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The Write Stuff: A Study of Productive Scholars in Educational Administration

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This study explored differences between a sample of highly productive scholars and a random sample of more typical scholars. Surprisingly, few demographic differences emerged; neither were large differences found in institutional responsibilities or supports. Productive scholars evidenced a greater orientation toward theory and research, whereas more typical scholars were oriented toward issues in the field. Although the field has made substantial progress in attracting more women into the professorship, the small number of minority professors in educational administration remains a serious problem. Finally, five challenges are proposed that, if met, will improve the quality and use of research in educational administration.

The vitality of the research community in educational administration is of both practical and theoretical concern. When researchers generate new knowledge of limited validity or relevance, no one benefits. When the role responsibilities of senior professors create significant impediments to doing good research, the field is deprived of valuable expertise. When future scholars do not learn the skills or receive sound mentoring, they cannot frame worthwhile questions or discover useful answers. The quality of research in educational administration has been subject to periodic critiques (e.g., Bridges, 1982; Erickson, 1979; Griffiths, 1959). In spite of some evidence to

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the contrary (e.g., Hallinger & Heck, 1996), many believe that a field never perceived to be vibrant now may be in decline. To explore the truth behind this belief and identify strategies to address it, a task force within Division A of the American Educational Research Association (AERA) set out to study scholarship and knowledge production in educational administration and leadership.

There are several levels of interest in considering this subject. First, there is the level of the individual. Conducting research and publishing the results is strenuous, intense work. What gives some people the drive it takes to put forth that effort year after year? What motivates or enables some people to continue posing new questions and confronting new challenges? We need to know more about people's aspirations, orientations, and supports. Taylor, Locke, Lee, and Gist (1984) linked scholarly output to individual personality and behavior patterns such as a strong sense of self-efficacy, type A behavior, and the ability to work simultaneously on multiple projects. Others found that being socialized into a scholarly lifestyle related positively to research productivity (Hunter & Kuh, 1987; Kuh & McCarthy, 1980). The first phase of this socialization process is the doctoral program, where the young scholar acquires the competencies necessary for research and learns the value of inquiry (Gottlieb, 1961; Pease, 1967; Reskin, 1979). Training at a prestigious research-oriented university has been related to research productivity (Heiss, 1970; Hogan, 1981; Long, 1987; Zuckerman, 1977). Others have found that graduate school experiences, such as being a research assistant or research team member with an experienced researcher, foster a positive disposition toward knowledge production (Blackburn & Havighurst, 1979; Gottlieb, 1961; Heiss, 1970; Hunter & Kuh, 1987; Reskin, 1977, 1979). Relationships with mentors or sponsors also have been shown to relate positively to prolific output (Hunter & Kuh, 1987). Mentoring or sponsorship by an established scholar seems to be important, not only during graduate school but also through the second stage of socialization—occupational entry and induction—a period during which academics develop attitudes and habits that often influence subsequent research and publication activity (Braxton, 1983; Cameron & Blackburn, 1981; Clark & Corcoran, 1986; Fulton & Trow, 1974).

The second level of interest concerning knowledge production in educational administration has to do with how institutions organize and support scholarly work. What supports and impediments do academics face? To what extent do professors' roles and responsibilities facilitate or hinder the conduct of scholarly work? One dilemma encountered by professors concerns the allocation of one's time—how to reconcile competing imperatives to teach and do research. Modern universities are based on the idea that these two activities are mutually reinforcing, yet professors regularly have

difficulty juggling these demands (Cuban, 1999). They are hired to teach and spend most of their time doing so, yet they are promoted primarily on the strength of their research. Faculty members also encounter ambiguous expectations about their goals in teaching. Should graduate programs in educational administration be primarily committed to preparing educational practitioners? And if so, when and how will future professors be prepared? Third, researchers must develop support and professional networks to get their work done. Some such networks grow informally, but there are also formal elements such as professional associations and scholarly journals that cultivate and support scholarly interaction. Hunter and Kuh (1987) found that involvement in professional associations was highly regarded by prolific scholars, and they encouraged faculty to promote students' involvement in such organizations. Finally, universities differ in their prestige and access to resources. To what extent do current patterns of resource distribution affect scholarly production?

The third level of interest involves factors facing the field as a whole, factors that shape the nature of work done and its acceptance by others. One of these is the field's intellectual capital. Does educational administration have well-established theories or leading ideas? Is there a clear understanding about what the important problems are and how best to address them? Schools of education have suffered from low status within the academic community (Goodlad, 1990), in part because of their ambiguous identity. As schools of education evolved from normal schools to colleges or departments within regional state universities, they were torn between adopting the academic model and the professional model (Clifford & Guthrie, 1988; Shen, 1999). Because the clients of schools of education had less status than the clients of other professional schools, such as law and medicine, educational researchers could not independently construct norms and reward structures in the service of their central applied mission. Instead, they tried to emulate the norms of the arts and sciences (Shen, 1999). Still, education faculty members have had difficulty garnering the same respect for their research endeavors as other academics (Ducharme & Agne, 1986; Schwebel, 1985). When Campbell and Newell (1973) asked professors of educational administration about the problems they faced, two thirds noted as a serious problem a lack of university support for their department relative to other departments.

One reason education scholars have struggled to gain the respect of their academic peers was that they were coping with what Labaree (1998) called a "lesser form of knowledge" as a soft, applied field. Labaree contrasts education with other fields, such as the natural sciences, where research findings are verifiable, definitive, and cumulative. In education, as in other soft fields, it is difficult to build consensus on important problems, to concentrate

research efforts, or to accumulate knowledge. The difficulty arises in part because findings are always subject to critique by others who hold different interpretive frameworks. Yet, as an applied field, there is pressure to provide practical solutions to pressing problems.

Most research fields are highly stratified, with a high proportion of work coming from a relatively small number of scholars (Geertz, 1983; Merton, 1973). For that reason it seemed appropriate, as part of the task force effort, to focus on a relatively small sample of highly productive scholars in educational administration so that we might learn about their habits of research, resources for doing research, and beliefs about the nature and importance of the research enterprise in education. As Geertz (1983) pointed out, the social organization of a research field is most likely to appear clearly within its elite, the people who are most engaged in knowledge production. To that end, we focused on a small sample of the most prolific and productive scholars in educational administration. We also compared their work with that of a sample of more typical professors in the field, hoping to identify and explain differences between the two groups. In the process, we asked the following:

- Who are the productive scholars, and how are their careers structured?
- How much research are the productive scholars producing, and what motivates them to work as they do?
- What resources do these scholars have in doing their work, and what competing demands do they face?
- What social networks are important to their scholarship?
- What norms and beliefs distinguish the productive from more typical scholars?

In the subsequent sections, we explain our methodology and how the productive scholars were identified and what data they provided. Next, we look to the similarities and contrasts between the productive and typical scholars: How do their training and socialization into the field compare? What are the social networks that support their work? Are there differences in the kinds of responsibilities they face and resources available to them? Finally, we discuss the implications of our findings and pose a set of challenges for the field of educational administration.

METHOD

The complex questions asked in this study required a variety of research methods (Zuckerman, 1977). We began by identifying the sample of productive scholars. We collected survey data from both the productive sample and a random sample of more typical scholars. Scholars were also asked to submit

their vitae. Our analysis of the data used both quantitative and qualitative methods.

Sample

The sample of productive and influential scholars was identified through a three-stage process. First, we made a frequency count of the number of articles individuals had published in seven leading educational journals during a 10-year period from 1988 through 1997. We counted authorship and joint authorship of all articles in *Educational Administration Quarterly*, the *Journal of Educational Administration*, and the *Journal of School Leadership*, as well as those articles from *Educational Evaluation and Policy Analysis*, *Educational Policy*, *Journal of Educational Finance*, and *American Educational Research Journal*, that addressed either "environmental factors that affect the organization and administration of schools and districts" or "how the organization and administration of schools and districts affects teaching and learning." To these, we added the authors of books addressing issues of school administration and leadership that were published during the same period by prominent publishing houses in the field, including Corwin Press, Harvard University Press, Jossey-Bass, Teachers College Press, State University of New York Press, and the University of Chicago Press. From these lists, we generated a quantitative measure of authors' publication frequency.

Next, a nine-member review panel, consisting of five past vice presidents of AERA Division A and four past presidents of University Council for Educational Administration (UCEA), reviewed and refined the list of 51 scholars that emerged from this frequency count. Panel members suggested scholars who were not on the list but they thought should be added because of their prominence in the field, and they identified people who were on the list but in their judgment should not be because their work was not of excellent quality. Based on these recommendations, 11 scholars (10 males and 1 female) were removed and 10 (5 males and 5 females, 1 minority) were added, yielding a final sample of 50 productive and influential scholars. Our goal was not to generate a definitive list of the 50 most productive scholars but to generate a list of 50 very productive and prominent scholars we might study, understanding that other lists might be possible. In addition to the primary sample of identified scholars, a random sample of 200 Division A members was used for comparative purposes. Although the scholars identified either through the quantitative analysis or the review process described above were removed before sampling, no other attempt was made to guard against the inadvertent inclusion of productive scholars in the random sample.

Data Collection and Analysis

Between March and June of 1999, we collected and analyzed three sources of data. Quantitative survey data, short answer survey data, and curriculum vitae were collected from both the productive scholars and the random sample of typical scholars.

Survey data. Based on our research questions, the experience of committee members, and earlier research (Campbell & Newell, 1973; Griffiths, 1959; McCarthy & Kuh, 1997; McCarthy, Kuh, Newell, & Iacona, 1988; Zuckerman, 1977), we identified major themes of interest and generated survey questions to explore these themes. The survey was field tested and refined. The resulting 7-page survey included 117 quantitative questions and 22 open-ended short answer questions. These were mailed to the 50 productive scholars and 200 typical scholars in the random sample. Two weeks later, a reminder postcard was sent to those who had not responded. Two weeks after that, a second survey was sent to those who still had not responded. Of the people in the random sample, 18 returned blank surveys, reporting that they were not professors of educational administration or indicating that they did not wish to participate. Consequently, when the second round of surveys was sent, 18 new names were drawn. One from the productive sample declined participation because he no longer wrote in the field of educational administration. A total of 42 productive scholars completed surveys, for a response rate of 86%. A total of 87 usable surveys were returned from the sample of typical scholars, for a response rate of 44%. In analyzing data, we focused on finding patterns among the most productive scholars and differences between the productive and typical scholars. We used frequency counts and descriptive statistics to analyze the survey data. Short answer responses elaborated the closed-end responses. These were analyzed using qualitative methods of coding and looking for commonalities and anomalies.

Curriculum vitae. Scholars were asked to submit their curriculum vitae, which provided important information about universities attended, career histories, publications, and scholarly networks, as well as validation of some of the information reported on the surveys. Of the productive scholars, 42 returned vitae, as did 60 typicals. Using the system of Carnegie Classification (e.g., Research I, Research II, Doctoral I, etc.), we coded the institutions where these scholars received their training, where they took their first job after receiving their degree, and where they were currently employed. Patterns of publication were examined in 5-year segments from the time of receiving the doctorate. Categories for this analysis included publication in 10 presti-

gious peer-reviewed journals, publication in other education journals, and publication of book chapters, books, and edited books. In addition, patterns of collaboration were studied by analyzing the proportion of solo publications and the proportion of joint publications, with the three most frequent collaborators for each scholar.

These three sources provided a wealth of data, but only the most salient findings are reported here. The survey questionnaire, along with a complete set of findings, is available from the first author. The next section highlights the similarities and differences found between the productive and typical scholars.

RESULTS

We explored differences and similarities between the productive and typical scholars across five broad categories: demographics, quality and features of training, professional and personal relational networks, institutional conditions and support, and priorities, aspirations, and contributions. In addition, we considered scholars' perceptions of problems of research in educational administration. We anticipated finding more stark contrasts between the two groups than we did. Although there were predictable and notable differences in publication rates, we were surprised to see that the samples were so similar demographically and in the roles and responsibilities they undertook. Nonetheless, instructive differences emerged from the analysis.

Research Productivity

A discussion of research quality necessarily involves an examination of publication history. Kennedy (1997) wrote, "In the world of scholarship, we are what we write. Publication is the fundamental currency. . . . Research quality is judged by the printed word" (p. 186). When asked on the surveys about publishing strategies, significantly different patterns emerged. Of productive scholars, 67% reported they had an early strategy of publishing in refereed journals, whereas only 43% of the typical scholars began in that way. An analysis of the curriculum vitae revealed markedly different publication patterns between the groups. Productives published an average 2.90 articles, chapters, or books per year, whereas the scholars in the typical sample published fewer than 1 a year (.93). In the first 5 years after receiving their doctorates, productive scholars had published an average 2.25 articles in a sample of 10 prestigious refereed journals (*Educational Administration Quarterly*, the *Journal of Educational Administration*, *Journal of School Leadership*, *Educational Evaluation and Policy Analysis*, *Educational Policy*, *Journal of Educational Finance*, *Teachers College Record*, *American Journal of Education*, *Harvard Education Review*, and *American Educational Research Journal*), and the typicals on average had published fewer than 1 article in these same journals (mean = 0.69). The difference was even more apparent during the second 5-year period, with the productives publishing an average 3.36 articles in these journals and the typicals publishing on average only 0.48 in 5 years. The productive scholars kept up this pace of publishing in these prestigious journals throughout their careers, with an average of 3.10 articles between the 21st and 25th year after receiving the degree, whereas the typicals had all but quit, publishing an average 0.25 articles in 5 years (see Figure 1). The difference in publication productivity was not confined to publication in these prestigious journals. The productive scholars also outpublished the typicals by a wide margin in other education journals, book chapters, and books. For example, productives authored on average 6.25 articles in other journals during the first 5 years after receiving their degrees, in contrast with the typicals' average of 1.92. By the fifth 5-year period after receiving a degree, the productives were publishing an average 6.64 book chapters, whereas typicals produced only 0.50 (see Figure 2). These differences in research productivity are both stark and intriguing. The remainder of the study searches for clues to explain them.

Demographic Similarities and Differences

Few demographic characteristics distinguished the productive and typical scholars. The mean age for both samples was early 50s, although the productives had been in the field an average 4 years longer. The productives appeared to have been on a faster career track. Although of comparable age when they received their bachelor's degrees, the productives received their master's degrees on average 1½ years ahead of the typical sample. The productives became administrators 2 years younger than typicals and earned their doctorates an average 2½ years earlier. Productives became professors an average 3 years younger than typical scholars (see Table 1).

Earlier studies of the professoriate in educational administration have reported a growing percentage of female professors in the field. In 1973, Campbell and Newell reported that 98% of professors were male. By 1986 the proportion of women had reached 10%, and that doubled to 20% by 1994 (McCarthy & Kuh, 1997). Although ours was a purposive sampling and not the extensive survey of the entire field of earlier studies, it was nonetheless remarkable that 50% of the respondents in the typical sample were women. This was not simply an artifact of response rate, because, based on their first

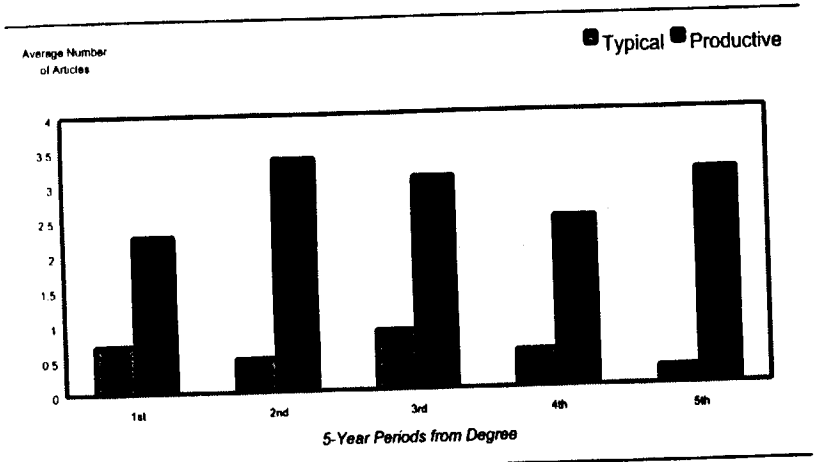

Figure 1: Publication of Articles in 10 Prestigious Journals

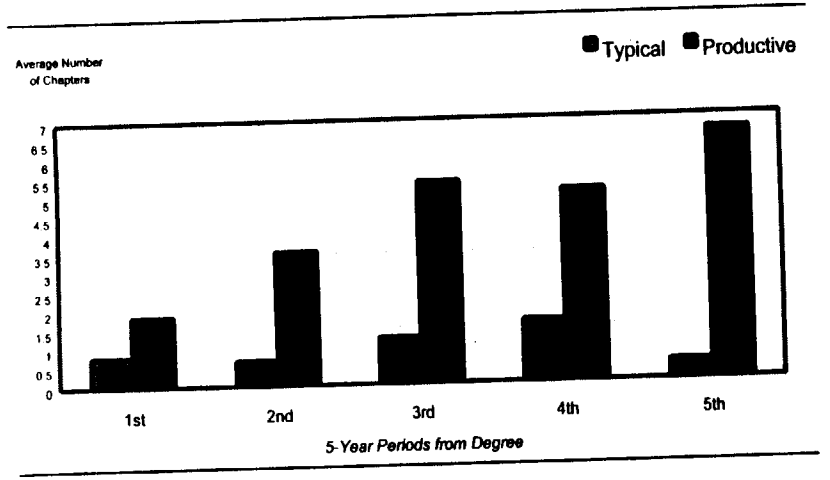

Figure 2: Publication of Book Chapters

names, 46% of the full random sample appeared to be women. Women not only occupy more professorial offices, they have made significant inroads into the upper levels of the field. A total of 36% of the productive scholars chosen for this study were women.

TABLE 1
Age at Various Stages in Career

	Typical Sample				*Productive Sample*			
	Minimum	*Maximum*	M	SD	*Minimum*	*Maximum*	M	SD
Age at bachelor's degree	20	37	21.91	2.16	20	30	21.55	1.69
Age at master's degree	21	45	26.93	4.59	21	35	25.48	2.95
Age at doctorate*	25	53	35.87	7.31	24	46	32.93	4.85
Age became administrator	22	51	30.87	9.56	23	44	28.92	5.14
Age became professor*	25	58	36.92	8.47	24	47	33.93	5.36
Present age	31	68	50.85	7.71	41	71	52.46	6.92
Number of children	1	6	2.38	1.06	1	5	2.47	0.93

*The difference between the means is significant ($p < .05$).

The field of educational administration has apparently been less successful in attracting minority scholars into its ranks. In 1973, the proportion of professors of color was 3%, and by 1994 that proportion had increased to 11% (McCarthy & Kuh, 1997). In our study, only 5% of the typical respondents and 4% of the productive sample were persons of color. In 1973, Campbell and Newell were distressed by the complacency with which professors of educational administration regarded the low proportion of minorities in the field. Even though "the small proportion of persons from minority groups that are in our profession" was rated the second most serious problem in the field, Campbell and Newell were concerned that only 15% of the professors ranked it as a "very serious" problem and 29% saw it as "no problem." Campbell and Newell commented that "this is a very modest level of professional concern in view of the fact that 97 percent of the professors are white" (p. 85). In the ensuing years, little seems to have changed.

In searching for characteristics that have enabled the productive scholars to be prolific, we found that being free of family responsibilities was not a salient factor. More productives than typicals were married (83% compared with 63%) and had children (81% compared with 69%). However, these differences were not significant. For those who had children, the mean number of children was similar in both samples (mean = 2.47 for productives and 2.38 for typicals).

The career experiences of productive and typical scholars prior to coming to the university were similar. More than three quarters of both samples

reported having been a K-12 teacher (81% for productives and 76% for typicals). In 1988, McCarthy et al. expressed concern that "educational administration faculty members seldom bring recent administrative experience to their professorial role" (p. 170). This situation had changed significantly by 1994 in that almost half of the newly hired faculty members had served as school administrators (McCarthy & Kuh, 1997). This trend continued to be apparent in our study, as about half of both the productive and the typical samples had been a K-12 administrator (52% and 47%, respectively). A third of productives and a quarter of typicals reported having been a state or federal employee, and the proportions were reversed for those having been a full-time researcher. Almost a quarter of typical scholars had worked in a not-for-profit organization, compared with 17% of the productives. Since coming to the university, 62% of the productives and 52% of the typicals had been a higher education administrator.

Approximately two thirds of the productive scholars worked at a Research I university for their first job after receiving their degree, and 70% were currently employed by a Research I university. By contrast, fewer than half (46%) of the typicals worked in a Research I university in their first job in the field, and somewhat fewer (42%) currently held such a position. When asked what had attracted them to their current institution, scholars in both samples ranked "more support for my scholarship" as their first or second most important consideration (22.4% of productives and 24.7% of typicals). For typicals, this support was selected more often than an increase in salary or the prestige of the university. For both productives and typicals, family and other considerations (such as healthier departmental dynamics, more collegiality, more points of interacting interests, and values with colleagues) figured into their choice of institution.

We were surprised to see how demographically similar the two groups were. Similar proportions of both samples were White and female. They had had similar career experiences before entering academia. They used similar criteria in selecting a university setting. The faster career track of productives and the higher proportion of productives working at Research I universities were the most obvious differences.

Quality and Features of Training

Training in leading institutions provides strong methodological and theoretical training, deeper socialization into the norms and aesthetics of a field, and access to networks that can facilitate one's career over time. More than 80% of both samples agreed or strongly agreed with the statement, "My graduate preparation has been an important key to my productivity." Zuckerman's

(1977) finding that the most eminent physical scientists come from the most elite universities was echoed among the ranks of productive scholars in educational administration. Overwhelmingly, the productive scholars were trained at Research I institutions (92%), with the remaining (8%) attending Research II universities. Training at a research-oriented university seems to be a necessary but not sufficient precursor to becoming a productive scholar, however. More than three quarters of the typical sample also were trained in Research I institutions, and another 12% were trained at Research II universities.

The process of conducting and publishing research is a complex and multifaceted task. Virtually all the scholars identified someone who had played a significant mentoring role in their development as a scholar. Only 2% of both samples reported not having had an important mentor. Three quarters of the productives reported receiving mentoring from a primary mentor during their doctoral program, and 64% of typicals received important mentoring during that time. Nearly 30% of both samples received mentoring from a secondary mentor during the doctoral program. Significantly more productive scholars reported receiving mentoring from one of their two most important mentors when the respondent was a young professor, with 81% of productives and 59% of typicals reporting such mentoring. For both productives and typicals, one in three of the mentors was not of the same gender, and only 7% of mentors were of another race.

How were these mentoring relationships characterized? Three quarters of productives and two thirds of typicals indicated that their mentor provided personal support and encouragement. Not all these relationships were wholly supportive or without conflicts, however. One woman in the typical sample wrote, "I am using the term mentor loosely. In both cases these two individuals made their support contingent on my not challenging them." Productives and typicals identified mentors who had provided instruction and guidance on research tasks. These mentors gave explicit instruction about research theories and methods, were helpful in research problem finding, and served as models in the design and carrying out of research. Similar proportions reported that their mentors had helped them by involving them or collaborating with them in conducting research.

Although both groups of scholars credited their training and a strong support group of faculty mentors with their success, several factors do seem to differentiate the groups. One is that almost all of the productive scholars have their degrees from Research I universities and most took their first jobs at such institutions. It is unclear whether this is an effect of nature or nurture (i.e., Did the most motivated and qualified students find their way to top-ranked institutions, or was it the institution itself that made the difference?).

This is not a question we can answer, though most likely it is a combination of both factors. However, going to a Research I university appears to be important in developing a young scholar's orientation toward research.

Mentoring also seems to be extremely important. Previous research has suggested that mentoring during graduate school and in the early stages of one's academic career is important to fostering a disposition toward knowledge production (Braxton, 1983; Cameron & Blackburn, 1981; Clark & Corcoran, 1986; Fulton & Trow, 1974; Hunter & Kuh, 1987). Most scholars in this study had received significant mentoring centered on the research process during their doctoral program. More of the productive scholars also received important mentoring during the early years of the professoriate. The quality of the mentoring that makes a difference or that distinguished the productives from the typicals remains unclear in these data. Mentoring may interact with inherently talented and motivated people, unlocking potential that is there for those who have it, yet the same mentoring may not have the same effect for people without such motivation and talent.

Professional and Personal Relational Networks

Research depends as much on intellectual as on financial capital. Intellectual capital provides problems, methodological knowledge, and theoretical-conceptual frameworks. Although a certain amount of inspiration can come from reading, it more likely comes from active interactions with those in the field or with one's own academic colleagues. In identifying the supports that have been most important in their research, scholars mentioned social supports more often than institutional or financial supports. Supportive family and colleagues seem to be vital in fueling scholarly endeavors.

Colleagues. A network of productive colleagues has been linked to exceptional scholarly output (Finkelstein, 1982). Our respondents frequently reported that colleagues were an important support for coping with the rigors of scholarly life. When discussing the importance of relationships with colleagues, some scholars specified the qualities that were important in such a colleague. For example, one productive scholar designated "intelligent, well-read colleagues" and a typical indicated "collegial, smart, goal-directed colleagues." Productives were more likely than typicals to report collaborating on research. Only 2% of the productives identified themselves as solo performers, whereas 14% of the typicals said they most often worked alone. A total of 43% of the productive scholars and one third of the typical scholars said that the person they most often collaborated with was outside of their university. A total of 12% of the productives and 21% of the typicals collaborated most often with a colleague at their own university. Of the productives, 10% most often collaborated with students, yet only 5% of typicals did. A review of vitae confirmed that most of the productive scholars collaborated in publishing, especially on books. Building productive research partnerships may be one factor contributing to the productive scholars' productivity. An analysis of writing partnerships from the vitae revealed that productives wrote an average of 41% of their total publications with their most frequent collaborator, whereas typicals wrote 26% of their publications with their favorite partner.

Practitioner networks. Close contacts with practicing school administrators can provide access to research sites, to research problems, and occasionally to financial resources. Alliances with the field are quite common in some applied fields, although they are usually at the institutional level and focus more on setting research agendas and finding resources than collaboration on the research process (Becher, 1989). Although individual research collaborations with practitioners could lead to research that meets the criterion of relevance, it may not meet the research community's norms of rigor. To meet the dual standards of relevance and rigor, some productive scholars had intentionally created structures to cultivate networks of practitioners who gave them access to problems of the field. Yet none of the productive scholars reported that they most often collaborated with practitioners on scholarship, and 7% of typicals collaborated most often with practitioners.

Personal and family pressures. When asked, "What personal and family pressures have been most problematic in your life as a professor and scholar?" more than 40% of the productive scholars and more than half the typical sample cited the difficulties in balancing professional and personal responsibilities. For example, one scholar wrote, "Time! Balancing professional demands and activities of children, aging parents, etc. has been a challenge." Another reported, "Moving my family has been the toughest part. We've all sacrificed friends and relationships on the altar of professional advancement." In addition to moving, respondents mentioned travel for research and conferences and teaching evening classes as aspects of the job that most conflicted with personal responsibilities. Some scholars, although acknowledging the competing demands of personal and professional responsibilities, nonetheless were able to take these demands in stride. One productive scholar wrote, "While family demands require time, I never viewed them as impediments to my professional advancement." On the other hand, one man spoke of the toll the competition between academia and family life had taken when not well managed: "I am too task driven and committed to my work; it

has had a cost—divorce." Women in the typical sample were significantly more likely to complain of lack of spousal support or the inability to move because of a husband's career. And although balancing the demands of family responsibilities was a challenge, so was the lack of support these relationships offered. A single woman in the productive sample complained that she lacked a support system. Several professors in both samples mentioned the financial pressures that low academic salaries produced. On the whole, men were less troubled by personal and family pressures. Men in both samples were significantly more likely to say they had faced no personal or family pressures that had been problematic in their lives as a professor or scholar. A total of 30% of men and only 4% of women perceived no such impediments.

Institutional Conditions and Support

The number of courses taught, committees assigned, and dissertations supervised influence the time available for conducting research, but these activities also provide intellectual and personnel resources that can contribute to research, such as having access to problems in the field and the assistance of talented students. Are the productives able to be more prolific because they have arranged their professional lives such that they have fewer teaching and advising responsibilities and are consequently able to focus more on research? Do they have greater institutional support for their scholarship and greater financial resources at their disposal? Which of these factors is most significant and what do these scholars see as their most critical needs? The next section deals with the institutional conditions and supports reported by the productive and typical scholars.

Responsibilities. More than a quarter of a century ago, when Campbell and Newell (1973) queried professors of educational administration on the problems they faced, two thirds saw "the heavy teaching and advising load in my department" as a serious problem. Notably, however, the other third saw it as no problem. In the current study, the teaching and advising loads for typical and productive scholars were remarkably similar. The standard teaching loads in the departments of the productive and typical scholars were comparable, although typicals taught somewhat more diverse course loads. Productives and typicals had similar numbers of doctoral advisees, but productives had only about half as many master's advisees. Productives and typicals were expected to attend a similar number of faculty meetings each month. Productives spent on average an hour less each week in meetings (3.31 compared with 4.36 for typicals) and were expected to serve on slightly fewer institutional committees in a given year (2.60 and 3.41, respectively),

TABLE 2
Institutional Responsibilities

	Typical Sample			*Productive Sample*		
	n	M	SD	n	M	SD
Typical full-time teaching load for professor in your department	79	2.86	1.01	42	2.76	1.01
Your typical teaching load	75	2.53	1.04	40	2.15	1.10
How many different courses do you teach in a year?*	76	3.82	1.46	42	3.26	1.19
How many doctoral advisees do you have?	66	9.03	6.87	39	10.26	5.51
How many master's advisees do you currently have?*	58	21.74	15.13	33	10.70	9.49
How many other advisees do you currently have?	27	15.41	14.95	21	13.14	7.19
What portion of your time does your university allocate for research?	33	26.55	20.92	25	29.20	12.33
Approximately how many faculty meetings are you expected to attend per month?	80	2.53	1.86	42	2.38	1.89
Approximately how many institutional committees are you expected to serve on in a given year?	76	3.41	2.86	42	2.60	1.93
About how many hours each week do you spend in faculty or committee meetings in a typical week?	76	4.36	3.04	42	3.31	2.65
On average, about how many hours each week do you commit to community service outside the university?	78	3.92	3.22	41	3.78	3.21

*The difference between the means is significant ($p < .05$).

but the differences were not statistically significant. Productives and typicals were similar in the number of hours they invested in community service outside the university each week (3.78 and 3.92, respectively). Scholars in both samples reported that their universities allocated nearly 30% of professors time for research (see Table 2).

Institutional supports. When asked about the supports that had been most important to their scholarship, more of the productives than typicals said that it had been important to work at a university that valued and supported research through awards, internal grants, and developmental or study leaves. A typical scholar wrote, "Research funds internal on campus have been crucial for my professional life here." The productive and typical scholars had very

similar views about the resources they felt were important for their research. Having access to a live setting was the highest-rated resource for each group, and a high-quality computer and printer ranked second. Research assistants and grant funding were judged to be very important, whereas access to electronic databases and document sources were judged to be somewhat important. Participants added additional factors as critical or very important, including having cooperative, collaborative, and supportive colleagues; more able students; a good library; secretarial help; travel; and federal appropriations.

Although universities supported the research endeavors of scholars by supplying such resources as computers, technical assistance, and secretarial services, scholars often found these resources inadequate. Nearly all of the scholars (97% of productives and 92% of typicals) said their university provided them with a computer. Of the productives, 64% rated the quality of their university computer as excellent, whereas only 43% of typicals were as pleased with what they had been issued. About 40% of both samples rated the adequacy of technical support offered by their university mediocre or poor, if it was provided at all. Universities did even worse in the eyes of these scholars when it came to providing secretarial help, which 70% of both samples rated mediocre or poor. Of the productives, 83% reported that they had less than half-time secretarial help, as did 72% of typicals.

Financial resources. In addition to university resources, grant money for research provided important support. The productive scholars were apparently more successful in securing external resources for their research and were significantly more likely to have been the principal investigator for a large research grant. Of the productive sample, 57% had been the principal investigator of a grant higher than $100,000, compared with 37% of the typical scholars. For grants of less than $100,000 the proportion that had served as principal investigator was more similar, with 79% of productives and 71% of typicals having gained access to those funds. We asked respondents to rate on a scale ranging from 1 (*not at all important*) to 4 (*critical*) the factors that had helped them secure research funding. "Your own national reputation" was rated 2.85 for productives and 2.34 for typicals; "the reputation of your university" was rated 2.38 and 2.27, respectively; and membership in a particular center or research group was rated 2.32 and 2.06, respectively. Scholars also wrote in additional factors as being most important, such as "the reputation of my graduate institution and former professors" or "collaboration with a nationally known scholar." University developmental leave was also mentioned as an important factor in securing resources.

Critical needs. Although a lighter teaching load or less teaching were mentioned as critical needs for scholarship, 95% of the productive sample agreed that quality teaching and research were interdependent, whereas only 81% of the typical sample agreed (see Table 3). When Campbell and Newell asked this same question in 1973, only 74% of the professors agreed or tended to agree.

Nearly half of the productive scholars and 58% of the typical scholars listed as one of their two most critical needs that of having more support for their scholarship. Of the productive sample, 40% expressed the need for more able students, whereas a quarter of the random sample saw this as a critical need. One third of each sample felt the need for more stimulating colleagues. Of the typical sample, 17% felt a critical need for a more understanding administration, and 10% of the productive sample agreed. Of those who selected "more resources" or "other" and specified their own critical needs, time was noted by 29% of productives and 16% of typicals (see Table 4).

Most striking in our findings was the fact that the role expectations and supports reported by productive and typical scholars were so similar. One might have expected that the productive scholars had managed to be more productive because of lighter teaching and advising loads, less service, and greater university supports, but this was not the case. Productives reported having somewhat more access to financial resources but not a great deal. Productives also reported having somewhat less committee work but not significantly less. Both samples expressed a need for greater support for their scholarship. If we are going to find telling differences to distinguish productives from typicals, we need to look beyond institutional responsibilities and supports.

Priorities, Aspirations, and Contributions

With the complex sets of expectations and demands involved in academic life, professors have different priorities and aspirations. Scholars may have different reasons for engaging in research and publication, including an interest in contributing to the knowledge base, facilitating promotion in academic rank, enhancing personal prestige, fulfilling a sense of scholarly obligation (Startup & Gruneberg, 1976), curiosity, or making a difference in the world. Previous studies have found prolific scholars to be motivated by an enjoyment of and reverence for research activities and to be curious, creative, stress tolerant, and task oriented (Hunter & Kuh, 1987). Highly productive scholars also set high performance goals, enjoyed a higher sense of self-efficacy for research, and were able to perform better in response to the publication pressures of academic life because of their tendency to work simultaneously on

TABLE 3
Attitudes About Research

	% Who Agree or Strongly Agree		Typicals		Productives	
	Typical	Productive	M	SD	M	SD
Quality teaching and research are interdependent.*	81.2	95.2	1.86	1.22	1.47	0.83
My graduate preparation has been an important key to my productivity.	80.7	82.1	1.87	1.09	1.67	1.01
The reason I do research is to create and test theory.*	55.8	78.6	2.55	1.08	2.07	0.92
The reason I do research is to help solve the problems of practice.	90.5	95.2	1.68	0.89	1.61	0.58
The reason I do research is to get the scholarly recognition I deserve.	38.4	43.9	3.10	1.34	2.98	1.23
The reason I do research is to work with interesting ideas.*	92.6	100.0	1.56	0.87	1.10	0.31
I have the ability to achieve in spite of the institutional setting.	75.0	73.8	2.01	1.11	2.12	0.97
Student doctoral research should be an important element of the knowledge base.	59.3	65.8	2.31	1.02	2.21	0.87
Most professors have a substantive knowledge base in educational administration.	34.1	28.6	2.98	0.99	3.21	1.00

NOTE: Responses were on a scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). The difference between the means is significant (*$p < .05$).

multiple projects (Taylor et al., 1984). The next section deals with the sense of duty expressed by these scholars, their aspirations, contributions, influences, and sources of motivation for doing research. We also explore their satisfaction with their career choices.

Obligations. Scholars differed in what they saw to be their most important obligation. Productives were significantly more likely to view research as their most important professional responsibility, and typicals were more likely to count teaching as most important. Whereas three quarters of the productive scholars saw "contributing to the research and scholarship" as their most important obligation, only 30% of the typical scholars did. Notably, the productives' emphasis on research as a primary obligation was not evident a quarter century ago, when Campbell and Newell (1973) found that "teaching and advising graduate students" was ranked the most important professional

TABLE 4
Ranking of Critical Needs, Obligations, and Influences (in percentages)

	Typical		Productive	
	1st	2nd	1st	2nd
Rank your two most critical needs for productivity				
More able students	10.8	13.7	19.0	21.6
More stimulating colleagues	13.3	20.5	16.7	16.2
More support for my scholarship	38.6	19.2	28.6	18.9
A more understanding administration	6.0	11.0	2.4	8.1
More resources (specify)	19.3	24.7	16.7	21.6
Other (specify)	6.0	11.0	11.9	13.5
Rank your two most important obligations				
Contributing to the research and scholarship	29.9	32.6	76.2	13.2
Developing instructional materials	2.3	1.2	—	2.6
Helping administrators solve problems of practice	16.1	16.3	2.4	18.4
Teaching and training future practitioners	42.5	27.9	7.1	28.9
Teaching and training future professors	—	7.0	—	18.4
Dissertation advising	2.3	10.5	4.8	5.3
Other (specify)	4.6	1.2	2.4	7.9
Rank the two most important influences on your scholarship				
The research and theoretical literature	22.1	44.0	42.9	27.5
Issues from the field	59.3	25.0	40.5	37.5
Ideas from colleagues and students	5.8	23.8	7.1	27.5
Funding opportunities	2.3	2.4	2.4	5.0
Other (specify)	4.7	3.6	4.8	2.5

function. In UCEA institutions, this was followed by research and writing, but in non-UCEA universities, teaching and advising undergraduate students was the second most important professional obligation. Of the typical sample, 43% saw their most important obligation to be teaching and training future practitioners, whereas only 7% of the productive sample saw training practitioners as their most important obligation. Comparable proportions (28% and 29%) saw teaching and training future practitioners as their second most important obligation. No one in either sample said that teaching and training future professors was their most important obligation, although 18% of the productive sample and 7% of the typical sample said it ranked second. Of the typical sample, 16% saw helping administrators solve problems of practice as their most important obligation; however, only 2% of the productive sample saw this as a primary obligation (see Table 4).

Career aspirations and contributions. When professors of educational administration were asked a quarter of a century ago to specify in an open-

ended question their ultimate professional goal, they more often listed a status position than a contribution to the field of study. For instance, 22% cited a full professorship and 17% cited an administrative position in higher education, whereas 15% said they wanted to make a substantial contribution to the betterment of administrative practices. When these professors were asked to indicate for what they would like most to be remembered, 46% cited "students who have gone on to unusual success as administrators" and 22% cited "an idea or theory of lasting importance" (Campbell & Newell, 1973).

In the current study, most scholars hoped to make a difference of some kind. The ultimate career goal of 58% of the productive sample and 28% of the typical sample had to do with making a memorable contribution to the field through their research. These scholars expressed their aspirations in comments such as "[to] conduct quality research that contributes to the knowledge base" or "to contribute an idea that survives my life." Many hoped their research would be considered valuable, of high quality, and relevant. Slightly more than 30% of both samples expressed the desire to make a difference in the performance of schools, with responses such as "to help schools become better—higher student achievement" or "to improve school practices." Of the productives, 26% have goals related to their teaching, as do 11% of the typicals, including comments such as "making a difference in students' careers" or "help students succeed and improve practice."

In addition to goals related to making a difference, scholars in both samples had aspirations concerning recognition, attaining a particular position, or finding a balance among the competing demands of the professoriate. Significantly more typical scholars (28% compared with 10%) hoped to achieve a particular position such as full professor, chair, or dean. One typical scholar combined these goals temporally: "Short term: tenure. Long term: Really make a difference for kids and educational system." A total of 13% of productives and 10% of typicals sought to achieve some sort of recognition. For example, one productive aspired to be "a well-regarded theoretician" and another to "become an academic leader in higher education known for my scholarship and leadership accomplishments." A typical scholar hoped "to be a superior teacher in eyes of students and colleagues." and another "to be well regarded in the field." There was some concern expressed with balancing the competing demands of the academic life. One productive woman wrote, "To have a healthy balance and integration between research, teaching, service, and administration. To be respected as a solid researcher and professional citizen." And finally, some scholars sought a personal sense of satisfaction and accomplishment. One said, "I want to publish a couple of pieces I can be proud of," and another desired "to enjoy what I do."

When asked about their most important professional contribution, whether it had been recognized or not, 57% of the productive sample noted their research, whereas only 4% of the typical sample pointed to their research. Of the productives, 13% mentioned the development of leadership preparation programs, and 4% pointed to the development of other products that affect practice, such as ISLLC standards or a school site finance model. A total of 23% of typicals mentioned teaching, and 8% mentioned mentoring or advising. When asked about the factors that had led to their success, scholars in both samples selected hard work as the primary factor and ability as the second strongest factor.

Influences. Productives and typicals looked to significantly different influences in their research. When asked what was the most important influence on their research, 43% of the productive scholars ranked "the research and theoretical literature" compared with just 22% of the typical scholars. A total of 59% of the typical scholars were most influenced by issues from the field compared with 41% of the productive scholars (see Table 4). In response to an open-ended survey question asking, "Of all the jobs and experiences that you have had as a professional, which one was most influential to your research?" about a quarter of both samples reported that having been a teacher or an administrator in K-12 education had been most influential. Another 22% of the productive sample said their graduate training had been the most influential experience, compared with 16% of typicals. When asked, "What triggers your most original work?" 40% of the typical sample said it was problems of practice, whereas only 29% of the productive sample found such problems their most important trigger. A quarter of the typical sample indicated hard introspection and thinking, compared with 14% of the productive sample. Of the productive sample, 10% indicated a disciplined search for novel ideas, whereas 6% of the typical sample indicated conducting such a search. No one in either sample found students to be the source of their most original work.

Motivation. What motivates these scholars to do research? For scholars in this study, it was an intrinsic value of pursuing ideas and attaining a deeper understanding of phenomena in schools. Every one of the productive scholars agreed or strongly agreed with the statement,"I do research to work with interesting ideas," and 93% of the typical scholars concurred. Of the productives, 95% said they did research to solve the problems of practice and 91% of the typicals agreed. Productives were significantly more theoretically oriented than typicals. Of the productive sample, 79% indicated they did re-

search to create and test theory, whereas only 56% of the typical sample responded this way. Receiving recognition was not reported to be a strong motivating factor for either sample (see Table 3).

Satisfaction. Although respondents raised concerns about the workload and the pressure created by multiple job expectations, the personal satisfaction of scholars in this study was nonetheless very high. When asked, "If you had to start again, would you choose the same career?" 91% of productives responded they would, as did more than three quarters of typicals. Only 7% of the productives and 13% of the typical sample said that they would not choose the same career again, and about the same number said they were unsure (1 productive and 4 typicals). One woman in the typical sample selected both yes and no, explaining, "No, if I had to travel the same path to reach this point. Yes, if I could have done so without jeopardizing my health and my marriage."

Normative issues provided striking differences between the productive and typical scholars. Professors in both samples hoped to make a lasting contribution or to make a difference, although for productives this hope was significantly more likely to be related to research. Productives and typicals were similar in indicating that they did research to work with interesting ideas and stating that they conducted research to solve the problems of practice. Productives, however, were much more likely to say they did research to create and test theory. Productives were also almost twice as likely to say that the most important influence on their scholarship was the theoretical literature and research, whereas typicals were more likely to be influenced most strongly by issues in the field. These findings are indicative of a greater orientation toward research among the productive scholars, both as the basis of their work and in the kind of contribution they hoped to make. They evidenced a greater interest in theory and conceptual explanations as they sought to improve school practice. These seem to be important differences worth further consideration.

Problems With Research in Educational Administration

Concern for the quantity and quality of scholarship in educational administration has continued since Griffiths (1959) first sounded the alarm more than 40 years ago. In the present study, productive and typical scholars alike agreed that there were problems in the quality and usefulness of research and knowledge production in educational administration. Only 29% of the productive sample and 34% of the typical sample agreed with the statement,

"Most professors have a substantive knowledge base in educational administration" (see Table 3). There was considerable variety in responses in completing the sentence stem, "The single most important problem with research and scholarship in educational administration is . . ." Almost half of the productive sample and 14% of the typical sample cited a lack of quality and rigor. Many comments suggested that there was not enough sustained, disciplined, focused empirical inquiry and that there was a tendency to move from one interesting idea or concept to the next without serious research accumulating. These concerns, in part, reflect common problems in soft knowledge domains, where it is difficult for research to build on previous work because a variety of interpretations of findings are plausible (Labaree, 1998).

Another dynamic of a soft knowledge field is the lack of consensus on important questions and appropriate methods for addressing those questions. Several typical scholars (6%) listed the "paradigm wars" as the single most important problem with research and scholarship in educational administration. One wrote, "Methods debate allows us to tolerate poor quality in both." None of the productive scholars mentioned the methods debate. Two typical scholars longed for the clarity and definitive results available in hard knowledge fields in indicating the inability to conduct experimental designs as the most important problem of research in our field.

Problems associated with knowledge production in an applied field were also listed as the most serious problem in research in educational administration. Nearly one third of the typical sample and 10% of the productive sample saw as the single most important problem that research in educational administration was disconnected from the life of schools and not making a significant impact on practice. One such comment cited the "difficulty of connecting scholarship to meaningful changes in practice." One scholar's criticism was that "It's done for university people primarily for career purposes."

When asked, "As you reflect on your career in research, what are the significant differences between your early research and scholarship and your current work?" nearly a quarter of each sample said that their work had gained more focus and depth over time. Only 6% of the typical sample said that it was now more related to practice. Nearly 20% of the typical sample said that they were now more confident and felt freer to pursue their own interests. A total of 13% of the productives and 6% of the typicals admitted to having less time to work on research now, some mentioning increased administrative responsibilities as the reason.

Concerns about the quality of research in educational administration were widely shared among the scholars in this study. In part, these concerns echoed those predicted by Labaree (1998) as evident within a soft, applied field. The productive scholars' concerns rested more heavily in issues of quality

and rigor, problems related to soft knowledge domains. The typical scholars, on the other hand, more often mentioned the lack of connection and impact on practice, problems often encountered by applied fields. Both are significant problems, and the differences in emphasis are instructive. Current directions do not seem promising, as only a quarter of the scholars sampled said their current work was more focused or rigorous than it had been earlier. Only a small proportion saw their work as becoming more connected to the life of schools, and a number of scholars reported moving away from conducting research to devote time to administrative and other tasks. Learning to conduct good research in the context of a soft, applied field to meet the dual standards of rigor and relevance is a significant challenge facing scholars in educational administration.

DISCUSSION AND CONCLUSIONS

Perhaps the most striking finding in our study was the similarity between productive and typical scholars in educational administration. Most scholars in both samples had teaching experience, and about half had been a K-12 school administrator. Scholars in both samples had had significant mentors and liked to work with interesting ideas. They attributed their success primarily to hard work and secondarily to ability. Most scholars in both samples were satisfied with their career choice and would make the same choice again. There were conspicuous similarities between the productive and typical samples in the institutional demands and supports they encountered, such as teaching and advising loads, the number of committees they were expected to sit on, and the amount of time spent in service. Both samples complained that they had too much committee work and not enough time to fulfill all of their expected job responsibilities. The positive interpretation of these findings is that the field is fairly egalitarian. On the other hand, the lack of differentiation in resources may contribute to an overall lack of productivity. Fields such as hard sciences, with a greater perception of productivity and greater legitimacy, seem to be much more stratified, with the brightest, most aggressive researchers getting selected into the positions with the greatest resources. In educational administration, there seem to be very few positions with great resources to concentrate on research.

What differentiated productive scholars from their peers in this study were normative patterns, suggesting that they concentrated more of their effort on research and worked very hard to be productive scholars. The data suggest that the productives had a more "cosmopolitan" orientation (Gouldner, 1958) in that they were more likely to be oriented around the theoretical literature and engaged in research and publication. Productives also were more independent as researchers than typicals. They won more grant support from outside their universities, although the number that had large grants was not striking. They more often collaborated in research, often with colleagues outside their university. Not one of the productive scholars reported extensive collaboration with a practitioner. Their career hopes included making a difference or a lasting contribution through their research.

The typical scholars, on the other hand, seemed to have a more local and practice-based orientation. They were much more likely than productives to see teaching and training future practitioners as their most important professional obligation and to find satisfaction preparing students to contribute to the improvement of education through their own careers. Their research was more influenced by issues from the field. They were somewhat more likely to collaborate with a practitioner or to be a solo performer. In addition to cosmopolitans and locals, Campbell and Newell (1973) observed a third pattern among professors of educational administration, the practice-oriented professor. These professors were "fulfilled by going out from the university to help administrators solve problems that currently vex them" (p. 94). Of the typical sample, 16% saw helping administrators solve problems of practice as their most important obligation, compared with only 1 of the productive scholars.

Where did the productives acquire the appreciation of the aesthetics of research and the skills and motivation to engage in sustained prolific scholarly output over the course of their careers? Some differences in motivation were undoubtedly attributable to personality factors, but we found evidence that it was also related to training and mentorship. The productive scholars were overwhelmingly trained at Research I universities and received important mentoring early in their careers; however, most of the typicals had these experiences as well. Productives had the opportunity to learn research skills during graduate school by working closely with an experienced researcher or mentor as a research assistant or part of a research team. In these experiences, they apparently came not only to value research but also to understand it well enough to orchestrate the complex process of problem finding, designing and conducting a study, writing up the results, and shepherding the written product through the refereeing process. These experiences allowed the productive scholars to have early success in publishing in refereed journals and no doubt contributed to a greater sense of efficacy. We need to know more about how mentoring really works. One strategy would be a more in-depth analysis of the mentoring described by productives.

Lack of mentoring and sponsorship was identified as a "cumulative disadvantage" in the professional socialization of women faculty (Clark & Corcoran, 1986). Our study suggests that women faculty members in educational administration have largely overcome that disadvantage. In sharp contrast with a quarter century ago, women made up half our random sample of professors of educational administration and were strongly represented among the upper echelons of the field. Minority scholars have not established the same place in the field. Does this result from a lack of mentoring? Are scholars of color facing the same cumulative disadvantage encountered earlier by women? Campbell and Newell (1973) were distressed by the lack of concern over the small number of minority scholars in educational administration, and yet, in 27 years, little has changed. There are at least three possibilities for the limited progress in increasing the number of minority scholars: The level of concern in the field may not have not led to meaningful action; the strategies that have been attempted to recruit and retain a greater proportion of minority scholars have not been successful; or other social forces, such as the opening up of more attractive opportunities in other sectors of the economy, have made the educational administration professoriate a relatively unattractive option for potential candidates. These options are not mutually exclusive. Attracting minority scholars is a serious issue that bears further study and attention.

Another element of these findings that troubled us was the apparent bifurcation of the field in which productives tended to have a more theoretical and research orientation whereas typicals leaned more toward a practical and applied perspective. Productives seemed more critical of the lack of quality and rigor in educational administration than typical professors, whereas typical professors seemed more concerned about the irrelevance of most research to practice. Griffiths (1959) acknowledged more than 40 years ago that research in educational administration had failed to provide answers needed by practitioners, and he called for reorienting educational administration to be more grounded in theory, resulting in greater predictiveness of phenomena in schools. This simply has not happened. Productives in this study seemed to have moved in that direction; their research and theoretical orientation was one of the few things that distinguished them. However, as scholars in an applied field, we cannot afford to become more theoretical if it means distancing ourselves from the real problems faced by schools. How can we develop more rigorous researchers without creating disdain for practitioners, without minimizing practical problems, and without cutting off researchers from the practice of administration? The challenge facing our field is to improve the quantity, quality, and use of research in educational administration by developing a continuum or bridge between theory and practice.

CHALLENGES FOR THE FUTURE

Researchers in educational administration face a number of dilemmas because our discipline is so shaped by the nature of the knowledge we pursue, which is soft and applied. There is relatively little consensus on the important problems and methods; strategies to recruit, train, and mentor effective scholars are poorly developed; and there is an unhelpful division between theory and practice as well as limited differentiation of roles or concentration of resources to support research. It seems unlikely to us that research in educational administration will become substantially more extensive, rigorous, or useful unless efforts are better organized and better focused than they are today.

We suggest that five challenges must be faced. First, if we hope to foster more high-quality research in the field, we need to do a better job with the training and socialization of future researchers. We need to consider how we might organize the training of future scholars to allow more novices to experience the kinds of training and mentoring that led the productive scholars to be so prolific. Notably, neither productives nor typicals saw as their most important professional obligation the teaching and training of future professors. Fewer than one in five productive scholars and only 7% of typicals saw training future scholars as their second most important obligation. This raises the question of whether current students are receiving the mentoring that our productives experienced.

Most of the students in our graduate programs are future practitioners, and yet, by treating all of our students as though they were future scholars, we squander the resources needed to mentor and prepare those who eventually will become scholars. A one-size-fits-all program of training that does not distinguish between the career paths of graduates serves neither group of students well. One model of doctoral education would have the path of future practitioners and future scholars diverge on entering candidacy. Future practitioners would be pushed to be astute consumers of knowledge, and future scholars would hone their skills for knowledge production. Future practitioners would develop an extensive portfolio, demonstrating knowledge in the several areas they will need in their work as administrators, culminating in a well-researched position paper on a contemporary issue within each section of the portfolio. Assignments during course work would lay the groundwork for the portfolio. Meanwhile, during candidacy, future scholars would be engaged in an apprenticeship in research, including scaffolding experiences and an intentional socialization into the aesthetics and norms of the research community, leading eventually to the production of original research. This model would not only give students an end product that would

more readily serve their needs but also free faculty members to concentrate on developing the skills of knowledge production with those most interested and most likely to use those skills.

Even if the ideal of promoting practitioner research advocated by Anderson and Jones (2000 [this issue]) and Riehl, Larson, Short, and Reitzug (2000 [this issue]) were to be taken much more seriously than is now the case, it is our judgment that future administrators and future scholars would still benefit from different training. The demands of administrative work and scholarship are quite different, and preparation programs should be differentiated to reflect that difference. On the other hand, although the training and socialization of future scholars is an important issue for the future of educational administration as a research field, it is not clear how many scholars, even among the elite, ought to concentrate on preparing future researchers. The number of academic positions is limited, and the number of professors who actively engage in research through substantial portions of their career is even smaller, as our data indicate. Thus, it would seem appropriate for a small number of institutions to specialize in preparing future researchers, but that number should be concentrated in institutions where a great deal of research is going on.

Second, as workers in an applied field, researchers need to build stronger ties to the field. University professors were instrumental in the rise of educational administration as a field early in the 20th century. Whereas individual professors and educational administration programs have maintained contact with administrators and their associations on a local basis, those ties have weakened at the national level. Closer ties to the field can lead to greater support both directly, through funding from professional associations for valued projects, and indirectly, through allies to help make the case for the use of educational administration research. Such ties require that researchers be able to make the case to administrators that their work is helpful in much more powerful ways than we do now. Our teaching work does build ties to the field at the local level. What is most clearly missing is the connection to national associations that can make the case for the value of research in educational administration on a national level.

Third, a stronger case must be made that educational administration as a field can make a difference. In applied fields, access to research funds is likely to depend in part on the stature of the area of application with which researchers are allied. Tyack and Hansot (1982) have documented the decline in stature educational administration has undergone in the postwar era. In recent years, the sine qua non of effective practice has become test scores, and findings suggest that administrators contribute to increases on those measures

only indirectly (e.g., Hallinger & Heck, 1996). This, combined with the powerful effects of out-of-school factors, has undermined the argument that research in educational administration contributes effectively to improved education. As researchers, we need to clarify what we are uniquely able to offer schools and policy makers. Norms and incentives in our field, as they are now constructed, emphasize frequent publication as an end in itself and may discourage careful work that focuses on changing practice. In some way, we are guilty of endorsing these very norms in this study by identifying the productive scholars by number of publications. Quality and impact are difficult criteria to judge, but we need to move beyond sheer numbers of publications. Scholars in the field must demonstrate that their research has a payoff for schools, thus creating an environment in which foundations, government agencies, and others are willing to invest in research in this area. Researchers also need to be more assertive in competing for funds available. Two coauthors of this article have served as reviewers for either foundations or federal agencies supporting educational research. The absence of proposals for studies of educational administration has been notable.

Fourth, it will be necessary to work against the centrifugal forces that result from the "soft" nature of educational administration as a field. We must identify and make a case for addressing a relatively limited number of research problems that are likely to have some payoff. This requires synthesizing existing research and identifying promising lines of inquiry. It may also require more formal efforts at research agenda setting, where researchers come together with well-known national administrators and national administrators' associations to identify areas where new research is likely to be most promising. An important task for both the UCEA and Division A of AERA may be to bring together groups of researchers and practitioners along with representatives of the U.S. Department of Education and key foundations to develop and disseminate such research agendas.

Different methodologies will prove useful for different aspects and stages of our knowledge development. Attempts to defeat one methodology or another only serve to expend energies that could be used more productively in attempting to answer the problems that schools face, and they reduce our credibility with the external consumers of the knowledge we produce—school administrators and policy makers. Because of the complexity of social issues, both inductive and deductive methods are needed—the deep though narrow knowledge yielded by qualitative methods and the broad though shallow knowledge yielded by quantitative methods contribute toward a more complete understanding (Newman & Benz, 1998; Salomon, 1991). In taking on a more limited set of research projects, teams of researchers with different

skills can engage in an interactive cycle of exploration and testing, using alternately qualitative and quantitative methods, recognizing that each methodology makes a unique contribution to our knowing that can complement the other (Firestone, 1990; Howe, 1990; Miller & Lieberman, 1988; Newman & Benz, 1998; Owens, 1982; Reichardt & Cook, 1979).

Finally, it is important to attend to the material base for conducting research. Right now, relatively few people have the opportunity to concentrate on doing research. Research is something that even a significant portion of the productives in the field squeeze in on a part-time basis after they have attended to their teaching and committee responsibilities. By working together with national practitioner elites and various sources of funding, it may be possible to increase the resources for research on educational administration yet ensure that those resources are focused on the most pressing problems and promising practices.

Such a strategy may have important side benefits. One of these will be to recruit individuals from related fields where their training focused on the conduct of social and behavioral science research. A small number of the most productive researchers in the field now were not trained in educational administration but in related fields such as the sociology of education. In the future, it may be important to recruit or collaborate with people from other fields, such as cognitive psychology, to conduct research on administrative processes. This kind of recruitment will take some pressure off the training problem mentioned above, but it is not likely to be successful without financial resources.

The importance of high-quality research to the vitality of the field of educational administration cannot be overstated. Greater understanding of factors that facilitate high-quality research will help structure environments that nurture research projects that meet the dual standards of relevance and rigor. Examining the careers of productive scholars has provided some important insights in the pursuit of this understanding.

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