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A Financial Aid Competency Model for Professional Development

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This research explores the competencies that financial aid officers need to be successful in their jobs. A survey of 30 competencies was distributed to 508 financial aid officers in the Western United States. Respondents were asked to rate 30 job competencies for their relative importance and frequency of use. Using exploratory factor analysis, the emergent competency model was a four-factor solution that groups competencies that are 1) External to Organization, 2) Interpersonal in Nature, 3) Related to Data Analysis, and 4) Related to Project Management. The four-factor solution showed some overlap with another existing competency model for higher education analysts. Through the application of this competency model, financial aid officers may target specific competency areas for professional training and growth.

Key Words: *job competency, job performance, job skills*

According to the Congressional Advisory Committee on Student Financial Assistance ([ACSFA], 2008), our nation's global competi tiveness depends on the rate of bachelor's degrees obtained by high school graduates. The ability to pay for college influences student matriculation, persistence, and completion decision making processes (Swail, Redd, & Perna, 2003; Hossler, Ziskin, Gross, Kim & Cekic, 2008; Linsenmeier, Rosen, & Rouse, 2004). More specifically, 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).

Although the literature is rich in studies that investigate the impact of financial aid on students, there is little formal academic study regarding the financial aid administrators who help students learn about and obtain financial aid. A logical question then becomes whether a set of competencies exist that define effective job performance for those working as financial aid administrators because it is reasonable to connect the work effectiveness of this group to student access and success.

We found no research studies that directly address financial aid administrators in terms of the competencies they need to do their jobs. Such a study would help define job success, potentially enhance training objectives for financial aid administrators, and, perhaps most importantly, more

firmly establish the profession as an important component in the student success equation.

The competency literature that speaks to higher education professionals is sparse and deals mainly with high level administrative leaders (McDaniel, 2002), in addition to a single study on higher education policy analysts (Martinez, 2007). Marcus, Cooper, and Allpress (2005) argue that if competencies are to be used as a tool to promote, develop, and assess behaviors associated with job performance in a given profession, then competency models must be established for that profession.

The purpose of our study was to investigate whether a set of competencies that defines successful job performance for financial aid administrators exist. Such an investigation might help the field understand, promote, develop, and assess the behaviors associated with successful job performance in the professional realm of financial aid administration. Our study follows classic efforts at building initial competency models in new areas and represents a starting point for the financial aid profession. Given our purpose, three research questions guided the study:

1) For a given list of competencies, how do financial aid administrators rate the importance and frequency of use of 30 competencies related to their jobs?

2) Do the competencies that financial aid administrators deem important and/or of frequent use group into distinct categories that suggest a competency model?

3) How do the competencies or any emergent model for financial aid administrators compare with existing competency models for higher education professionals?

Literature Review

Competency studies have long followed Hemphill's (1960) classic approach to developing a competency list: draw on field resources, practitioners, experts, and academic research. In keeping with this tradition, we first reviewed job postings from the National Association of Student Financial Aid Administrators ([NASFAA], 2010) and the Western Association of Student Financial Aid Administrators ([WASFAA], 2012) to gain a basic understanding of what institutions are looking for in terms of competencies for financial aid administrators. These job postings produced the following common themes: responsible for accuracy and compliance in awarding federal need analysis documents and income documentation for federal verification; accurately awards and revises financial aid to students within federal, state and institutional guidelines; communicates closely with student account representatives to analyze special financial needs to individual students and be a resource to student account counselors; provide various training workshops for students and staff to expand financial aid knowledge; counsels students and families about the financial aid process and professional judgment issues; and assists in the regular maintenance of the policies and procedures manual and updates financial aid forms.

Competencies from these job postings indicate financial aid administrators are key advisors to students and their families about the availability of financial aid programs. Financial aid administrators also help students and families navigate through the complex world of aid and college costs. Research (e.g., Nora et al., 2006; Hossler & Kalsbeek, 2008) supports the notion that financial aid influences students' postsecondary decisions, but questions remain about the best ways to design and implement programs and policies (Long, 2008). Designing and implementing policies lies within the job scope of financial aid administrators as they combine professional judgment, knowledge of policies, and their own analysis of particular student and family situations to determine financial aid eligibility and to design optimal aid packages. Indeed, the financial aid administrator who is current on trends, policies, and procedures is able to calculate financial need and package financial aid to best enable students to enroll in and successfully complete college.

Though there are no formal academic studies on financial aid administrators' job competencies, the broader field has a rich literature and informed our study. 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). This time period saw the development of three methods for identifying competencies: the educational, behavioral, and business approach (Marcus et al., 2005). The educational approach was based on the functional role, or job analysis, concentrating on the performance of specific tasks and skills. McClelland's (1973) behavioral movement found that many tests of aptitude did not correlate to job success and that organizations wanting to measure job performance should focus on competencies for job success and not on scholastic aptitude. In the business approach, Hamel and Prahalad (1989) introduced the concept of core competencies and capabilities not solely for the individual, but also for the organization.

Whatever the approach, the concept of competencies is often confusing since the term is used in different ways. The Nova Scotia Public Services Commission ([NSPSC], 2004) has provided a simple yet complete definition of competency: any observable and/or measurable knowledge, skill, ability, or behavior that contributes to successful job performance. NSPSC stated 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) indicated that competencies may vary from industry to industry and from organization to organization, while Rothwell and Lindholm (1999) have found that, conceptually, an organization develops competencies to staff its positions with employees who possess the characteristics of job exemplars.

Competencies and competency models are important because they are a guide to job behavior and performance, they can distinguish and differentiate the field, and they can help integrate management practices (Intagliata, Ulrich, & Smallwood, 2000). Competency-based training models have the advantage of offering specific attributes and frameworks for behavioral benchmarking (McDaniel, 2002). Another benefit of understanding job specific competencies is that the possession of competencies leads to

capability and capacity to do a job (Gardner, Hase, Gardner, Dunn, & Carryer, 2008). Cairns (2000) defines capacity as having justified confidence in one's ability to take appropriate and effective action to formulate and solve problems in both familiar and unfamiliar settings.

Across the literature, an integrated set of competencies has become known as a competency model (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. One of the most influential approaches to developing a competency model culminated in Hemphill's (1960) creation of a taxonomy of management competencies. Hemphill asked 93 managers from five large manufacturing companies to rate the extent to which over 500 work activities related to their job on a Likert scale. Using exploratory factor analysis, he identified nine distinct competency areas. Subsequent studies in arenas as diverse as manufacturing, banking, and healthcare (Shippman, et al., 2000; Tornow & Pinto, 1976; Yukl & Lepsinger, 1991) have followed Hemphill's methodological approach using field expertise and research to identify a unique list of competencies, which are then factor analyzed for discernible patterns.

Pickett (1998) has pointed out that it is a critical responsibility of senior management to identify core competencies of the enterprise and to ensure that the competencies are adequate, appropriate, and attainable. According to Pickett, this is accomplished through training and development, a supportive and motivating environment, and management competence. Our approach aligned with Pickett's advice, but a key step in our process was to consider whether existing frameworks were useful within the context of financial aid administration, prior to our survey design.

Conceptual Framework

There has been little systematic competency modeling in higher education literature. Martinez (2007) developed a competency model for higher education policy analysts, which served as a methodological guide for this study and an empirically derived framework to compare with our results. Martinez assembled a national advisory group composed of five higher education policy analysts and three higher education faculty members to assist with the research study design . The team took a formal approach, as found in the literature, by first embarking on a Delphi process to derive a list of competencies. The final list was compared against the competency literature and recirculated one final time to the advisory group before it was parlayed into a competency survey comprised of 25 items. The survey asked a national sample of higher education policy analysts to rate the importance of each competency item and how frequently the competency was employed in the conduct of the job. The exploratory analysis yielded four proposed groupings of the various competencies:

1) External/Technical: Analytical competencies that help the analyst conceptualize the broader higher education and policy environment.

2) Internal/Technical: Analytical competencies which define qualitative and quantitative capability and data manipulation.

3) External/Interpersonal: The ability to communicate with external people and audiences about solutions, analyses, processes.

4) Internal/Interpersonal: The ability to work and communicate effectively with co- workers and managers.

Although the categorizations were not definitive since the results were based on an exploratory rather than a confirmatory procedure, the interpretations were made in light of the literature and within the context of what Martinez (2007) learned about the policy analysts' scope of work during the course of the study. The groupings represent a viable point of comparison 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.

Methodology

We found no competency model specific to financial aid administrators, not unlike other studies attempting to discover competencies tailored to their industries. The competency literature (Hemphill 1960; Martinez, 2007; Shippman et al., 2000; Tornow & Pinto, 1976; Yukl & Lepsinger, 1991) provided direction on methodological preferences for validly exploring competencies in a new domain: develop a survey with the aid of the literature, knowledge from the field, and practitioners/experts; disseminate the survey to a sample of professionals within the field; employ exploratory factor analysis; and forward any proposed categorical groupings (competency model), which may help conceptualize the competencies that define effective job performance and may inform training and development in the field.

We developed an initial list of competencies by reviewing a sample of job posting for entry-level financial aid administrators and consulting the competencies from Martinez's (2007) study. A group of five financial aid directors (from a mix of public, private, and two- and four-year institutions) acted as subject experts and provided face validity by reviewing the draft list of competencies and providing suggestions for clarity and modification. The final, revised survey was a synthesized list of 30 competencies relevant to the financial aid administrator's job performance. Respondents were asked to rate each competency item for level of importance (not important, somewhat important, important, moderately important, and very important) and frequency (never, rarely, sometimes, often, and always) of use. The survey was designed and administered electronically using Survey Monkey.

The survey population encompassed financial aid administrators who hold membership in WASFAA, a regional professional organization for financial aid administrators in Alaska, Arizona, California, Idaho, Nevada, Oregon, Washington, Hawaii, and the freely associated nations of the Pacific Islands. Entry level financial aid administrators were the target population; and directors, associate directors, and assistant directors were asked to respond to the questionnaire with the potential success of the entry-level financial aid administrator in mind. Sending the survey to all

508 WASFAA members allowed us to work within the financial constraints of our study and to capture a cross section of respondents whose cumulative results could be relevant to all WASFAA members and perhaps informative to the wider, national population of financial aid administrators. The practice of sampling within a segment of a larger population aligns with purposeful sampling techniques and provides results potentially generalizable to the larger population (Babbie, 2004).

The popularity of exploratory factor analysis as the analytical tool of choice in competency modeling is important because most researchers are investigating competencies for a specific target group of professionals in a new field. In addition, few studies start with an a priori model, eliminating confirmatory factor analysis as a possibility. Although Martinez's four-factor model served as a methodological and conceptual point of comparison, we ran an exploratory factor analysis for the importance and frequency datasets under two conditions: first, without forcing the number of factors into a predetermined number, and second, by forcing a four-factor solution to compare with the theoretical framework. In the subsequent sections, we report the results of the exploratory factor analysis for the maximum likelihood extraction technique only. Conventional rules for examining eigenvalues (values at least greater than 1.0) and scree plots (where does the plot begin to flatten out) guided data interpretation. In addition, Costello and Osborne (2005) advise that researchers consider individual factor loadings of 0.3 or above in their interpretation of results.

Results

The survey of WASFAA membership included a possible 508 respondents, with 135 participating for a response rate of 26.6%. The response rate is within the limits for survey research response rates found by Keeter, Kennedy, Dimock, Best, and Craighill (2006) and Curtin, Presser, and Singer (2000) at 20% and 25%, respectively. Cook, Heath, and Thompson (2000) conducted a meta-analysis of internet based surveys and found a mean response rate of 39.6% with a standard deviation of 19.6%. Our response rate was below the mean response rate, but within one standard deviation of the meta-analysis results.

Data preparation included sorting and organizing data for descriptive analysis and screening responses 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, and detecting and making decisions about possible outliers. In order to assure that missing data in participants' responses would not compromise the analysis, 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 means it is crucial to first establish a "missing com-

pletely 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 χ^2 statistics (Little & Rubin, 1989; Schaeffer & Graham, 2002) were calculated from the missing values. A significant χ^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 χ^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.

Descriptive statistics offer our first insight into survey ratings of the 30 competencies, especially when mean ratings and standard deviations are viewed simultaneously. Specifically, high mean values coupled with low standard deviations indicate widespread agreement about the importance or frequency of a particular competency. Table 1 shows the top five competencies according to mean rating for importance and frequency.

The top five importance competencies are the exact competencies that rated as the top five on the frequency scale; thus, the most important competencies are also the most frequently utilized for job tasks. In addition, the standard deviations for the five competencies under both importance and frequency were relatively low compared to the other 30 competencies in the survey, indicating widespread agreement about their importance and frequency of use. The intersection of importance and frequency should not be assumed, as evidenced by the higher education policy analysts that Martinez (2007) studied. For example, a very important

Table 1. Mean and Standard Deviation of Highest Job Competencies Rated by Importance and Frequency

Importance			Frequency		
Top 5	**M**	**SD**	**Top 5**	**M**	**SD**
Ability to provide a high level of customer service	4.83	0.45	Ability to follow rules and policies	4.89	0.35
Ability to follow rules and policies	4.80	0.47	Ability to provide a high level of customer service	4.84	0.45
Work effectively as a team	4.74	0.62	Interpersonal Skills	4.82	0.39
Interpersonal Skills	4.70	0.62	Work effectively as a team	4.67	0.52
Work effectively as an individual: Self-directed	4.59	0.69	Work effectively as an individual: Self-directed	4.67	0.52

skill is testifying in front of a governing body such as a legislative committee, however, this may not occur very frequently.

The transition to factor analysis requires the specification of an extraction technique. Costello and Osborne (2005) posit that if data are normally distributed, as was the case with the survey data, ML extraction is best as it allows for the computation of a wide range of indexes of the goodness of fit of the model and it permits statistical significance testing of factor loadings and correlations among factors. Analyses were run separately for importance and frequency, using an unforced solution and then a forced four-factor solution. Eigenvalues greater than 1.0 were used as the main criteria for each extraction, and the direct oblimin rotation method was used to further simplify and clarify the resulting data structure for interpretation. Table 2, which shows all 30 competency survey items, illustrates the analysis by showing a pattern matrix for one run of the data on the frequency rating for a four-factor solution. This model produced the most interpretable results of all models we ran and is thus appropriate for discussion.

Table 2 shows that six competencies loaded (in bold) on more than one factor. For competency items that cross-load, the highest absolute value of the loadings determine on which factor to retain the competency item (Ferguson & Cox, 1993), which also simplifies interpretation. In addition, all four factors in Table 2 had more than three items load, thus producing a stable four-factor stable solution.

Discussion and Implications

Table 1 illustrates a partial answer to the first research question: How do financial aid administrators rate the importance and frequency of use of 30 competencies related to their jobs? All 30 competencies were analyzed, in terms of both means and standard deviations, and analyzed for patterns. Summarizing the highest and lowest rated competencies, Table 3 provides practitioners a guide of prioritized competencies that define success in the financial aid profession.

Table 3 can be used by financial aid administrators as a practical tool that reasonably identifies the competencies to prioritize for training and evaluation in the profession. The knowledge delivered by this instrument could potentially make performance evaluation clearer, focus training issues, and add to the body of knowledge of the profession, as we can now point to empirical research that establishes the most important and the most frequently utilized competencies. The findings also have practical implications: job announcements and advertisements can be focused to include these competencies; 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.

The second research question asks about the grouping of the various competencies, which is best addressed through the factor analysis. Table 4 proposes potential labels for the four categories from the factor analysis results from Table 2.

Table 2. Mean Factor Loading of 30 Competency Items for Frequency of Use (N=106)

Competency Items	Factor 1 (10.2*)	Factor 2 (2.3*)	Factor 3 (1.8*)	Factor 4 (1.5*)
15. Knowledge of state-level finance issues	.822			
11. Awareness of political climate	.781			
18. Awareness of public concerns/economic issues	.771			
19. Identify financial aid trends	.697			
10. Knowledge of higher education financial aid issues	.681			
12. Understand organization's purpose and culture	.664			
22. Knowledge of legislative process	.644			
14. Network of external contacts	.608			
27. Social media communication abilities	.540			
7. Group facilitation skills	.540			
13. Network of internal contacts	.499			
17. Formal presentation skills	**.417**			.356
9. Self-directed				
1. Quantitative data analysis		.840		
16. Qualitative data analysis		.809		
6. Knowledge of data collection methods		**.379**	.349	
21. Advocate for preferred solutions			.746	
29. Project management skills	.311		**.511**	
20. Provide recommendations			**.454**	.446
3. Identify appropriate data sources			.408	
8. One-on-one negotiation skills			.404	
26. Computer network/database management skills	.328		**.343**	
25. Customer service skills				.432
28. Conflict resolution abilities	.378			**.402**
23. Subject matter expertise to facilitate counseling				.395
24. Interpersonal skills				.342
2. Work effectively on a team				.331
4. Develop alternative solutions				.328
30. Follow rules and policies				
5. Writing skills				

Notes:
1) * = Factor's Eigenvalue
2) Bolded values are those that cross-loaded on more than one factor. The bolded value denotes the highest loading of a cross-loaded item and is therefore associated with the factor in the given column.

Table 3. Financial Aid Job-Competency Instrument (Job-Competencies Ratings by Importance and Frequency)

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

Table 4. Competency Model for Frequency

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

The competencies in Factor 1 relate to the external organizational environment or one's interaction with that environment. These competencies deal with trends, issues, and skills that refer to the general knowledge of a financial aid administrator and are, therefore, labeled "external." These external competencies play a strong role in the professional knowledge and political awareness of the issues surrounding financial aid in general. Factor 2 centers around skills that draw on analytical techniques associated with data collection and analysis and are labeled "data analysis." Factor 3 groups together project management skills while Factor 4 groups competencies associated with "interpersonal" aspects of the job. Interestingly, from the descriptive analysis (Table 1 and Table 3), only one of the top five highest rated mean values for importance and frequency was technical in nature (ability to follow rules and procedures), with the remaining top four items more descriptive of interpersonal skills.

The final research question asks for a comparison between this study's results on financial aid administrators and the Martinez (2007) study on higher education policy analysts because the Martinez study served as a guide for this research on financial aid administrators. First similarity with Martinez study was the category of internal/interpersonal included many communication and interpersonal competencies shown under Factors 3 and 4 from Table 4. Interpersonal competencies are valuable commodities whether a financial aid administrator is practicing customer service skills with students and families or advocating for a preferred solution to a problem. Next, Martinez defined a category called internal/technical, which closely mirrors the "Data Analysis" factor (Factor 2), which encompasses qualitative and quantitative analysis and data collection competencies. Furthermore, we found the external/technical category shares some commonality with Factor 1 (External), as financial aid administrators are advantaged by understanding the broader context of their field and professional environment. While the 2007 research separated out the external and internal environments, the factors in our research did not lend themselves to such a definitive separation.

Conclusions

Competency models help emphasize critical job behaviors, influence performance training, and aid managers as they advertise and search for capable employees. Performance standards, which are natural extensions of such work, provide a clear understanding regarding which job competencies should be emulated and encouraged in the financial aid profession. The competency models established in this study seem particularly important for entry level professional employees and provide a roadmap whereby financial aid administrators can influence their profession and, ultimately, student access and success. The Importance/Frequency Tool in Table 3 could be an appropriate starting point for financial aid offices seeking to improve the competencies and skill sets of their financial aid administrators.

The answers to our research questions raise other questions that provide an opportunity for future research to validate this work. What type of competency models would materialize for other subsets of professions within the higher education domain? Is there value in creating a compe-

tency model for directors and assistant directors of financial aid? Given that the results of this research were predicated on responses from WASFAA members, might competencies rate differently by geographical region? Would a more comprehensive national survey benefit the field and extend directional guidance on professional development? Effective research should provide some answers to important questions, but it should also raise additional questions. Our work in competency modeling, as it pertains to financial aid administrators, is hopefully a contribution to that end.

Nexus: Connecting Research to Practice

- The financial aid competency model based from this research identifies effective job behaviors that lead to success within the profession. The identification, development, and employment of the most important and frequently utilized competencies lead to improved job performance of financial aid administrators.
- Higher education managers and leaders must have clearly defined competencies to gauge job performance and provide evaluations and feedback.
- The development and implementation of the competency model enables higher education leaders to align job performance to institutional mission, vision, and strategies.
- Financial aid administrators should focus efforts to hire, train, and evaluate personnel using this competency model in order to increased institutional effectiveness and efficiencies.

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