

THE NATIONAL STUDY OF FACULTY AVAILABILITY AND UTILIZATION: REPORT OF FINDINGS

John Milam

Introduction

There is little information available to guide affirmative action officers, administrators, and faculty search committees in their understanding of statistics for faculty hiring. The National Study of Faculty Availability and Utilization was designed to provide this kind of support with an integrated series of research projects.

The projects of the National Study include: (1) a synthesis of the literature, including interviews with key informants about the knowledge base; (2) a national survey about how institutions develop faculty hiring statistics; (3) the analysis of existing national datasets; (4) an investigation into the federal agencies responsible for monitoring faculty hiring; (5) the development of new benchmarks for faculty hiring; (6) the development of datasets for understanding disciplinary differences in faculty availability; and (7) the collection of affirmative action plans which serve as case studies of “good practice” in the use of faculty hiring data.

This paper reports on the findings for these projects, which are in various stages of completion. A preliminary report of findings was presented at the May, 1995 annual forum of the Association for Institutional Research in Boston (Milam, 1995). Highlights of the research questions, methodology, results, and discussion will be presented in this paper. Additional papers will be forthcoming which focus on individual research projects in more depth.

Research Questions

What is the status of affirmative action plans for faculty hiring? Are there principles and rules to guide affirmative action/equal employment opportunity officers in preparing these plans? Are consistent, reliable data available for measuring how well institutions are doing in attracting a diverse faculty? How are these data collected, analyzed, disseminated, and used internally?

These and related questions are addressed by this research. The author believes that there is a “belief structure” which has developed around affirmative action data. This “sense making” suggests that there is a consistent set of rules for producing affirmative action plans, that there are reliable data for documenting how well institutions are doing, that checks and balances are in place for monitoring compliance, and that the federal government and the courts are serious in enforcing compliance. This research project was designed in part to study these beliefs and see whether they are substantiated in the field.

The author developed the following list of questions after reviewing the affirmative action plan documents which he prepared as an institutional researcher at a Doctoral I and at a

Research II institution. The responses to these questions provide a database for determining whether there are consistent rules, reliable data, and professional norms for preparing faculty availability/utilization reports.

The Use of Faculty Availability Data

Do institutions complete an affirmative action plan with availability data?
 How often are these plans produced?
 Are availability/utilization analyses reported?
 What sources are used for gathering faculty availability data?
 Who calculates the availability data?
 How are they calculated?
 How are availability/utilization data broken out - (college/rank/discipline/track)?
 Are availability data by discipline consistent across institutions by Carnegie type?

The Use of the Eight-Factor Analysis

Are eight factor analyses produced?
 How often are the eight factor analyses updated?
 Which of the eight factors are used and how are they weighted?

The Use of Final Availability Statistics

Are numerical goals and/or availability data shared with search committees?
 Are the provost and/or academic deans involved in determining availability data?

Differences in Institutional Responses

Do responses to these questions vary by Carnegie classification and type of control?
 Do responses to these questions vary by each institution's level of federal contracts?
 Do responses to these questions vary by each institution's current percentage of women and minorities?

In addition to these questions about individual institution's affirmative action plans, a comprehensive review of faculty hiring needs to address other questions, such as:

What is learned about affirmative action by using the national EEOC and IPEDS datasets?

What is the role of federal and state government in monitoring compliance. How well are they doing?

What makes "good practice" in the production of affirmative action plans? Is it possible to develop case studies of how different types of institutions develop and use faculty hiring statistics?

Are there benchmarks which allow institutions to know how well they are doing in

attracting women and minorities to their faculties? How might such benchmarks be produced?

Literature Review

There is a national debate currently taking place about affirmative action. Some have described it as “a time bomb primed to detonate in the middle of the American political marketplace” (Congressional Research Service, 1995, p. 1). Higher education is in many ways at the center of the debate, with issues focused on race-based scholarships, contracts with minority-owned firms, student admissions, and faculty hiring.

West (1994) presents the two sides of the debate about faculty hiring:

Universities have created the worst possible situation in regard to affirmative action. On the one hand, faculty who are critical of the concept of affirmative action, and the programs that support it, are angry because affirmative action plans exist and because they think faculty women and men of color are getting more favorable treatment than we would otherwise deserve. On the other hand, many faculty who are white women or members of racial and ethnic groups are angry because we still see discrimination all around us. We know that very little, if any, affirmative action has taken place, particularly in regard to faculty hires. At this point, universities have succeeded only in antagonizing those on both sides of the affirmative action debate (West, 1994, p. 161).

Washington and Harvey's (1989) ASHE-ERIC monograph Affirmative Action, Negative Rhetoric provides an overview to the history of affirmative action in higher education. President Kennedy's Executive Order 10925 created the President's Committee on Equal Employment Opportunity in 1961. In 1965, President Johnson signed Executive Order 11246, which created affirmative action requirements for ending racial discrimination among federal contractors and established the Office of Federal Contract Compliance Programs (OFCCP). Executive Order 11375, signed by Johnson in 1967, added sex discrimination to the types of discrimination covered under the original order. In 1972, Executive Order 11246 was amended to apply to educational institutions. As Lindgren et al. (1984) explain in their ASHE-ERIC monograph Sexual Discrimination Law in Higher Education that "The Department of Health, Education, and Welfare was the contracting agency for most contracts with colleges and universities, but it did not begin to assert the applicability of this executive order to colleges and universities until late 1972" (p. 8).

In the Department of Labor's "Revised Order No. 4," the procedures that contractors are required to follow for affirmative action were codified. The five basic components include regulations for contractors:

(1) to design and disseminate an equal employment opportunity policy; (2) to assign internal responsibility for effectively implementing that policy; (3) to design and use internal audit, reporting, and review procedures for monitoring progress in implementing that policy and in identifying residual problem areas; (4) to develop and use internal action programs designed to eliminate those problem areas; and (5) to use external action programs that are useful in eliminating those problem areas (Lindgren et al., 1984, p. 33).

While the notion of preferential treatment for women and minorities has been challenged in court, "The point these courts make is always the same: A goal of parity does not impose an obligation to engage in preferential treatment in favor of anyone. It requires only that the contractor make a good-faith effort to find and use employment practices and procedures that are shown to be unbiased" (Lindgren et al, 1984, p. 34).

The Department of Labor issued additional guidelines in 1988 which state that:

An acceptable affirmative action program must include an analysis of areas within which the contractor is deficient in the utilization of minority groups and women, and further, goals and timetables to which the contractor's good faith efforts must be directed to correct the deficiencies and, thus to achieve prompt and full utilization of minorities and women, at all levels and in all segments of its work force where deficiencies exist (OFCCP, 1988, Section 60-2.10).

Traditionally, Affirmative Action Plans in higher education consist of official explanations of how institutions are working to eliminate discrimination and sexual harassment on campus, with sections devoted to students, faculty, and staff; to specific employment policies for hiring, termination, grievances, etc.; and to issues effecting women, minorities, veterans, the disabled, religion, and (sometimes) sexual orientation.

Three basic statistical reports are also required by the OFCCP regulations. These include the Work Force Analysis, the Job Group Analysis, and the Availability/ Utilization Analysis. In order to determine the availability/ utilization analysis, a series of Eight Factor Analyses are also necessary. Only the structure of each report is prescribed by federal regulation. It is in the context of the availability/utilization analysis that institutions document how well they are doing in hiring women and minorities. The results of the availability/utilization analysis are used to set numerical objectives for hiring goals. For this reason, the survey project in this study was narrowed to examine how institutions select availability statistics and what methodologies they use for calculating eight factor analyses.

Despite these programs and procedures, "in the final analysis, many institutions have never really fundamentally modified their traditional methods for selecting new members" (Washington and Harvey, 1989, p. 13). While institutions must set goals for hiring and sometimes defend their use of availability statistics in OFCCP audits, only "good faith" efforts,

rather than concrete results, have been considered as satisfactory evidence of their intentions” (p. 13). "Issues have come into play that slow down affirmative action efforts or negate them altogether," among them "Different perceptions of the availability of African-American and Hispanic candidates," "Imprecise determination of how hiring goals are set, as well as minimum and maximum figures," and "Undefined or unclear departmental roles in meeting institutional goals" (p. 15).

Hanna (1988), in her case studies of "The Organizational Climate for Affirmative Action for Women Faculty," explains that faculty hiring is “a decentralized decision-making process, dominated by scholarly, professional norms” (Hanna, 1988, p. 403). “Around the decision-making process have grown institutionalized procedures, reflecting intentions about and commitment to faculty affirmative action. It is extremely difficult, however, to trace changes in procedures to actual outcomes” (p. 403).

As Smith, Wolf, and Levitan (1994) suggest in their recent New Directions for Institutional Research monograph on Studying Diversity in Higher Education, that there are a number of problems which occur in efforts for faculty diversity. To some, "Minority and women faculty and staff hired into university slots to fill diversity or affirmative action quotas are not as qualified as faculty and staff hired through 'normal' procedures" (Smith, Wolf, and Levitan, 1994, p. 12). "Research shows that historically underrepresented faculty are often treated as second-class citizens within departments that hire them as colleagues. They are perceived as 'affirmative action' hires. Regarded as less qualified, they are isolated, ignored, and not taken seriously" (p. 15).

Parity and underutilization are important concepts in the role of statistical evidence of sex discrimination in faculty hiring, Lindgren et al. (1984) document. Underutilization is described as the “situation in which fewer minorities or women participate in a particular job group than would reasonably be expected based on their availability” (p. 23). It is usually in salary equity studies and hiring litigation that sophisticated data analysis has been done to investigate disparate treatment. As the more recent literature by Bereman and Scott (1991), Moore (1993), and Snyder and McLaughlin (1994) shows, though, "Opinions differ as to whether statistical significance, in and of itself, determines whether inequities exist" (Snyder and McLaughlin, 1994, p. 7).

Lozier and Dooris (1991, 1989, 1988) Ulbrich (1991), and others discuss projections of the faculty pipeline for issues of faculty retirement. Their conclusions provide ways in which to question faculty availability data. For example, Lozier and Dooris claim that "a growing proportion of doctoral recipients are being attracted to employment outside of academe; over 40 percent of holders of doctorates today are working in business, industry, and government" (p. 1).

Therefore, if availability data on doctoral degree recipients is used for faculty utilization, these may need to be weighted by the proportion of minorities and women actually entering higher education.

There is a significant amount of literature in higher education about the pipeline for women and minorities, particularly in the fields of science and engineering. Much has also been written about the socialization and professionalization process of graduate school, of the role of mentoring, and of the peculiar stresses of academic life for women and minorities (Clark and Corcoran, 1986; Ethington and Wolfe, 1988; Reynolds, 1992; Sands, Parsons, and Duane, 1991; Schroeder and Mynatt, 1993; Tack and Patitu, 1992).

As a result, “it is painfully clear that the representation of women on college and university faculties is, and always has been, relatively small” (Tack and Patitu, 1992, p. 33). Lie et al's (1994) focus on The Gender Gap in Higher Education in the World Book of Education 1994 provides an overview of the gender gap for female faculty worldwide.

“In some instances, the decline in the pool of potential African-American faculty is occurring despite federal mandates and the presence of state funds for doctoral study (Washington and Harvey, 1989, p. 35). Hallock (1994), Harvey and Valadez (1994), Opp and Smith (1994), Rodriguez (1994), and Stiltanen (1994) provide more recent documentation of the problems of faculty diversity in higher education.

It is the pipeline of potential faculty that becomes the basis for setting availability goals for new assistant professors. By understanding the literature, affirmative action officers are better able to calculate appropriate availability statistics and set realistic hiring goals. Recently, several State Higher Education Executive Officers (SHEEOs) and regional higher education associations have worked to document statistics for faculty diversity. In its publication, A Study of Faculty Needs in Texas, 1991-2008, the Faculty Shortages Advisory Committee (1992) reported to the Texas Higher Education Coordinating Committee that "faculty hiring will become more difficult," especially among minority faculty.

A joint publication entitled A Compact for Faculty Diversity, published cooperatively by the New England Board of Higher Education (NEBHE), the Southern Regional Education Board (SREB), and the Western Interstate Commission for Higher Education (WICHE), presents a broad-based plan for improving faculty diversity on campuses. The Compact's authors recognize that minorities represent 26% of the U.S. population but only 12% of full-time faculty. The purpose of the compact is to develop shared programs for increased faculty diversity by providing financial support for graduate programs, fostering more supportive environments for minorities, sponsoring an annual institute, and developing shared approaches to student recruitment.

Faculty supply and demand issues are documented by Gill et al. (1992) in their WICHE report sponsored by TIAA-CREF entitled Bringing into Focus the Factors Affecting Faculty Supply and Demand: A Primer for Higher Education and State Policymakers. Faculty demographics, pipeline models, demand, attrition, retention, recruitment, retirement and projections are discussed in the hope that institutions may do better planning for faculty hiring.

Lois Vander Maerdt (1989), in her monograph Affirmative Action in Higher Education: A Source Book, offers one of the few guides to compiling affirmative action plans. This document rates in that it specifically recommends a source of data and a weighting scheme for the eight factor analysis. Maerdt recommends using three years of National Research Council (NRC) data, since "Most faculty positions are filled at the assistant professor level" (p. 75), and using the results in Factor 4 without weighting any of the other factors.

Cunningham and Hemmeter presented a paper at the 1992 Southern Association for Institutional Research/Society for College and University Planning (SAIR/SCUP) conference about using the Oklahoma Faculty Salary Survey data for examining faculty diversity. They note that data on minorities and women available at the new assistant professor level:

are not representative of the total faculty in regards to rank. At the entry level, the proportions which are minorities or women are significantly greater than for those more experienced candidates for senior faculty positions. Consequently, the comparison with largely entry level candidates is a very conservative test (Cunningham and Hemmeter, 1992, p. 2).

Along with faculty salary data, an optional component of the Oklahoma survey is faculty data on race and sex by rank within Classification of Instructional Programs (CIP) code. The authors weight the Faculty Distribution Survey results by rank and discipline to match their department structure at the University of Tennessee at Knoxville. After converting results to Z scores, the authors find that "There was no evidence that any of the colleges had a female, black, or total minority percentage that was statistically significantly below the respected weighted percentage" (p. 6). They suggest that "This method of evaluating faculty diversity would be useful as another measure to identify patterns of discrimination in employment practices" (p. 7).

When analyzing progress towards remedying past discrimination and maintaining a climate of diversity, the only real measures are availability goals and utilization statistics. Some literature exists from the beginnings of OFCCP and from the advent of affirmative action in the 1970's about how to calculate availability statistics in general. However, nowhere in the literature is there any serious discussion about the specific problems and issues of gathering and calculating faculty availability data.

In 1978, the Equal Employment Advisory Council (EEAC), a private organization working with business and industry on equal opportunity issues, published the proceedings of the only symposium ever devoted to issues of availability data. This volume presents essays by six scholars, among them Alan Bayer and Nathan Glazer. In the preface to this volume, the EEAC writes that:

Despite its crucial function in the current calculus of equal employment opportunity, availability is neither a well defined concept nor an easily determined quantity. Governing federal laws and regulations offer little practical guidance,

and there is a plethora of opinions on the proper methodology for arriving at availability estimates. These differences are compounded by the fact that often the analysis of the issues and elements of availability occurs during negotiations in conjunction with federal contracts or as part of Title VII litigation, situations which are not conducive to objective review (Equal Employment Advisory Council, 1978, p. iii).

Methodology

Survey

In February, 1995, a mailing was sent to all 765 accredited higher education institutions granting graduate degrees. This mailing included a personalized letter from the Vice President and University Equity Officer for George Mason University, Earl G. Ingram, to each institution's president. The letter introduced the recipient to the "National Study of Faculty Availability and Utilization" which was being conducted by George Mason University.

The letter requested the presidents to share relevant parts of the institution's affirmative action plan for Fall 1992. These parts included availability/utilization analyses for women and minority faculty by discipline/unit, all appropriate eight-factor analyses, and any backup worksheets which would indicate how the data sources were aggregated or weighted before being entered into the eight factor analyses. Sample reports from George Mason University's Affirmative Action Plan were included for clarification. It was stressed in the letter that these were standard parts of an affirmative action plan. No elaborate research survey needed to be completed. Rather, the institution needed simply to locate its affirmative action plan for this year and copy the relevant sections.

The mailing included a self-addressed, stamped postcard requesting receipt of the packet and identifying the appropriate contact person at the institution. Using the card, respondents were asked to check whether they expected problems completing the request and whether they needed someone to call them to discuss the project requirements.

The Fall 1992 affirmative action plan statistics were requested because most institutions would probably have completed this cycle year by 1995. Some institutions might still be closing out 1993 data, basing their cycle on the 1993 calendar year, with editing and rewriting through 1994. Institutions were assured that their data would remain confidential and that no data would be released which could be used to identify institutions by name.

Institutions were requested to complete a one page survey about the sources for availability which they use and how availability statistics are calculated and disseminated. After documenting the name, title, address, and phone number of the respondent, the survey requested open-ended, written responses to the following questions:

- (1) Did completion of this request present any problems to your office? If yes, describe.
- (2) How often are new availability data gathered and eight factor analyses produced?
- (3) If only certain of the eight factors are actually used, please explain why.
- (4) Are availability data provided to individual faculty search committees for their considerations in selecting a candidate pool?
- (5) Who is involved in calculating availability data and eight factor analyses?
- (6) Are the provost and/or academic deans involved in any way with determining data?
- (7) If any of the requested materials are not available, please explain why.

In addition to these open-ended questions, respondents were asked to check which sources of faculty availability data are used by their institution. They were asked to rank each of these sources in order of importance, starting with 1 for most important, up to the total number of sources used. All possible primary sources for data were included. Only one secondary source, the CASPAR datasets from NRC and IPEDS, was listed on the survey. CASPAR was listed in part because it involves two new technologies, the release of survey data and search and retrieval software on CD-ROM and by FTP on the Internet.

The availability sources listed on the survey include the following:

- N.R.C. Doctoral Recipient Current Year Data
- N.R.C. Doctoral Recipient Trend Data
- IPEDS Completions/Degrees Conferred Current Year Data
- IPEDS Completions/Degrees Conferred Trend Data
- Oklahoma Faculty Distribution Survey Data
- 1990 U.S. Census Data for Post-Secondary Faculty
- CASPAR Trend Data for Selected Years
- Data from a SHEEO
- Data from a Data-Sharing Consortium
- Data from a Professional Association
- Data from an Accrediting Body
- Data from Other Sources

Numerous institutions called to discuss the study, question how the data would be used, or request a copy of the findings. Some concern was expressed, given the current climate of discussion in the Congress and in the national press about affirmative action, that the study was being conducted as a critique of affirmative action. Respondents were told that the purpose of the study was to investigate the validity and replicability of availability and utilization statistics. They were informed that one of the hypotheses of the study is that the calculation of availability statistics may vary widely by discipline and type of institution.

There were several complaints by respondents that it took weeks for the request to work its way from the president's office at an institution to the appropriate office. The deadline for

submission of materials was extended whenever requested.

Key Informants

An organized dialogue was begun with institutional researchers, affirmative action officers, and faculty in the fields of higher education, higher education law, mathematics, and labor economics. These discussions provided a method for gathering information which is not in the literature base. More importantly, they served as an informal mode of member checking and peer debriefing about topical questions and methodological issues.

Investigation of Federal Agencies

Interviews were conducted with federal government officials at the Equal Employment Opportunity Commission, at national and regional offices of the Office for Federal Contract Compliance Programs, at the Federal Procurement Data Center, and at the U.S. Department of Education's Office for Civil Rights.

After preliminary findings from the investigation of federal agencies were drawn, a site visit was made to a regional OFCCP office. This allowed the author to share a copy of the preliminary report and get feedback about the preliminary findings. It also opened up an extended dialogue with OFCCP officials about audit practices and official methods for analyzing the appropriateness of faculty availability methodologies. OFCCP officials shared internal documents related to methods for conducting availability audits in higher education.

One of the more interesting questions which may be answered by this National Study is whether private institutions are doing as well as public institutions in hiring minorities and women. A number of private institutions responded to the survey by saying that they are not required to file an affirmative action plan. From a compliance point of view, this conclusion may be in question, since they may receive more than \$50,000 in federal contracts. The author has worked with the Equal Employment Opportunity Commission (EEOC), the U.S. Department of Education (DOE), the Office of Civil Rights (OCR), and the Office of Federal Contract Compliance Programs (OFCCP) to understand how they determine whether an institution is required to file an Affirmative Action Plan. Do some institutions consistently misinterpret Executive Orders 11246 and 11374 and Revised Order No. 4? This question will help determine the credibility of the myth of affirmative action data

National Datasets

In addition to the request for Affirmative Action Plans, the questionnaire, the interviews with informants, and the investigation of federal agencies, it is important to find ways to measure overall progress toward faculty diversity. For this reason, the EEOC data were used to calculate utilization rates for women and minorities.

The 765 institutions to whom surveys were sent were identified using the Carnegie Classification data available for purchase from the Carnegie Foundation. These included all public and private Research I and II, Doctoral I and II, and Masters I and II institutions. The assumption was made that faculty hiring practices at these institutions tap a common pool of doctoral degree recipients. This pool is perceived to be different than that for Baccalaureate and Associate of Arts institutions which do not usually offer a graduate degree and do not place as much emphasis on the requirement that their faculty earn terminal degrees. Business, Fine Arts, Law, Medical, Teachers College, and Tribal College institutions were excluded because they are small and mostly discipline specific.

The Carnegie Classification data with 3,595 records were linked by FICE code to the NCES IPEDS Institutional Characteristics file for 1993-94, available through the Internet by FTP from the U.S. Department of Education at its Gopher site. The Carnegie data were appended from ASCII into DBase using the file record layout provided in the documentation. The NCES data were uncompressed using PKZip, then appended from ASCII into DBase. DBase was used instead of SAS at this point in the study because the author wanted to be able to see and manipulate the data. For the statistical analyses which are being performed, these data are being converted into a SAS data set using SAS's DBLOAD and ACCESS procedures.

While FICE code was sufficient to match most of these data, some institutions were missing. These problems related to FICE codes, UNITID, roll-ups to system offices, and naming conventions. These were resolved through the use of the IPEDS crosswalk documentation from NCES. In some cases, dummy or proprietary FICE codes are used in the Carnegie data. As part of the planning phase of this project, the Carnegie data available with CASPAR were used to obtain NRC and NCES data as part of the academic institution data sets. However, the use of the crosswalk between the IPEDS reports and FICE codes proved problematic. When the updated Carnegie data were obtained, the experience was repeated somewhat, but went more quickly with only 765 institutions to match out of the universe of 10,651 IPEDS records in the Institutional Characteristics report.

The name of each institution's president, along with address information, was taken from the Institutional Characteristics file. Also imported were various enrollment data for possible use as peer selection variables. Control, highest degree awarded, and state are available in each file. The data needed for the mailing were copied into a subset and converted from DBase IV into a secondary mail merge file for use with WordPerfect. Macros were written to convert upper and lower case letters and to align characters accordingly. This secondary file was then used to generate mailing labels and individualized letters. A signature was created as a graphics file using a fax machine/scanner and Presentations software and brought into the final letter with the mailmerge.

The 1991 EEO-6 report, the most recent EEOC data available, was downloaded by FTP from the NCES postsecondary Internet site. After uncompressing the file, the two resulting EEOC ASCII files were appended into DBase according to the file structure documentation. The

names file lists basic peer demographic data on 3,285 institutions. The data file includes 92,586 records which are broken out by line of the survey for each FICE code. Although FICE code and UNITID are included in the names file, there were still some problems in matching records. Data for Line 20 of the survey, which totals full-time faculty by gender and race, are available for 3,171 institutions, some of which do not have a unique UNITID. Usable EEO-6 data were obtained for 726 of the 765 institutions in the survey population, although 2 of these were discarded because they had 3 or less total faculty, suggesting a problem in the data. The EEOC data were aggregated by gender within ethnicity. The percent of female and minority full-time faculty was calculated to determine how well each institution is doing in becoming diverse.

The 1991-92 IPEDS Fall Staff Survey is also available as a data set for faculty availability and utilization and was analyzed for this purpose. However, this year of the survey breaks out data only for full-time/part-time and gender, where the EEO-6 report also includes race/ethnicity. Most of the survey data are identical, since EEO-6 data were extracted and merged into the IPEDS file. The IPEDS report data are used for institutions which are not required to file the EEO-6 report, and therefore includes a larger population of higher education institutions, including federal institutions, those with 14 or fewer full-time employees, and institutions in "the outlying areas and the state of Hawaii" (NCES, 1995, p. 1). This data set was downloaded by FTP from the NCES Internet site, unzipped, and appended from ASCII into DBase. After reviewing the attached documentation, it was determined that the EEO-6 data would be better for calculating overall utilization rates for the 724 institutions.

Content Analysis Procedures

The survey and statistical data were entered electronically using DBase data entry screens. Reports of survey responses were indexed and sorted with DBase and printed with WordPerfect.

Responses to the open-ended survey questions were content analyzed using emergent, polychotomous coding categories in a process similar to the constant comparative method (Glaser and Strauss, 1967; Lincoln and Guba, 1985). After a listing of potential coding categories was developed, these were analyzed looking for substantive differences and collapsed into a more manageable series of coding themes or values. Once this list of coding values emerged, each questionnaire response was recoded within this coding scheme. Each institution's response was counted and a table built to document the data.

The survey rankings of availability sources proved problematic upon data analysis. A number of schools only checked sources and did not rank them. This kind of forced choice response was not intended to be part of the data gathering process. While data entry was completed for this item, only the data on sources checked are used in the analyses. The forced choice of ranking is not adequately documented in the survey. Work will be done in the future to use these data in an appropriate manner.

Report of Findings

Sample Size

206 institutions responded to the request for affirmative action data (26.97% response rate). Of these 206, 60 schools (19.9%) chose not to participate in the study for various reasons. Some of these institutions do not prepare Affirmative Action Plan data and others did not want to participate in the study. Some called to discuss the study and said they wanted to participate, but failed to follow up with complete materials. Others sent in the post card, but not the survey. Completed surveys and/or statistical data were received from 146 institutions with affirmative action plans. Of these, statistical materials were supplied by 140 institutions and the survey was completed by 127 institutions. The breakdown of the sample size and the universe of institutions follows in Table 1.

As the table indicates, the overall response rate is lower than desired. However, the response rate for some Control/Carnegie categories such as public Research I/II is more acceptable. It is anticipated that the greatest response rates will come from public Research I/II and Doctoral I/II institutions, where there is a higher level of staffing in affirmative action and institutional research offices and where there has been a traditional mandate for equity and access. The response rate for private Research I/II schools is noticeably above that for other private institutions, perhaps because they are more likely to receive federal contracts and have a higher level of staffing. Private Doctoral I/II and Masters I/II schools which did not respond may have discarded the survey request because they do not complete Affirmative Action Plans and/or because their staff are overworked. Phone calls to several public Research I/II institutions who have not sent in all of their materials suggest that these offices are overworked and are unable to respond to the survey request within the time frame.

TABLE 1: RESPONDENTS BY CONTROL AND CLASSIFICATION

CARNEGIE CLASSIFICATION	# Respond.	Respond. Class %	% of Population	Population Size	Population Class %
Public					
Research I/II	56	27.2%	65.9%	85	11.1%
Doctoral I/II	27	13.1%	40.9%	66	8.6%
Master's I/II	80	38.8%	29.1%	275	35.9%
Subtotal	153	74.3%	35.9%	426	55.7%
Private					
Research I/II	11	5.3%	27.5%	40	5.2%
Doctoral I/II	9	4.4%	20.0%	45	5.9%
Master's I/II	33	16.0%	13.0%	254	33.2%
Subtotal	53	25.7%	15.6%	339	44.3%
Total	206	100.0%	26.9%	765	100.0%

In terms of research and doctoral institutions, the sample is very similar to that obtained by the Carnegie Council on Policy Studies in Higher Education in its 1975 survey about affirmative action policies. The use of the comprehensive classification in the 1975 study precludes its comparison with the Masters I/II category of the present study.

Originally, the National Study requested three years of affirmative action data from institutions. As the following findings indicate, the author feels fortunate in being able to receive one year's submission. Many institutions do not prepare data annually. The Fall 1992 cycle should be representative of general practice. The same research questions are of interest, whether one or three years of data are collected. While three years of data may help validate a particular trend in the data, it is suspected that numerous problems would be encountered as a result of missing years of data.

TABLE 2: 1975 CARNEGIE SURVEY RESPONDENTS

CARNEGIE CLASSIFICATION	1975 POP. SIZE	1975 SAMPLE SIZE	1975 NUMBER RESPOND.	1975 RESPOND. AS % OF POP.	RESPOND. % OF POP. IN 1995 NAT. STUDY
Public					
Research I/II	57	30	26	46%	66%
Doctoral I/II	51	12	9	18%	41%
Comprehensive	308	19	13	4%	NA
Subtotal	416	61	48	12%	
Private					
Research I/II	35	21	17	49%	28%
Doctoral I/II	30	10	8	27%	20%
Comprehensive	145	17	7	5%	NA
Subtotal	210	48	32	15%	
Total	626	109	80	13%	

Process Indicator - Overall Faculty Diversity

Using the 1991 EEO-6 report, utilization rates were calculated for each institution, then aggregated by control and Carnegie classification. The following tables document these results and show a general pattern of faculty diversity for women and minorities. Women appear to have made greater strides in private rather than public institutions, doing less well in Research I/II institutions than in Master's I/II schools.

TABLE 3: 1991 FACULTY DIVERSITY/FEMALE UTILIZATION RATES

CARNEGIE	AVG TOTAL	AVG %	MIN %	MAX %
----------	-----------	-------	-------	-------

CLASSIFICATION	# FACULTY	FEMALE	FEMALE	FEMALE
Public				
Research I/II	1,456	25.4%	13.0%	50.0%
Doctoral I/II	598	28.7%	4.0%	71.0%
Master's I/II	303	32.6%	0.0%	57.0%
Subtotal	581	30.5%	0.0%	71.0%
Private				
Research I/II	1,145	23.8%	11.0%	42.0%
Doctoral I/II	330	27.4%	6.0%	45.0%
Master's I/II	131	39.1%	10.0%	79.0%
Subtotal	287	35.6%	6.0%	79.0%
Total	454	32.7%	0.0%	79.0%

Patterns for women and minorities seem to alternate between doing well in public versus private. Minorities appear to do better in public institutions, but less well in Research I/II schools than in Master's I/II. In private institutions, minorities have done better at Research I/II institutions than in Master's I/II. This suggests that private Research I/II institutions, which probably obtain \$50,000 or more in federal contracts, make a substantial commitment to hiring minorities. Feminization of the disciplines may be effecting lower utilization rates for women at the top tier of public and private institutions.

TABLE 4: 1991 FACULTY DIVERSITY/MINORITY UTILIZATION RATES

CARNEGIE CLASSIFICATION	AVG TOTAL # FACULTY	AVG % Minority	MIN % Minority	MAX % Minority
Public				
Research I/II	1,456	11.5%	4.0%	22.0%
Doctoral I/II	598	12.5%	3.0%	90.0%
Master's I/II	303	16.2%	0.0%	93.0%
Subtotal	581	14.7%	0.0%	93.0%
Private				
Research I/II	1,145	13.8%	2.0%	81.0%
Doctoral I/II	330	12.5%	6.0%	81.0%
Master's I/II	131	7.0%	0.0%	78.0%
Subtotal	287	8.6%	0.0%	81.0%
Total	454	12.1%	0.0%	93.0%

Why Some Data Are Not Available

Most of the respondents indicated that they did not have a problem responding to the request for information. Of those who did encounter problems, these fit into the broad categories of having too great a workload to respond quickly, office relocation, staffing issues, time constraints, and lack of documentation.

Occasionally, respondents indicated that copies of the requested reports are not available at their institution. Sometimes this is because Affirmative Action Plans simply were not completed, or, if completed, do not include the availability/utilization analyses. Despite inclusion of a sample availability/utilization report, some respondents had difficulty identifying and/or locating their institution's versions of the documents. In some cases, statistical data are not included in the more public affirmative action planning documents. Only 6 institutions responded on the survey that they do not complete an eight factor analysis. However, this figure may be low. In reviewing and analyzing the submitted materials, 52 of the 140 institutions (37.1%) did not include factor analyses. Some admitted that their reliance on Factor Five makes the calculation of eight factor analyses unnecessary. In the case of several respondents, proprietary affirmative action software such as CAAMS was used to generate reports and the institution was not clear whether it could share copies of reports under the licensing agreement.

How Frequently Availability Data Are Updated

A large number of institutions, 62 of the 127 survey respondents (48.8%) report that they produce new Affirmative Action Plans annually with new availability data and eight factor analyses. This is somewhat surprising, given that the production of availability sources, except for NRC data, is somewhat sporadic. At least eight institutions report that they operate on a two year cycle and at least 10 admit that their availability reports are produced on cycles of five or more years. Clearly, a number of institutions do not interpret the regulations to mean that affirmative action documents must be produced annually.

Eight Factor Analyses

Most survey respondents use only a few of the eight factors in their calculations. When the weighting scheme for eight factor analyses is examined, 32 of the 88 schools with eight factor analyses (36.4%) use only Factor Five (the percentage of women and minorities among those having requisite skills in the reasonable recruitment area). Numerous others use combinations of factors four, five, and six, in which factor five was given most of the weight. Sometimes there is an odd choice of factors, such as only using factor 1 and/or 2, instead of 4 or 5, as is chosen by a number of other institutions.

Sharing Availability Data with Search Committees

Respondents reported various policies for sharing availability data with search

committees. Seventy-eight institutions (61.4%) of the 127 survey respondents said they share availability data with search committees in some format. Twenty-eight institutions (22.0%) do not share data as a policy. The rest of the respondents have various other processes for sharing the data with deans, working with departments, or otherwise being proactive in the recruitment process.

Sources Used for Availability

What sources are most often used for gathering faculty availability data? The survey allowed institutions to report multiple data sources, therefore the total number of responses is higher than the number of respondents. The majority of institutions rely on current year Doctoral Recipient Data from the National Research Council's (NRC) annual survey, (66 of 127, or 52.0%). Thirty-eight institutions (29.9%) report that they use NRC trend data to aggregate results across survey years. Vander Maerdt (1989) and West (1994) document that NRC data are useful in calculating faculty availability. It is NRC data that are most often discussed in the literature on the calculation of availability statistics.

Forty-three institutions (33.9%) report that they use 1990 U.S. Census data for post-secondary faculty. The federal regulations used by OFCCP specifically mention the census report as a possible source of availability data. Some of the data used by proprietary affirmative action software such as offered by Biddle and Associates is based on the 1990 census. One institution described the process of choosing occupation codes for roll-up to department availability data. The institution had to go outside of the software to choose codes for occupations besides the standard breakout for post-secondary faculty.

Twenty schools (15.7%) report using NCES IPEDS Completions Report (degrees conferred) data for the current year, while another 8 (6.3%) report using IPEDS Completions trend data. Some confusion may exist, the author suspects, in what constitutes current year versus trend data. The documentation of NRC and NCES data varies widely across respondents. Some institutions simply use the current year's data and substitute new data as they are published. Some institutions use data from the University of Washington. Others have elaborate weighting schemes for using combinations of discipline specific data for estimating availability for any given department.

Six institutions (4.7%) report using the annual Oklahoma Faculty Distribution Survey data of NASULGC institutions, which accompanies the Oklahoma Faculty Salary Survey but is optional and not always completed. Cunningham and Hemmeter (1992) presented a paper at the Southern Association for Institutional Research/Society for College and University Planning (SAIR/SCUP) conference about using the Oklahoma Faculty Salary Survey data for investigating faculty diversity. The authors find that "This method of evaluating faculty diversity would be useful as another measure to identify patterns of discrimination in employment practices" (Cunningham and Hemmeter, 1992, p. 7).

One institution reported using the EEO-6 report. This data source, while useful for some purposes, only provides data for calculating faculty utilization as a single job group for faculty. At least one school reported that it obtains annual NRC data by institution and compiles special doctoral recipient reports for those institutions which it uses as faculty feeders.

Numerous secondary sources are cited by institutions in their survey responses. These were reviewed to see if any other primary datasets other than NCES completions, NRC doctoral recipient, U.S. Census, and Oklahoma faculty distribution are used. While associations and accrediting agencies collect unique survey data, these are discipline specific (such as law, medicine, or the arts) and are used in conjunction with other primary sources. Two primary, discipline-specific sources which are cited by two or more respondents include data from the American Association of Medical Colleges and the American Bar Association.

Ten institutions report that they receive their faculty availability data from their SHEEOs. These state governing or coordinating boards have the resources to purchase and analyze large availability datasets and are often involved in statewide review and approval of affirmative action planning documents. Other secondary sources cited include Professional Women and Minorities (13), the Digest of Educational Statistics (7), and the Commission on Professionals in Science and Technology (4). Only one institution mentions using CASPAR.

Six institutions reported using data developed by the University of Washington. It is suspected that this number is somewhat higher, but that respondents listed their data source as NRC. According to its materials, Washington uses a combination of NRC and NCES data, weighting each data set differently for tenured and non-tenured faculty and using different years for trend data. Other NCES degree data are used when the Ph.D. is not the appropriate degree. Several discipline-specific primary sources are also used for medicine, law, and public health. (Note: Professional Women and Minorities offers an extensive bibliography of secondary and discipline-specific data sources, as does the documentation from the University of Washington studies.)

Two institutions noted that they use data from the 1983 Colorado Study. At least one institution reported that it had stopped using these data because they had not been updated. At least 8 institutions (5.7%) note either in their documentation or in their survey response that they use an outside consultant or proprietary software for calculating these statistics. Among these are Biddle and Associates (4), CAAMS (2), HR Consulting (1), Affirmative Action Plans (1), and PRI (1).

Who Calculates Availability Data

In 83 cases (65.4%), the affirmative action office is primarily responsible for gathering sources for availability data and calculating the eight factor analyses, either by itself or in conjunction with institutional research, various academic administrators, or other offices. Of these 83 institutions, it appears that at 58 of them (69.9%) the affirmative action office is

primarily responsible for their production. Institutional research offices are mentioned by only 12 respondents (9.4%). For another 12 institutions (9.4%), human resources offices are primarily responsible for the production of affirmative action statistics.

Involvement of Provost and Academic Deans in Determining Data

When asked whether the institution's provost and academic deans are involved in determining availability data, 49 respondents (38.6%) report that the provost and deans are not involved. Among institutions where the provost and deans are involved, there is some variation in their roles. In a few cases, deans are involved in determining which NRC disciplines should be used in calculating availability. Two institutions report involving these offices in deciding on factor weighting for the eight factor analyses. Several respondents report that these offices are involved in monitoring new sources of data for discipline specific availability statistics.

Only six institutions report that these offices are involved in reviewing work at the level of calculations. More probably, the provost and academic deans are involved in examination of utilization results, rather than providing input to availability goals. This suggests that, while it is desirable to have major administrators involved in goal setting, there is some insulation and protection from these offices setting artificially low availability statistics and insulation. Additional information is needed about the interaction between affirmative action offices and major administrators in the use of availability/utilization data. Do AA/EEO personnel serve as change agents by forcing search committees to meet availability statistics in their candidate pools? The results of the survey are inconclusive on this point.

Analysis of Availability/Utilization Reports

When the reports of availability/utilization statistics are examined for the 140 institutions which supplied these materials, some interesting patterns are presented in terms of how institutions choose to document faculty data on tenure track, rank, department/college, and ethnicity.

Tenure Track

In some affirmative action documents, it is unclear who is included in the utilization analyses. Apparently, tenure track is not broken out at the majority of institutions (78, 55.7%). Eleven institutions out of the 140 providing materials (7.9%) state that only tenure track faculty are included in the data. Eighteen institutions (12.9%) use multiple reports for various combinations of subgrouping definitions, such as full-time, part-time, regular, instruction, instructional and research, research, extension, clinical, or ladder rank faculty. In most cases, only one subgroup is identified. These reports are more useful when different statistics are calculated for different subgroups.

Some schools provide separate availability/utilization reports for different tenure track

groups. Of these, 17 (12.1%) separate tenure track versus non-tenure track faculty. Four schools (2.9%) provide separate reports for tenured, tenure track, and non-tenure track faculty. It is assumed that availability assumptions will be different for each group. This approach may be much more useful in setting explicit and realistic goals, especially for senior faculty. A few institutions mention using the 1983 Colorado study for this purpose. Others use different sets of NRC trend data for tenured and tenure track faculty.

Faculty Rank

The majority of institutions (110, 78.6%) do not break out availability/utilization data by faculty rank. Of those which do, 18 (12.9%) use combinations of junior versus senior faculty and 12 (8.6%) break out the data by each ladder rank. In some cases, separate availability data are also calculated for each rank or rank group. As in special breakouts for tenured versus tenure track (probationary), this approach offers more accurate data for the specialized availability population. Institutions which go to the trouble of calculating these separate availability data appear to take the goal-setting process more seriously. The usual methods involve using different sets of NRC trend data, usually the past six years for the assistant professor rank and the previous 14 or more years for the senior ranks. Certainly, availability data for senior ranks are lower. Institutions will do less well in their utilization if they use current NRC data for these ranks. Trend data allow them to set more realistic and therefore lower goals.

Department/College

Twenty-two institutions (15.7%) treat all faculty as one large job group, regardless of their department or discipline. These availability data are the easiest to calculate and the least accurate indicator of faculty diversity for a specific campus. However, they offer benchmarks about an institution's level of faculty diversity, barring any regional, control, and Carnegie classification differences. Another 29 respondents (20.7%) analyze availability/utilization at the college/school level.

An analysis of the worksheets provided by institutions of how availability statistics are calculated suggests that two methods are used for determining data. In the first, general discipline cluster data such as humanities or life sciences are used, sometimes from aggregate reports for multiple disciplines (as are available in the NCES data available through CASPAR). The second method involves a roll-up of disciplines comparable to departments in a college/school. Thirteen institutions (9.3%) use only the multiple discipline clusters such as humanities, without any roll-up to college/school.

The majority of institutions (77, 55.0%) break out their data by department, sometimes also rolling them up to college totals. It appears that no institutions break out utilization data by discipline within department. The availability calculation worksheets which were available for some of these 77 institutions show some weighting and roll-up of NRC discipline data.

Ethnicity

There is a great deal of variation in how institutions choose to break out ethnicity data for faculty. Six schools break out ethnicity within gender and 5 break out gender within ethnicity. This breakout is discussed in one of the subparagraphs of the OFCCP regulations, without clear language as to when it is necessary. One might imply that this level of breakout is necessary only when OFCCP requests it for an audit because of apparent underutilization in this specific job group. Another 42.9% of institutions (60) report ethnicity data for total minority only, without any breakout for African-American, Hispanic, Asian, or Native American data. Forty schools (28.6%) break out each of the four non-white ethnic groups, sometime with totals for all minorities. Twenty-two institutions (15.7%) include only certain of the four groups. Of these, 8 (5.7%) look only at African-American faculty, without breakout out the other groups in any way.

This diversity of methods is not surprising, given regional differences in issues of access. For many schools in the South, the focus has traditionally been on African-Americans. California institutions may collect more data on Asians and Hispanics, Florida and Texas on Hispanics. Certainly, the nomenclature for describing ethnic groups is undergoing tremendous change. For this reason, it was surprising not to find any listings of groupings by Chicano or Latino faculty. Perhaps this is because these data are from 1992 and the issue was not yet popular. One office reported its attempts to locate availability data for Italian Americans. In no cases were the data broken out for any ethnic group other than African-Americans, Hispanics, Asians, and Native Americans. There was no clear documentation of data for non-resident aliens. The use of the terms "Minority Other" and "Other Minority" is often unclear. There were no breakouts by any other type of demographic grouping besides race and gender.

Methods for Determining Underutilization

In most of the utilization analysis documents submitted, the respondents list the total number of faculty in a department or unit, the number of women or minorities, the percentages of utilization, the labor market availability calculated with the eight factor analyses, and whether or not a particular job group is underutilized for women or minorities. The calculation of underutilization is simply the result of subtracting utilization from availability. At least 3 institutions use other criteria to determine underutilization, including the "eight percent" and "two standard deviations" rules are used. In the first case, institutions are underutilized if they do not have 80% of the labor market availability. Second, institutions are considered to be underutilized only if their utilization is lower than two standard deviations of the availability data. It appears that some of the proprietary affirmative action software make these calculations.

This topic was discussed with regional representatives of OFCCP, who are aware of a growing number of institutions using this practice. There is some language about standard deviations and statistical practices in Chapter 60 of the Code of Federal Regulations for Public Contracts and Property Management. When questioned about whether this methodology is appropriate, OFCCP officials stated that they do not attempt to decide whether a particular

methodology is approved. They look for areas of underutilization and try to determine whether better recruiting and hiring practices could be put into place.

According to these officials, a routine report is received from the Federal Procurement Data Center which lists each federal contract awarded during the contract year. The report is broken out by Standard Industrial Code, in this case for educational institutions. All institutions with \$50,000 or more in contracts are monitored for compliance. Random audits are conducted and, where it is possible, OFCCP schedules all higher education institutions under a regular audit schedule. OFCCP also receives reports of the EEO-6 data which, similar to the analysis conducted for this study, aggregate gender and minority data for faculty and staff. OFCCP then looks for institutions with low utilization rates within a given region. Institutions with low utilization rates are more likely to be audited. An additional component of this project is to purchase a copy of the Procurement Data Center report and determine how many higher education institutions are actually required to file Affirmative Action Plans.

Process Indicator - Use of Sophisticated Breakout Variables

While most institutions break out their availability/utilization data by department, fewer choose to break out their data by type of tenure track and rank. To evaluate how sophisticated an institution's plan is, two variables were examined: (1) whether the plan is broken out by rank; and (2) whether a plan is broken out by type of tenure track. The majority of institutions already break out their data by department, and breakouts by ethnicity are problematic, so these two variables are not considered to be useful in determining if a plan is sophisticated.

The following table suggests that the higher the Carnegie classification, the greater the percentage of institutions with complex availability/utilization reports. The number of private institutions which submitted complete materials is too low to note differences in control, though the overall rate of 43.8% of privates with complex plans is comparable to the 41.5% of publics.

TABLE 5: 1992 INSTITUTIONS WITH COMPLEX UTILIZATION BREAKOUTS

CARNEGIE CLASSIFICATION	# Schools with Materials	# with Complex Breakout	% with Complex Breakout
Public			
Research I/II	41	21	51.2%
Doctoral I/II	23	9	39.1%
Master's I/II	60	21	35.0%
Subtotal	124	51	41.1%
Private			
Research I/II	7	5	71.4%
Doctoral I/II	2	1	50.0%
Master's I/II	7	1	14.3%

Subtotal	16	7	43.8%
Total	140	58	41.4%

Process Indicator - Disciplinary Differences in Availability Data

There is little consistency among the Affirmative Action Plans about how they are broken out. Even those 58 institutions with complex utilization breakouts do so in individualized ways. Some break out tenure track, but do minority breakouts separately, without calculating minority totals. Some break out only some departments, while others do complicated breakouts by tenure track, without any totals. This makes comparison between institutions very difficult.

All data in plans were reviewed looking for those which break availability data out in a standardized manner, i.e. that there is a total minorities percentage and a total female percentage for each discipline for all tenure track faculty without breakouts by rank. Only 28 institutions (20.0%) of the 140 schools which provided availability data adhere to this standard breakout. Two of these are privates and were discarded from this analysis because it is conceivable that they may have different criteria for hiring. Other schools provide more complex levels of breakout which make comparisons problematic.

Faculty availability data for selected disciplines were entered into a database. Since there is wide variation in which disciplines are offered, eight disciplines were chosen as standards to reflect the range of offerings in humanities and sciences. Since feminization of the disciplines is an issue, four of the disciplines (Chemistry, Economics, Physics, and Sociology) are predominantly male and four (English, Psychology, Education, and Foreign Languages) are predominantly female. Since the estimation of faculty availability is at the heart of determining utilization statistics, it is possible that institutions may somehow select availability data which are unnecessary low, requiring lower goals and fewer efforts to attract minorities and women. The mix of predominantly male and female disciplines should serve as an indicator of whether institutions are consistently underestimating availability data.

The availability data by discipline for female faculty look as follows:

DISCIPLINE	AVG	MIN	MAX	STD
English	52.31%	37.22%	68.30%	6.33%
Psychology	50.21%	33.15%	60.40%	8.08%
Education	52.57%	36.30%	64.20%	7.92%
Chemistry	19.95%	8.70%	28.00%	5.62%
Physics	8.32%	1.30%	13.00%	2.93%

Economics	17.39%	8.70%	27.20%	5.02%
Foreign Lang.	57.79%	46.30%	67.10%	6.36%
Sociology	44.80%	26.30%	55.50%	9.05%

The availability data by discipline for minority faculty look as follows:

DISCIPLINE	AVG	MIN	MAX	STD
English	6.33%	3.00%	8.60%	1.37%
Psychology	8.74%	6.00%	14.20%	1.66%
Education	13.28%	8.70%	16.30%	1.77%
Chemistry	10.48%	5.60%	15.14%	2.12%
Physics	9.09%	2.20%	17.12%	3.01%
Economics	12.05%	6.43%	17.46%	2.84%
Foreign Lang.	18.52%	8.56%	25.00%	4.52%
Sociology	14.38%	7.66%	19.40%	2.66%

These data suggest that there is wide variation in the female availability data and some degree of variation in the minority availability data, even among homogeneous institutions. An institution which sets its minority availability goal for physics at 17.12% holds itself to much higher standards for affirmative action than the institution which sets its goal at 2.20%. The university which sets a goal of 8.70% women in chemistry has more likely met targets for utilization, where the university with a goal of 28.00% is still working to include more women in its chemistry hires.

Yet both institutions break out their availability data the same way. Both probably use only factor five of the eight factor analysis (recruits nationally). Both have the same NRC and NCES data to work with in determining availability in the discipline. While the years of data may be slightly data, the pipeline for these disciplines has not changed dramatically over a five year time period.

What are the reasons for the variation? Are institutions using old data which make them look better? Are there assumptions embedded in the eight factor analyses which artificially pull the availability figure down from where it is at another institution? Certainly, there are problems

in the standards for using availability data. These large, research and doctoral institutions are most likely to have the institutional research and affirmative action offices necessary for producing accurate and timely availability data. It could be that lower availability data are calculated when models break out faculty by rank, relying on older NCES and NRC trend data. Still, there has been little real movement in the pipeline data for most disciplines.

Investigation of Federal Agencies Monitoring Faculty Hiring

Nowhere is there a central repository of affirmative action plans in higher education from which one might examine faculty availability/utilization statistics. According to OFCCP officials, there are no national files of affirmative action plans, only regional files specific to individual audits. There are few training materials or sessions within OFCCP devoted to higher education issues, and almost none on availability and utilization. What materials regional OFCCP officials were able to find in their files are from the 1970's and early 1980's. These officials expressed their own frustration at not having clear standards and guidelines for monitoring higher education.

There is little clout to OFCCP's enforcement role. Mary Gray, former chairperson of AAUP's Committee on the Status of Women, helped create the Women's Equity Action League to force the EEOC to step up its audits and enforcement of higher education. Yet her reaction, like that of senior OFCCP regional officials, is that there is no enforcement mechanism. One official postulates that there has never been a single case in which an institution has been disbarred from receiving federal contracts because of failure to adhere to affirmative action procedures.

The role of OFCCP is still ambiguous, 18 years after the Equal Opportunity Advisory Council wrote that:

Due to the absence of a common interpretation of availability within the federal government and the subjectivity of the determination process, compliance officials are permitted great latitude in their assessments of the methodologies employed by a federal contractor. This latitude is augmented by the fact that the government has issued few regulations which stipulate the manner in which a company should go about determining availability (E.E.A.C., 1978, p. 14).

The Carnegie Council on Policy Studies in Higher Education addressed "Deficiencies in the Administration of Federal Programs" in its report of its 1975 survey results. The Council wrote that:

Observers of federal affirmative action tend to agree on the inadequacy of the staff of OCR, and also of EEOC and of OFCC, in relation to higher education. The most frequently expressed criticisms concern preparation of the OCR staff to deal with the intricate problems and difficulties of interpretation of nondiscrimination and affirmative action in faculty employment. They also relate to the seriously

inadequate size of the staff when viewed against the large number of colleges and universities affected by the provisions (Carnegie Council, 1975, p. 150).

The Council documented that there were problems in "Delays and Backlogs of Cases." There are "Too Many Cooks," the report suggests, "too many federal agencies involved in the enforcement of antidiscrimination..." (p. 159). While there may not be too many cooks left after the Reagan/Bush administrations, the delays and backlogs are still there.

Some State Higher Education Executive Offices (SHEEOs) may serve as a review entity for documenting public institutions' efforts for affirmative action, but this effort has not been discussed in the literature. The author contacted several SHEEOs to determine whether collection of Affirmative Action Plans is a widespread practice and what degree of review takes place. Virginia's State Council for Higher Education (SCHEV) has put out "Guidelines for the Development of the Instructional and Administrative Faculty Affirmative Action Plan." Its most recent version (1990) discusses methods for calculating numerical objectives, though requiring this procedure only for African-American faculty. SCHEV provides institutions with discipline-specific data on all races using reports from the National Academy of Science's Doctoral Recipients File and the NCES Degrees Awarded file.

There is some centralization of reporting practices at system offices. This is the author's experience when requesting data directly from institutional representatives, who refer the request to their system office for completion. Several systems offer detailed explanations for the calculation of availability statistics, with a variety of demands for break-outs of rank, tenure track, and minority group.

Conclusions

Many of the problems which were brought forward in the results of the 1975 Carnegie Council on Policy Studies in Higher Education report entitled Making Affirmative Action Work in Higher Education: An Analysis of Institutional and Federal Policies and Recommendations are shown to be present in this research project twenty years later.

There appears to be no substantive literature on faculty availability for affirmative action. While there are a number of related areas of study, affirmative action officers and institutional researchers have very little to guide them in their preparation of availability, utilization, and eight factor analyses. The Equal Employment Advisory Council concluded that "federal laws and regulations offer little practical guidance" (EEAC, 1978, p. iii). Interviews with officials from the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs, and the U.S. Department of Education's Office for Civil Rights suggest that while there are benchmarks for determining poor utilization and there are standard sources for data, institutions may do pretty much whatever they want to as long as they make "good faith" efforts.

It is possible, though, after reviewing the wide range of practices used in preparation of the collected materials, to develop case studies of what constitutes "good practice." These cases may serve as benchmarks or process indicators for investigating the myth of affirmative action data. A future publication of this National Study will present such case studies, in hopes of promoting better faculty hiring practices through the use of accurate and timely availability data.

At least half of the institutions responding do not prepare affirmative action plans on an annual basis. There is wide variation in how frequently they are produced and what statistical analyses they contain. Plans are usually produced by affirmative action/equal opportunity offices, sometimes in conjunction with human resources/personnel and major administrative offices. Institutional research offices do not appear to be involved as a general practice, suggesting that the central databases used for reports may not be as "clean" as human resource extracts for official federal and state reporting.

While some provost and academic deans' offices review final availability data and sometimes suggest alternative sources of discipline-specific data, these offices are usually not involved in setting goals or in weighting and calculating raw data. At most institutions, availability data are shared with search committees, though this process varies. However, a sizable proportion of institutions (22.0%) do not make these valuable data available as part of the faculty search committee process.

The dominant source used for availability is the National Research Council doctoral recipient data, followed by U.S. Census data on postsecondary faculty and then IPEDS completions data. The Oklahoma data on faculty diversity are beginning to be used as another primary data source. Some SHEEOs and systems are involved in providing data to institutions and setting guidelines for availability. Several discipline-specific sources have become de facto standards for availability, among them the American Bar Association and the American Association of Medical Colleges. Among secondary sources of data, Professional Women and Minorities and the Digest of Educational Statistics have become standards for some institutions.

With the advent of the World Wide Web on the Internet, NCES and NSF have made the IPEDS and NRC data available free and in electronic format for use in SAS or importing into other software packages. Affirmative action officers and institutional researchers need to work together in taking advantage of these new sources of data. No longer do they have to rely on outdated datasets prepared by central offices at the system or state level. NSF's CASPAR is available on CD-ROM, as well as on the Internet, and several editions of NCES IPEDS reports have been released on CD-ROM, though these are older than those available on the Internet.

Some institutions use trend data, while many others use only current year data. Those using trend data are able to do a better job of calculating availability by rank, with various weighting schemes. Most institutions don't break out their availability/utilization data by rank or combinations of tenure track. The bulk of schools do break their data out by department, with

some roll-up for college-level statistics. There is surprising variation in which ethnic groups are broken out, but these probably reflect regional differences in issues of access.

There is also wide variation in how the eight factor analyses are used. Though there appears to be some standardization in using only Factor 5, the percentage of women and minorities in the reasonable recruiting area, other combinations of factors and weighting schemes are used at some institutions. It is in the factor analyses that there appears to be the least standardization and the most room for interpretation.

Only two out of every five institutions produce complex availability and utilization reports which break data out by type of tenure track and/or rank. It appears that the top tier of Carnegie institutions choose to do this more than do other types of schools. These institutions may have the resources for more sophisticated data production, or perhaps they have a greater need for these breakouts in calculating more accurate faculty hiring goals by group. The calculations of faculty diversity which were performed using the EEO-6 data suggest that the top tier of public research institutions does not do as well as doctoral and master's institutions in attracting women or minorities, while the top tier of private institutions does better at attracting minorities. On the surface, there does not appear to be a noticeable relationship between the use of complex availability/utilization reports or data sources and the overall percentage of faculty diversity.

While some professional norms exist about “good practice,” these do not appear to be in place at a majority of institutions. The belief that affirmative action data for faculty hiring are consistent, reliable, and part of a system of checks and balances for monitoring and enforcing compliance is a myth. In reality, there is no higher education literature, no research knowledge base, no appropriate training materials for AA/EEOs, no central database, and no cache of documents or federal regulations to guide institutions, systems, or state coordinating and governing boards in their production of affirmative action plans.

While there is some standardization of which sources of data to use, there are no benchmarks for measuring how well institutions are doing in attracting women and minorities. The data which do exist show overwhelmingly that there has been little progress since 1965 in building a diverse faculty (Gill et al., 1992; NEBHE/WICHE/SREB, 1994; Texas Higher Education Coordinating Board, 1992; Washington and Harvey, 1989; West, 1994).

There is surprising variation in faculty availability statistics by discipline, even among homogeneous institutions. Institutions have the opportunity to set artificially low utilization targets by failing to use current data, looking for the data source which gives them the lowest availability, and manipulating the eight factor analyses with superfluous factors.

Despite 30 years of affirmative action since President Johnson signed Executive Order 11246, the federal role in faculty hiring has been minimal at best. OFCCP has been forced to live with a high level of ambiguity in its interpretation of the intent of the regulations, monitoring only those areas of gross underutilization, with little power for monitoring or enforcing

compliance. There is very little training and documentation to guide the audit process. Federal regulations may be read as contradictory, allowing institutions to use them to their advantage. While the roles of federal agencies are no longer in competition, the federal commitment to monitoring lags behind that of 1975 and could conceivably, in a Republican presidency, be done away with entirely at the signing of a new executive order.

Overall, the basic philosophy and tools for affirmative action in faculty hiring have never been codified into law or implemented. Despite popular belief, there is no “system” of affirmative action in place. The federal regulations are clear in that there are no “quotas” for hiring minorities and women, only the requirement that there be “good faith” efforts of what are essentially homogeneous institutions.

At a time in which there is a national debate about affirmative action policies, institutions have essentially three responses: (1) end affirmative action; (2) keep the status quo, however bad the data; and (3) produce accurate and timely availability data with appropriate breakouts based on type of institution. Except for institutions such as the University of California at Berkeley, which have already voted to dismantle affirmative action, most public and private research and doctoral institutions already have a fairly sophisticated approach to gathering statistics about faculty hiring. The models, mechanisms, and staff levels are in place to produce and use better faculty hiring data - if institutions renew their commitment to access and diversity.

References

Bereman, Nancy A., and Scott, Joyce A. (1991). “Using the Compa-Ratio to Detect Gender Bias in Faculty Salaries.” Journal of Higher Education 62 (5):556-569.

Carnegie Council on Policy Studies in Higher Education. (1975). Making Affirmative Action Work in Higher Education: An Analysis of Institutional and Federal Policies and Recommendations. Berkeley: Carnegie Council on Policy Studies in Higher Education.

Clark, Shirley M., and Corcoran, Mary. (1986). “Perspectives on the Professional Socialization of Women Faculty: A Case of Accumulative Disadvantage?” Journal of Higher Education 57 (1):20-43.

Congressional Research Service. (1995). “Affirmative Action on the Edge -- A Divisive Debate Begins Over Whether Women and Minorities Still Deserve Favored Treatment.” Congressional Record. Statements on Introduced Bills and Joint Resolutions (Senate - March 3, 1995). Washington, D.C.: THOMAS, Legislative Information on the Internet.

Cunningham, Donald A., and Hemmeter, John T. (1992). “Using NASULGC Faculty Distribution Survey in Faculty Diversity Studies.” Paper presented at the 1992 SAIR/SCUP Conference, Myrtle Beach, South Carolina.

Dooris, Michael J., and Lozier, G. Gregory. (1989). Responding to the Challenge. New Directions for Institutional Research 63 (3):89-94.

Equal Employment Advisory Council. (1978). Perspectives on Availability: A Symposium on Determining Protected Group Representation in Internal and External Labor Markets. Washington, D.C.: Equal Employment Advisory Council.

Ethington, Corinna A., et al. (1988). "Influences on Women's Entry into Male-Dominated Occupations." Higher Education 17 (5):545-562.

Gill, Judith I., et al. (1992). Bringing into Focus the Factors Affecting Faculty Supply and Demand: A Primer for Higher Education and State Policymakers. Boulder, Colorado: Western Interstate Commission for Higher Education. ERIC# ED370471.

Glaser, E.M., and Strauss, A.L. (1967). Discovery of Grounded Theory. Chicago: AVCC .

Government Printing Office. (1995). Code of Federal Regulations: Public Contracts and Property Management. Chapter 60. Washington, D.C.: Government Printing Office.

Hallock, Pamela. "Promoting Diversity on Campus: Thought to Action." (1994). Thought & Action 10 (2): 65-78.

Hanna, C. (1988). "Organizational Context for Affirmative Action for Women Faculty." Journal of Higher Education 59 (4): 390-411.

Harvey, William B., and Valadez, James., (Eds.). (1994). Creating and Maintaining a Diverse Faculty. New Directions for Community Colleges 22 (3).

Lie, Suzanne S., et al. (1994). The Gender Gap in Higher Education. World Book of Education 1994. London.

Lincoln, Yvonna S., and Guba, Egon G. (1985). Naturalistic Inquiry. Beverly Hills: Sage Publications.

Lindgren, J. Ralph, et al. (1984). Sex Discrimination Law in Higher Education: The Lessons of the Past Decade. ASHE-ERIC Higher Education Report No. 4. Washington, D.C.: Association for the Study of Higher Education.

Lozier, G. Gregory, and Dooris, Michael J. (1989) "Elimination of Mandatory Retirement: Anticipating Faculty Response." Planning for Higher Education 17 (2): 1-14.

Lozier, G. Gregory, and Dooris, Michael J. (1991) Faculty Retirement Projections Beyond 1994: Effects of Policy on Individual Choice. Boulder: Western Interstate Commission for Higher Education.

Milam, John H., Jr. (1995). "The Myth of Affirmative Action Data." Paper presented at the Annual Forum of the Association for Institutional Research, Boston.

Moore, Nelle. (1993). "Faculty Salary Equity: Issues in Regression Model Selection." Research in Higher Education 34 (1): 107-126.

National Center for Education Statistics. (1995). "Integrated Post Secondary Education System 1991-92 Fall Staff Survey." File S9192DOC.WP in EEOC91.ZIP. Washington, D.C.: National Center for Education Statistics, U.S. Department of Education Gopher site.

NEBHA, WICHE, and SREB. (1994). The Compact for Faculty Diversity. Atlanta: New England Board of Higher Education, Western Interstate Commission for Higher Education, and the Southern Regional Education Board. ERIC# ED374755.

Office of Federal Contract Compliance Programs. (1988). Federal Register. Section 60-2.10. Washington, D.C.: U.S. Government Printing Office.

Opp, Ronald D., and Smith, Albert B. (1994). "Effective Strategies for Enhancing Minority Faculty Recruitment." Community College Journal of Research and Practice 18 (2): 147-163.

Reynolds, Ann. (1992). "Charting the Changes in Junior Faculty: Relationships among Socialization, Acculturation, and Gender." Journal of Higher Education 63 (6): 637-652.

Rodriguez, Roberto. (1994). "Higher Education Crisis Looms for Chicanos/Latinos: Conference Articulates New Strategies." Black Issues in Higher Education 11 (3):20-23.

Sands, Roberta G., et al. (1991). "Faculty Mentoring Faculty in a Public University." Journal of Higher Education 62 (2): 174-193.

Schroeder, Debra S., and Mynatt, Clifford R. (1993). "Female Graduate Students' Perceptions of the Interactions with Male and Female Major Professors." Journal of Higher Education 64 (5) 555-573.

Smith, Daryl G, et al. (1994). Studying Diversity in Higher Education. New Directions for Institutional Research 81: 1-8.

Snyder, Julie K., et al. (1994). Faculty Salary Equity: Issues and Options. Research in Higher Education 35 (1):1-19.

Stiltanen. (1994). Need Cite.

Tack, Martha W., and Patitu, Carol L. (1992). Faculty Job Satisfaction: Women and Minorities in Peril. ASHE-ERIC Higher Education Report No. 4. Washington, D.C.: Association for the Study of Higher Education.

Texas Higher Education Coordinating Board. (1992). A Study of Faculty Needs in Texas, 1991-2008. A Report to the Texas Higher Education Coordinating Board by the Faculty Shortages Advisory Committee. Austin: Texas Higher Education Coordinating Board. ERIC #ED359869.

Ulbrich, Holley. (1991). Prospects for the Faculty Labor Market in the 1990s: A Clemson University Perspective. ERIC# ED341308.

Vander Maerdt, Lois. (1989). Affirmative Action in Higher Education: A Source Book. Denver: Higher Education Executive Publications, Inc.

Washington, Valora, and Harvey, William. (1989). Affirmative Rhetoric, Negative Action. ASHE-ERIC Higher Education Report No. 2. Washington, D.C.: Association for the Study of Higher Education.

West, Martha B. (1994). "Gender Bias in Academic Robes: The Law's Failure to Protect Women Faculty." Temple Law Review 67:67-178.