

A COMPARATIVE STUDY OF OCCUPATIONAL STRESS AMONG AFRICAN AMERICAN AND WHITE UNIVERSITY FACULTY: A RESEARCH NOTE

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This paper is a comparison of levels of occupational stress among African American and white college and university faculty members in U.S. institutions. Using survey data collected from a national sample of faculty, an analysis of reported occupational stress levels was undertaken to determine if issues raised in previous research regarding "extra-academic" assignments given to African American faculty limits their access to the more traditional faculty roles, creating pressure to perform in ways not expected of white faculty. To test these assertions, scales measuring stress from teaching, research, and service activities were constructed for African American and white faculty from a larger "faculty stress index." Results of the analysis indicate that African American faculty report generally higher levels of occupational stress than their white counterparts, especially in the areas of research and service activities.

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Today, it is finally becoming more common to openly discuss the fact that African Americans, in all areas of academe, are losing ground (American Council on Education, 1989; Loury, 1987; Murray, 1984; Thomas, 1987). The *silence* that previously accompanied the precipitous decline of both African American students (Fiske, 1985) and African American faculty in American universities is no longer acceptable, if we are at all serious about reversing this trend. Many faculty, administrators, and even students are now engaged in a thorough debate about how to rectify the situation and move closer toward solutions that ensure African American faculty will have equal access to the opportunity structure that exists within the university system in the United States. These issues are timely for the healthy survival of our society.

The specific problem this paper addresses is the occupational environment of African American faculty members teaching at predominantly white colleges and universities in the U.S. We approach our subject through research on occu-

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pational stress. For more than a decade there has been an increase in interest among both researchers and practitioners toward the understanding as well as improving of employees' quality of life at work. The main outcome of this dual concern is the proliferation of research on better understanding employees' job stress (Gmelch, 1988). We take this route for we feel that the adverse trends in overall faculty decline (many through retirements) on the one hand, and decline in the numbers of African American faculty on the other, suggests that by the year 2,000 there will be fewer African American faculty employed in the academy than at the present time.¹

The number of African American faculty holding full-time tenure-track positions at predominantly white institutions of higher learning, although never large, has been on the decline since the mid-1970s (College Board, 1985; Exum, 1983; Thomas, 1986).² This dwindling presence of the African American professorate has not received a great deal of scholarly attention. Two scholars who have examined this problem are Howard Bowen and Jack Schuster. In their book, *American Professors: A National Resource Imperiled* (1986, p. 152), they note the following:

No aspect of our campus visits was more alarming than the situation we found with respect to minority faculty members. Over the past two decades, higher education has made considerable progress in opening the faculty to ethnic minorities, but that movement seems to have ground to a halt and may even be in reverse gear. Almost everywhere we went, we were struck by the scarcity of minority faculty. More unsettling still, a decline in their numbers is anticipated for the near future.

This alarm about the number of African American faculty presently employed, and the fewer numbers that will be employed as professors on university campuses in the future, compelled us to ask questions about the experiences of African American faculty members that transcend the usual exercise reporting basic demographic characteristics of these faculty, especially their numerical count.

The issues we address and hope others will become more concerned about are related to the occupational environment that African American faculty inhabit. Specifically, we ask *what* do we really know about the work environment of African American professors? We feel the most obvious answer to this question is "not very much."

LITERATURE REVIEW

National-level research on African American academicians is rare. Banks (1984) seems to feel that one of the primary reasons for this lack of research focus is that prior to 1965 few African American faculty members were employed at traditionally white American colleges and universities. Because of low numbers of African American faculty, and because of both discrimination

in hiring and widespread social segregation, we can surmise that nationwide studies of African American faculty teaching at historically black colleges and universities would not have been viewed as an important problem choice for research.

More recently, though, some scattered research has appeared on African American faculty that suggests sources of job-related stress. Exum (1983) found that competition between institutional values, such as merit, and affirmative action policies have created several difficult contradictions in academe that are not easily settled. Palmer (1983), in another analysis of the careers of African American faculty who teach at predominantly white colleges and universities, reports that the *fear of failure* is one of the most significant stressors that African American faculty face: "Most stressful of all, some blacks say, is a gnawing fear that a professional failure will not only cause them personal humiliation, but prompt white colleagues to doubt the abilities of all blacks to survive in academe" (p. 18).

In his essay entitled "Afro-American Scholars in the University," Banks (1984) finds that questions about incorporation, overall happiness, and specific duties that are asked of African American scholars leave little doubt that environmental factors impact heavily on African American faculty in that they report more stress and anxiety than their white counterparts.

Banks tells us that white administrators are interested in hiring African American faculty for a variety of reasons; among them are motives linked to *specific role expectations* they will play once they are actually hired and on campus. Although these expectations vary from campus to campus, they tend to fall outside of the norm of what faculty are typically hired to do. He says (1984, pp. 326–327):

The administrators of universities expected black scholars to function quite differently from their White counterparts. The often troublesome realities of black students on White campuses seemed to call for a new set of insights and efforts, and the newly hired black faculty members were expected to provide both the insights and efforts. . . . Sometimes the recruitment was subtle, at other times quite explicit. Rarely did administrators spell out the special kinds of expectations they had for black professors prior to employing them. Consequently, many individuals who had been trained for serious intellectual work and took jobs expecting to do such work found that their orientation was not compatible with what the institutions expected of them. Scholarly work had to be accomplished in combination with the extra-academic responsibilities hoisted on to their shoulders and consciences.

In order to test these assertions, we undertook a nationwide study of university faculty and placed at the center of this work questions related to occupational stress. The following discussion is geared toward explaining what we did and what we ultimately found in our analysis.

From the outset, it is useful to offer a definition for the term *stress*. An examination of the relevant literature shows no firm, generalizable definition of

stress. In a 1973 paper, Selye noted that "stress, like relativity, is a scientific concept which has suffered from the mixed blessings of being too well known and too little understood" (p. 127). Furthermore, the literature on stress does not specify the social determinations of stress except in a vague and confusing manner (Dodge and Martin, 1970, p. 58; Murphy, 1985).

Originally, a good portion of work on stress was based on Selye's (1956) definition of stress as "the nonspecific response of the body to any demand." Building on the original thrust of Selye, recent work in the occupational stress arena refers more to the stresses that arise from psychological and social processes that result from the personal interactions with other persons within the occupational environment (Baker, 1985).

Much of the current work on stress has often been based on conditions set forth in a study by McGrath (1976, p. 1352). Building on earlier work about the conception of a necessary perception by the individual of a stressful situation, McGrath observes: "So there is a potential for stress when an environmental situation is perceived as presenting a demand which threatens to exceed the person's capabilities and resources for meeting it, under conditions where he expects a substantial differential in the rewards and costs from meeting the demand versus not meeting it." Along with the differential between rewards and costs, the uncertainty of the results is also central to McGrath's conception of stress. In line with this body of literature on occupational stress, our study utilizes questions that tap the psychological as well as the psychosocial levels of stress that are perceived by individual faculty members within their respective university work environments.

Caplan and Associates (1980) reported that university faculty represent, overall, one of the *least stressed professions*. They made this assessment based on the fact that unlike laborers in industry—where, heretofore, most of the stress research has been conducted—university faculty have the capacity to manage their workday and work week and therefore are able to make critical choices about teaching schedules, how much time to devote to research projects, and how much time they can spend away from teaching and research (Gmelch, 1982, pp. 88–89). Other studies, however, report that nationwide, university faculty are under extreme pressure and are reporting high levels of workplace stress. A very perceptive passage from the *Chronicle of Higher Education* (February 4, 1987) says: "What turns a professor into a bundle of nerves? 'Too many tasks in too little time' is a chief complaint. Faculty members have classes to teach, papers to grade, grant applications to write, committee work to complete, students to advise, and books and articles to write and publish."

In sum, our review of the literature indicates that African American scholars may be subject to higher levels of job-related stress than their white counterparts. Reasons for this suggested in the literature include the pressures and

visibility ("fish-bowl effect") associated with being a "token," and, second, the pressure that results from the "extra-academic" demands frequently placed on African American faculty. In our analysis we will determine whether significantly different levels of work-related stress are reported by African American and white faculty and whether the previously reported low level of stress among university faculty still holds. Further, we will examine whether different aspects of the working environment are important sources of stressors for African Americans as opposed to white faculty.

METHODOLOGY

The data used in this research paper are derived from a sample of male, female, African American, and white college and university faculty. The data for the study were collected by the Fellows of the Interdisciplinary Research Center for Faculty Stress and Productivity at Washington State University utilizing the *National Faculty Stress Survey*. The questionnaire asked respondents about their perception of stress primarily within the university work environment.

Since securing an adequate sample of nonwhite faculty has been a problem in previous research, our sample was constructed in such a way as to ensure an adequate representation of African American faculty. Major professional organizations from all academic disciplines (e.g., the American Sociological Association) were asked to share their lists of minority members. University-based affirmative action officers and ethnic studies program directors from a cross-section of American colleges and universities were also contacted for lists of minority faculty. All professional associations as well as the institutions contacted responded positively to our requests.³ Personal letters were sent to eminent African American scholars asking for the other African American scholars employed at their institutions and within the nationwide university system. Again, the cooperation of all individuals was quite high. Several selection criteria were adhered to for this study. To be included in the sample, scholars had to have an earned doctorate (Ph.D. or Ed.D.) and to have been employed, full time, as a member of the instructional faculty of their respective college or university. Scholars who had changed their career paths⁴ to work outside of instruction were not included in the sample.

For the development of the original sample, each African American female was matched to a white female and each African American male was matched with two white males and one white female whose names were gathered by using individual college catalogs for those universities in the study. Matching was done by tenure status, discipline (Biglan, 1973), and type of institution following the Carnegie classification of institutions of higher education (see

Witt, 1990 for a list and discussion of the Carnegie classification of institutions).

A total sample of 2,095 faculty were drawn from 233 colleges and universities. Responses were obtained from 193 colleges and universities. When accounting for those questionnaires that were nondeliverable (e.g., deceased faculty, moved—no forwarding address, etc.), the response rate was 51.2 percent. Given the length of the survey as well as time constraints of university faculty, the response rate is satisfactory.

From our total sample, a “matched-pairs” sample was created for analysis in this paper (Hays, 1973). The matching was done to control for any differences due to the effects of status. By controlling for status factors and differences among the respondents, the precision of the analysis was increased, so that a true difference between the matched groups would be much more discernible (Kolstoe, 1973, p. 223). The African American and white respondents were matched along the following dimensions: tenure status, type of institution, race, age, gender, marital status, rank, and academic discipline. The matched pair sample consists of 246 matched pairs of male and female full-time faculty, yielding a total matched pairs sample of 492 individuals (the total sample for the unmatched study is 893 faculty). Comparisons of stressors of African American faculty with those of the matched white faculty in the sample will suggest the extent to which African American faculty are like their match and the ways that they may differ.

The Faculty Stress Index used in this analysis is based on previous work done by Gmelch (1982), which led to the development of the Administrative Stress Index. This index forms the core (30 items) of the Faculty Stress Index. The Faculty Stress Index was created by reviewing relevant literature and having faculty keep “stress logs” of the situations and demands that pressured them. Gmelch and co-workers report that the test/retest results indicate that the Faculty Stress Index has a mean item reliability coefficient of .83, “indicating a high degree of consistency of measurement in the items finally included in the national faculty survey” (Gmelch, Wilke, and Lovrich, 1986). For each of the 49 items in the Faculty Stress Index, faculty indicated their stress levels on a Likert-type scale of ranging from (1) “no pressure” to (5) “high or excessive pressure.”⁵ Using the responses obtained on these stress items, additive scales were computed for the three major areas of faculty activity: teaching, research, and service.⁶

The items used to create the teaching stress scale are the following: evaluating the performance of students; having students evaluate my teaching performance; teaching or advising inadequately prepared students; inadequate time for teaching preparation; having repetitious teaching assignments; resolving differences with students; receiving inadequate recognition for teaching performance; making classroom presentations; teaching subject matter that I’m not prepared for.

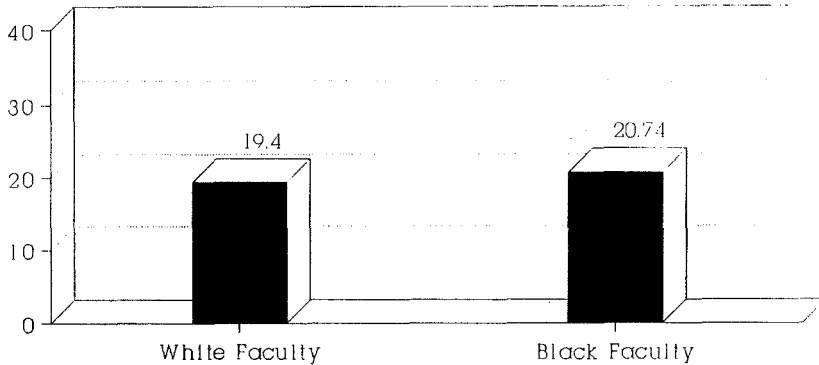


FIG. 1. Mean scores on teaching stress scale for matched samples of university faculty. Scale range = 8 to 40; t -value = -1.79 (not significant).

The items used to create the research stress scale are the following: having unclear criteria for the evaluation of research activities; receiving insufficient recognition for research; preparing a manuscript for publication; securing financial support for research; insufficient time to keep up with developments in my field; making presentations at meetings.

The items used to create the service stress scale are the following: Participating on committees; Inadequate recognition for community service; Frequent requests for community service; Insufficient reward for institutional and departmental service; No clear criteria for the evaluation of service activities; Insufficient time for service activities.

RESULTS

In order to conduct an analysis to see whether African American and white university faculty report different levels of occupational stress, a matched-pair difference of means test was computed on each of the three scales addressing stress from teaching, research, and service. Figure 1 displays the mean scores on the scale addressing stress from teaching for African American and white respondents. As expressed in the chart, African American respondents report slightly higher mean levels of stress from teaching than do whites (20.74 versus 19.40, out of a possible 40 points), but the difference is not statistically significant.

Figure 2 is a display of the mean score on the scale addressing stress from research for matched pairs of African American and white faculty. In this case, African American faculty report higher stress levels from research than white faculty (17.59 versus 16.50, out of a possible 30 points). A difference of mean test indicates that this difference in reported stress is statistically significant at the .05 level.

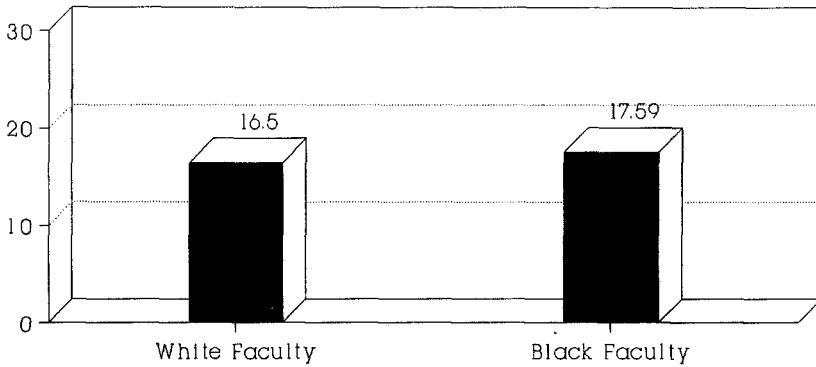


FIG. 2. Mean scores on research stress scale for matched samples of university faculty. Scale range = 6 to 30; t -value = -2.01 (significant at the .05 level).

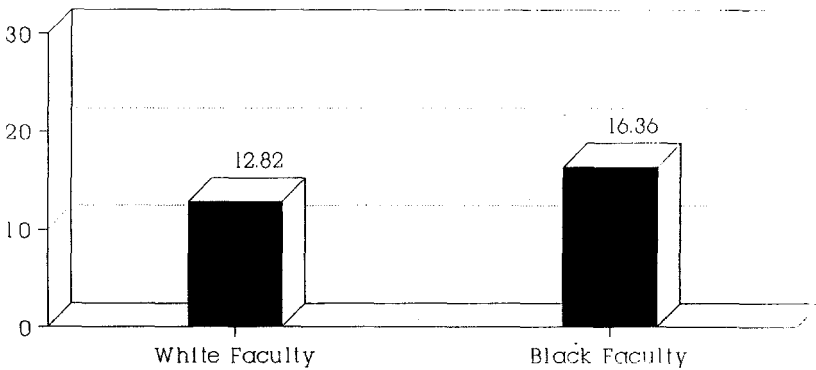


FIG. 3. Mean scores on service stress scale for matched samples of university faculty. Scale range = 6 to 30; t -value = -5.57 (significant at the .01 level).

Figure 3 is a display of the mean score on the scale addressing stress from service activities (including campus governance) for the matched pairs of African American and white faculty. African American respondents reported higher mean levels of stress from service activities (16.36) than white faculty members (12.82 out of a possible 30 points). A difference of means test for the matched pairs of faculty indicates that the difference in the mean reported stress levels from service activities for the two groups is statistically significant ($p \leq .01$).

CONCLUSION AND RECOMMENDATIONS

This analysis comparing the reported stress levels of African American and white university faculty for teaching, research, and service activities indicates

that in some areas important differences in their stress levels exist. Specifically, African American and white faculty have different levels of stress in regard to research and service activities. In many ways, this reflects the findings of previous studies detailing the additional demands and time constraints imposed on African American faculty (Witt, 1990). Our understanding of why these different stress levels exist is based on what we learned from respondents about their tasks, responsibilities and, overall, their position within the university organizational structure. Banks (1984, p. 327) addressed a similar issue and found:

Rather than being allowed—and indeed encouraged—to concentrate on their academic work, many black professors were sucked into a plethora of activities often unrelated to their competence and interests. Institutions that have traditionally discouraged younger faculty members from participating on administrative committees and in community affairs drafted young black scholars for these activities.

To be sure, the two areas of faculty activities that require uninterrupted free blocks of time (e.g., research and service) are most likely to be negatively impacted by additional time commitments in meetings, student advising, and other nonteaching/research-related duties. As we found in our analysis, these are the areas in which African American and white faculty levels of stress differ the most.

Furthermore, this insight also provides a starting point for both university faculty and university administrators to initiate systematic discussions on ways to reduce, cope with, and then eliminate stress-producing anxieties. Medical practitioners, based on longitudinal epidemiological studies, have long known that occupational stress can result in serious heart disease, which ultimately leads to early death (Eliot, 1988; Syme, 1988 and forthcoming). It is only recently, though, that stress has begun to receive the kind of medical attention that it deserves (Karasek and Theorell, 1990). It is our hope that the identification of the major areas of difference in the sources of stress among African American and white college and university faculty will be of value to institutions in the development of techniques to reduce job-related stress. Some universities have already begun to address a variety of these issues, if only on an experimental basis. The movement toward establishing “wellness centers” on campus is but one example of what will hopefully become a growing trend.

The reduction of stress, we feel, would put university faculty in an environment much more conducive to the educational task. Given the reality that retention of quality faculty has become a major problem (Bowen and Schuster, 1986) and alienation of faculty from their profession has increased (Carnegie Corporation, 1989), attention to improving faculty members’ work environment becomes critical if higher education in the United States is going to gain back the high rankings it once held in taking a leading role in shaping the future direction of American society (Pearson, 1985).

We believe that although our work points to problems of workplace pressure

among two groups of university faculty, the study has several limitations, mainly the use of self-report data. Regardless, this paper does offer some important indicators for further research. We strongly feel that further research is needed to help clarify both conditions and relationships in regard to faculty environmental milieu and how this affects the levels of stress found among the underrepresented ranks of African American faculty. Finally, the data presented here point to the critical need to address these concerns longitudinally, which could significantly enhance our predictive powers that address issues of the overall faculty effectiveness (e.g., learning outcomes, productivity) within institutions of higher learning. In so doing, we increase the opportunity to become much more competitive in the world marketplace with other nations (e.g., Japan) that have in the past and continue to place higher education at the top of their priority lists for the twenty-first century.

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NOTES

1. We should point out that this assessment is in opposition to the relatively optimistic viewpoint shared by liberal blacks writing in the 1970s who based their entire assumptions on the goodness of affirmative action policies (cf. Fleming, 1978).
2. African American faculty representation at all types of institutions—large and small, public and private, two-year and four-year—is less than 5 percent of all college and university faculty. African American faculty make up only 4.4 percent of all full-time university faculty (Zimble, 1990).
3. We followed the "snowball" method outlined in Babbie (1986, p. 263). For a good explanation of this procedure, especially the critical nature of trying to generate a nationwide sample of African American scholars (see Pearson, 1985, *Black Scientists, White Society, and Colorless Science*).
4. For African Americans, this almost always means a change from faculty status to that of administration.
5. Respondents assessed the level of pressure that they felt on the stress questions on the following scale:

No or Slight Pressure	Noticeable or Moderate Pressure	High or Excessive Pressure
1	2	3
		4
		5
6. Scale reliabilities were computed for each scale. Teaching—white faculty Cronbach's alpha = .81; Teaching—African American faculty Cronbach's alpha = .80; Research—White faculty Cronbach's alpha = .65; Research—African American faculty Cronbach's alpha = .56; Service—White faculty Cronbach's alpha = .64, Service—African American faculty Cronbach's alpha = .63.

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