

SUSTAINED RESEARCH PRODUCTIVITY IN ACCOUNTING: A STUDY OF THE SENIOR COHORT

Timothy J. Fogarty

*Weatherhead School of Management
Case Western Reserve University
Cleveland, Ohio
USA*

ABSTRACT

Many studies have explored the publication productivity of accounting faculty. However, since recently graduated faculty publishes most research, these studies have failed to provide an adequate picture of the activity of more senior faculty. This paper explores the research of the older cohort of accounting academics. Using the population of US academics with doctoral degrees granted before 1977, this study shows that sustained productivity is associated with the institutional status of the degree granting school and the institutional status of the current employing school. In addition, continued scholarly work is related to the degree of early publishing the senior faculty person has done. This paper also explores the influence of faculty members' gender, interest area and temporal cohort. Implications for managing faculty resources are drawn.

Key words: Research productivity, accounting faculty, senior faculty

Data availability: Data are available upon request from the author

INTRODUCTION

In the last few years, the American Accounting Association has problematized the issue of faculty development. Although the idea of faculty development is subject to many alternative definitions, all renditions share the theme of attempting to enhance the continued productivity of accounting academics. Unfortunately, such efforts will be limited by the lack of systematic data of existing productivity levels over the careers of accounting faculty.

Despite calls for increased emphasis on teaching (see Accounting Education Change Commission, 1990) and suggestions that the definition of scholarship be broadened (Boyer, 1990), research is likely to continue to be a primary consideration in performance evaluation (see Campbell

et al., 1983; Cargile and Bublitz, 1986). Research productivity of faculty is also likely to continue as an important element of institutional accreditation (Ingram and Peterson, 1991). Accordingly, research productivity represents a central outcome of interest in a study of senior faculty.

This paper addresses one part of the faculty development concern. It provides evidence on the differential ability of accounting faculty to sustain a career of scholarship. By examining the factors associated with research productivity over the life course, conclusions pertaining to the direction of development projects may be possible.

Turning research attention to a broader span of the academic's career is a means of focusing upon the possibility of the "burned out" faculty person. For present purposes, an individual who has abandoned efforts at scholarly work may be thought of as realizing less of the classic tripartite mission of the academy (teaching, research, and service) than would be ideal. The failure to do research after specific training in such can be considered a broader loss to the community since published research has the potential of reaching a wider audience than does teaching or service.

Changes in research productivity may also reflect the institutional organization of the academy. The tenure system creates sizable incentives to do research in the first few years of the individual's career. Subsequent years are more marked by the expectation that the individual will take responsibility for the management of the academic department and the university. These years are often associated with a declining opportunity and incentive to continue research efforts.

This paper explores the effects of institutional and individual antecedents upon the publication productivity of accounting academics. In the first category, the characteristics of doctoral programs and appointment schools are considered as effects on publication productivity. The attention on institutional antecedents reflects research in other academic disciplines that suggests that systematic explanation can be found in such differences (Bayer and Folger, 1966; O'Brecht et al., 1989; Reskin, 1977). The influence of these organizations on academics also has been noted in the study of more recently graduated individuals (e.g., Fogarty and Ruhl, 1997; Struely and Maranto, 1994).

Full explanations cannot be attained from institutional effects. To think otherwise would subscribe to an overly socialized view of humanity (Wrong, 1961). Personal attributes may be what separates those who continue to publish from those who do not. Characteristics that originate primarily as a result of personal effort, condition or interest are offered as a counter distinction to institutional characteristics.

The results of this analysis suggest that accounting faculty members who receive their doctoral degrees from high status universities are more likely to be sustained accounting researchers. Further, those faculty possessing current appointments at top schools are likely to continue to do more research well into the course of their careers. Finally, higher levels of early career research activities are associated with the continuation of these scholarly efforts. Other personal variables tend not to be significant for this purpose.

This study adds to the literature on accounting faculty in several ways. First, it provides the first systematic study of a neglected group of accounting academics. Second, by showing that institutional affiliations are important determinants of sustained research productivity, the results heighten the attention and importance that should be given to initial training and continuing environmental differences. The productivity of accounting academics cannot be understood outside the context of the schools with which they have been affiliated. Third, by combining this role of institutional status with personal attributes, the systematic study of an area marked by considerable

anecdotal agreement and interest is put into issue. Together, these factors provide an alternative means of understanding the broader literature on faculty productivity.

In addition to contributing to the literature, this article has considerable practical value. The approach we take should be relevant for participants in the academic accounting community. Faculty in the seasoned cohort should have a personal interest in benchmarking their levels of productivity, given certain institutional and personal conditions. Younger faculty should also take note since it will not be long until they move into that segment of their careers. Administrators of accounting departments and others involved in the process of supervising accounting faculty should benefit from our analysis as a means of gauging expectations. This would include those who work in the accreditation effort. Finally, those designing faculty development programs would be interested in the extension of the factors identified.

LITERATURE REVIEW AND RESEARCH QUESTION DEVELOPMENT

Academic Status

Social status describes the relative social esteem of an institution (Miyamoto and Dornbush, 1956). Status evaluation connotes a subjective process that results in fairly stable evaluative outcomes (Zelditch et al., 1966). As applied to academic organizations, perceptions in the community would be tied to tangibles that are often correlated with more objective merit measures of faculty productivity (see Burke, 1988; Stahl et al., 1988) and scholarly influence (Hagstrom, 1971). However, status is not limited to any specific activity. In this paper, status is defined as an all-embracing social evaluation of an academic accounting department. Consistent with McGee (1971), status is grounded in academic reputation.

Institutional status has been considered a factor in many aspects of a faculty person's career. The labor market for academics is believed to be patterned by the status of prior institutional affiliations (Brown, 1967; McGee, 1971; Burke, 1988). Likewise, studies in many disciplines have shown that the best journals and other research outlets are dominated by a few top schools. Awards are also concentrated in the hands of a small number of universities (Zuckerman, 1970). From this concentration of status, it is possible to discern two sources of institutional influence upon the continuation of scholarship.

Influence of Doctoral Education

Clemente (1974) cites several reasons why the quality of doctoral education influences subsequent individual publication productivity. Among these are socialization of the appropriate value system, access to role models, caliber of support facilities and availability of publishing information. Various qualitative aspects of academic sponsorship exerted primarily by dissertation supervisors also affect future research productivity (see Cameron and Blackburn, 1981; Reskin, 1979; Crane, 1965).

In a study of 6,300 doctoral recipients in a variety of academic areas, Folger et al. (1970) detected a relationship between the quality of the subject's graduate department and the number of citations to a subject's works. In another large scale study, O'Brecht et al. (1989) found that a respondent's graduate school environment was a consistently significant classification variable. Crane (1965) found that those trained at the best schools are likely to be active publishers regardless of the quality of their subsequent faculty positions. Being able to work with productive dissertation advisers, who are likely to be located at high-status departments, has been correlated with

subsequent student research productivity (Reskin, 1979). More recent studies outside accounting have accepted the doctoral school effect as a maintained hypothesis (e.g., Allison and Long, 1990).

Accounting researchers also have observed the outcomes of the transmission of levels of research productivity through doctoral education. Heck and Bremser (1986) and Dyckman and Zeff (1984), studying doctoral origins of publishers in *The Accounting Review* and the *Journal of Accounting Research* respectively, both produced highly similar institutional concentrations. Williams (1985), also studying *The Accounting Review*, amplifies these findings by showing the concentration of authorship by doctoral-school origin to exceed that of current institutional affiliation. Although suggestive of a doctoral school influence, these results do not connect to any notion of lifetime productivity by individual faculty.

Fogarty and Ruhl (1997) showed that accounting faculty productivity was directly affected by the status of the doctoral program. For these purposes, status was measured by a latent variable that combined the school's publication reputation with its relative position in the academic labor market. Although this conclusion was robust across temporal periods, its design was cross-sectional and therefore cannot be interpreted as predicting what will occur over the course of careers.

This research underlies the expectation that the status of the individual faculty person's doctoral school may be related to their continued degree of participation in research. High status doctoral programs are likely to produce students who are more actively engaged in research as a lifetime pursuit rather than as a short run instrumental obligation. These schools may also be more likely to imbue students with the motivation to maintain sufficient currency to be able to produce the type of scholarship that would be found suitable by peers many years after graduation. In addition, the higher status doctoral programs may set in motion higher degrees of expectations that a continued leadership role in the accounting literature is a good expenditure of time and effort. Therefore, the relevant literature leads to the following research question:

RQ1: Seasoned accounting faculty graduating from higher-status universities will sustain higher levels of research activity over their careers.

The long passage of time since doctoral school makes this research question much more problematic. Unlike other studies that have successfully hypothesized a doctoral school effect for recent graduates, this expected influence would have to be quite strong to persist for many years.

Influence of the Current Academic Position

The possibility that some academic departments provide work settings highly conducive to scholarly achievement has provided an often-considered hypothesis in research on academics (McCormick and Bernick, 1982). Blackburn et al. (1978) provide evidence that the nature of the work environment is critical to research productivity. Consistently, Crane (1965) notes that those not trained at quality doctoral programs are likely to be productive only if they are currently at a quality department. The availability of critical resources, discretionary monies, reduced teaching loads, modest service responsibilities, and competent colleagues may create an environment highly conducive to research (see Finkelstein, 1984).

Several studies have shown that faculty at schools offering doctoral degrees tend to generate more research than do faculty at schools without such programs (Petry and Settle, 1988; Stahl et al., 1988). However, the mere presence of a doctoral program may not adequately account for increased research productivity. Aspects of the work environment likely to exist at doctoral schools are part

of a continuum that also is present in varying degrees in the nondoctoral sector. Therefore, a better approach than a simple dichotomy is appropriate.

Many studies suggest that the work environment is key to research productivity in accounting departments. Cargile and Bublitz (1986) found that a broad variety of tangible and intangible "research facilitators" are more prevalent at top doctoral schools than at other doctoral schools. In another approach, Alsup et al. (1988) studied the perceptions of various faculty groups on the extent of research-relevant resources. They concluded that the critical differences were those that divided doctoral and nondoctoral schools. However, neither study directly linked the existence of resources to the production of scholarship.

The strongest support thus far for the connection of these variables comes from Maranto and Streuly (1994) and Fogarty and Ruhl (1997). The first study shows a relationship between quality of the first faculty appointment school and both publications and citations. The second study shows that the status of the initial department location of the faculty person affects publication productivity, even when the influence of doctoral school is eliminated. Both studies suggest the value of institutional status as a summative indicator of the many valuable resources that might underlie scholarly efforts.

This global construct of status might account for some of the variation in sustained research contributions. If contributions to the literature are more rewarded, they might be more likely to be pursued by faculty. Although not monotonic, the presence of a research support infrastructure should translate into more scholarly success for faculty members who take advantage of these resources. It may also be that high status programs¹ are able to provide better opportunities for research participation by offering better networks in which critical authorship collaborations can be formed. This advantage would include providing ready access to a talented set of colleagues and doctoral students. The latter may be especially important as a way for an older researcher to keep up with recently developed methodologies. These possibilities together suggest the following research question:

RQ2: Seasoned accounting faculty with current employment at higher-status schools will sustain higher levels of research activity over their careers.

The difficult issue raised by this research question is the extent to which senior faculty can take advantage of a supportive research environment, given the many other demands upon their time. With less of a required focus upon research, the parameters of support that are enveloped within the idea of institutional status may be largely irrelevant to many senior faculty. Conversely, these features may be even more important as a marginal factor that separates whether research is done or not by those whose personal incentives are more diffuse.

Personal Early Publication History

The first two research questions stated expected institutional effects upon sustained scholarship efforts. These effects implicitly assert that individuals involved in this work only matter as far as they reflect and embody the expectations and activities associated with the institutions of

¹High-status for these purposes should not be taken literally or comprehensively. In other quarters, the status of a university is attributable to a reputation for quality teaching, long tradition or winning football teams.

higher education with which they have been affiliated. It is also well known that there is a range of effort and results within any particular institutional environment. This calls for an examination of the personal attributes of the faculty members involved.

A relationship linking the attributes of the individual's early career publication record with their likelihood of sustaining their research efforts through their career is rather apparent for at least two reasons. First, the distribution of research talent and research interest might be highly skewed. If only a relative few people are involved in research, they are likely to value research very highly and see it as a central component of their careers, if not their lives. Some studies such as Chung et al. (1992) show that a high percentage of published work in accounting is done by a few people. This suggests that while some view research as a life's work, others make a very temporary and shallow pass at it. The salience of research for those not under current tenure pressure to publish may be weak for those who have not continued their involvement. Furthermore, continued research efforts and early career publishing productivity may be linked by generic motivational considerations. Success in publishing breeds the expectation of continued success. The failure to publish, or at least to publish a considerable amount, may lead one to withdraw from the efforts necessary to keep current on the literature and on methodological techniques. Many of these individuals will begin to explore alternative pursuits, some of which will make important and enduring contributions to their institutions. Therefore, these influences result in this expectation:

RQ3: Seasoned accounting faculty with higher levels of early career publication productivity will sustain research activity over their career.

Gender Influences

Many studies have attempted to show differences between male and female faculty research productivity. Cole and Zuckerman (1984) noted a wide gender disparity in science and engineering, with males publishing more than females. However, Faver and Fox (1986), studying social work professors, determined gender to be a weak predictor of self-reported recent publications. In a broader-based multidisciplinary study, Blackburn et al. (1978) found that gender did not predict the number of lifetime publications. Other researchers have found gender differences in the development of academic careers. Cartter (1976) concluded from a data set of over 17,000 new Ph.D.s that females were better able to secure positions at high-prestige universities. Fox (1981), however, found that women were rewarded less for characteristics, such as the status of their doctoral school, and for their achievements, such as publications. Factors other than differential treatment by universities could explain these gender differences (see Rosenfeld and Jones, 1986).

Studies comparing the research records of male and female accounting faculty generally have failed to find significant differences (Dwyer, 1994; Streuly and Maranto, 1994). Mann and Ormundson (1991) found no significant gender effects in the relationship between publication activity and promotion. In addition, Epps and Mitchem (1992) found that women in academic accounting do not differ in perceptions of research support by their rank or by the nature of their resident institutions.

More recent studies of gender effects in academic accounting suggest more subtle differences. For example, Rama et al. (1997) found that women achieving promotion in non-doctoral schools had more publications than did similarly situated males. Along similar lines, Buckless et al. (1998) found that female adjunct professors had to have much more impressive credentials than those possessed by male counterparts to achieve the same levels of career advancement. These

studies could be interpreted as suggesting that a larger incentive exists for female faculty to pursue any activity that continues to legitimate their place in a male-dominated environment. Research continues to be an activity that "counts." Therefore, females may be marginally more inclined to do whatever it takes to achieve publication. This is also a consistent extension of findings pertaining to the differential behavior of female accounting students (Ravenscroft and Buckless, 1992). However, in senior faculty ranks, where job security is the norm and further promotion the exception, this need may not be as strong. Senior female accounting faculty may have by virtue of their relatively rare numbers, a more complex set of expectations to fulfill (Kanter, 1977; Kolb, 1992). They may also continue to be victims of subtle forms of exclusion and discrimination (see Norgaard, 1989). These conflicting possibilities make it difficult to predict a direction for a gender effect. Therefore:

RQ4: Seasoned female accounting faculty will sustain their research activity at a different rate than seasoned male accounting faculty.

Area Effects

The history of systematic research in accounting is a relatively short one. The emergence of research sufficiently distinct to denote a discipline was not present until the late 1960s, when financial accounting was conceived of as information with wealth distributing effects. This type of research, conventionally believed to be commenced with the publication of Ball and Brown (1968), initiated a vast body of work that amounts to the closest approximation of a paradigm that the accounting discipline possesses (Cushing, 1989). The leadership of this type of research continues to be felt today as denoted by the contents of the leading accounting journals (e.g., *The Accounting Review*, *Journal of Accounting Research*).

The domination of accounting by what has become known as financial accounting is also reflected in the organization of the American Accounting Association. Until very recently, the need for special sections to reflect research interests included just about every major possibility except financial accounting. The fact that all other areas needed the section structure (and their associated journals) illustrates the capture of the middle ground of accounting research by financial accounting.

The influence of working in the dominant paradigm on research activity or success has never been approached by any previous research. *Ceteris paribus*, work in the "mainstream" provides heightened visibility and familiarity that should translate into more publications and opportunities to present papers and discuss them. Conversely, people working in less familiar niches might experience greater difficulty in achieving sufficient momentum for a career-long research effort. Some of these areas might be perceived as less rigorous because they have not developed an accepted paradigm or because they are more closely associated with practice.

The expectation that those in the "mainstream" will have an advantage in publishing is clouded by the fact that this area is also the dominant teaching area. In other words, many are connected to this area only by virtue of their teaching efforts. The construction of a paradigm in financial accounting may also create a "crowding out" effect. There may be too much research in this area to adequately be supported by the available outlets. Those in more specialized areas may benefit from better "odds" along these lines. Furthermore, those in some specialty areas (i.e., tax, information systems) may have benefited from the relative recency of the research enthusiasm in these areas. New opportunities to publish furthered by the recent proliferation of outlets (Ettredge and Wong-on-Wing, 1991; Zeff, 1996) may create renewed interest or sustain existing interest

among senior faculty. To be exploited by senior academics, these new areas could require a degree of “retooling” that would make participation prohibitive.

These countervailing possibilities again make it speculative as to which reasoning to accept. The lack of previous studies on this question exacerbates this doubt. On an exploratory basis, the following is expected:

RQ5: The sustained research activity of seasoned accounting faculty will differ according to their interest areas.

Cohort Effects

Several commentators have expressed the belief that the reward structure in academic accounting has changed over the past few decades. Both the quantity and quality of academic research expected of faculty have increased over time (Campbell and Morgan, 1987; Milne and Vent, 1987; Saftner, 1988). The American Accounting Association study of the professorate (1989) documents a growing importance of empirical research for faculty.

Although the awareness of generational effects has only recently occurred, sufficient time has elapsed for these differences to emerge. The orientation of academic accounting toward broader university criteria of merits and recognition has been in progress since the early 1960s (Anderson and Previts, 1984). Academic research in accounting also has a history of some length. The previously mentioned Ball and Brown study celebrated its 35th anniversary in 2003. This study, together with several other articles in the tradition, now merit “classic” status (see Brown, 1996).

The above-mentioned trends have been gradual in their impact and in their scope. Although it has been some time, academics without doctoral qualification continue to teach in university accounting programs. Likewise, accounting academics continue to be promoted and get tenure without appreciable published research at some schools (Englebrecht et al., 1994). The continuing nature of the evolution of academic accountants provides an opportunity to consider the temporal division between parts of what we have called seasoned or senior accounting faculty. If those beginning their career relatively late are more prominent researchers in the sense that they have sustained their scholarly contributions, more evidence consistent with a socialization effect will exist. In other words, those trained in a regime with a heightened expectation of scholarship may be expected to have more continued scholarly output.

Time may also alter the influence of the independent variables. We would anticipate that higher status accounting programs would have made the adjustments to empirical research earlier and more convincingly. This might alter the results of RQ1 and RQ2.

As the distribution of the number of active accounting researchers broadens over time, RQ3 may not be invariant over the period. This time period has also been marked by the influx of female faculty. This causes RQ4 to require more scrutiny.

As noted above, several areas of accounting research have matured at different times, making RQ5 potentially sensitive to the passage of the years. Therefore, the final research question posits the expectation of changes in all the basic relationships of this study over time:

RQ6: Differences exist in the results of the tests of Research Questions 1-5 when temporal cohorts are separately considered.

Summary

Six important questions about the continuing productivity of senior accounting faculty have been posed. The first two posit institutional antecedents, with the individual being shaped by their involvement with differing types of organizational affiliations. The next three elicit a more personal explanation, rooted in the work history, gender, and subdisciplinary affiliations of the older accounting professorate. The final research question is motivated by the need to see if the previous results are a product of an underlying generational shift. This seeks to explore potential cohort effects within the seasoned group under study. Together, these questions provide an initial approach to the scholarship dimension of the academic accounting career.

THE STUDY**Sample**

The group that has been called seasoned or senior accounting faculty lacks precise definition. Therefore, no attempt to draw its boundaries will be definitive. For these purposes, this study resorted to round numbers. Accordingly, faculty with an earned doctoral degree more than twenty-five years old were considered members of the includable group. All accounting faculty listed in the Accounting Faculty Directory (Hasselback, 2001) with doctoral degrees dated 1976 or earlier were selected. Those whose listing indicated a retired or a semi-retired status (e.g., emeritus) were deleted.

In total, 1,754 individuals qualified under the above criteria. Of these, 351 had to be eliminated because they either had degrees from, or currently were employed by, foreign schools. This was necessary because it was not possible to measure the institutional variables in a satisfactory manner for foreign schools. For another 19 individuals, some other necessary information was missing. In total, 1384 individuals constituted the analyzable data.

Although the ambitiousness of this data collection approaches the population of academic accountants, it should still be treated as a sample. First, not every school in the USA is included in the Hasselback directory. Second, the January 1977 graduation cut-off point is not definitive in delineating the class to whom the results are to be attributed (e.g., senior accounting faculty).

Measurement

The extent to which individuals sustain their research agenda is the central construct of this paper. In order to allow the expression of a broad panoply of activity, this dependent variable was measured two ways, both of which reference activity level at the annual meeting of the American Accounting Association (AAA). This gathering offers opportunities to contribute scholarship to the discipline, primarily through the presentation of research that has been selected through a blind peer-reviewed process. Accordingly, such work must be fairly rigorous. Inclusion in this forum represents a considerable accomplishment. Nonetheless, since it does not reflect a full peer review process, these measures are a more generous standard of scholarship than would be involved if one were to measure recent publications.

In order to open a broad enough time frame to measure sustained contribution, data were collected for ten years of AAA meetings between 1987 (Cincinnati) and 1996 (Chicago). A shorter time frame might introduce artifactual variation in participation. Relative to the sample of individuals, this window occurs no less than ten years after anyone in the sample had attained their degrees. This interval should have allowed most people in the sample the opportunity to have been considered for tenure at their first or second school. Studies of the promotion process also suggest

that a large percentage of this group will have achieved the full professor rank by the beginning of this interval (Saftner, 1988; Read et al., 1998).

The contribution of each individual to the ten annual meetings was measured in two ways. First, the total number of meetings in which the individual participated as an author of research was recorded from the official program of the meetings published by the American Accounting Association. This summarizes the ability of the faculty person to maintain some continuing active presence in research. It also takes into account the tendency of some individuals to attempt to maintain continuous visibility through scholarly participation at each meeting. Accordingly, this variable ranges from 0 to 10. Second, a measure that gives credit for multiple research activities in a single meeting was constructed. This measure counts each instance of research participation separately. Therefore, for this measure, an individual presenting two papers at one meeting would be considered to have made an equal contribution to a person presenting one paper at each of two meetings. Unlike the first measure, the second is not necessarily limited to an upper bound of ten. Neither measure included program listings in other capacities.

Two rankings from the literature were used to evaluate the status of both the doctoral school and the faculty position school for each individual. The first comes from Fogarty (1995), who reports meta-rankings of accounting programs based on 143 rankings from 32 past studies. The data used to constitute this variable considers the rank and the total number of times a department appeared in rankings based on publication, citation, reputation and other schemes. Differentiating schools on how consistently they have been considered a top school across many criteria overcomes the idiosyncrasies of any specific measurement attempt. The second measure comes from Hasselback and Reinstein (1995) and is based on an empirical study of institutional publications in the accounting literature from 1967 to 1991. It ranks 716 schools based on the volume and quality of their contributions to the accounting literature. It also makes appropriate adjustments for coauthorships and for differing faculty size. As such, it seems to be the most comprehensive and refined measure of institutional publication history. Since publication lies at the heart of the reputation of schools, this more focused measure of institutional status is appropriate. This approach also avoids the mistakes of assuming that all programs granting PhDs have higher status than schools that do not, and of equating all of the former schools as equal.

Early individual publication productivity was measured in several ways. Using the Accounting Literature Index (Heck et al., 1996), Early Publications in the top 44 accounting journals were identified as a broad-based measure of early career publication activity by counting publications listed in the individual's first ten years as an academic. This measure was then partitioned into more specific measures. One involved contributions to the mainstream of accounting thought. Although legitimate disagreement exists on what journals represent the mainstream, the top three accounting journals identified by Hull and Wright (1990) and several subsequent authors, *The Accounting Review*, *Journal of Accounting Research* and *Journal of Accounting and Economics*, were used to constitute Early Mainstream Publications. Another measure separately distinguished publications with a primary practitioner readership. Examples in this category called Early Practitioner Publications, include *The Journal of Accountancy*, *CPA Journal* and *Management Accounting*. All publications in the total count, but not either of these two subsets, were considered to be in a category that could be called Other Early Academic Publications. Although studies of broader temporal segments of the accounting academy require adjustments to equate the more recent graduates with those who had more time to publish (see Jacobs et al., 1986), this calculation is not necessary when all individuals have had the same period of years to publish. No adjustment was

made for coauthorship because different views exist on its necessity (see Bell and Seater, 1978) and its consequence (Kirchmayer et al., 1997).

Research area was operationalized by an examination of the interest field from the *Accounting Faculty Directory* (Hasselback, 1996). For these purposes, the first code listed in that source was assumed to be the most descriptive category. Although this cannot be a conclusive determination of relative interests, the field gives every appearance of being carefully constructed.. Since the research question proposed did not require extreme precision in the distinction between broadly conceived areas (e.g., financial accounting, managerial accounting), this assumption is an acceptable solution to the measurement problem. In addition to financial and managerial accounting, the interest areas that were used were auditing, taxation and information systems. All other areas were classified as miscellaneous.²

Gender was determined from the first name of the faculty member. In ambiguous cases, various archival and investigatory searches were performed. In a handful of instances, gender had to be treated as a missing data item.

Two temporal cohorts were determined by dividing the graduation year data at the median. This involved a distinction between those that graduated before and after January 1, 1970. A more articulated division was made by dividing the sample of faculty into three periods by identifying the years that aligned with the 33% and 67% points in the distribution. This created break points for graduation years at the beginning of 1967 and at the beginning of 1972.

RESULTS

Descriptive Results

Table 1 provides frequency information about the two dependent variables. Of the 1,754 individuals in the data set, 1,409 (80.4%) appear to have no sustained research agenda, as it is here defined. In other words, they had no research appearance on the meeting program during the ten-year window. Another 154 (8.8%) faculty made only a single research appearance on the ten programs. Only 45 individuals (2.6% of the total) made more than four appearances, with only one presenting research at all 10 programs. In terms of the 6,936 total appearance opportunities during the ten meetings, a total of 934 are made by 344 individuals from the senior faculty group. Again, the data are highly skewed with most faculty having no or very few appearances and few having many.

Accounting academics included in this sample averaged slightly under 0.11 publications per year since graduation. Of these, less than .01 publications per year appeared in the three top accounting journals. Fifty-seven percent of the people involved graduated from doctoral programs

²Hasselback (1997) identified 26 interest areas. Many of the more unfamiliar categories are rarely used, especially as an individual's primary area. For purposes of simplicity, the following categories were combined.

1. Financial = Financial, SEC, Principles, CPA Review, Theory, and Advanced.
2. Managerial = Managerial, Cost, Controllership and Agency.
3. Auditing = Auditing and Internal Audit.
4. Taxation = Taxation and Oil and Gas.
5. Systems = Systems and Computer.
6. Other = Behavioral, Education, Governmental, History, International, Ethics, Business Law, Not-for-Profit, Quantitative and Social.

TABLE 1
Descriptive Information on the Scholarly Contributions
Of Seasoned Accounting Faculty
Number of Meetings (1987 - 1996)

| <u>Number</u> | <u>N</u> | <u>Percent</u> | <u>Cumulative Percent</u> |
|---------------|----------|----------------|---------------------------|
| 0 | 1,409 | 80.4 | 80.4 |
| 1 | 154 | 8.8 | 89.2 |
| 2 | 68 | 3.9 | 93.0 |
| 3 | 51 | 2.9 | 95.9 |
| 4 | 26 | 1.5 | 97.4 |
| 5 | 20 | 1.1 | 98.6 |
| 6 | 14 | 0.8 | 99.4 |
| 7 | 4 | 0.2 | 99.6 |
| 8 | 4 | 0.2 | 99.8 |
| 9 | 2 | 0.1 | 99.9 |
| 10 | 1 | 0.1 | 100.0 |

Number of Participative Events (1987 -1996)

| <u>Number</u> | <u>N</u> | <u>Percent</u> | <u>Cumulative Percent</u> |
|---------------|----------|----------------|---------------------------|
| 0 | 1,409 | 80.4 | 80.4 |
| 1 | 150 | 8.5 | 88.9 |
| 2-3 | 108 | 6.2 | 95.1 |
| 4-5 | 45 | 2.6 | 97.7 |
| 6-7 | 19 | 1.0 | 98.7 |
| 8-9 | 10 | 0.6 | 99.3 |
| 10-11 | 8 | 0.5 | 99.8 |
| 12-15 | 4 | 0.3 | 100.0 |

ranked within the top 20 schools by Fogarty (1995)³. Doctoral programs currently employed 482 individuals (34.2%) in the sample. The sample comprised 1,649 men and 104 women. Forty-nine percent of the faculty listed their primary interest area as financial accounting (the most common area). This ranged down to 4.7% of the group primarily involved with information systems.

The correlations between the variables considered by this study verify the measurement conventions that were employed in this study. The highest correlations exist between the variables that have been grouped together as multiple measures of the same constructs. For example, high

³This result partially reflects the smaller number of doctoral programs available to those now in the senior cohort of accounting faculty. In the last year that a member of this group could have graduated (1976), only 24 programs had produced more than 25 graduates.

TABLE 2

**Test of Research Question 1:
The Relationship Between Doctoral School Institutional Prestige and the
Continuing Scholarly Contributions of Seasoned Accounting Faculty**

Dependent Variable: Number of Meetings Contributed to (1987 - 1996)

| <u>Independent Variable</u> | <u>Standardized Coefficient</u> | <u>Standard Error</u> | <u>T value</u> | <u>P level</u> |
|--|-------------------------------------|---------------------------|----------------|----------------|
| Doctoral School Prestige (Reinstein and Hasselback) | .080 | .0104 | 3.284 | .001 |
| Doctoral School Prestige (Fogarty) | .083 | .001 | 3.451 | .000 |

Dependent Variable: Number of Participative Events (1987 - 1996)

| <u>Independent Variable</u> | <u>Standardized Coefficient</u> | <u>Standard Error</u> | <u>T value</u> | <u>P level</u> |
|--|-------------------------------------|---------------------------|----------------|----------------|
| Doctoral School Prestige (Reinstein and Hasselback) | .078 | .018 | 3.217 | .001 |
| Doctoral School Prestige (Fogarty) | .087 | .002 | 3.609 | .000 |

correlations exist for the two institutional status variables for doctoral school (.648) and for current school (.527) and for the correlation between the two measures of sustained research (.870). Relatively low correlations involve the temporal period constructs (most below .100).

Tests of Research Questions

Table 2 presents results of the statistical tests of Research Question 1. Four sets of regression results reflect all the possibilities created by the two measures of the dependent variable (sustained research) and the two measures of each of the independent variable (institutional status). Research Question 1, which expressed the expectation that the institutional prestige of doctoral origins would affect the continuation of research efforts, is supported. All four of the equations produce significant effects for doctoral school status at $p < .01$.

A similar degree of assuredness surrounds the relationship between current employment school status and continued research efforts. Table 3 shows that accounting faculty with current positions at higher status accounting programs are more likely to continue to publish research. All four coefficients reach significance at $p < .01$. In other words, the conclusion is robust across different measurements of both variables. Research Question 2 is confirmed.

TABLE 3

**Test of Research Question 2:
The Relationship Between Current School Institutional Prestige and the
Continuing Scholarly Contributions of Seasoned Accounting Faculty**

Dependent Variable: Number of Meetings Contributed to (1987 - 1996)

| <u>Independent Variable</u> | <u>Standardized Coefficient</u> | <u>Standard Error</u> | <u>T value</u> | <u>P level</u> |
|--|-------------------------------------|---------------------------|----------------|----------------|
| Doctoral School Prestige (Reinstein and Hasselback) | .081 | .010 | 6.926 | .000 |
| Doctoral School Prestige (Fogarty) | .261 | .001 | 10.200 | .000 |

Dependent Variable: Number of Participative Events (1987 - 1996)

| <u>Independent Variable</u> | <u>Standardized Coefficient</u> | <u>Standard Error</u> | <u>T value</u> | <u>P level</u> |
|--|-------------------------------------|---------------------------|----------------|----------------|
| Doctoral School Prestige (Reinstein and Hasselback) | .188 | .013 | 7.211 | .000 |
| Doctoral School Prestige (Fogarty) | .267 | .001 | 10.459 | .000 |

Table 4 reports the results of tests of Research Question 3. The relationship between sustained research presence and personal career publication productivity is uniformly sustained across the eight regressions. All coefficients are significant at $p < .01$. This is true for the composite total publications variable and for all the three partial measures of this variable. Research Question 3 is confirmed.

The second personal variable considered was gender. Research Question 4 asserted that the gender of the faculty person would be related to sustained research. The results for males and females are not significantly different. Although the positive sign of the standardized coefficient in Table 5 is suggestive of men being slightly more likely to sustain research agendas, it is not significant at $p < .05$. Research Question 4 is not supported. Even these results pertaining to the lack of gender difference should be interpreted with caution since relatively few females ($N=104$) are in the sample.

Whether or not academics working in different areas of accounting were more likely to sustain their research careers was considered by Research Question 5. Table 6 shows ANOVA results that indicate that such a difference exists at the $p < .01$ level for the number of participative events version of the dependent variable and at a $p < .05$ statistical significance level for the number

TABLE 4

**Test of Research Question 3:
The Relationship Between Continuing Scholarly Contributions
and Early Career Publication Productivity**

| <u>Dependent Variable</u> | <u>Independent Variable</u> | <u>Standardized Coefficient</u> | <u>Standard Error</u> | <u>T Value</u> | <u>P level</u> |
|---------------------------|-----------------------------|---------------------------------|-----------------------|----------------|----------------|
| Total Meetings | Total Publications | .524 | .005 | 25.773 | .000 |
| Total Meetings | Mainstream Publications | .241 | .009 | 10.789 | .000 |
| Total Meetings | Practitioner Publications | .092 | .010 | 4.546 | .000 |
| Total Meetings | Other Academic Publications | .376 | .012 | 16.735 | .000 |
| Total Presentations | Total Publications | .523 | .006 | 25.663 | .000 |
| Total Presentations | Mainstream Publications | .268 | .012 | 11.998 | .000 |
| Total Presentations | Practitioner Publications | .078 | .013 | 3.849 | .000 |
| Total Presentations | Other Academic Publications | .358 | .015 | 15.961 | .000 |

TABLE 5

**Tests of Research Question 4:
The Relationship Between Gender and
Continuing Scholarly Contribution**

| <u>Dependent Variable</u> | <u>Independent Variable</u> | <u>Standardized Coefficient</u> | <u>Standard Error</u> | <u>T Value</u> | <u>P level</u> |
|---------------------------|-----------------------------|---------------------------------|-----------------------|----------------|----------------|
| Total Meetings | Gender | .039 | .124 | 1.615 | .106 |
| Total Presentations | Gender | .041 | .157 | 1.701 | .089 |

TABLE 6

**Tests of Research Question 5:
The Relationship Between Continuing Scholarly Contributions
and Faculty Member Interest Area**

Dependent Variable: Number of Meetings Contributed to (1987 - 1996)

| <u>Sum of Squares</u> | <u>df</u> | <u>Mean Square</u> | <u>F</u> | <u>D</u> |
|-----------------------|-----------|--------------------|----------|----------|
| 32.014 | 5 | 6.403 | 3.040 | .010 |
| 2,291.558 | 1,088 | 2.106 | | |

| <u>Area</u> | <u>Mean</u> | <u>N</u> | <u>Standard Deviation</u> |
|-------------|-------------|----------|---------------------------|
| Financial | 0.716 | 536 | 1.52 |
| Managerial | 0.656 | 244 | 1.27 |
| Auditing | 0.972 | 107 | 1.75 |
| Taxation | 0.267 | 89 | 0.75 |
| Other Areas | 0.925 | 67 | 1.83 |
| Systems | 1.025 | 51 | 1.02 |

Dependent Variable: Number of Participative Events (1987 - 1996)

| <u>Sum of Squares</u> | <u>df</u> | <u>Mean Square</u> | <u>F</u> | <u>D</u> |
|-----------------------|-----------|--------------------|----------|----------|
| 53.594 | 5 | 10.719 | 3.142 | .008 |
| 3,711.566 | 1,088 | 3.411 | | |

| <u>Area</u> | <u>Mean</u> | <u>N</u> | <u>Standard Deviation</u> |
|-------------|-------------|----------|---------------------------|
| Financial | 0.836 | 536 | 1.95 |
| Managerial | 0.737 | 244 | 1.59 |
| Auditing | 1.187 | 107 | 2.40 |
| Taxation | 0.281 | 89 | 0.78 |
| Other Areas | 1.089 | 67 | 2.25 |
| Systems | 0.451 | 51 | 1.86 |

of meetings. Additional descriptive information is also provided that shows there is considerable variation in the frequency of sustained research by research area.

Faculty whose interest area is taxation presented relatively infrequently at the annual meeting. On the other hand, information systems faculty tended to be the most active group. These faculty, as a group, were nearly four times as likely as tax faculty to be contributing at least one

piece of scholarship to the annual meetings. ANOVA difference comparison tests (not shown) indicate that there are significant differences between taxation and every other area. Also, information systems is significantly different from three of the four named areas, with the exception of auditing.

The efforts of the small group of systems researchers do not appear to be impressive in the descriptive statistics for the second version of the dependent variable in the lower panel of this table. The failure of information systems faculty to dominate in terms of participative events suggests the relative isolation of this research. More leverage between systems work and other areas would have led to a replication of top panel results. For this dependent variable, tax faculty are again significantly lower than most groups.

The final Research Question posits potential differences in the results of the first four Research Question tests that can be attributed to differences through time. Dividing the sample into first two and then three cohorts, as described in the measurement section, lead to the results that are summarized in Table 7. When cohort membership is conceived as a categorical variable (e.g., 1,2,3), it is significant in the explanation of both measures of sustained scholarly contributions. This conclusion is robust for both the two group and three group divisions. Table 7 shows that the cohort variable is itself positive and significant at $p < .01$. This indicates that those faculty who graduated latest within the senior faculty group are more likely to continue their research agendas.

These results lead to a closer inspection of the results from the first five Research Questions. If cohort differences are important, the conclusions drawn above might not be valid for all of the subgroups. The first approach to this was to determine if a categorical variable that captured the distribution of faculty members into cohorts was significant in terms of the two measures of the dependent variable. Table 7 shows that this variable is significant at $p < .01$ in all forms. This includes the two-way and the three-way divisions of the sample. It is clear that the members of the seasoned cohort who attained their degrees later are more actively engaged in scholarship.

TABLE 7

**Test of Research Question 6:
Cohort Differences in Sample**

Dependent Variable: Number of Meetings Contributed to (1987 - 1996)

Sample Split

| <u>Sum of Squares</u> | <u>df</u> | <u>Mean Square</u> | <u>F</u> | <u>P</u> |
|-----------------------|-----------|--------------------|----------|----------|
| 16.427 | 1 | 16.427 | 6.874 | .009 |
| 4,167.578 | 1,744 | 2.390 | | |

(continued)

TABLE 7 (continued)

| <u>Cohort</u> | <u>Mean</u> | <u>N</u> | <u>Standard Deviation</u> |
|---------------|-------------|----------|---------------------------|
| Thru 1969 | .365 | 836 | 1.13 |
| 1970 - 1976 | .558 | 910 | 1.30 |

Tripartite Sample Division

| <u>Sum of Squares</u> | <u>df</u> | <u>Mean Square</u> | <u>F</u> | <u>P</u> |
|-----------------------|-----------|--------------------|----------|----------|
| 18.521 | 1 | 18.521 | 12.496 | .000 |
| 2,585.917 | 1,744 | 1.483 | | |

| <u>Cohort</u> | <u>Mean</u> | <u>N</u> | <u>Standard Deviation</u> |
|---------------|-------------|----------|---------------------------|
| Thru 1966 | .333 | 577 | 1.10 |
| 1967 - 1971 | .473 | 543 | 1.22 |
| 1972 - 1976 | .582 | 626 | 1.31 |

Dependent Variable: Number of Participative Events

Sample Split

| <u>Sum of Squares</u> | <u>df</u> | <u>Mean Square</u> | <u>F</u> | <u>P</u> |
|-----------------------|-----------|--------------------|----------|----------|
| 16.299 | 1 | 16.299 | 10.986 | .001 |
| 2,588.139 | 1,744 | 1.484 | | |

| <u>Cohort</u> | <u>Mean</u> | <u>N</u> | <u>Standard Deviation</u> |
|---------------|-------------|----------|---------------------------|
| Thru 1971 | .437 | 836 | 1.50 |
| 1972 - 1976 | .631 | 910 | 1.59 |

Tripartite Sample Division

| <u>Sum of Squares</u> | <u>df</u> | <u>Mean Square</u> | <u>F</u> | <u>P</u> |
|-----------------------|-----------|--------------------|----------|----------|
| 22.287 | 1 | 22.287 | 9.340 | .002 |
| 4,161.718 | 1,744 | 2.386 | | |

| <u>Cohort</u> | <u>Mean</u> | <u>N</u> | <u>Standard Deviation</u> |
|---------------|-------------|----------|---------------------------|
| Thru 1966 | .384 | 577 | 1.39 |
| 1967 - 1971 | .562 | 543 | 1.64 |
| 1972 - 1976 | .658 | 626 | 1.60 |

Table 8 summarizes the reevaluation of all the Research Questions after considering the impact of the cohort variable. On balance, the division of these groups does not create departures from the results described above. In other words, the recognition of differing cohorts does not shake our confidence in the conclusions offered above. The inclusion of this variable reiterates the Research Question 1 findings reported above. Here, all doctoral school status variables are significant at $p < .01$. This gives additional assurance that Research Question 1 should be seen as supported. The work also confirms the role of the institutional status of the current school, as articulated in Research Question 2.

TABLE 8

**Tests of Research Question 6:
Cohort-Based Re-evaluations of Hypotheses 1-5**

Research Question 1 (Doctoral School - Sustained Scholarship)

| <u>Dependent Variable</u> | <u>Result</u> | <u>Comparison</u> |
|---------------------------|-------------------|-------------------|
| Total Meetings | Significant (.01) | Replicated |
| Total Presentations | Significant (.01) | Replicated |

Research Question 2 (Current School - Sustained Scholarship)

| <u>Dependent Variable</u> | <u>Result</u> | <u>Comparison</u> |
|---------------------------|-------------------|-------------------|
| Total Meetings | Significant (.01) | Replicated |
| Total Presentations | Significant (.01) | Replicated |

Research Question 3 (Lifetime Publications - Sustained Scholarship)

| <u>Dependent Variable</u> | <u>Independent Variable</u> | <u>Result</u> | <u>Comparison</u> |
|---------------------------|-----------------------------|-------------------|-------------------|
| Total Meetings | Total Publications | Significant (.01) | Replicated |
| Total Meetings | Mainstream Publications | Significant (.01) | Replicated |
| Total Meetings | Practitioner Publications | Significant (.01) | Replicated |
| Total Meetings | Other Academic Publications | Significant (.01) | Replicated |
| Total Presentations | Total Publications | Significant (.01) | Replicated |
| Total Presentations | Mainstream Publications | Significant (.01) | Replicated |
| Total Presentations | Practitioner Publications | Significant (.01) | Replicated |
| Total Presentations | Other Academic Publications | Significant (.01) | Replicated |

(continued)

TABLE 8 (continued)

Research Question 4 (Gender - Sustained Scholarship)

| <u>Dependent Variable</u> | <u>Result</u> | <u>Comparison</u> |
|---------------------------|-----------------------|-------------------|
| Total Meetings | Not significant (.05) | Replicated |
| Total Presentations | Not significant (.05) | Replicated |

Research Question 5 (Interest Area - Sustained Scholarship)

| <u>Dependent Variable</u> | <u>Result</u> | <u>Comparison</u> |
|---------------------------|-------------------|-------------------|
| Total Meetings | Significant (.01) | Replicated |
| Total Presentations | Significant (.01) | Replicated |

The addition of the cohort variable does not alter the conclusion that those who have published more tend to continue as active researchers (Research Question 3). Additionally, in results not shown, the inclusion of cohort variables does not weaken the robustness of the significance of different types of publishing for these purposes. Research interest areas persist ($p < .05$) even when the cohort variable is introduced as a covariate. Research Question 6 results do not call for an alteration of our conclusion that gender is not an important part of the explanation (see Research Question 4). On balance, Research Question 6 suggests that the timing of graduation does not matter to the ability of senior faculty to sustain their scholarly efforts.

A multivariate analysis was conducted that used multiple regression to relate the two dependent variables of continuing faculty contributions to scholarly meetings to all of the other variables looked at individually in Research Questions 1-6. The status of the current employing institution (RQ2), early career publication productivity (RQ3) and area (RQ5) proved to be significant in all permutations of the equations. The inclusion of the first two of these tended to render the status of the doctoral program (RQ1) not significant. Research area continued to prove important to continued scholarly contributions. Since this is not a continuous variable, this result should be interpreted with caution. Consistent with the more detailed testing reported above, gender and year of graduation did not matter to continuing faculty contributions. As shown on Table 9, cohort effects (RQ6), here considered continuous, again proved significant.

Additional Analyses

The data were reanalyzed using slightly different dependent variables. Scholarly contributions to the meetings, both in total number of research presentations and in total meetings contributed to over 10 years, were reduced to per year numbers by dividing the raw numbers by the number of years since attaining the Ph.D. No substantive differences were noted in the tests of the research questions.

Non-normality existed in the sustained research and career research productivity variables. Since some of the non-normality in the distribution of the research productivity variables can be attributed to the many faculty ($N=745$) who never published, the nonpublishers were deleted from

TABLE 9

OLS Regression Examining the Relationship Between Continuing Scholarly Contribution and the Independent Variables of RQ1 - RQ6

| <u>Dependent Variable</u> | <u>Coefficients</u> | | <u>Coefficients</u> | |
|----------------------------------|---------------------|---------------------|----------------------|---------------------|
| | <u>Meetings</u> | <u>Significance</u> | <u>Presentations</u> | <u>Significance</u> |
| Constant | -0.3573 | 0.155 | -0.4053 | 0.195 |
| Job Prestige (Fogarty) | -0.0035 | 0.001 | -0.0048 | 0.000 |
| Area | -0.0019 | 0.001 | -0.0020 | 0.003 |
| Year | 0.0113 | 0.001 | 0.0134 | 0.002 |
| Doctor School Prestige (Fogarty) | 0.0001 | 0.935 | 0.0003 | 0.775 |
| Gender | -0.0055 | 0.953 | -0.0069 | 0.953 |
| Total Publication | 0.1263 | 0.001 | 0.1518 | 0.000 |
| Adjusted R ² | 0.3260 | | 0.3120 | |
| N | 1,746 | | 1,746 | |

the analysis. A reexamination of Research Questions 1-5 with the truncated sample produced results similar to those presented in the previous section. The exceptions that were noted pertain to Research Questions 2 and 5. The four tests of Research Question 2 involving each combination of dependence and independent variable all suggested that the status of the current institution is only significant ($p < .01$) for those who have published. Current school status is not associated with sustained scholarship for those who have never published. For Research Question 5, interest area is significantly associated ($p < .01$) with sustained scholarly productivity only for publishers. The interest areas of other faculty may pertain to their teaching efforts and therefore have no bearing on the dependent variable. This sample restriction did not materially change the results presented.

The tests of the research questions may have been influenced in part by the large number of people who have not continued scholarly activities. To examine this further, all individuals who did not make at least one appearance at an annual meeting were deleted. This produced a more homogeneous sample. A second evaluation of the research question tests resulted in only small deviations from the results presented above. Specifically, practitioner publications were no longer significantly related to either of the dependent variables. However, all other tests of Research Question 3 continued to produce significant results. With regard to the test of Research Question 5, the significance of interest area declined to the $p < .10$ level for both dependent variables. However, the balance of the tests demonstrates considerable robustness. The inclusion of all seasoned faculty does not seem to skew the results in a material way.

DISCUSSION

The results indicate that the continuation of research by accounting faculty is explained by both institutional and personal factors. Senior accounting faculty members who earn their doctoral

degrees at high status universities are more likely to be productive in research. Furthermore, those who possess appointments at these schools are likely to be more actively involved in that direction. Of the two, the continuing influence of the current affiliation appears to be more obvious an influence on sustained productivity. However, faculty who are many years beyond their training may still be influenced by their doctoral school to the extent that it sets in motion differing ideas about the proper work of faculty. For these purposes, the dual impacts of the institutional variables of doctoral program training and a supportive research environment are complementary.

Receiving a degree from a top doctoral program facilitates the chance that a person will continue to attain whatever rewards are associated with scholarly work. This is compounded by the impact of being assisted by a research environment that exists at certain schools more than at others. These major advantages may create a self-sustaining momentum. Early research success may create additional motivation to maintain or even increase research output. In contrast, those emerging from lower status programs and taking initial faculty positions at lower ranked schools are in a spiral in which they will have greater difficulty in attaining sufficient rewards associated with research to motivate continuation. Therefore, the institutional factors cause and exacerbate career path divergence among accounting academics.

The results support a growing literature that put great emphasis on the doctoral origins of those who have attained greater publishing success in the accounting academy. Since the results of the current paper pertain only to those who are many years beyond their formal research training, this paper extends our appreciation for institutional influences. With institutional status as consequential as it has been shown for this senior group, it would likely be even more pronounced in a younger sample.

The results also suggest that personal factors cannot be ignored. Most prominent among these factors is the lifelong publishing history of the faculty person. Those who have published more over their careers tend to stay more active in scholarship, when such is defined as research participation in more recent annual meetings. This could be interpreted as a motivational difference. Research is an endeavor that many do, apparently in order to achieve short-lived instrumental objectives, but a few continue in the absence of these contingencies. It would appear that there are considerable intrinsic rewards in scholarship for some. It may also be that alternative extrinsic rewards such as salary increments or consulting credibility may adhere to research for some senior faculty. A look at these personal motivations is appropriate since the results suggest that not all the variation can be attributable to the institutional environments that nurture research.

The search for other personal factors that might correlate with the continued scholarship activity necessitates the consideration of gender. However, this was not found to be a consequential way to differentiate the sample for purposes of determining sustained research productivity. If gender does matter, a demonstration within this sample, where males outnumber females by a preposterous degree, is not possible. Gender might be important to the related question of who enters the profession and who gets the lion's share of its rewards. However, in looking at academic accounting's female pioneers, they do not seem to be markedly less likely to continue a life of scholarship.

Academic accounting research is a label that describes the study of a set of quite different phenomenon. Whereas some, such as managerial and financial accounting, may have commonalties, others such as taxation and information systems are *sui generis*. The test to determine if continued scholarship among senior accounting academics would be attributable to their sub-disciplinary allegiances produced significant variations. Although the match of scholarly activity to area is not

exact, it does appear that an individual's positioning within the discipline matters to their sustained contribution to it. This could be described in supply and demand terms with some areas more densely populated by faculty than others, and with some areas growing faster than others. This intuitive explanation of the significant effect determined in the consideration of Research Question 5 has to be complicated by the fact that empirical traditions in some of these areas did not exist when the seasoned faculty was trained. Therefore, what is being observed is not necessarily the happenstance of lucky positioning in the best areas. Some faculty in the senior group have revitalized their research careers by moving into areas with greater potential.

Using the logic of round numbers, this study has defined the senior accounting faculty group to be those who graduated twenty-five or more years ago. It is entirely possible that the comparisons between this group and the less seasoned faculty are not as provocative as those who might be possible by subdividing the former into multiple cohorts.

The differences in publication activity for the different cohorts of the seasoned faculty group may reflect changes in the types of research methodologies employed in published research over the time of their peak productivity. Vasarhelyi et al. (1987) reports a dramatic shift to more rigorous methodologies and empirical analyses in published accounting research during this era. Since the latter cohort is more likely to have received superior training in more rigorous empirical methodologies, they may be better prepared to continue the learning process that enables them to be superior researchers beyond their second decade in the profession. They also may have been more thoroughly socialized to believe that this is what faculty members in accounting should be attempting, notwithstanding their longevity in academe.

Only a modest generational shift in academic accounting has occurred through the many years transversed by the senior faculty group. Although it is true that the younger members of the senior cohort are those more likely to still be active in research, the basic relationships that explain this continuation remain in place over this time period. Only by virtue of controlling for these summative changes that have occurred through time can the important role of institutional prestige be fully revealed. Specifying internal temporal divisions creates assurance that the characteristics of academic accounting that have been made are not an artifact of the definitional periods chosen.

This study builds upon other work with regards to the importance of institutional status. Although this work shows status to be more important today than before, and therefore is consistent with other work (Fogarty and Ruhl, 1997), it should not be interpreted to suggest that there was a time when these factors did not matter. Together, these studies show these factors to be important both to the early career as well as the later career of the faculty person.

Future Research Directions

This research suggests that the reputation or status of academic institutions is very consequential. This suggests that we need to enhance our ability to appreciate the sources of institutional status and how they translate into individual accomplishment. A fuller realization that academic accounting programs compete to acquire status would be beneficial in understanding how it impacts upon the careers of faculty.

Subsequent studies are necessary to discover more about the construction and maintenance of programmatic reputation. This requires that researchers investigate the specific mechanisms of status. The present study does not address whether or not accounting department status differences reflect quality differences. The lack of reliable means to measure actual quality, and the absence of a social consensus about quality might be said to force us to use perceived status as one broadly

based measure of quality. Additionally, quality that is believed in may present enough incremental incentives for actors to produce quality, and therefore confirm the original impressions. Empirical studies that can identify other elements of quality and their association with reputation are needed.

Although we have embraced some personal factors in our attempt to balance the effects of institutional factors in our research, we do not suggest that other individual differences are unimportant in the specific question of direction of academic careers and the likelihood of a higher level of later career research productivity. Individual ability and motivation play important roles in career decisions and outcomes. Since, as shown by this paper, the number of highly active senior accounting faculty is small, more intensive investigative methods could be employed to discover more about why these individuals have persisted in their scholarly efforts.

At times, the self-selection of people into institutions with similar aspirations and values is very imperfect. Nonetheless, the present research suggests the value of moving the discussion of the determinants of research productivity beyond the exclusive realm of individual differences. Future research should attempt to develop more complete models that incorporate personal and institutional variables.

The results attest to the magnitude of the faculty development agenda. If an objective of these programs is to stimulate more scholarship, the descriptive results alone suggest an up-hill struggle. The research question tests show that targeted appeals should be made at everyone except those currently at high prestige programs, those possessing degrees from high prestige doctoral schools and those continuing to publish extensively. In other words, the lack of continuing efforts is a broad-based problem in most sectors of academic accounting.

Limitations

This research used two very distinct measures in order to capture the status of doctoral school and employment schools. Although both have considerable merit in terms of their ability to transcend the limitations of any particular set of measurement choices, they also have imperfections in their attempts to measure such an evanescent idea as institutional status. The publication variable tends to favor the research activity of accounting faculty to the possible exclusion of other faculty pursuits. Although publications create a very visible claim to status, outstanding teaching, service and pedagogical innovation could enhance overall accounting department reputation in other ways. Likewise, the meta-analysis variable is limited by the collective assumptions of the extant literature. These measures do not separate how much of institutional status relates to functional differences and how much is in the eye of the beholder.

The measure of sustained research productivity utilized contributions to the AAA annual meeting. There is nothing essential about this forum for accounting academic scholarship. Although difficult to imagine, a continuing research-oriented career completely apart from these meetings is possible. Some productive researchers in the seasoned cohort may have targeted their efforts outside the accounting discipline. Others may have decided that sharing their work in this forum is not a productive use of their time. Therefore, better measures of this continuing scholarship construct would be welcome.

Some degree of selective choice should be admitted in the design of this research. The lines that separate senior faculty from others are imperceptible. Part of the problematic nature of this has been addressed by the cohort analysis. Likewise, the frequency of research activity that we take as evidence of sustained involvement is not amenable to precise denomination. A more precise measure should take into account more effort-driven variables such as number of papers submitted to the

annual meetings. A more comprehensive version would include regional meeting participation as well as involvement in the scholarship of other disciplines.

REFERENCES

- Accounting Education Change Commission. 1990. AECC Urges Priority for Teaching in Higher Education. *Issues in Accounting Education* (Vol. 5) 330-331.
- Allison, P., and J. Long. 1990. Departmental Effects on Scientific Productivity. *American Sociological Review* (Vol. 55) 463-478.
- Alsop, R., M. Holland, and F. Jacobs. 1988. The Perceived Availability of Resources Which Contribute to Accounting Faculty Productivity. *Journal of Accounting Education* (Vol. 6) 261-278.
- American Accounting Association. 1989. *Reorienting Accounting Education: Reports on the Environment, Professorate, and Curriculum of Accounting*. American Accounting Association.
- Anderson, W., and G. Previts. 1984. Accounting Accreditation and Schools of Accountancy in the United States. *Advances in Accounting* (Vol. 1) 89-104.
- Ball, R., and P. Brown. 1968. An Empirical Evaluation of Accounting Income Numbers. *Journal of Accounting Research* (Vol. 6) 159-178.
- Bayer, A., and J. Folger. 1966. Some Correlates of a Productivity Measure in Science. *Sociology of Education* (Vol. 28) 381-389.
- Bell, J., and J. Seater. 1978. Publishing Performance: Departmental and Individual. *Economy Inquiry* (Vol. 16) 599-615.
- Blackburn, R., C. Behysner, and D. Hall. 1978. Correlates of Faculty Publications. *Sociology of Education* (Vol. 40) 132-141.
- Boyer, E., 1990. *Scholarship Reconsidered: Priorities of the Professorate* (Princeton, NJ: Carnegie Foundation.)
- Brown, D., 1967. *The Mobile Professors* (Washington, DC: American Council on Education.)
- Brown, L., 1996. Influential Accounting Articles, Individuals, Ph.D. Granting Institutions and Faculties: A Citations Analysis. *Accounting Organizations and Society* (Vol. 21) 723-754.
- Buckless, F., S. Ravenscroft, and A. Baldwin. 1998. Educational Qualifications and Gender: Accounting for Women as Adjuncts. *Advances in Public Interest Accounting* (Vol. 9) 133-156.
- Burke, D. 1988. *A New Academic Marketplace* (Westport, CT: Greenwood Press.)
- Cameron, S., and R. Blackburn. 1981. Sponsorship and Academic Career Success. *Journal of Higher Education* (Vol. 52) 360-377.
- Campbell, D., J. Gaertner, and R. Vecchio. 1983. Perceptions of Promotion and Tenure Criteria: A Survey of Accounting Educators. *Journal of Accounting Education* (Vol. 1) 83-92.
- _____, and R. Morgan. 1987. Publication Activity of Promoted Accounting Faculty. *Issues in Accounting Education* (Vol. 2) 28-43.
- Cargile, B., and B. Bublitz. 1986. Factors Contributing to Published Research by Accounting Faculties. *The Accounting Review* (Vol. 61) 158-178.
- Cartter, A. 1976. *Ph.D.s and the Academic Labor Market*. (New York, NY: McGraw-Hill.)
- Chung, K., H. Pak, and R. Cox. 1992. Patterns of Research Output in the Accounting Literature: A Study of Bibliometric Distributions. *Abacus* (Vol. 28) 168-185.
- Clemente, F., 1974. Quality of Department of Doctoral Training and Research Productivity. *Sociology of Education* (Vol. 38) 287-299.

- Cole, J., and H. Zuckerman. 1984. The Productivity Puzzle: Persistence and Change in Patterns of Publication of Men and Women Scientists. *Advances in Motivation and Achievement* eds. M. Maehr and M. Steinkamp (Greenwich, CT: JAI Press) 217-258.
- Crane, D. 1965. Scientists at Major and Minor Universities: A Study of Productivity and Recognition. *American Sociological Review* (Vol. 30) 699-714.
- Cushing, B. 1989. A Kuhman Interpretation of the Historical Evaluation of Accounting. *Accounting Historical Journal* (Vol.16) 1-42.
- Dwyer, P. 1994. Gender Differences in the Scholarly Activities of Accounting Academics: An Empirical Investigation. *Issues in Accounting Education* (Vol. 9) 231-246.
- Dyckman, T., and S. Zeff. 1984. Two Decades of the Journal of Accounting Research. *Journal of Accounting Research* (Vol. 22) 225-297.
- Epps, R., and C. Mitchem. 1992. Research Perceptions of Women Ph.D.s, DBAs, and JDs in Academic Accounting. American Accounting Association Annual Meeting.
- Englebrecht, T., G. Iyer, and D. Patterson. 1994. An Empirical Investigation of the Publication Productivity of Promoted Accounting Faculty. *Accounting Horizons* (Vol.8) 45-68.
- Ettredge, M., and B. Wong-on-Wing. 1991. Publication Opportunities in Accounting Research Journals: 1970-1988. *Issues in Accounting Education* (Vol. 6) 239-247.
- Faver, C., and M. Fox. 1986. Research, Publication Productivity and Applied Social Science. *Sociological Spectrum* (Vol. 6) 379-396.
- Finkelstein, M. 1984. *The American Accounting Profession* (Columbus, OH: Ohio State University Press.)
- Fogarty, T. J. 1995. A Ranking to End all Rankings. *Accounting Perspectives* (Vol. 1) 1-15.
- _____, and J.M. Ruhl. 1997. Institutional Antecedents of Accounting Faculty Research Productivity: A LISREL Study of the "Best and Brightest". *Issues in Accounting Education* (Vol. 12) 27-48.
- Folger, J., H. Astin, and A. Bayer. 1970. *Human Resources and Higher Education*. (New York, NY: Russell Sage.)
- Fox, M., 1981. Sex, Salary and Achievement: Reward-Dualism in Academe. *Sociology of Education* (Vol. 44) 71-84.
- Hagstrom, W. 1971. Input, Outputs and the Prestige of University Science Departments. *Sociology of Education* (Vol. 34) 375-397.
- Hasselback, J. R. 1996. *Accounting Faculty Directory* (New York, NY: Prentice Hall.)
- _____. 1997. *Accounting Faculty Directory* (New York, NY: Prentice Hall.)
- _____. 2001. *Accounting Faculty Directory* (New York, NY: Prentice Hall.)
- _____, and A. Reinstein. 1995. A Proposal for Measuring Scholarship Productivity of Accounting Faculty. *Issues in Accounting Education* (Vol. 10) 269-306.
- Heck, J., and W. Bremser. 1986. Six Decades of The Accounting Review: A Summary of Author and Institutional Contributions. *The Accounting Review* (Vol. 61) 735-744.
- _____, R. Derstine, and R. Huefner. 1996. *Accounting Literature Index Fourth Edition* (New York, NY: McGraw-Hill.)
- Hull, R., and G. Wright. 1990. Faculty Perceptions of Journal Quality: An Update. *Accounting Horizons* (Vol. 4) 77-87.
- Ingram, R., and R. Petersen. 1991. The Accounting Profession and the Market for Accounting Teachers. *Accounting Educators' Journal* (Vol. 4) 1-8.

- Jacobs, F., A. Hartgraves, and L. Beard. 1986. Publication Productivity of Doctoral Alumni: A Time-Adjusted Model. *The Accounting Review* (Vol. 61) 179-187.
- Kanter, R. 1977. *Men and Women of the Corporation* (New York, NY: Basic Books.)
- Kirchmeyer, C., J. Hasselback, and A. Reinstein. 1997. *Examining Demographic and Career Outcomes Issues among Academic Accountants* American Accounting Association.
- Kolb, D. 1992. Women's Work: Peacekeeping in Organizations. D. Kolb and J. Bartunek, *Hidden Conflict in Organizations* (Newbury Park, CA: Sage.)
- Mann, G., and J. Ormundson. 1991. *Publication Productivity and Promotion of Accounting Faculty Women: A Comparative Study*. American Accounting Association.
- Maranto, C., and C. Streuly. 1994. The Determinants of Accounting Professors' Publishing Productivity: The Early Career. *Contemporary Accounting Research* (Vol. 10) 387-408.
- McCormick, J., and E. Bernick. 1982. Graduate Training and Productivity: A Look at Who Publishes. *Journal of Politics* (Vol. 44) 212-227.
- McGee, R. 1971. *Academic Janus* (San Francisco, CA: Jossey-Bass.)
- Milne, R., and G. Vent. 1987. Publication Productivity: A Comparison of Accounting Faculty Members Promoted in 1981 and 1984. *Issues in Accounting Education*, (Vol. 2) 94-102.
- Miyamoto, S., and S. Dornbush. 1956. A Test of the Interactionist Hypotheses of Self Conception. *American Journal of Sociology* (Vol. 61) 399-403.
- Norgaard, C. 1989. A Status Report on Academic Women Accountants. *Issues in Accounting Education* (Vol. 4) 11-28.
- O'Brecht, M., R. Pihl, and P. Bois. 1989. Criteria for Granting Research Training Awards to Graduate Students. *Research in Higher Education* (Vol. 30) 647-664.
- Petry, G., and J. Settle. 1988. A Comprehensive Analysis of Worldwide Scholarly Productivity in Selected U.S. Business Journals. *Quarterly Review of Economics and Business* (Vol. 29) 88-104.
- Rama, D., K. Raghunandan, L. Logan, and B. Barkman. 1997. Gender Differences in Publications by Promoted Faculty. *Issues in Accounting Education* (Vol. 12) 353-366.
- Ravenscroft, J., and F. Buckless. 1992. The Effects of Grading Policies and Student Gender on Academic Performance. *Journal of Accounting Education* (Vol. 10) 163-179.
- Read, W., D. Rama, and K. Raghunandan. 1998. Are Publication Requirements for Accounting Faculty Promotions Still Increasing? *Issues in Accounting Education* (Vol. 13) 329-340.
- Reskin, B. 1977. Scientific Productivity and the Reward Structure of Science, *American Sociological Review* (Vol. 42) 491-504.
- _____. 1979. Academic Sponsorship and Scientific Careers. *Sociology of Education* (Vol. 42) 129-146.
- Rosenfeld, R., and J. Jones. 1986. Institutional Mobility Among Academics: The Case of Psychologists. *Sociology of Education* (Vol. 49) 212-226.
- Saftner, D. 1988. The Promotion of Academic Accountants. *Journal of Accounting Education* (Vol. 6) 55-66.
- Stahl, M., T. Leap, and Z. Wei. 1988. Publication in Leading Management Journals as a Measure of Institutional Research Productivity. *Academy of Management Journal* (Vol. 31) 707-720.
- Streuly, C., and C. Maranto. 1994. Accounting Faculty Research Productivity and Citations: Are There Gender Differences? *Issues in Accounting Education* (Vol. 9) 219-230.
- Vasarhelyi, M., D. Bao, and J. Berk. 1987. *Data Base of Six Accounting Journals* (New York, NY: Computer Disks.)

- Williams, P. 1985. A Descriptive Analysis of Authorship in The Accounting Review. *The Accounting Review* (Vol. 60) 300-313.
- Wrong, D. 1961. The Oversocialized Conception of Man in Modern Sociology. *American Sociological Review* (Vol. 26) 183-193.
- Zeff, S. 1996. A Study of Academic Research Journals in Accounting. *Accounting Horizons* (Vol. 10) 158-177.
- Zelditch, M., J. Berger, and B. Cohen. 1966. Stability of Organizational Status Structures. *Social Theories in Progress* eds. J. Berger, M. Zelditch, and B. Anderson (Boston, MA: Houghton Mifflin) 269-294.
- Zuckerman, H. 1970. Stratification in American Science. *Sociological Inquiry* (Vol. 40) 235-257.