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A study of the relationship between affirmative action program effectiveness and organization structure in higher education.

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A STUDY OF THE RELATIONSHIP BETWEEN
AFFIRMATIVE ACTION PROGRAM EFFECTIVENESS AND
ORGANIZATION STRUCTURE IN HIGHER EDUCATION

A Dissertation Presented

by

BRUCE ANTHONY ROSE

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment
of the requirements for the degree of

DOCTOR OF EDUCATION

September 1988

Education

A STUDY OF THE RELATIONSHIP BETWEEN
AFFIRMATIVE ACTION PROGRAM EFFECTIVENESS AND
ORGANIZATION STRUCTURE IN HIGHER EDUCATION

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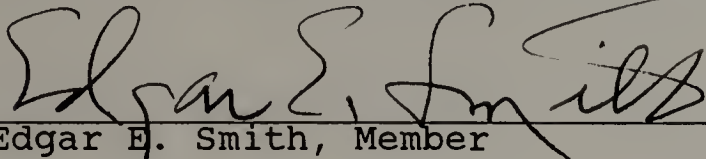
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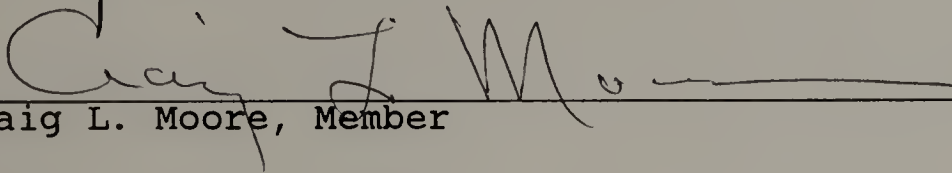
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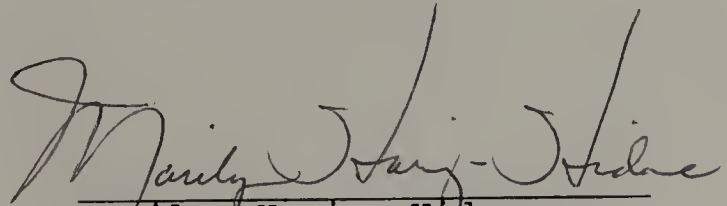
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Edgar E. Smith, Member



Craig L. Moore, Member



Marilyn Haring-Hidore
Dean, School of Education

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DEDICATION

I wish to dedicate this modest accomplishment and all that it represents to my mother, Amelia "Nana" Rose. My life achievements are undoubtedly influenced by the effects of the self-less, loving manner in which my mother raised me. Her silent and usually undetected efforts to impart me with a sense of appreciation for self-discipline, responsibility, compassion and human dignity continue to affect my behavior and attitude. The foundation of my soul continues to draw from the noble values shared and taught to me by this humble yet courageous woman.

I have been able to achieve this latest accomplishment through the benefit of a reliance upon the qualities which my mother struggled so valiantly to instill in me. In comparison to her accomplishments and victories in raising her children, my achievement is miniscule. Nevertheless, were it not for her untimely death, she would have felt immense pride and admiration for this achievement of her first-born son.

I sincerely hope that I will always have the strength and courage to live a life which fully reflects my appreciation for her precious gifts to me.

In honor of my mother, I dedicate this work.

ACKNOWLEDGEMENTS

During this past year a number of people have offered much to the completion of this dissertation. Most especially, Michael Greenebaum, Craig Moore and Edgar Smith, members of my committee have been key to bringing this dissertation to fruition.

Mike Greenebaum displayed remarkable generosity and compassion in agreeing to serve as my chairperson at a critical point in my doctoral process. His expressions of confidence in my ability to complete the dissertation in the very short time remaining provided me with much needed encouragement and reassurance. Essentially, he helped me to believe in myself. Mike's guidance and direction, both academically and personally, enabled me to complete an almost impossible task.

Craig Moore was key to the methodological issues which arose and offered indispensable assistance with the computer applications and statistical treatment associated with the research project. Since serving as my advisor during my master's degree candidacy in the School of Business Administration at the University, Craig has always been there to coach me and urge me onward. Craig's concern and support over the years have played no small part in this latest accomplishment.

Edgar Smith as colleague, friend and inspiration to me has been more a mentor than perhaps he realizes. His professional style and competence; his integrity as a scholar, administrator and person; and his unrelenting concern and commitment to enhancing educational opportunity for the less fortunate represent high noble standards. Edgar's demonstrated character and behavior have been exemplary standards to which I have been moved to aspire.

I am also grateful for the support and guidance which Art Eve lent to me as my former chairperson. Due to a series of complex circumstances over the years of my doctoral studies, Art served a much longer period as my chairperson than we had agreed to initially. Nevertheless he continued to provide exceptional guidance and assistance displaying remarkable patience and generosity. Art taught me a most valuable lesson: to have enough respect and appreciation for my work to be able to pursue the utmost in quality and excellence.

I also want to express my appreciation for Hariharan Swaminathan who, were it not for sabbatical plans, would have remained as a member of my committee. Swami was the first professor to be able to communicate quantitative concepts and processes to me in a way that I was able to comprehend and apply the imparted knowledge.

I am deeply indebted to some very special friends who contributed much time and effort to the typing of this manuscript. I want to thank Joan Kelliher, Cathy Kelly and Valerie Bailey for their assistance in the earlier stages of this effort. Most especially, I want to acknowledge the highest gratitude to Julie Walsh who typed many revisions and drafts including the final manuscript. Her constant constructive prodding was instrumental in getting me to submit the final draft in order to be typed in time to meet completion and submission deadlines. Julie's generous contribution of her time, energy and skill were indispensable to this laborious task.

Of course, there would have been no survey from which to make inferences or draw conclusions had it not been for the cooperation of the survey respondents. The many affirmative action officers of the independent colleges and universities of Massachusetts who took the time to complete and return the questionnaire provided the data which was so essential to the study. I am most appreciative of their contribution. I hope that the contribution I make to the field with their responses represents at least some measure of reciprocation for their generous cooperation.

The development of the instrument used for assessing the effectiveness of affirmative action

programs relied upon expert assistance from several affirmative action professionals. Alice Jeghelian, Jim McLain, Mary Miller and Ted Landsmark were most insightful in assisting with establishing the parameters to the domain of the affirmative action program to be assessed. Their constructive criticisms and concrete suggestions tremendously aided in the revision of the initial draft.

Perhaps the moving force which was most effective in compelling me to complete this dissertation and the doctoral process has been the combined force of my appreciation, love and respect for my family, friends and the community in which I was raised. The encouragement they offered to me in this endeavor; their inquiries and concern about my progress; and their anticipation of sharing with me the pride, joy, and exhilaration associated with such an achievement deserves the honor of fruition of this mutually shared dream. More importantly, the possibility that my achievements might serve as an inspiration urging students and young folks of that community to aspire, persevere and succeed has been a major consideration. These considerations have fueled the core of my motivation to persist until completion. Given the significance of my family, friends and community to me, I had an inviolable obligation to complete the dissertation. This accepted obligation served as my

impetus. Unequivocally, I conclude that my success in this endeavor is due in great part to the energy I derived from the obligation to my family, friends and community. I love them and I thank them dearly for this gift.

ABSTRACT

A STUDY OF THE RELATIONSHIP BETWEEN
AFFIRMATIVE ACTION PROGRAM EFFECTIVENESS AND
ORGANIZATION STRUCTURE IN HIGHER EDUCATION

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Directed by: Professor Michael Greenebaum

Affirmative action as a social policy for eliminating discrimination and achieving equality of opportunity has been researched from a number of perspectives with a wide variety of objectives. Very little has been produced in the way of an empirically developed mechanism, for assessing the effectiveness of affirmative action programs. Several researchers have delved into the criteria for successful programs; however, the focus has been on identifying prerequisites to effectiveness as opposed to indicators of success.

The organizational structure within which affirmative action is implemented presumably represents

a significant influence on the process and outcomes of the implementation effort. To the extent that this assumption is valid, once potential barriers to effective affirmative action administration are anticipated, measures to alleviate the debilitating effects could be instituted.

The purpose of this study has been to determine what, if any, relationship exists between selected features of organization structure in higher education institutions and the effectiveness of affirmative action programs at those institutions. The study involves the development of an empirically sound instrument. This instrument has been combined with another designed to measure structural variables. A survey of affirmative action officers at selected independent colleges and universities in Massachusetts was conducted through mailed questionnaires.

The findings of the research revealed very little if any relationship between affirmative action program effectiveness and the three structural variables complexity, centralization, and formalization. The most significant relationship uncovered was that between effectiveness and formalization. However, the relationship only proved to be a mild one.

The development of a tool for measuring affirmative action effectiveness is considered a valuable product emanating from the research effort.

TABLE OF CONTENTS

DEDICATION	iv
ACKNOWLEDGEMENT	v
ABSTRACT	x
LIST OF TABLES	xiv
LIST OF FIGURES.	xv

Chapter

I: INTRODUCTION	1.
A. Scope and Purpose	1.
B. Problem Statement	3.
C. Plan of Presentation	9.
II: REVIEW OF THE LITERATURE	11.
A. Affirmative Action and Higher Education	11.
B. Organizations and Structure	18.
C. Higher Education Organization	31.
D. Organizational Effectiveness	36.
III: RESEARCH METHODOLOGY	53.
A. Variables and Operational Definitions	53.
B. The Subjects	57.
C. Sampling	59.
D. Instrumentation	65.
E. Data Gathering	84.
F. Statistical Procedures for Investigating Relationships	86.
G. Hypotheses of Relationships	87.
IV: RESEARCH AND FINDINGS ANALYSES.	91.
A. Respondent Overview	91.
B. The Dependent Variable: Affirmative Action Program Effectiveness	92.
C. Intercorrelations of the Dependent Variable	93.
D. Intercorrelations of the Independent Variable	99.
E. Relationships Between Variables.	103.

V:	CONCLUSIONS AND SUMMARY . . . . .	.110.
A.	Limitations . . . . .	.110.
B.	Conclusions . . . . .	.117.
C.	Methodological Implications . . . . .	.119.
D.	Implications for Practitioners. . . . .	.121.
E.	Implications for Future Research. . . . .	.123.
	APPENDICES . . . . .	.128.
A.	Draft Affirmative Action Program Effectiveness Gauge . . . . .	.129.
B.	Letter to Panel . . . . .	.138.
C.	Operationalization Exercise Outline . . . . .	.140.
D.	Instrument for Measuring Structure. . . . .	.142.
E.	Affirmative Action Program Effectiveness Gauge (Final Draft of Combined Instruments . . . . .	.147.
F.	Letter to Sample Subjects . . . . .	.159.
G.	Follow-Up Letter to Sample Subjects . . . . .	.160.
	BIBLIOGRAPHY . . . . .	.161.

List of Tables

Table III-1	Items and Assigned Values for Part I of APEG	75.
Table III-2	Scoring Key for Item Responses in Part II of APEG	81.
Table IV-1	Frequency Distributions of Respondent Institutions by Size	91.
Table IV-2	Pearson Product-Moment Correlation Matrix for Dependent Variables . .	98.
Table IV-3	Spearman Rank Correlation Matrix for Dependent Variables	100.
Table IV-4	Correlations Between Complexity Variables and Total Complexity Score.	101.
Table IV-5	Correlations Between Centralization Variables and Total Centralization Score	102.
Table IV-6	Correlations Between Complexity (P2AT) and Affirmative Action Effectiveness	105.
Table IV-7	Correlations Between Centralization (P2BT) and Affirmative Action Effectiveness	106.
Table IV-8	Correlations Between Formalization (P2CT) and Affirmative Action Effectiveness	108.

List of Figures

Figure II-1	Major Propositions and Derived Corollaries. . . . .	.23.
Figure IV-1	Components of the Dependent Variable . . . . .	.94.

CHAPTER I

INTRODUCTION

A. Scope and Purpose

Affirmative action programs of institutions of higher education operate within the organizational framework of the college or university within which the program is implemented. Accordingly, these affirmative action programs are presumed to be bound by the constraints imposed upon them by the dimensions of the institution's organizational structure. Drawing on this presumption, the present study will examine affirmative action programs in higher education and the extent to which the effectiveness of these programs is influenced by three selected organizational structural variables: formalization, centralization and complexity.

The study embraces organization structure of independent colleges and universities in Massachusetts and assesses the outcomes of affirmative action efforts at these institutions. Relationships between the selected variables of structure and the success of affirmative action programs are investigated.

The broad objective of this investigation is two-fold. First, the study pursues a practical objective by attempting to provide empirical findings and

conclusions useful to affirmative action practitioners and other policy and decision makers in higher education seeking more effective implementation.

Secondly, the research is undertaken to contribute to the presently minute body of empirical literature relating to the impact of organization structure upon affirmative action programmatic efforts within the structure.

In essence, this is a study of social program implementation within a higher education environment. The features of the research which define the focus of this study consequently constrict the generalizability of the findings. First, the research on program implementation is limited to independent colleges and universities in Massachusetts. Review of the literature on the nature of organizational structure of the university reveals that while having similarities to other types of organized entities, the university possesses significant differences. These differences would presumably limit the applicability of many of the findings to higher education institutions. Second, effectiveness -- a notion of central importance to the study -- as a construct has no universally recognized definition. Indeed, what one may view as an effective program may be viewed from another perspective as ineffective. Thus, the implications which the findings may have for effective implementation of affirmative

action programs are relative to the research user's notion of effective implementation. Finally, this study does not presume that the state of total compliance with all applicable State and Federal regulations, requirements, and guidelines is necessarily synonymous with effective affirmative action. Therefore, the utility in comparing this study with findings of other similar studies examining the level of compliance rather than the degree of effectiveness (as defined herein) is considerably limited.

B. Problem Statement

The purpose of this study is to determine what, if any, relationships exist between selected features of organization structure and the effectiveness of affirmative action programs within institutions of higher education. The investigator has attempted to measure three dimensions of organization structure: complexity, centralization, and formalization through the use of a modified survey instrument. An instrument has also been designed by the investigator to measure affirmative action program effectiveness.

Since the adoption of the concept of affirmative action as a means for eliminating racial discrimination and ensuring equal opportunity in employment, affirmative action has been examined for a number of purposes and from a variety of perspectives. From the

outset when affirmative action was introduced in Executive Order 11246 issued by President Johnson on September 24, 1965, affirmative action has been a topic of intense political, philosophical, economic, and social debate to this date. This ongoing interest has undoubtedly contributed to the generation of numerous essays, articles, and books on affirmative action and anti-discriminatory programs and policies. Yet, despite this relative abundance of literature there is a relative paucity of material on empirical studies regarding affirmative action programs, most particularly in relation to organizational structure.

Some empirical studies have begun to emerge. In a study closely associated with the interest of the present one, Cynthia Chertos (1982) examined affirmative action implementation as a social policy and assessed the effects which a variety of organizational structural variables had on the implementation of this policy at a university. Her findings held significant implications for effective implementation of affirmative action within a university structure. Chertos found that effective affirmative action implementation was impeded by decentralized organizational structure in the university. Other researchers have also investigated relationships between affirmative action program effectiveness and organizational structural variables.

One such study in particular, conducted by Marino, lent empirical support to the contention that affirmative action compliance may be affected by mechanistic structural variables (1978).

The Chertos and Marino investigations in particular are of considerable relevance to the research involved in the present study. They offer some benchmarks against which to compare empirical findings on relationships between effective affirmative action and organization structure.

Rosabeth Moss Kanter (1980) suggests that organizational structure, both in the formal and informal senses, impacts on the equality of power and opportunity within a structure. More pointedly, Moss Kanter states:

For affirmative action and equal employment opportunity programs to have long range impact...they must be tied in more closely to issues of organization effectiveness (p.28).

The present study directly addresses this issue of relationship between affirmative action effectiveness and organization structure.

The organizational context within which affirmative action is implemented presumably represents a significant influence on the process and outcomes of the implementation effort. To the extent that this assumption is valid, once potential barriers to

effective affirmative action administration are anticipated, measures to offset the debilitating effects could be instituted. Therein lies the significance of investigating relationships between affirmative action effectiveness and organization structure.

A review of the literature presented in the next chapter indicates that dimensions of organization structure impose considerable influences on the activities and outcomes of organizations. Understanding the extent to which various structural dimensions are present within an organization allows predictions to be made about resistance to innovation (Zey-Ferrell, 1979). Inasmuch as the introduction of a program within an organization represents an innovation, it is an innovation in rather than of the organization. Such innovations must take into account the degree to which various organizational dimensions are structured.

The revelation of any significant correlation between variables of organization structure and effectiveness of programs is meaningless unless applied in some way to analysis, prediction or decision making. Thus, any correlations revealed are analyzed in the context of their implications for adaptations required. It would not be wise to suggest that structural changes be made within the institution's organizational

structure based on findings in relationships of variables in the study. After all, usually the origin of most institutions pre-dates the inception of affirmative action. Many of the institutions within the study possess a lengthy history during which powerful values, traditions and other factors of institutionalization would strongly mitigate against the notion of structural change to accommodate the implementation of a program not deemed essential to the survival and stability of the institution. Therefore, it is presumably more feasible to suggest ways in which the implementation of the affirmative action program could be designed or revised to adapt to the constraints imposed by fundamental features of the institution's organizational structure.

Substantial research has been conducted on the identification and presence of structure within organized entities. Among the earliest researchers to empirically establish the presence and operationalize the concept of dimensions of organization structure was the Aston Group (Pugh and Hickson, 1976; Pugh and Hinings, 1976). They demonstrated the presence of five primary dimensions of organization structure (three of which are addressed in this study, formalization, centralization, and complexity) in manufacturing firms in Britain. Adopting a similar approach (multivariate analysis) to study the interdependence between

organizational characteristics, Blau and Schoenherr (1971) studied the bureaucracies of state employment security agencies in the U.S. Edward A. Holdaway, et al. (1975) examined the structural variables of a group of colleges and technological institutes in Canada to test the applicability of the Aston methodology.

These studies have been conducted as attempts to advance theoretical understanding of the structure of formal organization through empirical comparative investigations. Since the Holdaway study (Holdaway, et al., 1975) only few such studies have used institutions of higher education as subjects. Although Millett (1962), Stroup (1966), Perkins (1973) and others contended that organizational properties of higher education institutions varied considerably from those of business and manufacturing entities, government bureaucracies, or foundations, none supported their positions with empirical findings. Others have taken an opposite position. Peter Blau (1973) engaged in a most important inquiry into the administrative structure of universities and colleges and its implications for bureaucracy and scholarship. His study found that administrative structure of institutions of higher learning exhibited considerable homology with that of other types of organizations. Thus, empirical comparative studies of institutions of higher learning have both relevance and importance to the development of organizational theory.

C. Plan of Presentation

The present study draws upon the literature and research findings on these related areas of study in an attempt to develop better approaches to effective implementation of affirmative action within college and university structures. A review of the literature relevant to this effort is presented in the next chapter. Four main areas are discussed. First, affirmative action as the overriding topic of concern is reviewed describing the concept and the practice, its genesis, and the mandated role of affirmative action in higher education. Second, organization structure and its dimensions are reviewed through the numerous studies demonstrating the presence, operationalization, and interrelationships of structural variables. Third, research studies and essays on the organizational structure of higher education institutions and other complex organized entities such as business firms, governmental bureaucracies, and foundations are discussed. Finally, the relevant literature on the construct of effectiveness and its measurement is presented with a view toward its application to affirmative action programs. Definition, criteria for measurement, and tools of measurement are examined.

Chapter III contains an explanation of the design and methodology of the study. A description of the

instruments utilized in the study and a discussion on the various approaches to inferring their validity and reliability begins the chapter. In addition, the various quantitative methods of analysis are articulated. Finally, background on the subjects of the study is summarily presented.

The results of the data analyses are presented in Chapter IV. The findings and their implications for the study are analyzed in this chapter.

Chapter V contains the conclusions to be drawn from the results. Implications for the development of theory and future research considerations are suggested. Finally, implications of the research for practical purposes are also discussed.

CHAPTER II
REVIEW OF THE LITERATURE

A. Affirmative Action and Higher Education

The Constitution of the United States of America, albeit an imperfect instrument, ostensibly provides a framework within which all citizens of this nation, regardless of race, color, or sex would enjoy an equal opportunity to contribute to and benefit from all aspects of life within the democratic structure. Almost two hundred years after the adoption of the Constitution in 1789 the right to equal opportunity has proven elusive for a vast number of the people in this nation. A legacy of slavery and segregation, a doctrine of separate but equal accommodation, racism, the subordination of women in society, and gender discrimination have marred the history of the "great democracy." This legacy has contributed to the systemic social and economic deprivation of masses of people within the nation.

Race and gender discrimination in particular, represent an unforgiveable contradiction of the fundamental doctrines expressed in the Constitution of the United States. The social turmoil and economic wastes attendant to such discordant practices and

policies have only gradually become less and less tolerated in their most flagrant manifestations.

In the one hundred and ninety-eight years since the framing of the U.S. Constitution numerous efforts have been launched to install and secure a society of non-discrimination and equal opportunity for all. Perhaps none have been so penetrating, contemporarily, as the enactment of the Civil Rights Act of 1964 submitted to Congress by then President John F. Kennedy and later signed by his successor, President Lyndon B. Johnson. The Act represented a far-reaching piece of civil rights legislation providing for legal guarantees for such rights as access to schools, public facilities and accommodations; right to vote; and the right to equal employment opportunity. The Act vested enforcement authority for its provisions in the Department of Justice.

Specifically, Title VII of the Civil Rights Act of 1964 prohibits certain unlawful employment practices. Section 703 of Title VII as amended states in part that it is an unlawful employment practice for an employer:

- (1) to fail or refuse to hire or to discharge any individual, or otherwise to discriminate against any individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, sex, or national origin;
- or

(2) limit, segregate, or classify his employees or applicants for employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, sex or national origin.

Section 705 of Title VII creates the Equal Employment Opportunity Commission (EEOC). Section 706 empowers the Commission to investigate charges of unlawful practice; seek conciliatory agreements; and bring civil action against violators.

The concept of affirmative action was officially born twenty years ago with the enactment of Presidential Executive Order No. 11246. The Executive Order was issued on September 24, 1965, by then President Johnson. The Order was promulgated to promote the full realization of equal employment opportunity for racial minorities. Executive Order 11246 was the sixth in a series of non-discrimination orders for federal contractors. It required contractors to take affirmative action to bring about equal opportunity regardless of race, color, or national origin and established punitive sanctions for failure to do so (Leonard, 1983). The Order was amended in 1967 by Executive Order 11375 which barred discrimination against women and mandated affirmative action to ensure their equal employment opportunity as well.

Executive Order 11246 as amended called for federal contractors to:

take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training apprenticeship.

Although the term "affirmative action" is freely used by both contractors and government agencies, nowhere is it ever precisely defined by any government compliance or enforcement agency. Nevertheless, required contents of affirmative action programs were prescribed by the Office of Federal Contract Compliance Programs (hereinafter, OFCCP) through Revised Order No. 4. Based in the Department of Labor, OFCCP was charged with compliance monitoring responsibility for federal contractors. However, OFCCP had assigned compliance reviews to federal agencies with expertise in the area of the agency being reviewed. For higher education, compliance reviews were conducted by the Department of Health, Education and Welfare until October, 1978. Currently, all such reviews are conducted by OFCCP.

In addition to required affirmative action program contents established by OFCCP as enumerated in Revised Order No. 4, the Equal Employment Opportunity Commission in February, 1979 issued affirmative action guidelines which constitute the Commission's interpretation of Title VII. These guidelines detail the circumstances under which voluntary affirmative action is appropriate. Finally the Uniform Guidelines on Employee Selection Procedures enumerates a list of affirmative steps an employer may initiate to remedy any illegal exclusionary effects his/her selection procedures might render. These above-mentioned sources have provided the basis for any definition on affirmative action.

Fleming, Gill, and Swinton (1978) aptly describe affirmative action as:

the deliberate undertaking of positive steps to design and implement employment procedures so as to ensure that the employment system provides equal opportunity to all
(p. 5).

Similarly, for purposes of the present study, affirmative action will refer to a set of consciously designed measures undertaken to achieve equal opportunity through supporting and advancing the recruitment, employment, and advancement of minorities and women within the workforce. This definition is

wholly consistent with the OFCCP and EEOC guidelines and regulations. Such affirmative action may include but not be limited to those measures identified in the Uniform Guidelines on Employee Selection Procedures (Miner and Miner, 1979):

The establishment of a long-term goal and short-range interim goals and timetables for the specific job classifications...

A recruitment program designed to attract qualified members of the group in question;

A systematic effort to organize work and redesign jobs in ways that provide opportunities for persons lacking 'journeyman' level knowledge or skills to enter...

Revamping selection instruments or procedures which have not yet been validated in order to reduce or eliminate exclusionary effects on particular groups...

The initiation of measures designed to assure that members of the affected group who are qualified to perform the job are included within the (selection) pool...

A systematic effort to provide career advancement training...; and

The establishment of a system for regularly monitoring the effectiveness of the particular affirmative action program, and

procedures for making timely adjustments in this program where effectiveness is not demonstrated (p. 463-64).

The above measures are typically reflected in the body of policies and programmatic efforts contained in an affirmative action plan of a firm or, in the interests of this study, a college or university campus.

In reviewing the legislative history of the policy of affirmative action two points become clear. First, the enactment of legislation and regulations for the implementation of this policy represents an external imposition upon colleges and universities. The practice of affirmative action is brought about not by a wholly voluntary responsible reaction to redress an historical wrongdoing but by pressure from an outside entity. Secondly, the prescribed or acceptable actions recognized by the Federal government as responsible affirmative action measures are not necessarily sufficient for overcoming the effects of past discrimination, nor for enduring equal opportunity. Further, the yardsticks for measuring (i.e., goals and timetables) are not necessarily the most appropriate evaluative devices. Whether or not a college or university achieves its hiring goals is not always an accurate indication of the effectiveness of its affirmative action program. Achievement of hiring

goals should be only one of a host of indicators of effectiveness.

In a regulatory context it may well be that the monitoring emphasis should be focussed on compliance. However, compliance measures do not always -- and perhaps almost never -- imply effectiveness in the context of program intent.

B. Organizations and Structure

Organizations to some extent affect every aspect of our lives collectively and individually. Thus in some ways, to examine this effect is to gain insight to influences on human behavior. Similarly, the study of organization structure can be seen as a means to a better understanding of organizational performance.

There are many types of organizations generally fitting into either of two basic categories: informal organizations and formal organizations. This study is concerned with the latter and views formal organization as a goal oriented collective consisting of various inter-related structural dimensions such as centralization of decision making, formalization of rules and procedures, and complexity of the structural units in which members are categorized (Zey-Ferrel, 1979). The main feature distinguishing formal organization from informal organization is the explicit prescribed procedures for coordinating and directing

the participants toward established goals in formal organizations (Blau and Schoenherr, 1971).

Organizations cannot be viewed simply as inanimate entities. In fact, organizations consist of people -- people interacting, making decisions, and engaging in concerted actions. Whatever it is that is produced in organizations is produced by people participating in those organizations. It is an obvious note that the behavior of those participants affects the outcome of organizational activity. But equally important is the effect of the various determinants of participant behavior. Not all of these determinants are readily identifiable, but one which has been empirically identified is organization structure (Blau and Schoenherr, 1971).

Organization structure is a system of coordinative relationships designed to guide and integrate the various functional activities of the organization toward its desired ends. There are several recognizable variables of organization structure including three of which comprise a focus of the present study: complexity, centralization, and formalization.

Complexity. The term of complexity is used in reference to the different structural units into which members are classified in the organization (Zey-Ferrell, 1979). Differentiation, the process by which

members are classified into the units, and specialization, the degree of formal training and education required of the members performing roles and tasks are measures of complexity.

Centralization. Centralization refers to the location of authority to make decisions (Pugh, Hickson, Hinings and Turner, 1968). It reflects the degree of participation in decision making within the organization.

Formalization. Formalization encompasses the extent to which documentation exists for rules and procedures regarding roles, authority relationships, communications, norms and sanctions (Hall, Haas, and Johnson, 1967). A major aspect of formalization is standardization. Standardization refers to regularity in the pattern of rules and procedures and formalization denotes the recording of those rules and procedures (Zey-Ferrel, 1979). For the purpose of this study, the term formalization will be used inclusively of standardization.

The elements complexity, centralization, and formalization play a key role in coordinating the activities and effecting the purpose of organizations. But no element of structure operates independent of other elements. Numerous studies (Hage, 1965; Hage &

Aiken, 1967; Pugh, Hickson, Hinings & Turner, 1968; Blau & Schoenherr, 1971; and Child, 1973) have shown that there are considerable interrelationships among these variables.

In suggesting an axiomatic theory of organizations, Jerald Hage (1965) defined eight organizational variables, four of which he termed means: complexity, centralization, formalization and stratification, and four of which he termed ends: adaptiveness, production, efficiency, and job satisfaction (p. 92). The variables were interrelated in seven major propositions based on the theoretical works of Weber, Barnard, and Thompson. Through a process of syllogism the seven major propositions were used to arrive at twenty-one corollaries for predicting means -- ends relationships. Figure II-1 illustrates the major propositions and the derived corollaries. In testing the propositions of his axiomatic theory against several research studies Hage found considerable evidence to support his hypotheses.

Exploring the relationship between centralization and the degrees of formalization and complexity, Hage and Aiken (1967) found varied support for two hypotheses contained in Hage's axiomatic theory. The two hypotheses were:

- (1) the lower the centralization, the lower the formalization; and

(2) the lower the centralization, the higher the complexity.

The first hypothesis was only weakly supported by the study, but the second hypothesis received strong support. When centralization was defined as participation in decision making there was a small negative relationship ($r = -.26$) with rule observation and a weaker relationship ($r = -.12$) with job codification. When centralization was defined as the degree of reliance on the hierarchy of authority, a positive relationship was revealed between centralization and the two measures of formalization. Analysis showed a moderate association between hierarchy of authority and job codification, ($r=+.14$); and a strong association with rule observation, ($r=+.43$).

Participation in decision making was found to be positively correlated with three measures of complexity, number of occupational specialities ($r=+.03$); professional training ($r=-.29$); and professional activities ($r=-.42$).

A group of researchers known as the Aston Group were among the first to empirically establish the presence of and operationalize the concept of dimensions of organization structure. In 1968, Pugh, Hickson, Hinings and Turner of the Aston Group concluded research defining and operationalizing five

Major Propositions

- I. The higher the centralization, the higher the production.
- II. The higher the formalization, the higher the efficiency.
- III. The higher the centralization, the higher the formalization.
- IV. The higher the stratification, the lower the job satisfaction.
- V. The higher the stratification, the higher the production.
- VI. The higher the stratification, the lower the adaptiveness.
- VII. The higher the complexity, the lower the centralization.

Derived Corollaries

1. The higher the formalization, the higher the production.
2. The higher the centralization, the higher the efficiency.
3. The lower the job satisfaction, the higher the production.
4. The lower the job satisfaction, the lower the adaptiveness.
5. The higher the production, the lower the adaptiveness.
6. The higher the complexity, the lower the production.
7. The higher the complexity, the lower the formalization.
8. The higher the production, the higher the efficiency.
9. The higher the stratification, the higher the formalization.
10. The higher the efficiency, the lower the complexity.
11. The higher the centralization, the lower the job satisfaction.
12. The higher the centralization, the lower the adaptiveness.
13. The higher the stratification, the lower the complexity.
14. The higher the complexity, the higher the job satisfaction.

Figure II-1

Major Propositions and Derived Corollaries
(Hage, 1965)

cont. next page

Figure II-1, cont.

15. The lower the complexity, the lower the adaptiveness.
16. The higher the stratification, the higher the efficiency.
17. The higher the efficiency, the lower the job satisfaction.
18. The higher the efficiency, the lower the adaptiveness.
19. The higher the centralization, the higher the stratification.
20. The higher the formalization, the lower the job satisfaction.
21. The higher the formalization, the lower the adaptiveness.

Limits Proposition

VIII. Production imposes limits on complexity, centralization, formalization, stratification, adaptiveness, efficiency, and job satisfaction.

primary dimensions of organization structure:
specialization, standardization, formalization,
centralization and configuration (Pugh, et al., 1968).

The Aston Group used numerical scales to measure sixty-four component variables for constructing profile characteristics of the fifty-two work organizations in their sample. The Group found that intercorrelations existed between the dimensions of structure.

Specialization was correlated positively with standardization and formalization, ($r=+.80$) and ($r=+.68$), respectively. Centralization correlated negatively with specialization, ($r=-.53$); standardization ($r=-.27$); and formalization, ($r=-.20$).

The results of the Aston Group's research effectively demonstrated that the Weberian concept of the bureaucratic type (i.e., bureaucracy as unitary) was no longer useful in analyzing organizations. In fact the study showed organizations may display all or only some of the dimensions of structure, and, to varying degrees. Pugh, et al., state:

In so far as the original primary dimensions of structure, specialization, standardization, formalization, centralization, and configuration were drawn from a literature saturated with the Weberian view of bureaucracy, this multifactor result has immediate implications for...the Weberian stereotype (p. 88).

In a study of thirty-one manufacturing firms Hinings and Lee (1971) replicated the work of Pugh, et al., (1968) with close parallel findings. Their replication showed that the structural characteristics of specialization, formalization, and standardization were positively and significantly related. Also, they found centralization to be negatively related to specialization and positively related to lack of autonomy (the extent to which decisions are made inside or outside the organization). The authors concluded that their replication appeared to demonstrate the validity and reliability of the original work of Pugh, et al.

However, contrary to Pugh, et al., the authors found centralization to be negatively and significantly related to standardization. They interpret this finding to suggest that "as organizations regulate more and more behavior, so they decentralize" (p.88).

Child (1973) hypothesized that complexity was a major determinant of formalization and centralization. Using a sample of eighty-two British business organizations to test this hypothesis, he concluded that organizational complexity had a primary influence on the degree of formalization. But centralization was shown to be consequent upon size rather than upon complexity. The author further concluded that the data

in the study supported the argument of Hall (1972) that complexity is a critical factor in understanding organizational structure.

The first application of the Aston Group measures of structure to a selection of organizations from the educational field was performed on the twenty-three colleges and technological institutes in the Canadian provinces of Alberta and British Columbia (Holdaway, Newberry, Hickson, & Heron, 1975). Using a modified version of the abbreviated questionnaire of the Aston studies (Inkson, Pugh & Hickson, 1970) contextual and structural variables of the colleges were examined. Contextual variables included: origin, number of employees, technology, dependence, and community support. The structural variables included: structuring of activities, concentration of authority, line control of workflow, and relative size of supportive component. The results showed that the generalizations of the Aston studies which were based on a conglomerate of organizations do not apply to all types of organizations. However, the scale values achieved in the study of Holdaway, et al., did reaffirm that the concepts of structure (i.e., complexity, centralization, and formalization) operationalized by the scales are as appropriate to educational institutions as they are to others.

The types of interrelationships among complexity, formalization, and centralization differed between the Holdaway study and the Aston Study. In the Aston study, the weakest scale was that of centralization with a coefficient of only ($r=+.40$) (Pugh, et al., 1968), whereas a coefficient of ($r=+.78$) was achieved on that scale in the Holdaway study. The specific variables in the Holdaway study exhibited intercorrelation at ($r=+.42$) or higher each for formalization, role specification, recording of role performance, standardization, autonomy, and centralization. Only functional specialization was absent from this relatively tight cluster (Holdaway, et al., 1975).

In sum, the above-cited studies demonstrate a definite presence of several variables of organizational structure. The studies also found interrelationships between the variables although these relationships varied in degree from study to study. To the extent that the outcome(s) of organizational activity is (are) a function of the structure within which the activity occurs, the variables of that structure deserve careful examination (attention) for the purpose of predicting outcomes.

In particular, three variables and their components - formalization, centralization and complexity - have been studied by researchers and have shown varying

levels of interrelationships in the studies. Hage (1965), in discussing the relationship between these three variables, hypothesized that:

1. The higher the centralization, the higher the formalization.
2. The higher the centralization, the lower the complexity.
3. The higher the complexity, the lower the formalization.

Figure II-1 provided the graphic illustration of the hypothesized relationships. Later Hage and Aiken (1967) presented some evidence in support of the first two hypotheses.

The Aston Group (Pugh, et al, 1968) empirically established the presence of and operationalized the various dimensions of structure. Their research found correlations between those dimensions of structure and suggested that organizations may display these structural dimensions in varying degrees.

Several studies researching the presence and interrelationships of structural variables were subsequently conducted. While numerous studies displayed parallel findings, some studies did produce findings which appeared to be at variance. However, such differences may at times be explained by the difference in the particular aspects of a variable

studied. For example, one researcher may measure formalization inclusive of standardization while another may study each separately.

Variance in findings might also be explained by the difference in the types of organizations examined from one study to another. The findings in one type of organization are not necessarily generalizable to other types of organizations. To illustrate the significance of this point consider that it has been suggested that the higher the centralization within an organization's structure, the greater the probability of successful implementation of affirmative action (Chertos, 1982; Hall and Meier, 1977). In college and university structure decentralization is more prevalent and even preferred than in other organized structures (Millett, 1978). These assertions would appear to suggest that a potential conflict arises when implementing affirmative action in higher education structures.

Like most other organizational functions, the success or failure of affirmative action implementation is influenced by the structure of organization within which it operates. Thus, findings derived from studies of other types of organizations must be carefully evaluated in their generalizability to higher education before incorporating them in any assumptions or bases for the current research.

C. Higher Education Organization

Assumptions inherent in the works of many authors indicate that organization structure within institutions of higher education bears striking resemblances to that of manufacturing firms and private business (Holdaway, Newberry, Hickson & Heron, 1975), government bureaus (Blau, 1973), and large foundations (Corson, 1973). However, many of the same authors and others note the dissimilarities between organizational structures of higher education and other institutions.

John D. Millett (1962) held that there was little empirical evidence to suggest that notions drawn from an examination of business and public administration have anything more than limited relevance and applicability to colleges and universities. He asserts that college and universities possess some essential peculiarities -- the nature of the learning process, the role of the faculty, and the economics of the academic enterprise -- which set them apart from other types of organizations. These peculiarities give rise to three organizational attributes: "high degree of autonomy or decentralization of the productive units, ...high degree of centralization in the performance of support services, ...(and) the need for linkage of the enterprise with society" (Millett, 1978, pp. 248-249).

On the basis of several illustrations, G. Lester Anderson (1963) concluded firmly that universities are complex organizations:

colleges or universities fit a general class of organizations...members are "organized" to accomplish a purpose (or purposes)...the interrelationships of the members are ordered by a system of authority and rewards,...decisions are made by administrators, and...the behavior of the members is lawful though variable, and hence predictable. Consequently, general principles regarding organizations should have relevance to the organization of college and universities (p. 4).

Anderson claims that institutions of higher education have characteristics of bureaucratic organization. As evidence he notes that the administrative and the research components possess bureaucratic characteristics such as "hierarchical authority, definitions of official duties, specialized roles, systems of rules and regulations..." (p. 7). Even instruction, as he notes, is tending toward bureaucracy with the introduction of technology in language programs for example.

Anderson qualifies his characterization of the university as bureaucratic by noting that collegial authority, largely derived from the faculty, limits or

denies the concept of hierarchical monocratic authority within the college and substitutes the notion of community.

Herbert Stroup (1966) analyzed the structure and function of higher education as a bureaucracy and finds colleges and universities to be "a far cry from businesses in many of their aspects" (p. 31). Stroup holds the same notion toward comparisons of higher education to other social institutions such as religion and government. Nevertheless, he contends that colleges and universities are indeed bureaucracies as evidenced by their many characteristics which fit with the Weberian model of bureaucracy.

Acknowledging similarities between university and corporate business structures, Ralph M. Besse (1973) points out that considerable differences exist. Business corporations are granted their authority by shareholders and their organization is authoritarian. Corporations tend to reflect a unity of purpose (i.e., the pursuit of profit) among its members. In contrast, universities tend toward multiple, fragmented, and often ambiguous authority granting sources and a lack of unity in the mission of academic activity.

Stephen K. Bailey (1973) recognized generic similarities between universities and government bureaus contending that both are multi-divisional organizations with superordinate and subordinate

structures and both have differentiated personnel. Although Bailey concedes there are also differences, he suggests that these differences may be more apparent than real.

In comparing large foundations with universities, W. McNeil Lowry (1973) accepts a view of close resemblance between the structures of foundations and universities. Each are characterized as moving toward a consensus, possessing a similarly collegial process, and being comparably influenced by a governing board. The author contends that the influence of each on the other's structure warrants more attention than any mere comparisons or contrasts of their structures.

John T. Corson (1973) maintains that the comparisons made of university structure to other institutional structures by various authors such as Besse (1973), Bailey (1973), and Lowry (1973) confirm the uniqueness of university structure. Corson cites the statement of the Assembly on University Goals and Governance presented in February, 1971, that universities have inappropriately patterned their models of governance after public administration and business models. In validating this conclusion Corson suggests:

Unlike other institutions, colleges and universities lack clear, unified, and tangible purposes. The activities of the university

differ not only in substance but also in emotional quality, in degree of social approval, and in the degree to which they relate individuals in a common effort...(Its) character is being remodeled as the institution has lost the autonomy..it once deemed essential... The membership of the university is marked by the limited degree to which the members manifest attachment and loyalty to the institution and the extent to which dominant groups...claim a part in the governance... Finally the bonds that traditionally held the college together as a functioning organization...(have) been disintegrating (p. 168).

Similarly, E. Duryea (1973) concludes that organizational structure of the university has been dysfunctional. He attributes the dysfunction to three organizational inadequacies: "size and complexity,... specialization and departmentation, and the third to the shifting patterns of institutional government" (p. 34).

The literature on higher education organization suggests that colleges and universities, although they have many differences, do exhibit a similarity with other types of organizations sufficient to justify careful generalization of organization research

findings to higher education structures. The peculiarities of college and university organization structure present some organizational attributes which suggests limits on the application of generalizations from studies of other types of organizations.

D. Organizational Effectiveness

Organizational effectiveness as a construct has not lent itself to precise definition. Definitions which have been advanced vary with the perspectives of the authors proposing them. The definitions have depended upon, among other things, the view of the nature of organizations as either closed or open systems, the purpose of the assessment of organizational effectiveness, and the types and sources of criteria for effectiveness measurement. Contributing to its illusion of precise definition is the multifaceted character of the construct:

In short, organizational effectiveness may be typified as being mutable (composed of different criteria at different life stages), comprehensive (including a multiplicity of dimensions), divergent (relating to different constituencies), transpositive (altering relevant criteria when different levels of analysis are used), and complex (having nonparsimonious relationships among dimensions) (Cameron, 1978, p. 604).

While the literature fails to provide a widely accepted complete and explicit definition of organizational effectiveness, the concept until recently, has often been dichotomized into two general models, the goal-centered view and the systems view (Campbell, 1977; Cameron, 1978; and Price, 1972). The former assumes that organizations are rational entities in conscious pursuit of a set of goals. Effectiveness in this view can thus be assessed by measuring the extent to which the organizational goals have been achieved. In contrast, the systems approach defines effectiveness in terms of the extent to which the organization has efficiently exploited its environment in acquiring scarce and necessary resources (Price, 1972).

Difficulties with definition and operationalization of organizational effectiveness are highlighted by a fundamental dilemma of perspective (Dubin, 1976). Robert Dubin noted that there are at least two competing viewpoints on the meaning of organizational effectiveness. The one focuses on the efficiency of utilization of invested resources, typically the managerial viewpoint. The other considers the value of the organizational output to the larger society. Rather than argue for the dominance of one conflicting viewpoint over another (i.e., internal efficiency or social utility), Dubin argues for a rational choice for

the point of view which would be most applicable in a particular situation; "hence, the appropriate measure of organizational effectiveness may be applied to the chosen solution (p. 13)." Unfortunately, Dubin prescribed no criteria for assessing which viewpoint would be most applicable in a given operating situation

Whether one embraces the goal view or the systems view of organizations and their effectiveness bears considerable significance for many of the issues relevant to the domains of organizational effectiveness. One of these primary issues is that of criteria (Campbell, 1977). Which criteria to employ in the assessment of effectiveness will depend heavily upon the view of the nature of organizations held by the evaluator. For example, the evaluator embracing the systems perspective may be more interested in criteria such as degree of conflict among work groups, internal consistency, job satisfaction and nature of communications than the goal oriented evaluator who is more interested in the actual objectives of the organization.

Some researchers have asserted that effectiveness of organizations can be typified by similar criteria such as flexibility, productivity, and intraorganizational strain (Georgopoulos & Tannenbaum, 1957) or the extent to which the organization "satisfies" the needs and demands of its employees,

owners, clients, and relative components of the environment (Friedlander & Pickle, 1968). Other researchers contend that because of their differing nature, missions and constituencies, different types of organizations require their own unique set of effectiveness criteria (Hall, 1972; Scott, 1977; Zey-Ferrell, 1979).

Cameron (1978) reviewed twenty-one empirical studies of organizational effectiveness and found that a wide variety of criteria choices and types had been utilized and that criteria on one level of analysis may differ with criteria on another level of analysis. Further, as Molnar and Rogers (1976) contend, some choices of criteria may be more appropriate in a particular type of organization than in others. Steers (1975) has asserted that criteria may be relatively unstable over time, appropriate at one point and misleading at another.

The criteria to be employed in assessing organizational effectiveness depends on the level of analysis to be conducted which in turn is dependent upon the perspective of the researcher. Researchers adopting the systems view will focus on the environment as the appropriate level of analysis and will determine the effectiveness criteria accordingly (Hirsch, 1975; Katz & Kahn, 1978). Authors contending that the organization should be viewed as the unit of analysis

will center on goal achievement, intraorganizational processes and other characteristics of the organization as criteria of effectiveness (Webb, 1974; Scott, 1977). Those who propose that sub-units of the organization are the appropriate levels of analysis will seek to measure the contributions of and coordination among subunits within the organization (Pennings & Goodman, 1977). Still others will seek to measure organizational effectiveness by the performance of individuals within the organization (Argyris, 1962).

Whether the official records of the organization or the perceptions of the organizational participants are relied on in determining and employing criteria for effectiveness measurement is also dependent upon the evaluator's perspective. Campbell (1977) asserts that subjective criteria such as personal perceptions are most appropriate in measuring effectiveness. In contrast, Yuchtman and Seashore (1967) contend that official organizational records are more appropriate.

Related to the issue of organizational records versus perceptual criteria is the distinction between two components of the goal approach: prescribed goals versus derived goals. Prescribed goals are those articulated within the formal charter of the organization (Price, 1972). Derived goals are those which may be independent of the intentions and awareness of organizational members; they are an

external individual's perceptions on the goals derived, not from an organizational frame of reference but from society (Price, 1972). The delineation of the prescribed and derived goals is directly related to the functional and goal approaches contained in the goal attainment model of Etzioni (1964).

Further, goals have been described as either "official" or "operative." Charles Perrow (1961) refers to official goals as "the general purposes of the organization as put forth in the charter" (p. 855). Operative goals are described as those which "designate the ends sought through the actual operating policies" (p. 855). Operative goals provide a picture of what is actually being done within the organization as opposed to what the organization claims to be doing.

In Etzioni's (1971) critique of the goal and systems model he stresses that the goal model is not an objective approach and has methodological shortcomings. One such shortcoming is that it makes the assessment dependent upon the inherent assumptions of the model. Also, the model fails to recognize that not all organizational means are devoted to stated organizational goals, some are directed toward other functions such as organizational survival and maintenance. Further, the goal model commits the mistake of comparing unlike objects; the real state (the organization in reality) is compared to an ideal state (the organizational goals).

Etzioni asserts that the systems model is less biased and assumes a priori that some means must be directed toward non-goal functions. Additionally, the systems model, unlike the goal model, does not assume the perspective of any one constituency. In fact the systems model does not begin by examining the goal but begins with "a working model of a social unit which is capable of achieving a goal" (1960, p. 35).

In a review of two alternative conceptions of organizational effectiveness, the goal approach and the system resource approach, Price (1972) noted criticisms of both. Price draws on the criticisms by Yuchtman and Seashore who contend that the prescribed goal approach is inadequate because of its inability to properly identify organizational goals and that the derived goal approach is also inadequate because it uses external basis (i.e., society as opposed to the organization) as the basis for evaluation. These criticisms are refuted by Price as he proposes four guidelines to address the goal identification problem cited by Yuchtman and Seashore and suggests the approach used by Georgopoulos and Mann (1962) in their study of a community hospital as an example for using the organization as the basis for evaluation.

Price elaborates a further criticism of the goal approach. He charges that the development of theory

has been hindered because researchers employing the goal approach have failed to develop general measures to be used for studying many types of organizations.

Focusing primarily on a study of seventy-five life insurance sales agencies conducted by Seashore and Yuchtman (1967), Price turns to reviewing the system resource approach and notes that it has been subject to three primary criticisms. The first is that optimization, a concept highly regarded by the system resource approach, is not validly measured. Second, while users of the system resource approach have recognized the need for general measures of effectiveness, development of general measures has not occurred. Finally, users of the system resource approach have violated the basic rule of mutual exclusiveness by often referring to effectiveness as efficiency, in reality two different concepts.

Price concludes his critique by suggesting that measures of effectiveness used by Georgopoulos and Mann (1962) can be adopted for general use in effectiveness measurement. He urges that in doing so the validity and reliability of their study should be checked; if they prove satisfactory, benchmark data should be compiled and additional types of verbal measures should be developed to permit use of a multitrait-multimethod matrix to assess convergent and discriminant validity.

In the first empirical comparison between the goal and system resource approaches to organizational effectiveness, Molnar and Rogers (1976) reconceptualize the system resource approach for use in public agencies. Indicators of both the goal approach and the system resource approach to effectiveness measurement are compared in an attempt to examine the convergence and consistency of the two approaches. One of the attributed advantages of the system resource approach, its supposed utility for differing types of organizations (Yuchtman and Seashore, 1967), is examined in particular. The study also focussed attention on the flow of organizational resources.

Citing differences in the political basis and mechanisms of resources acquisition between public and private agencies/organizations, Molnar and Rogers contend that these differences are substantial enough to militate against effectiveness being judged in terms of the traditional indicator of the system resource approach, the ability to exploit the environment. Having demonstrated empirical support through their study, they advocate that the system resource approach can be used for public agencies when effectiveness is conceptualized in terms of the agencies' "ability to distribute resources or provide services to the environment" (p. 404).

One of the overriding purposes of the Molnar and Rogers study was to investigate whether or not there is any convergence between indicators of the goal approach and the system resource approach. They found that while there was some consistency between the two approaches, convergence among the indicators was not demonstrated. Thus they conclude that the two approaches measure related but separate dimensions of effectiveness.

Up to this point the research development has focussed upon two fundamental models, the goals approach and the systems resource approach. But during the late seventies researchers became increasingly uneasy with these models which sought to arrive at a universal set of criteria for assessing effectiveness. At this time the literature began to reflect a proliferation of challenges to the validity of these two approaches. The base of some of these challenges paralleled the theses of theorists as far back as Chester Barnard. Barnard (1938) conceptualized a participant satisfaction model which suggested that organizational worth was relative to the array of participants in the organization. The model assumes that organizations exist for human benefit. To the extent human benefit is derived via the pursuit of organizational goals, those goals are important. Hence the ultimate criterion of organizational worth is the

relative value these participants hold for the organization in accordance with the benefit they have derived (Keeley, 1978).

This relativistic notion of organizational worth eventually gave rise to a new school of thought on organizational effectiveness. The newly emerged thinking evaluated effectiveness through a set of several statements, rather than a unitary one, each resulting from the various evaluative criteria employed by the array of the organization's constituencies. The first formal model using this "multiple constituency" approach is believed to have been developed by Pennings and Goodman (1977). Steers (1975) had already suggested the use of integrative, multivariate models to study organizational effectiveness contending that such approaches are more comprehensive and illuminate how the studied variables are related.

Despite the demonstrated inappropriateness of the notion of a unitary criterion, the grail-like search for a singular criterion of organizational effectiveness has persisted. Much of the difficulty in assessing organizational effectiveness can be attributed to this search for the ultimate criterion (Goodman, Atkin, & Schoorman, 1983). Connolly, Conlon, and Deutsch (1980) contend that this desire for an ultimate criterion has handicapped approaches to organizational effectiveness and has rendered them

"conceptually conflicting and empirically arid (p. 211)." They, instead, propose abandoning the assumption implicit in the goals and systems approaches that a single set of criteria, i.e., a single statement about effectiveness is possible. They further propose going beyond merely suggesting that effectiveness be treated multidimensionally as Steers (1975) suggested. Connolly, et al, propose multiple evaluations (on the several dimensions) by multiple constituencies.

Raymond Zammuto (1982) presents a theoretical perspective on organizational effectiveness stressing a multiple constituency approach. Zammuto rejects both the goal based and the systems approaches to assessing organizational effectiveness. He notes that the two approaches are inadequate because they fail to recognize the legitimacy of multiple constituencies. Whereas the goal based approach focuses on an assessment from the perspective of only one constituent, generally the managerial elite, the systems approach provides no information on any preferences. However, multiple constituency approaches as currently developed are also viewed as bearing inadequacies. The common multiple constituency approach in effect forces an evaluator or decision maker to make a choice of what actually constitutes organizational effectiveness from the relevant multiple perspectives. Additionally, the multiple constituency

approach like the goals and systems approaches fails to take into consideration the situation-specific nature of the construct of organizational effectiveness. That is, it does not recognize that what constitutes effective performance at one point in time may not represent effective performance at another point because of the change in social context and in the constraints on performance (which define an organization's niche) that may occur over time. In Zammuto's model, organizational effectiveness is not believed to be a known nor a constant quantity.

Zammuto proposes that organizations should engage in "niche expansion" in order to accommodate multiple constituent preferences. Such an approach supposedly increases the organization's adaptability to the environment. Consequently, organizations would need to focus on the effects of performance rather than its objectives.

Cameron and Whetten (1983) suggest there are three primary reasons for the abundance of models of organizational effectiveness in the social sciences. These reasons are closely associated with the variety of conceptualizations of organizations. The authors claim that this variety gives rise to problems with specification of definition and assessment of criteria of effectiveness. The reasons they offer are:

1. Multiple models of organizational effectiveness are products of multiple arbitrary models of organizations (p. 4).
2. The construct space of organizational effectiveness is unknown (p. 7).
3. The best criteria for assessing organizational effectiveness are unknown (p. 11).

Cameron and Whetten propose that multiple models of effectiveness be utilized and that the results of such multiple models need to be recorded in relation to one another in order to assist in developing a cumulative body of literature to help define the construct of organizational effectiveness.

Some researchers have noted an increasing tendency toward the recognition of multiple constituencies, measurements and causal determinants regarding organizational effectiveness. Such tendencies have fed the pursuit of a unified framework in hopes of developing a singular theory upon which to test organizational effectiveness. Goodman, Atkin, and Schoorman (1983) predict that the absence of this singular theory will continue. As an alternative to defining the construct space of organizational effectiveness, Goodman, et al, propose a moratorium on traditional organizational effectiveness studies; they prefer developing models for single dependent variables resulting in studies on satisfaction, productivity, etc. rather than organizational effectiveness.

Despite apparent agreement with Goodman, et al, regarding the persistent problem of defining the construct of organizational effectiveness, Brewer (1983) rejects any notion of a moratorium on organization assessment studies. Brewer maintains that there will never be an approach capable of addressing all the questions and issues associated with constituencies, time, and purpose of effectiveness assessments. Instead, Brewer advocates that a more utilitarian aim be embraced in studying organizational effectiveness -- providing "a more responsible accounting of human fulfillment and (a shifting) away from institutional or organizational abstractions (p. 221)."

Similarly Cameron and Whetten (1983a) argue against abandoning the pursuit of defining the construct space of effectiveness. They point out that this construct space can oblige a great variety of criteria, criteria which cannot be evaluated by any single approach. Thus, they advocate that multiple models generating multiple effectiveness criteria must be employed in ascertaining the construct space of organizational effectiveness. Further, these multiple models should be systematically compared and integrated. The authors offer seven decision guides for mapping the construct space of organizational effectiveness and conducting such comparison and integration:

1. Define the viewpoint from which effectiveness is being assessed.
2. Ascertain on what domain of activity effectiveness is being evaluated.
3. Determine which level of analysis is most appropriate.
4. Clarify the purpose of the evaluation.
5. Select an appropriate timeframe within which to consider effectiveness, i.e., short-term or long-term.
6. Choose the type of data to be gathered (i.e., objective quantifiable or subjective perceptual data) to judge effectiveness.
7. Determine any referents against which effectiveness will be compared.

The literature regarding organizational effectiveness reveals that several major issues related to organizational effectiveness remain unresolved. First, and most importantly, the construct space of organizational effectiveness has yet to be defined. Secondly, absent is any universal agreement among researchers regarding the most appropriate approach for assessing effectiveness. The goal method, the systems approach, and even the more contemporary multi-dimension and multiple constituency approaches have failed to spur widespread acceptance among researchers and theorists in general. Finally, the above two

issues logically give rise to a third unresolved issue: What criteria should be adopted in measuring effectiveness.

These unresolved issues pose some troubling dilemmas for the current study. Defining the construct space; selecting the evaluation approach; and determining the criterion to be employed in measurement are the essential tasks to be undertaken by the investigator in this study. The literature on organization effectiveness would suggest that the accomplishment of each task in accordance with any of the reported methods will inevitably have limitations. The approach taken will need to consider the purpose of the assessment, validity of criteria selected, the level of analysis, the relevant constituencies, type or organization, and the potential for contributing to theory building and testing.

CHAPTER III
RESEARCH METHODOLOGY

A. Variables and Operational Definitions

An operational description of the variables in the study is undertaken in this section. Three elements of organization structure - formalization, complexity, and centralization - represent the independent variables. Program effectiveness is the dependent variable in the study.

Each independent variable is measured by the use of instruments designed to measure the extent to which each of the elements of structure is present within the subject campuses. An original instrument has also been developed to measure program effectiveness, the dependent variable, for each subject. Subsequently, correlations between the dependent and independent variables will be presented and analyzed to determine whether or not any significant relationship exists between affirmative action program effectiveness and organization structure.

Elements of Organization Structure. Several attempts to operationalize various elements of organization structure have been conducted by researchers. The most notable efforts were undertaken by the previously mentioned Aston group in their 1968 study of 52 work

organizations in the English Midlands (Pugh, et al, 1968). In that study, Pugh, et al., defined and operationalized five primary dimensions of organization structure. From the comparative data of those dimensions, numerical scales were constructed to measure sixty-four component variables.

Two years later an abbreviated version of the instrument used by Pugh, et al, was developed by Inkson, Pugh, and Hickson (1970). This modified version of the Aston group scales was applied in a study involving Canadian colleges and technical institutes (Holdaway, Newberry, Hickson, and Heron, 1975) and showed that the concepts of structure operationalized by the scales are appropriate to educational institutions.

In his study of relationships between affirmative action compliance, organization structure and managerial attitudes within manufacturing firms, Marino (1978) employed an instrument to measure organization structural variables of formalization, centralization and complexity. That instrument relied substantially upon the earlier instruments of other researchers. The focus of Marino's research is very much related to the present study and therefore offers a useful experience upon which to draw.

The demonstrated utility of the instruments developed as refinements of the efforts of Pugh et al.

and followers suggest that some - the Holdaway instrument, in particular - may be most appropriate for application in the current research endeavor. Thus, the investigator has merged items of the various aforementioned modified instruments with additional items to formulate an instrument more appropriate for the current study of institutions of higher education. The resulting instrument purports to operationalize and measure the independent variables of complexity, centralization, and formalization.

Program Effectiveness. No universally nor widely accepted definition of the construct of effectiveness has yet evolved. The absence of precise definition persists despite the numerous efforts undertaken to resolve the many problems of methodological ambiguity associated with defining the construct space (Cameron and Whetten, 1983). This problem of definition has often been attributed to factors such as differences in theoretical perspectives on the study of organization (Campbell, 1977 and Dubin, 1976); lack of agreement on appropriate criteria (Campbell, 1977 and Steers, 1975); varying levels of analysis (Hirsch, 1975; Katz and Kahn, 1978; and Webb, 1974); and determination of constituency (Zammuto, 1982) among others.

It is evident that, at this point, any operationalization of the concept of effectiveness will

have limited acceptability at best. In spite of this apparently inherent shortcoming, there is growing support for the continued efforts toward developing and applying methodologically sound measures of effectiveness. In particular, more recently, the trend toward generating models which recognize multiple constituencies (Zammuto, 1982) and the multi-dimensionality of effectiveness (Steers, 1975; Connolly, et al, 1980; and Cameron and Whetten, 1983) has shown some promise.

Notwithstanding the promise shown by development of these novel models, no such undertaking is engaged in the current study. Nevertheless, the implications associated with these new developments are considered in the construction of an effectiveness measurement model for the purpose of the present study. In the absence of any instrument deemed suitable for the measurement task in this study, the development of an original instrument is made necessary. Specifically, through a structured approach employed by a group of expert affirmative action professionals, the full construct space of the concept of affirmative action program effectiveness and its many dimensions has been explored, defined, and operationalized. The identification of the numerous dimensions of program effectiveness will pave the way toward the development of a multi-dimensional model. Because the model has

been developed solely from the perspective of affirmative action practitioners, it necessarily represents a single constituency model. The limitations of such a multi-dimensional, single constituency model will be carefully delineated later in this study.

B. The Subjects

The subject organizations in this study are drawn from the ninety-three (93) independent colleges and universities in Massachusetts which are authorized to grant academic degrees in the State: two year institutions or junior colleges; four year baccalaureate institutions; universities including major research institutions and professional schools and institutes. They range in size from enrollments of less than 100 to enrollments as large as 27,000 students. Although these campuses are located in all corners of the State, no less than 60% (56) of them are located in the metropolitan Boston area comprised of three counties: Middlesex, Norfolk, and Suffolk counties.

The twenty-nine state supported college and university campuses in the Massachusetts public higher education system are excluded from this survey. The investigator of this study is currently the chief affirmative action officer for the public higher education system in the State. Under this

circumstance, it would not have been prudent to include the public campuses in the study; questionable objectivity of the responses and the analysis potentially would have jeopardized the perceived reliability of the data and conclusions. Because the investigator has no formal relationship with any independent colleges or universities in Massachusetts, these independent campuses serve as appropriate subjects for the study.

Subjects are not limited to those institutions which have established a documented affirmative action plan. However, it is quite likely that respondents may be considerably skewed toward those which do. Most institutions maintain a written affirmative action plan which contains the relevant equal opportunity policies and specific procedures and measures designed to ensure non-discrimination; which identifies and addresses underrepresentation of women and minorities; and which adopts concrete steps to increase the female and minority workforce through the achievement of specific numerical hiring goals. Any institution engaged in contracts with the Federal government in the amount of \$50,000 or more and employing at least 50 employees is required by the Department of Labor, Office of Federal Contract Compliance Program via Revised Order No. 4, to have a written affirmative action plan on file. Those institutions not contracting with the Federal

government often maintain documented affirmative action plans, nevertheless. Among the many likely reasons for maintaining such plans, although not required, may include: 1) the desire to demonstrate commitment to a social responsibility to address the effects of past and present discrimination against women and minorities; 2) the anticipation of possible future contracts with the federal government or other entity requiring an affirmative action plan as a pre-condition; or 3) the belief that such a comprehensive set of policies, procedures and plans will limit the probability of unlawful discrimination which might be contrary to the institution's egalitarian posture and social ethics, detrimental to the institution's public image and costly in legal fees and damages. Whatever the reason, -- social responsibility, consequences for public image, or financial and legal concerns -- many colleges appear to have deemed it prudent administrative policy to establish an affirmative action plan when not required by law or contractual obligation to do so.

C. Sampling

In Massachusetts there are many different types of independent institutions of higher education. There are liberal arts colleges; research institutions; major universities; junior colleges; professional schools in law, medicine, dentistry, divinity, art, and music;

religiously affiliated institutions; single sex and coed enrollment institutions; and technical institutes among the various types. All contribute to the rich diversity of the universe of independent degree granting institutions in Massachusetts.

Due to the number of independent institutions within Massachusetts, and the resources available to the investigator of this study, it is necessary to rely on a legitimate sample of this multitude of institutions. In order to be sufficiently representative of these different types of campuses, ideally, the sample selected should be reflective of the diversity within the pool of institutions in terms of level of instruction, size, affiliation, control, degree and program offerings, focus of instruction, gender of student body and location, at the least.

The sample used in this study is drawn from the ninety-three independent colleges and universities located in Massachusetts. All these independent institutions were solicited by mail to participate in the survey. Participation in the survey was completely optional. The name of each respondent institution was not solicited in the questionnaire. Other inquiries, (except workforce size) the answers to which might have compromised the anonymity guaranteed to the respondents, were not solicited. Assurance of confidentiality and anonymity were considered to be of

importance to the reliability of the responses as well as ensuring a high rate of return. Disregard for identity in the survey also poses some problems discussed elsewhere in the study.

Due to the time (approximately 20-25 minutes) and effort required to respond to the survey and the sometimes perceived sensitive nature of the inquiry, a high rate of return was not anticipated, especially in light of the absence of any mandate or formal obligation to respond.

The total number of independent institutions in Massachusetts; anticipated response rate; varying types and sizes of the institutions; assurances of anonymity and confidentiality; reliance on voluntary cooperation; and the nature of inquiry have implications for the specific sampling technique to be employed in the study. Thus careful consideration has been given to the task of determining an appropriate sampling technique to be used. A variety of sampling techniques available for selecting the sample to be used were evaluated for their appropriateness.

Four widely used sampling techniques were considered. The first technique, simple random sampling is a procedure within which every sample of a given size has an equal chance of being drawn from the population (Borg and Gall, 1983). Preparation for simple random sampling possesses the advantage of

convenience and simplicity; no calculations, grouping, or classification of subjects is prerequisite to the actual sample selection.

Another technique, systematic sampling, is similar to simple random selection but does differ significantly in that each selection is not independent of other earlier selections. Specifically, a systematic approach is applied (i.e., every nth item) based on the outcome of the first selection (Borg and Gall, 1983). This technique is appropriate if all population members are known and are listed in a random order (Mason and Bramble, 1978).

When it is impractical to identify or include all members of a given population, cluster sampling is a more appropriate technique than simple random sampling and systematic sampling (Hinkle, Wiersma, and Jurs, 1979). Cluster sampling entails the random selection of groups within a population as opposed to individuals within a population. All members within each selected cluster are then included in the sample.

Stratified sampling is another widely used procedure. One of the key features of stratified sampling which distinguished it from the three previously mentioned techniques is its ability to ensure more representativeness of the sample selected (Hinkle, Wiersma, and Jurs, 1979). Stratified sampling allows the investigator greater control in the

selection of a sample to ensure that sample subjects will be sufficiently representative of the total universe from which they are selected (Borg and Gall). This technique involves the stratification of all possible subjects into predetermined groups possessing common characteristics. The proportion of subjects selected from each of these groups would be commensurate with their representation within the universe. Statistically stated, stratification helps to limit the degree of sampling error by grouping elements of a population into several homogenous strata (Hamburg, 1970).

Due to the relatively small number of subjects in the population (93 institutions) systematic sampling, cluster sampling and stratified sampling were eliminated as sampling techniques. The number of variables within the survey necessitate a larger number of respondents than would have been likely through such sampling techniques. The investigator, therefore, decided to solicit all independent institutions in order to ensure a large enough sample which would also be reasonably representative of all institutions within the state.

Borg and Gall (1983) advise that for correlational studies the appropriate sample size can be determined by estimating, on the basis of previous research, the probable r score. Using the table below, one would be

able to approximate the number of sample subjects necessary for a correlation at a given level to be statistically significant at the .01 level by matching the n column with the probable r score in the r column:

<u>r</u>	<u>n</u>
.80	7
.75	8
.70	9
.65	10
.60	11
.55	14
.50	16
.45	20
.40	25
.35	32
.30	47

In a study examining relationships between characteristics of organization and affirmative action compliance, Marino (1978) obtained r scores of -.37 on centralization; .73 on formalization and .39 on specialization when each is correlated with compliance. The Marino study has a similarity to the present investigation in that both attempt to reveal correlations between selected organizational structural

variables and affirmative action compliance, as in the Marino study or affirmative action program as in the present study. Thus the similarities are deemed sufficient to justify using the Marino correlations as a basis for approximating the range of size of correlations likely to be found in the present investigation. Therefore, a response rate of 34% was sought in order to achieve a sample size of $n=32$. This sample size compares closely with the sample size corresponding to anticipated probable r scores of .35 as suggested by Borg and Gall.

D. Instrumentation

Prior to the current research effort, no empirically developed instrument was available for measuring affirmative action program effectiveness. Although Hitt, Keats, and Purdum (1983) empirically identified thirteen potential basic criteria necessary for effective affirmative action implementation in higher education, the instrument used in their study does not lend itself to application in the present study. The criteria identified in the Hitt study represent prerequisites rather than indicia to effective affirmative action. Thus, the Hitt survey would be inappropriate for this investigation which seeks to measure outcomes.

The review of the literature on the concept of effectiveness clearly illustrates that the construct

space of effectiveness is difficult to define. For the present study, definition of the construct space is further complicated due to the investigator's specific interest in effectiveness as related to affirmative action programs. Extensive literature search has resulted in no discovery of empirically proven instruments for measuring nor defining affirmative action program effectiveness. Therefore, the researcher has developed an original instrument to be employed in measuring affirmative action program effectiveness. This instrument is referred to as the Affirmative Action Program Effectiveness Gauge (APEG).

In developing the APEG the approach suggested by Long, Convey, and Chwalek (1985) has been followed. First of all, an attempt was made to define the domain of affirmative action program effectiveness by identifying numerous areas of affirmative action and generating an extensive list of potential major activities and outcomes which might occur in those same areas within an ideal affirmative action program. Next, a set of potential items which might serve as indicators of the presence or absence of various conditions reflecting effectiveness was developed in the form of questions. Responses to the questions are recorded on a Likert scale for each item indicating various degrees of a respondent's agreement or disagreement with each statement.

The items in the survey are presumed to represent the total realm of significant indicators of affirmative action program effectiveness. The initial draft instrument appears in Appendix A.

The content and construct validities of the APEG instrument were appraised by a panel of five experts in affirmative action administration during their participation in the refinement of the draft APEG instrument. The panel consisted of individuals from the following constituencies:

- o Massachusetts Public College and University Affirmative Action Officers. These individuals possess an intimate familiarity with the process of affirmative action in a college or university setting. Their experience is very similar to yet significantly different from independent college and university affirmative action officers. Their difference in experience augments the total realm of perspectives of relevant affirmative action administrators included in this panel.
- o Former Independent College or University Affirmative Action Officers. The experience and perspective of these professionals is particularly important since they had been directly involved in the administration of

affirmative action at an independent institution. Their background in affirmative action administration, more so than others on the panel, will closely parallel that of the individual subjects within the study.

o American Association for Affirmative Action.

The AAAA is the most prominent national association involving predominantly college and university affirmative action related personnel. The Association has been a prime advocate for affirmative action in the United States.

To augment the panel, the investigator pursued a representative from the Boston regional Office of Federal Contract Compliance Program (OFCCP). The OFCCP is the affirmative action monitoring arm of the U.S. Department of Labor. The OFCCP is charged with reviewing federal contractors to ensure that those required firms are in compliance with all relevant federal regulations and guidelines regarding affirmative action. The OFCCP established the standards by which contractors are reviewed for compliance.

Several attempts were made to include a representative of the U.S. Department of Labor Office of Federal Contracts Compliance Program (OFCCP) on the panel. Preliminary telephone calls; explanatory

letters; and follow-up phone calls proved fruitless in recruiting a representative from OFCCP to the panel. Consequently no representative from OFCCP was included on the panel.

The above mentioned panelists are selected because they offer a particular relevance to the task of the panel. First of all, they possess a technical expertise in affirmative action implementation and monitoring. Each has held a formal professional position with responsibility for some aspect of affirmative action. Secondly, either directly or indirectly, they have each had experience with evaluating affirmative action efforts and compliance. All have been concerned with evaluating affirmative action efforts in higher education.

Panel participants were solicited by mail, telephone, and personal contact to participate in a discussion and brief exercise designed to assist in the development of an empirically constructed instrument for evaluating the effectiveness of affirmative action programs at a college or university. They were informed that the immediate purpose of the effort is to establish the validity of a survey instrument being developed for use in research for a dissertation. It was also suggested that the successful development of such an instrument might have significant utilitarian potential for them and other professionals in the

field. The instrument would be the only known empirically developed tool for evaluating the effectiveness of an affirmative action program. A specimen of the letter used for soliciting their participation appears in Appendix B.

Those persons agreeing to participate were later convened at an agreed upon date and place at which time they were fully advised of the nature and purpose of their task. Following an appropriate orientation to the mission to be undertaken, the panel was provided with an overview of the activities entailed in the task. An outline of the entire process and its major steps is presented in the Appendix C. At this time participants were asked to collectively define what a total affirmative action program constitutes. To initiate operationalization of this definition, participants were asked to identify all the major components that they would expect to be included in a total affirmative action program (i.e., plans, policies, directives, projects, activities, etc.). The purpose of such an exercise is to arrive at a uniform understanding of what is meant when reference is made to an affirmative action program. This clarification should limit ambiguities, confusions, or differences which might impede the forthcoming discussions of the panel.

The agreed upon definition with a listing of the major components of a total program was visibly displayed for participants' future reference. The significance of posting the definition and components is that a constant guidance is provided for participants to focus their thoughts and discussions exclusively on the specific entity to be evaluated. Deviations from the object of concern (i.e., the total affirmative action program) could have profound implications for the establishment of the instrument's content validity.

The second phase of the exercise was begun by instructing each panel member to mentally construct a vision of an effective affirmative action program. They were asked to specifically consider what a successful affirmative action program at a college or university would entail. To operationalize this fuzzy concept, participants were directed first of all, to refer to the earlier established list of major components of total program and determine which of those components most directly affect or contribute to what they might label as outcomes, results, or products of the affirmative action program. The panel was then requested to enumerate, as completely as possible, a list of functions, purposes, responsibilities, roles, and activities directly associated with the major components of the program. The participants then

identified the end products or near end products directly associated with each function, purpose, responsibility, etc. The resulting list of end products then constituted a comprehensive list of outcomes which might serve as the basis upon which the effectiveness of an affirmative action program might be gauged. Two significant features of this list of outcomes would legitimize inference of content validity for the instrument to be developed. First of all, the relevant outcomes which serve as indices were arrived at by a panel of experts directly involved in a structured operationalizing process. Long, Convey, and Chwalek (1985) state that content validity of an instrument indicates how representative the sample of items is of the realm of items which could be included (p. 90). Thus, on the basis of the expert panel's produced list of items, reasonable content validity can be inferred.

The second feature of the list of items that assists in inferring content validity is that the structured process for arriving at the list of items was consistent with Borg and Gall's (1983) method:

by systematically conducting a set of operations such as defining in precise terms the specific content universe to be sampled..(p. 276)

The process by which the effectiveness indices were

determined contributed to establishing the construct validity of the resulting instrument. The construct space of an effective affirmative action program had been defined in two stages. First of all, the domain of a total affirmative action program had been established during the first phase of the panel's operationalizing exercise. Secondly, as a result of the expert panel's mental construction of an effective affirmative action program and the subsequent identification of the specific features associated with an effective program, the construct is defined by the composite of agreed upon desirable outcomes.

In the next and final phase of the panel's task, each participant was provided with a copy of the initial draft of the APEG instrument. They were asked to review the list of indices already determined by the panel and examine the instrument to identify any of the indices which may not have been sufficiently incorporated into the draft instrument. The instrument was also examined to uncover any indices incorporated in the draft survey but not established as an index of effectiveness by the panel. The panel then discussed these differences and recommended items to be added or deleted.

Finally, the participants were asked to comment on whether or not they consider the resulting final set of indices to represent a reasonably comprehensive set of

meaningful indices upon which to evaluate affirmative action program effectiveness. Any reservations held about the extent to which these indices collectively could serve as a reasonable basis upon which to evaluate the effectiveness of a program would have been addressed and taken under advisement for reconsideration in estimating content or construct validity of the APEG instrument.

Each of the major items included in the instrument as indices of effectiveness contains a series of sub-items which represent the relevant characteristics of each major item. The instrument is structured with each sub-item grouped under a heading indicating the major item of which there are twelve. Each of the items in the instrument is not presumed to be of equal value in relation to others. Thus, varying weights were assigned to each major item indicating its assumed strength as an index. Each of the twelve groups of indices was assigned a value of either 8 or 10. All major items specifically identified by the panel as an observable and measureable outcome of an affirmative action program were assigned a value of 10. Those which were not identified as a most directly observable and measurable outcome were assigned a value of 8. Subsequently, each sub-item was given a numerical value in relation to its significance within its major item group. The specific values for each major item group and its sub-items is displayed in Table III-1.

Table III-1
Items and Assigned Values
for Part I of APEG

Major Item	Points Per Item	Total Value
A. Policy		10
Items #2,4,7	2	
Items #1,3,5,6	1	
B. Accountability		8
Items #1,2,3,4	2	
C. Monitoring	10	10
D. Commitment		8
Item #2	4	
Items #1,3	2	
E. Program Initiative		10
Items #1,2	5	

cont. next page

Table III-1, cont.

F. Recruitment and Selection		10
Items #4,5	2	
Items #1,2,	1	
Item #3	4	
G. Workforce		10
Item #1,2	4	
Item #3	2	
H. Salary Equity		8
Item #1,2,3,4	2	
I. Opportunity for Advancement		8
Items #1,2,3,4	2	
J. Goal Achievement		8
Item #1	3	
Item #2	5	
K. Grievance Process		10
Items #1,2	1	
Item #3	6	
Item #4	2	
L. Climate		8
Items #1,2,3,4	2	
Total Points		
108		

All inquiries in Part I of the instrument were designed to elicit a single response on a scale containing a six point range of responses from "strongly agree" to "strongly disagree". Depending on the response which is most highly indicative of effectiveness, the scoring for each response will range from 1 to 6, i.e., strongly agree = 6 and strongly disagree = 1, except where reverse scoring is required. To arrive at the value of each item response the value of the item is multiplied by the value of the response.

The present study involves the application of another instrument. Consequently, two instruments for measuring the variables in this study have been employed. To measure the selected structural variables of formalization, complexity, and centralization two previously developed instruments were reviewed for their applicability to the present investigation. The first of these instruments was a questionnaire utilized by Holdaway et al (1975) in a study of Canadian colleges. The instrument applied in that study represented a modified version of a questionnaire developed by Inkson, Pugh, and Hickson (1970). The questionnaire developed by Inkson, et al was an abbreviated version of the questionnaire initially developed by the Aston group (Pugh, et al, 1968) to study organization structure of a variety of enterprises. The Holdaway instrument was developed

specifically for the education sector -- colleges and technical institutes in Canada -- and is therefore relevant to the present study.

Holdaway verified the scales of the modified version of the Inkson instrument by a scaleogram type of analysis as in the original Aston study using Brogden's co-efficient. The item analysis rendered mean values ranging from .65 to .85 thus affirming the appropriateness of the application of the earlier developed concepts of structure to educational institutions (Holdaway, et al, 1975).

The second instrument reviewed for measuring the structural variables in the present study is one developed and applied by Marino (1978) in his study of the relationships between affirmative action compliance, organization structure and managerial attitudes. Not surprisingly, Marino relied substantially on the earlier efforts of Pugh et al (1968) and Inkson, Pugh and Hickson (1970), especially with respect to measuring formalization. Marino also relied on Reimann's (1973) modifications to the work of Negandhi and Prasad (1971) in measuring centralization. To measure complexity, Marino considered two characteristics of the variable: horizontal differentiation and vertical differentiation. As in the present investigation, spatial dispersion, a third characteristic of complexity, is not considered to be of any concern to the study.

Each item within the Holdaway instrument and the Marino instrument was assessed for its relevance and use in the formulation of a survey instrument for measuring variables of organization structure in the present investigation. The resulting instrument appears in Appendix D.

In light of the conceptualization of each of these variables, the items relating to each do possess face validity. Although the items themselves are not necessarily an exhaustive list of potential items relevant to each variable they do represent a formidable sample and therefore suggest content validity.

The instrument appearing in Appendix D was administered jointly with the instrument designed to measure affirmative action effectiveness. In effect, a single instrument with two distinct parts was utilized in the study. The combined instrument (before reduction in size) appears at Appendix E. The reason for adopting this approach was to minimize the extent to which the respondent might perceive the survey as being overwhelmingly time consuming and requiring of much effort. The breadth of the areas of inquiry, the number of items, the range of possible prescribed responses, and the page length of the document were all considered to contribute to a dissuaded pre-disposition on the part of potential respondents. Thus, the two

instruments were combined to form a single distinct questionnaire and the print and format of the actual instrument were subsequently reduced and condensed to give the appearance of an easy to complete questionnaire.

Item responses in Part II of the instrument were scored in accordance with the key presented below in Table III-2.

On the variable of complexity only items 3,4 and 5 will be used in inferring the degree of complexity of each respondent institution. Item number 1 has been included to provide information to allow for a summary of the distribution of respondents by work force size. Responses to item number 2 also allow for a summary distribution and enable the investigator to compare distributions by total work force with distributions by full-time faculty count.

The sum of the numerical score for each of items 3,4 and 5 serves as the measure of complexity within each institution's organization structure; the higher the sum score the higher the complexity.

The measurement of the variable centralization is determined by the sum of scores of the responses to the 16 items contained in this section. For this variable, the lower the sum score, the higher the centralization.

The degree of formalization in an institution's structure is determined by the scores of the responses

Table III-2
Scoring Key for Item Responses in Part II of APEG

A. Complexity

Item #	Selected Response	Score
1.	<200	1
	201-500	2
	501-750	3
	751-1000	4
	1001-1500	5
	>1500	6
2.	<100	1
	101-300	2
	301-500	3
	501-700	4
	701-1000	5
	>1000	6
3.	<20	1
	21-40	2
	41-60	3
	>60	4
4.	30%	1
	31%-40%	2
	41%-50%	3
	51%-60%	4
	61%-70%	5
	>70%	6

cont. next page

Table III-2, cont.

5.	<5	1
	5-8	2
	9-12	3
	>13	4

B. Centralization

Item #	Selected Response	Score
1	Board of Trustees	1
	President	2
	President in conjunction ...	3
	Chief Academic Officer	4
	Faculty	5
2	Board of Trustees	1
	President	2
	Chief Academic Officer	3
	Unit/Department Head	4
3-16	Board of Trustees	1
	President	2
	President in conjunction ...	3
	Chief Functional Officer	4
	Unit/Department Head	5

C. Formalization

Item #	Selected Response	Score
1	Yes	1
	No	0

cont. next page

Table III-2, cont.

2	a.	Yes	0
	b.	Yes	1
	c.	Yes	2
	d.	Yes	3
3	a.	Yes	0
	b.	Yes	1
	c.	Yes	2
	d.	Yes	3

to 13 items. The higher the sum of scores the higher the level of formalization.

E. Data Gathering

The data for the study were collected exclusively through the returns of the combined survey instruments for measuring the organization structure and affirmative action effectiveness. All responses to the questionnaire items were provided by the affirmative action officer of the institutions and therefore represent the impressions and perspectives of this individual.

The combined survey instrument was mailed to all subject campus affirmative action officers under cover of the specimen letter shown in Appendix F. The instrument and covering letter along with a self-addressed envelope for easy return were mailed via first class postal rate. The deadline for return was clearly printed on both the last page of the instrument as well as on a separate enclosed sheet which only contained information on return deadline and address.

About two weeks after surveys had been mailed, a follow-up letter (appearing at Appendix G) was sent thanking respondents for returning the survey if they had done so, and urging them to respond soon if they had not yet done so. An extended deadline was announced in this follow-up letter. However, by the date of the extended deadline only 20 of the initially

mailed questionnaires had been returned accounting for only 22% of the subjects. This rate of return was considered statistically undesirable. Thus telephone inquiries were made to again urge subjects to respond if they had not done so. In several instances questionnaires had to be re-mailed to institutional respondents who when called stated they lost, misplaced or did not receive the questionnaire.

It has been assumed that a factor in explaining the affirmative action officer's non-receipt of the questionnaire is the fact that all questionnaire packages of the initial mailing were addressed to the "Equal Opportunity/Affirmative Action Officer" rather than to the officer by name. Because many of the campuses are small and may not have a highly visible affirmative action office or officer, the appropriate individual may not have received the material because of improper internal routing of the mail. Support for this claim was frequently evidenced in the switchboard operators unawareness of the identity of and the lack of a directory listing of the affirmative action officer for the institution. For future studies, therefore, it would be advisable to take the time to phone each institution and obtain the name of the individual designated as the equal opportunity/affirmative action officer.

As a result of the telephone appeals additional questionnaires were returned bringing the total number of respondents to thirty (30) representing 32% of the subjects solicited.

While returned questionnaires were being received, the responses to each item were being coded with appropriate numerical values to be key-punched in preparation for computerizing statistical treatments to an analysis of the data.

F. Statistical Procedures for Investigating Relationships

The data for measuring each of the independent and dependent variables were obtained through the application of the modified version of the Holdaway instrument and by the APEG instrument, respectively. The modified Holdaway instrument measures the degree of presence of each organization structural variable and renders a numerical score for each variable. The APEG instrument contains a series of queries to which responses were recorded on a Likert scale and weighted in accordance with weights assigned by the panel of experts involved in instrument validation. The weighted responses to queries in the questionnaire were tallied to render a composite score for each respondent institution.

The relationships of each organization structural variable to the dependent variable, affirmative action

program effectiveness, are revealed by conducting a linear correlation of the data. Subsequently, a correlation coefficient for each relationship was derived to determine whether a linear relationship between each independent and the dependent variables existed. The derived coefficients provide a measure of the strength of each relationship.

G. Hypotheses of Relationships

In the course of analyzing the statistical relationships between the dependent and independent variables, specific hypothesis about those relationships are tested. The first such hypothesis concerns the relationship between an independent variable, complexity, and the dependent variable, affirmative action program effectiveness.

Institutions of higher education tend to maintain a high degree of complexity within structure, meaning that the positions within the institutions generally tend to require extensive training and education. The reality of the degree of complexity within higher education organizational structure poses another potential dilemma for the implementation of affirmative action. Studies have shown that, for example, participation in decision making, termed hierarchy of authority in the study conducted by Hage and Aiken (1967), is negatively correlated with professional training and professional activity, two measures of

complexity in their study of social welfare and health agencies. This finding was similar to Blau's findings in his study of academic organizations. Therefore, in congruency with the aforementioned hypothesis, H2, and the findings of Hage and Aiken, as well as those of Blau, the following relationship has been hypothesized:

H1a: Complexity will be negatively correlated with affirmative action program effectiveness.

Presented in the null form it is hypothesized that:

H1o: There will be no relationship between complexity and affirmative action program effectiveness.

The structural variable of centralization concerns the locus of authority to make decisions which affect the organization (Hinings and Lee, 1971). It refers also to the extent of participation in decision making (Hage and Aiken, 1967). Concentration of participation in decision making at the upper stratum within an organization's hierarchy suggests a highly centralized organization.

In studies conducted by the Aston Group, formalization was found to be negatively correlated to centralization. That is, the higher the degree of formalization present, the lesser the concentration of decision making within the upper echelon of the

hierarchy. This finding has a particular significance for the present study in light of some commonly held assumptions about requisite organizational conditions for affirmative action effectiveness.

Marino (1978) found no support for his hypothesis that centralization of decision making would be positively related to affirmative action compliance. The investigator of the present study, however, adopts the same assumption tested by Marino, positing that centralization contributes to the establishment of an unambiguous commitment to an operational mandate for affirmative action. Numerous writers have consistently extolled the virtues of "commitment from the top" as a requisite for affirmative action (Kronovet, 1973; Hall and Albrecht, 1979; Hitt, Keats, and Purdum, 1983; Vander Waerdt, 1972). The assumptions about affirmative action compliance as studied in Marino's investigation parallel the assumption about affirmative action program effectiveness as examined in the present study. Therefore, the very similar hypothesis has been tested in this investigation:

H2a: Centralization of decision making will be positively related to affirmative action program effectiveness

Stated in the null form, it is hypothesized that:

H2o: There will be no relationship between centralization of decision making and affirmative action program effectiveness.

The establishment of documented regulative rules and procedures, an outcome of formalization and standardization purportedly enhances the predictability of the organization's function (Zey-Ferrell, 1979). An overriding objective of activities associated with affirmative action programs is to establish order in a non-discriminatory manner in the conduct of recruitment, selection, and promotion. Accepting the notion that formalization gives greater predictability to the organization, its relationship to affirmative action program effectiveness has been hypothesized for this study in the following statement:

H3a: Formalization, the documentation of regulative rules, procedures and policies within the institution will be positively correlated with affirmative action program effectiveness.

Stated in the null form, it is hypothesized that:

H3o: There will be no relationship between formalization and affirmative action program effectiveness.

CHAPTER IV
RESEARCH FINDINGS AND ANALYSIS

A. Respondent Overview

The survey conducted among the ninety-three independent colleges and universities in Massachusetts achieved a 30% (28 of 93) response rate. However, 5 of the returned questionnaires were not used in the analysis because each had far too many items left blank, rendering the questionnaire useless. Thus, the findings and analyses are based on a 25% (23 of 93) response.

A summary of the distribution of respondent institutions by size is presented in Table IV-1.

Table IV-1

Frequency Distributions of Respondent Institutions
by Size

<u>Full-Time Workforce Respondents</u>	<u>Number of Respondents</u>	<u>Percent of Respondents</u>	<u>Cumulative % of</u>
Less than 200	12	52.2%	52.2%
200 to 500	3	13.0%	65.2%
501 to 750	3	13.0%	78.3%
751 to 1000	1	4.3%	82.6%
1001 to 1500	2	8.7%	91.3%
More than 1500	2	8.7%	100.0%
Total	23	100.0%	100.0%

Table IV-1 shows that approximately one half (52.2%) of all respondent institutions maintain a full-time workforce of less than 200 employees. Only 22% of the respondents employed a workforce of more than 750 employees. This data is significant in light of the fact that the pattern is similar to that of the distribution of all Massachusetts independent institutions by size. Thus, in terms of size, the sample can be considered fairly representative of the population from which it is drawn.

Although size is referred to here by way of describing the pool of respondent institutions, it is not a variable about which hypotheses have been made regarding relationship to affirmative action. Reference to this dimension is made purely for summary descriptive purposes. Nevertheless, a chi square test was applied to explore any relationship between size and the dependent variable. No evidence of relationship was uncovered by the chi square test.

B. The Dependent Variable: Affirmative Action Program Effectiveness

The effectiveness of the affirmative action program is measured by the sum of the scores to the responses to forty-four(44) items contained within Part I of the

APEG instrument. Those items are distributed throughout the twelve (12) different components representing the affirmative action variables. Each variable is assigned a descriptor for convenience. Along with the variable name, a brief summary of the area of concern for each descriptor is illustrated in Figure IV-1. The sum scores of the items within each variable constitute the variable score. The combined scores achieved in all variables P1AT to P1LT represent the overall effectiveness, P1T for each respondent.

C. Intercorrelations of the Dependent Variable

An interesting feature arising from an analysis of the data collected in the present study is the set of correlations presented in Table IV-2, Pearson Product-Moment Correlation Matrix for Dependent Variables. This matrix reveals that many of the intercorrelations between the affirmative action effectiveness variables are fairly high. In fact, three quarters of all intercorrelations within the matrix have r scores of .38 or higher making them significant at the .05 level of significance given the sample size.

The predominance of high r scores within intercorrelations of the dependent variable may not be so important in regard to hypothesized relationships between dependent and independent variables within the study. However, such consistent high correlations may be of considerable importance to the validity of the

P1AT	Policy	Establishment and pursuit of sound, effective policies regarding affirmative action
P1BT	Accountability	Structuring and assuring accountability for policy implementation
P1CT	Monitoring	Adequacy of monitoring effort
P1DT	Commitment	Indications of executive commitment to affirmative action
P1ET	Program Initiatives	Establishment and implementation of programmatic initiatives to achieve equal opportunity

Figure IV-1
Components of the Dependent Variable

cont. next page

Figure IV-1, cont.

P1FT Recruitment and Selection	Efficacy of non-discriminatory affirmative action recruitment and selection efforts
P1GT Workforce Improvement	Degree of increases in minority and female selection and breadth of distribution
P1HT Salary Equity	Consistency of salary determination across race and gender lines
P1IT Advancement Opportunities	Design and effectiveness of creation of opportunities for advancement re: women and minorities
P1JT Goal Achievement	Establishment of and progress toward achievable, ambitious goals

cont. next page

Figure IV-1, cont.

P1KT	Grievance Process	Effectiveness of procedures for the resolution of complaints of discrimination
P1LT	Climate	Conduciveness of campus atmosphere to engendering a sense of social acceptance for women and minorities
P1T	Total	Sum of scores for P1AT to P1LT

instrument designed to measure affirmative action effectiveness. Thus, a closer examination of the nature and implications of these intercorrelations is in order.

An item analysis of Part I of the APEG instrument allows for a closer assessment of total-score validity and total-score reliability of the instrument. Item analysis also allows for the differentiation between superior and inferior items with regard to the extent to which each item actually contributes to actual measurement (Guilford, 1965).

The APEG Part I is basically a homogeneous instrument. That is, it seeks to measure one basic entity, in the present instance, affirmative action effectiveness. It is expected that such instruments would exhibit a fair degree of internal consistency if reasonable inferences are to be made about reliability. The higher the inter-item correlations the higher the internal consistency (Guilford, 1965). Therefore, it may be concluded, given the fairly high intercorrelations reflected in the matrix in Table IV-2 that the APEG instrument has reasonably high external consistency and consequently a sufficiently high degree of reliability can be inferred.

Even when a Spearman rank-difference correlation method is applied, a high degree of inter-item

Pearson Product-Moment
Correlation Matrix for Dependent Variables

	A	B	C	D	E	F	G	H	I	J	K	L	T
P1AT	1.00												
P1BT	.79	1.00											
P1CT	.50	.43	1.00										
P1DT	.85	.82	.45	1.00									
P1ET	.55	.73	.53	.67	1.00								
P1FT	.62	.64	.45	.68	.49	1.00							
P1GT	.69	.62	.19	.69	.45	.35	1.00						
P1HT	.52	.51	.11	.44	.18	.45	.43	1.00					
P1IT	.66	.81	.43	.77	.75	.64	.52	.39	1.00				
P1JT	.55	.42	-.02	.64	.30	.32	.59	.24	.51	1.00			
P1KT	.33	.27	.13	.29	.23	.09	-.01	.06	.38	.17	1.00		
P1LT	.83	.62	.48	.83	.53	.62	.48	.31	.69	.59	.46	1.00	
P1T	.90	.89	.60	.93	.77	.76	.69	.52	.87	.57	.34	.86	1.00

Critical value of r for sample = .378 at the .05 level of significance (when $n=20$).

correlations is obtained suggesting a high internal consistency within the instrument. The Spearman r is numerically close to the Pearson r and is commonly used with small samples, where N is less than 30 (Guilford, 1965). Similar to the matrix of Pearson r correlations, Table IV-3, the Spearman Rank Correlation Matrix for Dependent Variables reveals that more than two-thirds of all inter-item correlations presented have r scores of .38 or higher making them significant at the .05 level of significance.

D. Intercorrelations of the Independent Variables

Although five items were included in the section of the instrument for measuring complexity within the organization structure, only three are actually used as indices to complexity. The remaining two items were included for the purpose of ultimately providing descriptive information on the sample. Of the three items which were employed in gauging the level of complexity, only one did not correlate strongly with the total score for complexity. Table IV-4 illustrates the correlations of each of the three items with the total score.

Table IV-3
Spearman Rank Correlation Matrix for Dependent Variables
(Spearman r)

	A	B	C	D	E	F	G	H	I	J	K	L	T
P1AT	1.00												
P1BT	.81	1.00											
P1CT	.61	.58	1.00										
P1DT	.85	.76	.53	1.00									
P1ET	.57	.71	.55	.56	1.00								
P1FT	.82	.77	.63	.79	.61	1.00							
P1GT	.64	.55	.26	.64	.31	.50	1.00						
P1HT	.40	.46	.21	.32	.13	.42	.25	1.00					
P1IT	.66	.86	.53	.63	.67	.72	.41	.35	1.00				
P1JT	.48	.39	.04	.55	.28	.34	.53	-.09	.32	1.00			
P1KT	.33	.24	.09	.28	.22	.24	.06	.02	.36	.20	1.00		
P1LT	.82	.58	.44	.75	.51	.69	.40	.05	.55	.60	.57	1.00	
P1T	.87	.84	.73	.83	.71	.94	.64	.35	.79	.44	.31	.72	1.00

Critical value of r for sample = .378 at the .05 level of significance (when n=20).

Table IV-4

Correlations Between Complexity Variables and
Total Complexity Score

Variable	Spearman r
P2A3	.72
P2A4	.32
P2A5	.61

As Table IV-4 indicates, P2A3 which deals with the number of job titles and P2A5 which concerns the number of hierarchical levels revealed fairly high correlations with the total complexity score. Variable P2A4, which addresses the proportion of job titles requiring college or technical training revealed a correlation of only .32 with total complexity score.

Centralization, that is, the locus of authority to make decisions is measured through the use of sixteen (16) items in the questionnaire. Many of the items showed reasonable high correlations with the total centralization score as illustrated in Table IV-5.

Table IV-5 shows that three items P2B2, P2B4 and P2B16 offered particularly low correlations with the total centralization score. These three items address decision making in regard to faculty selection, grading policy, and in long range planning, respectively. The

Table IV-5
Correlations Between Centralization Variables
and Total Centralization Score

Variable	Spearman r
P2B1	.41
P2B2	.27
P2B3	.36
P2B4	.05
P2B5	.51
P2B6	.35
P2B7	.30
P2B8	.55
P2B9	.60
P2B10	.69
P2B11	.54
P2B12	.59
P2B13	.51
P2B14	.81
P2B15	.30
P2B16	.17

correlations suggest that these items probably offer very little assistance in measuring the level of centralization.

On the other hand, several items by virtue of their high correlations, appear to be fairly good indices of the level of centralization within an institution. Curiously, items P2B10 and P2B14 have high r scores. Item P2B10 addresses collective bargaining and item P2B14 deals with decision making in regard to student fees structure. A partial explanation for the high r score of P2B10 may be found in the fact that 9 of the 23 subjects provided no response to this item as they apparently had no collective bargaining within their institution.

E. Relationships Between Variables

The relationships between affirmative action effectiveness and the variable organization structure as revealed by the r scores of the correlations generally are surprisingly weak. Although the variable of formalization shows some modest correlation with several affirmative action effectiveness variables, centralization and complexity exhibited very low r scores when correlated with affirmative action effectiveness.

Complexity within the organization structure was hypothesized to be negatively correlated with

affirmative action program effectiveness. The more complex the institution's structure, the less effective would be the affirmative action program. Table IV-6 shows that almost all the r scores are indeed in the negative suggesting an inverse relationship as hypothesized. However, almost every r score is also very low. The highest r score of any of the correlations was only $-.41$. In fact, at the $.05$ level of significance, the null hypothesis must be accepted and it must be concluded that there is insufficient evidence of a linear correlation between the complexity of the institution's structure and the effectiveness of its affirmative action program.

The current study hypothesizes that centralization of decision making would be positively related to affirmative action program effectiveness. Consistent with the findings reported in the Marino (1978) study of relationships between affirmative action attitudes and centralization, no support is found in the present study to suggest any significant relationship between affirmative action effectiveness and centralization of decision making. The correlations of the affirmative action variables and of centralization are illustrated in Table IV-7.

It is noteworthy that some of the affirmative action variables do appear to be correlated with

Table IV-6
Correlations Between Complexity (P2AT)
and Affirmative Action Effectiveness

Variable	Name	r Score
P1AT	Policy	-.17
P1BT	Accountabilty	-.16
P1CT	Monitoring	.29
P1DT	Commitment	-.10
P1ET	Program Initiatives	-.01
P1FT	Recruitment and Selection	.12
P1GT	Workforce Improvement	-.41*
P1HT	Salary Equity	.09
P1IT	Advancement Opportunities	-.02
P1JT	Goal Achievement	-.12
P1KT	Grievance Process	.06
P1LT	Climate	-.10
P1T	Overall Effectiveness	-.05

*=Significant at the .05 level

Table IV-7
Correlations Between Centralization(P2BT)
and Affirmative Action Effectiveness

Variable	Name	r Score
P1AT	Policy	-.16
P1BT	Accountability	-.02
P1CT	Monitoring	.18
P1DT	Commitment	-.33
P1ET	Program Initiatives	.13
P1FT	Recruitment and Selection	-.18
P1GT	Workforce Improvement	-.51**
P1HT	Salary Equity	-.20
P1IT	Advancement Opportunities	-.14
P1JT	Goal Achievement	-.50**
P1KT	Grievance Process	.09
P1LT	Climate	-.27
P1T	Overall Effectiveness	-.20

** = Significant at the .025 level

centralization of decision making, even at the .05 level of significance. More interestingly, the correlation is a negative one, contrary to the hypothesis and previous findings. Workforce improvement, as with the complexity correlation, shows the highest correlation (-.51) of all affirmative action variables with centralization. Similarly, at -.50, affirmative action goal achievement also shows some significant relationship. Nevertheless, overall affirmative action program effectiveness correlates with centralization at only $r = -.20$, far from significant at the .05 level. Thus, it is concluded that there is no support for the hypothesis that affirmative action program effectiveness is positively related to centralization of decision making.

The only structural variable in the study which shows any significant relationship to overall effectiveness of the affirmative action program is formalization. Correlations with formalization are presented in Table IV-8. The degree of formalization is correlated with affirmative action effectiveness at $r=.42$. While the correlation is significant at the .05 level it is nevertheless a weak one. In fact, the most robust correlations of any affirmative action variable with organization structural variables occur within the relationship with formalization. Commitment and accountability at $r=.55$ and $r=.51$, respectively are the highest correlations between dependent and independent

Table IV-8
Correlations Between Formalization (P2CT)
and Affirmative Action Effectiveness

Variable	Name	r Score
P1AT	Policy	.31
P1BT	Accountability	.51**
P1CT	Monitoring	.18
P1DT	Commitment	.55**
P1ET	Program Initiatives	.31
P1FT	Recruitment and Selection	.27
P1GT	Workforce Improvement	.14
P1HT	Salary Equity	.09
P1IT	Advancement Opportunities	.43*
P1JT	Goal Achievement	.17
P1KT	Grievance Process	.33
P1LT	Climate	.46**
P1T	Overall Effectiveness	.42**

* = Significant at the .05 level

** = Significant at the .025 level

variables within the study. It is interesting that workforce improvement, the affirmative action variable which showed the highest r scores for correlations with complexity and with centralization generated the lowest r score, .14, when correlated with formalization.

In summary, the null hypothesis is rejected and it is concluded that affirmative action program effectiveness is positively related to formalization within the institution's organization structure. The greater the degree of formalization, the greater the effectiveness of the affirmative action program.

CHAPTER V
CONCLUSIONS AND SUMMARY

Any discussion of conclusions, generalizability or recommendations resulting from this investigation is empirically irresponsible without a full understanding and appreciation of the limitations of the data and analyses. In order to emphasize the importance of considering the limitations inherent within the study, this final chapter begins with a discussion of the limitations.

A. Limitations

The limitations of the current study fall into three (3) general categories: (1) underlying assumptions within the instrument; (2) issues of instrument design; and (3) generalizability of the sample findings. While none of these limitations is severe enough to discount the findings and conclusions, accounting for them is critical to preserving the integrity of the study's conclusions and establishing parameters within which generalizations may be applicable.

The first limitation concerns inherent assumptions underlying the instrument applied in the study. Specifically, Part I of APEG which deals with the effectiveness of the affirmative action program assumes that the impressions and subjective judgements of the

responding affirmative action officer are valid and reliable indications of the actual effectiveness of the program. Clearly, the affirmative action officer is one of the most informed institutional staff members on the matter of affirmative action performance of the institution. Nevertheless, there are at least two plausible reasons for urging caution in accepting the judgement of this single staff member.

First of all, respondent impressions are just that, impressions and sometimes not factual statements. Despite being the most informed staff member on the issue, the affirmative action officer may conceivably offer an incorrect assessment when the response is not supported by readily available empirical data.

Additionally, while this individual may be the most knowledgeable staff member regarding affirmative action program effectiveness, (s)he is not necessarily the most knowledgeable one regarding the broader structure and operations of the institution. This fact is particularly significant given that the respondent, the affirmative action officer, must also respond to items in Part II of APEG which contains inquiries regarding structure and processes of many areas of the institution. Furthermore, the responses to the inquiries in Part II regarding structure may well elicit responses which reflect perception and belief and not necessarily reality. Moreover, the responses

may often be only a reflection of what is formally prescribed by the institution rather than what actually occurs procedurally.

Secondly, the halo effect may become operative during part or all of the assessing and responding. The extent to which responses influenced by the halo effect veer from reality has serious implications for the validity of the response. No mechanism is built into the instrument to detect indications of nor correct the effects of these two limitations.

Issues related to instrument design present another area of limitation for the findings and conclusions. The scoring scheme for the independent variables may not be sufficiently refined to provide significant differentiation among respondents. Particularly on the variable of formalization, there is very little difference on the composite scores of each respondent for this variable. In great part this limited variability in scores is due to the (1) structural similarities of higher educational institutions regarding formalization and standardization; and (2) the very limited range of possible scores achievable on each item. Specifically, of the thirteen items, eleven of them can only score "1" or "0" and the remaining two can only score "2", "1", or "0". Not much room is left for variability.

The intervals and relative weight of each point on the Likert scales used for recording responses in Part I of APEG may give rise to concern. To illustrate, the question may be raised as to whether the distance of weight, say between "mildly disagree" and "mildly agree" (the third and fourth points on the scale), would be the same as that between "mildly disagree and "disagree". The intervals between each point and its nearest point on the Likert scale are often presumed to be equidistant. Part I of the APEG instrument makes no attempt to validate or account for this potential limitation.

In determining the range of choices for response on the Likert scale, the investigator decided not to include a mid-point between "mildly agree" and "mildly disagree". It was assumed that the inclusion of a mid-point would encourage noncommittal inclinations of respondents. Sudman and Bradburn(1982) advise that such mid-points or other indications of indifference should be afforded to respondents in bipolar inquiries, "...unless there are persuasive reasons not to" (p.141).

There is a significant difference between the focus of inquiry involved in the APEG and that involved with other "attitudinal" surveys. The APEG instrument unlike many other attitudinal surveys, seeks judgemental responses to queries on which the

respondents are presumed to have some objective or documented information. The APEG, although considered an attitudinal survey, seeks to measure affirmative action performance which is a much less abstract construct than, say a personal attitude about a particular social value of philosophy. For this basic reason, the investigator is persuaded to avoid middle of the road responses and force the respondent to indicate direction and intensity of his/her response.

Another limitation resulting from instrument design involves the issue of distinction between normative and descriptive realities. The instrument used to gather data on organization structure merely elicits responses regarding the formal structure of the organization. That is, it reflects what is prescribed rather than what actually occurs in the operation of the organization. Much like the distinction between official versus operative organizational goals as discussed by Perrow (1961), the distinction between what may be termed "prescribed" versus "actual" features of structure must be recognized. To illustrate, what may be mandated, i.e., organizationally legitimate, in reference to decision making authority may be at variance with the decision making process as it occurs in reality. Consequently, the issue poses implications for the validity of the description of the dimensions of structure as provided by the respondents.

Finally, details of the sample utilized within the study impose constraints on the extent to which generalizations of college and university campuses may be legitimized by the current investigation. The sample used in this study is composed of twenty-three independent college and university campuses in the state of Massachusetts. The findings and conclusions of the investigation are based on a sample composed of twenty-three (23) respondent subjects. Initially, a sample size of $n=32$ was considered ideal for the correlations expected (Borg and Gall, 1983). Such a sample size would have required a survey return rate of 34%. Although the achieved return rate of 31% (29 returned surveys) and 25% (23 usable returned surveys) is a fair return for such surveys it did fall short of the ideal rate of 34% which was sought. No public colleges or universities are included in the sample. All institutions within the sample are predominantly white institutions.

In providing assurances of anonymity, no identification of respondents by control and affiliation, geographic location, date of establishment, accreditation or student body gender was solicited. Therefore, representatives of the sample on these bases, nationally or statewide, is indeterminable. These considerations pose inevitable constrictions on the generalizability of the findings and conclusions to colleges and universities at large.

The nature of the sample selected for the study imposes a considerable limitation upon the extent to which the findings and conclusions may be applicable to institutions of higher education in general. The survey excludes all state supported public institutions of which there are twenty-nine (29) in Massachusetts. The exclusion of this significant sector of higher education limits the applicability of the investigation's conclusions to independent colleges and universities. Presumably, there are numerous differences between public and independent institutions such as contrasts in governance, control, affiliation, public accountability, modes of resource acquisition, susceptibility to external political influence, degree of reliance upon endowments and external contributions, and the impact of the competitive market for students, to name a few. These factors and others would expectedly mitigate the applicability of the study's conclusions for the public sector.

The limitation imposed by the sample selection gives rise to an inquiry worthy of future empirical investigation. In order to determine whether factors such as the affiliation and control of institutions have any significant implications for effectiveness, further study including the variable of affiliation and control might prove informative and useful.

B. Conclusions

The current study sought to investigate the relationship between affirmative action program effectiveness and organization structure in colleges and universities. Through the use of a two part instrument designed to measure affirmative action program effectiveness and to identify the presence of certain dimensions of organizational structure, a sample of independent institutions of higher education in Massachusetts was surveyed. Campus affirmative action officer responses to the inquiry provided the information which served as the basis upon which previously stated hypotheses would be supported or refuted.

The general findings of this study suggest that there is very little if any relationship between the effectiveness of affirmative action programs and three variables of organization as was hypothesized. No evidence of a clear relationship between affirmative action effectiveness and the variables of complexity and centralization has been found. Only little support is demonstrated for the hypothesis that affirmative action effectiveness would be positively correlated with formalization.

A basic premise serving as an impetus for the focus of the current inquiry is that the extent to which the effectiveness of affirmative action programs is found

to be influenced by organization structure, adaptations can be made in anticipation of such constraints. Empirical evidence of such relationships is presumed to be of considerable value to the field of professional affirmative action administration as well as to institutions of higher education which undertake affirmative action.

For the moment, barring future findings to the contrary, institutions and practitioners may find relief for concerns they may have held for the potential adverse effects that size, complexity and centralization of decision may exert on the success of their affirmative action programs. Similarly institutions and practitioners may wish to consider designing affirmative action program structure and processes in a manner sensitive to the conditions and realities of the formalization within the institutions structure.

Although an empirical discovery of relationship between affirmative action program effectiveness and dimensions of organization structure would probably prove more useful to administrators, the current study still offers some utilitarian value. The findings on the relationship between formalization and affirmative action, albeit a mild one, are worthy of further consideration.

At this point it is in order to caution against drawing any causal inferences from the findings. All that has been established within this study is that a positive relationship exists between affirmative action and formalization. No indications nor suggestions are offered which would lead one to conclude that a cause and effect relationship exists. For the purpose of the study, affirmative action effectiveness is treated as an independent variable. However, it is incorrect to assume on the basis of the available data that either variable is dependent or independent of the other. This is a determination requiring further study of a different type. Subsequent research might even reveal that the relationship itself is actually caused by some other variable. To reiterate, one can only conclude that a positive relationship exists.

C. Methodological Implications

The method of inquiry and assessment employed in the present study poses some issues which warrant further discussion. The first has to do with the use of a Likert scale to record the direction and intensity of the responses to questions regarding matters on which observable and or measurable indications are known to the respondent. Likert attitudinal scales offering a range of degrees of agreement or disagreement prove to be quite practical and useful in gauging attitudes on abstract constraints (Sudman and

Bradburn, 1982). However, it is questionable whether such scales would be equally appropriate for recording responses to inquiries around a less abstract construct such as affirmative action program effectiveness.

Bipolar scales with consecutive numerical values as the APEG instrument might be refined by way of a review and reassignment of numerical values on each point of the scale. Such a re-evaluation might conclude that the values from one point to the next need not always be in equal increments.

The APEG survey relies on the sole perspective of one organizational member, the affirmative action officer. The extent to which a multiple constituents perspective as advocated by many (Cameron and Whetten, 1983; Zammuto, 1982; Pennings and Goodman, 1977) is important in arriving at a valid assessment, it might be concluded that the assessment is incomplete. Cameron and Whetten (1983) have urged further that multiple models generating multiple effectiveness criteria should be developed and tested; their results should then be recorded in relation to one another to assist in developing a cumulative body of literature to help define the construct more precisely. In this context the APEG may be viewed as a step in that direction, one of several models potentially contributing to a more useful tool of measurement.

D. Implications for Practitioners

In regard to the statistical support for relationships between affirmative action effectiveness and variables of organization structure as revealed in this study, the present investigation may appear to offer little of substance to practitioners. However, once attention is turned to the instrument developed for gathering the data, the perceived potential utility of the research product to practitioners is enhanced. In the process of the investigation, sufficient data has been gathered to establish a case for the validity and the reliability of the instrument, specifically Part I of APEG which purports to measure the affirmative action effectiveness of the institution. Moreover, the structural exercise undertaken (described in Chapter III) to define the domain of a total affirmative action program may be of considerable value to campuses attempting a similar venture.

No attempt is made to imply that the tool used to measure affirmative action effectiveness is useful in an isolated experience, i.e., by one campus alone. Yet the tool can be used in a comparative context to gauge the effectiveness of one campus program in comparison to another. While the comparison of one overall effectiveness score with others may be a less than desirable refined comparison, an examination of the

scores of each component of the affirmative action plan with those of the components of other institutions' may be of some value.

Ideally, a tool which once applied to an institution would give a readily determinable assessment based on a pre-established norm referenced score would be a more convenient and informative instrument to practitioners. However, further studies would be necessary to establish some benchmark against which scores could be measured.

The eager practitioner might pose the question: Of what immediate value is the current research to me? A reasonable response is that first of all, the insights, findings and conclusion of a study like the present one often appear miniscule and insignificant when considered alone. Nevertheless, the present study does offer what represents a fair contribution of a few drops of water to the ever-growing sea of knowledge. Such is the nature of most doctoral dissertations. However, the individual can find solace and satisfaction in the fact that the APEG survey instrument for measuring affirmative action effectiveness is readily available and easy to use. Of course, until a wider survey is conducted - one which would produce valid benchmarks - the practitioner will have to rely on the scores of the survey revealed in the current study for any norm references. Or, the

practitioner may choose to apply the instrument to a group of institutions and compare scores to determine effectiveness relative to other institutions in the group.

E. Implications for Future Research

The study presented herein is perhaps as much a discussion of revealed relationships between the variables of concern as it is an unveiling of issues and undertakings representing a multitude of opportunities for future research efforts. Due to constraints of time and space and the inevitable limits of the imaginative ability of the researcher, only a few key areas of recommended future research are addressed here.

The only hypothesized relationship to be supported by the findings of this study concern the correlation between affirmative action effectiveness and formalization within the institution. Enhanced organizational predictability resulting from formalization in structure is a notion believed to be relevant and applicable to affirmative action. That is, greater formalization is related to and may positively influence affirmative action program outcomes in the desired direction. Thus, it is extremely important to be able to apply this proposition with the fullest confidence.

The instrument used for gathering information on structural formalization relies on a set of inquiries, the responses to which show remarkable similarity from respondent to respondent. The formalization scores of respondents in comparison to each other are very close; at least two explanations are plausible. The first of course, is that, in fact institutions of higher education do exhibit similar levels of formalization within their organization structures. The second possible explanation may be related to relative weights of each item's response score or the number and choice of items selected to measure formalization.

Discerning the reasons for the similarity in formalization scores becomes most important in assuring that the discovered relationship is indeed real and is worthy of consideration in designing and implementing affirmative action programs. After all, relying on the implications of the assumption that a relationship exists when in fact it does not might conceivably have a detrimental affect on decision making about affirmative action program implementation. Consequently, research efforts to clarify this issue are necessary.

Once firm evidence is established supporting the claim of a relationship between formalization and affirmative action effectiveness, it becomes inevitable that some inquiry should be undertaken to determine

whether any causal relationship exists or whether some other unidentified factor causes such a relationship to emerge.

The current research relied entirely upon the impressions of one individual in collecting the survey data. Theory and research efforts on the notion of "effectiveness" have evolved to a state more sophisticated than the single constituency (perspective) approach employed within the present study. As early as 1977 a "multiple constituency" (reliance upon more than one perspective) approach was developed by Pennings and Goodman (1977). Raymond Zammuto (1982) who also promoted and further refined the multiple constituency approach notes that like the goals and systems approaches to assessing effectiveness, the multiple constituency approach still fails to consider the situation - specific nature of the construct of organizational effectiveness. It does not recognize that what constitutes effective performance at one point may not represent effective performance at another point.

The contemporary approach to assessing organizational effectiveness is perhaps most notably adopted by Cameron and Whetten (1983a). They embrace a multi-dimensional multiple constituency approach and advocate that multiple models generating multiple

effectiveness criteria should be employed. These multiple models should then be systematically compared and integrated.

Unfortunately, the scope and purpose of the present investigation and constraints of manageability and practicality cannot accommodate adopting a full scale multi-dimensional, multiple constituency approach advocated by Cameron and Whetten. Consequently, the possibilities abound for conducting an assessment of affirmative action effectiveness utilizing a multiple constituency approach. Clearly an affirmative action officer, second perhaps only to compliance specialists of enforcement agencies may be the best judge of the degree to which an institution may be in compliance with relevant guidelines, regulations, and mandates.

The Marino study greatly relied - presumably justifiably - on the affirmative action officer's judgements on the degree of institutional compliance with Federal guidelines and regulations. However, the current study examines "effectiveness" as opposed to the "compliance" of the affirmative action effort. In this instance it is again appropriate to rely on the affirmative action officer's assessment but it is also appropriate to consider the perspectives of others in the institution; the chief executive, members of the executive core, protected classes, and others may also offer valid useful perspectives.

A study adopting a multiple criterion effort, like the current study, and embracing a multi-dimensional, multiple constituency approach to assessing affirmative action effectiveness is in order. Such a more encompassing and more intensive effort would presumably produce information of greater significance with greater acceptability within the institution. The enhanced meaningfulness and validity of the information could lend considerable institution-wide legitimacy to the information rendering it of tremendous value in decision making.

Mention was made earlier in the chapter to the importance of establishing benchmarks against which institutions could measure their relative affirmative action effectiveness indicated by their scores achieved on the APEG survey instrument. A broader application of Part I of the survey (or a refined version) could aid in establishing some concrete basis for comparison. A national sample which would be wider and more representative in terms of size, age, origin, type, level, geographic location, control, affiliation and race and gender characteristics could produce the kind of results from which benchmarks could be established.

APPENDICES

APPENDIX A

DRAFT

Affirmative Action Program Effectiveness Gauge

(APEG)

Introduction

The intent of affirmative action in employment is to ensure equal opportunity for all by eliminating discrimination and the effects of prior discrimination which continue to operate in the present. Much has been said and studied about what the criteria for an effective affirmative action program are or should be. In essence the concern has been for identifying the factors or conditions which should exist to ensure the potential effectiveness of an affirmative action program. However, little research has been directed toward identifying the objective indicators of the level of effectiveness of a program. Simply put, practitioners have ample information and guidance on identifying prerequisites to achieving success, but little data on measuring the outcomes. Thus, the questionnaire below has been designed as a tool for eliciting your evaluation of the outcomes of the affirmative action program on your campus.

Purpose

The purpose of this survey is two-fold. First, it will assist in an attempt to gauge the effectiveness of your campus' affirmative action effort. It is not, and will not be used as an instrument for measuring the success or failure of the affirmative action office. On the contrary, the responses to the survey are designed to indicate the extent to which the campus as a whole has effectively carried out the program monitored by the affirmative action office of your campus. Secondly, the results of this survey will be incorporated into a study examining the effects of university/college organization structure upon affirmative action program results.

Instructions

Please read each statement carefully and consider the extent to which you agree or disagree with the statement. To the right of each statement are spaces provided for you to record your response. Place an "x" on the space which most accurately describes your position on the statement.

Example:

	Strongly Disagree	Disagree	Mildly Disagree	Mildly Agree	Agree	Strongly Agree
1. Affirmative action has enhanced the promotional opportunities at this college for all employees.	—	—	—	—	—	—

It is estimated that it will probably require _____
to _____ minutes to complete the survey.

It is important that you provide a response to every statement. Once you have completed the survey, please insert it into the pre-addressed envelope provided and mail it at your earliest convenience. Your cooperation in completing and returning the survey by _____ is requested.

A copy of the results of this survey will be provided to all participants upon completion of tabulation and analysis of the returned questionnaires.

Your gracious assistance in this effort will be extremely valuable to the project and therefore is most appreciated.

Strongly Disagree
Disagree
Mildly Disagree
Mildly Agree
Agree
Strongly Agree

A. Policy

1. This campus maintains a firm policy of equal opportunity through affirmative action. Strongly Disagree
2. This campus aggressively pursues its policy of affirmative action. Disagree
3. Equal opportunity and affirmative action policies of the campuses have been sufficiently communicated throughout the campus. Mildly Disagree
4. Managerial and supervisory staff are supportive of the campus equal opportunity/affirmative action policies. Mildly Disagree
5. All major policies and procedures of the campus have been sufficiently reviewed to assess their potential discriminatory impact on women and minorities. Disagree
6. Current policies of the campus (i.e., regarding academic, budgetary, personnel, etc. matters) do not have any unlawful discriminatory impact on minorities and females. Disagree
7. Policies and procedures found to have potential unlawful discriminatory impact on women or minorities would be judiciously revised. Disagree
8. Current campus policies can accommodate equal opportunity and affirmative action programs. Disagree
9. Equal opportunity is extended to all employees and applicants for employment. Disagree

Strongly Disagree Disagree Mildly Disagree Mildly Agree Agree Strongly Agree

3. Advertisements and notices for positions to be filled enumerate duties and responsibilities wholly consistent with those listed in the job description for each position.

E. Tests

1. All employment testing requirements have been examined to determine whether they have adverse impact on minorities or females.
2. Any testing requirement demonstrating adverse impact has been validated in accordance with the OFCCP Uniform Guidelines on Employee Selection Procedures.

F. Recruitment and Selection

1. Efforts to recruit women and minorities at rates at least equivalent to their availability in the relevant labor market are generally successful.
2. Recruitment advertising adequately reaches relevant minority and female constituencies.
3. Minority and female applicants aggregately are generally as qualified as white male applicants aggregately.
4. A greater percentage of women and minorities who are selected for employment learned of the position through a written notice or advertisement rather than by "word of mouth" from within the institution.
5. A greater percentage of white males who are selected for employment learned of the position through a written notice or advertisement rather than by "word of mouth" from within the institution.

Strongly Disagree Disagree Mildly Disagree Mildly Agree Agree Strongly Agree

- 6. The rates of selection for women and minorities are at least equivalent to the rate of selection for white males.
- 7. Minority and female semi-finalists become finalists or selectees for the position at a rate at least equivalent to white males.
- 8. Search committees are nondiscriminatory to women and minorities in their selection decisions.
- 9. There is no unlawful discrimination in employment-related decisions at this institution.

G. Opportunities for Advancement

- 1. Affirmative action programs (i.e., training, developmental, or promotional) for the advancement of women and minorities have been instituted.
- 2. Established affirmative action programs for the advancement of women and minorities have been implemented effectively.
- 3. Programs designed to provide entry opportunities for women and minorities have been effectively implemented.
- 4. This campus has made its fair share of a contribution to increasing the national pool of qualified female and minority persons by providing them with professional development opportunities.

H. Salary Equity

- 1. Minorities and females at this campus generally start at lower salaries than white males in the same position.

Strongly Disagree Disagree Mildly Disagree Mildly Disagree Agree Strongly Agree

- 2. Minorities and women generally earn salaries at least equivalent to white males in the same positions. _____
- 3. Over the last five years, salary of differentials between minorities and females and their counterpart white males have decreased appreciably. _____
- 4. Over the last five years, salary differentials between minorities and females and their counterpart white males have increased appreciably. _____
- 5. Over the last five years, salary differentials between minorities and females and their counterpart white males have remained essentially stable. _____

I. Utilization

- 1. Over the last five years the campus workforce has reflected a reasonable increase in the percentage of women and minorities in positions in which they had been underutilized. _____
- 2. Over the last five years, the female and minority percentage of the faculty, professional, and executive workforce has increased appreciably. _____
- 3. Over the last five years, the proportion of the female and minority workforce which has been concentrated in lower level (i.e., non-professional/ executive, non-faculty) positions has decreased appreciably. _____

J. Goal Achievement

- 1. The goals and objectives established in the campus affirmative action plan are reasonable (i.e., achievable and ambitious but not unrealistic). _____

Strongly Disagree
Disagree
Mildly Disagree
Mildly Agree
Agree
Strongly Agree

2. Reasonable progress toward the established goals and objectives has been achieved.

K. Grievance Process

1. The grievance procedure prescribed in the affirmative action plan of this campus has encouraged minorities and women to use this procedure to resolve complaints of discrimination.
2. The grievance procedure dissuades minorities and women from using the procedure to resolve complaints.
3. The grievance process has allowed for a judicious consideration and resolution for complaints.
4. Minorities and females have confidence in the efficacy of the grievance procedure.
5. Over the past five years, the number of grievances filed has increased appreciably.
6. Over the past five years, the number of grievances filed has remained essentially stable.
7. Over the last five years, most grievances have been resolved in favor of the grievant.
8. Over the last five years, most grievances have been resolved not in favor of the grievant.

L. Climate

1. Women and minorities feel that the atmosphere of the campus fosters social acceptance of them.

Strongly Disagree	Disagree	Mildly Disagree	Mildly Agree	Agree	Strongly Agree
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2. Minorities and females generally feel that the affirmative action efforts of the campus have had a positive productive effect.
3. Females and minorities feel that equal opportunity is afforded them on campus.
4. Women and minorities generally feel that their civil rights are sufficiently protected on this campus.
5. Minorities and women have confidence in the effectiveness of the campus equal opportunity/affirmative action office.

—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

THANK YOU SO MUCH FOR YOUR TIME.

APPENDIX B

LETTER TO PANEL

<address>

Dear <name>:

Since the inception of affirmative action as a means to eliminate discriminatory practices and achieve equal opportunity, the efficacy of this approach has been raised often but seldomly assessed. As practitioners and advocates, I trust we share a genuine concern for this issue.

I am presently involved in an attempt to develop an instrument designed to gauge the effectiveness of affirmative action programs. This potentially valuable effort is tied to the dissertation I am completing for my doctoral studies. Thus, I am fortunate to be able to merge my professional interest with my academic pursuits.

As you may know, the development of this sort of measurement instrument requires some process of "validation" to certify that the instrument is an empirically sound device. In this instance, one such approach would be to have the measurement tool critiqued by a panel of experts. I am respectfully requesting your participation in this effort.

Should you agree to assist, your involvement would entail joining a panel of five to eight experts such as yourself. The panel will participate in an exercise to systematically review and critique each element of a draft questionnaire for underlying assumptions, appropriateness, relevance, content and completeness. The result of this activity will be a fine tuned questionnaire to be employed in a survey of affirmative action officers at independent colleges and universities in Massachusetts. It is estimated that this meeting would require approximately two and one half hours.

Panel Participation (cont.)
Page 2

I will be in touch with you by telephone during the next few days to learn whether you are willing to participate.

I believe that our efforts would result in the first empirically developed tool to truly assess the effectiveness of affirmative action programs in higher education. I do hope you will be interested and able to assist.

Sincerely,

Bruce A. Rose

BAR/ck

APPENDIX C

Operationalization Exercise
Outline

- A. Define Affirmative Action Program.
 1. Identify all major elements.
 - a. plan, policies, directive, projects, programs, activities, etc.
 2. Agree upon definition.
 3. Post definition.
- B. Conceive an ideal Affirmative Action Program.
 1. Identify all major aspects of a total program.
 - a. ascertain which most directly affect or contribute to outcomes, results, products, etc.
 2. Enumerate list of functions, purposes, responsibilities, roles and activities directly associated with each major aspect.
 3. Determine end product or near end product of each activity, function, responsibility, etc.
 4. Select those end products which are most directly observable and measureable.
 5. Review for completeness.
 6. Agree that this list of outcomes would be a fair collection and constitute reasonable indices of effective programs.
- C. Rank Order.
 1. Rank each index from 1-5 on the basis of importance (i.e., strength of index).
- D. Assess congruency of APEG with discussion.
 1. Review APEG.
 2. Consider list of indices outcomes already identified.

3. Identify indices not included in APEG
 - a. Include omitted index.
4. Identify implicit outcomes/indicators in APEG not included in panel list.
5. Discuss value of implicit outcomes/indicators.
 - a. Decide whether to include.

INSTRUMENT FOR MEASURING STRUCTURE

Part II

This section of the survey is devoted to inquiries related to organization structure issues of the institution. For each item provide only a single response by placing an "x" on the space which most closely indicates your response to the question.

A. COMPLEXITY

1. What is the approximate size of your college or university full-time workforce (including faculty)?

Less than 200	201 to 500	501 to 750	751 to 1000
1001 to 1500	More than 1500		

2. Approximately how many full-time faculty are employed at your college or university?

Less than 100	101 to 300	301 to 500	501 to 700
701 to 1000	More than 1000		

3. What is the approximate number of job titles (excluding different grades within an individual job title) within the institution?

Less than 20	21 to 40	41 to 60	More than 60
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4. Approximately what proportion of the institution's total number of job titles (including faculty) require college degree or post secondary technical training?

Less than 30%	31% to 40%	41% to 50%	51% to 60%
61% to 70%	More than 70%		

5. What is the approximate number of hierarchical levels within the largest division (i.e., academic affairs, student services, fiscal affairs, etc.) at your college or university?

Less than 5	5 to 8	9 to 12	More than 12
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B. CENTRALIZATION

Where is the locus of authority to make decisions in regard to:

1. Academic policy of the college/university:
 - Board of Trustees ___ President ___ President in conjunction with
 - Executive core ___ Chief academic officer ___ Faculty ___
2. Faculty selection:
 - Board of Trustees ___ President ___ Chief academic officer ___
 - Unit/departement head ___
3. Development of new academic programs:
 - Board of Trustees ___ President ___ President in conjunction with
 - Executive core ___ Chief academic officer ___
4. Grading policy:
 - Board of Trustees ___ President ___ President in conjunction with
 - Executive core ___ Chief academic officer ___
5. Student admissions policy and standards:
 - Board of Trustees ___ President ___ President in conjunction with
 - Executive core ___ Chief academic/student affairs officer ___
6. Student conduct policy:
 - Board of Trustees ___ President ___ President in conjunction with
 - Executive core ___ Chief academic/student affairs officer ___

7. Selection of non-instructional, non-executive personnel:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief functional officer ___ Unit/Department head ___
8. Selection of executive personnel:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief functional officer
9. Personnel policy:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief human resource/personnel officer ___
10. Collective bargaining:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief human resource/personnel officer ___
11. Institutional research policy:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief institutional research officer ___
12. Fiscal/budgetary policies:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief fiscal officer ___
13. Budget allocation:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief fiscal officer ___

- 14. Student fees structure:
 - Board of Trustees _____ President _____ President in conjunction with
 - Executive core _____ Chief fiscal or student affairs officer _____

- 15. Capital outlay and construction:
 - Board of Trustees _____ President _____ President in conjunction with
 - Executive core _____ Chief fiscal or facilities officer _____

- 16. Degree of participation in long range planning:
 - Board of Trustees _____ President _____ President in conjunction with
 - Executive core _____ Chief planning officer _____

C. FORMALIZATION

	<u>YES</u>	<u>NO</u>
1. Are the following items available in written form:		
a. Organization chart of the institution	_____	_____
b. Statements of all major institutional policies	_____	_____
c. Terms and conditions or contracts of employment	_____	_____
d. Job descriptions	_____	_____
e. Procedures for recruitment and selection of employees	_____	_____
f. Terms and advancement for employees	_____	_____
g. Standard dismissal procedures for employees	_____	_____
h. Documentation of employee performance evaluations	_____	_____

	<u>YES</u>	<u>NO</u>
i. Employee Handbooks	_____	_____
j. Course outlines for instructors	_____	_____
k. Standardized personnel policies and procedures for non-instructional employees	_____	_____
2. How does one obtain a decision from the administration:		
a. Ad hoc -- no specific procedures	_____	_____
b. Procedure for some circumstances	_____	_____
c. Standard procedure	_____	_____
d. Submit a case in written form	_____	_____
3. How are administrative decisions conveyed:		
a. Ad hoc	_____	_____
b. Sometimes a procedure is used	_____	_____
c. Always a procedure is used	_____	_____

PLEASE RETURN THE SURVEY IN THE ENVELOPE PROVIDED

BY MAY 27, 1988

Thank you so much.

APPENDIX E

(FINAL DRAFT OF COMBINED INSTRUMENTS)

Affirmative Action Program Effectiveness Gauge

(APEG)

PART I

Introduction

The intent of affirmative action in employment is to ensure equal opportunity for all by eliminating discrimination and the effects of prior discrimination which continue to operate in the present. Much has been said and studied about what the criteria for an effective affirmative action program are or should be. However, little research has been directed toward identifying the objective indicators of the level of effectiveness of a program. Simply put, practitioners have considerable information and guidance on identifying prerequisites to achieving success, but little data on measuring the outcomes. Thus, the questionnaire which proceeds has been designed to elicit your responses to some queries about the outcomes of the affirmative action program on your campus. This questionnaire contains two parts. The first contains items directly related to the affirmative action program while the second part is concerned with various aspects of your institution's organizational structure.

Purpose

The purpose of this survey is two-fold. First, it will assist in an attempt to gauge the perceived effectiveness of your campus' affirmative action effort. It is not, and will not be used as an instrument for measuring the success of the affirmative action office. On the contrary, the responses to the survey are designed to indicate the perceived extent to which the campus as a whole has effectively carried out the affirmative action program in operation. Secondly, the data gathered will be incorporated into a study examining the effects of university/college organization structure upon affirmative action program results.

Instructions: Part I

Please read each statement carefully and consider the extent to which you agree or disagree with the statement. To the right of each statement are spaces provided for you to record your response. Place an "x" on the space which most accurately describes your position on the statement.

Example:

- | | | | | | | |
|-----------------------------------------------------------------------------------------------------|----------------------|----------|--------------------|-----------------|-------|-------------------|
| | Strongly
Disagree | Disagree | Mildly
Disagree | Mildly
Agree | Agree | Strongly
Agree |
| 1. Affirmative action has enhanced the promotional opportunities at this college for all employees. | — | — | — | — | — | — |

It is estimated that it will probably require 20 to 25 minutes to complete the survey.

It is important that you provide a response to every statement. Please provide only one (1) response to each inquiry. Once you have completed the survey, please insert it into the pre-addressed envelope provided and mail it at your earliest convenience. Your cooperation in completing and returning the survey by MAY 27, 1988 is requested.

A summary of the results of this survey will be provided to all participants upon completion of tabulation and analysis of the returned questionnaires.

Your gracious assistance in this effort will be extremely valuable to the project and therefore is most appreciated.

All precautions will be taken to preserve the confidentiality of the surveys.

Strongly Disagree Disagree Mildly Disagree Mildly Agree Agree Strongly Agree

A. Policy

1. This campus maintains a firm policy of equal opportunity through affirmative action.
2. This campus aggressively pursues its policy of affirmative action.
3. Equal opportunity and affirmative action policies of the campus have been sufficiently communicated throughout the campus.
4. Managerial and supervisory staff are supportive of the campus equal opportunity/affirmative action policies.
5. Current policies of the campus (i.e., regarding academic, budgetary, personnel, etc. matters) do not have any unlawful discriminatory impact on minorities and females.
6. Current campus policies can accommodate equal opportunity and affirmative action programs.
7. Equal opportunity is extended to all employees and applicants for employment.

B. Accountability

1. Sufficient accountability is built into the university/college structure to ensure that equal opportunity/affirmative action policy is effectively carried out.
2. Sufficient incentives have been established to encourage managerial/supervisory active pursuit of affirmative action goals and objectives.
3. Managerial and supervisory staff are evaluated on their demonstrated commitment to equal opportunity and affirmative action as a part of their performance evaluation.

Strongly Disagree
Disagree
Mildly Disagree
Mildly Agree
Agree
Strongly Disagree

- 4. Appropriate penalties may be leveled against supervisory personnel for failure to satisfactorily pursue institutional affirmative action policy and program objectives.
- C. Monitoring
- 1. The affirmative action program is adequately monitored to detect short-comings and/or progress.
- D. Commitment
- 1. The executives of the institution have sufficiently expressed their commitment to equal opportunity through affirmative action.
 - 2. Commitment to affirmative action and equal opportunity is adequately demonstrated by the executive core of the institution.
 - 3. Members of the college/university community perceive that the institution is committed to affirmative action and equal opportunity.
- E. Program Initiatives and Outcomes
- 1. This campus has undertaken many programmatic initiatives designed to achieve equal opportunity.
 - 2. This campus has generally implemented programs, projects and/or activities which have been reasonably successful in achieving affirmative action goals and objectives.
- F. Recruitment and Selection
- 1. Efforts to recruit women and minorities at rates at least equivalent to their availability in the relevant labor market are generally productive.

Strongly Disagree Disagree Mildly Disagree Mildly Disagree Agree Strongly Agree

2. Recruitment advertising adequately reaches relevant minority and female constituencies.

3. Given their representation in applicant pools, the rates of selection for women and minorities are at least equivalent to the rate of selection for white males given their representation in applicant pools.

4. Search committees are nondiscriminatory toward women and minorities in their selection decisions.

5. There is no unlawful discrimination in employment-related decisions at this institution.

G. Workforce

1. Over the last three years, the campus workforce has reflected a reasonable increase in the percentage of women and minorities in positions in which they had been underutilized.

2. Over the last three years, the female and minority percentage of the faculty, professional and executive workforce has increased appreciably.

3. Over the last three years, the proportion of the female and minority workforce which has been concentrated in lower level (i.e. non-professional/executive, non-faculty) positions has decreased appreciably.

H. Salary Equity

1. Minorities and females at this campus generally start at lower salaries than white males in the same position.

Strongly Disagree Disagree Mildly Disagree Mildly Agree Strongly Agree

- 2. Minorities and women generally earn salaries at least equivalent to white males in the same positions.
- 3. Over the last three years, salary differentials between minorities and females and their counterpart white males have decreased appreciably.
- 4. Over the last three years, salary differentials between minorities and females and their counterpart white males have increased appreciably.

I. Opportunities for Advancement

- 1. Affirmative action programs (i.e., training, developmental, or promotional) for the advancement of women and minorities have been instituted.
- 2. Established affirmative action programs for the advancement of women and minorities have been implemented effectively.
- 3. Programs designed to provide entry opportunities for women and minorities have been effectively implemented.
- 4. This campus has made its fair share of a contribution to increasing the national pool of qualified female and minority persons by providing them with professional development opportunities.

J. Goal Achievement

- 1. The goals and objectives established in the campus affirmative action plan are reasonable (i.e., achievable and ambitious but not unrealistic).
- 2. Reasonable progress toward the established goals and objectives has been achieved.

Strongly Disagree Disagree Mildly Disagree Mildly Agree Agree Strongly Agree

K. Grievance Process

1. The grievance procedure prescribed in the affirmative action plan of this campus has encouraged minorities and women to use this procedure to resolve complaints of discrimination.
2. The grievance procedure dissuades minorities and women from using the procedure to resolve complaints.
3. The grievance process has been effective in ensuring a judicious consideration and resolution for complaints.
4. Minorities and females have confidence in the efficacy of the grievance procedure.

L. Climate

1. Women and minorities feel that the atmosphere of the campus fosters social acceptance of them.
2. Minorities and females generally feel that the affirmative action efforts of the campus have had a positive productive effect.
3. Females and minorities feel that equal opportunity is afforded them on campus.
4. Women and minorities generally feel that their civil rights are sufficiently protected on this campus.

Part II

This section of the survey is devoted to inquiries related to organization structure issues of the institution. For each item provide only a single response by placing an "x" on the space which most closely indicates your response to the question.

A. COMPLEXITY

1. What is the approximate size of your college or university full-time workforce (including faculty)?

Less than 200	201 to 500	501 to 750	751 to 1000
1001 to 1500	More than 1500		

2. Approximately how many full-time faculty are employed at your college or university?

Less than 100	101 to 300	301 to 500	501 to 700
701 to 1000	More than 1000		

3. What is the approximate number of job titles (excluding different grades within an individual job title) within the institution?

Less than 20	21 to 40	41 to 60	More than 60
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4. Approximately what proportion of the institution's total number of job titles (including faculty) require college degree or post secondary technical training?

Less than 30%	31% to 40%	41% to 50%	51% to 60%
61% to 70%	More than 70%		

5. What is the approximate number of hierarchical levels within the largest division (i.e., academic affairs, student services, fiscal affairs, etc.) at your college or university?

Less than 5	5 to 8	9 to 12	More than 12
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B. CENTRALIZATION

Where is the locus of authority to make decisions in regard to:

1. Academic policy of the college/university:

Board of Trustees ___	President ___	President in conjunction with
Executive core ___	Chief academic officer ___	Faculty ___

2. Faculty selection:

Board of Trustees ___	President ___	Chief academic officer ___
Unit/departement head ___		

3. Development of new academic programs:

Board of Trustees ___	President ___	President in conjunction with
Executive core ___	Chief academic officer ___	

4. Grading policy:

Board of Trustees ___	President ___	President in conjunction with
Executive core ___	Chief academic officer ___	

5. Student admissions policy and standards:

Board of Trustees ___	President ___	President in conjunction with
Executive core ___	Chief academic/student affairs officer ___	

6. Student conduct policy:

Board of Trustees ___	President ___	President in conjunction with
Executive core ___	Chief academic/student affairs officer ___	

7. Selection of non-instructional, non-executive personnel:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief functional officer ___ Unit/Department head ___
8. Selection of executive personnel:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief functional officer
9. Personnel policy:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief human resource/personnel officer ___
10. Collective bargaining:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief human resource/personnel officer ___
11. Institutional research policy:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief institutional research officer ___
12. Fiscal/budgetary policies:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief fiscal officer ___
13. Budget allocation:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief fiscal officer ___

14. Student fees structure:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief fiscal or student affairs officer ___
15. Capital outlay and construction:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief fiscal or facilities officer ___
16. Degree of participation in long range planning:
 Board of Trustees ___ President ___ President in conjunction with
 Executive core ___ Chief planning officer ___

C. FORMALIZATION

YES NO

1. Are the following items available in written form:
- a. Organization chart of the institution ___
 - b. Statements of all major institutional policies ___
 - c. Terms and conditions or contracts of employment ___
 - d. Job descriptions ___
 - e. Procedures for recruitment and selection of employees ___
 - f. Terms and advancement for employees ___
 - g. Standard dismissal procedures for employees ___
 - h. Documentation of employee performance evaluations ___

	<u>YES</u>	<u>NO</u>
i. Employee Handbooks	_____	_____
j. Course outlines for instructors	_____	_____
k. Standardized personnel policies and procedures for non-instructional employees	_____	_____
2. How does one obtain a decision from the administration:		
a. Ad hoc -- no specific procedures	_____	_____
b. Procedure for some circumstances	_____	_____
c. Standard procedure	_____	_____
d. Submit a case in written form	_____	_____
3. How are administrative decisions conveyed:		
a. Ad hoc	_____	_____
b. Sometimes a procedure is used	_____	_____
c. Always a procedure is used	_____	_____

PLEASE RETURN THE SURVEY IN THE ENVELOPE PROVIDED

BY MAY 27, 1988

Thank you so much.

APPENDIX F

LETTER TO SAMPLE SUBJECTS

May 1, 1988

Dear Colleague:

I am writing to inform you of a practical research effort being undertaken to develop a tool to assist equal opportunity/affirmative action officers assess the effectiveness of a campus affirmative action program. Please allow me to take a few moments of your time to further explain the project.

As an equal opportunity/affirmative action professional, I am sure you would agree that the development of a means for assessing affirmative action programs effectiveness would be of interest and of potential value to us. Presently, I am engaged in a research effort which will focus on developing just such a tool. Thus, I am requesting your assistance and cooperation.

Specifically, the broader research project in which I am involved entails an examination of the relationships between elements of organizational structure in colleges and universities and the effectiveness of affirmative action programs. The portion of this project for which I seek your assistance regards the completion of a questionnaire which has been enclosed.

The survey has been collaboratively developed with the aid of a team of affirmative action experts. The instrument purports to gauge the level of effectiveness of a campus affirmative action program from the perspective of the campus affirmative action officer. The results of this survey will be integrated with other data to assess the influence which college/university organizational structure may have upon the effectiveness of the campus affirmative action program.

Enclosed you will find a copy of the survey questionnaire which I hope you will complete and return. The questionnaire is estimated to require between 20 and 25 minutes to complete. Strict confidentiality will be maintained throughout the entire survey.

As I request your valuable participation in this important project, I of course, remain ever mindful of the overwhelming workload and nature of your responsibilities as an affirmative action practitioner. I am therefore all the more appreciative of your willingness to participate and, I will provide you with a summary of the survey results upon completion.

My thanks again for your precious time and consideration.

Sincerely,

Bruce A. Rose
Director of Affirmative Action

Enc.

APPENDIX G

FOLLOW UP LETTER TO SAMPLE SUBJECTS

May 20, 1988

Dear Colleague:

Recently, you should have received a request from me to complete an affirmative action questionnaire which I sent. Along with the explanatory letter I had sent I indicated that the desired return date would be May 27, 1988.

Since the survey is anonymous I am unable to determine which campuses have already returned the questionnaire. Thus, if you have not yet responded, I would respectfully ask that you consider responding to the survey and return it at your earliest convenience. I am extending the return deadline to June 3, 1988, to allow you a little more time. Should you have any questions or need another questionnaire you may reach me at: (617) 727-7785. Questionnaires should be returned to:

Bruce A. Rose
PO Box 326
Brookline, MA 02146

If you have been so gracious as to respond already, let me take this opportunity to express my heartfelt appreciation for taking time out of your busy schedule to cooperate with this project of great importance. Thank you so much for your contribution.

Sincerely,

Bruce A. Rose
Director of Affirmative Action

BAR/ck

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