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#### ABSTRACT

This study assessed the perceptions of faculty employed by the historically black institutions of the University of North Carolina, concerning the personal utility of activities to increase their educational research participation or to gain educational research skills and knowledge. The study was part of a pilot project to develop strategies to encourage and facilitate increased educational research participation of the faculty. Three-fourths of the 73 responding faculty recognized many personal and institutional benefits of participation in educational research. Research participation was recognized as being beneficial by larger percentages of junior faculty than by all responding faculty. Most activities offered by the pilot program, including having faculty design and conduct individual educational research projects, work with experienced educational researchers who act as research mentors, and engage in the activities of professional research associations, were identified as helpful or useful by a majority of faculty members; coursework offerings were not. (JDD)

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#### INTRODUCTION

The purpose of the study presented in this paper was to assess the perceptions of faculty employed by the historically black institutions of the University of North Carolina, of the personal utility of various types of activities that could be used to increase their research participation or to gain research skills and knowledge, particularly in the field of educational research. This information was sought as part of a pilot project and planning study for a proposed larger-scale cooperative faculty development project.

The Center for Educational Research and Evaluation at UNC-Greensboro is currently engaged in a cooperative pilot project and planning study with North Carolina A & T State University, North Carolina Central University, Elizabeth City State University, Fayetteville State University, and Winston-Salem State University. Strategies are now being developed which will encourage and facilitate increased educational research participation of faculty at these five historically black universities.

The 16-month pilot and planning study, supported by the U. S. Department of Education's Fund for the Improvement of Postsecondary Education (FIPSE), has two major components. First, eight tenure-track faculty in departments or schools of education, chemistry, mathematics, and criminal justice at four of the five participating institutions are participating in a set of integrated activities. These activities include: 1) designing and conducting individual educational research projects, 2) participating in seminars and courses intended to facilitate their engagement in productive educational research, 3) working with experienced educational researchers who act as research mentors, and 4) engaging in the activities of the American Educational Research Association and the North Carolina Association for Research in Education. Second, senior academic officers of all six participating institutions are working together to monitor



the progress of the pilot study, plan the development of a larger-scale project with similar objectives, and identify institutional incentives and support mechanisms that can effectively facilitate the educational research participation of faculty at the historically black institutions.

#### MINORITY PARTICIPATION IN EDUCATIONAL RESEARCH

The problem addressed by the pilot study and the proposed expanded project has both individual and institutional aspects. The magnitude of this problem is suggested by membership figures of the leading national and state professional organizations concerned with educational research. Fewer than four percent of members of the American Educational Research Association (AERA) are black<sup>1</sup> and fewer than three percent of members of the National Council on Measurement in Education (NCME) are black.<sup>2</sup> The same is true of the North Carolina Association for Research in Education (NCARE).

Underrepresentation cannot be characterized adequately by numbers alone. Educational research in the United States is the product of a well established network of learned, skilled, and powerful individuals who are, overwhelmingly, white and male. Until very recently, race and gender were significant determiners of access to research positions, publication opportunities, and funding sources. Through a strong affirmative action program, the standing of women in educational research has improved substantially, but programs of affirmative action for minorities have not been as successful.

Valverde identified two significant problems facing minority educational researchers: lack of adequate technical training, and lack of access to the power networks that dominate the field (jcurnals, leadership positions in educational research organizations, highly valued professional positions). He strongly suggested integrated training programs that incorporate mentalship and technical training to overcome the two problems simultaneously.<sup>3</sup>



Wright obtained similar results when he surveyed 40 eminent blacks to learn their views on the questions: "What, in your judgment, are the reasons for the paucity of policy research by blacks on black higher education?" and "what can be done to stimulate such research?". Responses to the question on lack of black participation fell into six categories: an inadequate supply of competent black researchers; deficiencies in the training of black researchers; scarcity of funding sources; the conditions of service of black faculty members; discrimination based on race; and difficulties with publishers and publications. 4

The general problem of underrepresentation of minorities (and blacks particularly) among educational researchers has a substantial negative effect on historically or predominantly black institutions whose faculties are largely black. Available data suggest that most black faculty members at North Carolina's historically black universities do not participate in educational research. Fewer than a dozen of these faculty are members of the American Educational Research Association or the North Carolina Association for Research in Education. Historically, the faculties of these institutions have lacked support systems, incentives, and in some cases, the technical education necessary to engage in educational research. In addition, their teaching loads and administrative responsibilities have been very heavy, thus discouraging engagement in research of any kind.

Black students are also strongly affected. The five historically black institutions of the University of North Carolina have a combined enrollment in excess of 17,000 students, 82 percent of whom are black. Sixty-one percent of the 23,000 black students enrolled in the University of North Carolina system attend one of these five institutions. Increasing the educational research participation of these predominantly black faculties would not only enhance individual faculty careers and increase institutional prestige but would also



tend to ameliorate the problem for future generations of black scholars by creating positive role models for large numbers of black students.

#### ALLRESSING THE PROBLEM

Based on prior research and current information about the severity of the problem nationally and in North Carolina, the pilot project and planning study are designed to investigate the utility of a variety of activities that could reduce institutional barriers and enhance the skills and motivation of faculty at North Carolina's historically black institutions to participate in educational research. The senior academic officers of the five historically black institutions have worked closely with the project, demonstrating their commitment to its success.

Increasingly rigorous criteria for promotion and appointment to tenure, including requirements that faculty members engage in research and publish their findings, are being applied in UNC's historically black universities. Faculty members therefore have strong extrinsic incentives to increase their research participation. The assessment conducted for this study provided information on the nature of the assistance faculty perceive as useful in meeting increased expectations for research productivity.

#### **METHODOLOGY**

## Collection of Data

Data for our assessment of the utility of various types of educational research assistance were collected through a survey of faculty at North Carolina A & T State University, North Carolina Central State University, Fayetteville State University, and Winston-Salem State University. Although uniform questionnaires were used, methods for distributing and collecting questionnaires were determined by senior academic officers at each institution. In one



institution, questionnaires were distributed by the Dean of Education to selected, tenure-track junior faculty members. In a second institution, questionnaires were distributed via the campus mail system to all education faculty and to all department heads in the School of Arts and Sciences. In a third institution, questionnaires were distributed to and collected from volunteer faculty of the School of Education, at an announced faculty meeting. In a fourth institution, questionnaires were distributed via the campus mail system to all full-time faculty by the Vice Chancellor for Academic Affairs. Completed questionnaires were obtained from 73 faculty members employed by these institutions.

Although respondents to the survey were effectively self-selected at all institutions, generalizability of findings was not jeopardized by self-selection. Since the purpose of the survey was to estimate the numbers of faculty who might volunteer to participate in various activities intended to improve their educational research productivity and capabilities, self-selection is consistent with the survey's goals.

## Structure and Format of the Questionnaire

The questionnaire (see Appendix A for the full text) contained six major sections. Section I presented respondents with a 17-item list of activities and conditions that "might help to improve your research skills and knowledge, or allow you to more readily engage in educational research." Four types of assistance and/or conditions were listed: coursework covering a variety of methodological topics, summer workshops concerned with components of research production and dissemination or with the development of specific methodological skills, reduction of institutional barriers to research productivity (such as lack of time or funds), and various types of personal research assistance.

Respondents were asked to indicate which of these 17 activities and conditions



would be personally helpful to them, and then to rate the degree of helpfulness of items they had identified. A five-point Likert scale was used for the latter ratings.

The second major section of the questionnaire provided titles and brief descriptions of 10 graduate educational research methodology courses offered by the University of North Carolina at Greensboro. Respondents were first asked to indicate which of the courses they felt would be useful to them in preparing to do research in education. They were then asked to indicate the order in which they would choose to enroll in courses they had identified as personally useful.

In the third major section of the questionnaire, respondents were asked to select from a list of eight options, potentially helpful outcomes of their participation as Educational Research F. Jws (as faculty participants in the pilot study are termed). Five of the listed options could be described as intrinsic benefits (e.g., 'Provide you with an opportunity to enhance your research skills"), and three could be described as extrinsic benefits (e.g., 'Enhance your opportunities for promotion").

In Section IV of the questionnaire, respondents were asked to select from a list of six options, the potential institutional benefits they associated with educational research conducted by faculty members. Three of the listed options could be characterized as intra-institutional outcomes (e.g., "Development of your institution's curricula"), and three could be described as enhancements of institutional prestige (e.g., "Provide national visibility for your institution").

The fifth section of the questionnaire described the requirements and benefits of participation as an Educational Research Fellow, and then asked respondents to identify which of a list of six programmatic and institutional conditions would be major constraints to their ability to participate as an Educational Research Fellow. This section was intended to secure information



that would be useful in planning future programs for increasing the research participation of faculty at historically black universities.

The final structured section of the questionnaire sought information on respondents' academic background and status, and on their racial or ethnic group membership.

In each structured section of the questionnaire, respondents were given an opportunity to add to the list of options provided. Additional comments and suggestions were also sought in a final section of the questionnaire.

#### RESULTS AND DISCUSSION

### Characteristics of Respondents

assessment survey. Of these, 68 provided information on their academic backgrounds and current academic status. Discussion and interpretation of results will be restricted to data provided by these 68 faculty members.

Academic Rank. Among responding faculty, about a third (34 percent) reported that they held the rank of Instructor or Assistant Professor, 41 percent reported that they held the rank of Associate professor, and 25 percent reported that they held the rank of Professor. Two-thirds of the respondents would therefore be classified as "senior faculty." Because we expected to find that faculty members' perceived benefits of research participation, perceptions of extrinsic motivation to participate in research, and perceptions of the value of additional research training would be different for junior and senior faculty, our analyses of these factors considered academic rank.

Tenure Status. Fifty-seven percent of the responding faculty reported that they held tenure, and 43 percent reported that they did not hold tenure. One might expect that perceived external press to engage in educational research would be more strongly felt among untenured faculty, and that habituation to a



pattern of research participation (or lack thereof) would be more prevalent among tenured faculty.

Highest Degree Held. Seventy-nine percent of responding faculty reported that they held a doctorate, 19 percent reported that a master's degree was their highest degree, and two percent reported that a bachelor's degree was their highest degree. The need to secure additional education for purposes of credentialing would therefore not be present for four out of five respondents.

Race. Seventy-nine percent of responding faculty reported their racial or ethnic group to be "black or Afro-American," 11 percent classified themselves as "white or Anglo," and 10 percent placed themselves in other groups, including "American Indian" and "Asian."

The academic and ethnic characteristics of respondents are summarized in Table 1.

# Facilitative Research Activities

In the first portion of the needs assessment survey, the questionnaire listed activities and conditions that faculty members might perceive as facilitating their research participation or skills. The stimulus statement at the head of this list was as follows: "Following is a list of activities that might help improve your research skills and knowledge, or allow you to more readily engage in educational research. Please check each of the activities that, in your judgment, would be personally helpful to YOU. (Check all that apply.)"

The list of activities and conditions was composed of four broad categories: coursework, summer workshops, reduction of institutional barriers to research participation, and personal assistance with research. Respondents' judgments of these categories of assistance and conditions are summarized in Tables 2 through 5.

Coursework. Coursework in five topic areas was listed for faculty consideration: educational research methods, applied statistics, educational measurement, educational program evaluation, and research design. As shown in Table 2, only one-in-two to one-in-three respondents judged coursework in any topic area to be personally helpful. Coursework in educational program evaluation and research design were judged to be helpful by the largest percentages of respondents.

Faculty members holding the rank of Instructor or Assistant Professor (junior faculty) expressed more positive judgments on the personal value of coursework, than did faculty members overall. Thirty percent of these faculty indicated that coursework in educational measurement would be personally helpful, and about four in ten indicated that coursework in the other four topic areas would be personally helpful. Coursework in research design was desired by almost half of responding junior faculty.

Responding faculty members were asked to rate the degree of helpfulness of their choices of activities on a five-point Likert scale with anchors at "Somewhat Helpful" and "Extremely Helpful." For every topic area, the largest percentages of these ratings were in the "Moderately Helpful" to "Extremely Helpful" range.

Summer Workshops. Summer workshops in six topic areas were listed for faculty consideration. Three topics concerned the process of research production and dissemination: writing for publication, publishing your research, and securing research funding. The other three topics concerned development of enhanced research skills: designing your research studies, analyzing your research data, and using computers for data analysis. As summarized in Table 3, the first category of summer workshops was judged to be personally helpful by a larger proportion of responding faculty (53 percent) than was the second



category (41 percent). Six out of len responding faculty judged a summer workshop on securing research funding to be personally helpful.

As was true of their judgments of the helpfulness of coursework, a higher percentage of junior faculty than of senior faculty judged summer workshops to be personally helpful. About three-fourths of responding junior faculty judged a summer workshop on securing research funding to be personally helpful. Workshops on the process of research production and dissemination, and workshops on the enhancement of research skills were judged to be helpful by equal percentages of junior faculty (65 percent), although there was some variation within categories.

The largest percentage of respondents who judged a workshop topic to be helpful, rated it as "Extremely Helpful."

Comparison of the results summarized in Tables 2 and 3 indicates that summer workshops were judged to be helpful by substantially higher percentages of respondents than was coursework. This generalization applies to all faculty respondents and to junior faculty.

Reduction of Institutional Barriers to Research. Faculty were asked to judge the helpfulness of three conditions that could be characterized as reductions of institutional barriers to their engagement in research: having released time from teaching responsibilities, having released time from university service activities, and having a small grant to defray the costs of conducting research. As summarized in Table 4, large percentages of all responding faculty (59 percent on average), and even larger percentages of junior faculty (77 percent on average), indicated that reduction of these institutional barriers would be personally helpful. Having a small grant to defray research costs was selected as helpful by three-fourths of all responding faculty, and by 87 percent of responding junior faculty. This condition was judged to be helpful by a larger percentage of all faculty and by a larger



percentage of junior faculty than was any other condition or type of assistance. The same could be said of the entire category of conditions characterized as reduction of institutional barriers to conducting research. Also, the vast majority of respondents who indicated that these conditions would be helpful to their research productivity indicated that they would be "Extremely Helpful."

Personal Assistance with Research. Three of the categories of assistance faculty were asked to judge could be characterized as having personal assistance in conducting research: having a personal mentor, having assistance in planning a program of research, and having assistance with analysis of research data. Forty-six percent of all responding faculty indicated that these categories of assistance would be personally helpful to them, and three-fourths of responding junior faculty responded similarly. As shown in Table 5, having a personal mentor was judged to be helpful by half of all respondents, and by 78 percent of the responding junior faculty. Having assistance with planning a program of research, one of the important functions likely to be provided by a personal research mentor, was also judged to be important by 78 percent of the junior faculty.

It is noteworthy that every category of research assistance and all potentially facilitative institutional conditions were judged to be personally helpful by larger percentages of junior faculty than by all faculty respondents. For three of the four categories of assistance discussed above (all except coursework), between two-thirds and three-fourths of responding junior faculty identified the category as being personally helpful to them in improving their research skills and knowledge, or allowing them to more readily engage in educational research.



## Preference for Research Courses

In the second section of the needs assessment questionnaire, respondents were given a list and brief description of each of ten graduate research methodology courses that are offered by the University of North Carolina at Greensboro. Respondents were asked to read the course descriptions and then "check the courses that would <u>BE USEFUL TO YOU</u> in preparing to do research in education." Respondents were then asked to rank the courses they had checked, in the order they would choose to enroll.

The courses described on the questionnaire can be placed in five topical categories. Two courses could be described as covering general research methods. One is a "special topics" course designed to meet the needs of Educational Research Fellows. The other is an introductory course designed for consumers of educational research. The first course was judged to be useful by almost half of the respondents, and the second by more than a fourth. Courses in this category were ranked one or two by a fourth of all respondents. As shown by the data in Table 6, the responses of junior faculty were similar to those of all respondents, in judging the utility of these courses.

Two of the ten courses cannot be placed within generic categories. One of these, educational program evaluation, was judged to be useful by 35 percent of respondents, and the other, survey research methods in education, was judged to be useful by more than a fourth of the respondents. Again, the judgments of junior faculty did not differ appreciably from those of all respondents. Relatively small percentages of respondents ranked these courses first or second, in terms of their desire to enroll.

Four of the listed courses can be classified as applied statistics courses. They ranged in complexity and prerequisite knowledge from a first course in descriptive statistics with no prerequisites, to a course in multivariate statistical analysis that presumed the other three courses as prerequisites.



Collectively, these applied statistics courses were judged to be useful by 36 percent of all respondents and by 45 percent of responding junior faculty.

The final category of courses included a consumer's-level course on testing and measurement and a measurement theory course. These courses were judged to be useful by a fourth of the respondents; the consumer's-level course was so judged by almost a third of all respondents, but less than a fourth of responding junior faculty. Neither of these courses was highly ranked as a first or second choice, in terms of enrollment preference.

Analysis of the comparative utility of specific courses leads to the conclusion that a specially designed course on research methods was most preferred, followed closely by an initial course in descriptive statistics and a course on design and analysis of experiments (described as a course on linear statistical models).

## Perceived Personal Benefits of Educational Research Participation

Respondents were asked to select from a prescribed list, ways they felt that "participation as an Educational Research Fellow would be helpful to you." Of eight listed benefits, five could be described as intrinsic and three could be described as extrinsic. Among intrinsic benefits were: an opportunity to enhance your research skills, becoming a more active educational researcher, contacts with other educational researchers throughout the state and nation, facilitate acceptance of research publications and presentations, and make your job more interesting and/or challenging. About three-fourths of all respondents, and 85 percent of responding junior faculty identified these intrinsic benefits as helpful outcomes of their program participation. The three extrinsic benefits listed included enhancement of opportunities for promotion, opportunities for tenure, and merit salary increments. About a third of all respondents, and 47 percent of responding junior faculty identified these



benefits as helpful outcomes of their program participation. Understandably, 61 percent of the junior faculty identified enhancement of opportunities for promotion as a potentially helpful benefit. More detailed data on these perceived personal benefits are shown in Table 7.

## Perceiv€d Institutional Benefits of ⊾ducational Research Participation

Respondents were asked to select from a prescribed list, ways they felt that "educational research by faculty members could be helpful to your institution." Of six listed institutional benefits, three could be characterized as intra-institutional and three could be characterized in terms of external perceptions of the quality of the institution. Typical of the intra-institutional benefits was "Development of your institution's curricula." Benefits related to external perceptions of the institution included "Provide national visibility for your institution."

Benefits of faculty educational research classified as external perceptions of the institution were identified by 80 percent of respondents (this percentage applies to all respondents and to responding junior faculty). Intra-institutional benefits were identified by 56 percent of all respondents and by 64 percent of responding junior faculty. A more-detailed report of these data is provided in Table 8.

#### Summary

Many personal and institutional benefits of participation in educational research were recognized by nearly three-fourths of responding faculty. Research participation was recognized as being personally and institutionally beneficial by larger percentages of junior faculty than by all responding faculty. Perhaps junior faculty feel more "institutional press" to engage in



\*educational research, or more frequently reflect the values of researchproductive role models than do senior faculty.

With the exception of coursework offerings, all categories of activities and conditions offered by the current pilot program were identified as helpful or useful by a majority of responding faculty members. These activities and conditions were consistently recognized as helpful or useful by even larger percentages of junior faculty respondents. Taking additional coursework, the least preferred activity, was identified as helpful by almost four out of ten responding junior faculty. These results clearly indicate that the current pilot program, and programs with similar design that provide faculty with options for participation in specific program components, offer opportunities for enhanced research participation and skill development that are judged to be important by faculty at North Carolina's historically black state universities.

1 Educational Researcher. (1985). 1984-85 Annual report. Educational Researcher, 14, 18-27.

<sup>2</sup>Schmeiser, C. (1986). <u>1985-86 NCME membership drive status report.</u> Report submitted by the NCME Membership Committee.

<sup>3</sup>Valverde, L. A. (1980). Development of ethnic researchers and the education of white researchers. <u>Educational Researcher</u>, 9, 16-20.

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