This study examined the impact of diversity on students' self-perceived improvement in the abilities necessary to contribute positively to a pluralistic democracy. It noted how such diversity-related campus activities as exposure to multicultural curricula and opportunities to study and interact with diverse peers affected student development. The study also examined the influence of faculty gender and race/ethnicity on classroom strategies and curriculum supporting diversity. Data came from the 1989-90 Faculty Survey administered by UCLA's Higher Educational Research Institute, which included responses from faculty at 159 predominantly White institutions nationwide. Longitudinal student data were also examined to understand the link between activities associated with diverse students and faculty and student self-reported growth on 20 general educational outcomes. Student responses came from a 1987-91 student survey, also administered by UCLA's Research Institute, which involved 4,253 students from 309 predominantly White, four-year institutions. Data analysis indicated that faculty gender distinctly impacted students in terms of how classes were taught and course content. There was a significant relationship between student growth on various educational outcomes and activities during college associated with having a diverse student body and faculty. (Contains 20 references.) (SM)
We are facing a U.S. society that is increasingly diverse. In such a society, it is ever more important to provide all college and university students with the skills necessary for success in an increasingly complex world. By the year 2000, most new jobs in the economy will require a postsecondary education, and women and racial/ethnic minorities will compose a majority of the work force (Justiz, 1994). It is projected that by 2010, one out of every three Americans will be Latino, African American, Asian American, or Native American. This projection, however, does not reflect the rapid rate at which racial/ethnic populations are becoming the majority in many states—a change that is already evident in elementary and secondary schools. This demographic shift suggests that the role of higher education will remain essential in training a work force that can both economically sustain communities and forge relationships across the diverse populations that make up American society. Educating a diverse student body remains central to this educational purpose.

Several recent reports issued by the American Association of Colleges and Universities have highlighted the importance of educating students for a diverse democracy. Such an education attends to the representation of various gender and racial/ethnic groups at the institution, the interactions inside and outside of the classroom that affect student learning, and the incorporation of knowledge about diverse groups in society:

CHAPTER 8

Linking Diversity and Educational Purpose: How Diversity Affects the Classroom Environment and Student Development

SYLVIA HURTADO
As educators we must address these basic challenges for American pluralism across the curriculum—in the classroom, in the co-curriculum, in the intersections between campus and community. In short, this diversity that is part of American society needs to be reflected in the student body, faculty and staff, approaches to teaching, and in the college curriculum. (AAC&U, 1995, p. 8)

Thus, many campuses today have come to recognize diversity as an educational policy or goal that is consistent with the overall objectives of the institution—to equip graduates with the appropriate technical skills, human relation skills, and ways of thinking that will be useful in a complex and diverse society.

Yet, even while educational policymakers recognize these major demographic changes and the need for higher education to prepare its students accordingly, there exists fierce opposition to policies that promote campus diversity. The most contentious conflicts within the diversity debate have primarily been manifest in challenges to policies that consider race as a factor in college and university admissions. At heart, these challenges have questioned the educational benefits of diversity. For example, the Hopwood decision by the Fifth Circuit Court of Appeals in Texas suggested that the benefits of racial or gender diversity within the faculty or student body are no more significant than the benefits of a population diverse in individual characteristics, such as height or blood type. Until recently, higher education policymakers have unfortunately offered relatively little empirical research regarding the impact of diversity on students' educational experiences, aside from assertions based on intuitive notions that student and faculty diversity enhance the education provided by schools. This shortage of documentation has left diversity policies susceptible to legal and political attack. Fortunately, the recent research that has been conducted in this area is beginning to show that institutional progress toward diversity goals can have an impact on students' educational experiences (Hurtado, Milem, Clayton-Pederson, & Allen, 1999; see also Orfield & Whitla, in this volume).

Building on this recent work, this study supplies further evidence of the positive impact of diversity. It gauges diversity's effects on students' self-perceived improvement in the abilities necessary for contributing positively to a pluralistic democracy. The findings, from a nationwide survey of faculty and students at predominantly white four-year colleges and universities, make a strong case for the educational value of student and faculty diversity. A diverse student body provides students with important opportunities to build the skills necessary for bridging cultural differ-
ences and may cultivate their capacity for other important learning. The presence of a diverse faculty helps to ensure that students take full advantage of the benefits that diversity offers.

**Research on Interaction with Diverse Peers**

Much classic and contemporary theory suggests that exposure to diversity plays a key role in student learning and development during the college years. Scholars contend that students’ cognitive and social development are intertwined, and as students approach college age they are more likely to apply cognitive abilities and skills to interpersonal situations and social problem-solving (Chickering & Reisser, 1991; Muss, 1988). Both cognitive and social development are also thought to occur through social interaction, spurred by the disequilibrium that results when one tries to reconcile one’s own embedded views with those of others (Piaget, 1975). College students who report interactions with diverse peers (in terms of race, interests, and values) have shown a greater openness to diverse perspectives and a willingness to challenge their own beliefs after the first year of college (Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996). Overall, cognitively complex thinkers rather than dualistic thinkers should be able to develop in-depth and societal perspectives about situations and social problems (Perry, 1970; Selman, 1980). These theories and research support the notion that encountering others who have diverse backgrounds and perspectives can lead to interactions that promote learning and development.

Yet, although diversity is linked with student development in theory, educators must create certain conditions to maximize the potential for learning. Several researchers have supported the notion that learning occurs best when the educational environments support interaction under conditions of equal status (Allport, 1954). In other words, placing students of diverse backgrounds in a classroom is a necessary but insufficient condition for learning. Merely encountering differences can promote feelings of superiority or inferiority among students rather than growth and development. Particular pedagogical techniques promote the type of interaction necessary to create equal status conditions and, thus, learning in diverse environments. For instance, Robert Slavin (1995) and other researchers have consistently shown that students engaged in racially/ethnically diverse cooperative learning groups report cross-racial friendships outside these groups. Overall, cooperative learning has demonstrated value in enhancing the academic achievement of students from all racial/ethnic groups and in reducing prejudice as students improve their inter-
action skills with students from different backgrounds (Slavin, 1995; Wolfe & Spencer, 1996). Elizabeth Cohen (1994) further reveals that without attention to the structure of peer groups in diverse classrooms and to learning activities that promote interaction on an equal status basis, peer status can actually reproduce inequality and undermine the potential learning that can occur among diverse peers. Furthermore, students exposed to complex instructional activity that takes diversity into account have demonstrated gains in factual knowledge and higher-order thinking skills (Cohen et al., 1997). In sum, active learning pedagogies increase interaction in the classroom because students “learn more than when they are passive recipients of instruction” (Cross, 1987, p. 4). Both research and theory support the notion that students learn a great deal from diverse peers when interaction is facilitated in supportive environments.

Such supportive environments also would conceivably include opportunities for students to encounter unfamiliar and diverse perspectives in the curriculum. For example, research evidence presented in the University of Michigan’s affirmative action cases reveals that students’ learning and civic participation outcomes are enhanced by exposure to diversity in the college curriculum, and that these effects are enhanced further by facilitated interaction with diverse peers in the classroom (Gratz et al. v. Bollinger et al.; Grutter et al. v. Bollinger et al.). These results suggest that active pedagogical approaches that stimulate classroom interaction and curricula that attend to the histories and traditions of diverse groups would probably be fundamental features of colleges and universities that capitalize on the potential benefits of diversity. Indeed, after extensive analysis of a national, longitudinal cohort of students in 1985–1989, Astin (1993) concluded:

The weight of empirical evidence shows that the actual effects on student development of emphasizing diversity and of student participation in diversity activities are overwhelmingly positive. . . . There are many developmental benefits that accrue to students when institutions encourage and support an emphasis on multiculturalism and diversity. (p. 431)

**Evaluating the Impact of Diversity on Student Development**

This study builds on the results of the preceding studies that have demonstrated the links between campus diversity, when appropriately supported, and educational benefits. It does so by analyzing the self-reported experiences of a national sample of students attending college in the early
1990s. Specifically, the study examines how diversity-related campus activities such as exposure to diverse curricula and opportunities to study and interact with diverse peers—activities that are only possible when a college or university has diversified its faculty and student body (Hurtado, Milem, Clayton-Pederson, & Allen, 1999)—positively affect student development.

Many campuses were not prepared for the changes they would undergo as a result of including more women and racial/ethnic minorities in their student bodies. Rising minority enrollments were connected with major intellectual and social movements that raised important questions about the production and transmission of knowledge, as well as access to education. Diverse student enrollments produced pressures to make institutions more responsive to the issues that arose as a result. This led to the development of—often with corresponding institutional and individual resistance to—new academic support programs and student organizations, diversification of the faculty and staff, the establishment of ethnic and women’s studies programs, and the revision of curricula to better reflect the diversity of experiences and perspectives. Many of these issues posed new challenges in the classroom. For instance, diversification of the student body dictated that faculty develop a more expansive repertoire of approaches to curriculum and pedagogy (AAC&U, 1995).

Given these widespread changes in institutions, the impact of diversity on the intellectual environment is actually quite broad, and one can focus on any number of issues. In addition, measuring the effects of diversity is complicated because they cannot always be observed directly and often are not truly visible until gauged by long-term outcomes such as career choices, personal beliefs, and friendship patterns. Indeed, both Astin (1993) and Chang (1996) suggest that the effects of diversity on student outcomes are likely to be indirect and complex. With these caveats in mind, this study focuses on three questions, the answers to which will at least advance our understanding of the consequences of a more diverse faculty and student body:

- Does the gender or the racial/ethnic background of a faculty member make a difference in the classroom through their attention to pedagogical strategies and curricular emphases that support diversity?
- Do opportunities to interact with someone from a different racial/ethnic background in a learning situation enhance students’ assessments of their own learning?
- Does the diversity that faculty introduce into the curriculum make a difference in terms of students’ assessments of their own learning?
Method

To address these questions, the study analyzes data from the 1989-1990 Faculty Survey administered by UCLA's Higher Educational Research Institute composed of responses from over 16,000 faculty at 159 medium and highly selective predominantly white institutions across the country. Predominantly black institutions were excluded from these analyses, as were low selectivity institutions, because the current controversy over the benefits of diversity is located in higher education's predominantly white selective institutions. These faculty data were used to examine racial and gender differences in the instructional techniques most commonly used in undergraduate courses. (Details regarding the conduct of the national survey are reported in Astin, Korn, & Dey, 1991.) In addition, longitudinal student data were examined to understand the link between activities associated with a diverse student body and student self-reported growth on twenty general educational outcomes. The student responses come from the 1987-1991 CIRP student survey, also administered by the UCLA Higher Education Research Institute.1 A random sample of approximately 4,250 students attending 309 four-year, predominantly white colleges and universities provided responses.

Analyses. Chi-square tests were performed on the faculty data to determine significant gender and race differences in instructional techniques. Partial correlations were conducted on the student data, controlling for college selectivity (average freshmen SAT/ACT scores), student abilities (high school GPA, academic self-concept), and academic habits (hours per week spent studying/doing homework). Controlling for these factors provides a strong test of how students' diversity-related activities relate to reported growth in twenty general education outcome areas. These outcomes constitute an item set on the 1991 student follow-up survey that asks students, “Since entering college, how much have you changed in the following areas?” For presentation purposes, the outcomes were sorted into three distinct categories: civic outcomes, which speak to a student's capacity for engagement in a pluralistic democracy; job-related outcomes, which include skills that employers have deemed important (Bikson & Law, 1994); and learning outcomes, or key skills higher educators have come to expect students to acquire in college. The diversity-related activities included the frequency with which students reported studying with someone from a racial/ethnic background different from their own and whether the student enrolled in an ethnic or women's studies courses in 1990. All of the diversity-related activities are more likely to occur with either a diverse faculty to introduce curricular innovations or a diverse student body to provide opportunities for interaction.
The current study relies on student self-reports of growth in a number of general education areas. There are obvious disadvantages to using such data for this purpose, including the possibility that perceptions may not always be a true reflection of reality. Yet, the educational community lacks good, widely used measures of cognitive and affective development for college students on a national level. Current national postsecondary data also lack good measures of current teaching, learning, and assessment practices (Dey et al., 1997). Thus, postsecondary decisionmaking with regard to curricula and a host of academic policies has largely proceeded on assumptions as to what is best for college students, rather than actual empirical data regarding the benefits of any particular approach. Even the use of self-reported data, therefore, represents an improvement (i.e., the use of actual empirical evidence to gauge the effects of higher education policies across institutions), and may actually be the best data available.

In addition, much of the national data does not provide an adequate assessment of the social environments associated with diversity that would allow a fuller understanding of its implications. While there are numerous small-scale, single-institution studies that may show the impact of diversity, evidence across a broad range of institutions regarding the impact of diversity relies on only a few national surveys that have asked some diversity questions, and even these are not consistently pursued. The fact that this study shows any effects across various types of institutions, given the inadequacies and lack of attention to important measures in national data, is significant.

**Gender and Race Differences in Instructional Techniques**

The findings suggest that the gender of an instructor has a distinct impact on the educational experiences of undergraduates in terms of both how classes are taught and course content. Specifically, female faculty are much more inclined than male faculty to require cooperative learning, experiential learning or field studies, and group projects in some or most of their courses. Table 1 shows the proportion of male and female faculty who report using specific instructional techniques in some or most of the undergraduate courses taught at the colleges. There are significant gender differences (p = .0001) with regard to virtually all techniques reportedly used in the majority of courses taught. While a high proportion of faculty utilize extensive lecturing in comparison to other techniques, a lower proportion of women (76 percent) than men (89 percent) report using such a technique in some or most of their courses. The preceding findings relating to gender differences are echoed later in similar findings relating to
TABLE 1  Instructional Techniques Required in Undergraduate Courses: Percent by Gender of Faculty at Medium and Highly Selective Four-Year Colleges and Universities

<table>
<thead>
<tr>
<th>Technique Required in Some or Most Courses</th>
<th>Women (N)</th>
<th>Men (N)</th>
<th>Chi-Square Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative Learning</td>
<td>80% (4600)</td>
<td>63% (11370)</td>
<td>p = &lt; .0001</td>
</tr>
<tr>
<td>Experiential Learning/Field Studies</td>
<td>59 (4585)</td>
<td>47 (11349)</td>
<td>p = &lt; .0001</td>
</tr>
<tr>
<td>Group Projects</td>
<td>67 (4592)</td>
<td>56 (11365)</td>
<td>p = &lt; .0001</td>
</tr>
<tr>
<td>Extensive Lecturing</td>
<td>76 (4597)</td>
<td>89 (11400)</td>
<td>p = &lt; .0001</td>
</tr>
<tr>
<td>Readings on Racial/Ethnic Issues</td>
<td>55 (4589)</td>
<td>36 (11345)</td>
<td>p = &lt; .0001</td>
</tr>
<tr>
<td>Readings on Women/Gender Issues</td>
<td>58 (4590)</td>
<td>36 (11340)</td>
<td>p = &lt; .0001</td>
</tr>
<tr>
<td>Social Science Faculty Only:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Readings on Racial/Ethnic Issues</td>
<td>70 (2230)</td>
<td>54 (5066)</td>
<td>p = &lt; .0001</td>
</tr>
<tr>
<td>Readings on Women/Gender Issues</td>
<td>68 (2230)</td>
<td>53 (5065)</td>
<td>p = &lt; .0001</td>
</tr>
</tbody>
</table>

ethnic/racial differences in reported pedagogical use. They lend substantial support to policies promoting faculty diversity, suggesting that a diverse faculty is more likely on average to utilize pedagogical approaches that capitalize on the diversity in their classrooms and that lead to favorable learning outcomes.

With regard to diversification of the curriculum, the findings similarly support faculty diversity. It is clear that women are significantly more likely than men to require readings on racial/ethnic or gender issues in their courses. Because inclusion of these types of readings may be influenced by the faculty member’s discipline, these data were analyzed controlling for field of study among faculty. Approximately 70 percent of female social scientists and 54 percent of male social scientists required readings on racial/ethnic diversity issues. Similarly, 68 percent of female and 53 percent of male social scientists required readings on gender issues in some or most of their courses.

The race/ethnicity of faculty members is also associated with the reported use of specific instructional techniques. Table 2 shows the specific instructional techniques utilized by faculty of different races/ethnicities.
### TABLE 2  
**Instructional Techniques Required in Undergraduate Courses: Percent by Race/Ethnicity of Faculty at Medium and Highly Selective Four-Year Colleges and Universities**

<table>
<thead>
<tr>
<th>Technique Required in Some or Most Courses:</th>
<th>White</th>
<th>African American</th>
<th>American Indian</th>
<th>Asian American</th>
<th>Latino</th>
<th>Other</th>
<th>Sig.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative Learning</td>
<td>68</td>
<td>74</td>
<td>70</td>
<td>59</td>
<td>78</td>
<td>64</td>
<td>****</td>
</tr>
<tr>
<td>Experiential Learning/Field Studies</td>
<td>51</td>
<td>53</td>
<td>62</td>
<td>42</td>
<td>51</td>
<td>46</td>
<td>***</td>
</tr>
<tr>
<td>Group Projects</td>
<td>60</td>
<td>66</td>
<td>64</td>
<td>54</td>
<td>63</td>
<td>58</td>
<td>**</td>
</tr>
<tr>
<td>Extensive Lecturing</td>
<td>86</td>
<td>82</td>
<td>89</td>
<td>92</td>
<td>87</td>
<td>85</td>
<td>****</td>
</tr>
<tr>
<td>Readings on Racial/Ethnic Issues</td>
<td>41</td>
<td>69</td>
<td>53</td>
<td>23</td>
<td>66</td>
<td>43</td>
<td>****</td>
</tr>
<tr>
<td>Readings on Women/Gender Issues</td>
<td>42</td>
<td>64</td>
<td>45</td>
<td>24</td>
<td>59</td>
<td>39</td>
<td>****</td>
</tr>
<tr>
<td>Social Science Faculty Only:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Readings on Racial/Ethnic Issues</td>
<td>57</td>
<td>78</td>
<td>68</td>
<td>44</td>
<td>78</td>
<td>50</td>
<td>****</td>
</tr>
<tr>
<td>Readings on Women/Gender Issues</td>
<td>58</td>
<td>72</td>
<td>61</td>
<td>42</td>
<td>71</td>
<td>47</td>
<td>****</td>
</tr>
</tbody>
</table>

Note: *Chi-square significant at ** p = < .01; *** p = < .001; **** p = < .0001. Sample sizes for each tabulation is approximately 14,600 White, 271 African American, 91 American Indian, 433 Asian American, 94 Latino, and 316 Other Faculty at Predominantly White, Four-Year Colleges of Medium and High Selectivity. Social Science faculty sample sizes include 6,712 White, 166 African American, 41 American Indian, 148 Asian American, 55 Latino, and 122 Other faculty.

Latino and African American faculty are most likely to require cooperative learning techniques (78 percent and 74 percent, respectively), while Asian American faculty are least likely to require these techniques in the classroom. Native American faculty are most likely to use experiential learning/field studies techniques (62 percent), while Asian American and Other faculty are least likely to do so (42 percent and 46 percent, respectively). Less pronounced yet still significant (p = .01) differences were detected across racial/ethnic groups with regard to the reported use of group projects in class, ranging from a high of 66 percent among African American faculty to a low of 54 percent among Asian American faculty. Significant differences were detected in the reported use of extensive lecturing, with Asian American faculty most likely to report requiring this technique (92 percent) and African American faculty least likely to report engaging in this teaching practice (82 percent).
With regard to curriculum, African American faculty are most likely (69 percent) to report having required readings on race/ethnicity in their courses, and Asian American faculty are least likely (23 percent) to require these in some or most of their courses. A similar pattern across the race/ethnicity of the faculty was observed with the introduction of gender readings. The course content, or inclusion of readings on race/ethnicity and gender, is clearly influenced by the disciplines the different racial/ethnic groups teach. In controlling for social science disciplines, the proportion of faculty from different racial/ethnic groups who report introducing diversity into the curriculum rises. Approximately 78 percent of African American and Latino faculty and 68 percent of Native American faculty in the social sciences say they have required readings on racial/ethnic issues in some or most of their courses. These same racial/ethnic groups are also significantly more likely than the other social science faculty to report having required readings on women or gender in the curriculum.

These results strongly suggest that women and different racial/ethnic faculty have distinct teaching styles that influence both the content and delivery of knowledge in the classroom. Even when considering the limitations of self-reported data, one can at least assume that faculty believe in the pedagogical methods they report using, even if they do not actually use them in practice. If this is so, these findings at the very least suggest that a diverse faculty is more likely to implement or learn about pedagogical methods known to improve learning outcomes. Furthermore, if students experience their learning environments differently due to the gender or ethnicity of the faculty member, then engagement with a diverse student body and faculty is likely to be related to their cognitive and affective development during college. The next section discusses how the activities associated with a diverse student body and faculty are related to student educational outcomes.

The Relationship between Diversity-Related Activities and Student Educational Outcomes

Table 3 illustrates significant relationships between student self-reported growth on various educational outcomes and activities during college that are associated with having a diverse student body and faculty. The most consistent finding is that students who report having had the opportunity during college to study with someone from a racial/ethnic background different from their own in 1990 also report growth in all areas in 1991. Specifically, the strongest effects were associated with civic out-
TABLE 3  Partial Correlations: Student Self-Reported Growth on Various Educational Outcomes and Diversity-Related Activities, Predominantly White Four-Year Institutions (N=4,253)

<table>
<thead>
<tr>
<th>Activities Associated with a Diverse Student Body and Diverse Faculty/Curriculum</th>
<th>Student Educational Outcomes</th>
<th>Studied with Someone from a Different Racial/Ethnic Background</th>
<th>Enrolled in an Ethnic Studies Course</th>
<th>Enrolled in a Women's Studies Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civic Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceptance of People of Different Races/Cultures</td>
<td></td>
<td>.18***</td>
<td>.14***</td>
<td>.08***</td>
</tr>
<tr>
<td>Cultural Awareness</td>
<td></td>
<td>.16***</td>
<td>.19***</td>
<td>.14***</td>
</tr>
<tr>
<td>Tolerance of People with Different Beliefs</td>
<td></td>
<td>.14***</td>
<td>.11***</td>
<td>.09***</td>
</tr>
<tr>
<td>Leadership Abilities</td>
<td></td>
<td>.13***</td>
<td>.04*</td>
<td>.02</td>
</tr>
<tr>
<td>Interpersonal Skills</td>
<td></td>
<td>.09***</td>
<td>.05***</td>
<td>.06***</td>
</tr>
<tr>
<td>Public Speaking Ability</td>
<td></td>
<td>.07***</td>
<td>.04*</td>
<td>.01</td>
</tr>
<tr>
<td>Religious Belief and Conviction</td>
<td></td>
<td>.03*</td>
<td>.01</td>
<td>-.03</td>
</tr>
<tr>
<td>Job-Related Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to Work Cooperatively</td>
<td></td>
<td>.10***</td>
<td>.01</td>
<td>.01</td>
</tr>
<tr>
<td>Ability to Work Independently</td>
<td></td>
<td>.06***</td>
<td>.03*</td>
<td>.03</td>
</tr>
<tr>
<td>Job-Related Skills</td>
<td></td>
<td>.06***</td>
<td>.02</td>
<td>-.04*</td>
</tr>
<tr>
<td>Preparation for Graduate/Professional School</td>
<td></td>
<td>.06***</td>
<td>.04**</td>
<td>.02</td>
</tr>
<tr>
<td>Competitiveness</td>
<td></td>
<td>.06***</td>
<td>-.04**</td>
<td>-.03</td>
</tr>
<tr>
<td>Learning Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Thinking</td>
<td></td>
<td>.10***</td>
<td>.07***</td>
<td>.06***</td>
</tr>
<tr>
<td>Problem-Solving Skills</td>
<td></td>
<td>.08***</td>
<td>.01</td>
<td>.02</td>
</tr>
<tr>
<td>General Knowledge</td>
<td></td>
<td>.07***</td>
<td>.08***</td>
<td>.05***</td>
</tr>
<tr>
<td>Foreign Language Ability</td>
<td></td>
<td>.07***</td>
<td>.11***</td>
<td>.05***</td>
</tr>
<tr>
<td>Knowledge of a Particular Field</td>
<td></td>
<td>.05**</td>
<td>.03</td>
<td>.03</td>
</tr>
<tr>
<td>Writing Skills</td>
<td></td>
<td>.05**</td>
<td>.09***</td>
<td>.10***</td>
</tr>
<tr>
<td>Mathematical Ability</td>
<td></td>
<td>.04**</td>
<td>-.12***</td>
<td>-.13***</td>
</tr>
<tr>
<td>Confidence in Academic Abilities</td>
<td></td>
<td>.04**</td>
<td>.03</td>
<td>.01</td>
</tr>
</tbody>
</table>

Note: Partial correlations controlling for Students' Academic Self-Concept, High School GPA, Hours/week Spent Studying, and College Selectivity. Significance levels: * p < .05; ** p < .01; *** p = < .001. Scale of measures: Students reported their growth to be 1 = much weaker to 5 = much stronger.
comes such as the acceptance of people of different races/cultures, cultural awareness, tolerance of people with different beliefs, and leadership abilities. These findings support research conducted on other longitudinal cohorts of college students in the areas of cultural knowledge/awareness and leadership (Antonio, 1998; Bowen & Bok, 1998; see also Orfield & Whitla in this volume), indicating that opportunities for interaction with diverse peers foster civic development among college students. Enrollment in ethnic studies courses is also positively associated with many civic outcomes, such as students' cultural knowledge and awareness. Significant but somewhat less impressive effects were associated with enrollment in women's studies courses. Self-reported growth in job-related skills is associated primarily with a key diversity-related activity that includes the opportunity to study frequently with students from a different racial/ethnic group. It should be noted that the effects of this activity were strongest with regard to growth in student ability to work cooperatively with others without detriment to their capacity to work independently or their competitiveness after four years of college. In contrast, curricular diversity (ethnic or women's studies courses) had either weak or negligible effects on job-related skills. Similarly, having studied with someone from a different racial/ethnic background appears to have more pronounced effects than curricular diversity on self-reported growth in critical thinking and problem-solving skills. This suggests that the opportunity to interact with a diverse group of peers is just as, if not more, important to the development of critical skills as is exposure to a curriculum that makes diversity its explicit focus. Thus, the presence of diverse peers, though probably insufficient on its own, may indeed be an important precondition of learning from any curriculum that emphasizes diverse perspectives.

Some findings pertaining to relationships between curricular diversity and specific academic skills deserve more cautious interpretation due to questions about the direction of causality. Still, relationships that are revealed on this front are of keen interest, if only for the possibility that exposure to a more diverse curriculum affects student outcomes. For instance, curricular diversity appears to be positively related to students' perceptions of growth in foreign language skills, writing ability, and general knowledge after four years of college. Perhaps most notable in terms of academic skill enhancement, however, is the positive association between taking ethnic or women's studies courses and self-reported improvements in critical thinking skills (p = .001). Students who took these courses were on average more likely to report improvement in their criti-
cal thinking skills—those which would conceivably enhance their learning in any academic course and throughout life.

All told, the student-reported outcomes strongly suggest that interacting with diverse peers, faculty, and curricula as an undergraduate has a substantial positive effect on the development of skills needed to function in an increasingly diverse society as well as other academic skills important to the learning process. Again, caveats about the limitations of self-reported data may be justified here, especially with regard to students' subjective assessments of their academic abilities. Yet, since key outcomes from this study coincide closely with the outcomes of other research studies of the effects of campus diversity (Antonio, 1998; Bowen & Bok, 1998; Orfield & Witla in this volume), a case for the legitimacy of these findings is quite strong. With regard to questions about the validity of self-reported academic outcomes, these findings at least imply that students, on average, do not perceive that their acquisition of academic skills is compromised as a result of the diversity that exists at their colleges.

**Diversity Linked with Educational Objectives**

These results suggest that the diversity of the faculty and student body has an impact on classroom environment and student development during college. The empirical evidence suggests that it makes a difference whether students are in classrooms led by diverse faculty and have an opportunity to interact with diverse peers on an equal status basis that may depend on the types of pedagogy that diverse faculty introduce into the classroom. The results show that women and different racial/ethnic faculty report having distinct teaching styles that may influence both the content and delivery of knowledge in the classroom. Therefore, the gender and race/ethnicity of the instructor are likely to have an impact on the educational experiences of undergraduates in predominantly white selective institutions. While faculty can be trained to facilitate more active learning pedagogies through faculty development programs, it should be noted that few instructional programs at the college level actually address how to create the complex instructional activities that facilitate learning in a diverse environment. It appears that female, African American, and Latino faculty may naturally be more attentive to peer status differences in the classroom and be more likely to employ active learning pedagogies.

Perhaps the most compelling argument for a diverse student body rests on evidence showing that interaction across racial/ethnic groups,
particularly of an academic nature, is associated with important outcomes that will prepare students for living in a complex and diverse society. Not only were effects associated with such civic outcomes as acceptance of people of different races/cultures, cultural awareness, tolerance of people with different beliefs, and leadership ability, but also with learning outcomes such as critical thinking and problem-solving skills. Students also report growth of important skills related to a diverse work force, including the ability to work cooperatively with others. It should be noted that interaction with diverse peers demonstrated positive effects on job-related skills more frequently than did curriculum exposure. While the curriculum may acquaint students with the cultural legacies that make up a pluralistic society, it may be that the college peer group provides the opportunity to experience this knowledge firsthand and learn how to negotiate differences. Thus, the diversity of the peer group becomes a necessary part of the curriculum in a learning environment that views diversity as central to the learning process. The educational benefits of diversity may accrue as a result of a combination of opportunities to engage in a diverse curriculum introduced by a diverse faculty and to study and interact with racial/ethnically diverse students inside and outside of the classroom.

**Conclusion**

In sum, the research shows that diversity of the faculty and student body is linked with the fundamental work of teaching and learning in higher education. These findings cast substantial doubt on the veracity of the Fifth Circuit Court of Appeals' *Hopwood* decision, which asserted that the ethnic and racial diversity of a student body or faculty is of no relative consequential value to the education offered by a college or university. To the contrary, this study strongly suggests that such diversity may contribute significantly to students' improvement on key learning outcomes that are associated with both academic development and the critical abilities needed to work in diverse settings—skills that will be increasingly important in the 21st century.

While external factors may exert pressure on institutions to develop, clarify, or revise their efforts regarding diversity, the educational imperative must take precedence in campus diversity policy and initiatives. Furthermore, proponents of higher education admissions policies that consider race must begin to articulate clearly the educational value of diversity to the learning we expect students to achieve. This and other research helps to explicate diversity's fundamental relationship to the educational imperative. Responsibly defending these diversity policies from
threatening opposition, such as that recently witnessed in California and Texas, demands the use of empirical evidence to sway decisionmakers and provide legal and educational justification for the existence of such policies in this changing and contentious legal and policy environment.

Institutions that have taken up the basic challenges of American pluralism have begun to make changes to their student bodies with a keen eye on the impact of this diversity in the classroom and the co-curriculum. As a recent Association of American Colleges and Universities report stated, today's college students "will need to grapple with a country that is not only diverse but divided. To do this, they must come to understand and respect peoples and ways of life that have been hidden from them" (AACU, 1995, p. 8). Higher education's role remains central to this process as institutions attempt to prepare college graduates for their future as participants in a pluralistic democracy by providing an appropriate education. Sustaining this role will necessitate continuing research efforts to prove what many college and university decisionmakers already intuitively know—that diversity is a prerequisite for such an education.

Notes

1. The Higher Education Research Institute, with the continuing sponsorship of the American Council on Education, administers surveys to faculty and students at institutions across the country through the Cooperative Institutional Research Program (CIRP). The CIRP is the nation's largest and longest-running empirical study of higher education. Since 1966, over seven million students and over 100,000 faculty from over 1,300 institutions have participated. These surveys are collected to document substantial areas of student and faculty experiences at an institution. For the student data, the surveys probe experiences both prior to beginning college and during their college experiences. The student data provide a broad range of statistical controls for dispositions and abilities in order to assess change on a variety of student outcomes, several of which were used for these analyses.

2. Social sciences, for instance, may lend themselves more readily to the inclusion of diversity content than other fields of study.

3. It should be noted that while the coefficients are small, these are not unlike other coefficients in survey data that incorporate analyses of a large sample of students in relation to pedagogical practices (Dey & Hurtado, 1993). The restricted ranges on the four- and five-point scales of the survey items prevent variation that would allow high coefficients. However, many of the effects were strongly significant (p < .001) and consistent across a broad range of outcomes. In order to focus on the most important effects, only those that meet at least a .01 significance level will be discussed. Given the large sample size, those with a .05 significance level or higher will be considered a rather weak or negligible effect.

4. For instance, it is conceivable that students who have a greater facility for foreign languages may be more likely to take ethnic studies courses, as opposed to the alternate interpretation that taking ethnic studies courses improves students' foreign language skills.
5. The negative association between enrollment in ethnic/women's studies courses
and mathematical ability is worth a quick explanation. Math is one area where un-
dergraduates are generally less likely to develop during college, unless they con-
tinue to take mathematics-related courses (Hurtado, Astin, Korn, & Dey, 1988).
Therefore, those students who enroll in ethnic or women's studies courses may re-
port less growth because they are less likely to have pursued mathematics-related
majors.

6. See Orfield and Whitla in this volume for an illustration of how to use evidence in
this manner.

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