

8-1-2017

Certification of Financial Aid Administrators: Is It Time to Move Forward?

Stacey A. Peterson

Independent Researcher, spete018@odu.edu

Follow this and additional works at: <http://publications.nasfaa.org/jsfa>

 Part of the [Higher Education Commons](#), and the [Higher Education Administration Commons](#)

Recommended Citation

Peterson, Stacey A. (2017) "Certification of Financial Aid Administrators: Is It Time to Move Forward?," *Journal of Student Financial Aid*: Vol. 47 : Iss. 2 , Article 3.

Available at: <http://publications.nasfaa.org/jsfa/vol47/iss2/3>

This Scholarly Article is brought to you for free and open access by NASFAA Research Publications. It has been accepted for inclusion in Journal of Student Financial Aid by an authorized administrator of NASFAA Research Publications. For more information, please contact jacob.gross@louisville.edu.

Certification of Financial Aid Administrators: Is It Time to Move Forward?

Cover Page Footnote

This manuscript is based, in part, on my dissertation, Certification of Financial Aid Administrators, submitted to the faculty of Old Dominion University in partial fulfillment of the requirements for the degree of doctor of philosophy in higher education administration in December 2011. This study uses data collected from a survey conducted by the National Association of Student Financial Aid Administrators' (NASFAA) 2009-10 Institutional Program Management Committee, for which I served as staff liaison while employed by NASFAA. NASFAA granted me a nonexclusive limited purpose data use license. I presented preliminary descriptive statistics at the NASFAA National Conference in July 2010.

Certification of Financial Aid Administrators: Is It Time to Move Forward?

By Stacey A. Peterson

Financial aid administrators administer various aspects of financial assistance programs; oversee, direct, coordinate, evaluate, and provide training for program activities and the personnel who manage office operations and supervise support staff; and ensure alignment of student and institutional needs while protecting the public interest. They have long recognized the value of professional standards in this complex field. This study uses Peterson's (2011) professionalization theory, 2010 archival data, analyses of variance, and risk estimation to examine the need for, benefits of, and level of support for certification, credentialing, and establishing basic core standards for financial aid practitioners. Among 2,756 survey respondents, 72% agreed with the need for basic core standards; 82% agreed professionalization would increase the stature of and respect for the occupation; and 79% agreed to support a process if adopted. A voluntary process, mandatory basic training, a recognized financial aid curriculum, and a phase-in period for current practitioners were the components agreed on most ($ICC_A = .98$, $a_2 = .01$). With an item reliability index of $\alpha = .91$ ($p = .001$) and a margin of error of $\pm 1.75\%$ at the 95% confidence level, the results indicate financial aid administrators want to move forward with certification, credentialing, and setting standards.

Keywords: *professionalization theory, certification, effect size benchmarking, risk estimation*

The financial aid occupation has achieved many milestones toward professionalization over the past three decades (Peterson, 2011). While practitioners did not agree on how to achieve professional status prior to 2010 (Brooks, 1986; Chambers, 1972; Moore, 1975; National Association of Student Financial Aid Administrators [NASFAA], 1974, 1978a, 1978b, 1986, 1988, 2009; Peterson, 2010, 2011; Sanderson, 1971; Schiesz, 1974; Simmons, 1985), certification had been debated since the inception of the National Student Financial Aid Council in 1966, which was subsequently renamed the National Association of Student Financial Aid Administrators (NASFAA) in 1968 (Brooks, 1986). Financial aid directors representing all postsecondary institutions participating in Title IV programs first reached consensus to include certification as part of the professional recognition process in 1977 (NASFAA, 1978a).

In 1970, Willingham conducted a survey that focused on professionalization, training, and professional development of financial aid administrators. Of the 122 financial aid directors in the western part of the US who responded, 31% of all respondents and 50% of professional leaders indicated that a recommended set of credentials for all aid administrators was important to developing financial aid as a profession; and 35% of all respondents and 43% of professional leaders indicated graduate training programs were important to developing financial aid as a profession. Also, 62% of all respondents favored internship as the method of training for new financial aid administrators, 22% favored summer institutes, and 16% favored on-the-job training (Willingham, 1970).

Stacey A. Peterson is an independent researcher.

Chambers (1972) used a modified version of Willingham's (1970) survey to collect descriptive statistics on the southern states. Of the survey's 388 financial aid director respondents, 28% of all respondents and 41% of professional leaders indicated a recommended set of credentials for all aid administrators was important to developing financial aid as a profession; and 32% of all respondents and 43% of professional leaders indicated graduate training programs were important to developing financial aid as a profession. Furthermore, 61% of all respondents favored internship as the method of training for new financial aid practitioners, 19% favored summer institutes, and 19% favored on-the-job training. While there was no agreement on the most important step needed to further the professional development of financial aid practitioners, credentials for entrance into the field received the least support. Note 1 out of 3 survey respondents did not provide a response to this question according to Chambers (1972).

NASFAA (1978a) conducted the first of two pivotal national surveys of all postsecondary institutions participating in Title IV programs in 1974. Due to limited financial resources, NASFAA (1978a) did not distribute the full results of the 1974 survey; however, the organization summarized the findings in a 1978 report. Among the 1,952 financial aid directors who completed the survey, respondents continued to favor internship as the method of training new aid administrators followed by on-the-job training.

The NASFAA 1974 survey asked respondents to rank the importance of certain activities in developing the occupation further (NASFAA, 1978a). The survey items included establishing graduate training programs and a recommended set of credentials for aid administrators among nine options. While descriptive statistics for these questions were not available to the researcher, respondents rated all options as important (NASFAA, 1978a). Immediate training for new financial aid administrators received the most support, and establishing graduate training programs received the least support. Establishing a recommended set of credentials for aid administrators did not rank among the top three options (NASFAA, 1978a). Nevertheless, NASFAA convened a national committee on certification; the committee drafted a certification framework and implementation procedures; and NASFAA disseminated the framework, along with implementation procedures, to its members for the first time via the *NASFAA Newsletter* in 1974.

NASFAA conducted a second national survey of all institutions participating in Title IV programs in 1977 (NASFAA, 1978a). The NASFAA 1977 survey specifically asked if there should be a formal certification process for financial aid administrators. Of the 1,816 financial aid administrators who responded, 76% agreed there was a need for a formal certification process and no statistically significant differences in responses were found at the $p < .05$ level across job titles, ethnicity, gender, or institution size (NASFAA, 1978a). National certification efforts continued as a result, and NASFAA revised its 1974 certification framework and implementation procedures (NASFAA, 1978b). A later survey (Davis, Ross, Blanchard, & Bennett, 1983) asked NASFAA members if there should be a formal certification process and who should be responsible for it. Unfortunately, the results for the responses were not provided in the published report.

A ten-statement question set on the 1986 NASFAA Membership Survey posed the certification question again in two different forms (NASFAA, 1986). Among 1,511 question respondents, 96% rated bringing professional status and recognition to the financial aid occupation as important, and 93% rated bringing professional status and recognition to the general public as important. Note bringing professional status and recognition to the financial aid occupation received the second highest response rate in the question set, while bringing professional status and recognition to the public was ninth (the second-lowest response rate in the question set).

A subsequent descriptive exploratory study conducted by Peterson (2010, 2011), indicated most NASFAA members surveyed understand and agree with the need for and benefits of certification, credentialing, and establishing standards for all practitioners and would voluntarily participate in a process if

adopted (Figure 1). Consequently, the purpose of this study was to inform the conversation on certification by supplementing Peterson’s (2011) descriptive exploratory study with inferential statistics.

First, the theoretical and historical basis for moving forward with certification, credentialing, and setting standards was examined. Next, inferential statistics were used to answer the following research questions adapted from Peterson (2011):

1. What is the perceived need for certification among NASFAA members, including differences and similarities between various demographic groups?
2. What are the perceived benefits of certification among NASFAA members, including differences and similarities between various demographic groups?
3. What percentage of the NASFAA membership would pursue certification if it were an option?
4. What type of certification process is most desirable to NASFAA members?

I conclude with a discussion of the implications of the results, steps for moving forward, and recommendations for future research.

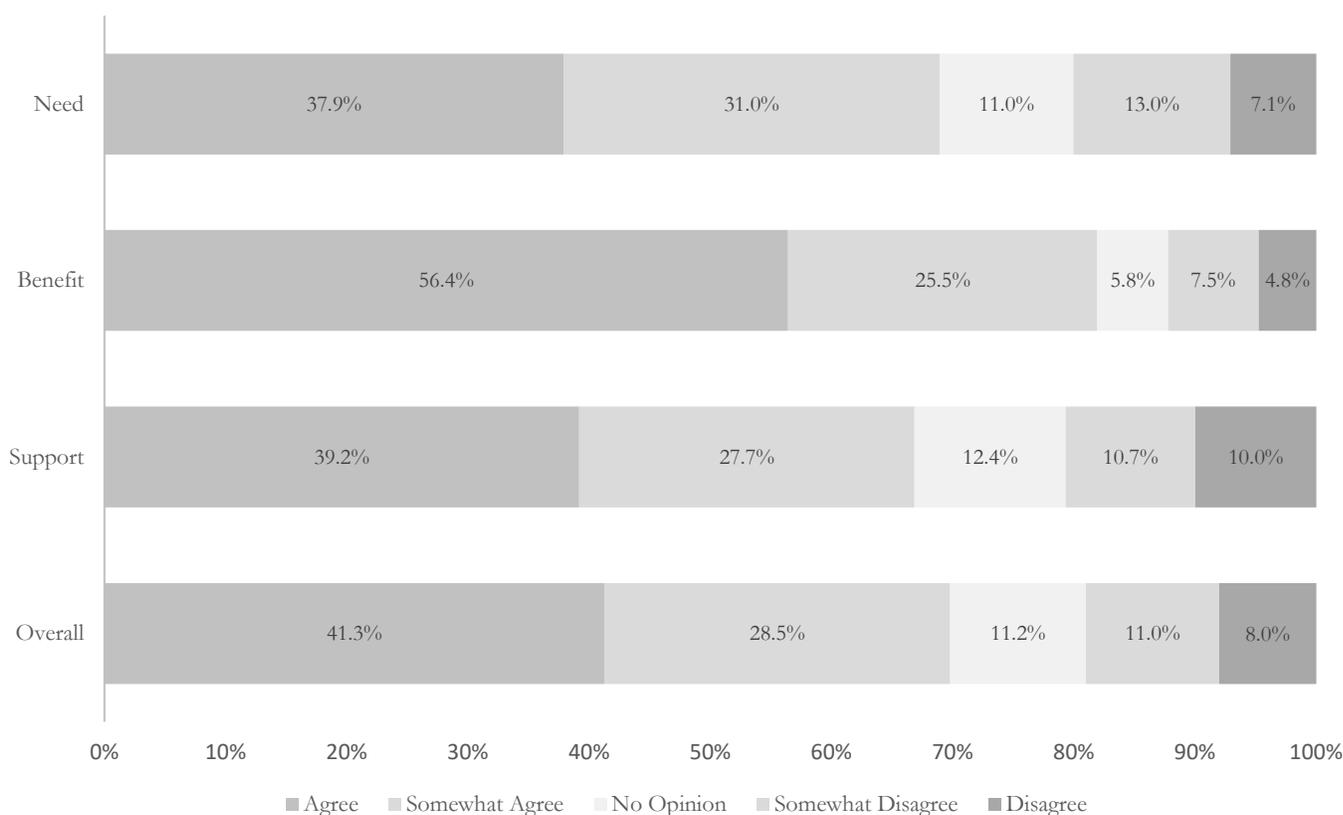


Figure 1. Aggregated need, benefits, and level of support for credentialing. The overall percentages include the ranks for the statement “If a credentialing process is adopted, there should be a phase-in period.” Adapted from *Certification of financial aid administrators*, by Peterson, 2011, (Doctoral dissertation, p. 55). Retrieved from ProQuest (UMI No. 3492396). Copyright 2012 by Peterson.

Regional and State Association Certification Efforts

The Midwestern Association of Student Financial Aid Administrators (MASFAA) initiated the first regional association efforts to establish a certification process for financial aid administrators in 1975-76. The MASFAA Committee on Certification and Accreditation provided a framework and recommendations for states interested in implementing certification (MASFAA, 1976). Ohio and Missouri began implementing certification in 1978 (MASFAA, 1978a), while other states in the region explored the feasibility of a certification process (MASFAA 1978b). Certification remained an area of concern throughout the region for the remainder of the decade (L. Peterson & Holmes, 1980).

The national association's leadership debated the NASFAA Committee on Certification's framework for several years and decided not to take a formal position on the matter (NASFAA, 1988). However, state associations, such as the Florida Association of Student Financial Aid Administrators (FASFAA) adopted a modified version of the national committee's proposal and issued certificates to its members (Florida Association of Student Financial Aid Administrators [FASFAA], 1983).

FASFAA designed its certification program to recognize financial aid expertise, encourage professional development, and increase the stature of the financial aid occupation (FASFAA, 1983). Those interested in certification had to submit an application and pay a \$25.00 fee. FASFAA granted certification based on

- level of education,
- years of experience,
- scope of job responsibilities,
- financial assistance program authorization level, and
- professional development activities.

Applicants had to pass an examination and consent to a site visit by a FASFAA-certified financial aid administrator to confirm the applicant's office policies and procedures were compliant. Successful candidates received a five-year renewable certification in all phases of financial aid administration. Certification implied the individual had acquired the competencies required to direct and administer a comprehensive college student assistance program (FASFAA, 1983).

State associations discontinued certification within a few years of inception due to the absence of the anticipated increase in stature of the occupation and lack of support on the national level. NASFAA cited potential legal liability issues and adverse tax consequences for the association's change in 501(c)(3) nonprofit classification from an educational association to a trade association as the reasons it elected not to support certification efforts and sought other strategies to raise the stature of the occupation (NASFAA, 1988, 2009).

NASFAA convened a task force on institutional leadership in 1993 to achieve this goal (Huff, 1998). The task force successfully communicated to campus communities and policy makers the role of financial aid in generating revenue, and the need for financial aid representation on strategic planning teams to ensure quality student service (Huff, 1998; NASFAA, 1995). Inclusion of financial aid office representation on enrollment management teams, special committees, and policy commissions is evidence of the group's success (Ferguson, 1981). Nevertheless, of the 2,037 financial aid administrators who responded to a 2007 NASFAA survey on job satisfaction, more than 50% indicated senior administrators at their institution did not understand or appreciate the complexity of financial aid administration. This is contrary to previous findings, when being the financial aid director was perceived as a position of esteem by the campus community and more than 70% of NASFAA member survey respondents perceived superiors as having a clear view of the responsibilities of the job (Davis et al., 1983; NASFAA, 1978a).

Certification reemerged as an interest of the 2009-10 chair of NASFAA's board of directors, Barry Simmons. Simmons charged a committee with revisiting the topic and making recommendations to the NASFAA board. This resulted in a professional recognition survey (NASFAA, 2010), and an unpublished issue paper that suggested the purpose of certification would be to ensure

- financial aid administrators are accountable fiduciaries,
- stakeholders understand the importance of the occupation,
- financial aid administrators meet a basic set of standards, and
- financial aid administrators pledge to uphold the NASFAA statement of professional ethics and code of conduct (NASFAA, 2009).

During the previous year, an unpublished qualitative pilot study conducted by Peterson (2008) identified professionalism as a factor that influences college and university administrators' perceptions of the financial aid office. Conard (2010) identified professionalism and integrity at every level as a recommendation from several college and university presidents to financial aid practitioners to raise the status of the financial aid office. Nevertheless, no formal decision had been made to move forward with certification by the end of fiscal year 2010.

Additional financial aid specific literature on certification prior to this study included a historical overview (Brooks, 1986), and anecdotal journal articles (Delaney, Hylander, Karp, & Lange, 1974; Fenske & Bowman, 1981; Meyerson, 1981; Moore, 1975; L. Peterson & Holmes, 1980; Sanderson, 1971; Schiesz, 1974; Simmons, 1985). As such, the current study fills a void in the literature by providing generalizable inferential statistical results.

The most relevant study identified outside of financial aid was *From Conflict to Consensus: The American Institute of Accountants and the Professionalization of Public Accountancy, 1886-1940* (Miranti, 1985). It provided a historical chronology from the 1880s to the 1940s of the American Institute of Certified Public Accountants. The study outlined the division between national and state associations over governance of the profession, and identified the significant activities that served as the catalyst for the development of the organizational structure of the accounting profession (Miranti, 1985).

Like the accounting profession during the Great Depression (Miranti, 1985), the federal government began to infringe on the autonomy of financial aid administrators when Selective Service registration became a requirement to receive federal student aid with the passage of the Department of Defense Act of 1982. Cuts in financial assistance programs mandated by laws such as the Omnibus Budget Reconciliation Act of 1981 and the Consolidated Omnibus Reconciliation Act of 1985 served as the impetus for uniting the higher education community and the U.S. Department of Education to advocate on behalf of students and families (Boucher, 1985, Brooks, 1986).

Since that time, federal, state, and local laws enacted and regulations implemented increased financial assistance funding from \$17.3 billion in fiscal year 1980 (NASFAA, 1995) to \$254 billion in fiscal year 2014 (Baum, Ma, Pender, & Bell, 2015). This increase was paralleled by an increased perception of regulatory burden. Of 2,396 NASFAA member survey respondents, 71% indicated financial aid programs were overregulated (Davis et al., 1983). Of 2,387 NASFAA member survey respondents, 79% indicated financial aid programs were becoming overregulated (Davis et al., 1983). Nevertheless, the 1980s marked the beginning of a retrenchment in financial aid program funding (Boucher, 1985) and the systematic erosion of the autonomy of the occupation.

The most recent infringement on the autonomy of financial aid administrators manifested during the Great Recession of 2008. This infringement took the form of a steady succession of new laws and

regulations; the creation of several new programs; the threat to reduce or eliminate the administrative cost allowance for existing programs; the restructuring of the loan programs; and the continued delay of a formal reauthorization process. The congressionally mandated Advisory Committee on Student Financial Assistance (ACSFA) found among 2,098 campus senior executive and office administrator survey respondents, 90% of senior executives and 85% of office administrators perceived financial assistance program regulations to be burdensome (Advisory Committee on Student Financial Assistance [ACSFA], 2011).

While similar activities served as the impetus for the formation of the American Institute of Certified Public Accountants in 1936 (Miranti, 1985), the financial aid occupation continued to opt for the status quo until 2012, when NASFAA created NASFAA University, a self-paced, voluntary training program that offers a certificate of completion (NASFAA, 2012, 2016). However, NASFAA University does not certify an individual has all the competencies necessary to fulfill the fiduciary responsibilities of administering, directing, and coordinating the full range of comprehensive financial assistance programs necessary to manage a compliant financial aid office (NASFAA, 1988, 2009, 2012, 2016). Furthermore, the program is not sanctioned or endorsed by the U.S. Department of Education.

Method

Definitions

Peterson (2011) used the following definitions:

- “*Certification*: A voluntary process used by an organization to attest that an individual satisfies certain qualifications and/or meets a pre-determined standard” (p. xii);
- “*Credentialing*: A process used to grant credentials to individuals and/or organizations that meet certain pre-determined qualifications and standards (i.e., certification, accreditation, licensing, etc.)” (p. xii);
- “*Professional recognition process*: The establishment of a common set of core standards, or level of standards that all financial aid administrators must meet, which may include voluntary credentialing; degree programs; mandatory training and/or professional development activities; and/or internships” (p. xiii);
- “*Professionalization*: The process of transforming an occupation into a profession that requires individuals to meet a common set of core standards to practice a designated line of work” (p. xiii).
- *Effect size benchmarking*: Quantifying the difference between an observed measure and a standard using an effect size metric.

Unless otherwise stated, these definitions are used for this study.

Epistemology and Theoretical Construct

Peterson (2011) used a constructivist paradigm (Creswell, 2003, 2007) to examine the evolution of the financial aid occupation and synthesize the data from the NASFAA professional recognition survey (NASFAA, 2010). Survey participants responded to the questions posed based on their own experiences and their historical, social, and political perspectives on the topic in the absence of credentialing research data specific to the financial aid occupation (Peterson, 2011).

Using Caplow's (1954) and Wilensky's (1964) theories of professionalization as a foundation, Peterson (2011) developed a new theory of professionalization to explain the evolution of the financial aid occupation. Peterson (2011) used quantifiable measures of the other theories to the extent they helped explain the evolution of the financial aid occupation, and used constructivism to validate the new theory. The steps of the three theories and the chronology of the evolution of the financial aid occupation appear in Table 1.

Table 1

Theories of Professionalization and the Evolution of the Financial Aid Occupation

Steps	Caplow's theory	Wilensky's theory	Peterson's theory
1. Evolved into a full-time task-1966		✓	✓
2. Founded a professional association-1966	✓	✓	✓
3. Defined advocacy as part of core mission-1966			✓
4. Delegated duties and tasks via job stratification-1968		✓	✓
5. Established an accredited university training program-1968		✓	✓
6. Changed name of occupation or association-1969	✓		✓
7. Engaged in a period of political agitation-1971	✓	✓	✓
8. Established formal training program(s)-1979	✓		✓
9. Engaged in industry competition-1979		✓	✓
10. Established process for peer review of operations-1999			✓
11. Adopted a code of ethics-1999/2007	✓	✓	✓
12. Promulgated a core set of standards	✓		✓

Note. The year the financial aid occupation began to engage in each phase as it evolved is listed beside each step. Adapted from *Certification of financial aid administrators*, by Peterson, 2011 (Doctoral dissertation, p. 35, Appendix A). Retrieved from ProQuest (UMI No. 3492396). Copyright 2012 by Peterson.

Data Collection

The data were collected via an electronic survey of the NASFAA membership on professional recognition (NASFAA, 2010) and job satisfaction (NASFAA, 2007). Permission was obtained from NASFAA to conduct a secondary analysis of the data. According to Peterson (2011), the 2010 survey instrument was pilot tested via a committee of financial aid experts and administered during the normal course of business. Member checking, code books, a data diary, and constant comparison as described by Creswell (2003, 2007) were additional methods used to ensure content validity, face validity, trustworthiness, and reliability (Peterson, 2011).

Survey population. NASFAA's 22,203 members composed the survey population. Individual institutional members (20,285) represented 91% of the total membership, and individual constituent and affiliate members (1,918) represented 9% of the total membership (Peterson, 2011).

Approximately 7,234 postsecondary institutions were participating in the Title IV programs at the end of fiscal year 2012 (National Center for Education Statistics [NCES], 2014). This number comprised 4,706 degree-granting institutions and 2,528 non-degree granting institutions. Approximately 2,683 of these institutions were members of NASFAA (2011) when the association conducted the professional recognition survey. Hence, the survey population represented approximately 37% of all institutions participating in Title IV programs. Table 2 shows a comparison of the survey population to all Title IV participating institutions at the time of the survey.

Survey respondents. Of the 3,219 professional recognition survey respondents, 96% were institutional members and 4% were constituent and affiliate members. The respondents represented 14% of the NASFAA membership. The overall composition of the respondents differed from the composition of the actual membership population mentioned previously (91% institutional members, and 9% constituent and affiliate members).

Approximately 14% of respondents (452) provided demographic information only, and 10 respondents provided invalid answers to some of the survey questions. These cases, which totaled 462 (347 institutional members and 115 constituent and affiliate members), were excluded from the data analysis. This changed the sample size to 2,756, and the overall composition of the respondents to 98% institutional members, and 2% constituent and affiliate members. While this composition is closer to the composition of the NASFAA membership, institutional members were overrepresented by 7%, and constituent and affiliate members were underrepresented by 7% in the data analysis. Nevertheless, given the population size of 22,203 and a sample size of 2,756, the margin of error for the current study was ± 1.75 at the 95% confidence level. Hence, there was a 1.75% chance the study results did not reflect the opinions of the NASFAA membership.

The survey demographics used in this study were functional role; job title; type and control of institution; level of education; and years of experience. Tables 3 through 7 show the demographics. Survey respondents represent all 50 states of the United States, Guam, and the Federated States of Micronesia.

Data Analysis

The data were proofread, validated, and screened using SPSS. Each research question was assigned to a category (i.e., need, benefit, or level of support) as defined by Peterson (2011). No questions were assigned to the *process* category because those analyses were outside of the scope of this study. Descriptive statistics, including ranks, were calculated. Since 9 of the 16 sets of question responses had skewness and kurtosis values that exceeded ± 1 , a combination of parametric and nonparametric statistical procedures was used to analyze the data. This approach was chosen to preserve the integrity of the original responses, utilize the statistical analyses recommended in the literature, utilize all data when appropriate (Boneau, 1960; Herriott & Muse, 1973; Khan & Rayner, 2003; Lix, Keselman, & Keselman, 1996; Schneider & Penfield, 1997; Zimmerman & Zumbo, 1990), and minimize the risk of misinterpretation of the results.

Data analyses on the desired components of a credentialing *process* across respondent demographics were not conducted because they were outside the scope of this study. The Likert scale for question 8N was reverse-scaled for data analyses that involved ranks and risk estimation.

Table 2

Comparison of Survey Population and Title IV Institutions by Type and Control

Institution type and control	NASFAA institutional members ^b	Title IV institutions ^c	Percent of Title IV institutions
Total	2,683	7,234	37%
Public	1,264	2,011	63%
Private	1,419	5,223	27%
Not-for-profit	1,119	1,830	61%
For-profit	300	3,393	9%
Non-degree	152	2,528	6%
Public	28	362	8%
Private	124	2,166	6%
Not-for-profit	18	177	10%
For-profit	106	1,989	5%
Degree	2,531	4,706	54%
2-year degree	866	1,738	50%
Public	690	967	71%
Private	176	771	23%
Not-for-profit	72	100	72%
For-profit	104	671	15%
4-year and above ^a	1,665	2,968	56%
Public	546	682	80%
Private	1,119	2,286	49%
Not-for-profit	1,029	1,553	66%
For-profit	90	733	12%

Note. Adapted from *Certification of financial aid administrators*, by Peterson, 2011 (Doctoral dissertation, p. 49). Retrieved from ProQuest (UMI No. 3492396). Copyright 2012 by Peterson.

^aThe breakdown of the 131 NASFAA institutional members included in the subcategory 4-year and above was imputed based on the total number of institutions in each category. ^bTotal NASFAA institutional members as of October 21, 2011. ^cTotal Title IV institutions as of July 31, 2012 (NCES, 2014).

Table 3

Distribution of Survey Respondents by Functional Role

Functional role	Total respondents	Percent of total responses
Chief financial aid administrator	1,029	37.3%
Second in command	371	13.5%
Systems manager	80	2.9%
Compliance officer	135	4.9%
Program manager	280	10.2%
Fiscal officer/technician	43	1.6%
Program assistant	46	1.7%
Application processing	214	7.8%
Customer service	145	5.3%
Data entry	7	0.3%
Administrative assistant	32	1.2%
Other staff	374	13.6%
Total	2,756	100.0%

Note. The percent of total responses may not total 100% due to rounding. From *Certification of financial aid administrators*, by Peterson, 2011 (Doctoral dissertation, p. 51). Retrieved from ProQuest (UMI No. 3492396). Copyright 2012 by Peterson.

Table 4

Distribution of Survey Respondents by Job Title

Job title	Total respondents	Percent of total responses
President/owner/CEO/CFO	7	0.3%
Vice president/assistant VP	85	3.1%
Dean	24	0.9%
Assistant/associate dean	45	1.6%
Director	955	34.7%
Assistant/associate director	639	23.2%
Manager/supervisor	82	3.0%
Systems analyst/operator/tech	36	1.3%
Counselor/advisor/coordinator	591	21.4%
Other professional	60	2.2%
Receptionist/clerk/processor	22	0.8%
Other clerical	14	0.5%
Other industry professionals	196	7.1%
Total	2,756	100.0%

Note. The percent of total responses may not total 100% due to rounding. From *Certification of financial aid administrators*, by Peterson, 2011 (Doctoral dissertation, p. 53). Retrieved from ProQuest (UMI No. 3492396). Copyright 2012 by Peterson.

Table 5

Distribution of Survey Respondents by Institution Type and Control

Type and control	Total respondents	Percent of total responses
Public	1,255	45.5%
Private	929	33.7%
Proprietary	179	6.5%
Two-year	571	20.7%
Four-year	882	32.0%
Graduate/professional	552	20.0%
Other	125	4.5%

Note. The number of respondents does not total 2,756 and the percent of responses does not equal 100% because respondents could select more than one answer to this survey question. Adapted from *Certification of financial aid administrators*, by Peterson, 2011 (Doctoral dissertation, p. 54). Retrieved from ProQuest (UMI No. 3492396). Copyright 2012 by Peterson.

Table 6

Distribution of Survey Respondents by Level of Education

Level of education	Total respondents	Percent of total responses
Doctoral or other terminal degree	83	3.0%
Master's-level degree	1,185	43.0%
Bachelor's-level degree	1,145	41.5%
Associate-level degree	157	5.7%
Postsecondary certificate	42	1.5%
High school diploma or equivalent	144	5.2%
Less than high school	0	0.0%
Total	2,756	100.0%

Note. The percent of total responses may not total 100% due to rounding. From *Certification of financial aid administrators*, by Peterson, 2011 (Doctoral dissertation, p. 55). Retrieved from ProQuest (UMI No. 3492396). Copyright 2012 by Peterson.

Table 7

Distribution of Survey Respondents by Years of Experience as a Financial Aid Practitioner

Years of experience	Total respondents	Percent of total responses
30+ years	312	11.3%
25 to 29 years	389	14.1%
20 to 24 years	313	11.4%
15 to 19 years	385	14.0%
10 to 14 years	459	16.7%
5 to 9 years	481	17.5%
1 to 4 years	377	13.6%
Less than 1 year	32	1.2%
None	8	0.3%
Total	2,756	100.0%

Note. The percent of total responses may not total 100% due to rounding. From *Certification of financial aid administrators*, by Peterson, 2011 (Doctoral dissertation, p. 56). Retrieved from ProQuest (UMI No. 3492396). Copyright 2012 by Peterson.

Reliability analyses were used to calculate Cronbach's coefficient alpha and Spearman-Brown split-half coefficients. Kendall's coefficient of concordance was calculated with both analyses, and a cursory review of the item correlations was conducted.

The Kruskal-Wallis test was used to identify differences in the perceived need, benefits, and level of support for certification, credentialing, and setting standards across functional role; job title; institution type and control; education level; and years of experience. Education level and years of experience were targeted for risk estimation analyses since there were similarities in responses across several questions. This was followed by an analysis of Spearman-Rho rank correlation coefficients with a Bonferroni correction ($.05/16 = .003$) for Type I errors. Cohen's (1962) definitions of small (.10), medium (.30), and large (.50) effect sizes for correlations were used absent relevant financial aid specific research to establish effect size benchmarks. Since 98% of the item correlations were greater than or equal to .10 and a distinct 98% of the them were statistically significant at the $p < .001$ level, all question items were retained for risk estimation. The top 5% of the statistically significant correlations are discussed in the results section.

Item responses were aggregated and binned by question category (i.e. need, benefits, and level of support). The Spearman-Brown split-half coefficient groups were used to conduct the Friedman test and Wilcoxon follow-up tests using the *LSD* method to control for Type I errors.

Next, education level and years of experience were dichotomized. The cut-point for education level was a bachelor's degree or above. It was based on demographics collected from previous surveys indicating most financial aid practitioners have or are pursuing a master's degree (Casazza, 1971; Chambers, 1972; College Board & NASFAA, 2002; Davis et al., 1983; Kapsak, 1985; Knapp & Others, 1989; McRae, 1983; NASFAA 1978a, 2007, 2008; Peterson, 2011; Willingham, 1970). The cut-point for experience was 20 or more years. It was based on historical data about financial aid employment turnover and job satisfaction (College Board & NASFAA, 2002, 2007, 2008; Davis et al., 1983; Knapp & Others, 1989; McRae, 1983); the researcher's participation in informal surveys; and other related studies (Casazza, 1971; Kapsak, 1985; L. Peterson, Tatum, & Winegar, 1977; Peterson, 2011). The informal surveys revealed practitioners with 20 or more years of experience typically become trainers; serve in local, state, and national leadership positions; and subsequently move on to other careers in higher education or retire from financial aid.

The aggregated binned item responses and dichotomized groups were used for risk estimation. The effect size estimates (d) were based on the work of Chen, Cohen, and Chen (2010). Next, an analysis of the difference between proportions via the arcsine transformation with a $\Phi - 1$ correction where $P_s \leq .25$ (Anscombe, 1956; Bartlett, 1947; Cochran, 1940) was conducted to predict process component use (Cohen, 1967). The arcsine transformation was chosen because of its variance stabilization and additive properties for skewed binary count data and its power advantages (Mosteller & Youtz, 1961; Cohen, 1970; Milligan, 1987; Rucker, Schwarzer, Carpenter, & Olkin, 2009). The resulting effect size (b aka d_{arcsine}) takes sample size into account and provides a very close approximation to its r counterpart Φ ; hence, it provides both a measure of distance and association (Cohen, 1967). Its use also protects the anonymity of survey respondents in the case of regional, state, or local-level data analyses by masking the original data in the form of comparable effect sizes.

In the absence of a predetermined desired level of agreement, a 75% benchmark was used to predict credentialing, certification, and standards components usage. As such, the effect size (ES), or phi (Φ), value equals zero when a component equals the benchmark. The κ^2_{Adj} is the normalized variance between the observed proportion and the 75% benchmark. This was followed by a synthesis of the comments provided by respondents not in favor of certification.

Results

Overall, 70% of the survey respondents agreed or somewhat agreed there is a need for certification, credentialing, and/or setting standards for practicing financial aid administrators; 82% agreed or somewhat agreed a professional recognition process would increase the stature and respect of financial aid administration; and approximately 67% agreed or somewhat agreed they would support a process to ensure financial aid practitioners meet a basic set of standards. While the top reasons identified for certification, credentialing, and setting standards included protecting the public interest, ensuring accountability of financial aid administrators as fiduciaries, and self-regulating to ensure administrative capability, no consensus emerged on process components. However, a voluntary renewable certification process, mandatory basic training, a recognized financial aid curriculum, and a phase-in period for current practitioners (i.e., grandfathering) emerged as leading predictors of support for a professional recognition process. In contrast, approximately 9% of the respondents did not support certification and 2% were undecided.

Descriptive Statistics

Table 8 lists each survey question asked about the need, benefits, and level of support for credentialing and its corresponding item number. The letter following each item number designates the assigned category where N = need, B = benefit, and S = level of support (e.g., 1N was assigned to the need category, 3B was assigned to the benefit category, 9S was assigned to the level of support category, etc.). Table 9 lists the descriptive statistics and ranks for each item using a 5-point Likert scale where 1 = agree, 2 = somewhat agree, 3 = no opinion, 4 = somewhat disagree, and 5 = disagree. Table 10 lists response frequencies, and Table 11 lists the response percentages for each item. See Peterson (2011) for a detailed analysis of the descriptive statistics.

Reliability and Validity

Two internal consistency estimates of reliability were computed for the 16 variables used to determine the need, benefits, and level of support for certification — Cronbach's coefficient alpha and the Spearman-Brown split-half coefficient. Where $N = 16$ items, $\alpha = .91$, $M = 35.46$, $SD = 13.04$, $M_{\text{Grand}} = 2.22$, $W = .90$, and $p < .001$. Items 1N, 2N, 3B, and 4N thru 8N were grouped to form part 1 for the split-half model, and items 9S thru 16S were grouped to form part 2.

Where $N = 8$, $r_s = .89$ for part 1, $r_s = .81$ for part 2, overall $r_s = .84$, and $p < .001$. Consequently, the maximum possible construct validity was .95.

Table 8

Question Category Key

Item	Question
1N	There is a public need to ensure the accountability of financial aid administrators as fiduciaries.
2N	There is a public need to ensure accountability of financial aid administrators to protect the public interest.
3B	Professional recognition would increase the stature of and respect for the financial aid profession.
4N	Credentialing is necessary to ensure financial aid administrators have a certain skill set and a certain level of expertise.
5N	A mechanism is needed to ensure financial aid administrators pledge to uphold and keep the NASFAA statement of professional ethics.
6N	Self-regulating the financial aid profession is necessary to ensure institutional administrative capability.
7N	Self-regulating the financial aid profession is necessary to prevent other entities from implementing additional regulations.
8N	There is no need to set standards beyond what is currently in the administrative capability regulations.
9S	I am in favor of establishing a recognized curriculum in financial aid administration.
10S	I am in favor of mandatory basic training such as a summer institute or boot camp for entry-level professionals.
11S	I am in favor of a mandatory internship in a financial aid office for entry-level professionals.
12S	I am in favor of voluntary credentialing for financial aid administrators.
13S	I would participate in a voluntary credentialing process if one were available.
14S	I would encourage others to participate in a voluntary credentialing process if one were available.
15S	I would pursue a degree in financial aid administration if a program were available.
16S	I would encourage others to pursue a degree in financial aid administration if a program were available.

Note. Adapted from *Certification of financial aid administrators*, by Peterson, 2011 (Doctoral dissertation, p. 61). Retrieved from ProQuest (UMI No. 3492396). Copyright 2012 by Peterson.

Table 9

Descriptive Statistics and Ranks for Quantitative Survey Questions

Statistics (N = 2,756)								
Item	M	Rank	Mean ranks	Mode	s	s ²	Skewness	Kurtosis
1N	1.84	5	9.89	1	1.11	1.23	1.39	1.09
2N	1.84	4	9.94	1	1.13	1.28	1.41	1.12
3B	1.79	1	10.27	1	1.14	1.30	1.49	1.25
4N	2.20	10	8.41	1	1.31	1.72	0.89	-0.47
5N	2.31	12	7.95	1	1.31	1.72	0.71	-0.70
6N	2.16	9	8.48	1	1.21	1.45	0.93	-0.12
7N	2.22	11	8.24	1	1.21	1.47	0.81	-0.31
8N	3.14	15	6.12	2	1.28	1.65	0.07	-1.20
9S	2.05	8	8.91	1	1.18	1.39	1.12	0.35
10S	2.11	7	8.94	1	1.32	1.75	1.01	-0.30
11S	3.02	16	5.46	2	1.42	2.03	-0.03	-1.38
12S	1.95	6	9.41	1	1.11	1.24	1.19	0.67
13S	1.85	3	9.95	1	1.15	1.32	1.40	1.14
14S	1.82	2	9.99	1	1.09	1.18	1.37	1.24
15S	2.80	14	6.32	1	1.49	2.21	0.24	-1.36
16S	2.38	13	7.72	1	1.32	1.75	0.66	-0.70

Note. Adapted from *Certification of financial aid administrators*, by Peterson, 2011 (Doctoral dissertation, p. 61). Retrieved from ProQuest (UMI No. 3492396). Copyright 2012 by Peterson.

Table 10

Frequency of Responses – Likert Scale Questions (N = 2,756)

Item	Agree	Somewhat agree	No opinion	Somewhat disagree	Disagree
1N	1,407	825	204	203	117
2N	1,424	824	168	213	127
3B	1,555	703	161	206	131
4N	1,066	912	167	377	234
5N	982	801	362	371	240
6N	995	972	318	295	176
7N	955	888	443	287	183
8N	480	764	467	755	290
9S	1,113	966	278	227	172
10S	1,239	790	157	336	234
11S	527	647	354	697	531
12S	1,206	927	295	205	123
13S	1,454	712	309	122	159
14S	1,436	730	354	116	120
15S	740	596	471	384	565
16S	923	734	532	269	298

Note. Adapted from *Certification of financial aid administrators*, by Peterson, 2011 (Doctoral dissertation, p. 57). Retrieved from ProQuest (UMI No. 3492396). Copyright 2012 by Peterson.

Table 11

Response Percentages – Likert Scale Questions (N = 2,756)

Item	Agree	Somewhat agree	No opinion	Somewhat disagree	Disagree
1N	51.1%	29.9%	7.4%	7.4%	4.2%
2N	51.7%	29.9%	6.1%	7.7%	4.6%
3B	56.4%	25.5%	5.8%	7.5%	4.8%
4N	38.7%	33.1%	6.1%	13.7%	8.5%
5N	35.6%	29.1%	13.1%	13.5%	8.7%
6N	36.1%	35.3%	11.5%	10.7%	6.4%
7N	34.7%	32.2%	16.1%	10.4%	6.6%
8N	17.4%	27.7%	16.9%	27.4%	10.5%
9S	40.4%	35.1%	10.1%	8.2%	6.2%
10S	45.0%	28.7%	5.7%	12.2%	8.5%
11S	19.1%	23.5%	12.8%	25.3%	19.3%
12S	43.8%	33.6%	10.7%	7.4%	4.5%
13S	52.8%	25.8%	11.2%	4.4%	5.8%
14S	52.1%	26.5%	12.8%	4.2%	4.4%
15S	26.9%	21.6%	17.1%	13.9%	20.5%
16S	33.5%	26.6%	19.3%	9.8%	10.8%

Note. Adapted from *Certification of financial aid administrators*, by Peterson, 2011 (Doctoral dissertation, p. 58). Retrieved from ProQuest (UMI No. 3492396). Copyright 2012 by Peterson.

Levene, Kruskal-Wallis, Fisher, Welch, and Brown-Forsythe Tests (ANOVAs by Factors)

Tables 12 and 13 display the results of the question items by education level and question items by years of experience ANOVAs, respectively. Given $N = 2,756$ with skewed responses across 16 items, 7 education levels ($k = 7$), and 32 experience levels ($k = 32$), the standard of proof established for these analyses was $p < .001$.

The Levene test revealed there were statistically significant differences in opinion for 4N, 5N, 6N, 9S, 10S, 13S, 15S and 16S across education level; and 1N, 4N, 5N, 6N, 7N, 8N, 9S, 10S, and 13S across years of experience. However, the Kruskal-Wallis test revealed there were no statistically significant differences in the median of the responses to 11 out of 16 statements across education level in Table 12, and 13 out of 16 statements across years of experience in Table 13. The Fisher, Welch, and Brown-Forsythe tests in Table 12 confirmed there were no statistically significant differences in the average response rates corresponding to the aforementioned medians across education levels. Furthermore, the tests confirmed there were no statistically significant differences in the corresponding average response rates across experience levels apart from 4N.

Spearman Rho Rank Correlation Coefficients

The two-tailed Spearman Rho rank correlation coefficients with a Bonferroni correction of $p < .003$ for Type I errors were statistically significant at the $p < .001$ level for 98% (118 out of 120) of the correlations. For 7N and 8N, $r_s(2,754) = -.28, p = .137$, and 11S and 8N, $r_s(2,754) = -.55, p = .004$. These correlations were not statistically significant at the $p < .003$ level. However, there were six statistically significant strong correlations (i.e., $r_s \geq .60$ unrounded) at the $p < .001$ level. There was a very strong relationship between 13S and 14S, $r_s(2,754) = .86$, 1N and 2N, $r_s(2,754) = .83$, 15S and 16S, $r_s(2,756) = .76$, and 6N and 7N, $r_s(2,756) = .69$. There was a somewhat strong relationship between 3B and 4N, $r_s(2,756) = .61$, and 4N and 5N, $r_s(2,756) = .61$. These correlations comprise the top 5% of the statistically significant correlation coefficients.

Friedman Test (ANOVA by Ranks) with Kendall Effect Size and Wilcoxon Follow-up Test

The Spearman-Brown split-half coefficient groups were used as the basis to conduct the Friedman test. The test revealed there was no statistically significant difference in the median responses to the need and benefit questions that formed part 1, $\chi^2(7, N = 2,756) = 3,386.74, p < .001, W = .82$, and the level of support questions that formed part 2, $\chi^2(7, N = 2,756) = 3,472.78, p < .001, W = .82$. Note the Kendall coefficient of concordance was the same for both parts ($W = .82$). Furthermore, there was no statistically significant difference between the measures of central tendency (overall means, medians, modes, and mean ranks) for need, benefit, and level of support across question categories $F(3, 8) = 2.62, p = .122$; or within each category $F(2, 9) = 2.72, p = .119$ where $\alpha = .001$. Hence, the probability of the measures of central tendency differing across or within question categories in any given sample of financial aid administrators due to chance was less than .1% (one-tenth of one percent).

Follow-up pairwise comparisons using the Wilcoxon test listed in Table 14 indicated no statistically significant difference in the mean ranks for need and level of support for a professional recognition process. However, survey respondents ranked the benefits of a professional recognition process above both need and level of support based on negative ranks. These results are consistent with item-level response ranks in Table 9, despite the number of ties disregarded by the Wilcoxon test.

Table 12

Levene, Kruskal-Wallis, Fisher, Welch, and Brown-Forsythe Tests – Level of Education

Item	Levene (5, 2750)	$\chi^2(5)$	η^{2a}	$F(5, 2750)$	F_w	<i>df1</i>	<i>df2</i>	F_{BF}	<i>df1</i>	<i>df2</i>	η^{2b}
1N	1.16	3.71	.00	0.74	0.81	5	243.93	0.69	5	448.96	.02
2N	1.19	6.49	.00	1.19	1.37	5	244.96	1.20	5	498.07	.03
3B	4.37**	14.44*	.01	3.54**	4.36**	5	252.49	4.13**	5	714.67	.08
4N	7.85***	8.09	.00	2.08	2.11	5	245.80	2.20*	5	565.54	.04
5N	12.34***	31.19***	.01	7.50***	8.35***	5	247.43	8.31***	5	549.85	.15
6N	10.76***	13.80*	.01	3.95**	3.98**	5	245.92	4.15**	5	489.39	.07
7N	2.91*	10.72	.00	2.25	2.17	5	245.21	2.30*	5	507.35	.04
8N	1.92	4.54	.00	0.91	0.84	5	244.35	0.89	5	462.87	.02
9S	4.59***	2.62	.00	1.16	1.24	5	247.19	1.31	5	554.62	.02
10S	8.66***	23.32***	.01	5.36***	6.33***	5	248.98	6.35***	5	613.49	.12
11S	2.94*	50.50***	.02	10.28***	10.80***	5	245.49	10.70***	5	556.91	.20
12S	3.14*	8.05	.00	2.82*	3.16*	5	247.27	3.15*	5	522.91	.06
13S	6.77***	4.06	.00	2.61*	2.91*	5	248.09	2.94*	5	532.45	.05
14S	3.38*	2.52	.00	1.35	1.60	5	247.68	1.54	5	568.45	.03
15S	9.36***	108.73***	.04	23.82***	25.86***	5	248.11	27.37***	5	627.09	.47
16S	8.83***	38.16***	.01	8.41***	9.88***	5	248.43	9.53***	5	623.56	.18

Note. $N = 2,756$.^a η^2 was derived from the Chi-square statistic. ^b η^2 was derived from the Welch statistic.* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 13

Levene, Kruskal-Wallis, Fisher, Welch, and Brown-Forsythe Tests – Years of Experience

Item	Levene (31, 2724)	$\chi^2(31)$	η^{2a}	$F(31, 2724)$	F_w	<i>df</i> 1	<i>df</i> 2	F_{BF}	<i>df</i> 1	<i>df</i> 2	η^{2b}
1N	2.13***	26.05	0.01	1.09	0.98	31	608.28	1.08	31	1439.44	0.02
2N	2.02**	28.17	0.01	1.14	1.08	31	609.17	1.16	31	1813.47	0.02
3B	1.75*	50.67*	0.02	1.68*	1.58*	31	608.76	1.71*	31	1654.29	0.03
4N	4.46***	54.95*	0.02	2.16***	2.17***	31	608.62	2.18***	31	1803.44	0.04
5N	5.11***	39.59	0.01	1.68*	1.85**	31	609.69	1.75*	31	2038.82	0.04
6N	3.03***	24.31	0.01	0.95	1.05	31	608.46	0.95	31	1421.83	0.02
7N	2.12***	21.67	0.01	0.74	0.77	31	608.76	0.75	31	1447.40	0.02
8N	2.20***	82.64***	0.03	2.64***	2.68***	31	609.74	2.73***	31	2028.94	0.05
9S	2.51***	33.50	0.01	1.26	1.28	31	609.01	1.27	31	1886.82	0.03
10S	2.29***	48.18*	0.02	1.54*	1.69*	31	610.17	1.58*	31	2050.11	0.03
11S	1.03	25.68	0.01	0.82	0.82	31	608.71	0.83	31	1640.38	0.02
12S	1.94**	37.91	0.01	1.52*	1.63*	31	609.07	1.55*	31	1879.70	0.03
13S	4.40***	67.77***	0.02	3.00***	3.00***	31	608.52	3.08***	31	1515.08	0.06
14S	1.56*	30.28	0.01	1.24	1.25	31	608.34	1.25	31	1229.90	0.02
15S	0.77	66.61***	0.02	2.21***	2.25***	31	609.11	2.26***	31	1976.04	0.04
16S	0.83	30.50	0.01	0.80	0.79	31	608.38	0.79	31	1495.49	0.02

Note. $N = 2,756$.^a η^2 was derived from the Chi-square statistic. ^b η^2 was derived from the Welch statistic.* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 14

Category Level Measures of Central Tendency and Wilcoxon Follow-up Test

Descriptive statistics								
	<i>M</i>	Median	Mode	Mean rank	<i>SD</i> ²	Percentiles		
						25th	50th	75th
Need	2.24	2.00	1.57	2.28	0.76	1.57	2.00	2.71
Benefit	1.79	1.00	1.00	1.49	1.30	1.00	1.00	2.00
Support	2.25	2.13	1.00	2.23	0.81	1.50	2.13	2.75

Wilcoxon ranks					Test statistic	
Responses		<i>N</i>	Mean rank	Sum of ranks	ζ	<i>Sig.</i>
Mean of all benefit – Mean of all need	Negative ranks	2,010 ^a	1,305.77	2,624,597.00	-26.123 ^j	.000
	Positive ranks	555 ^b	1,200.54	666,298.00		
	Ties	191 ^c				
	Total	2,756				
Mean of all support – Mean of all need	Negative ranks	1,395 ^d	1,311.83	1,830,001.00	-.068 ⁱ	.946
	Positive ranks	1,308 ^e	1,394.84	1,824,455.00		
	Ties	53 ^f				
	Total	2,756				
Mean of all support – Mean of all benefit	Negative ranks	560 ^g	1,168.45	654,333.50	-25.077 ^k	.000
	Positive ranks	1,934 ^h	1,270.39	2,456,931.50		
	Ties	262 ⁱ				
	Total	2,756				

Note. *N* = 2,756, Minimum = 1, Maximum = 5.

^aMean of all benefit responses < Mean of all need responses.

^bMean of all benefit responses > Mean of all need responses.

^cMean of all benefit responses = Mean of all need responses.

^dMean of all support < Mean of all need responses.

^eMean of all support > Mean of all need responses.

^fMean of all support = Mean of all need responses.

^gMean of all support responses < Mean of all benefit responses.

^hMean of all support responses > Mean of all benefit responses.

ⁱMean of all support responses = Mean of all benefit responses.

^jBased on positive ranks.

^kBased on negative ranks.

Wilcoxon follow-up pairwise comparisons of item level responses with high correlations showed no significant difference between the ranks for participating in a voluntary credentialing process and encouraging others to participate in a voluntary process, $\chi = -1.66, p = .097$. Similarly, there was no significant difference between the ranks for the need to ensure accountability of financial aid administrators to protect the public interest and the need to ensure accountability of financial aid administrators as fiduciaries, $\chi = -0.30, p = .765$.

On the other hand, survey respondents ranked encouraging others to pursue a degree significantly higher than pursuing a degree themselves, $\chi = -20.22, p < .001$. They also ranked self-regulating to prevent other entities from implementing additional regulations above self-regulating to ensure institutional administrative capability, $\chi = -3.63, p < .001$; credentialing to ensure financial aid administrators have a certain skill set and level of expertise above credentialing to increase the stature of and respect for the profession, $\chi = -19.34, p < .001$; and establishing a mechanism to ensure financial aid administrators uphold and keep the NASFAA statement of professional ethics above the need to ensure financial aid administrators have a certain skill set and level of expertise, $\chi = -5.09, p < .001$.

Each mean listed in Table 14 was greater than the corresponding mode and the corresponding median, but less than the middle Likert category score (3). The aggregated binned need, benefits, and level of support means were in the third (75th) quartile. Hence, 75% of all means were also less than the middle Likert category score (3) indicating most respondents agreed or somewhat agreed with all statements.

Risk Estimation

The level of agreement on the need question items for practitioners without a bachelor's degree or above and less than 20 years of experience ($f = 203, p_s = 68.1\%$) exceeded the level of agreement for

1. practitioners with a bachelor's degree or above and less than 20 years of experience ($f = 1,234, p_s = 65.2\%$),
2. practitioners with a bachelor's degree or above and 20 or more years of experience ($f = 658, p_s = 34.8\%$), and
3. practitioners without a bachelor's degree or above and 20 years or more of experience ($f = 95, p_s = 31.9\%$) respectively.

However, practitioners with a bachelor's degree or above and less than 20 years of experience were 1.12 (OR = .601, $d < .2$) times more likely to agree (95% CI [1.07, 1.17]) with the need for certification, credentialing, and setting standards.

The level of agreement on the benefit question item for practitioners without a bachelor's degree or above and less than 20 years of experience ($f = 194, p_s = 68.6\%$) exceeded the level of agreement for

1. practitioners with a bachelor's degree or above and less than 20 years of experience ($f = 1,268, p_s = 64.2\%$),
2. practitioners with a bachelor's degree or above and 20 or more years of experience ($f = 707, p_s = 35.8\%$), and
3. practitioners without a bachelor's degree or above and 20 years or more of experience ($f = 89, p_s = 31.4\%$) respectively.

Yet, practitioners with a bachelor's degree or above and less than 20 years of experience were 1.07 (OR = .688, $d < .2$) times more likely to agree (95% CI [1.07, 1.17]) certification, credentialing, and setting standards will increase the stature of and respect for financial aid administrators.

The level of agreement for the level of support question items for practitioners without a bachelor's degree or above and less than 20 years of experience ($f = 197, p_s = 67.7\%$) exceeded the level of agreement for

1. practitioners with a bachelor's degree or above and less than 20 years of experience ($f = 1,211, p_s = 64.1\%$);
2. practitioners with a bachelor's degree or above and 20 or more years of experience ($f = 677, p_s = 35.9\%$); and,
3. practitioners without a bachelor's degree or above and 20 years or more of experience ($f = 94, p_s = 32.3\%$) respectively.

Nonetheless, practitioners with a bachelor's degree or above and less than 20 years of experience were 1.07 ($OR = .740, d < .2$) times more likely to support (95% $CI [1.02, 1.12]$) certification, credentialing, and setting standards for financial aid administrators.

Difference in Proportions

A voluntary certification process ($f_s = 2,133, p_s = 77.4\%, \Phi = .056, k^2_{Adj} = .000, 99\% CI [72.0\%, 78.0\%]$), mandatory basic training ($f_s = 2,029, p_s = 73.6\%, \Phi = .032, k^2_{Adj} = .000, 99\% CI [73.3\%, 76.7\%]$), a recognized financial aid administration curriculum ($f_s = 2,079, p_s = 75.4\%, \Phi = .010, k^2_{Adj} = .000, 99\% CI [74.5\%, 75.5\%]$), and a phase-in period for current practitioners ($f_s = 2,403, p_s = 87.2\%, \Phi = .315, k^2_{Adj} = .023, 99\% CI [83.5\%, 91.5\%]$) were the leading predictors of aspects favored most for credentialing. These features met or exceeded the 75% benchmark, and are consistent with the Spearman Rho rank correlation coefficient results. However, no components met the 75% benchmark for a credentialing process for the categorical question.

Survey Comments: Not in Favor of Professional Recognition

Three open-ended questions received a total of 624 comments. Approximately 8.8% of the survey respondents (242 out of 2,756) explicitly stated they were not in favor of a professional recognition process. Their comments represented 9.8% (61 out of 624) of the comments provided. Of those not in favor, the overall sentiment was certification is not needed (Peterson 2010, 2011). They stated existing laws and hiring practices are sufficient to ensure financial aid administrators meet required standards and desired qualifications (Peterson, 2010). Furthermore, 25% of the comments (157 out of 624) represented concerns about certification as a barrier to future financial aid practitioners, the number of financial aid practitioners approaching retirement, and the need to develop strategies to attract individuals to the field as opposed to implementing a process that may create a barrier (Peterson, 2010, 2011). Conversely, a separate and distinct 9.8% of the comments (61 out of 624) supported certification as a way to educate stakeholders and promote the financial aid occupation in a positive manner (Peterson, 2010, 2011).

Discussion

Peterson's (2011) theory of professionalization, historical literature on the closely related accounting profession, and study results suggest the need to establish standards for practicing financial aid administrators. The results of this study support Peterson's (2011) descriptive exploratory study. Both studies reveal the majority of practitioners agree the top reason for moving forward with certification, credentialing, and setting standards is to increase the stature and level of respect of the occupation. They agree ensuring accountability of financial aid administrators as fiduciaries, protecting the public interest, and self-regulating to ensure administrative capability are the top reasons the financial aid occupation needs

certification, credentialing, and standards. The results also indicate 79% of the respondents would participate in the certification process and 79% would encourage others to participate in the process. The top credentialing components selected by survey respondents include a phase-in period for current practitioners, a voluntary certification process, a recognized financial aid administration curriculum, and mandatory basic training, respectively.

The statistical analyses indicate the survey instrument is reliable and adequately measures differences of opinion within and between demographics; hence, the results reflect the opinions of the survey respondents. The survey respondents represented approximately 37% of all institutions participating in Title IV programs as of July 31, 2012 (NCES, 2014).

The level of agreement for the need, benefits, and level of support for certification, credentialing, and setting standards for financial aid practitioners was highest amongst survey respondents who will be impacted most: financial aid practitioners without a bachelor's degree or above and less than 20 years of experience. This finding is not surprising and is consistent with historical data on employment turnover and job satisfaction for this demographic (College Board & NASFAA, 2002; Davis et al., 1983; NASFAA, 1978a, 2007, 2008). While this demographic represented only 8.4% (232 out of 2,756) of the survey respondents, the effect sizes for the risk estimation analyses for differences in opinion across level of education and experience was small, significant, and the same for all groups compared ($d < .2$, $p = .05$).

Limitations of the Study

Some limitations inherent to this study are interpretation bias of qualitative responses, reversed-scaled survey questions, sample contamination, and researcher bias. The emergent themes in the literature and open-ended survey responses are subject to other interpretations. The researcher minimized this limitation by using professionalization theories, code books, and a constructivist lens to review the literature and analyze the data within the historical, political, and social context of the financial aid occupation.

The research question on the need to set standards beyond what is currently in the administrative capability regulations was reversed-scaled by design, rigorously pilot tested, and strategically placed at the midpoint of the need, benefits, and support survey questions to minimize the risk of misinterpretation by survey respondents. Furthermore, the researcher used triangulation of statistical tests and triangulation of units of measure to identify anomalies in responses. While there is nothing unusual about the responses per se, it is possible that some survey respondents may have misread the question.

Potential sample contamination is a third limitation. The survey was administered via email. No mechanisms were available to confirm all responses received were from financial aid administrators without compromising the anonymity of survey participants. As such, it is possible responses were received from unintended survey participants. Historically, this has not been an issue, according to NASFAA leadership (Dr. A. Dallas Martin, personal communication, September 27, 2011).

The fourth limitation is the researcher is a former financial aid director and former NASFAA employee. This intrinsic research bias is minimal, since the researcher has not worked in a financial aid office within the last 18 years or in a related field within the last 5 years. Notwithstanding these limitations, this study fills a void in the literature by providing generalizable inferential statistics on certification, credentialing, and setting standards for financial aid practitioners.

Implications for Practice

Small, nonsignificant research effects sometimes have practical and substantive implications (Hedges & Hedberg, 2007; Kelley & Preacher, 2012; Rosenthal & Rubin, 1982; Thompson, 2002). The correlation between the need for self-regulation and the need for additional administrative capability regulations in this study was small, negative, and nonsignificant, $r_s(2,754) = -.28, p = .137$. The correlation between the need for additional administrative capability regulations and support for an entry level mandatory internship was medium, negative, and nonsignificant, $r_s(2,754) = -.55, p = .004$. While both correlations were not statistically significant at the Bonferroni corrected $p < .003$ level, the practical implications of the effect sizes are consistent with previous findings that some provisions under Title 34 of the Code of Federal Regulations are perceived burdensome (ACSFA, 2011; Davis et al., 1983) and/or encroach on the autonomy of financial aid administrators (Van Dusen, 1979). Note the ACSFA, created as an independent source of advice to Congress and the Secretary of Education under the Higher Education Technical Amendments Act of 1987, was discontinued effective October 1, 2015, due to a lapse in funding.

The benefits of certification and credentialing to financial aid practitioners by way of potential recognition, upward mobility, pay increases, and resource allocations are unknown. However, Ferguson (1981) found financial aid administrators were consulted by their institutional presidents on a broad range of campus issues and were viewed by presidents as being influential on financial and academic policy issues relevant to financial aid operations, including overall institutional financial strategy and faculty salaries. The study also showed a lot of agreement between presidents and financial aid directors on the perceived level of influence. The finding implies a stronger, stable, and established role for the financial aid administrator (Ferguson, 1981).

Among a subsample of 116 campus administrators in the current study—7 presidents, 85 vice presidents, and 24 deans—79% agreed a professional recognition process would increase the stature of and respect for the financial aid profession, $M = 1.84, 95\% CI[1.63, 2.06]$. While these are important factors, the research literature indicates autonomy is a distinguishing characteristic of a profession (Broman, 1995; Wilensky, 1964).

The 1977 NASFAA survey ($N = 1,886$) showed over 93% of the respondents strongly agreed or moderately agreed they have sufficient authority to do their jobs. The total number of responses varied across institutional control, size, and years of experience. While there were statistically significant differences in the level of agreement at the $p = .01$ level across these demographics, the level of agreement in each category was not less than 90% (NASFAA, 1978a). Furthermore, Clement and White (1983) found no significant difference between perceived and actual autonomy across institution type in a study of the Illinois Association of Student Financial Aid Administrators in 1983, $N = 164, p < .05$.

In a follow-up study, Watts, Short, and Well (1987) found a positive moderate relationship between job fit (i.e., the degree to which job characteristics meet job expectations) and job satisfaction among members of the Texas Association of Student Financial Aid Administrators [$r(134) = .50, p < .01$]. They also found a positive but weak relationship between service to others and achievement, and job satisfaction [$r(134) = .23, p < .01$], and a negative but weak relationship between rewards and salary, and job satisfaction [$r(134) = -.17, p < .05$]. Using $p < .01$ as the standard of proof for consistency along with multivariate regression analysis, no differences were found in job satisfaction between service-oriented and reward-oriented financial aid administrators (Watts, Short, & Well, 1987). The demographics of the survey respondents mirrored NASFAA membership demographics across education level, age, gender, and ethnicity. Watts, Short, and Well (1987) concluded job fit is the key to job satisfaction among financial aid administrators.

In a study of 260 mid-level administrators at a large research institution, Austin (1985) found perceived autonomy, skill variety, and amount of feedback from the job itself accounted for 31% of the differences in job satisfaction. The findings showed perceived autonomy was the best predictor of job satisfaction. It accounted for 20% of the variance in satisfaction among a group of administrators who perceived their level of autonomy was 6.05 on average on a 7-point scale (Austin, 1985).

In a national study of 4,000 mid-level higher education leaders that included financial aid practitioners, Rosser (2004) found career support ($\beta = .29$), recognition for competence ($\beta = .34$), external relationships ($\beta = .13$), and review and intervention ($\beta = .10$) had a significant impact on job satisfaction ($p < .05$) but not on morale or intentions to leave. These findings are consistent with the results of the NASFAA 1977 and 1981 surveys that showed overall agreement was approximately 69% when asked if financial aid administration is a satisfying lifelong career (Davis et al., 1983; NASFAA, 1978a) even though approximately 62% of the 1981 survey respondents expressed discomfort with the level of federal control over need analysis methodology (Davis et al., 1983).

Another distinguishing characteristic of a profession is a formal code of ethics (Wilensky, 1964). In the current study, 65% of the survey respondents agreed or somewhat agreed a mechanism is needed to ensure financial aid practitioners pledge to uphold and keep the NASFAA code of professional ethics. Furthermore, there was a somewhat strong statistically significant correlation, [$r_s(2,756) = .61$, at the $p < .001$ level] between this statement and the need to establish a credentialing process to ensure financial aid practitioners have a certain skill set and a certain level of expertise. In turn, the statement on skill set and level of expertise had a somewhat strong statistically significant correlation, [$r_s(2,756) = .61$, at the $p < .001$ level] with the perceived benefits of certification, credentialing, and setting standards for financial aid practitioners.

However, survey respondents ranked establishing a mechanism to ensure financial aid administrators uphold and keep the NASFAA statement of professional ethics above the need to ensure financial aid administrators have a certain skill set and level of expertise, $\zeta = -5.09$, $p < .001$. In turn, they ranked credentialing to ensure financial aid administrators have a certain skill set and level of expertise above the benefits of certification, credentialing, and establishing standards, $\zeta = -19.34$, $p < .001$.

The benefits of establishing standards for all practicing financial aid administrators is not as obscure. New York Attorney General Andrew M. Cuomo's investigation into conflicts of interest and illegal inducements between the student loan industry and financial aid administrators (Peterson & Gregory, 2017); the subsequent elimination of the Federal Family Education Loan Program in 2010; and the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 provide stark examples of the unintended consequences of industries' failures to adequately self-regulate. Hence, autonomy, skill variety, and lifelong career satisfaction, when taken with the consequences of Cuomo's investigations, may be the reasons respondents ranked the benefits of certification, credentialing, and setting standards above need.

Approximately 7,687 institutions (NCES, 2016) provided an estimated \$254 billion in financial assistance to students during the 2013-14 academic year (Baum et al., 2015). Hence, the financial aid community has a fiduciary and ethical responsibility to ensure all financial aid practitioners meet a basic set of standards. This is the next step towards professionalization of financial aid administration.

Recommendations for Moving Forward

The following steps, adapted from Peterson (2011), should be taken to move forward with certification, credentialing, and setting standards for financial aid practitioners:

1. Establish a standard requiring all chief financial aid administrators to have a relevant graduate degree or an appropriate combination of education and related work experience.
2. Establish a standard requiring all financial aid professional staff to have a relevant bachelor's degree or an appropriate combination of education and related work experience.
3. The 2010 data used in this study show a continued interest in degree programs in financial aid administration or a related field. Providing information on degree options linked to career tracks within and outside of financial aid administration will help practitioners set career goals. NASFAA or another national organization should establish a task force to explore the feasibility of expanding existing higher education and leadership degree programs to include a graduate level financial assistance program administration endorsement. The proposed endorsement would provide institutions with an addition and/or alternative to existing master's degree requirements for certain financial aid positions. It would also provide another option for entry into the field. A review of the taxonomy for training financial aid administrators provided by Delaney, Hylander, Karp, and Lange (1974); the curriculum topics suggested by Bird (1985); and the client-centered curriculum outlined by Simmons (1985) are good places to start to identify curricula expansion topics.
4. Work with the financial aid community to identify states that implemented state-based certification; compare the models used; and use the information to update the revised NASFAA Committee on Certification framework (1978b) to reflect the current needs of financial aid practitioners and other stakeholders.
5. Establish a mandatory entry-level training standard for *all* financial aid practitioners. The U.S. Department of Education's "Fundamentals of Federal Student Aid Administration" training; regional and state association summer institutes/boot camps; or comparable training for which the participant earns a certificate of completion equal to an established number of continuing education units are some options to consider for this requirement.
6. Work with the financial aid community to establish a retraining standard for all financial aid practitioners that coincides with the employing institution's recertification cycle currently required under the administrative capability provisions of 34 CFR 668.13(b) of the Title IV regulations.
7. As an alternative to establishing national academic and training standards, NASFAA or the U.S. Department of Education should convene a committee or task force to explore the feasibility of proposing a change to 34 CFR 668.16(b)(1) to require a combination of education, financial aid specific training, and experience in lieu of state certification, and 34 CFR 668.16(b)(2) to provide a definition of "qualified persons" for the chief financial aid administrator as an individual who possesses a relevant graduate level degree from an accredited institution or an appropriate combination of education and experience as defined by the hiring institution.
8. An independent party should conduct a study and propose a framework for an oversight body to set, implement, and enforce standards. The study should answer the following questions:
 - a. Should this oversight body be separate and distinct in substance, form, and independence from financial aid associations and the U.S. Department of Education?
 - b. Is there a perception that advancing credentialing is another way for associations to make a profit? If yes, what strategies are available to eliminate this perception?
 - c. Should the U.S. Department of Education's oversight and compliance division absorb this activity? If yes, what strategies are available to address the issue of autonomy infringement?
 - d. Is oversight a void that could be filled by another existing entity?
 - e. Should a new agency independent of all existing financial aid industry partners be established?

This list of recommendations should be used as a starting point to move the professionalization conversation forward. It should not be interpreted as an exhaustive implementation plan. Examining and implementing all or a part of these recommendations would be a prelude to implementing a formal credentialing process.

Recommendations for Future Research

A follow-up study could help determine if there is consensus on how to operationalize the credentialing process within and between respondent demographic groups. Additional information on the need for, benefits of, and level of support for certification of financial aid practitioners from stakeholders outside of the financial aid community is also needed to inform this policy decision.

Peterson (2011) also identified several topics that warrant further research. Fertig's (2009) findings on the difference in certification rates between human resource association members and nonmembers suggests membership might be a motivating factor for seeking certification. In another study, Grogan (1990) suggests a positive correlation exists between certification status and the willingness of members of a profession to participate in professional development activities. Both these areas may have implications for financial aid administrators if certification is adopted.

Financial aid administrators must comply with the administrative capability requirements specified in 34 CFR 668.16 of the U.S. Code of Federal Regulations. Approximately 45.1% (1,244) of the survey respondents did not see a need for additional administrative capability standards, while 37.9% (1,045) think there is a need for additional regulations. The remaining 16.9% (467) of the respondents did not have an opinion one way or the other. The ACSFA (2011) analyzed duplicative, inconsistent, burdensome, and unnecessary regulations. However, the committee report does not address the administrative capability regulations. Therefore, a study of financial aid administrators' perceptions of the adequacy of the current administrative capability regulations and the implications for certification, credentialing, and setting standards for financial aid practitioners was suggested (Peterson 2011).

Staffing inadequacies and salary inequities are additional research topics identified by Peterson (2011). The demographic data analyzed for this study revealed a mismatch between functional role and job title for some financial aid staff. Perceived staffing inadequacies and salary inequities were a recurring theme throughout the open-ended comments analyzed (NASFAA, 2007, 2010). The identification of these disparities in previous staffing and salary surveys (College Board & NASFAA, 2002; Davis et al., 1983; Galvez & Olinsky, 1978; McRae, 1983; NASFAA, 1989, 1998, 2004, 2008) span at least 30 years and allude to a systemic problem. Additional research, beyond the scope of NASFAA's staffing and salary surveys is necessary to validate or refute these concerns, and develop strategies to correct disparities, if needed.

Additional peer-reviewed research on some of the operational aspects of financial aid administration is needed to form a list of data-driven validated best practices (Huff, 1998). The U.S. Department of Education's program review findings and NASFAA's peer-review best practices are good places to start to identify research topics. These studies would help build a more comprehensive body of peer reviewed financial aid research.

Nexus: Connecting Research to Practice

According to Peterson (2011), survey respondents agree establishing standards for practitioners is a good preemptive strategy for maintaining autonomy (66.9%), protecting the public interest (81.6%), and increasing the stature and respect of financial aid administrators (81.9%).

Recommendations to accomplish this include the following:

- Establish a standard requiring all chief financial aid administrators have a relevant graduate degree or an appropriate combination of education and related work experience.
- Provide information on degree options linked to career tracks within and outside of financial aid administration to help practitioners set career goals.
- Establish a task force to explore the feasibility of expanding existing higher education and leadership degree programs to include the administration of financial assistance programs that lead to a graduate-level financial aid administration endorsement.
- Update the revised NASFAA Committee on Certification framework (1978b) to reflect the current needs of financial aid practitioners and other stakeholders.
- Establish a mandatory entry-level training standard for *all* financial aid practitioners.
- Establish a retraining standard for all financial aid practitioners that coincides with the employing institution's recertification cycle currently required under the administrative capability provisions of 34 CFR 668.13(b) of the Title IV regulations.
- As an alternative to establishing national academic and training standards, convene a committee or task force to explore the feasibility of proposing a change to the federal administrative capability requirements under 34 CFR 668.1. Such a change could require a combination of education, financial aid-specific training, and experience in lieu of state certification and define "qualified persons" for the chief financial aid administrator as an individual who possesses a relevant graduate level degree from an accredited institution or an appropriate combination of education and experience as defined by the hiring institution.
- Conduct an independent study to propose a framework for an oversight body to set, implement, and enforce standards for financial aid practitioners.

This list of recommendations should be used as a starting point to move the professionalization conversation forward, but should not be interpreted as an exhaustive implementation plan. Further investigation and subsequent implementation of some or all of these suggestions would instead serve as a prelude to a formal credentialing process.

Acknowledgments

This manuscript is based, in part, on my dissertation, *Certification of Financial Aid Administrators*, submitted to the faculty of Old Dominion University in partial fulfillment of the requirements for the degree of doctor of philosophy in higher education administration in December 2011. This study uses data collected from a survey conducted by the National Association of Student Financial Aid Administrators' (NASFAA) 2009-10 Institutional Program Management Committee, for which I served as staff liaison while employed by NASFAA. NASFAA granted me a nonexclusive limited purpose data use license. I presented preliminary descriptive statistics at the NASFAA National Conference in July 2010.

References

- Advisory Committee on Student Financial Assistance (2011). *Higher education regulations study final report*. Retrieved from ERIC database. (ED529502)
- Anscombe, F. J. (1956). On estimating binomial response relations. *Biometrika*, 43(3/4), 461-464. Retrieved from <http://www.jstor.org/stable/2332926>
- Austin, A. E. (1985). *Factors contributing to job satisfaction of university mid-level administrators* [ASHE 1985 Annual Meeting Paper presented in Chicago, IL]. Retrieved from ERIC (ED259626)
- Bartlett, M. S. (1947). The use of transformations. *Biometrics*, 3(1), 39-52. Retrieved from <http://www.jstor.org/stable/3001536>
- Baum, S., Ma, J., Pender, M., & Bell, D. (2015). *Trends in student aid 2015*. (Trends in Higher Education Series). Retrieved from the College Board website: <http://trends.collegeboard.org/student-aid>
- Bird, G. T. (1985). Financial aid training: A hope for tomorrow. *The VASFAA Journal*, 3, 11-15.
- Boneau, C. A. (1960). The effects of violations of assumptions underlying the *t* test. *Psychological Bulletin*, 57(1), 49-64. doi:10.1037/h0041412
- Boucher, R. (1985). Reauthorization of the higher education act: The battles to be fought. *The VASFAA Journal*, 3, 5-10.
- Brooks, S. (1986). *NASFAA – The first twenty years: An organizational history of the National Association of Student Financial Aid Administrators, 1966-1986*. Washington, DC: NASFAA.
- Broman, T. (1995). Rethinking professionalization: Theory, practice, and professional ideology in eighteenth-century German medicine. *The Journal of Modern History*, 67(4), 835-872. Retrieved from <http://www.jstor.org/stable/2124757>
- Caplow, T. (1954). *The sociology of work*. Minneapolis, MN: University of Minnesota Press.
- Casazza, C. L. (1971). Career patterns of financial aids directors. *The Journal of Student Financial Aid*, 1(2), 33-40.
- Certification Procedures, 34 CFR § 668.13(b) (2016).
- Chambers, O. W. (1972). *A survey of the professional development of student financial aid administrators in nine southern states*. Retrieved from ERIC database. (ED095767)
- Chen, H., Cohen, P., & Chen, S. (2010). How big is a big odds ratio? Interpreting the magnitudes of odds ratios in epidemiological studies. *Communications in Statistics—Simulation and Computation*, 39, 860-864. doi:10.1080/03610911003650383
- Clement, R. J., & White, G. W. (1983). Job satisfaction of financial aid administrators in Illinois. *The Journal of Student Financial Aid*, 13(1), 9-15. Retrieved from ERIC (EJ296925)

- Cochran, W. G. (1940). The analysis of variance when experimental errors follow the poisson or binomial laws. *The Annals of Mathematical Statistics*, 11(3), 335-347. Retrieved from <http://www.jstor.org/stable/2235680>
- Cohen, J. (1962). The statistical power of abnormal-social psychological research: A review. *Journal of Abnormal and Social Psychology*, 65(3), 145-153. doi:10.1037/h0045186
- Cohen, J. (1967). An alternative to Marascuilo's "large-sample multiple comparisons" for proportions. *Psychological Bulletin*, 67(3), 199-201. doi:10.1037/h0020418
- Cohen, J. (1970). Approximate power and sample size determination for common one-sample and two-sample hypothesis tests. *Educational and Psychological Measurement*, 30, 811-831. doi:10.1177/001316447003000404
- College Board & National Association of Student Financial Aid Administrators (2002). *Financial aid professionals at work in 1999-2000: Results from the 2001 survey of undergraduate financial aid policies, practices, and procedures*. Washington DC: NASFAA.
- Conard, L. (2010, April). A view from the top: College and university presidents talk about financial aid. *Student Aid Transcript*, 2(21), 10-15. Retrieved from <http://www.nasfaa.org>
- Consolidated Omnibus Budget Reconciliation Act of 1985, Pub. L. No. 99-272, 100 Stat. 82, (1986).
- Creswell, J., (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.
- Creswell, J. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- Davis, J., Ross, J., Blanchard, S., & Bennett, R. (1983). *A profession in transition: Characteristics and attitudes of the financial aid administrator*. Washington DC: NASFAA.
- Delaney, Jr., F. H., Hylander, G. L., Karp, R., & Lange, R. J. (1974). A taxonomy of objectives for the training of financial aid administrators. *The Journal of Student Financial Aid*, 4(3), 5-12. Retrieved from ERIC. (EJ109587)
- Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, 12 U.S.C. § 5301 (2010).
- Fenske, R. H., & Bowman, R. A. (1981). Statewide need for and coordination of training of financial aid practitioners: The case of Arizona. *The Journal of Student Financial Aid*, 2(2), 25-37. Retrieved from ERIC. (EJ248863)
- Ferguson, J. L. (1981). College presidents and financial aid officers. *The College Board Review*, 121, 3-7, 24.
- Fertig, J. (2009). *What does that piece of paper really mean? An inquiry into certification motivation* (Doctoral dissertation). Retrieved from Old Dominion University's Dissertations & Theses: Full Text Database. (UMI No. 3359642)
- Florida Association of Student Financial Aid Administrators. (ca.1983). *Professional certification*. Archives of the History of the Florida Association of Student Financial Aid Administrators, Clearwater, FL.

- Galvez, M., & Olinsky, A. (1978). Financial aid administrators – Who are they and what are their training needs. *The Journal of Student Financial Aid*, 10(1), 29-33. Retrieved from ERIC. (EJ219802)
- Grogan, S. L. (1990). *Grandfathering into professional certification from the perspective of members of the American Home Economics Association* (Doctoral dissertation). Retrieved from Old Dominion University's Dissertations & Theses: Full Text Database. (Publication No. AAT 9026196)
- Hedges, L. V., & Hedberg, E. C. (2007). Intraclass correlation values for planning group-randomized trials in education. *Educational Evaluation and Policy Analysis*, 29(1), 60-87. Retrieved from <http://www.jstor.org/stable/30128045>
- Herriott, R. E., & Muse, D. N. (1975). Methodological issues in the study of school effects. *Review of Research in Education*, 1, 209-236. Retrieved from <http://www.jstor.org/stable/1167199>
- Higher Education Technical Amendments Act of 1987, 20 U.S.C. § 1001 (1987).
- Huff, R. P. (1998). *A decade of NASFAA 1986-1996*. Washington, DC: NASFAA.
- Kapsak, K. A. (1985). An analysis of differences in salaries among male and female financial aid administrators. *Journal of Student Financial Aid*, 15(2), 3-13. Retrieved from <http://publications.nasfaa.org/jsfa>
- Khan, A., & Rayner, G. D. (2003). Robustness to non-normality of common tests for the many-sample location problem. *Journal of applied mathematics and decision sciences*, 7(4), 187-206. doi:10.1155/S1173912603000178
- Knapp, K., & Others. (1989). *Salary and staffing patterns in financial aid offices 1987-88*. Retrieved from ERIC. (ED312928)
- Kelley, K., & Preacher, K. J. (2012). On effect size. *Psychological Methods*, 17(2), 137-152. doi:10.1037/a0028086
- Lix, L. M., Keselman, J. C., & Keselman, H. J. (1996). Consequences of assumption violations revisited: A quantitative review of alternatives to the one-way analysis of variance *F* test. *Review of Educational Research*, 66(4), 579 – 619. doi:10.3102/00346543066004579
- McRae, J. D. (1983). The salary status of financial aid administrators in Virginia: 1982-83. *The VASFAA Journal*, 1, 30-45.
- Meyerson, E. (1981). A dean speaks out: The financial aid profession in higher education. *The Journal of Student Financial Aid*, 11(1), 18-21. Retrieved from <http://publications.nasfaa.org/jsfa/vol11/iss1/3>
- Midwestern Association of Student Financial Aid Administrators (1976, October 18). MASFAA committee report on certification and accreditation. [1975-76 annual report to the MASFAA membership]. Myron Van de Ven, chairperson. Midwestern Association of Student Financial Aid Administrators' Archives, University of Wisconsin-Green Bay, Green Bay, WI.
- Midwestern Association of Student Financial Aid Administrators (1978a, April 28). Report from accreditation/certification committee. Ray L. Pendergrass, chairperson. Midwestern Association of Student Financial Aid Administrators' Archives, University of Missouri-Rolla, Rolla, MO.

- Midwestern Association of Student Financial Aid Administrators (1978b, November 17). Final report of the MASFAA certification committee. (Received November 22, 1978). Ray L. Pendergrass, chairperson. Midwestern Association of Student Financial Aid Administrators' Archives, University of Missouri-Rolla, Rolla, MO.
- Milligan, G. W. (1987). The use of the arc-sine transformation in the analysis of variance. *Educational and Psychological Measurement*, 47(3), 563-573. doi:10.1177/001316448704700303
- Miranti, Jr., P. J. (1985). *From conflict to consensus: The American Institute of Accountants and the professionalization of public accountancy, 1886-1940* (Doctoral dissertation). Retrieved October 24, 2009, from Old Dominion University's Dissertations & Theses: Full Text Database. (Publication No. AAT 8518514)
- Moore, D. R., (1975). Certification of financial aid professionals. *The Journal of Student Financial Aid*, 5(3), 15-20.
- Mosteller, F., & Youtz, C. (1961). Tables of the Freeman-Tukey transformations for the binomial and poisson distributions. *Biometrika*, 48(3/4). Retrieved from <http://www.jstor.org/stable/2332765>
- National Association of Student Financial Aid Administrators. (1974). Committee on certification. *NASFAA Newsletter*, 6(7), 4.
- National Association of Student Financial Aid Administrators. (1978a). *Characteristics and attitudes of the financial aid administrator (A report on the survey of the profession in 1977)*. Retrieved from ERIC. (ED158655)
- National Association of Student Financial Aid Administrators. (1978b, July). Committee on certification, NASFAA Certification framework, Revised draft #4. In Ray L. Pendergrass, chairperson, *Final report of the MASFAA certification committee* (November 17, 1978, received November 22, 1978). Midwestern Association of Student Financial Aid Administrators' Archives, University of Missouri-Rolla, Rolla, MO.
- National Association of Student Financial Aid Administrators. (1986). [*NASFAA membership survey*]. Unpublished raw data.
- National Association of Student Financial Aid Administrators. (1989). *Salary and staffing patterns in financial aid offices, 1987-88*. Washington, DC: Author.
- National Association of Student Financial Aid Administrators. (1995). *A report to the leaders of America's colleges and universities: Meeting the challenge of student financial aid*. Washington, DC: Author.
- National Association of Student Financial Aid Administrators. (1998). *Key factors in compensations of financial aid administrators and staff: A report on the 2003 NASFAA salary survey*. Washington, DC: Author.
- National Association of Student Financial Aid Administrators. (2004). *Key factors in compensations of financial aid administrators and staff: A report on the 2003 NASFAA salary survey*. Washington, DC: Author.
- National Association of Student Financial Aid Administrators. (2007). [*Financial aid administrators job satisfaction survey*]. Unpublished raw data.
- National Association of Student Financial Aid Administrators (2008). *Factors contributing to financial aid administrators' job satisfaction*. Washington, DC: Author.

- National Association of Student Financial Aid Administrators. (2009). *Professional certification*. Paper prepared by NASFAA Institutional Program Management Committee. Washington, DC: NASFAA.
- National Association of Student Financial Aid Administrators. (2010). [*Professional recognition of financial aid administrators*]. Unpublished raw data.
- National Association of Student Financial Aid Administrators. (2012). *You're the director: A guide to leadership in student financial aid*. Washington, DC: Author.
- National Association of Student Financial Aid Administrators. (2016). *NASFAA University*. Retrieved April 04, 2016, from https://www.nasfaa.org/NASFAA_University
- National Association of Student Financial Aid Administrators' Bylaws, Article VIII, § 1 and Article XII. (2011).
- National Association of Student Financial Aid Administrators' Committee for Institutional Management Services. (1988). *Credentialing student financial aid administrators: An idea whose time has come or one which never will?* Paper presented at the meeting of the National Financial Aid Council in Washington, DC.
- National Center for Education Statistics. (2014). *105 Summary of Enrollment, Teachers, and School*. Table 105.50: Number of educational institutions by level and control of institution: Selected years: 1980-81 through 2012-13. In *Digest of Education Statistics: 2014*. [NCES 2016-006]. Retrieved from <http://nces.ed.gov>
- National Center for Education Statistics. (2016). *Integrated Postsecondary Education Data System*. IPEDS data center. [Summary Tables: 2014 Data collection: Miscellaneous indicators – All institutions]. Retrieved from <http://nces.ed.gov/ipeds/datacenter/InstitutionByGroup.aspx>
- Omnibus Budget Reconciliation Act of 1981, Pub. L. No. 97-35, 95 Stat. 357 (1981).
- Peterson, L., & Holmes, R. B. (1980). Statewide financial aid administrator training—Phase one. *The Journal of Student Financial Aid*, 10(3), 22-32. Retrieved from ERIC (EJ248852)
- Peterson, L., Tatum, J., & Winegar, M. (1977). Michigan student financial aid office salary and staffing patterns. *The Journal of Student Financial Aid*, 7(1), 5-15. Retrieved from ERIC (EJ166186)
- Peterson, S. A. (2008). *College and university administrators' perceptions of the financial aid profession*. Unpublished manuscript.
- Peterson, S. A. (2010, July). *The results are in: Your opinion counts*. [Session #340]. Presentation at the NASFAA Institutional Program Management Committee Town Hall Meeting at the National Association of Student Financial Aid Administrators' Conference in Denver, CO.
- Peterson, S. A. (2011). *Certification of financial aid administrators* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 3492396)
- Peterson, S. A., & Gregory, D. E. (2017). *Illegal student loan inducements and the unintended consequences of failure to self-regulate*. Manuscript submitted for publication.

Rosenthal, R., & Rubin, D. B. (1982). A simple, general purpose display of magnitude of experimental effect. *Journal of Educational Psychology*, 74(2), 166-169. doi: 10.1037/0022-0663.74.2.166

- Rosser, V. J. (2004). A national study on midlevel leaders in higher education: The unsung professionals in the academy. *Higher Education*, 48(3), 317-337. doi:10.1023/b:high.0000035543.58672.52
- Rücker, G., Schwarzer, G., Carpenter, J., & Olkin, I. (2009). Why do anything with nothing? The arcsine difference as a measure of treatment effect in meta-analysis with zero cells. *Statistics in Medicine*, 28, 721-738. doi:10.1002/sim.3511
- Sanderson, J. R., (1971). Why professionalization for financial aid officers? *The Journal of Student Financial Aid*, (1), 7-13.
- Schiesz, R. J. (1974). A study of certain professional characteristics of financial aid administrators at institutions of higher education in the state of Illinois. *The Journal of Student Financial Aid*, 4(1), 25-33.
- Schneider, P. J., & Penfield, D. A. (1997). Alexander and Govern's approximation: Providing an alternative to ANOVA under variance heterogeneity. *The Journal of Experimental Education*, 65(3), 271 – 286. Retrieved from <http://www.jstor.org/stable/20152526>
- Short, A. P., & Matlock, D. T. (1984). The student aid director's supervisory attitudes as related to the perceived understanding of higher administrative officials about the functions of the financial aid office. *The Journal of Student Financial Aid*, 14(3), 27-34. Retrieved from ERIC (EJ312107)
- Simmons, B. (1985). A client-centered curriculum for an institute for new financial aid administrators. *The Journal of Student Financial Aid*, 4(1), 25-33.
- Standards of Administrative Capability, 34 CFR 668.16(a)-(b), (GPO 2016).
- Thompson, B. (2002). "Statistical," "Practical," and "Clinical": How many kinds of significance do counselors need to consider? *Journal of Counseling and Development*, 80(1), 64-71. doi:10.1002/j.1556-6678.2002.tb00167.x
- Van Dusen, W. D. (1979). The coming crisis in student aid: Report of the 1978 Aspen Institute conference on student aid policy. *The Journal of Student Financial Aid*, 9(1), 3-18. Retrieved from ERIC (EJ198251)
- Watts, W. D., Short, A. P., & Well, C. B. (1987). Fitting the professional to the job: Idealism and realism. *The Journal of Student Financial Aid*, 17(3), 22-30. Retrieved from <http://publications.nasfaa.org/jsfa/vol17/iss2/2>
- Wilensky, H. (1964). The professionalization of everyone? *The American Journal of Sociology* 70(2), 137-158. doi:10.1086/223790
- Willingham, W. W. (1970). Professional development of financial aid officers: Higher education surveys. (Report No. 2). Retrieved from ERIC database. (ED051757)
- Zimmerman, D. W., & Zumbo, B. D. (1990). Effect of outliers on the relative power of parametric and nonparametric statistical tests. *Perceptual and Motor Skills*, 71(1), 339-349. doi:10.2466/pms.1990.71.1.339