Overlooked Authors: Financial Returns to Publications for Faculty at Non-Doctoral Granting Institutions

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ABSTRACT

Studies of financial returns to publication typically focus on publications by faculty at top doctoral granting institutions for publishing in the top journals of the field. This study expands the field of inquiry to examine financial returns to academic accountants at master's and bachelor's granting institutions for publishing in a wide range of accounting and non-accounting journals. Using an individual-specific data set of full-time, tenure-track accountants, this study broadens the scope of inquiry by examining the impact of not only publications in top accounting journals, but also of publications in other ranked, practitioner and unranked accounting journals as well as journals in other business disciplines. The study examines overlooked authors – those faculty members employed at master's and bachelor's granting institutions – and examines their financial returns to publication compared to those faculty members employed at doctoral granting institutions.

While results confirm the importance of publishing in the top five accounting journals at doctoral granting institutions, different wage equations emerge for faculty at master's and bachelor's granting institutions. Faculty members at master's granting institutions are rewarded for publication in both the top accounting and non-accounting journals as well as for publications in lower ranked accounting and practitioner journals. Faculty members employed by bachelor's granting institutions are primarily rewarded for publications in practitioner journals.

Keywords: accounting faculty; salary; compensation; publication.

Introduction

Research across academic disciplines including accounting, economics, finance and marketing has demonstrated the positive financial impact of publications in top journals within the discipline for faculty working at top doctoral granting institutions. While this research affirms the expectations one has of publication requirements and rewards at large, research-oriented institutions, it ignores financial returns related to other academic outlets and other academic researchers. Specifically, the literature has not yet examined the financial returns for accountants stemming from publications in journals that are not included at the top of the discipline nor has it fully explored the returns to publication for the numerous researchers employed at non-doctoral granting institutions.

It is intuitively appealing that publications in top accounting journals generate positive financial returns. Most recently, Almer, Bertolini and Higgs (2013) provide

empirical support for positive financial premiums associated with publication in the top 11 accounting journals by faculty employed in the largest U.S. accounting programs. Similarly, using journal rank as a proxy for the quality of an article, publications in top journals tend to be important to tenure and promotion decisions (Swanson, Wolf and Zardkoohl, 2007) which also lead to increases in salary. The opportunities for publishing in the top accounting journals, however, are constrained. Each of the top journals publishes a limited number of articles per year, providing opportunities for only a few of the estimated 17,000 accounting faculty in 2004 (AAA Report, 2008). In 2014, for example, the top ten journals in accounting published 351 different articles; the top five journals in accounting published 214 of those articles.1 In addition, institution often heavily concentrates publications in top journals. Swanson et al. (2007) demonstrate that faculty at 25 (high-research, doctoral granting) institutions authored more than half of the articles published in four of the top accounting journals. As a result, accounting scholars who must publish do so in alternative outlets, including lower tier accounting, practitioner and non-accounting journals. Matherly and Shortridge (2009) note a significant number of publications in non-accounting and accounting practitioner journals. Similarly, Herron and Hall (2004) find that half of the journals in their top 20 listing are non-accounting.

In confirming a significant financial return to publications in the top 11 accounting journals, Almer et al. (2013) noted that there were fewer faculty members at non-doctoral institutions who had published in those journals. This may reflect the competitive nature of publishing in the top journals, but most likely also reflects differences in institutional mission where most non-doctoral institutions place less emphasis on research than teaching. It is reasonable, then, that the model for financial returns to publishing by faculty members at non-doctoral institutions should differ from the model for faculty members at more research focused institutions.

Accordingly, this study examines the impact on financial returns to academic accountants at master's and bachelor's granting institutions who publish in a wide range of accounting and non-accounting journals. Using an individual-specific data set of full-time, tenure-track accountants, this study broadens the scope of inquiry by examining the impact on financial returns of not only top journals but of other outlets as well. Specifically, it includes ranked accounting journals, practitioner journals, unranked accounting journals and journals in other business disciplines. With this data and emphasis, this study examines a financial model that applies to faculty members employed at master's and bachelor's granting institutions. Results for faculty members employed at doctoral-granting institutions are included for comparative purposes.

Results confirm that publishing in the top accounting journals generates a positive financial return for faculty members at master's granting institutions. However, positive and substantial financial returns are also generated by publishing in less-highly ranked accounting journals, practitioner journals and top non-accounting journals. For bachelor's granting institutions, positive financial returns are primarily generated by publishing in practitioner journals. Results also affirm findings by Almer et al. (2013) that publications in top journals generate financial returns for those employed at doctoral-granting institutions. When a full range of publication outlets is included, however, this study indicates that only publications in the top five journals make a significant contribution to financial returns.

The paper is organized to provide the contribution in the setting of previous and related work on the subject in the following section. Next, the paper presents the data and the collection methodology. This section is followed by a discussion of the empirical findings, including descriptive statistics and regression results. The paper concludes with a discussion of the findings, limitations and opportunities for further research.

Background

The unique characteristics of the academic labor market and its corresponding wage equation have inspired a great deal of scholarly examination. Differences in discipline and type of institution often constrain the scope of inquiry. With regard to discipline, significant research has centered on the wage equation for economists (e.g., Bratsberg, Ragan and Warren, 2010; Moore, Newman and Turnbull, 1998; Fender, Taylor and Burke, 2015). Others researchers have examined salaries for academics in fields such as marketing (Mittal, Feick and Murshed, 2008), finance (Swidler and Goldreyer, 1998) and accounting (Almer et al., 2013).

Similarly, type of institution tends to define the scope of inquiry further. Many researchers (e.g. Bratsberg et al., 2010; Moore et al., 1998; Mittal et al., 2008; Swidler and Goldreyer, 1998) focus on faculty employed across similar institutions, usually doctoral granting. There are limited exceptions to the research focused on doctoral granting institutions. Almer et al. (2013) expanded their examination to include not only doctoral, but also other large programs (those where there were 10 or more accounting

1 Based on a count of each article, excluding notes and comments, in each of the top journals published in 2014.

faculty). Similarly, Fender et al. (2015) examined a cross section of economists across public institutions that included baccalaureate, master's and doctoral granting institutions.

While research productivity has an impact on academic wages, the nature of that impact depends upon the way the quality of scholarship is measured. One of the most common methods to control for quality differences in publications is to limit productivity to publications in "top journals." In their examination of financial returns to accountants, Almer et al. (2013) measure research productivity using the BYU Accounting Research Rankings database2, which provides an aggregate measure of publications in the top 11 journals in accounting. Their results indicate that publication in the top journals is highly significant for the salaries of faculty members in doctoral-granting and large accounting departments. Similarly, Swidler and Goldreyer (1998) find a significant positive return to publishing in top finance journals.

Other researchers include a larger number of journals and control for quality. Bratsberg et al. (2010) create four tiers of economics publications ranging from the top 10, top 25, top 50 and other. Their results indicate that all publications influence salaries, with the larger impact coming from publications in the top ten journals. Similarly, in their study of marketing salaries, Mittal et al. (2008) include a large number of publications, classifying the publications as either marketing or business journals, and distinguishing between the top and other journals in each category. Their results conclude that publishing in any marketing journal or top business publication generates positive financial returns. While the impact of publishing in the other marketing journals was small, it was significant – only publications in the other business journals had no impact on the salary of marketing academics. In their study of economists, Fender et al. (2015) include all publications in economics journals. Using journal rankings to create a quality-weighted index for those publications, Fender et al. (2015) report positive returns to quality-weighted publications.

The data set for this study addresses some of the limitations of the extant literature. While limited to an examination of accounting faculty at public institutions, this study focuses on those institutions offering master's or bachelor's degrees, and includes 202 institutions that vary according to highest degree offered (doctorate, masters or bachelor's) as well as to size of the department. In addition, this study incorporates all publications, accounting and other, available from research databases including EBSCOhost, Social Science Citation Index (SSCI) and EconLit. This breadth of scope allows an examination of the financial model for faculty members employed at non-doctoral granting institutions for a variety of publications in accounting and non-accounting journals.

The Data

Collection of salary data for faculty members at public institutions began with interlibrary loan requests for budget information for 2007-08 from public schools listed in Hasselback's Directory of Accounting Faculty (2008). For institutions that did not reply or provide the requested information, the authors used a variety of other methods to obtain salary information, including online databases, publications in state documents and filings under the freedom of information act. Consistent with prior research (Mittal et al., 2008; Almer et al., 2013), base salary, rather than total compensation (including summer pay, stipends, etc.), was selected for comparison among institutions.

In total, information for 1,285 faculty members at 202 state institutions was obtained. Of these, approximately two-thirds of the faculty members were employed at master's or bachelor's granting institutions. Specifically 420 (32.7 percent) faculty members were employed at doctoral granting institutions, 673 (52.4 percent) at master's granting institutions and 192 (14.9 percent) were employed at bachelor's level institutions.

Scholarly Productivity

This study includes comprehensive measures of scholarly productivity including publications in peer-reviewed journals, books, and citations. Publication in peer reviewed journals is generally the gold standard in academia and thus should positively impact income, though it is unclear a priori the size and significance which publication in lower level journals or non-accounting journals have on salary. The study also includes the number of books published by each individual3 and the number of citations for each author as obtained from SSCI using its database dating back to 1970. Both are assumed a priori to positively influence academic salaries. Table 1 summarizes all variable definitions.

Two fundamental issues are addressed in assessing peer-reviewed publications. The first is which journals should be included in the study. The second involves weighting the journals according to their quality. As previously noted,

2 Available at: http://www.byuaccounting.net/rankings/univrank/rankings.php

3 Multiple editions of a book are reflected as one book.

many researchers solve these issues simultaneously by limiting the examination to publications in "top" accounting journals. This study, however, includes all peer-reviewed journals available in the databases described below and thus teases out the impact of publications in a wide variety of journal type and quality on the wage equation of accountants. Accordingly, scholarly productivity for each of the faculty members included in the sample is obtained through searching three main databases: EBSCOhost, EconLit and SSCI. All publications, excluding comments and replies, found in these databases are recorded for every faculty member in the sample. Any ranked accounting journals that were not included in the databases (e.g., Advances in Management Accounting) were specifically researched by accessing the print or online publications.

Similar to Mittal et al. (2008) and Swidler and Goldreyer (1998), the quality of peer-reviewed publications is accounted for by initially classifying each journal as either accounting or non-accounting. Because there can be significant disagreement in what constitutes an accounting rather than a non-accounting journal, several rules were applied. First, journals included in the rankings of accounting journals (Bonner, Hesford, Van der Stede and Young, 2006; Johnson, Reckers and Solomon, 2001; Ballas and Theoharakis, 2003) were considered accounting journals. Journals identified in Mittal et al. (2008) for other business disciplines were considered non-accounting journals. Each remaining unranked journal was reviewed to determine whether its primary audience was members of any accounting field (e.g. financial accounting, auditing, tax, managerial, etc.). If not, these journals were considered non-accounting journals. For example, Research in Accounting Regulation and Journal of Corporate Accounting and Finance, while unranked, are considered accounting journals; Strategic Finance and HR Magazine are considered non-accounting journals.

Each category was then subdivided into different tiers according to the quality of those journals. Within the accounting journals, tier one (A1) includes the top five journals in accounting relative to the time period of publications under review (Bonner et al., 2006) – Accounting, Organizations & Society; Contemporary Accounting Research; Journal of Accounting and Economics; Journal of Accounting Research; and The Accounting Review. The second tier of accounting journals (A2) includes the remaining five journals of the top ten journals identified by Johnson et al. (2001), i.e. those that are not included in the top tier. The second tier thus includes Auditing: A Journal of Practice & Theory; Journal of the American Tax Association; Journal of Accounting; Auditing & Finance; Behavioral Research in Accounting; and Accounting Horizons. The third tier of accounting journals (A3) includes journals ranked by Ballas and Theoharakis (2003) but excluded from A1 and A2. Tier four (A4) includes unranked practitioner journals, i.e. those practitioner journals not included in A1, A2 or A3 in which members of the sample published – not a complete list of unranked practitioner journals. Journals were included in A4 based on their stated audience, i.e. practitioners, professionals, executives, etc. All remaining accounting journals included in the sample are included in tier five (A5). Appendix A includes a list of journals included in tiers A1 through A4.

With regard to the non-accounting journals, Mittal et al. (2008) defined top journals in each business discipline (finance, information systems, management, operations, and economics). Mittal et al. (2008) also defined journals from top business interdisciplinary, practitioner-focused, psychology and other basic areas. These journals are included in tier one of the non-accounting journals (NA1) and are listed in Appendix B. All remaining non-accounting journals are included in tier two (NA2).

Other Explanatory Variables

Table 1 presents other variables, including those that reflect personal and institutional characteristics. The effect of many of these variables has been examined by researchers in economics, finance, and marketing and more recently in accounting.

Gender (Male), rank (Professor, Associate and Assistant) and administrative duties (Administrator) are typical determinants of salary. The literature examining gender impact on research productivity (Fogarty, 2004; Burke, Fender and Taylor, 2008) and salary (Almer et al., 2013) in accounting suggests no differences in productivity or salary between men and women. Accordingly, we anticipate no gender effect on salary.

With regard to rank, prior research (Samavati, Dilts and Haber, 2007; Almer et al., 2013) indicates that mean salaries for associate professors are lower than those for assistant professor at doctoral and top-ranked doctoral institutions. As demonstrated in Table 2, this finding does not hold true for the current sample, although averages for associates and assistants are quite close for some institutions. When all doctoral institutions (both top-ranked and other) are combined, the average salaries for assistant and associate professors are within a few hundred dollars of each other, with the associates receiving the slightly higher amount. At master's granting institutions, the average salary for associate professors exceeds the average salary for assistant professors by 1.7 percent. The largest difference between the average salaries of associate and assistant professors is noted for bachelor's institutions where associates receive, on average, 8.5 percent higher salaries

than assistants. While some of these findings affirm the presence of salary compression, particularly for doctoral granting and some master's institutions, for the individual, promotion from assistant to associate and associate to professor is still anticipated to increase salary after controlling for other important variables. Administrators are also expected to earn higher salaries (Moore et al., 1998; Swidler and Goldreyer, 1998; Almer et al., 2013).

Seniority measures the number of years faculty members have worked at their current institutions and was determined with reference to the start date provided by Hasselback (2008). Seniority is expected to have a negative and diminishing impact on salary, consistent with the findings of Bratsberg et al. (2010) in economics and Swidler and Goldreyer (1998) in finance. To reflect this nonlinear relationship between seniority and base salary, the study includes both Seniority and Seniority Squared. Extant research in accounting (Almer et al., 2013) also finds a negative effect for seniority, but does not test the nonlinear relationship anticipated here.

Highest degree obtained is included in the form of two dummy variables. Doctoral degree indicates those faculty members who possess either a Ph.D. or a D.B.A., where JD or LLM designates individuals for whom those are the highest degree. These designations were obtained from Hasselback (2008). Both degree variables are expected to have a positive impact on salary (Barbezat and Hughes, 2001; Almer et al., 2013).

This model also includes two measures specific to faculty in accounting, both of which were obtained from Hasselback (2008). CPA denotes those faculty members who have the CPA designation. While not found to significantly influence salary at larger institutions (Almer et al., 2013), the designation may have a positive impact on salary when smaller institutions are included in the analysis. In addition, the model includes dummy variables for the six most popular teaching and research interest areas (Almer et al., 2013) identified in Hasselback (2008) for each faculty member. Hasselback provides 26 teaching or research interests that faculty members may select. Like Almer et al. (2013), we have included the six most popular interest areas as separate variables in the model. These included Financial, Audit, Managerial, Systems, Tax and Behavioral. All remaining interest areas are included in Other.

Certain institutional characteristics are also expected to impact salaries. Accreditation by AACSB International (AACSB) signals the quality of an institution's program and resources sufficient to maintain that quality. As such, accreditation is expected to increase salaries. Whether an institution had AACSB accreditation was determined with reference to the AACSB membership list4 on its website. Named business schools (Named B-School) are more likely to reflect access to resources that should positively affect salaries (Almer et al., 2013). Whether a business school is named was determined by reference to the school's website. In addition, the model includes a variable to distinguish between those larger and smaller departments, noting that some larger departments tend to have more access to resources, regardless of the highest degree offered by the institution. The variable, Size, reflects the number of accounting faculty at each institution, excluding lecturers and visiting professors.

Two additional variables related to standard of living are also included in the model. Because a $130,000 salary in a rural market in Tennessee equates to a higher standard of living than the same salary in Boston, Samavati et al. (2007) notes the importance of purchasing power, i.e. the "real wage," in the salary equation. Accordingly, the cost of living index (COLI) is expected to be a significant determinate of academic salary (Samavati et al., 2007; Almer et al., 2013). COLI was derived from data collected by the Council for Community and Economic Research.5 In addition, collective bargaining may also act to maintain a standard of living for its members. Institutions in the sample that operate under collective bargaining agreements are identified with a dummy variable, Union, and collected from Moriarty and Savarese (2006). Union is expected to positively influence salaries.

Results

Descriptive Statistics

Table 3 presents descriptive statistics for all variables. The mean salary for all faculty was $118,315 while those at doctoral institutions was $153,056, at master's granting institutions was $104,784 and at bachelor's institutions was $89,748. With regard to the personal characteristics of the sample, 74 percent are male, while 41percent of the sample has the rank of professor, 34 percent are associate professors and 25 percent are assistant professors. In addition, 11 percent of the faculty members in the study are identified in Hasselback (2008) as having some administrative responsibility including chair, head or director. Individuals in this sample are relatively senior, with an average of 16.33 years at the current institution overall, 15.70 years at doctoral institutions, 16.64 years at master's

4 Available at http://www.aacsb.edu/en/accreditation/accredited-members/

5 Available at http://www.coli.org/

granting institutions and 16.66 at bachelor's institutions. Most of the faculty in the sample (65 percent) are CPAs, and consistent with Fogarty and Black (2014), doctoral institutions have the lowest percentage (57 percent) of faculty with the CPA designation.

Eighty-nine percent of the institutions in this sample were accredited by AACSB, with 100 percent of the doctoral institutions being accredited, 88 percent of the master's institutions and only 68 percent of the bachelor's institutions being accredited. Thirty-seven percent of the institutions in the sample had named business schools, but 66 percent of the doctoral granting institutions had named business schools compared to 26 percent of the master's and 15 percent of the bachelor's granting institutions. Thirty-five percent of the faculty in this sample worked for unionized institutions. Roughly 32 percent of faculty worked at doctoral institutions, 52 percent at master's granting institutions and 15 percent at bachelor's institutions. On average, accounting departments in this sample included 14.34 faculty members, with the doctoral institutions reporting 20.90 faculty, the master's institutions reporting 12.19 and the bachelor's institutions reporting 7.53 faculty members.

Table 4 expands the summary statistics for publications in accounting and non-accounting journals, books and citations. For each type of publication, Table 4 provides the average number of publications, the percent of faculty who published in that tier, and the average number of publications among faculty who published in that tier. For example, overall faculty published an average of 1.12 articles in tier A1, with 29.26 percent of the faculty publishing in A1. On average, faculty who published in tier A1 published 3.83 articles. Considering the entire sample, on average, faculty published more than one article in tier A1 (top five journals) and tier A3 (other ranked accounting journals). On average, faculty also published 1.63 articles in tier NA2 (unranked non-accounting journals). At least 29 percent of the faculty in the sample published in each of the tiers except for A5 and NA1 where only 8.95 percent and 12.14 percent published, respectively.

Differences in publication outlets by type of institution are also noteworthy. Faculty at doctoral institutions published, on average, 2.86 articles in tier A1, and 62.38 percent of those faculty published in that tier. The faculty at doctoral institutions who published in tier A1 published an average of 4.58 articles. Faculty at master's institutions published more articles in tier NA2 than in any other outlet, with an average of 1.51 articles and 52.30 percent of the faculty publishing in that tier. These faculty also published more than one article, on average, in tier A3 (other ranked journals) where they published 1.10 articles and tier A4 (practitioner journals) where they published 1.14 articles. Not surprisingly, faculty members at bachelor's institutions published the fewest articles. Among all outlets, these faculty members published more articles, 0.80, in NA2 (non-accounting journals) followed by A3 (other ranked journals) and A4 (practitioner journals) where the average number of publications dropped to 0.47 and 0.45, respectively.

Table 4 also demonstrates that on average, faculty in the sample received 23.25 citations, with 59.42 citations per faculty member at doctoral institutions, dropping to 7.08 for faculty at master's granting institutions and 0.82 for faculty at bachelor's institutions. A similar pattern is noted in the publication of books, where on average faculty members published 0.88 books. Faculty at doctoral institutions published 1.61, dropping to 0.59 and 0.30 for faculty at master's and bachelor's granting institutions, respectively.

Regression Results

The model was estimated using Ordinary Least Squares regression techniques and the dependent variable is base salary. Table 5 presents regression results for the overall model, then for each type of institution. The adjusted R2 is .60 for the overall model, .46, .39 and .36 for the doctoral, master's and bachelor's granting institutions, respectively. These adjusted R2 statistics are consistent with previous studies (Mittal et al., 2008; Almer et al., 2013).

The overall model reveals the significance ($p<.05$) of publications in the top journals (tiers A1 and A2), practitioner journals (A4) and top non-accounting journals (NA1) as determinants of salaries. Ranked accounting journals other than the top journals (A3), unranked accounting journals (A5) and other non-accounting journals (NA2) are not significant for the overall model. Citations and books are also significant determinants ($p<.05$) in the wage equation. The coefficients suggest incremental earnings from publications in each of the significant tiers as well as from citations and books. Among the journals, these coefficients suggest that highest incremental earnings result from publications in A1 ($4,025), NA1($2,120) and A4 ($1,156).

What is of most interest, however, is the financial model for the different types of institutions. The model for doctoral institutions affirms the results of Almer et al. (2013) regarding the importance of publishing in top accounting journals. When a range of publication outlets is included, however, these results indicate that it is publication in the top five accounting journals and citations that are significant ($p<.05$) and drive the wage equation for faculty at these institutions. The incremental earnings from publication in tier A1 for faculty at doctoral institutions

is $3,713. Other publication components of the financial model for doctoral institutions were citations and books.

The analysis uncovers a different set of determinants in the wage equation for faculty at master's granting institutions. For these faculty, an expanded set of publications drives financial returns. While publications in the top five accounting journals (A1) are significant, other ranked accounting journals (A3), practitioner journals (A4) and most notably in top non-accounting journals (NA1) produce measurable returns. The largest incremental gains at the master's granting institutions result from publications in tiers NA1 and A1, where a publication in top non-accounting journals (NA1) earns $7,792 compared to $2,892 for a publication in one of the top five accounting journals (A1). These returns to publications in top journals, whether accounting or non-accounting, affirm that quality publications are valued and rewarded by master's granting institutions. The substantial difference between returns for publishing in tier NA1 versus tier A1 may reflect the more limited opportunities for publication in the top five accounting journals, particularly when considering the emphasis placed on publication in these journals by doctoral granting institutions. It is possible, although untested, that this result may also reflect an increased value for coauthorship among the faculty from different disciplines of master's granting institutions where missions may be less research-oriented, perhaps leaving less time for single authorship or indicating that other top-tier journals "count." It is also important to note that publications in the other ranked accounting (A3) and practitioner (A4) journals ($1,994 and $1,929, respectively) result in significant financial returns. While the magnitude of these returns vary, significant incremental earnings stemming from a variety of different types of publications indicate that master's granting institutions employ a different wage equation. This equation emphasizes contributions to a broader literature when compared to the doctoral equation that emphasizes publication in the specific accounting literature.

Results for bachelor's granting institutions reveal that publications in (A4) unranked practitioner's journals have a significant (p<.05) effect on the wage equation. There is a marginally significant (p<.10) effect for publications in the lower half of the top ten accounting journals (A2).

Interestingly, publications in non-accounting journals other than the top (tier NA2) do not generate significant returns for faculty at any type of institution. In each category, however, faculty published, on average, a healthy number of articles in these journals. In fact, for other master's and bachelor's granting institutions, faculty published the most articles in this category, and at doctoral institutions, faculty only published more articles in tier A1 (see Table 4). The volume of articles in NA2 combined with its lack of financial impact suggests that these publications have some other value to faculty. For example, these publications may enhance a faculty member's case for tenure and promotion. They may meet minimum standards for academic qualification according to AACSB. Finally, they may reflect special research interests of more mature faculty who are less concerned about financial returns.

Consistent with existing literature, Gender and the CPA designation are not significant in any of the models. The results for CPA designation are consistent with Fogarty and Black (2014) findings that the increasing emphasis on research reduces or eliminates the advantages of the designation. Doctoral degree is significant (p<.05) overall and at the master's and bachelor's granting institution where because of accreditation requirements those individuals are necessary, but because of salary differences, they may be harder to hire and retain. JD or LLM is significant for bachelor's granting institutions only among the institutional models. This may suggest that the bachelor's granting institutions are more reliant on faculty members with JDs or LLMs than are the doctoral or master's institutions where a higher percentage of institutions is accredited (88 percent of master's granting versus 68 percent of bachelor's granting institutions) and resources may be available to attract individuals with doctoral degrees.

The analysis indicates few significant results for teaching and research interest areas for master's or bachelor's granting institutions. Systems and Tax were significant or marginally significant and negative in models for doctoral granting institutions, indicating that other things held constant, the faculty member who indicates a specialty in any of these areas is penalized. Systems was significant (p<.05) and negative for doctoral institutions in this study6. Similarly, Tax was marginally significant (p<.10) and negative for doctoral institutions. These large negative effects on earnings may occur because there are no systems or tax journals included in tier A1. The top systems journals are included in tier NA1, but publications in that tier are not significant for doctoral institutions.

For master's and bachelor's granting institutions, no other teaching or research interest areas demonstrated significant results other than a marginally significant (p<.10) and negative result for the Other category. One possible explanation of these results is that these interest areas are self-reported and may be more indicative of faculty teaching areas than research interests. Even if the research in-

6 Note that Almer et al. (2013) found no effect for Systems at top doctoral programs, but a large and negative effect for other doctoral institutions.

terests are adequately captured, this variable does not reflect the degree to which a faculty member researches in a particular area. A second possible explanation is that faculty members at master's or bachelor's granting programs may have to be more flexible and less specialized in their teaching interest due to resource constraints than those faculty members at doctoral granting programs.

Rank and seniority variables should be considered jointly. Professor is positive and significant (p<.05) for each of the model specifications except bachelor's granting institutions, and Associate Professor is positive and marginally significant (p<.10) for the overall model and doctoral institutions. These results suggest that earnings increase with promotion even after controlling for scholarly productivity and other characteristics at doctoral and master's granting institutions. Seniority and seniority squared are jointly significant (p<.05) in all models except bachelor's granting institutions, and indicate that an additional year at a particular institution has a negative but diminishing impact on salary after controlling for productivity, institutional and personal characteristics.

With regard to institutional characteristics, accreditation by AACSB International has a significant (p<.05) and positive effect overall and for bachelor's granting institutions7 where 68 percent of the institutions in the sample were accredited. While 88 percent of the master's granting institutions were accredited, accreditation has only a marginally significant (p<.05) impact. Having a named business school also has a positive and significant (p<.05) impact on earnings for faculty at doctoral and master's granting institutions.

The Union measure, reflecting institutions with collective bargaining agreements, was not significant in any specification of the model. Similarly, department size was only significant (p<.05) for master's granting institutions and marginally significant (p<.10) for doctoral granting institutions. The impact of cost of living in the wage equation was not significant in any specification of the model.

Conclusions and Limitations

Using individual-specific data and a breadth of publication information, this study examines the financial impact of research productivity for those authors who are typically overlooked – the accounting faculty at master's and bachelor's granting institutions. By including a comparative analysis of faculty members at doctoral institutions and publications in a breadth of journals, the study affirms that while publications in top accounting journals drive the wage equation for those at doctoral granting institutions, there are very different financial models for faculty members at master's and bachelor's granting institutions.

Compared to faculty members at doctoral granting institutions, the financial model for master's granting institutions values and rewards publications in a wide range of different journals, including top journals in non-accounting fields, lower ranked accounting journals and practitioner publications. Certainly, publications in the top five accounting journals and top non-accounting journals provide high impact on base salary, but faculty members also experience significant reward for publication outside of the top journals. The time and effort to publish in the top journals in accounting or other disciplines may exceed the expectations and mission of these master's granting institutions and come with significant opportunity cost to the individual faculty member. Accordingly, while the individual faculty member who publishes in The Accounting Review or The American Economic Review can expect some reward for that publication, that faculty member can also expect financial returns for publishing in a lower tier accounting or practitioner journal. While the reward is not as high, it remains significant and likely comes at a lower opportunity cost to the faculty member.

Correspondingly, the model for bachelor's granting institutions values and rewards publications in practitioner journals. The focus on professional research with more immediate applicability to executives and practitioners seems in keeping with bachelor's granting institutions that will typically lack the mission, structure and administrative support to sustain faculty members engaging in significant academic research.

One of the key contributions of this study is its inclusion and analysis of the impact of non-accounting journals in the publication portfolio of researchers. While faculty members at doctoral granting institutions publish about 0.71 articles in these top non-accounting journals, and those at master's and bachelor's granting institutions publish 0.09 and 0.02, respectively, publishing in the top non-accounting journals pays off only for master's granting institutions, where it pays substantial dividends. Conversely, the remaining non-accounting journals are second-most popular publication outlets for faculty members at doctoral granting institutions (average publications is 2.19), and the most popular outlets on average for faculty at master's (average publications is 1.51) and bachelor's granting institutions (average publications is 0.82). Yet, these publications have no significant financial impact for any specification of the wage model.

7 Note that all of the doctoral institutions are accredited.

Several factors limit this study. The study is constrained by the availability of public information for accounting faculty. Some public institutions (and all private institutions) do not disclose salary, and others disclose salary information but not by faculty name. In addition, as noted in Almer et al. (2013), there are often financial rewards that are not included in base salary, such that the total compensation is not adequately captured by base salary. However, base salary is a common denominator understood by faculty members as they move between institutions and reported by institutions as they compare faculty salaries and wages. Finally, interest areas included in the study are self-reported and do not necessarily capture the degree to which faculty publish in those identified areas.

Taken as a whole, this study provides insight into the role of different types of publications on financial returns based on the highest degree offered by an institution. First, this study affirms the finding that publication in the top accounting journals drives financial returns for accountants at doctoral institutions. More importantly, the study expands financial returns models to those faculty members employed at master's and bachelor's granting institutions, noting that publications in top non-accounting journals, lower ranked accounting journals and practitioner journals can all generate salary premiums. With these models, there is opportunity to understand wage behavior for a larger population of academic accountants without overlooking those faculty members employed at non-doctoral granting institutions.

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Appendix A
Accounting Journals

Tier	Journal
A1	Accounting Review
	Accounting, Organizations & Society
	Contemporary Accounting Research
	Journal of Accounting & Economics
	Journal of Accounting Research
A2	Accounting Horizons
	Auditing: A Journal of Practice & Theory
	Behavioral Research in Accounting
	Journal of Accounting, Auditing & Finance
	Journal of the American Tax Association
A3	Abacus
	Accounting & Business Research
	Accounting & Finance
	Accounting, Auditing & Accountability Journal
	Accounting Education
	Accounting Educator's Journal
	Accounting Historians Journal
	Advances in Accounting
	Advances in Accounting Information Systems (also International Journal of Accounting Information Systems
	Advances in Management Accounting
	Advances in Taxation
	British Accounting Review
	Critical Perspectives in Accounting
	European Accounting Review
	Harvard Business Review
	International Journal of Accounting
	Issues in Accounting Education
	Journal of Accountancy
	Journal of Accounting & Public Policy
	Journal of Accounting Education
	Journal of Accounting Literature
	Journal of Business Finance & Accounting
	Journal of Cost Management
	Journal of International Accounting, Auditing & Taxation
	Journal of Management Accounting Research
	Journal of Taxation
	Management Accounting Research
	National Tax Journal
	Review of Accounting Studies
	Tax Adviser
A4*	Accountancy
	Accounting Today
	Bank Accounting & Finance
	Chartered Accountants Journal
	CMA Management
	CPA Journal Government Accountants Journal
	Internal Auditor
	International Tax Journal
	Journal of Corporate Accounting & Finance
	Journal of State Taxation
	Management Accounting Quarterly
	National Public Accountant
	Ohio CPA Journal
	Tax Executive
	Woman CPA

This is a list of unranked practitioner journals in which the sample published. It is not a comprehensive list of unranked practitioner journals.

Appendix B
Non-accounting Tier 1 Journals

Business Interdisciplinary:
Administrative Science Quarterly
Journal of Business
Journal of International Business Studies
Management Science
Organizational Behavior & Human Decision Processes
Organization Science
Economics:
American Economic Review
Econometrica
International Economics Review
International Journal of Industrial
Organization
Journal of Labor Research
Journal of Political Economy
Quarterly Journal of Economics
RAND Journal of Economics
Review of Economics and Statistics
Review of Economic Studies
Finance:
Journal of Finance
Journal of Financial Economics
Journal of Financial & Quantitative
Analysis
Review of Financial Studies
Information Systems:
Communication of ACM
IEEE Transaction – Software Engineering
Information Systems Research
Journal of Management Information
Systems
MIS Quarterly
Management:
Academy of Management Journal
Academy of Management Review
Industrial & Labor Relations Review
Industrial Relations
Personnel Psychology
Business & Society
Business Ethics Quarterly

Marketing:
Journal of the Academy of Marketing
Science
Journal of Consumer Psychology
Journal of Consumer Research
Journal of Marketing
Journal of Marketing Research
Journal of Retailing
Marketing Science
Marketing Letters
Operations:
Decision Sciences
IIE Transactions
International Journal of Production Research
Mathematics of Operations Research
Manufacturing & Service Operations
Management
Naval Research Logistics
Operations Research
SIAM Review
Practitioner-Focused:
Interfaces
Sloan Management Review
Psychology:
Journal of Applied Psychology
Journal of Experimental Psychology
Journal of Experimental Social Psychology
Journal of Personality & Social Psychology
Personality & Social Psychology Bulletin
Personnel Psychology
Psychological Review
Other basic disciplines:
American Political Science Review
American Sociological Review
Journal of American Statistical Association
Mathematical Programming

Table 1		
Variable Definitions		
	Salary	Salary for the 2007-2008 academic year.
Publication Measures:		
	Accounting 1 (A1)	Includes the top five journals in accounting (Bonner et al. 2006) - *Accounting, Organizations & Society; Contemporary Accounting Research; Journal of Accounting and Economics; Journal of Accounting Research* and *The Accounting Review* .
	Accounting 2 (A2)	Includes the remaining five journals of the top ten journals identified by Johnson et al. (2001), i.e. those that are not included in the top tier. The second tier then includes *Auditing: A Journal of Practice & Theory; Journal of the American Tax Association* ; *Journal of Accounting, Auditing & Finance* ; *Behavioral Research in Accounting* and *Accounting Horizons* .
	Accounting 3 (A3)	All ranked accounting journals not in Accounting 1 or Accounting 2.
	Accounting 4 (A4)	All unranked practitioner accounting journals.
	Accounting 5 (A5)	All unranked accounting journals.
	Non-Accounting 1 (NA1)	Top journals in each other business discipline (finance, information systems, management, operations, economics) as well as top business interdisciplinary, practitioner-focused, psychology and other basic areas as defined by Mittal et al. (2008).
	Non-Accounting 2 (NA2)	All remaining non-accounting journals.
	Citations	Citations according to Social Science Citations Index.
	Totalbooks	Total number of books published.
Personal Characteristics:		
	Male	Dummy variable equal to one for males.
	Professor	Dummy variable equal to one if the faculty member has the status of full professor in the 2007-2008 academic year.
	Associate Professor	Dummy variable equal to one if the faculty member has the status of associate professor in the 2007-2008 academic year.
	Assistant Professor	Dummy variable equal to one if the faculty member has the status of assistant professor in the 2007-2008 academic year.
	Administrator	Dummy variable equal to one if the individual is dean, chair or department head.
	Seniority	Number of years of seniority as the current institution.
	Doctoral Degree	Dummy variable equal to one if the highest degree of the individual is a Ph.D. or DBA.
	JD or LLM	Dummy variable equal to one if the highest degree of the individual is a JD or LLM.
	Master's Degree	Dummy variable equal to one if the highest degree of the individual is ABD, DMA, DBA, DPS, EDD, EMD, MA, MACC, MAS, MBA, MBED, MPA, MS, MSA or BS.
	CPA	Dummy variable equal to one if the individual has the designation of CPA in the 2007-2008 academic year.

Table 1 (Continued) Variable Definitions		
	Financial	Dummy variable equal to one if the individual has a financial accounting specialty.
	Audit	Dummy variable equal to one if the individual has an audit specialty.
	Managerial	Dummy variable equal to one if the individual has a managerial accounting specialty.
	Systems	Dummy variable equal to one if the individual has a systems specialty.
	Tax	Dummy variable equal to one if the individual has a tax specialty.
	Behavioral	Dummy variable equal to one if the individual has a behavioral specialty.
	Other	Dummy variable equal to one if the individual indicated a specialty category other than financial accounting, audit, managerial accounting, systems, tax or behavioral.
Institutional Characteristics:		
	AACSB	Dummy variable equal to one if the individual teaches at an institution with AACSB accreditation.
	Named B-School	Dummy variable equal to one if the individual teaches at a named business school.
	Doctoral Institution	Dummy variable equal to one if the highest degree offered is the doctoral degree.
	Master's Institution	Dummy variable equal to one if the highest degree offered is the master's degree.
	Bachelor's Institution	Dummy variable equal to one if the highest degree offered is the bachelor's degree.
	Union	Dummy variable equal to one if the faculty has a collective bargaining agreement.
	Size	Size of the accounting faculty, excluding lecturers and visiting professors.
Other:		
	COLI	American Chamber of Commerce Research Association (ACCRA) cost of living index for 2007.

TABLE 2
SALARY BY INSTITUTION TYPE AND RANK
MEANS (STANDARD DEVIATIONS)

	Overall n=1,285		Doctoral Institution n=420		Master's Institution n=673		Bachelor's Institution n=192	
All Ranks	$118,315	($42,328)	$ 153,056	($48,673)	$ 104,784	($25,351)	$89,748	($21,621)
Professors	$129,063	($47,284)	$171,259	($52,615)	$110,437	($26,513)	$98,064	($19,387)
Associate Professors	$111,501	($38,242)	$140,449	($48,453)	$101,145	($23,095)	$89,016	($17,925)
Assistant Professors	$109,942	($34,595)	$139,842	($29,810)	$99,457	($24,316)	$82,009	($24,795)