to help achieve student success outcomes. Can this be done? Have competencies been developed to enhance a profession or influence behaviors?

**Competency Development and Benefits**

The literature indicates that competencies can in fact be used to enhance behaviors and ultimately outcomes. Lucia and Lepsinger (1999) found that developers of competency-based training programs can determine the behavioral components of critical tasks by conducting successively finer observations of their best performing staff to develop a component analysis of the competency. These observations alone can be the basis for a competency model by comparing the scores of senior staff to novices. Developers of competency models also draw items from empirical literature of their respective fields (Parsons, Reid, & Green, 1996). Elements of competency models’ item selection is based on best practices as found in the representative literature. The strength of this approach is its reliance on an empirical literature to suggest specific items for
inclusion. By doing this, the resulting competency model brings research to practice (Parsons, Reid, & Green, 1996).

Rothwell and Lindholm (1999) found that conceptually, an organization develops competencies to staff its positions with employees who possess the characteristics of job exemplars. That does not mean that the specific competency, once identified and developed, remains forever current. They can become outdated as fast as the organization that developed it faces new external environmental challenges, changes its products or services, or confronts customer preferences for different products or services. The need for interactive and continual competency development challenges organizations to find approaches to achieve the goal of real-time competency identification, modeling and assessment while enduring rigor in the process (Rothwell & Lindholm, 1999).

Competencies and the subsequent models are important because they guide direction, they are measurable, they can be learned, they can distinguish and differentiate the organization, and they can help integrate management practices (Intagliata, Ulrich, and Smallwood, 2000). Competency-based training models have the advantage of offering specific attributes and frameworks for behavioral benchmarking (McDaniel, 2002).

Eden and Ackerman (2000) explored how formal competency modeling, both qualitative and quantitative, can influence the development of an organization’s strategic direction. Their work focused on the modeling of competencies as patterns and the way in which patterns express the distinctiveness of competencies. The relationship between patterns of competencies and the goals of an organization were explored as the basis for establishing core distinctive competencies and for developing the appropriate business
model that informs strategic direction. Additional benefits of a competency approach to an individual and organization include: improved recruitment and selection practices through a focus on required competencies; improved individual, organizational and career development programs; improved performance management processes due to improved assessment; and improved communication on strategic and human resource issues through a common language (Sparrow, 1995; Marcus, Cooper-Thomas, & Allpress, 2005).

Perhaps the largest advantage of using competencies is that they help create job awareness (Brown, 2006). Competencies provide a language that helps employees and supervisors communicate more effectively about job performance. Many organizations invest large amounts of time and money to develop competencies for their workforces. However, Brown (2006) warns that unless the competency is properly developed or implemented, organizations will not see a marked return-on-investment in terms of improved job performance.

Another benefit of understanding job specific competencies is that the possession of competencies leads to capability (Gardner, Hase, Gardner, Dunn, & Carryer, 2008). Capability has been used largely in the context of understanding teaching and learning and to inform evaluation methodologies for practice in a range of professional occupations (Graves, 1993; Hase & Davis, 2002, Phelps, Hase, & Ellis, 2005). Capability has also been described as a holistic attribute with capable people more likely to deal effectively with the turbulent environment in which they live or work by possessing an ability to manage continual change (Hase & Kenyon, 2000). As those in the field of financial aid can attest, it is a constantly changing environment of federal
laws and scholarships. Cairns (2000) defined capacity as having justified confidence in your ability to take appropriate and effective action to formulate and solve problems in both familiar and unfamiliar settings.

Capable people have high levels of self-efficacy, they know how to learn, they work well with others, they are creative and, most importantly, they are able to use their competencies in novel as well as familiar circumstances (Davis & Hase, 1999). The demonstration of competence is an important attribute of capability. Capable people are more likely to be able to manage complex and non-linear challenges (Phelps & Hase, 2002; Phelps, et al. 2005).

Knowing then, the competencies that lead to successful and capable job performance, is it possible to use these competencies to build capacity and influence the financial aid field by 1) growing those competencies in those who currently work in the field, and 2) considering these competencies in those who may be candidates for hire in the field? The ultimate goal of this study, of course, is to begin the process whereby financial aid officers possess and exhibit those competencies that lead to the most effective performance, or in other words, to develop capacity and act on that capacity.

Given a set of competencies, is it possible for individuals, and by extension financial aid officers to then change or develop their behaviors to fit within a proscribed set of competencies? Decades of research on the effects of psychotherapy (Hubble, Duncan, & Miller, 1999), self-help programs (Kanfer & Goldstein, 1991), cognitive behavior therapy (Barlow, 1985), training programs (Morrow, Jarrett, & Rupinski, 1997), and education (Pascarella & Terenzini, 1991; Winter, McClelland, & Stewart 1981) indicates that people can indeed change their behavior. If people can change their
behavior, then it is imperative that competencies be developed for financial aid officers. The more job-related competencies exhibited and possessed by financial aid officers, the better off the higher education organization for which that individual works. It has been shown that competency accumulation can make a critical contribution to the unfolding competencies of firms, their host industries, and the professionals who populate those industries (Defillippi & Arthur, 1994).

Once developed, a specific list of competencies for the financial aid field would be of upmost importance for financial aid officers. Thus, a model of these competencies must be developed to inform best practice. But first, the literature of competency modeling and its use in industry and organizations must be explored.

**Competency Modeling**

A competency model, simply defined is an integrated set of competencies required for excellent performance (Lucia & Lepsinger, 1999). According to Dalton (1997), a competency model is more than a wish list. It must involve a methodology that demonstrates the validity of the model’s standards. The litmus test is whether the people who have the competencies are better performers than people who do not possess them. A competency model must also identify and validate the behaviors that imply the existence of underlying motives, traits, and attitudes. But, according to Dalton (1997), most of the current activity going on under the banner of competency modeling is really only list making. Dalton (1997) addresses the development of a competency model, and it involves several steps: specifying the job or position being analyzed, specifying expected business challenges, conducting critical incident interviews for anecdotal evidence on effective and ineffective performers, conducting a content analysis of the
critical incidents to identify the underlying competencies, and validating the model to ensure that it captures the characteristics of effective employees compared with ineffective ones in a given situation. Mansfield (2005) adds to Dalton’s work by identifying three widely used sources of data compilation: 1) convening resource panels or focus groups of subject matter experts, 2) holding critical event interviews with superior performers, and 3) utilizing generic competency dictionaries.

Competency models began in the early 1970s with McClelland’s (1973) seminal work. Since then, competency models have been developed in response to changes in the organization and in response to the needs of individuals to address specific needs within the organization (Mansfield, 1996). McClelland responded to the U.S. State Department’s concern regarding the selection process of Foreign Service information officers. Previous selection methods of academic aptitude and knowledge testing were producing poor results by failing to predict candidate effectiveness and screening too many minority applicants (Spencer and Spencer, 1993). McClelland’s model was formed utilizing what is now referred to as the Behavioral Event Interview. By interviewing outstanding performers to identify what behaviors were exhibited during specific events, McClelland was able to distill the results into a small set of competencies that can be described in behaviorally specific terms. As a result of this initial study, McClelland’s methodology dominated the practice of competency modeling for many years, and is still influential today (Spencer & Spencer, 1993). More than half of the Fortune 500 companies use competency models, and the models are useful because they have a variety of applications, such as employee selection, assessment, professional development, and job performance management (Mansfield, 2005).
Today, competency models are designed with a focus on identifying emergent and anticipated skill requirements as opposed to traditionally effective skill sets. Many organizations take a one size fits all approach towards competency model development. Other organizations go another direction and develop multiple competency models for different jobs within the organization (Mansfield, 2005).

However, one of the most influential approaches to developing a competency model follows the approach taken by Hemphill (1960) through creating taxonomy for management competencies. Hemphill asked ninety-three managers more detail necessary to rate over five-hundred competencies on a Likert scale. Using exploratory factor analysis, he identified nine distinct competency areas. Other subsequent studies followed Hemphill’s pattern in identifying competencies in other fields (Shippman, 2000; Tornow & Pinto, 1976; Yukl & Lepsinger, 1991).

Following Hemphill’s approach, Martinez (2007) found in his examination of the competency literature a common pattern as researchers investigate competencies across a range of professions and disciplines: most studies followed Hemphill’s lead and consult a group of subject matter experts to create an initial list of competencies. Other such studies include Barber and Tietje (2004), who were interested in defining competencies for a group of managers in manufacturing and material processing. Barber and Tietje used a Delphi research method to identify and initially categorize a list of competencies by working with three stakeholder groups familiar with the industry. Blancero, Boroski, and Dryer (1996) worked with industry practitioners to design a list of competencies relevant to the field of human resource professionals, while Herrera, Chung, and Lankau (2003) worked with hospitality managers to develop a list of competencies relevant to
their domain of interest. Most researchers use a combination of literature and expert input in the development of their instrumentation. Barber and Tietje were systematic in following a Delphi method, while Berge, Verneil, Davis, and Smith (2002) simply conducted a thorough literature review of thirty-five different references in developing their competency study in the field of training.

One of the most important questions to consider when developing a competency model is how much detail to include in the model (Mirable, 1997). Asking the question, “What do you want to be able to do as a result of building this model?” allows you to determine the level of detail. Competency models can be the first step in developing job profiles and in rating an employee’s level of competence against that profile (Mirable 1997).

During the past three decades, an empirically supported methodology for training and maintaining critical behaviors has emerged, namely, performance-based feedback (Alvero, Bucklin, & Austin, 2001). The methodology has been shown to be effective across a range of industries and settings, most certainly within community-based human service programs. By delineating a critical task in terms of behavioral components, managers construct a simple guide for field training of the critical task. Numerous studies have successfully illustrated the utility of this approach (Fleming & Sulzer-Azaroff, 1989; Kneringer & Page, 1999; Harchik et al., 2001). Some of the performance-based feedback comes from college graduate’s perceptions and on the job training.

Ricciardi (2005) developed an on the job training protocol for use in competency based training after the competencies have been identified by any of the following processes: systematic observation (Lucia & Lepsinger, 1999); consensual validation
(Harchik et al. 2001); standards of practice (Parsons, Reid, & Green, 1996); and combined approach (Crowell, Anderson, Abel, & Sergio, 1988). The job training protocol includes the following steps: verbally review each item, provide the trainee with written guidelines, observe the trainee implement the skill, provide immediate feedback, and repeat steps until criterion met or competency gained.

In developing competency-based training programs, experts often identify and define competencies through a series of meetings with personnel who have expertise in the field and the putative competency domains (Harchik, Anderson, Thompson, Forde, Feinber & Rivet, 2001). These authors commonly draw on expertise across a range of job functions: senior managers, clinicians, frontline supervisors, and direct support staff. In consensual validation, the team combines its divergent experiences to draft a theoretical model of ideal staff performance based largely on face validity. The strength of such an approach is its speed and, as a bonus, its value in increasing the acceptability and implementation of the resulting model. The strategy’s weakness is that it might overvalue the provincial observations of committee members.

Martinez (2007) utilized this same approach in the development of his competency model for higher education policy analysts. In 2005, with support from the Ford Foundation, Martinez initiated a comprehensive study to investigate the competencies that higher education policy analysts deem critical to the conduct of their work. The purpose of his research was to a) first define a meaningful list of competencies for higher education policy analysts, and b) empirically tests whether those competencies meaningfully categorize into discrete groupings. As a result of his research, Martinez produced, from a listing of 25 core competencies, four compelling
groupings of competencies. Questions that drove the analysis and eventually led to the study’s proposed taxonomy included: Are there certain competencies that, when taken together, can be usefully classified. Are certain competencies more technical in nature, or do they rely more on how the policy analyst interpersonally relates to others? Do certain competencies require the policy analysts to work primarily with resources within their immediate organizational environment (internal), or must they draw on resources outside the immediate organization (external)?

Table 2.1 (Martinez, 2007) shows each of the competency groupings produced by the factor analysis, with possible interpretations of how they might be categorized. Although the categorizations are not definitive since the results are based on an exploratory procedure, the interpretations were made in light of the literature and within the context of what Martinez learned about the policy analyst’s scope of work during the course of the study.

Table 2.1 Interpretation of the Factors

<table>
<thead>
<tr>
<th>Factor 1 Competencies:</th>
<th>Factor 2 Competencies:</th>
<th>Factor 3 Competencies:</th>
<th>Factor 4 Competencies:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Interpret laws and policies</td>
<td>• Quantitative data analysis</td>
<td>• Work effectively on a team</td>
<td>• Advocate for preferred solutions</td>
</tr>
<tr>
<td>• Evaluate impact of laws and policies</td>
<td>• Ability to identify data sources</td>
<td>• Group facilitation skills</td>
<td>• Knowledge of legislative processes and procedures</td>
</tr>
<tr>
<td>• Awareness of political climate</td>
<td>• Knowledge of data collection methods</td>
<td>• One on one negotiation</td>
<td>• Work with and manage budgets</td>
</tr>
<tr>
<td>• Knowledge of comparative state level governance and finance policy issues</td>
<td>• Qualitative data analysis</td>
<td>• Manage projects</td>
<td></td>
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<tr>
<td>• Awareness of public concerns and societal issues</td>
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<table>
<thead>
<tr>
<th>Possible Category:</th>
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</tr>
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<tbody>
<tr>
<td>External/Technical</td>
<td>Internal/Technical</td>
<td>Internal/Interpersonal</td>
<td>External/Technical or Interpersonal</td>
</tr>
</tbody>
</table>
These groupings Martinez proposed represent a viable starting point for the current study since a) it was conducted within the context of the higher education industry, and b) it comprehensively considered taxonomies in various fields such as organizational culture and leadership so relied on a thorough review of competency literature.

**Importance of Competency Modeling**

A substantial amount of literature shows the importance of developing appropriate competencies and competency models. Warn and Tranter (2001) describe a study where the authors set out to determine which generic competencies are important for entry into a workplace for college graduates. The development of these competencies transforms students and enables them to be adaptive, adaptable, and transformative. Generic competencies are recognized as important by employers, who in general do not want narrow, purpose trained graduates (Harvey, 1997). Employers typically expect tertiary education to develop competency in oral communication, teamwork, interpersonal skills, self-management, problem solving, and leadership (Warn & Tranter, 2001).

Once the base-level competencies are identified, they then must be compared to the specific competency model that has been established for job or organization success. If a gap exists, it behooves the organization to reduce the gap through training, and do so quickly. Beneficially, competency change or attainment can happen quickly. Cherniss and Goleman (2001) published a series of longitudinal studies at the Weatherhead School of Management of Case Western Reserve University. These studies show that people are able to change competencies in a period of over two to five years. MBA students, averaging 27 years old at entry into the program, showed dramatic changes on videotaped
and audiotaped behavioral samples and questionnaire measures of established business school competencies as a result of a competency based, outcome orientated MBA program (Boyatzis, Baker, Leonard, Rhee, & Thompson, 1995; Boyatzis, Leonard, Rhee, & Wheeler, 1996; Cherniss, Boyatzis, and Elias, in press).

Although widely accepted, generic competency models may lack the specificity desired by some employers. To this end, some studies attempt to reconcile the generality of competencies with more specific competencies. Intagliata, Ulrich, and Smallwood (2000) summarize some of the desired specifics in competency development as: competencies are focused more on behavior than results; competencies are too generic; competencies are linked to the past and not the future; and competency models are owned by HR more than line management. Common questions regarding competency models relate to construct, face, and criterion validity. Marcus, Cooper, and Allpress (2005) argue that it is clear that if competencies are to be used as a stool to promote, develop and assess behaviors associated with job performance, then there is an urgent need to improve the validity of the competency models in use. Competency models are useless unless there is an implementation strategy leveraging the necessary support structures. The model affects the way people do their jobs; it affects decisions on employees’ careers, their perceptions of their competence, and their potential for advancement (Mirable, 1997).

What needs to be done to make competencies and competency models valuable for the workplace? Competencies must be linked to the organization’s key result areas and balanced across them; competencies must be aligned with current strategy, organization capabilities and values; competencies expectations must be differentiated to
fit with varying employee roles—yet integrated from top to bottom; competency expectations must be aligned with the beliefs of senior executives and modeled in their personal behavior and commitment; and competencies must be connected to and leveraged within the organizations enabling systems (Intagliata, Ulrich, & Smallwood, 2000). Pickett (1998) points out that it is a critical responsibility of senior management to identify core competencies of the enterprise and to ensure that the competencies required by these managers are adequate, appropriate, and attainable. The way to accomplish this is through training and development, a supportive and motivating environment, and management competence.

**Competency Model Implementation**

The following examples show how industry and business have implemented competency models. In Cheetham and Chivers (1998) work, the authors researched how educational professionals acquire and maintain their professional competence. Using interviews from 20 different professions, the authors take the reflective practitioner model (Schon, 1987) and the functional competence approaches (Jessup, 1991) and blends them into a provisional model. The reflective practitioner model (Schon, 1987) challenges the conventional view of professional practice that held that professionals operate by applying formally-learned specialist or technical knowledge. Schon argues that this is not the only way in which professionals go about solving problems. In reality, they use a form of tacit knowledge; knowledge linked to specific activities, which he calls knowing-in-action. In addition, they develop repertoires of solutions and learn how to reframe difficult problems into those they can deal with more readily. As a result, their professional practice can be seen more as a form of artistry than applied theory. The
crucial competency is “reflection.” Schon does not offer a comprehensive model of professional competence, or any detailed analysis of the types of competencies needed by professionals. Instead, he argues that the primary professional competence is reflection.

The functional competence approach is also called the occupational standards approach (Jessup, 1991). It is firmly competence-based, but it recognizes and identifies competencies through job-specific outcomes. The competencies are identified through descriptions of how effective performance can be recognized.

Cheetham and Chivers (1998) effectively blend the reflective practitioner and functional competence approach into what they call the provisional model. In their model, four core components are flexibly applied to various professions to create a customized competency model. The four components include: knowledge/cognitive competence, functional competence, personal or behavioral competence, and values/ethical competence. This model is important because it can be customized to any profession for maximum utility in job performance.

Another example of a universal competency model is the development of emotional intelligence. Emotional intelligence is defined as the composite set of capabilities that enable a person to manage him and others (Goleman, 1995; 1998). The frequency with which a person demonstrates or uses the constituent competencies, inherent in emotional intelligence determine the ways in which he or she deals with themselves, their life and work, and others (Boyatzis, Goleman, & Rhee, 2000). Although the specific labels and conceptualizations of these competencies may vary, they are a set of competencies addressing: self-awareness, including emotional self-awareness, accurate self-assessment, self-confidence; and self-management, including achievement
orientation, adaptability, initiative, trustworthiness, conscientiousness, and self-control; social awareness, including empathy, service orientation, and organizational awareness; and social skills, including leadership, influence, communication, developing others, change catalyst, conflict management, building bonds, teamwork and collaboration (Goleman, 1998; Boyatzis, Goleman, & Rhee, 2000); many of which Martinez (2007) found important to the work of higher education analysts.

In the field of human resources, the speed at which competency models are being developed is ever increasing. The traditional approach to competencies was to focus on specific jobs, identify universal competencies, emphasize and identify the qualities that differentiate top performers from others, and involve job specific analysis and assessment (Clardy, 2007). R. Wayne Pace (1991) identified seven principles to serve as a foundation for human resource management competency model development and implementation: 1) acknowledge individual worth and that companies recognize and value individual contributions; 2) employees are resources who can learn new skills and ideas and can be trained to occupy new organizational positions; 3) the quality of life is a legitimate concern and that employees have a right to safe, clean, and pleasant surroundings; 4) champion the need for continuous learning; talents and skills must be continually refined in the long-term interest of the organization; 5) opportunities are constantly changing and companies need methods to facilitate continual worker adaptation; 6) foster employee satisfaction; humans have a right to be satisfied by their work and that employees have a responsibility and profit motivation to try to match worker’s skills with his or her job; and, 7) employees need to know more than the requirements of a specific task in order to make their maximum contribution.
In a final example of the variety of fields which utilize competency models, the company 3M has developed an internal leadership competency model for its leaders instead of relying on an existing model. A group of vice presidents met periodically to identify and articulate competencies required for successful general management at 3M. Through ongoing dialogue and enhancements, after 9 years, a basic competency model evolved. The competencies were clustered into 3 clusters: 1) fundamental; which includes ethics and integrity, intellectual capacity, maturity and judgment; 2) essential; which includes customer orientation, developing people, inspiring others, business health, and results; and, 3) visionary: which includes global perspective, vision and strategy, nurturing innovation, building alliances, and organizational agility (Alldredge & Nilan, 2000).

**Financial Aid Competencies**

With an understanding of financial aid, its importance to student enrollment decisions, and the importance and utility of competencies and competency models, a next step would be to explore the known or published competencies specific for financial aid officers. However, the profession has yet to specifically designate a competency model and has only provided tertiary competencies expected of an entry-level financial aid officer.

The National Association of Student Financial Aid Administrators (NASFAA) is the professional organization of over 3,000 institutions in higher education that work together to improve the delivery of financial aid. According to its Web site, NASFAA is a nonprofit membership organization that represents more than 20,000 financial aid professionals at nearly 3,000 colleges, universities and career schools across the country.
It is the largest postsecondary education association with institutional membership in Washington, D.C. and the only national association with a primary focus on student aid legislation, regulatory analysis and professional development for financial aid officers (NASFAA, 2010).

In terms of professional development, NASFAA provides a number of efforts to benefit the financial aid community. The first of which is a national survey, last completed in 2006, which is designed to provide information on the key factors in the staff size of financial aid offices. The Staffing Survey and Staffing Model summarized the factors that influenced the staff size of financial aid offices. These factors included degree of automation, perceived student satisfaction, financial aid staff workload, and other institutional characteristics (NASFAA, 2006). The survey and subsequent report did not address job competencies, training, or job skills for professional level staff.

In addition to the Staffing Survey and Staffing Model, NASFAA also offers a Standards of Excellence (SOE) Review Program. This program is an objective and confidential peer review program where volunteer members assess an institution’s delivery of financial aid. A review team assesses a financial aid offices functions in the areas of communications, customer service, the financial aid application process, human resources and facilities, strategic planning and oversight, technology, and Title IV compliance. The SOE review has the potential to analyze the financial aid officer’s job competencies; however, the review only focuses its staffing efforts on staff size, not level of competency. In this case, the name of SOE is somewhat misleading in that it only reviews staff size and organizational outcomes. In my opinion, adding functionality to
the survey to explore what competencies lead to successful organizational outcomes would be extremely beneficial.

Beyond NASFAA, the American Association of Medical Colleges (AAMC, 2007) has developed a handbook that orients financial aid officers to the arena of financial aid for medical students. The *Handbook for Financial Aid Officers* spends a chapter examining the roles of the financial aid officer stating that these roles are very similar from school to school (AAMC, 2007). The roles include: a counselor in financial, personal, and career issues related to medical students; a legislative advocate; mentor; forecaster of trends; and a systems coordinator. The AAMC provides a nice summary of job roles of a financial aid officer but as we have seen in other literature, the AAMC does not specify what specific competencies are needed to accomplish these roles.

**Summary**

In reviewing the literature, there were not any significant findings of specific research into the specific competencies required or recommended for financial aid officers. As such, a gap exists in the competency, higher education, and financial aid professional literature. The research I have undertaken fills the gap and adds depth to both the literature and to the field of financial aid. Additionally, the methodology outlined below follows the patterns of competency identification and competency model development as explained in the literature and bases itself specifically on the theoretical framework established by Jobson (1982) and Martinez (2007).
CHAPTER 3

Quantitative Methodology Overview

Despite the ongoing argument about which type of social research method, quantitative or qualitative, is better, the choice of method is determined by the research question (Babbie, 2004; Neuman, 2000). The methodology that bests answers my research questions is quantitative survey research. Quantitative methodology focuses on measurable variables, stresses reliability, is independent of context, includes multiple cases and/or subjects, is generalizable, and removes the researcher from the phenomenon to reduce any bias (Neuman, 2000). Quantitative approaches to research generally follow a positivistic approach to social science inquiry. Positivist researchers prefer precise quantitative data and often use experiments, surveys, and statistics (Neuman, 2000). As opposed to other social science approaches, interpretive and critical social science, the positivist approach seeks exact measures and objective research to discover and document universal laws of human behavior (Neuman, 2000). This sense of universal laws of human nature is one of the foundations for the purpose of the study. If Neuman is correct, then a competency model that identifies some degree of universal behavior for financial aid officers may be discovered.

Data Collection

Survey research is a frequently used mode of observation in the social sciences and is probably the best method available to the social researcher interested in collecting original data for describing a population too large to observe directly (Babbie, 2004). Since I surveyed a sample of financial aid officers, Babbie’s suggestion on applying survey methodology seems appropriate for this study. As such, survey research allowed
me to collect original data to investigate whether a competency model emerged for financial aid officers. Careful probability sampling provides a group of respondents whose characteristics may be taken to reflect those of the larger population (Babbie, 2004). Using standardized questionnaires, survey research offers the possibility of making refined, descriptive assertions about a large population (Babbie, 2004).

For this study, I followed several of the methodological steps established by Martinez (2007) in his investigation of competencies for higher education policy analysts. Although Martinez’s study focused on higher education policy analysts, the application of competency surveys to different professional fields is not uncommon. In October 2005, Martinez assembled an advisory group composed of five higher education policy analysts and three higher education faculty members to assist with the research design of his study. The team took the more formal approach found in the literature by first embarking on a Delphi process to derive a list of competencies. Following the standard Delphi process, the larger team was subdivided into groups, and each group was asked to create a list of competencies relevant to the work of higher education policy analysts. The group lists were compared for similarities and differences, and the full team then developed a final list of the competencies. Martinez then compared the final list of competencies against the competency literature and those few studies in the higher education discipline, making suggestions about rewording certain items or eliminating some so that the list was not too long. The list was sent to the advisory members after the initial meeting and a review of and comparison with the literature. Advisory members sent in final comments, which were summarized in a final memo, along with a final
competency list. Every advisory member agreed to the list, with the understanding that feedback from a targeted panel of experts might necessitate some modification.

After the initial development of the competency list and literature review exercise, a questionnaire was developed, with the intent of surveying higher education policy analysts. Analysts were asked to rate twenty-five competencies according to the following 5-point scale: Critical to the work of a higher education policy analyst (5); Very important to the work of a higher education policy analyst (4); Important to the work of a higher education policy analyst (3); Somewhat important to the work of a higher education policy analyst (2); and, Not important to the work of a higher education policy analyst (1). The respondent was given the choice to opt out, or not rate a competency. In addition to the competency ratings, policy analysts were asked demographic information.

Martinez’s (2007) competency list is provided in Appendix A for reference, since this research uses his competency list as a starting point. However, a survey asking a particular group of administrators to rate the importance of competencies relevant to their own work should be customized to their context. Thus, I used a select group of financial aid experts to review an initial list of competencies that I created based on the literature and lists such as those provided by Martinez, which provided some guidance. My expert group consisted of the Directors of Financial Aid offices at each of the Nevada System of Higher Education institutions (University of Nevada, Las Vegas; University of Nevada, Reno; System Administration; College of Southern Nevada; Truckee Meadows Community College; Great Basin College; and Western Nevada College) as well as the Director at Touro University, a private institution. Nevada State College (NSC) was
included as I am the Director at NSC. Resource limitations preclude me from gathering a group of experts to conduct a formal Delphi process, but my expert group consisted of subject matter experts representing both large universities and large and small community colleges.

Subsequently, my group of experts developed a list of 30 competencies that they felt are relevant to the job performance of a financial aid officer. I used the list to develop a survey that asked respondents to rate each competency for importance and frequency of use. I also followed Martinez’s example and asked some demographic information about the respondent (e.g. level of education, years of experience in financial aid, size and type of institution employed at). The survey is included as Appendix C.

Once the survey was developed, I sent the survey to financial aid officers who are members of the Western Association of Financial aid officers (WASFAA). As the immediate past President of the Nevada Association of Financial aid officers and a current member of the WASFAA Executive Council, I have access to the WASFAA email list and the cooperation of WASFAA in sending out the survey. WASFAA is the regional professional organization for financial aid officers in the following states: Alaska, Arizona, California, Idaho, Nevada, Oregon, Washington, Hawaii and the freely associated nations of the Pacific. Sending the survey to all WASFAA members spreads a wide net to include the input of hundreds of financial aid officers as WASFAA has in excess of 500 members. The survey was sent utilizing Survey Monkey, an online survey tool. WASFAA provides a large sample of the financial aid field in general. As one of the regional associations of financial aid officers, WASFAA members provide a large sample of participants to yield generalizable results and findings. As each WASFAA
member has an equal chance of participating, this meets the basic measurement of probability sampling (Babbie, 2004).

Survey respondents were asked to rate competencies along two dimensions. The first dimension is to rate how important the specific competency is to the success of a financial aid officer. Using the following scale: 1- Not Important, 2- Rarely Important, 3- Occasionally Important, 4- Important, and 5- Very Important, respondents rated the importance of each competency based upon their own experience. Respondents were then asked how frequently the competency is utilized in their daily performance of job duties. The following scale was employed: 1-Never, 2-Rarely, 3-Occasionally, 4-Frequently, 5-Very Frequently. By rating the importance and frequency for each competency, respondents provided valuable insight into the daily operations of each competency, potentially producing a competency model for financial aid officers. It is important to note that the survey participants were notified that job skills required of a financial aid officer currently working in a management position (Director, Assistant Director, etc.) are excluded from the scope of the research and survey. Directors and Assistant Directors were asked to respond to the questionnaire with the success of the entry-level financial aid officer in mind.

Martinez’s 2007 study provided a methodological starting point for this study through his use of a group of subject matter experts and their development of a list of competencies for rating. His use of exploratory factor analysis follows the literature for competency model creation (Hemphill, 1960; McClelland, 1973; Jobson, 1980) and serves as a guide in my study. However, even though I use Martinez as a starting point, I do not assume that the four-factor solution he found is necessarily valid for my
population of financial aid officers. His study was the first to apply the generally accepted methodology of competency model development to the higher education domain, so my interest is to compare his four-factor solution to my findings. This comparison does not rise to level of occasion required for confirmatory factor analysis but remains within the exploratory factor analysis domain as my fourth research question merely seeks to compare my results to Martinez’s findings.

**Data Analysis**

Once an instrument is developed and disseminated, the analytical method of choice is exploratory factor analysis (Martinez, 2007). The popularity of exploratory factor analysis is undoubtedly because most researchers are investigating competencies for a specific, target group of professionals, most of which qualify as new areas of inquiry. Most of the studies reviewed in the literature do not start with a hypothesized model either, eliminating confirmatory factor analysis as the preferred tool. Exploratory factor analysis has the advantage of grouping competencies together. If groupings do emerge, researchers propose how those groupings might be classified. In studies where different respondent groups provided input into the study (e.g. Barber & Tietje, 2004; Cheng, Andrew, and Moore, 2005), the data were factor analyzed by group, and group responses were then compared via ANOVA or t-tests.

Most of the peer-reviewed research on competencies uses exploratory factor analysis. Exploratory factor analysis seeks to uncover the underlying structure of a relatively large set of variables (Costello & Osborne, 2005). As such, the data analysis method I employed was exploratory factor analysis. Specifically, I ran exploratory factor analysis methods for the importance and frequency datasets under two conditions. First,
exploratory factor analysis was run without forcing the number of factors into a predetermined number, and secondly by forcing the solution into four-factors to see if a four-factor solution emerges. A four-factor solution was chosen because it allowed me to see if correlation existed with the four-factor solution identified by Martinez (2007). This was the basis for answering my fourth research question.

Jobson (1982) adds an interesting twist to the typical exploratory factor analysis study in a study on police stressors, which attempted to group eighteen stress items common to police work. Instead of running just one factor analysis, the police stressor study utilized several different approaches to the analysis, including principal components, principal factors, and maximum likelihood. The results were then compared to ascertain if similar patterns emerged across different approaches. I followed Jobson and Martinez (2007) by using exploratory factor analysis and looked for loadings of .3 or above (Costello & Osborne, 2005). Utilizing the maximum likelihood extraction technique, I used the conventional rules for examining eigenvalues and scree plots for determining how many factors might reasonably contribute to possible categorizations.

Data Storage

Data received from survey participants are stored and treated with the appropriate care and conform to the appropriate Institutional Review Board (IRB) standards and those set forth by UNLV’s Office for the Protection of Research Subjects. Namely, all data remain confidential and secure. The reporting of the findings does not implicate any individual directly or indirectly. I have completed the initial Collaborative Institutional Training Initiative (CITI) training as well as the refresher course modules in accordance with established institutional guidelines.
Summary

Through the use of exploratory factory analysis as explained above, the purpose of undertaking this research and the quest for answers to the posed research questions are addressed, analyzed, and inform the field with research findings. This methodology, which used Martinez’s (2007) work as a stepping stone, utilized survey research of active financial aid officers, and drew upon the most fitting and proper data analysis tools (exploratory factor analysis). Through this study, I have added to the body of knowledge relating to competencies, competency modeling, higher education, and financial aid officers.
CHAPTER 4

This chapter contains the results of the data analysis and a discussion of the procedures utilized to obtain the results. Specifically, the chapter reviews data preparation and exploratory factor analysis (EFA) findings for the survey items. The survey had two separate lines of inquiry as it pertained to Financial Administrative Officers competencies: what is the level of importance for the list of 30 competencies and how frequently do respondents use these 30 competencies in the performance of their jobs.

Data Preparation

The survey of Western Association of Student Financial Aid Administrators (WASFAA) included a possible 508 respondents, with 135 participating for a response rate of 26.6%. Participants were asked to identify what type of institution they currently worked at (29.3% from private, not for profit; 15% from private, for profit; 28.6% from public, 2-year; and 27.1% from public, 4-year); the highest terminal degree offered by the institution (3.7% certificate; 30.6 associate’s degree; 17.9% bachelor’s degree; 15.7 master’s degree; 2.2 professional degree; and 29.9% doctoral degree); the highest degree obtained by the recipient (5.5% certificate; 13.3% associate’s degree; 39.8% bachelor’s degree; 39.8% master’s degree, and 1.6% doctorate degree); and the number of full time staff in the financial aid office (39.6% with 1-5; 29.9% with 6-10; 10.4 with 11-15; 10.4% with 15-20; and 9.7% with 21 or more staff).

All data were screened for univariate and multivariate outliers according to the procedures outlined by Tabachnick and Fidell (2007). Tabachnick and Fidell’s procedures include detecting erroneous data entries, identifying and dealing with missing
data, detecting and making decisions about possible outliers, and screening and making decisions about assumptions. No extreme outliers that would otherwise undermine the trustworthiness of the data were detected. Prior to data analysis, I searched for missing data in participants’ responses and detected several cases with missing data for the sample. In order to include all possible available data, a statistical procedure known as estimation maximization was utilized to impute the missing data, thereby yielding 106 available cases for analysis (N=106). As maximum likelihood (ML) extraction procedures were used to extract the data in the exploratory factor analysis, the estimation maximization procedure is labeled as Maximum Likelihood Estimation Maximization (ML EM) (Dempster, Laird, & Rubin, 1977). ML EM procedures use an iterative process of multiple linear regressions to yield the most likely value of each missing datum based on available information provided by all non-missing values. This is the reason why it is crucial to first establish a “missing completely at random” (MCAR) pattern for the missing data prior to conducting ML EM procedures. If the data are not MCAR, a problem arises in the interpretation of results because the missing data may be biased due to systematic differences in non-responses. The missing values analysis demonstrated that 7 cases (6.6%) contained missing data. In order to verify that the missing data pattern was MCAR, Little’s MCAR $\chi^2$ statistics (Little & Rubin, 1989; Schaeffer & Graham, 2002) were calculated from the missing values. A significant $\chi^2$ (i.e., $p < .05$) would suggest that the pattern of missing data is not MCAR (i.e., missing not at random [MNAR]). However, the result of this test for the present data was non-significant, Little’s MCAR $\chi^2 (855) = 922.510, p = .86$, suggesting that the missing
pattern in the data was indeed MCAR; thereby allowing analysis and interpretation to continue on an unbiased basis.

Furthermore, the importance and frequency data were tested for univariate and multivariate assumptions, including multivariate normality (skewness and kurtosis) in order to proceed with the factor analysis. Regarding multivariate normality, the data demonstrated slight kurtosis, with values ranging from -0.76 to 5.22; however, data transformation procedures were not performed because other indices (e.g., skewness values ranging from -0.54 to 1.591 and histograms with normal curve overlay) indicated that this slight kurtosis did not unduly influence results, as only 5 of the variables contained kurtosis values > |3| (Tabachnick & Fidell, 2007). Additionally, transformation of data was not conducted because transformation complicates interpretation by changing the original scales of the variables of interest (Tabachnick & Fidell, 2007).

**Results: Research Questions 1 and 2**

Research question 1 asks, for a given set of competencies, how do financial aid officers rate the importance of each competency? In addition, research question 2 asks, for a given set of competencies, how frequently do financial aid officers use each competency in the conduct of their work? The data were examined for mean ratings amongst the participants for each of the competencies and the results are displayed in Table 4.1.

<table>
<thead>
<tr>
<th>Competency Item</th>
<th>Mean Rating for Importance</th>
<th>Mean Rating for Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Quantitative Data Analysis</td>
<td>3.83</td>
<td>3.58</td>
</tr>
<tr>
<td>2. Work Effectively as a Team</td>
<td>4.74</td>
<td>4.67</td>
</tr>
<tr>
<td>3. Identify Appropriate Data Sources for Informed</td>
<td>4.34</td>
<td>3.97</td>
</tr>
</tbody>
</table>

Table 4.1 *Mean Ratings of Competency Items for Importance and Frequency of Use (N=106)*
The rating scale for the importance ratings was as follows: 1) Not Important, 2) Somewhat Important, 3) Important, 4) Moderately Important, and 5) Very Important. For the importance ratings, each of the competency rating means were above the “Important” rating, except for competency item 22 (knowledge of legislative processes and procedures) which had a mean importance rating of 2.92. For the frequency ratings, respondents rated each competency on the following scale: 1) Never, 2) Rarely, 3) Sometimes, 4) Often, and 5) Always. The higher the mean rating, the more frequently the competency item is utilized by the financial aid officer in the completion of her tasks. Each of the competency items had a mean rating above 3, suggesting that each item is
fairly frequently used. Items with a mean rating above 4.0 suggest that they are the most frequently used competencies in job performance.

**Results: Research Questions 3 and 4**

Following the literature (Martinez, 2007; Jobson, 1982; Kachigan, 1991), exploratory factor analysis was utilized to see if competency ratings for both importance and frequency group or load on a factor (research question 3) and if any patterned groupings exist, do they share characteristics with any of the categories established in Martinez’s 2007 study (research question 4)? Several exploratory factor analyses (EFAs) using common factor extraction were conducted utilizing the IBM Statistical Package for the Social Sciences (SPSS) 18 software to examine the factor structure of the present data for importance of the competencies and frequency of competency use separately.

Both principal axis factoring (PAF) and maximum likelihood (ML) data extraction techniques were considered separately as common factor extraction methods. The ML approach estimates factor loadings that have the highest likelihood to yield the observed correlation matrix, whereas PAF estimates communalities so as to eliminate error variance between factors and maximize variance extracted by the factors. The overall explained variance of the specified factors, the factor loadings (i.e., pattern matrix), correlation coefficients (i.e., structure matrix), and between-factor correlations were analyzed for this purpose for both importance and frequency.

In the literature, there is a discussion about the relative merits of various factor extraction methods. Among the six factor extraction methods (unweighted least squares, generalized least squares, maximum likelihood, principal axis factoring, alpha factoring, and image factoring), Costello and Osborne (2005) as well as Fabrigar, Wegener,
MacCallum and Strahan (1999) posit that if data are normally distributed, maximum likelihood is the best extraction method. Fabrigar, Wegener, MacCallum and Strahan (1999) explain this claim further by stating that “maximum likelihood allows for the computation of a wide range of indexes of the goodness of fit of the model and permits statistical significance testing of factor loadings and correlations among factors and the computation of confidence intervals.” (p. 277). They recommend that if the assumption of multivariate normality is severely violated then principal axis factoring is the method of choice for factor extraction. In general, maximum likelihood or principal axis factoring gives researchers the best results in factor extraction. If data are generally normally distributed, then ML is the choice; if data are significantly non-normal, then PAF is the method (Costello & Osborne, 2005). As the data were normally distributed (as previously discussed in the chapter), ML is the extraction method employed in this research.

Eigenvalues greater than 1.0 were used as the main criteria for each extraction for an unforced factor solution and four-factor (forced) solutions, per the study’s theoretical framework, for the importance and frequency items respectively. In addition, to further simplify and clarify the data structure, I utilized the direct oblimin rotation method when extracting factors from the data. Among the rotation choices, orthogonal (varimax, quartimax, and equamax) and oblique (direct oblimin, quartimin, and promax) are the common methods. Orthogonal rotations produce factors that are uncorrelated; oblique methods allow the factors to correlate (Costello & Osborne, 2005). As there is no widely preferred method of oblique rotation since the three tend to produce the same results in social sciences (Fabrigar, et al., 1999), this research utilizes the direct oblimin rotation
method to allow the factors to correlate. Competency items for both importance and frequency were only reported in the pattern matrix if the load value was greater than .30 (Costello & Osborne, 2005).

**Results: Importance**

Survey participants were asked questions about both the importance of competencies as well as the frequency in which they utilize the competencies. This next section of results focuses on the ML extraction method and the subsequent findings. As ML is the preferred extraction method with normally distributed data, these next results are important to the research. I present the pattern matrix of an unforced number of factors solution as well as a both a four-factor (forced) solution for the importance ratings first, followed by the results for the frequency items. The pattern matrixes without the forced number of factor solutions are labeled as “Free for All.” I utilized Costello and Osborne’s (2005) threshold of three variables loading on a factor to establish factor stability.

I chose a four-factor (forced) solution because of the theoretical framework established by Martinez (2007). In his study, Martinez took the four-factors that extracted out of his data and interpreted them into a matrix with the four-factors being explained and labeled into useable results. Martinez’s work guided me as a reference point, though I am not claiming that the evidence is strong enough to perform confirmatory factor analysis since my study has a different instrument and a different sample population. The unforced solution was chosen since this research is exploratory, and two alternatives seemed a reasonable path to more fully vet the data.
The following table displays the pattern matrix of the competency items rated for importance to job fulfillment. The table is sorted along the left hand column by the size of the factor loadings respective of which factor the competency item factored into.

Table 4.2 *Pattern Matrix of the ML with Direct Oblimin Rotation Free For All for Importance Using Ratings of Financial Aid Officers (N=106) Sorted by Size of Factor Loadings*

<table>
<thead>
<tr>
<th>Competency Items</th>
<th>Factor 1 (12.5*)</th>
<th>Factor 2 (2.2*)</th>
<th>Factor 3 (1.8*)</th>
<th>Factor 4 (1.4*)</th>
<th>Factor 5 (1.2*)</th>
<th>Factor 6 (1.03*)</th>
<th>Factor 7 (1.02*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>26. Computer network/database management skills</td>
<td>1.047</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. Social media communication abilities</td>
<td>.499</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. Project management skills</td>
<td>.373</td>
<td></td>
<td>.329</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Knowledge of data collection methods</td>
<td>.301</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Knowledge of state-level finance issues</td>
<td>.691</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Network of internal contacts</td>
<td>.679</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Network of external contacts</td>
<td>.658</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>12. Understand organization’s purpose and culture</td>
<td>.624</td>
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<tr>
<td>11. Awareness of political climate</td>
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<tr>
<td>18. Awareness of public concerns/economic issues</td>
<td>.441</td>
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<td>.389</td>
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<tr>
<td>10. Knowledge of higher education financial aid issues</td>
<td>.361</td>
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<td>8. One-on-one negotiation skills</td>
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<td>2. Work effectively on a team</td>
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<td>5. Writing skills</td>
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<td>9. Self-directed</td>
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<td>4. Develop alternative solutions</td>
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<td>.606</td>
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<tr>
<td>20. Provide recommendations</td>
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<td></td>
<td>.564</td>
<td></td>
</tr>
<tr>
<td>22. Knowledge of legislative process</td>
<td></td>
<td></td>
<td>.322</td>
<td></td>
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</tr>
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<td>19. Identify financial aid trends</td>
<td>.301</td>
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<td>.350</td>
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<tr>
<td>7. Group facilitation skills</td>
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<td>21. Advocate for preferred solutions</td>
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<td>24. Interpersonal skills</td>
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<td>30. Follow rules and policies</td>
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<td>28. Conflict resolution abilities</td>
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<td>.308</td>
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<td>.371</td>
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<tr>
<td>23. Subject matter expertise to facilitate counseling</td>
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<td>.340</td>
</tr>
</tbody>
</table>

*Factor’s Eigenvalue
When the factor analysis is run for the importance items using ML without forcing a four factor solution, the data show a seven factor solution with eigenvalues above 1.0. The seven factors explain 70.23% of the total variance. However, several of the items cross-loaded on multiple factors, and two factors (Factor 4 and 7) did not have at least 3 items per factor for a stable factor size (Costello & Osborne, 2005) and were not retained in the solution. For competency items that cross-loaded, I use the highest absolute value of the loadings to determine on which factor to retain the competency item (Ferguson & Cox, 1993). I denote which loading is used by using bold font-type to identify which loading is retained on the respective factor. Item 29 (project management skills) is retained on Factor 1; item 18 (awareness of public concerns/economic issues) is retained on Factor 2; item 8 (one-on-one negotiation skills) did not load on any factor and is not retained in the solution; item 3 (identify appropriate data sources) is retained on Factor 3; item 4 (develop alternative solutions) is retained on Factor 3; item 22 (knowledge of legislative process) is retained on Factor 5; item 19 (identify financial aid trends) is retained on Factor 5; and competency item 28 (conflict resolution skills) is retained on Factor 6. Figure 4.1 shows the scree plot for the Free for All Importance ML factor extraction and identifies a flattening of the trend line between six and eight factors. The following scree plot is utilized to provide further evidence of the flattening out, or the reduction of variance explained by increasing the number of factors retained in the solution. Furthermore, two of the factors in the seven factor solution are not stable factors and do not meet the factor stability threshold established by Costello and Osborne (2005).
Factors 4 and 7 in the “free for all” solution do not have 3 or more competencies load with values of .3 and above and are not retained as a viable solution. As such, the theoretical framework that guides this research allows for the importance items to be forced into a four factor solution. Forcing the factors in a four-factor solution follows the methodological framework established in the literature as well as allows for the examination of the fourth research question. Table 4.2 displays the eigenvalues as well as the competency item factor loadings for the four factor solution.

<table>
<thead>
<tr>
<th>Competency Items</th>
<th>Factor 1 (12.5*)</th>
<th>Factor 2 (2.2*)</th>
<th>Factor 3 (1.8*)</th>
<th>Factor 4 (1.4*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Knowledge of state-level finance issues</td>
<td>.923</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Identify financial aid trends</td>
<td>.841</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Awareness of political climate</td>
<td>.821</td>
<td></td>
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</tbody>
</table>
The four factor solution for the importance items above accounts for 59.42% of the total variance explained. Compared to the “Free for All,” there is a drop from 70.23% to 59.42%, a difference of 10.81%. All four factors have more than three item loads, thus producing a stable factor. There were eight items that cross-loaded on multiple factors. I denote which loading is used by using bold font-type to identify where the cross-loaded item is retained on the respective factor. Using the highest absolute value of the factor loadings, item 27 (social media communication abilities) is retained in Factor 1; item 13 (network of internal contracts) is retained on Factor 1; item 4 (develop alternative solutions) is retained on Factor 2; item 28 (conflict resolution abilities) is retained on Factor 2; item 16 (qualitative data analysis) is retained on Factor 3; item 3 (identify appropriate data sources) is retained on Factor 3; item 29 (project management skills) is retained on Factor 3; item 23 (subject matter expertise to facilitate counseling) is retained on Factor 3.
skills) is retained on Factor 4; and item 26 (computer network/database management skills) is retained on Factor 4. Items 23 (subject matter expertise to facilitate counseling) and 20 (provide recommendations) did not load on any of the four factors. The following scree plot is provided as further evidence of the flattening out, or the reduction of variance explained by increasing the number of factors retained in the solution.

Figure 4.2 Scree Plot of the Four Factor (Forced) ML with Direct Oblimin Rotation for Importance Using Ratings of Financial Aid Officers (N=106)

In the results, Factor 1 had four competency items load in the Free for All extraction, whereas, in the four-factor solution, Factor 1 had 15 items load. Factor 2 had seven items load in the Free for All extraction and six items in the four-factor solution. Factor 3 loaded five items and 3 items in the Free for All and four-factor solutions, respectively. For Factor 4, two items loaded in the Free for All, below the three item threshold and four items in the four-factor solution. Factors 5, 6, and 7 loaded six, four, and 1 item respectively in the Free for All solution with Factor 7 failing to load at least 3
factors. However, when the loadings are imposed by factor for both the free for all and the four-factor forced solution, there is not any similarity or congruence of factors across the two extractions.

In addition, the direct oblimin rotation method measures for the correlation between the factors. This measures the distinctiveness of the factors and indicates just how different the factors are from each other. Conventional wisdom in exploratory factor analysis literature advises researchers to use orthogonal rotations because it produces more easily interpretable results, but this is a flawed argument according to Costello and Osborne (2005). They contend that in the social sciences researchers generally expect some correlation among factors since behavior is rarely partitioned into neatly packaged units that function independently of one another. The factor correlation matrix was examined (Table 4.4) and indicates that the factors are somewhat correlated but any substantive interpretations of the results is not affected by the factor correlation (Costello & Osborne, 2005). A correlation of -1.0 indicates that the value of one variable decreases as the value of the other variable increases. A correlation of +1.0 indicates that when the value of one variable increases, the other variable increases. Positive correlation coefficients less than 1.0 mean that an increasing value of one variable tends to be related to increasing values of the other variable, but the increase is not regular – that is, there may be some cases where an increased value of one variable results in a decreased value of the other variable (or no change). A correlation coefficient of 0.0 means that there is no association between the variables: a positive increase in one variable is not associated with a positive or negative change in the other (Pett, Lackey, & Sullivan, 2003). Table 4.4 displays the factor correlation matrix indicating that the correlation of the factors is
within the acceptable limits where interpretation of the results is not affected. Pett, et al.,
establish factors that have a correlation value \( r \geq 0.80 \) are too highly correlated have a
potential problem with multicolinearity and need to be dropped from analysis. Table 4.4
indicates that each of the factors correlate below the \( r \geq 0.80 \) threshold thus allowing
interpretation. Correlation values (\( r \leq 0.30 \)) of factors not being correlated strongly enough
runs the risk of potentially yielding as many factors as competency items. However, with
a four-factor forced solution, that risk is mitigated and analysis can be performed.

Table 4.4 *Factor Correlation Matrix for Importance Ratings*

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.000</td>
<td>.424</td>
<td>-.490</td>
<td>.375</td>
</tr>
<tr>
<td>2</td>
<td>.424</td>
<td>1.000</td>
<td>-.300</td>
<td>.293</td>
</tr>
<tr>
<td>3</td>
<td>-.490</td>
<td>-.300</td>
<td>1.000</td>
<td>-.120</td>
</tr>
<tr>
<td>4</td>
<td>.375</td>
<td>.293</td>
<td>-.120</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Table 4.5 presents a summary comparison for each competency item and which
factor they loaded onto during the two different extractions (Free for All and Four-factor)
and the load value for the item on the factor. When I compare the Factors to each other,
the loadings of the competency items on each factor do not lend themselves to a factor 1
to factor 1 comparison. The data may lend themselves to a factor 1 (four-factor) to factor
2 (free for all) comparison, but that discussion takes place in the ensuing chapter. The
four-factor forced solution presents a better opportunity to extract factors that can be
explained and interpreted. Given the theoretical framework established by the literature
and Martinez (2007) and the number of stable factors produced by the free for all
extraction and the four-factor (forced) solution, the four-factor (forced) solution yields a
more interpretable and useable result, which is discussed in Chapter 5. Factor load values
are presented in Table 4.5 in bold and represent the four-factor (forced) solution.
Table 4.5 Importance Competency Item Comparison of Factor Loadings in Free for All vs. Four-factor Solutions, Sorted by Four-factor Solution

<table>
<thead>
<tr>
<th>Competency</th>
<th>Factor 1 Free for All</th>
<th>Factor 2 Free for All</th>
<th>Factor 3 Free for All</th>
<th>Factor 4 Free for All</th>
<th>Factor 5 Free for All</th>
<th>Factor 6 Free for All</th>
<th>Factor 7 Free for All</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Knowledge of state-level finance issues</td>
<td>.923</td>
<td>.691</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Identify financial aid trends</td>
<td>.841</td>
<td>.572</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Awareness of political climate</td>
<td>.821</td>
<td>.431</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Awareness of public concerns/economic issues</td>
<td>.791</td>
<td>.441</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>22. Knowledge of legislative process</td>
<td>.750</td>
<td></td>
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<td></td>
<td></td>
<td>.471</td>
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<tr>
<td>14. Network of external contacts</td>
<td>.715</td>
<td>.658</td>
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</tr>
<tr>
<td>10. Knowledge of higher education financial aid issues</td>
<td>.665</td>
<td>.361</td>
<td></td>
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<tr>
<td>7. Group facilitation skills</td>
<td>.628</td>
<td>.410</td>
<td></td>
<td></td>
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<tr>
<td>27. Social media communication abilities</td>
<td>.499</td>
<td>.600</td>
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</tr>
<tr>
<td>21. Advocate for preferred solutions</td>
<td>.553</td>
<td>.408</td>
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<td></td>
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<tr>
<td>13. Network of internal contacts</td>
<td>.549</td>
<td>.679</td>
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<tr>
<td>12. Understand organization’s purpose and culture</td>
<td>.547</td>
<td>.624</td>
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<tr>
<td>17. Formal presentation skills</td>
<td>.467</td>
<td>.606</td>
<td></td>
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<tr>
<td>6. Knowledge of data collection methods</td>
<td>.301</td>
<td>.463</td>
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<tr>
<td>8. One-on-one negotiation skills</td>
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<td>4. Develop alternative solutions</td>
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<td>.521</td>
<td>.453</td>
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<tr>
<td>9. Self-directed</td>
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<td>28. Conflict resolution abilities</td>
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<td>25. Customer service skills</td>
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<tr>
<td>30. Follow rules and policies</td>
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<tr>
<td>20. Provide recommendations</td>
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<td>.564</td>
<td>.340</td>
</tr>
</tbody>
</table>
Results: Frequency

Respondents were also asked in the survey to rate the same list of competencies for how often they employed the competencies in their everyday work, labeled as “Frequency.” As the data are normally distributed (see above discussion for choice of extraction method), I utilized ML extraction and direct oblimin rotation in analyzing the frequency items. The data are presented as pattern matrixes for both the “Free for All” and the four factor (forced) solutions per Martinez’s (2007) work.

Table 4.6 Pattern Matrix for the ML Free for All with Direct Oblimin Rotation for Frequency User Ratings of Financial Aid Officers (N=106) Sorted by Size of Factor Loadings

<table>
<thead>
<tr>
<th>Competency Items</th>
<th>Factor 1 (10.2*)</th>
<th>Factor 2 (2.3*)</th>
<th>Factor 3 (1.8*)</th>
<th>Factor 4 (1.5*)</th>
<th>Factor 5 (1.4*)</th>
<th>Factor 6 (1.2*)</th>
<th>Factor 7 (1.2*)</th>
<th>Factor 8 (1.1*)</th>
<th>Factor 9 (1.0*)</th>
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<tbody>
<tr>
<td>27. Social media communication abilities</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Formal presentation skills</td>
<td>-1.045</td>
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<td>7. Group facilitation skills</td>
<td>-.368</td>
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<td>20. Provide recommendations</td>
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<td>-.324</td>
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<tr>
<td>8. One-on-one negotiation skills</td>
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<td>29. Project management skills</td>
<td>.408</td>
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<td>3. Identify appropriate data sources</td>
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<td>-.348</td>
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<td>-.514</td>
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</tbody>
</table>
When the factor analysis is run for the frequency items using ML, the data show a nine factor solution with eigenvalues above 1.0. The nine factors explain 71.8% of the total variance. However, several of the items cross-loaded on multiple factors and three factors (Factor 1, 2, and 8) only had less than three competency items load; below the threshold of three items per factor for a stable factor size (Costello & Osborne, 2005). For competency items that cross-loaded, I use the highest absolute value of the loadings.
to determine on which factor to retain the competency item (Ferguson & Cox, 1993). I denote which loading is used by using bold font-type to identify where the cross-loaded item is retained on the respective factor. Thus, item 20 (project management skills) is retained on Factor 3; item 3 (identify appropriate data sources) is retained on Factor 3; item 6 (knowledge of data collection methods) is retained on Factor 4; item 15 (knowledge of state-level finance issues) is retained on Factor 5; item 11 (awareness of the political climate) is retained on Factor 8; item 12 (understand organization’s purpose and culture) is retained on Factor 9; and competency item 18 (awareness of public concerns/economic issues) is retained on Factor 9. Figure 4.3 shows the scree plot for the Free for All ML factor extraction for the frequency competency items and identifies a flattening of the trend line around six – eleven factors.

Figure 4.3 *Scree Plot of the Free for All ML with Direct Oblimin Rotation for Frequency Using Ratings of Financial Aid Officers (N=106)*

Without a forced number of factors, the factor solution for the frequency items using ML is a bit unclear. Factors 1, 2, and 8 have less than 3 variables loaded. Using
the theoretical framework, I forced a solution with four factors and the data factored out as shown in Table 4.7. The total explained variance is reduced to 52.6% using a four-factor solution, compared to 71.8% in the free for all model.

Table 4.7 Pattern Matrix for the ML Four Factor (Forced) with Direct Oblimin Rotation for Frequency User Ratings of Financial Aid Officers (N=106) Sorted Factor Loadings

<table>
<thead>
<tr>
<th>Competency Items</th>
<th>Factor 1 (10.2*)</th>
<th>Factor 2 (2.3*)</th>
<th>Factor 3 (1.8*)</th>
<th>Factor 4 (1.5*)</th>
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</thead>
<tbody>
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<td>15. Knowledge of state-level finance issues</td>
<td>.822</td>
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<td>11. Awareness of political climate</td>
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<td>18. Awareness of public concerns/economic issues</td>
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<td>19. Identify financial aid trends</td>
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<td>10. Knowledge of higher education financial aid issues</td>
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<td>22. Knowledge of legislative process</td>
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<td>14. Network of external contacts</td>
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<td>27. Social media communication abilities</td>
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<td>20. Provide recommendations</td>
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<td>23. Subject matter expertise to facilitate counseling</td>
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<td>2. Work effectively on a team</td>
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*Factor’s Eigenvalue

All four factors have more than three items load, thus producing four-factor stable solution. There were six items that cross-loaded on multiple factors. As such, using the highest absolute value of the factor loadings, item 17 (formal presentation skills) is retained in Factor 1; item 13 (network of internal contacts) is retained on Factor 1; item 6 (knowledge of data collection methods) is retained on Factor 2; item 29 (project
management skills) is retained on Factor 3; item 20 (provide recommendations) is retained on Factor 3; item 26 (computer network/database management skills) is retained on Factor 3; and item 28 (conflict resolution abilities) is retained on Factor 4.

Competency item 9 (self-directed), item 30 (follow rules and policies), and item 5 (writing skills) loaded below the .30 threshold for factor load value and thus were not retained in the four-factor solution. The companion scree plot to Table 4.6 is shown in Figure 4.4 below.

Figure 4.4 Scree Plot of the Free for All ML with Direct Oblimin Rotation for Frequency Using Ratings of Financial Aid Officers (N=106)

The factor correlation matrix for the frequency items indicates that the correlation between the factors fall within the established parameters ($r \geq .80$) allowing interpretable results (Pett, Lackey, & Sullivan, 2003).

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<th>Table 4.8 Factor Correlation Matrix for Frequency Ratings</th>
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The following table (Table 4.9) indicates a similar summary of the frequency items as presented earlier in the importance items. Specifically, the table provides a comparison of load values by factor for both the free for all and the four-factor forced solution, which are further interpreted in Chapter 5. There is not any similarity or congruence of factors across the two extractions.
Table 4.9 Frequency Competency Item Comparison of Factor Loadings in Free for All vs. Four-factor Solutions, Sorted by 4-factor Loadings

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</tbody>
</table>
In the results, Factor 1 had two competency items load in the Free for All extraction, whereas, in the four-factor solution, Factor 1 had 12 items load. Factor 2 had two items load in the Free for All extraction and three items in the four-factor solution. Factor 3 loaded six items and six items in the Free for All and four-factor solutions, respectively. For Factor 4, three items loaded in the Free for All and six in the four-factor solution. Factors 5, 6, and 7 loaded four, three, and three items respectively in the Free for All solution. Factor 8 loaded two competency items and Factor 9 loaded four items. Item 2 (work effectively on a team) did not load on the Free for All solution and items 5 (writing skills), 9 (self-directed), and 30 (follow rules and policies) did not load in the four-factor solution.

**Summary**

In summary, an ML factor analysis was run for both importance and frequency ratings as assessed by financial aid officers. For purposes of exploration, a free for all factor solution as well as a four-factor solution was run for both importance and frequency ratings. Based on the findings, both research questions (importance of competency items and frequency of use of the same competencies) have led to specific findings that indeed answer research question three (do the competencies group into distinct categories) and research question four (do the groupings related to those established in Martinez’s 2007 study). The tables in the chapter were purposely constructed to help provide a picture of potential interpretations of the factors, which is fully explored in the next and final chapter.
CHAPTER 5

This chapter provides an overview of the study by reviewing the research questions, the statement of the problem, and a brief review of the literature. The findings from the statistical analysis and associated conclusions are presented next, followed by implications and practical suggestions for addressing the issues raised by the research. Finally, a number of ideas are forwarded about what further research may be undertaken regarding financial aid officer’s job competencies and competency models.

Summary of the Study

Financial aid is vitally important to decisions students make regarding enrollment and completion of a college degree. As such, financial aid officers’ ability to perform their jobs and make available financial aid opportunities to potential and current students is potentially a key variable in ensuring access to and completion of college. Consequently, I was interested in finding out if there is a set of competencies or even a competency model that might identify what knowledge, skills, and abilities financial officers would need to possess and utilize in their job performance. Specifically, the following research questions guided the study.

1. For a given list of competencies, how do financial aid officers rate the importance of each competency?

2. For a given list of competencies, how frequently do financial aid officers use each competency in the conduct of their work?

3. Do the competencies that financial aid officers deem important and/or of frequent use group into distinct categories that suggest a competency model for the profession of financial aid officers?
4. If any patterned groupings exist, do they share characteristics with any of the following four categories (internal/people, internal/technical, external/people, external/technical) that surfaced from the Martinez (2007) study?

To answer these questions, I reviewed the literature on the role of a financial aid officer; financial aid; the role of financial aid in enrollment decisions; college choice and matriculation; persistence; competencies; competency development; competency modeling – its importance and implementation; and existing financial aid competencies. In my review, there was not found a set of specific financial aid officer competencies that would lead to a competency model.

Accordingly, I used a Delphi process to develop a set of competencies and a survey instrument that asked 508 members of the Western Association of Student Financial Aid Administrators to rate the importance and frequency of use of the set of competencies. One hundred and six cases out of 508 (20.9% response) were usable and subjected to analysis. The data were interpreted and analyzed in the four-factor solutions provided by the factor analysis. Compared to the free-for-all analysis, the four-factor solutions were more interpretable and are therefore the subject of this chapter.

Findings: Research Question 1

Respondents were first asked to rate the relative importance of each competency. Table 5.1 displays the mean rating for each competency item. Rated on a 5-point Likert scale, each competency had the following mean and standard deviation.

<table>
<thead>
<tr>
<th>Competency Item</th>
<th>Mean Rating</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to Provide a High Level of Customer Service</td>
<td>4.83</td>
<td>0.45</td>
</tr>
<tr>
<td>Ability to Follow Rules and Policies</td>
<td>4.80</td>
<td>0.47</td>
</tr>
<tr>
<td>Competency</td>
<td>Rating</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>--------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Work Effectively as a Team</td>
<td>4.74</td>
<td>0.62</td>
</tr>
<tr>
<td>Interpersonal Skills</td>
<td>4.70</td>
<td>0.62</td>
</tr>
<tr>
<td>Work Effectively as an Individual: Self-directed</td>
<td>4.59</td>
<td>0.69</td>
</tr>
<tr>
<td>Identify Appropriate Data Sources for Informed Decision Making</td>
<td>4.34</td>
<td>0.89</td>
</tr>
<tr>
<td>Knowledge of financial Aid Issues/Trends</td>
<td>4.27</td>
<td>0.90</td>
</tr>
<tr>
<td>Conflict Resolution Skills</td>
<td>4.25</td>
<td>0.91</td>
</tr>
<tr>
<td>Develop Subject Matter Expertise to Facilitate Student Counseling</td>
<td>4.24</td>
<td>0.99</td>
</tr>
<tr>
<td>Develop Alternative Solutions to a Single Problem</td>
<td>4.21</td>
<td>0.86</td>
</tr>
<tr>
<td>Writing Skills Appropriate for a Given Audience</td>
<td>4.17</td>
<td>0.81</td>
</tr>
<tr>
<td>One-on-one Negotiation Skills</td>
<td>3.93</td>
<td>1.06</td>
</tr>
<tr>
<td>Understand Organizational Purpose and Culture</td>
<td>3.91</td>
<td>1.01</td>
</tr>
<tr>
<td>Build a Network of Internal Contacts</td>
<td>3.86</td>
<td>1.05</td>
</tr>
<tr>
<td>Quantitative Data Analysis</td>
<td>3.83</td>
<td>1.15</td>
</tr>
<tr>
<td>Provide Recommendations Based on Multiple Alternatives</td>
<td>3.70</td>
<td>1.01</td>
</tr>
<tr>
<td>Computer Network and Database Management Skills</td>
<td>3.65</td>
<td>1.19</td>
</tr>
<tr>
<td>Knowledge of Appropriate Data Collection Methods</td>
<td>3.63</td>
<td>1.15</td>
</tr>
<tr>
<td>Qualitative Data Analysis Skills</td>
<td>3.62</td>
<td>1.04</td>
</tr>
<tr>
<td>Formal Presentation Skills</td>
<td>3.57</td>
<td>1.19</td>
</tr>
<tr>
<td>Awareness of Public Concerns and/or Economic Issues</td>
<td>3.51</td>
<td>1.09</td>
</tr>
<tr>
<td>Advocate for Preferred Solutions or Alternatives</td>
<td>3.49</td>
<td>0.95</td>
</tr>
<tr>
<td>Project Management Skills</td>
<td>3.48</td>
<td>1.10</td>
</tr>
<tr>
<td>Build a Network of External Contacts</td>
<td>3.46</td>
<td>1.10</td>
</tr>
<tr>
<td>Group Facilitation Skills</td>
<td>3.39</td>
<td>1.18</td>
</tr>
<tr>
<td>Awareness of Political Climate</td>
<td>3.26</td>
<td>1.08</td>
</tr>
<tr>
<td>Knowledge of Comparable State-level Higher Education Issues</td>
<td>3.26</td>
<td>1.23</td>
</tr>
<tr>
<td>Ability to Forecast or Identify Emerging Trends That May Impact Financial Aid</td>
<td>3.06</td>
<td>1.29</td>
</tr>
<tr>
<td>Social Media Application and Communication Skills</td>
<td>3.03</td>
<td>1.18</td>
</tr>
<tr>
<td>Knowledge of Legislative Processes and Procedures</td>
<td>2.92</td>
<td>1.23</td>
</tr>
</tbody>
</table>

Given that each competency had a relative high mean rating above “Important” it is reasonable to conclude that the importance ratings are a good foundation for analysis.

Had the competencies been rated as “somewhat important” or lower, then it would have been unpersuasive to then see which competencies grouped together to form a competency model. For practical purposes, a set of competencies that are rated as “not important” seems moot for further analysis. What degree of value would be placed on a competency model based on low rated competencies? There would be little interest to the field in developing a subsequent competency model based on a majority of low-rated competencies. However, each competency, except for knowledge of legislative processes and procedures, rated above 3.0, which was the value of “important.”
It is also helpful to note the standard deviation values in Table 5.1. Standard deviation is often used as a measure of agreement or disagreement amongst respondents. A low standard deviation, usually below 1.0, indicates that respondents ‘ratings are fairly consistent. The low standard deviations (values hovering slightly below one) in Table 5.1 show that the ratings are tightly clustered together indicating relative agreement amongst the respondents regarding the importance of the specific competency. The top 11 rated competencies have the lowest standard deviations, indicating agreement by the respondents that the competency items that rated the highest in importance also, for the most part, garnered agreement across the sample that those competencies are in fact important to the conduct of the work of financial aid officers.

This finding of high importance mean ratings for the competencies is expected. Given that I modified an initial list of higher education policy analyst competencies with the assistance of a group of financial aid experts, the competencies were assumed to be somewhat important from the onset. The ratings confirmed an a priori assumption that the competencies were relevant, and indeed, important in job performance.

Several of the competencies rated extremely high on the importance scale, with small standard deviations. The following items rated as the top five highest mean scores: ability to provide a high level of customer service (M=4.83, SD=0.45), ability to follow rules and policies (M=4.80, SD=0.42), work effectively as part of a team (M=4.74, SD=0.62); interpersonal skills (M=4.7, SD=0.62), and work effectively as an individual: self-directed (M=4.59, SD=0.69). These competencies are the most important competencies, according to this research, and should be highlighted and emphasized in all aspects of job performance; beginning with the initial job advertisement and continuing through hiring, training, and evaluation decisions.
Findings: Research Question 2

Equally important to the research is how frequently the competencies are utilized by financial aid officers. Now that the importance of the competency has been established, the second research question logically follows as to how often the competency is used. Competencies that are used frequently are naturally of interest.

Table 5.2 displays the mean rating for frequency of use.

Table 5.2 Mean Rating for Frequency of Use (N=106), Sorted by Mean

<table>
<thead>
<tr>
<th>Competency Item</th>
<th>Mean Rating</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to Follow Rules and Policies</td>
<td>4.89</td>
<td>0.35</td>
</tr>
<tr>
<td>Ability to Provide a High Level of Customer Service</td>
<td>4.84</td>
<td>0.45</td>
</tr>
<tr>
<td>Interpersonal Skills</td>
<td>4.82</td>
<td>0.39</td>
</tr>
<tr>
<td>Work Effectively as a Team</td>
<td>4.67</td>
<td>0.52</td>
</tr>
<tr>
<td>Work Effectively as an Individual: Self-directed</td>
<td>4.67</td>
<td>0.52</td>
</tr>
<tr>
<td>Knowledge of Financial Aid Issues/Trends</td>
<td>4.25</td>
<td>0.86</td>
</tr>
<tr>
<td>Develop Subject Matter Expertise to Facilitate Student Counseling</td>
<td>4.21</td>
<td>0.85</td>
</tr>
<tr>
<td>Understand Organizational Purpose and Culture</td>
<td>3.99</td>
<td>0.98</td>
</tr>
<tr>
<td>Writing Skills Appropriate for a Given Audience</td>
<td>3.98</td>
<td>0.77</td>
</tr>
<tr>
<td>Identify Appropriate Data Sources for Informed Decision Making</td>
<td>3.97</td>
<td>0.86</td>
</tr>
<tr>
<td>Build a Network of Internal Contacts</td>
<td>3.97</td>
<td>0.85</td>
</tr>
<tr>
<td>Conflict Resolution Skills</td>
<td>3.93</td>
<td>0.81</td>
</tr>
<tr>
<td>Develop Alternative Solutions to a Single Problem</td>
<td>3.90</td>
<td>0.77</td>
</tr>
<tr>
<td>One-on-one Negotiation Skills</td>
<td>3.86</td>
<td>0.90</td>
</tr>
<tr>
<td>Provide Recommendations Based on Multiple Alternatives</td>
<td>3.86</td>
<td>0.75</td>
</tr>
<tr>
<td>Computer Network and Database Management Skills</td>
<td>3.77</td>
<td>1.12</td>
</tr>
<tr>
<td>Advocate for Preferred Solutions or Alternatives</td>
<td>3.62</td>
<td>0.87</td>
</tr>
<tr>
<td>Quantitative Data Analysis</td>
<td>3.58</td>
<td>0.92</td>
</tr>
<tr>
<td>Qualitative Data Analysis Skills</td>
<td>3.55</td>
<td>0.94</td>
</tr>
<tr>
<td>Awareness of Public Concerns and/or Economic Issues</td>
<td>3.54</td>
<td>0.82</td>
</tr>
<tr>
<td>Formal Presentation Skills</td>
<td>3.47</td>
<td>0.88</td>
</tr>
<tr>
<td>Awareness of Political Climate</td>
<td>3.43</td>
<td>0.97</td>
</tr>
<tr>
<td>Build a Network of External Contacts</td>
<td>3.43</td>
<td>0.82</td>
</tr>
<tr>
<td>Project Management Skills</td>
<td>3.43</td>
<td>1.01</td>
</tr>
<tr>
<td>Knowledge of Appropriate Data Collection Methods</td>
<td>3.40</td>
<td>0.98</td>
</tr>
<tr>
<td>Group Facilitation Skills</td>
<td>3.29</td>
<td>0.88</td>
</tr>
<tr>
<td>Ability to Forecast or Identify Emerging Trends That May Impact Financial Aid</td>
<td>3.22</td>
<td>1.09</td>
</tr>
<tr>
<td>Knowledge of Legislative Processes and Procedures</td>
<td>3.14</td>
<td>1.01</td>
</tr>
<tr>
<td>Social Media Application and Communication Skills</td>
<td>3.13</td>
<td>0.83</td>
</tr>
<tr>
<td>Knowledge of Comparable State-level Higher Education Issues</td>
<td>3.08</td>
<td>0.94</td>
</tr>
</tbody>
</table>
Using a five point Likert scale (1=Never, 2= Rarely, 3= Sometimes, 4= Often, 5= Always), all items have mean score above three. This shows a high frequency of use for each competency. Again, this isn’t totally unexpected as I developed the competencies in association with financial aid experts. The top five competencies, by mean scores, are utilized more frequently than the others: ability to follow rules and policies (M=4.89, SD=0.346), ability to provide a high level of customer service (M=4.84, SD=.452), interpersonal skills (M=4.82, SD=.39), work effectively as a team (M=4.67, SD=.516), and work effectively as an individual: self-directed (M=4.67, SD=.516). The top rated competency items, particularly the top five, have very low standard deviations indicating agreement amongst the survey respondents. This strongly indicates that these competencies are significant and valuable in successful job performance.

At the very least, the high mean scores for importance and frequency ratings establishes criterion-related validity (Babbie, 2004) for the competency items. Had there been a wide range of mean scores with a large deviation from the mean, it may have been concluded that the competencies identified by the financial aid experts may not have been an appropriate list. However, it is logical to conclude that the competencies established are relevant, valuable, and central to performing at a high level.

Findings and Interpretations: Research Questions 1 & 2

Table 5.3 shows the top five and the bottom five competencies according to mean rating for importance and frequency.

Table 5.3 Highest Rated Importance and Frequency Ratings, Sorted by Mean

<table>
<thead>
<tr>
<th>Importance</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top 5</strong></td>
<td><strong>Top 5</strong></td>
</tr>
<tr>
<td>Ability to provide a high level of customer</td>
<td>Ability to follow rules and policies</td>
</tr>
<tr>
<td>service</td>
<td></td>
</tr>
<tr>
<td>M=4.83, SD=0.45</td>
<td>M=4.89, SD=0.35</td>
</tr>
<tr>
<td>Ability to follow rules and policies</td>
<td>Ability to provide a high level of customer</td>
</tr>
<tr>
<td>M=4.80, SD=0.47</td>
<td>service</td>
</tr>
<tr>
<td></td>
<td>M=4.84, SD=0.45</td>
</tr>
</tbody>
</table>
Interestingly, each of the top five for the importance scale are the exact competencies that rated as the top five on the frequency scale. Table 5.3 clearly indicates that the most important competencies are also the most frequently utilized. This provides great meaning for financial aid officers as it clearly highlights what competencies an officer should focus on in competency acquisition and development. It also provides meaning for supervisors of financial aid officers as it demonstrates the overlap between importance and frequency. In the world of financial aid, those competencies which are important are also frequently utilized. This is not always the case in every profession, as evidenced by the higher education policy analysts that Martinez (2007) studied. A very important skill is testifying in front of a governing body such as a legislative committee: however, this may not occur very frequently. Still, it is a very important competency in that field.

Equally important, what are the least important and least frequently used competencies according to the ratings? Table 5.4 displays the top five lowest rated competencies for both importance and frequency.

<table>
<thead>
<tr>
<th>Importance</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of legislative processes and procedures</td>
<td>Knowledge of comparable state-level higher education issues</td>
</tr>
<tr>
<td>Social media application and communication skills</td>
<td>Social media application and communication skills</td>
</tr>
<tr>
<td>Ability to forecast or identify emerging trends that may impact financial aid</td>
<td>Knowledge of legislative processes and procedures</td>
</tr>
<tr>
<td>Knowledge of comparable state-level higher education issues</td>
<td>Ability to forecast or identify emerging trends that may impact financial aid</td>
</tr>
</tbody>
</table>

Table 5.4 Lowest Rated Importance and Frequency Ratings
Four of the same competencies place onto both lowest rated lists, though it is notable that there is more variation in the ratings of these items. The list of competencies (knowledge of legislative process; social media; forecast or identify trends; knowledge of state-level issues; and awareness of political climate) makes intuitive sense in that these five competencies may be better associated with higher level administrators than early career financial aid officers. For example, financial aid directors often have the responsibility to monitor and assess the external environment when it comes to state and federal policy and trends. These external duties also include interacting with members of the external environment. These duties are much more suited for directors than for the entry-level financial aid officer. However, the financial aid officer must be aware of the external environment as they have the responsibility to explain the context of the external environment to students. The data indicate that the sample population focused on what competencies truly appear to align with their duties.

In comparing the standard deviations for both the highly rated competencies in Table 5.3 and the lowest rated competencies in Table 5.4, the frequency ratings had lower standard deviations. This finding implies agreement about day-to-day tasks but there is a little more room for opinion on those tasks that are important compared to those that are frequently utilized on the job. If everyone is performing similar tasks (frequency), it is reasonable to believe that respondent opinions about how important those tasks are would show a greater degree of subjectivity.

**Implications for Practice, Importance/Frequency Instrument**
Tables 5.3 and 5.4 utilize a matrix display to summarize the findings from the first two research questions to enhance the financial aid profession. By creating an Importance/Frequency Tool, practitioners can review competencies (whether it is those competencies developed in this research or any other competency that is rated for importance and frequency of use). For illustration, consider just the five highest and lowest rated competencies for importance and frequency.

Table 5.5 Importance and Frequency Instrument (Financial Aid Competencies)

<table>
<thead>
<tr>
<th>Importance</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly Rated</td>
<td>Low Rated</td>
</tr>
<tr>
<td>• Ability to provide a high level of customer service</td>
<td>• Knowledge of legislative processes and procedures</td>
</tr>
<tr>
<td>• Ability to follow rules and policies</td>
<td>• Social media application and communication skills</td>
</tr>
<tr>
<td>• Work effectively as a team</td>
<td>• Ability to forecast or identify emerging trends that may impact financial aid</td>
</tr>
<tr>
<td>• Interpersonal Skills</td>
<td>• Knowledge of comparable state-level higher education issues</td>
</tr>
<tr>
<td>• Work effectively as an individual: Self-directed</td>
<td>• Awareness of political climate</td>
</tr>
<tr>
<td>Frequency</td>
<td></td>
</tr>
<tr>
<td>Highly Rated</td>
<td>Low Rated</td>
</tr>
<tr>
<td>• Ability to follow rules and policies</td>
<td>• Knowledge of comparable state-level higher education issues</td>
</tr>
<tr>
<td>• Ability to provide a high level of customer service</td>
<td>• Social media application and communication skills</td>
</tr>
<tr>
<td>• Interpersonal Skills</td>
<td>• Knowledge of legislative processes and procedures</td>
</tr>
<tr>
<td>• Work effectively as a team</td>
<td>• Ability to forecast or identify emerging trends that may impact financial aid</td>
</tr>
<tr>
<td>• Work effectively as an individual: Self-directed</td>
<td>• Group facilitation skills</td>
</tr>
</tbody>
</table>

By inserting the competency into the appropriate box (importance high; importance low; frequency high; frequency low) employers and employees have a snapshot of priority competencies that define success in the field. For financial aid officers, the competency model established in Table 5.5 should identify those competencies to prioritize for training and evaluation. Such a focus will better service students.

The knowledge delivered by the Frequency/Importance Instrument could potentially make performance evaluation clearer, focus training issues, and add to the
body of knowledge to the profession as we can now empirically point to validated research that establishes the most important and the most frequency utilize competencies. The findings have practical implications: job announcements and advertisements can be focused to include these competencies, improving the likelihood that an organization will hire an effective employee; annual performance evaluations can be strengthened to include the important and frequently used competencies; and annual goals for performance can be targeted to focus on the effective and useful competencies. In addition, the use of the Frequency/Importance Instrument can be utilized by organizations to develop or strengthen training programs that build competencies in financial aid officers, particularly those needed for professional advancement.

Research Question 3: Importance

Attention is now turned to discussing the third research question: Do the competencies that financial aid officers deem important and/or of frequent use group into distinct categories that may inform a competency model for the profession of financial aid officers? Through the pattern matrixes established through exploratory factor analysis in Chapter 4, a four-factor solution to the research question was established. In what follows, I conduct analysis of each factor and interpret the findings. I follow the same pattern established in Chapter 4 by first discussing the importance ratings, followed by the frequency ratings.

In Table 5.6, each factor is listed to show which items grouped together for the importance ratings. The table categorizes the competencies by naming them with intuitive labels, as informed by my own experience and a review of the literature. However, not all competencies fit perfectly under the named label, as they grouped in the exploratory factor analysis. In order to gain meaning from this exploratory process, I do
make some judgments regarding the fit of each competency into the label I provide each factor.

Table 5.6 Competency Model for Importance

<table>
<thead>
<tr>
<th>Factor 1: Relationship to Ecosystem</th>
<th>Factor 2: Communication</th>
<th>Factor 3: Data Analysis</th>
<th>Factor 4: Project Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External</strong></td>
<td><strong>Internal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of state-level finance issues</td>
<td>Group facilitation skills</td>
<td>Work effectively on a team</td>
<td>Quantitative data analysis</td>
</tr>
<tr>
<td>Identify financial aid trends</td>
<td></td>
<td>Conflict resolution abilities</td>
<td>Qualitative data analysis</td>
</tr>
<tr>
<td>Awareness of political climate</td>
<td>Advocate for preferred solutions</td>
<td>Customer service skills</td>
<td>Identify appropriate data sources</td>
</tr>
<tr>
<td>Awareness of public concerns/economic issues</td>
<td>Network of internal contacts</td>
<td>Writing skills</td>
<td>Computer network/database management skills</td>
</tr>
<tr>
<td>Knowledge of legislative process</td>
<td>One-on-one negotiation skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network of external contacts</td>
<td>Understand organization’s purpose and culture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of higher education financial aid issues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of data collection methods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal presentation skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social media communication abilities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Originally, factor 1 had 15 competency items load, but not all the items seemed to fit onto one discrete category. Finding an all-encompassing term to label and describe Factor 1 was slightly difficult because it has almost two types of competencies that group together. Accordingly, I split the competencies into two sub-groups within the factor.

One set of competencies relates to those that are external to a financial aid officer’s organization. They deal with matters of professional and national trends, knowledge of state and national issues and speak to a need to synthesize information from various external sources. Factor 1 also has a second sub-group of competencies that could be
explained or labeled as internal to the organization and are retained in the internal section of the factor. The external and internal competencies in factor 1 relate to the relationship with the environment or the ecosystem surrounding the financial aid officer and her organization. A reasonable label then for Factor 1 is Ecosystem Relationship as the competencies span both ends of the external/internal spectrum.

Factor 2 is somewhat more interpretable than the Relationship to Ecosystem Factor in that it is not multi-dimensional. With six initial competencies, I analyzed each to see if a pattern emerged from the grouping. The competencies retained include: work effectively on a team; writing skills; conflict resolution abilities; and customer service skills. All of these competencies speak to communication and are relational in nature. Thus, factor 2 might reasonably be labeled the “communication” factor.

Factor 3 loaded the competencies of quantitative data analysis, qualitative data analysis, and identifies appropriate data sources. These competencies are technical skills and are related to data analysis. Thus, factor 3 is composite of technical data analysis skills and is labeled “data analysis.”

Factor 4 of the ML Importance ratings grouped project management skills, interpersonal skills, follow rules and policies, and computer network/database management skills together. These competencies are not generally associated together as the other factors; however, the competencies do lend themselves to an important role in project management and work-flow of projects in the financial aid field. Each of the competencies is vital as a financial aid officer participates and influences project completion. Therefore, factor 4 is labeled as “project management.”

In summary, the factor solution for importance yields the following four groupings for the importance ratings:
1. Ecosystem Relationship;
2. Communication;
3. Data Analysis; and
4. Project Management.

**Research Question 3: Frequency**

Table 5.6 provides a listing of each of the retained competencies and grouping relationships for the frequency results, for the four-factor model.

**Table 5.7 Competency Model for Frequency**

<table>
<thead>
<tr>
<th>Factor 1: External</th>
<th>Factor 2: Data Analysis</th>
<th>Factor 3: Project Management</th>
<th>Factor 4: Interpersonal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of state-level finance issues</td>
<td>Quantitative data analysis</td>
<td>Advocate for preferred solutions</td>
<td>Customer service skills</td>
</tr>
<tr>
<td>Awareness of political climate</td>
<td>Qualitative data analysis</td>
<td>Project management skills</td>
<td>Conflict resolution abilities</td>
</tr>
<tr>
<td>Awareness of public concerns/economic issues</td>
<td>Knowledge of data collection methods</td>
<td>Provide recommendations</td>
<td>Subject matter expertise to facilitate counseling</td>
</tr>
<tr>
<td>Identify financial aid trends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of higher education finance aid issues</td>
<td></td>
<td>One-on-one negotiation skills</td>
<td>Work effectively on a team</td>
</tr>
<tr>
<td>Formal presentation skills</td>
<td></td>
<td>Computer network/database management skills</td>
<td>Develop alternative solutions</td>
</tr>
<tr>
<td>Knowledge of legislative process</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network of external contracts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social media communication abilities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The competencies in factor 1 above have a strong association with competencies that relate to the external organizational environment. These competencies deal with trends, issues, and skills that speak to the general knowledge of a financial aid officer. These external competencies play a strong role in the professional knowledge and political awareness of the issues surrounding financial aid in general. Factor 1 contains items that are external and is labeled as “external.”
Factor 2 in the exploratory factor analysis included technical skills. The competencies of quantitative data analysis, qualitative data analysis, and knowledge of data collection methods grouped together. This factor encapsulates the technical data collection and analysis skills that are frequently used in job performance. Factor 2 is labeled as “data analysis.”

Factor 3 grouped together project management skills. The competencies of advocate for preferred solutions; project management skills; prove recommendations; identify appropriate data sources; one-on-one negotiation skills; and computer network/database management skills are vital to the successful completion of projects and processes that are typically assigned to a financial aid officer. Factor 3 speaks to the ability of a financial aid officer to work through tasks and synthesize the work demands to accomplish goals and assignments. Factor 3 for frequency ratings is labeled as “project management.”

Factor 4 groups together competencies that are interpersonal in nature. As such, the competencies of customer service, conflict resolution abilities, subject matter expertise to facilitate counseling, interpersonal skills, work effectively on a team, and develop alternative solutions deal very clearly with people and relational qualities. Factor 4 for frequency ratings is categorized as “interpersonal.”

In summary, the factor solution for frequency yields the following four groupings for the frequency ratings:

1. External;
2. Data Analysis;
3. Project management; and
4. Interpersonal.
The exploratory factor analysis yielded two competency models for financial aid officers - one model for importance and one for the frequency ratings. Table 5.8 summarizes and compares both competency models.

Table 5.8 *Competency Model for Importance and Frequency Ratings for Financial Aid Officers*

<table>
<thead>
<tr>
<th>Importance Ratings</th>
<th>Frequency Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship to Ecosystem:</td>
<td>External to Organization</td>
</tr>
<tr>
<td>External/Internal</td>
<td></td>
</tr>
<tr>
<td>Communication/Relational</td>
<td>Interpersonal</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>Data Analysis</td>
</tr>
<tr>
<td>Project Management</td>
<td>Project Management</td>
</tr>
</tbody>
</table>

The data compiled in the surveys rating the importance and frequency of use of a given set of competencies has been reduced to a set of explainable factors. The competencies included in each factor have common meaning and are summarized by the factor name. The respective factor names provide meaning and synthesis for financial aid professionals and the field. These findings can be of great use in the hiring, training, and evaluation of the job performance of financial aid officers.

**Findings: Research Question 4**

The fourth and final research question was if patterned groupings exist, do they share similarities with the factors that surfaced in Martinez’s 2007 study? This question in essence compares two similar studies for two separate populations, but similarity in findings may signal potential generalizability. Where Martinez studied higher education policy analysts, my study focused on financial aid officers. These two subsets of employee types within the higher education field provide somewhat similar results. I had limited involvement with the Martinez study as both a participant and as a member of the team that identified the original set of competencies through a Delphi process. This involvement and familiarity with the study naturally flowed into my interest in financial
aid officers. Martinez identified a four-factor solution for the higher education policy analysts’ profession. My study also identified a four-factor solution. Table 5.9 compares Martinez’s proposed framework, upon which this research was launched, against the factors extracted through my study. More than one label (or dimension) may appear in a given table cell for the Importance and Frequency results of my study, just for analytical and interpretation purposes.

Table 5.9 Comparison of Martinez’s Four-factor Solution to the Four-factor Solution of the Importance and Frequency Ratings

<table>
<thead>
<tr>
<th>Martinez</th>
<th>Importance</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal/Interpersonal</td>
<td>Communication</td>
<td>Interpersonal</td>
</tr>
<tr>
<td>Internal/Technical</td>
<td>Ecosystem</td>
<td>Data Analysis</td>
</tr>
<tr>
<td></td>
<td>Data Analysis</td>
<td>Project Management</td>
</tr>
<tr>
<td>External/Interpersonal</td>
<td>Communication</td>
<td>Interpersonal</td>
</tr>
<tr>
<td>External/Technical</td>
<td>Process Management</td>
<td>External</td>
</tr>
<tr>
<td></td>
<td>Ecosystem</td>
<td></td>
</tr>
</tbody>
</table>

There are many similarities and differences between my research and Martinez’s findings. The similarities include cross-over between technical skills and people/communication skills. For example, in Martinez’s Internal/Interpersonal, competencies of work effectively as a team, one-on-one negotiations, and group facilitation skills were included. These overlapped with the competencies of work effectively as a team, writing skills, etc. In addition, the data analysis factors from Martinez’s (2007) work (quantitative and qualitative data analysis competencies) correlated with the competencies included in this research’s data analysis factors. However, what is most telling is the distinction that Martinez made by separating out the external and internal, whereas, the factors in this research did not lend themselves to separating out external and internal factors. In fact, factor 1 of the importance ratings grouped competencies that are both external and internal to the organization.
The answer to research question 4 is less clear than the other research questions. While there are some similarities, the factors do not label or categorize exactly according Martinez’s research. In some respect, this is unsurprising since the competency list that Martinez utilized and the competency list that I utilized were similar, but my competencies were modified to fit the financial aid officer, whereas, Martinez’s competency list were fitted to the higher education policy analyst. Had we used the same list of competencies, perhaps a more closely correlated factor solution would have materialized. However, comparing Martinez’s study to this research does indicate that the financial aid officer’s job leans slightly towards an internal focus, especially compared with the highest rated competencies in research questions one and two before exploratory factor analysis.

**Implications**

The implications of this research are practical and benefit the professional development of the financial aid officer. One outcome was the creation of a competency model for financial aid officers. With the four-factor solutions for both importance ratings and frequency ratings, a competency model emerged from the survey data. The factors serve as the pillars of the competency model.

The purpose of competency models, in the literature, is to inform job behaviors and influence performance training. Creating a standard to judge performance against provides a clear understanding regarding which job competencies should be emulated and encouraged in the financial aid profession. The competency models established in this study are particularly important for entry level professional employees. The competency model establishes a roadmap whereby financial aid officers can influence their profession and ultimately their students toward successful college completion.
To this end, this research has established two potential competency models to guide the financial aid profession. Both the importance and frequency results highlight competencies that are both important and of frequent use. The competency models established by the exploratory factor analysis for both importance and frequency include competencies that span the external and internal environment; impart communication and interpersonal skills; cover project management abilities; and include data analysis skills.

Utilization of the competency models and the Importance/Frequency Tool is appropriate for financial aid offices seeking to improve the competencies and skill sets of their financial aid officers. One meaningful way in which this is done is through the annual performance evaluation. Typically, the financial aid officer and their supervisor establish performance goals for the year upon which the financial aid officer is evaluated. These goals must include a review of the officer’s current competency attainment level (based on the competencies established by the competency models in this study) and a plan for how the officer will develop missing or under-developed competencies from a desired skill set. Tying competency development to the annual performance evaluation provides incentive for the employee to seek development and attainment of the competencies as job security and merit decisions are a direct result of the performance evaluation.

Having competency development part of the annual performance evaluation places responsibility on the supervisor to develop and implement training programs to ensure employees are able to learn the desired competencies. One of the practical impacts of this research is that responsibility for competency attainment is shared with the supervisor and the financial aid officer. Competencies cannot be developed without the appropriate training regimen and focus. The training has to be a priority of the
supervisor as well as the employee; otherwise, the competency development may not be in proper focus. Additionally, the organization has to value employees who seek after, possess, and utilize the appropriate competencies. The organization has to add value either through merit compensation or promotion opportunities. Without the organization valuing the competencies, employees and supervisors will not pay the appropriate attention to competency development.

Future Research

The process by which this research project answered a set of questions also raised other questions that now provide an opportunity for future research and exploration. One such question is what type of competency models would materialize for other subsets of professions within the higher education domain? For example, what would be the most important and frequent competencies employed in other student affairs positions such as admission counselors, recruiters, academic advisors, orientation professionals, cashiers, registrars and records professionals, student government, residential life professionals, etc.?

I see great utility specifically in the Importance/Frequency Tool established in this research study as it relates to other professions. The potential for clarity and purpose for professional development when each profession offers to its employees a list of most important and frequently used competencies seem pragmatic and useful. To this end, the same study methodology of developing an initial list of competencies, surveying a wide array of student affairs professionals asking them to rate the relative importance and frequency of use, then analyzing the results for the highest and lowest rated competencies as well as conducting factor analysis to identify the underlying constructs would be extremely useful.
The survey was sent to financial aid professionals in the Western United States. As such, one question for future research could be to expand the survey to a national audience. Perhaps the competencies rate differently by region. Perhaps a separate competency model could be identified by regional differences of emphasis or culture of college attendance. For example, in a region with traditionally established patterns of college attendance such as New England, would different competency models result compared to a region where less of the population goes to college? It would also behoove the national professional organization of financial aid professionals, the National Association of Student Financial Aid Administrators (NASFAA) to employ the survey nationally.

Other potential research inquiries may focus on the types of competencies that are important and frequently utilized by different types of institutions (private, for-profit, public). I did not disaggregate out the responses of private institution financial aid officers compared to the responses of public institution financial aid officers. Conceivably, a different set of values and missions across institution types may inform the competencies that are valued in the financial aid office. In addition, a comparison of the importance and frequency ratings could be studied in relation to the size of the financial aid staff. Typically, with a large staff size, financial aid officers may become segmented to a specific area of financial aid. For example, large offices may have dedicated staff members to areas within financial aid such as scholarships, processing, verification, client services whereas; small offices may have staff members that deal with all areas of financial aid. The survey I developed does establish some demographic qualifiers giving the potential for this dataset to be analyzed further for comparisons across institution types and staff size.
Future research could also be conducted regarding the competencies of financial aid directors, associate, and assistant directors compared to other staff levels in the organization chart. This study had a focus on early-career financial aid officers (advisors, counselors, etc.); further study should examine the competencies that successful directors and supervisors should have in their job performance. I purposefully did not consider competencies associated with management (e.g. supervision, leadership, management, etc.) as the focus of this study was on early-career financial aid officers. One way to accomplish competency development for directors would be to identify competencies for specific job functions associated with a job title or specific function of the employee within the financial aid office.

Summary

I began this research wondering if a similar process by which Martinez identified competencies and their use in the field of higher education policy analysts could be replicated for a different set of professionals. As a Director of Financial Aid, I have the responsibility to hire, train, evaluate, and develop financial aid officers so they can offer the best possible service to students. I have a vested interest in providing the means to students to pay for college attendance and ultimately, assist them through graduation. To accomplish this, I have to have the best possible staff to meet the needs of our students. To this end, a competency model must be identified to assist me and the financial aid profession in developing our employees to meet the needs of our students. While much information exists regarding the technical knowledge of financial aid regulations, there was much missing in terms of a professional competency model for financial aid officers. A common trait that I see missing in the profession is how does one relate the myriad of federal regulations to a first generation college student? What skills should a financial
aid officer possess and utilize as they are counseling students to enroll and persist in college?

The research found that there are definitive competencies that are important to the successful financial aid officer. Specifically, this research developed a tool whereby any profession can identify the important and frequently used competencies. By taking the highest and lowest rated competencies, one can utilize a two-by-two matrix to identify the high and low importance competencies as well as the high and low frequency competencies (see Table 5.5).

In addition, exploratory factor analysis unearthed commonalities amongst the competencies and established a four-factor competency model in both the importance and frequency ratings. The competency models established by this research are great tools for the development of the financial aid profession. Further research can be employed using my methodology to establish a national model from the regional model I established.

Finally, this research confirmed some similarities and differences amongst the findings of my research and those of Martinez in his 2007 study of higher education policy analysts. Both studies identified a four-factor solution but had some differences in the underlying constructs. Our competency lists were slightly different and the associated meaning of the factors identified some similar findings (external and internal to the organization, interpersonal skills, technical/data analysis, etc.) and some that weren’t (project management, communication).

All things considered, this research provides answers to the research questions in addition to providing an assessment tool (Importance/Frequency Instrument) to search for competencies relevant to any field of labor. The development of a competency model for
financial aid officers plays an important role in improving the service that students receive as they make college matriculation, enrollment, and persistence decision. Specifically, financial aid officers should utilize the Importance/Frequency Instrument and the competency models to provide increased service in answering student’s questions about paying for college. For many students, these decisions are of vital importance. Having an answer to the question of “how will I pay for college?” will go a long way in improving the college going rate of students who may think college is too expensive and out of reach.
Appendix A: List of Competencies from Martinez’s (2007) Study

1. Quantitative data analysis skills
2. Work effectively on a team
3. Ability to identify appropriate data sources to inform decision-making
4. Develop alternative solutions to a single problem
5. Writing skills appropriate for a given policy audience
6. Provide recommendations based on multiple alternatives
7. Interpret laws and policies
8. Knowledge of appropriate data collection methods
9. Group facilitation skills
10. One-on-one negotiation skills
11. Evaluate impact of laws and policies
12. Work effectively individually; self-directed
13. Knowledge of higher education policy issues
14. Manage projects
15. Awareness of current political climate
16. Understand one’s organizational purpose and culture
17. Build a network of professional contacts
18. Knowledge of comparative state-level higher education governance and finance policy issues
19. Qualitative data analysis skills
20. Formal presentation skills
21. Awareness of public concerns and societal issues
22. Ability to forecast or identify emerging trends that might impact higher education policy
23. Advocate for preferred solutions or alternatives
24. Knowledge of legislative processes and procedures
25. Work with or manage budgets
Appendix B: Invitation to Participate in Competency Development

Invitation to Participate in a Research Study – Competency List Development
Research Title: Competencies for Financial Aid Officers: A Competency Model for Professional Development

Research Conducted by:
Dr. Mario Martinez, UNLV
Mr. Neil Woolf

You are cordially invited to participate in a research study. The purpose of the study is to explore whether or not financial aid professionals agree upon a set of specific job competencies that lead to successful performance of their job duties. As an experienced financial aid professional, you are invited to help shape a list of competencies that will then be sent out to Western Association of Student Financial Aid Administrators as a survey. The survey will give WASFAA members the list of competencies then ask them to rate each competency for its importance and how frequently it is used in performance of job duties.

Your participation in helping to develop the list of competencies is voluntary and will remain anonymous. Your feedback will remain confidential and will not be shared with survey participants nor will it be identified in any report of findings. By providing feedback to Mr. Neil Woolf on the list of competencies, you hereby consent to participate.

Thank you in advance for providing feedback on the list of competencies.
Sincerely,

Neil Woolf
UNLV Doctoral Candidate
Appendix C: Survey Instrument

Introduction

Thank you for your time and thoughtful answers as we gain insight into the job competencies that you feel are needed to be successful for an entry-level financial aid professional employee. For the purposes of this study, an entry-level financial aid officer is an individual responsible for relaying financial aid awards and processes to potential and current students. A financial aid officer excludes those in financial aid offices who have managerial/supervisory duties (e.g. Directors, Associate Directors, and Assistant Directors). The financial aid officer studied here will be those in entry-level professional positions who have job duties to award, package, disburse, and provide outreach regarding all forms of financial aid.

Informed Consent
This study is aimed at gaining insight from practitioners and experts in the financial aid field as to what specific job competencies are needed to be successful as an entry-level financial aid officer. The study is being conducted by Professor Mario Martinez and Neil Woolf of the University of Nevada, Las Vegas and it has been approved by the University of Nevada, Las Vegas Institutional Review Board. No deception is involved, and the study involves no more than minimal risk to participants (i.e., the level of risk encountered in daily life).

Participation in the study typically takes approximately 20 minutes and is strictly anonymous. Participants begin by answering a short series of questions about their institution, after which they are asked to rate the frequency and importance of specific job competencies.

All responses are treated as confidential, and in no case will responses from individual participants be identified. Rather, all data will be pooled and published in aggregate form only. Participation in the survey is completely voluntary.

If participants have further questions about this study or their rights, they may contact the principal investigator, Professor Mario Martinez at Mario.martinez@unlv.edu; Neil Woolf at neil.woolf@nsc.nevada.edu; or the UNLV Office of Research Integrity, at (702) 895-2794.

If you are 18 years of age or older, understand the statements above, and freely consent to participate in the study, click on the "I Agree" button to begin the survey.

Survey Instructions

Through a thorough review of the literature, and with the input of financial aid experts, you will be asked to rate how important, and how frequent each of the 23 competencies is utilized by a successful entry-level financial aid officer. Results will be compiled and published in the form of a competency model for use in the financial aid profession.

Survey Questions
Demographics
1. Do you work at a private, for profit institution; a private, not for profit institution; or a public institution?
2. The terminal degree offered by your institution is: certificate; associate’s degree; bachelor’s degree; master’s degree; doctorate; or professional degree?
3. The highest degree you obtained was a: certificate; associate’s degree; bachelor’s degree; master’s degree; doctorate; or professional degree?
4. The number of staff in your office is: 1-5, 6-10, 11-15, 15+

Competency Ratings
For each specific competency, please rate both the importance of the competency and how frequently it would be used in performing appropriate job duties. Provide a ranking on the following scales:
- **Importance**
  1-not important
  2-somewhat important
  3-important
  4-moderately important
  5-very important
- **Frequency**
  1-Never
  2-Rarely
  3-Sometimes
  4-Often
  5-Always

List of Competencies
- Quantitative data analysis skills
- Work effectively on a team
- Ability to identify appropriate data sources for informed decision-making
- Develop alternative solutions to a single problem
- Writing skills appropriate for a given audience
- Knowledge of appropriate data collection methods
- Group facilitation skills
- One-on-one negotiation skills
- Work effectively individually; self-directed
- Knowledge of higher education financial aid issues
- Awareness of current political climate
- Understand organizational purpose and culture
- Build a network of internal (within the institution) contacts
- Build a network of external (outside of the institution) professional contacts
- Knowledge of comparative state-level higher education finance issues
- Qualitative data analysis skills
- Formal presentation skills
- Awareness of public concerns and/or economic issues
Ability to forecast or identify emerging trends that might impact financial aid
Provide recommendations based on multiple alternatives
Advocate for preferred solutions or alternatives
Knowledge of legislative processes and procedures
Develop subject matter expertise to facilitate counseling strategies/client interactions
Interpersonal skills
Ability to provide a high level of customer service to students and/or parents
Computer network and database management skills
Social media application and communication abilities
Conflict resolution abilities
Project management skills
Ability to follow rules and policies


Curriculum Vitae

Education

- Doctor of Education (EdD) in Higher Education Administration, University of Nevada, Las Vegas, May 2012
- Master of Arts, Public Administration (MPA), University of Utah, 2003
- Bachelor of Arts, Government; Minor in Business Administration., Eastern Washington University, 2001
- Certified Researcher from the National Institutes of Health

Work Experience

- **Director, Financial Aid and Student Employment, Nevada State College (NSC), 2008-present**
  - Supervise, lead, and manage NSC’s financial aid office and functionality for a rapidly growing state institution.
  - Successfully obtained full certification status from the Department of Education for the college to administer federal financial aid funds.
  - Developed a comprehensive outreach effort to prospective and current students informing them of the availability of financial aid, corresponding to a 76% increase in the total amount of aid disbursed to students from $5.5 million to over $21 million.
  - Automated the package, awarding, and disbursements of financial aid.
  - Created a comprehensive outreach and communication program that increased the FAFSA’s received by 140%.
  - Redesigned and developed the College Web site for external users. I was responsible for the Student Experience (Student Affairs) Division web redesign.
  - Lead and managed the redesign of college’s articulation agreements.
  - Revised multiple policies and procedures that led to full federal compliance and office efficiencies.
  - Committee Chair – Retention Communication Team; Articulation and Transfer Committee; and Accreditation Standard 3.
  - Provided leadership for the Western Interstate Compact for Higher Education’s (WICHE) Non-traditional No More Project. This project recruits non-traditional aged students with completed college credit back to college. The project was in conjunction with multiple states and I serve as Nevada’s financial aid representative to the State Leaders Group.
  - Co-Chair Institutional Accreditation for Year-one Self-report
  - NSC Faculty Senate and Chair of its Faculty Grievance Committee.
  - Nevada ACT State Council
  - NSHE Committee on Access and Affordability.

- **Senior Research Analyst, Nevada System of Higher Education (NSHE) System Administration, 2005-2008**
  - Provided research and public policy analysis for the office of Academic and Student Affairs.
- Prepared ad-hoc state-wide reports and present findings to the Board of Regents and institutions related to various academic and student affairs issues. Examples include the NSHE Financial Aid Report, NSHE Distance Education Report, NSHE Economic Impact and Development, Renewable Energy Programs, and the Nevada State Science and Technology Plan.
- Development of public policy in conjunction with Nevada Board of Regents, Nevada Legislature, Nevada Governor’s Office, and NSHE Institutions. Examples include, but are not limited to: Nevada’s statewide Millennium Scholarship, transfer and articulation, Nevada GEAR UP Program, restricted and classified research, remedial education, distance education, university admission standards, and financial aid.
- Created and published various marketing and informational brochures including Nevada’s Go to College Brochure and Transitions to College for Disabled Students.
- Directed the Lumina Foundation grant-funded College Goal Sunday project that created workshops for first-generation students and their parents to successfully complete the FAFSA and attend college. Project included budget management and oversight.
- Coordinated the mental health initiative with Nevada faculty and Nevada’s Department of Mental and Behavioral Health to increase and improve the graduates for Nevada’s behavioral health workforce.
- Coordinate and facilitate the NSHE Partnership for Inclusive Education. This initiative reviews, assesses, and seeks to amend teacher education curriculum to better meet the needs of a diverse secondary student population.
- Actively participate in the Chancellor’s Diversity Roundtable, a forum for community leaders to discuss matters of diversity and inclusion in education.
- Lead and support numerous outreach efforts, including working with Congressional delegation and local school districts in planning and hosting high school outreach programs.
- Served as lead staff for the Nevada Regent’s Cultural Diversity and Security Committee. This assignment included the creation and preparation of the agenda and reference materials for Committee meetings, and providing presentations for Board discussion.
- Provided leadership for the Equity, Diversity, and Inclusion Council, a statewide council of executive NSHE institution leadership that provides equity, diversity, and inclusion-related leadership and best practices for the Board of Regents and NSHE institutions.
- Serve as the Nevada Student Alliance Advisor - mentor and advise the Nevada Student Alliance, the student body presidents of each of the 7 NSHE institutions.
- Nevada GEAR UP State Council Chair and Evaluation Team member. Chaired the policy making and oversight council for the Nevada State GEAR UP Program. Provide leadership and budget oversight of administration of an $18 million grant program for low income and traditionally disadvantaged high school students to prepare for and make the transition to college.
o Lead and supervised the team that audits, advises, and recommends policies and practices related to admissions, articulation, and transfer at NSHE institutions.
o Coordinated the evaluation and assessment of a potential branch campus for Great Basin College to be located in Pahrump, Nevada.
o Served as Faculty Senate Chair and as a Senator in the Faculty Senate.
o Involved in the design and creation of the student services vision for the implementation of iNtegrate, Nevada’s ERP system.
o Chaired Employee Grievance Committee.

• Co-Instructor, University of Nevada, Las Vegas, 2006
  o Taught doctoral seminar in public policy in higher education (EDH 792)
o Course focused on the theoretical and practical perspectives of public policy, including its formation, implementation, and evaluation.

• Project Coordinator, First Year Programs and Transition Services, UNLV, 2003 - 2005
  o Generated and produced literature reviews and policy analysis based on research in creating the foundation document that the office used to develop its five-year plan.
o Provided leadership and operations management to three large and successful retention based initiatives:
  ▪ College Student Inventory: This effort decreased the attrition of students identified by the CSI. Through direct intervention, connect students to the vital student support services.
    ◊ Develop the research, assessment, and analysis of the administered College Student Inventory utilizing Access, Excel, SPSS, and PowerPoint.
    ◊ Case management, student advising, research, assessment, report writing, and presentation of findings and recommendations to campus leaders.
    ◊ Hiring, training, and supervising graduate interns with their case management of at-risk students.
  ▪ Students First Initiative: Formulated and implemented a qualitative research study using focus groups to define student perceptions of “runaround” treatment by support agencies on campus, a problem identified by the Student Satisfaction Inventory administered spring semester 2002.
    ◊ Hiring, training, and supervision of graduate interns in the planning, recruitment, and conducting of the groups.
    ◊ Conducted analysis of the findings, report writing, and made recommendations for enhancement of student services.
    ◊ Ongoing campus presentations of project findings.
    ◊ Earned National Institutes of Health Research Certification and UNLV Institutional Review Board approval.
◊ Presented work and findings at the Noel-Levitz 2005 National Conference on Student Recruitment, Marketing and Retention.

▪ **Rebel Peer Mentoring Program:**
  ◊ Created and coordinated peer mentoring program for freshmen business majors.
  ◊ Training and supervision of upper-level undergraduate mentors.
  ◊ Coordination of mentors with business alumni in local community.

▪ **Orientation Leader Training**
  ◊ Taught summer course to undergraduate students.
  ◊ Developed curriculum, syllabus, and training materials.
  ◊ Lectured to a class size of 25 students, proctored and graded weekly quizzes and final exam.
  ◊ Provided training on public speaking and public presentations

▪ **Governmental Accounting Standards Board (GASB) Statement 39 Implementation, UNLV Foundation, 2004**
  o The UNLV Foundation was given a mandate by University auditors to incorporate the Governmental Accounting Standards Board standard 39 into their financial statements as they related to endowed funds.
  o Researched endowment funds, endowed scholarships and designated the funds true restricted, non-expendable assets, quasi restricted and unrestricted.
  o Tabulated the Consumer Price Index for each endowment and endowed scholarship fund. Once the funds’ fair market value, gift value, and realized/unrealized gains were calculated, they were ready to be incorporated into the UNLV Foundation’s financial statements.

▪ **Graduate Assistantship, Greek Affairs, UNLV, 2003**
  o Created the organizational and functional development for the Inter-fraternity Council (IFC).
  o Provided student advising, judicial board training, disciplinary oversight, IFC Constitution revisions and policy changes, risk management training and policy recommendations, and event planning and organization.

▪ **Scheduling Specialist, University of Utah, 2001-2003**
  o Planned for and implemented the uniform course schedule for the University of Utah in consultation with administrators, staff, deans, and faculty.
  o Scheduled and coordinated university-wide events such as Redfest, summer conferences, summer camps, student protests, and various other activities.
  o Served as the lead for making the class schedule for the University of Utah uniform.
- Maintained the schedule of University facilities for conferences, lectures, presentations, etc.
- Directed the use of $100,000 in funds for facility renovations.
- Performed testing on database upgrades for PeopleSoft and Resource25 software programs.

- **The Utah Research Connection – Founded and developed a joint consortium of the Center for Public Policy and Administration and the Masters of Public Administration Program, University of Utah, 2002-2003**
  - Initiated and coordinated the formation of Utah Research Connection in a successful effort to connect students in the MPA program to local governmental agencies.
  - Created the Utah Research Connection as a result of a multitude of students needing thesis and research topics and the supply of local agencies needing research.

- **Founder and Developer of MPA Capstone, University of Utah, 2002**
  - Constructed a non-credit MPA course developed to review core program courses.
  - Designed syllabus maximizing the relationship of faculty participation and student involvement.

**Academic Research Activities and Interests**

- **Dissertation Proposal – A Competency Model for Financial Aid Administrators, in progress, expected May 2012**
- **National Association of Student Financial Aid Administrators work on book vouchers as a tool for academic success**
- **Higher Education Policy Pipeline Initiative - 2007**
  - Development of a competency model specific to higher education public policy analysts. Cooperative effort of the Ford Foundation and Dr. Mario Martinez.
- **State Policies and Practices for Transition to College, NCHEMS - 2006**
- **Bridging Higher Education to the States, August 2004, Denver, CO**
  - Research participant in the Ford Foundation funded initiative that creates information resources and policy dialogue for higher education officials, state government, and business representatives. The information resources were collected to form toolbox providing relevant national and statewide higher education research. The two-day conference brought together individuals from education, community colleges, government, and business organizations to familiarize each participant with the perspective held by the respective participants regarding access and affordability of higher education.
- **College Student Inventory, UNLV**
- **Students First Initiative, Administration and analysis at UNLV**
- **“Higher Education Funding; National Trends and the State of Utah” Master’s Thesis on file, MPA Office, University of Utah.**
• Numerous papers and class discussions conducted on topics such as: Higher Education Law, Finance, History, Politics, Access, Research Methods, Human Resources, etc.
• Specific interests include these areas: Public Policy, Politics, Higher Education Finance, Access, and Student Retention.

Conference Presentations
• “The Financial Aid and College Cost Crisis” 2012 ACT Nevada State Education Symposium, Las Vegas, NV
• “What’s New at Nevada Institutions” 2011 ACT Nevada State Education Symposium, Reno, NV
• “Understanding Financial Aid” 2009 ACT Regional Conference, Las Vegas, NV
• “Financial Aid and Community Outreach.” 2009 Nevada Association of Financial Aid Administrators Annual Conference
• “NSHE Transfer and Articulation Policies.” 2007 Nevada Community College Conference
• “Distance Education in Nevada.” 2006 Nevada Community College Conference
• “Students First Initiative.” Noel Levitz 2005 National Conference on Student Recruitment, Marketing, and Retention. Washington DC

Professional Memberships
• National Association of Student Financial Aid Administrators
• Western Association of Student Financial Aid Administrators
  o Executive Council Member
  o Federal Issues Committee Co-Chair
• Nevada Association of Financial Aid Administrators, President 2010-11
• American Student Government Association
• Hispanic Association of Colleges & Universities
• Association of Institutional Researchers

Committee Membership and Experience
• Current
  o Co-Chair, NSC Accreditation Committee
  o NSC Faculty Senate
  o Chair of the NSC Faculty Senate Faculty Grievance Policy Committee
  o Nevada State GEAR UP Policy Committee
  o Nevada ACT State Council
  o Western Association of Financial Aid Administrators Executive Council
  o NSC Student Retention Committee
  o Chair of the NSC Institutional Scholarship Committee
  o Institutional Retention Committee Team Leader, NSC
  o Module Lead, PeopleSoft Implementation Team, NSC
  o Academic Action Policy Committee, NSC
  o Residency Review Committee, NSC
  o Admission Review Committee, NSC
Web Site Development Committee, Student Experience Team Leader, NSC

Prior Committee Work
- Student and Academic Affairs Committee, Nevada Board of Regents
- Research and Economic Development Committee, Nevada Board of Regents
- Cultural Diversity and Security Committee, Nevada Board of Regents
- Chair, Nevada Statewide GEAR UP Council
- Academic Affairs Council, Nevada System of Higher Education
- Student Affairs Council, Nevada System of Higher Education
- Equity, Diversity, and Inclusion Council, Nevada System of Higher Education
- Economic Development Council, Nevada System of Higher Education
- EPSCoR Advisory Board, Nevada System of Higher Education
- Nevada Partnership for Inclusive Education
- State of Nevada State P-16 Council
- Remedial & Developmental Task Force, Nevada System of Higher Education
- Remedial & Developmental Task Force – Math Subcommittee, Nevada System of Higher Education
- Remedial & Developmental Task Force – Reading Subcommittee, Nevada System of Higher Education
- Articulation Board, Nevada System of Higher Education
- Nevada General Education Committee, Nevada System of Higher Education
- Millennium Scholarship Advisory Committee, Nevada System of Higher Education
- College Goal Sunday Task Force,
- First Year Experience Committee, UNLV
- Classroom Standards Committee, UNLV
- Students First Task Force, UNLV
- Orientation Planning Committee, UNLV
- Student Involvement and Activities Mission Writing Committee, UNLV
- Alcohol Policy Writing Committee, UNLV
- Retention, Promotion, and Tenure Committee, University of Utah
- Registrar’s Office Annual Report Committee, University of Utah
- Student Petition for Exception to University Policy Committee, University of Utah
- Founding member of the Masters of Public Administration Student Association, University of Utah
- Scheduling Action Team, University of Utah

Community Service
- Member, Las Vegas Community Diversity Forum
- Salvation Army Food Drive Coordinator, Henderson, NV
- Member, Friends of the Desert – community service organization benefiting Nevada’s homeless population
• Boy Scouts of America Troop 620 Committee Member, Henderson, Nevada
• Boy Scouts of America Scoutmaster Troop 337, Las Vegas, Nevada
• Youth Softball Coach, Salt Lake City, Utah
• Founding Member, Millcreek Charitable Giving Foundation, Salt Lake City, Utah