DOCUMENT RESUME

ED 456 202	UD 034 377
AUTHOR	Milem, Jeffrey F.
TITLE	Increasing Diversity Benefits: How Campus Climate and
	Teaching Methods Affect Student Outcomes.
PUB DATE	2001-00-00
NOTE	18p.; In: Orfield, Gary, Ed., Diversity Challenged: Evidence on the Impact of Affirmative Action. Cambridge, Harvard Education Publishing Group, 2001. p233-249. See UD 034 365.
PUB TYPE	Reports - Research (143)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Active Learning; Affirmative Action; College Admission;
	College Faculty; Diversity (Faculty); *Diversity (Student);
	*Educational Environment; Ethnic Studies; Higher Education;
	Outcomes of Education; *Teaching Methods

ABSTRACT

This study explored the relationship between student diversity, campus climate, faculty composition, and research and teaching content. Data came from three primary sources: a 1992-93 survey of college and university faculty, which provided information on full-time faculty from 344 institutions; the Higher Education Governance Institutional Survey database, which provided data on student body racial composition at 244 institutions; and the Carnegie Foundation, which provided data from their classification system for colleges and universities. Four outcomes related to maximizing the benefits of racial diversity in teaching and learning were considered: (1) teaching practices associated with active learning; (2) curricular inclusion of readings on diverse racial and ethnic groups; (3) faculty participation in research on race, ethnicity, or gender; and (4) faculty attendance at workshops on racial awareness or curriculum inclusion. Minority faculty were dramatically under-represented at all levels of higher education. Research and doctoral institutions were the most diverse. However, their faculty were the least likely to use active learning techniques or curriculum inclusion or to have attended racial awareness workshops. Simply admitting more minority students did not produce substantial changes in teaching approaches or content. Women and minority faculty were most likely to participate in teaching and learning activities supporting diversity. (Contains 28 references.) (SM)



Reproductions supplied by EDRS are the best that can be made from the original document.

U.S. DEPARTMENT OF EDUCATION Office of Educational Research and Improvement EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

 Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

CHAPTER 11

Increasing Diversity Benefits: How Campus Climate and Teaching Methods Affect Student Outcomes

JEFFREY F. MILEM

ED 456 202

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

CATIONAL RESOURCES RMATION CENTER (ERIC) 1

Affirmative action to increase the numbers of minority students and faculty at selective colleges rests on the U.S. Supreme Court's 1978 finding, in *Regents of the University of California v. Bakke*, that diversity is important to the core functions of a university. The current challenge to *Bakke* includes the claim that diversity does not, in practice, have the positive effects attributed to it by most educators. Critics often cite, for example, the lower retention rates and lower grades of minority students at selective colleges. But the relationship between campus diversity and such student outcomes is not as simple as these critics imply. Bowen and Bok (1998) offer compelling evidence that challenges this assertion. Moreover, these criticisms of affirmative action suggest that the persistence and academic achievement of students can only be ascribed to the characteristics and attributes of individual students. This assertion completely ignores the role that institutions have in encouraging (or discouraging) persistence and other indicators of academic success.

Studies of public school desegregation clearly demonstrate that the benefits of student diversity depend on the responses of the institution to its changing make-up.¹ Janet Ward Schofield writes in this volume that "desegregation and student diversity is just the first step in a long process, and . . . attention to the many specifics of that process is absolutely vital if one wants to maximize the potential benefits and minimize the potential problems." Therefore, in assessing the success or failure of affirmative ac-

2

tion in higher education it is essential to pay attention not only to admissions practices but also to campus climate, the content of the curriculum, and the ability of faculty to adapt their teaching methods to the needs of students.

This study explores the relationship between student diversity, campus climate, faculty composition, and the content of research and teaching. It finds that the institutions that have made the most progress in increasing the enrollment of minority students—the selective research universities—are in many respects the least flexible and least adaptive in responding to changing student needs. These institutions are dominated by faculty oriented to specialized research, not to flexible approaches to teaching.

This study also finds that simply admitting more minority students does not produce the substantial changes in teaching approaches or content necessary to realize the full benefits of diversity. Such changes do take place, however, where there is increased faculty diversity and leadership that alters the campus climate. These findings suggest that the value of diversity in practice depends on the kind of institution minority students gain access to and the degree to which those schools adapt. In particular, it is enhanced by faculty who build diversity into the teaching and research missions of the university.

Conceptualizing the Campus Climate

Hurtado, Milem, Clayton-Pedersen, and Allen (1998, 1999) suggest a fourdimensional framework for describing the campus racial climate. These dimensions consist of: 1) an institution's historical legacy of inclusion or exclusion of various racial or ethnic groups; 2) structural diversity, or the numerical and proportional representation of diverse groups on campus; 3) the psychological climate, including perceptions and attitudes between groups; and 4) and the behavioral climate, or nature of intergroup relations on campus. The institutional climate for diversity on campus is a product of these four dimensions. Hurtado et al. (1998, 1999) argue that campus climate has been examined almost exclusively from a structural perspective. When structural diversity is increased without considering the other dimensions of climate, problems are likely to result. Support for this assertion can be found in the work of race relations theorists who assert that the larger the relative size of a minority group, the more likely minority individuals will come into conflict with members of the majority (Blalock, 1967). A number of studies of the impact of structural diversity on campus document this finding (Hurtado et al., 1998, 1999).



However, conflict need not be a destabilizing force in higher education institutions. Conflict, after all, is an essential part of research and education. In fact, some kinds of conflict are probably a necessary precondition for real changes in campus race relations and for serious intellectual exchanges. Palmer (1987) argues that a "primary virtue" of a university is a "capacity for creative conflict" and that "healthy conflict is possible only in the context of supportive community" (p. 25). Students are generally unable to bring such creative conflict to classrooms for fear of being exposed, appearing ignorant, or being called stupid.

Factors That Influence How Faculty Teach

A large body of research indicates that active forms of learning enhance student learning and development when they are used in the classroom (e.g., see Astin, 1993; Johnson & Johnson, 1985, 1986a, 1986b; Johnson, Johnson, & Smith, 1988; Milem & Wakai, 1996a, 1996b; Slavin, 1987, 1988). Active learning methods include the use of cooperative learning, student presentations, group projects, experiential learning, student evaluations of others' work, independent learning projects, student-selected course topics, class discussions, student-designed learning activities, and the absence of extensive lecturing as pedagogical techniques in classrooms (Astin, 1993). These more "active" techniques enable students to exercise initiative and assume responsibility for their own learning. Moreover, the use of these teaching methods in the classroom gives students opportunities to come together to communicate across communities of difference—essential activities in efforts to build a more supportive campus racial climate (Hurtado et al., 1998, 1999).

Research on teaching methods indicates that faculty characteristics have a strong influence on learning (Easton & Guskey, 1983; Kozma, Belle, & Williams, 1978). Studies show that women and faculty from historically underrepresented racial and ethnic groups are more likely to report using student-centered approaches to teaching and "active learning" techniques such as class discussion (Milem & Wakai, 1996a, 1996b; Milem & Astin, 1992). One study found female professors more likely than males to encourage students' input and independence, and to view students as active collaborators in learning (Statham, Richardson, & Cook, 1991).

Merton (1973) looked at institutional "outsiders"—those having lower social status—and asserted that they gain special perspective and insight that may lead them to inquire into problems relevant to their groups and to develop unique solutions. As teachers, racial and ethnic

a



outsiders may be more likely to be sensitive to classroom dynamics that are taken for granted by insiders.

Institutional characteristics also influence teaching practice. Faculty at research universities have consistently been shown to spend less time teaching and advising students and more time on their own research and publications (Astin 1993; Astin & Chang, 1995; Bayer, 1973; Ladd, 1979). Research evidence also indicates that the size of an institution influences faculty teaching practices. Smaller institutions tend to provide educational advantages to students that include more effective teaching practices (Astin, 1993; Bowen, 1977; Chickering, 1971; Feldman & Newcomb, 1969).

The climate of an organization can influence people's behavior, and thus may be linked to teaching practices. A school's administration can help create a climate that promotes high faculty morale, according to Baldwin and Krotseng (1985), by being responsive to faculty needs and allowing teachers to feel autonomous and in control of their work. Guskin and Bassis (1985) assert that faculty are more motivated and committed to their work at institutions where the administration encourages them to take part in decisionmaking. Altschuler and Richter (1985) suggest that administrators working to prevent burnout should encourage faculty to learn new skills, including new teaching practices. Finally, Kozma, Belle, and Williams (1978) argue that institutional climates with high tolerance for deviation and desirability for change facilitate quality teaching by supporting innovative efforts for improvement.

Data, Methodology, and Outcome Measures

This chapter studies the effect different levels of student diversity (defined as the proportions of African American, American Indian, Asian American, and Latino students on campus) have on university faculty. The data come from three primary sources: 1) the 1992–1993 survey of college and university faculty conducted by the Higher Education Research Institute (HERI) at the University of California, Los Angeles, which provided normative data for full-time faculty at 344 institutions;² 2) the Higher Education Governance Institutional Survey (HEGIS) database, which provided data on the racial composition of student bodies at 244 of the institutions included in the HERI survey; and 3) the Carnegie Foundation, which provided data from their classification system for colleges and universities.

Exploratory factor analysis was employed first to examine the patterns of relationship among a group of items from the HERI survey that



assess faculty perceptions of institutional climate. A set of descriptive analyses depicted key independent variables and their relationships to the dependent variables. Finally, blocked hierarchical regression analyses were used to determine the predictors of each of four selected dependent variables.

Three sets of items were analyzed to construct the climate scales. The first set consisted of thirteen items in which faculty assessed the priorities of their institutions on a four-point scale. The second consisted of four-teen items in which faculty rated their campus environments. The third asked faculty to respond to a set of institutional descriptions. Eight factors were ultimately selected as the most useful for this study. Those factors, the individual items that compose them, their factor loadings, and their reliability coefficients are summarized in Table 1.

Civic Responsibility, the first of the eight factors, encompasses the notion of building community on campus while helping students examine their values, develop leadership skills, and become involved in community service. *Student-Centeredness* describes the degree to which faculty and staff are committed to helping students both in and out of the classroom. *Structural Diversity* covers efforts to increase the representation of people of color and women on the faculty, to increase the numbers of underrepresented minority students, and generally to create a diverse campus. *Collegial Relations* includes faculty perceptions of the working atmosphere on campus.

Active Multicultural Support relates to aspects of the racial climate other than structural diversity—for example, the behavioral and psychological dimensions of climate. This construct characterizes a campus's general level of racial harmony and trust, and the faculty's level of attention to minority issues. Curricular Inclusion refers to faculty perceptions of the level of multicultural perspective in the curriculum. Institutional Prestige describes the level of emphasis placed on the national reputation of the campus. Academic Ability incorporates faculty perceptions of students and their preparation for academic work.

This study considers four outcomes related to maximizing the benefits of racial diversity in teaching and learning. They are 1) teaching practices associated with active learning; 2) inclusion in the curriculum of readings on the experiences of diverse racial and ethnic groups; 3) faculty participation in research on race, ethnicity, or gender; and 4) faculty attendance at workshops on racial awareness or curriculum inclusion. Each of these outcomes is significant as a direct or indirect measure of the faculty's willingness and/or ability to be innovative in their teaching practices.



ltem	Factor Loading
Factor One – Civic Responsibility Orientation	
INSPRI05 – Develop leadership among students	.78
INSPRIO8 – Help students change American society	.75
INSPRIO2 – Help students examine personal values	.72
NSPRI07 – Facilitate student involvement in community service	.72
NSPRI04 – Develop community among students and faculty	.71
Alpha reliability	.83
Factor Two – Student-Centered Emphasis	
INSOPN09 – Faculty interested in students' academic problems	.69
INSOPN01 – Faculty interested in student problems	.66
NSDSC01 – Easy to see faculty outside office hours	.62
NSOPN06 – Faculty committed to welfare of the institution	.58
INSDSC06 – Students (not) treated like numbers in a book	.55
INSDSC08 – (Much) student/faculty contact	.51
INSDSC12 – Faculty rewarded for being good teachers	.26
Alpha reliability	.78
Factor Three – Structural Diversity Emphasis	
INSPRI03 – Increase minority representation in faculty	.88
NSPRI11 – Récruit more minority students	.82
INSPRIO6 – Increase women's representation in faculty	.81
INSPRI13 – Create diverse multicultural campus environment	.72
Alpha reliability	.86
Factor Four – Collegial Relations	
INSDSC04 – Faculty (not) at odds with administration	.72
INSOPN14 - Administrators act in good faith	.70
INSOPN03 – People (do) respect each other	.55
INSDSC05 – Faculty respect each other	.49
INSOPN05 – Student affairs staff supported by faculty	.37
Alpha reliability	71
	., ,
Factor Five – Active Multicultural Support	
INSOPN12 – Faculty of color treated fairly	./2
INSOPN10 – (Not much) racial conflict here	.70
INSOPNI3 – Women faculty treated fairly	.64
INSUPRIUM – (Much) trust between minorities and administration	.63
INSDSC09 – Institution committed to help minorities	.43
INSOPROZ – Faculty attentive to minority issues	.36
Alpha reliability	.76

TABLE 1 Factor Loadings ond Alpha Reliabilities for Institutional Climate Scales



, 1a

Item	Factor Loading
Factor Six – Curricular Inclusion	
INSOPN11 – Courses include feminist perspectives	.81
INSOPN07 – Courses include minority perspectives	.79
Alpha reliability	.74
Factor Seven – Institutional Prestige Orientation	
INSPRI12 – Enhance institution's national image	.87
INSPRI09 – Increase/maintain institutional prestige	.86
INSPRI10 – Hire faculty "stars"	.70
Alpha reliability	.76
Factor Eight – Academically Able Students	
INSDSC03 – Most students are very bright	.82
INSOPN04 – Students are well prepared academically	.80
Alpha reliability	.68
Other items not loading	
INSDSC07 – Social activities overemphasized	
INSDSC10 - Intercollegiate sports overemphasized	
INSDSC02 – Great deal of student conformity	
INSDSC11 – Students don't socialize regularly	
INSPRI01 – Promote intellectual development of students	

 TABLE 1 Factor Loadings and Alpha Reliabilities for Institutional Climate Scales
 (continued)

A Summary of Key Findings from the Descriptive Analyses

Levels of student diversity on campus in the following analyses were computed by adding the percentages of full-time African American, American Indian, Asian American, and Hispanic/Latino students. Research institutions were found to be most diverse, with 13.9 percent students of color. At doctoral institutions, the figure was 12.5 percent; at comprehensive institutions, 9.1 percent; and at liberal arts institutions, 7.7 percent.

The underrepresentation of faculty of color is dramatic at all levels of higher education. The proportion of African American faculty varies from 1.3 to 1.9 percent in the different Carnegie classifications of institutions; the totals of Hispanic and Latino faculty are similar (see Table 2).



All (N=35,061)Research (N=8,960)Doctoral (N=4,067)Compre- hensive (N=14,401)Liberal Art (N=7,633)African American1.81.91.31.71.3American Indian1.00.70.81.40.9Asian/Asian American3.24.83.63.12.6Chicano/Mexican American0.50.40.30.70.3Puerto Rican0.20.20.20.20.3Other Latino0.90.91.00.80.8White89.589.189.889.690.9						
African American1.81.91.31.71.3American Indian1.00.70.81.40.9Asian/Asian American3.24.83.63.12.6Chicano/Mexican American0.50.40.30.70.3Puerto Rican0.20.20.20.20.3Other Latino0.90.91.00.80.8White89.589.189.889.690.9		All (N=35,061)	Research (N=8,960)	Doctoral (N=4,067)	Compre- hensive (N=14,401)	Liberal Arts (N=7,633)
American Indian 1.0 0.7 0.8 1.4 0.9 Asian/Asian American 3.2 4.8 3.6 3.1 2.6 Chicano/Mexican American 0.5 0.4 0.3 0.7 0.3 Puerto Rican 0.2 0.2 0.2 0.2 0.3 Other Latino 0.9 0.9 1.0 0.8 0.8 White 89.5 89.1 89.8 89.6 90.9	African American	1.8	1.9	1.3	1.7	1.3
Asian/Asian 3.2 4.8 3.6 3.1 2.6 Chicano/Mexican 0.5 0.4 0.3 0.7 0.3 Puerto Rican 0.2 0.2 0.2 0.2 0.3 Other Latino 0.9 0.9 1.0 0.8 0.8 White 89.5 89.1 89.8 89.6 90.9	American Indian	1.0	0.7	0.8	1.4	0.9
Chicano/Mexican 0.5 0.4 0.3 0.7 0.3 Puerto Rican 0.2 0.2 0.2 0.2 0.3 Other Latino 0.9 0.9 1.0 0.8 0.8 White 89.5 89.1 89.8 89.6 90.9	Asian/Asian American	3.2	4.8	3.6	3.1	2.6
Puerto Rican 0.2 0.2 0.2 0.2 0.3 Other Latino 0.9 0.9 1.0 0.8 0.8 White 89.5 89.1 89.8 89.6 90.9	Chicano/Mexican American	0.5	0.4	0.3	0.7	0.3
Other Latino 0.9 0.9 1.0 0.8 0.8 White 89.5 89.1 89.8 89.6 90.9	Puerto Rican	0.2	0.2	0.2	0.2	0.3
White 89.5 89.1 89.8 89.6 90.9	Other Latino	0.9	0.9	1.0	0.8	0.8
	White	89.5	89.1	89.8	89.6	90.9

TABLE 2 Racial Diversity of Faculty by Campus Type

Methods of Teaching

Reliance on the lecture is one important measure of teaching practice; the greater the reliance, the less likely that the teacher uses active learning and student-centered methods. More than half of all faculty report that they use extensive lecturing in all or most classes, but the proportion is clearly related to the size and mission of the institution. Faculty at research institutions are most likely to use extensive lecturing (66.0 percent), followed by faculty at doctoral institutions (60.4 percent), comprehensive institutions (52.6 percent), and liberal arts institutions (43.2 percent). Women are less likely than men to report the use of extensive lecturing—42.7 percent compared to 60.3 percent.

Only about one faculty member in seven (14 percent) reports incorporating readings on race or ethnicity in all or most of their classes. There is considerable variation in this measure by racial background of the faculty. African American (28.5 percent), Chicano and Latino (30.7 percent), and American Indian (26.3 percent) faculty are all at least twice as likely as white faculty (13.7 percent) to integrate their curricula in this way. Asian American faculty are the least likely to do so (6.2 percent). Women are twice as likely as men to report that they incorporate readings on ra-

¢



cial issues into their classes (21.7 percent for women as compared to 10.1 percent for men).

Only one faculty member in five reports having conducted research on race or ethnicity. African American (61 percent) and Chicano/Latino (65 percent) faculty are far more likely than white (19 percent) or Asian American (18 percent) faculty to have done so. These findings are fairly consistent across the four Carnegie classifications of research and teaching campuses.

Only about one in three faculty members reports having attended a racial or cultural awareness workshop. Again, whites and Asian Americans are least likely to have done so. Considered in the aggregate, faculty at liberal arts institutions are twice as likely to have attended such workshops as faculty at research institutions.

Student diversity is correlated only weakly, if at all, with the four dependent variables in this study. There are weak correlations between the variables and campus type: research institutions are negatively correlated with active learning, curriculum inclusion, and participation in diversity workshops. Being a faculty member at a comprehensive or liberal arts institution is positively correlated with all four dependent variables, though only weakly.

Stronger patterns of relationship emerge between the eight measures of institutional climate and the campus types. Faculty at research universities, for example, are less likely to perceive their institutions as student centered (r = -.27) or as emphasizing civic responsibility (r = -.17), while faculty at liberal arts colleges are more likely to perceive their institutions to be student centered (r = .25) and to emphasize civic responsibility (r = .15). Research institutions are likely to be seen by faculty as placing greater emphasis on institutional prestige (r = .25).

These simple correlations suggest that faculty perceive institutional climates to be most supportive of diversity at those universities that have the lowest representation of students of color (the liberal arts and comprehensive institutions) and least supportive at those with the largest representation (research and doctoral institutions).

Predicting the Likelihood of Faculty Innovation

Four multiple regression analyses were conducted using six "blocks" of independent variables, assigned to each block according to how they were believed to fit in the study model. The first block measures faculty characteristics, including race, gender, and age. The second block measures institutional type as defined by the Carnegie classification system: research,



doctoral, comprehensive, and liberal arts. Community colleges and specialized schools are characterized as "other" in these analyses. The third block measures faculty job characteristics, including discipline type (hard-applied, hard-pure, soft-applied, soft-pure), academic rank, and tenure. The fourth block measures faculty job activity, including primary interest in teaching or research and whether research is primarily collaborative. The fifth block measures student diversity on campus. The last block comprises the eight institutional climate factors described above. The results of the regression analyses are summarized in Table 3.

Factors predicting active learning. The following factors are associated with a significantly higher likelihood of active learning techniques being used in the classroom: faculty who perceive their institutions as oriented to civic responsibility ($\beta = .13$), women faculty ($\beta = .12$), faculty who perceive their institutions as having highly able students ($\beta = .09$), faculty who perceive their institutions as emphasizing curricular diversity ($\beta = .07$), faculty in soft-applied disciplines ($\beta = .06$), faculty who report that they are more likely to collaborate with others in their research ($\beta = .05$), faculty who perceive their institutions as student centered ($\beta = .03$), American Indian faculty ($\beta = .03$), and Puerto Rican faculty ($\beta = .02$).

These factors are associated with a significantly lower likelihood of the use of active learning techniques: faculty in hard-pure disciplines ($\beta = -.19$), faculty at research institutions ($\beta = -.08$), faculty who perceive their institutions to have high levels of multicultural support ($\beta = -.07$) and collegial relationships ($\beta = -.07$), tenured faculty ($\beta = -.06$), faculty on more diverse campuses ($\beta = -.05$), faculty in soft-pure disciplines ($\beta = -.04$), Asian American faculty ($\beta = -.04$), faculty at doctoral institutions ($\beta = -.03$), and older faculty ($\beta = -.02$).

Factors predicting curriculum inclusion. The following factors are associated with a significantly higher likelihood of including readings on race, ethnicity, or gender in the curriculum: faculty in soft-pure disciplines ($\beta = .16$), women faculty ($\beta = .14$), faculty who perceive their institutions to have a high level of curricular diversity ($\beta = .13$) and to emphasize civic responsibility ($\beta = .05$) and student diversity ($\beta = .05$), faculty at higher ranks ($\beta = .04$), faculty whose interests are more in research than teaching ($\beta = .03$), American Indian faculty ($\beta = .03$), African American faculty ($\beta = .02$).

These factors are associated with a significantly lower likelihood of including readings on race, ethnicity, or gender in the curriculum: faculty in hard-pure disciplines ($\beta = -.21$), faculty who perceive their institutions to have high levels of multicultural support ($\beta = -.15$), faculty in hard-applied disciplines ($\beta = -.13$), faculty at research institutions ($\beta = -.05$),



		Active		CL	urriculun	ווכ חווח הא	anaaraizea k	Loemcien Research o	un ror kegn	ession Preaicun A	ıg Ntendanc	e at
		Learning		-	nclusion		•	Diversity		Diver	sity Work	sdohs
Variable	۹	Beta	Sig	q	Beta	Sig	q	Beta	Sig	q	Beta	Sig
Background Characteristics												
Age	05	02	\$.01	<u>10</u> .		<u>.</u> 0	.03	:	00	- 10'-	
Political View: Liberal	.37	.08	**	.34	.17	:	Η.	.13	:	60.	.10	**
Father's Education	<u>0</u> .	00.		00	00		00.	00		00	01	
Race: African American	21	01		.21	.02	*	.19	.03	:	.19	.03	:
Race: American Indian	1.13	.03	:	.53	.03	:	22	.03	‡	.14	.02	:
Race: Asian American	84	04	**	46	05	:	29	07	\$	18	04	:
Race: Mexican American/												
Chicano	.29	10.		.38	.02	:	.30	.03	:	.29	.03	**
Race: Puerto Rican	1.61	.02	**	.14	0 <u>0</u>		<u>.05</u>	<u>0</u> .		04	00	
Race: Other Latino	.12	00.		05	00		.05	<u>10</u>		.05	<u>.</u> 01	
Race: White	12	01		12	02		21	08	:	17	06	:
Sex: Female	1.07	.12	:	.52	.14	:	.24	.15	:	.20	.12	:
æ	² = .056**	R ² Ch =	.056**	R ² = .136* ⁴	• R ² Ch :	= .136**	R ² = .118	t** R²Ch∶	= .118**	R ² = .060**	R²Ch ₌	
Institutional Type												
Research	74	08	:	18	05	:	02	01		29	17	:
Doctoral	42	03	:	07	01		.03	.02		22	09	:
Comprehensive	60.	.01		04	01		.04	.03	*	13	08	:
Liberal Arts	10	- 01		.03	.01		.05	.03	*	09	05	:
	2- 066**	D2Ch	**010	D2 - 1444	P2Ch	**000 -	n2 17.	** 0206	**200			******

TABLE 3 Results of Blocked Hierarchical Regression for all Institutions in the Sample (N=26775)

C¹

Full Text Provided by ERIC

5775) (continued)
(N=2(
the Sample
ni su
Il Institution
for c
Regression
Hierarchical
Results of Blocked
TABLE 3

				Uns	tandardi.	zed and Sto	indardized C	oefficient	s for Regre	ssion Predictin	б	
		Active Learning			Curriculu, Inclusion	٤ -	X	esearch o Diversity	5	A Diver	ttendance sity Works	at hops
Variable	q	Beta	Sig	q	Beta	Sig	q	Beta	Sig	þ	Beta	Sig
Job Characteristics												
Academic Rank	.05	<u>10</u>		.06	<u>6</u>	:	<u>.</u> 06	0 80 [.]	**	.05	.06	**
Tenured	47	06	:	15	04	:	04	03	:	00	00	
Discipline: Hard-Applied	24	02		73	13	:	25	- 11	:	09	03	:
Discipline: Hard-Pure	-1.97	19	:	92	21	:	31	17	:	18	09	:
Discipline: Soft-Applied	59	90.	:	.11	03	:	07	04	:	.01	<u>8</u> .	
Discipline: Soft-Pure	32	04	:	.53	.16	:	.21	.15	**	00	00	
R ² =	.127**	R²Ch≞,	.061**	R ² = .264	** R ² Ch	= .120**	R ² = .218 ⁺	•• R²Ch₌	= .094**	R ² = .095**	R ² Ch =	.015**
Job Activity												
Primary Interest: Research	03	01		90.	.03	:	60.	۲.	:	05	06	:
Research: Collaborative	.35	.05	:	8	0 <u>.</u>		8 <u>.</u>	0 <u>0</u>		.06	.05	:
R ² =	:.132**	R ² Ch =	.005**	R ² = .265	** R ² Ch	= .001**	R ² = .228'	** R ² Ch =	= .010**	R ² = .101**	R ² Ch =	••900
Institutional Characteristics	ç	ž	1	ć	5	4	ç	5		ç	ç	:
Structural Diversity	70 [.] –	cu		- 00	- -	×	00.			nn	03	
R ² =	135**	R ² Ch = .	.003**	R ² = .265	** R ² Ch	= .000	R ² = .228*	* R ² Ch≞	000. =	R ² = .102**	R ² Ch =	.001

ERIC Full text Provided by ERIC 3

.

•

TABLE 3 Results of	Blocked Hier	archico	il Regress	ion for all	Institut	ions in th	e Sample (I	V=2677	'5) (conti	nued)		
				Unst	andardiz	red and Sto	andardized C	oefficient	s for Regre	ession Predictir	Бı	
		Active Learning		U	Urricului Inclusion	F ~	Re	search o Diversity	Ľ	A Diver	Attendanc sity Work	e at shops
Variable	þ	Beta	Sig	q	Beta	Sig	Ą	Beta	Sig	q	Beta	Sig
Institutional Climate												
Civic Responsibility Orientation	.15	.13	:	.03	.05	:	10 [.]	.05	:	.02	.07	:
Student-Centered												
Emphasis	.04	.03	:	10	.02	•	00.	<u>.</u> 0		.01	.03	
Structural Diversity												
Emphasis	.03	.02	•	.03	.05	:	10	.03	:	.03	4	**.
Active Multicultural												
Support	10	07	:	09	15	:	03	13	:	04	15	:
Curricular Inclusion												
Emphasis	.18	.07	:	.16	.13	:	.04	.07	;	.04	.07	:
Collegial Relationships												
Emphasis	11	07	**	01	02		01	02	•	00	00.	
Institutional Prestige												
Orientation	.05	.03	:	00 [.]	00.		00.	00.		01	02	÷
Academically Able												
Students	.28	60.	:	.02	.02	:	.01	.03	;	.02	.03	;
	R ² = .173**	R ² Ch =	.038**	R ² = .297*	⁺⁺ R²ch	= .032**	R ² = .246*	* R ² Ch	= .018**	R ² = .143**	R²Ch₌	= .041 **

ERIC Full Text Provided by ERIC

Asian American faculty ($\beta = -.05$), tenured faculty ($\beta = -.04$), and faculty in soft-applied disciplines ($\beta = -.03$).

Factors predicting involvement in research on diversity. The following factors are associated with a significantly higher likelihood of engaging in research addressing issues of race, ethnicity, or gender: faculty in the softpure disciplines ($\beta = .15$), women faculty ($\beta = .15$), faculty whose interests lean toward research rather than teaching ($\beta = .11$), faculty at higher ranks ($\beta = .08$), faculty who perceive their institutions as emphasizing curricular diversity ($\beta = .07$), civic responsibility ($\beta = .05$) and student diversity ($\beta = .03$), and as having highly able students ($\beta = .03$), faculty at comprehensive and liberal arts institutions ($\beta = .03$), African American faculty ($\beta = .03$).

These factors are associated with a significantly lower likelihood of engaging in research addressing issues of race, ethnicity, or gender: faculty in the hard-pure disciplines ($\beta = -.17$), faculty who perceive their institutions to have high levels of multicultural support ($\beta = -.13$), faculty in the hard-applied disciplines ($\beta = -.11$), white faculty ($\beta = -.08$), Asian American faculty ($\beta = -.07$), tenured faculty ($\beta = -.03$), and faculty in the soft-applied disciplines ($\beta = -.03$).

Factors predicting attendance at racial awareness workshops. The following factors are associated with a significantly higher likelihood of having attended a racial or cultural awareness workshop: faculty who perceive their institutions to value student diversity ($\beta = .14$), women faculty ($\beta = .12$), faculty who perceive their institutions to emphasize civic responsibility ($\beta = .07$) and curricular diversity ($\beta = .07$), faculty at higher ranks ($\beta = .06$), faculty who tend to do collaborative research ($\beta = .05$), faculty who perceive their institutions to be student centered ($\beta = .03$) and have able students ($\beta = .03$), African American faculty ($\beta = .03$), Mexican American/Chicano faculty ($\beta = .03$), and American Indian faculty ($\beta = .02$).

These factors are associated with a significantly lower likelihood of having attended a racial or cultural awareness workshop: faculty from all four types of institutions (research, $\beta = -.17$; doctoral, $\beta = -.09$; comprehensive, $\beta = -.08$; liberal arts, $\beta = -.05$) when compared with faculty at two-year colleges, faculty who perceive their institution to have high levels of multicultural support ($\beta = -.15$), faculty in the hard-pure disciplines ($\beta = -.09$), white faculty ($\beta = -.06$), faculty who report a greater relative interest in research than in teaching ($\beta = -.06$), Asian American faculty ($\beta = -.04$), faculty at more diverse institutions ($\beta = -.03$), and faculty in the hard-applied disciplines ($\beta = -.03$).



٠.

Conclusions

Note that the highest proportions of students of color in the data sample are enrolled at research and doctoral institutions, because it is these universities that have generally pursued affirmative action in admissions most aggressively. Yet the faculty at these institutions are the least likely to use active learning techniques or curriculum inclusion or to have attended racial-awareness workshops. Similarly, higher levels of student diversity on campus are found in these analyses to be associated with less use of active learning methods by faculty and lower likelihood of attendance at racial-awareness workshops.

Across all of the regression analyses, women faculty are more likely to be involved in teaching and learning activities supporting a diverse student body. African American, American Indian, or Mexican American/ Chicano faculty are also more likely to use these methods. Yet the institutions that have pursued affirmative action in college admissions most aggressively have made relatively little progress in hiring and promoting women and minority faculty.

We know from earlier research on school desegregation that increased diversity in education is no guarantee of academic success for students of color, but that success depends on the adaptability of the institution to the needs of those students. Moreover, research on campus racial climate indicates that the institutional climate for diversity is important to the success of all college students, regardless of racial/ethnic background (Hurtado et al., 1998. 1999). The findings from this study suggest that much remains to be done in understanding and assessing institutional responses to increased diversity. Clearly, arguments that ignore the institutional context and declare affirmative action a failure are misguided and inappropriate. It is imperative that institutional responses to increased diversity also be considered and that institutions be examined for the roles that they play in either enhancing or inhibiting the achievement of all students.

Notes

- 1. See Janet Ward Schofield, "Maximizing the Benefits of Student Diversity: Lessons from School Desegregation Research," in this volume.
- 2. The final response rate to this survey was 61 percent.



References

- Altschuler, T., & Richter, S. (1985). Maintaining faculty vitality. New Directions for Community Colleges, 13(4), 49–62.
- Astin, A. W. (1993). What matters in college? Four critical years revisited. San Francisco: Jossey-Bass.
- Astin, A. W., & Chang, M. (1995). Colleges that emphasize research and teaching: Can you have your cake and eat it too? *Change*, 27(5), 45–49.
- Baldwin, R., & Krotseng, M. (1985). Incentives in the academy: Issues and options. New Directions for Community Colleges, 13(3), 5–20.
- Bayer, A. (1973). Teaching faculty in academe: 1972–73 (ACE Research Reports, vol. 8, no. 2). Washington, DC: American Council on Education.
- Blalock, J. M. (1967). Toward a theory of minority-group relations. New York: Wiley.
- Bowen, H. (1977). Investment in learning. San Francisco: Jossey-Bass.
- Bowen, W. G., & Bok, D. (1998). The shape of the river: Long-term consequences of considering race in college and university admissions. Princeton, NJ: Princeton University Press.
- Chickering, A. (1971). Research for action. In P. L. Dressel (Ed.), *The new colleges: Toward* an appraisal (pp. 25–52). Iowa City, IA: American College Testing Program.
- Easton, J., & Guskey, T. (1983). Estimating the effects of college, department, course, and teacher on course completion rates. *Research in Higher Education*, 19, 153–158.
- Feldman, K. A., & Newcomb, T. M. (1969). The impact of college on students. San Francisco: Jossey-Bass.
- Guskin, S., & Bassis, M. (1985). Leadership style and institutional renewal. New Directions for Higher Education, 13(1), 13-22.
- Hurtado, S., Milem, J., Clayton-Pedersen, A., & Allen, W. (1999). Enacting diverse learning environments: Improving the campus climate for racial/ethnic diversity (ASHE/ERIC Higher Education Reports Series, 26, no. 8). Washington, DC: George Washington University/ERIC Clearinghouse on Higher Education.
- Hurtado, S., Milem, J. F., Clayton-Pedersen, A. R., & Allen, W. R. (1998). Enhancing campus climates for racial/ethnic diversity through educational policy and practice. *Review of Higher Education*, 21, 279–302.
- Johnson, D. W., & Johnson, R. T. (1985). Classroom conflict: Controversy versus debate in learning groups. *American Educational Research Journal*, 22, 237–256.
- Johnson, D. W., & Johnson, R. T. (1986a). Computer-assisted cooperative learning. Educational Technologies, 26, 12–18.
- Johnson, D. W., & Johnson, R. T. (1986b). Mainstreaming and cooperative learning strategies. *Exceptional Children*, 52, 553–561.
- Johnson, D. W., Johnson, R. T., & Smith, K. A. (1988). Cooperative learning: An active learning strategy for the college classroom. Minneapolis: University of Minnesota Press.
- Kozma, R., Belle, L., & William, G. (1978). Instructional techniques in higher education. Englewood Cliffs, NJ: Educational Technology.
- Ladd, E. (1979). The work experience of American college professors: Some data and an argument. In *Current issues in higher education*. Washington, DC: American Association for Higher Education.
- Merton, R. (1973). The sociology of science: Theoretical and empirical investigations. Chicago: University of Chicago Press.
- Milem, J., & Astin, H. (1992, April). Science faculty: Culture, roles and pedagogy. Paper presented at the annual meeting of the American Educational Research Association, New York.



- Milem, J., & Wakai, S. (1996a, April). Student centered approaches to teaching and learning: Lessons to be learned from faculty at historically black colleges and women's colleges. Paper presented at the annual meeting of the American Educational Research Association, New York.
- Milem, J., & Wakai, S. (1996b, November). Understanding how faculty teach: Facilitators and inhibitors of student-centered pedagogy. Paper presented at the annual meeting of the Association for the Study of Higher Education, Memphis.
- Palmer, P. J. (1987). Community, conflict, and ways of knowing. Change, 19, 20-25.
- Statham, A., Richardson, L., & Cook, J. (1991). Gender and university teaching: A negotiated difference. Albany: State University of New York Press.
- Slavin, R. E. (1987). Cooperative learning: Student teams (2nd ed.). Washington, DC: National Education Association.
- Slavin, R. E. (1988). Student team learning: An overview and practical guide (2nd ed.). Washington, DC: National Education Association.



R	U.S. Department of Education flics of Educational Research and Improvement (OERI) National Library of Education (NLE) Educational Resources Information Canter (ERIC) EPRODUCTION RELEASE	UD0 34 377
I. DOCUMENT IDENTIFI	(Specific Document)	
Title: Diversity Chall	enged: Evidence on the Impact of	Affirmative Action
Authority: Edited by G	ary Offield with Michal Kurlaena	ler .
Corporate Source: Civil Rig	hts Project, Harvard University	Publication Date: 2001
IL REPRODUCTION REL	EASE:	
In order to disseminate as widely a monthly abstract journal of the ERIC a and electronic media, and sold throug reproduction release is granted, one of if permission is granted to reproduce of the page.	as possible timely and significant materials of interest to the educations when, Assources in Education (RIE), are usually made available to u ph the ERIC Document Reproduction Service (EDRS). Credit is give f the following notices is affined to the document. e and discerningte the identified document, please CHECK ONE of the in	il community, documents announced in the sets in microfiche, reproduced paper copy, a to the source of each document, and, if slowing three options and sign at the bottom
The securit attain shown below will be attained to all Level 1 decorposite	The sample address shows below will be a solution to address the second by a s	The acceleration allows before will be allowed to all Lavel 28 documents
TO THE EDUCATIONAL RESOLUCES INFORMATION CENTER (ERIC)	TO THE EDUCATIONAL RESOLUCES INFORMATION CENTER (ERIC)	PERMISSION TO REPRODUCE AND DESEMINATE THIS MATERIAL IN DEROFICHE ONLY HAS BEEN GRANTED BY
1	2A 21	8
	Lavel 2A Î	Lavai 28 Î
Classic Jusco for Level 1 reference, passalling reproduction and demonstration in referentiate or ERIC antitival madin (n.g., electronic) and pay copy.	Check have for Loval 2A caloute, paralling offer <u>separaturites and dimensionies in allocation</u> and its re per electronic scale for CRCC archive collection subarity and y	Check have for Loval 2B release, parmiting production and discarding in microficies only
	Decements will be precisioned as included prinking reproduction quality precise. Names to correction in granted, but no but is absolved, documents will be processed at i	Lavni 1.
I increasely grant to the Education an indicated above. Report contractors requires permise to satisfy information results Signe here, - Constant of Action	anest Forenurces Information Conter (EFIC) nonenclassive permission to a traction them the EFIC microficies or electronic medie by persons athe tion from the copyright funder. Ecception is much for non-profit reproducts of educators in maganese to discuss inquiries. Printed Manufertin Logi Kelley	eproduce and disseminate this document in then ERIC employees and its system on by iterations and other service agencies Project Assistant
Civil Rights Pro	ject, 124 Mt. Auburn St., 617-384.	7537 617-495-5210
ERIC ANTENTION	, Chilley Clawsel	edu (ana)

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher	Distributor			_						<u> </u>			
	· · ·				•	• • •	•		• •	•			>
Address:		·			•				-				•
· •	•••	Ň	;	. :	•		·				• •		
_		•	• • •		· ·	:	•			:			•
Price								· .	• •				
	•	• • •		•			• .	•				•	
							•			•		•	

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the antiressee, please provide the appropriate name and address:

Neme:		
Advinces:		
	•	
•		

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Clearinghouse on Urban Education Teachers College, Columbia University Eox 40 525 W. 120th Street New York, NY 10027

ET-088 (Rev. 2/2000)

.

Toll Free: (300) 601-4368 Fax (212)-678-4012 Email: cric-ane@columbia.edu