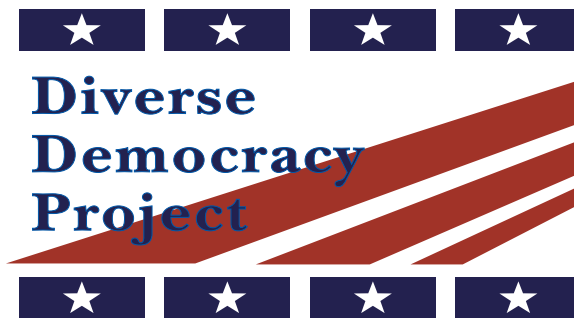# PREPARING COLLEGE STUDENTS FOR A DIVERSE DEMOCRACY

Final report to the U.S. Department of Education, Office of Educational Research and Improvement, Field Initiated Studies Program

Diverse Democracy Project

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Acknowledgements

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The Project In Brief

Higher education plays a central role in ensuring that all graduates are prepared to live and work in a society where one out of three Americans will be a member of a racial/ethnic minority and most of the growth in new jobs will require a college degree. In order to prepare students to participate in a diverse democracy and increase student engagement with diverse perspectives, higher education institutions have developed a wide range of initiatives that include such practices as diversity programming, community service learning programs, facilitated intergroup dialogues, and a variety of diversity curricular initiatives. However, we have yet to understand how students develop cognitive, social, and democratic skills through campus initiatives and informal interactions with diverse peers during college. One of the primary objectives of this project was to understand the link between diversity and learning on college campuses and to extend the development of promising practices among participating institutions. We sought to explore the following:

How colleges are creating diverse learning environments and actively preparing students to live and work in an increasingly diverse democracy;

The role of the diverse peer group in the acquisition of important cognitive, social, and democratic outcomes both inside and outside of the classroom;

Student outcomes that can be best achieved through specific kinds of initiatives designed to increase student engagement with diverse perspectives.

Collaborative research and programmatic activities took place on ten large, public institutions with variation in their educational practices and diversity of the student body. Different methods were used to collect information on student cognitive, social cognitive and democracy outcomes: a longitudinal survey of students, several focused classroom-based studies, institutional records, an inventory of campus practices, and student focus groups. Each campus had a campus liaison that worked with researchers at the University of Michigan and established a campus team to ensure the success of the project. Each campus team received student data that they are able to utilize in future planning activities and cross-campus teams met annually to share promising practices, discuss common issues, and identify practices that could be modeled at other institutions.

This project is a significant attempt to bring empirical evidence to inform the

practice of educating a diverse student body. It intends to move beyond the affirmative action controversy to provide action and discussion about the types of education that will be necessary for citizenship in a diverse society with a common destiny. Timed to coincide with the national elections, we have a unique opportunity to learn about student orientations regarding self-interest or public interest, their conceptions of democracy, and engagement in formal democratic processes. Institutions are searching for a new vision and are eager to acquire research and theory that can guide practice. Therefore, this project is important in revitalizing higher education's mission to prepare a diverse student body for future democratic citizenship. The Association of American Colleges and Universities, the American Association for Higher Education, Campus Compact, and the American Council on Education, Office of Minorities in Higher Education, strongly endorsed the project. ★

Executive Summary of Findings

In June 2003, the Supreme Court affirmed the educational rationale for diversity in higher education citing research that demonstrates diversity promotes student learning and better prepares students for a diverse workplace and society. However, increasing access for a diverse student body is a necessary but not sufficient condition for creating a diverse learning environment. This comprehensive project addresses how campuses are creating diverse learning environments to prepare students to become full participants in a diverse democracy. Based on a theory of diversity and learning (Gurin, Dey, Hurtado, & Gurin, 2002), the project focused on the educational outcomes associated with a variety of diversity-related educational practices and student informal interactions with diverse peers at ten public universities. Additional information collected from chief academic officers at four-year institutions provided the organizational backdrop for understanding how institutions further diversity goals in tandem with their educational and public service mission. The study demonstrates that:

- An "engaged campus" that integrates diversity and civic engagement as central to its mission makes a strong connection between institutional rhetoric (mission statements and priorities), practices (level and types of activity, rewards and leadership support) and diversity outcomes (numbers of diverse students and faculty, community partnership activity). An engaged campus is also responsive: Chief Academic Officers reported higher levels of community partnership activity at campuses located near communities with a high percentage of families living at or below the poverty level.

- Student gains on a host of educational outcomes are associated with informal interaction with diverse peers in the first two years of college. Using data on the entering Class of 2000 at ten public research universities, this finding replicates and extends previous longitudinal research by identifying the quality, frequency, and context of students' interactions. Positive and meaningful interactions with diverse peers are consistently significant predictors of cognitive, social and democratic outcomes in this study.

- Campus practices that facilitate student interaction with diversity promote development of cognitive, social and democratic skills. Specifically, diversity courses and diversity-related extracurricular programming have

a consistently positive effect on the majority of the educational outcomes in the study. Service learning and intergroup dialogue have impact on a more targeted set of outcomes including civic-related dispositions and facility with cultural differences, respectively.

- However, students are likely to revert to familiar and solidified positions when encountering conflict—a fact supported by findings that show lower scores on outcomes for students who report negative interactions with diverse peers. These students are least skilled in intergroup relations and are also least likely to develop the habits of mind to prepare them for a diverse and global world.

- Socio-historical events play an important role in determining student outcomes, an unexpected factor we accounted for in longitudinal data collection. Second year college students who responded to the events of September 11th with high levels of engagement also demonstrated consistently higher gains on many of the outcomes in the study. College opportunities for student engagement in response to a national crisis may have uniquely affected this generation of students. Two thirds of students in the study reported becoming more aware of their American identity.

- Although accentuation of initial group differences often occurs through course choice, students who take introductory diversity courses demonstrate gains in moral reasoning, critical thinking dispositions, and inclination for social action engagement. These gains are evident over one term using pretests for all of the outcomes and a comparative introductory course in management. Overall, the classroom-based studies confirm findings regarding the effects of interactions with diverse peers and diversity courses using survey and standardized outcome measures.

- Student focus groups provided additional information about what students learn from interactions with diverse peers. White students and students of color articulated how college provided a new opportunity for interaction and learning about specific racial/ethnic groups. Students mentioned acquiring critical cognitive skills, personal growth and self-awareness, content knowledge, and interpersonal communication skills in interaction with diverse peers.

- The focus groups also gave voice to racial/ethnic minority students who articulated contexts in which they faced the burden of educating others, including classrooms where diversity was a topic. This indicates a need to provide instructors with skills for facilitating diverse and mutual learning environments.

- An inventory of campus practices revealed that participating campuses exhibit characteristics of an "engaged campus" and have a substantial array of initiatives that address diversity and civic engagement. However, greater integration across units and program coherence is necessary to explicitly address undergraduate preparation for participation in a diverse democracy.

This project replicates previous findings and extends the research that links diversity with the teaching/learning and public service mission of higher education. We begin to delineate the conditions for a diverse learning environment and firmly establish that intentional educational practices enable students to become "empowered, informed, responsible" citizens (AAC&U, 2002). Moreover, the results show the tremendous benefits that can be achieved in creating diverse learning environments that prepare students for citizenship in a complex, and increasingly diverse society. Through results of this project, campus leaders, policy-makers, and teaching faculty will know how to maximize the benefits of diversity to develop learning environments that contribute to students' cognitive, social, and democratic skills vital to citizenship in a diverse democracy. In turn, college-educated students will be better prepared to lead in the 21st Century.

Results were disseminated to college presidents, undergraduate teaching faculty, education scholars, campus administrators, and diversity practitioners. We are devising "tool kits" for faculty use in classroom assessment. Half of the participating campuses are collecting student data at the fourth year of college, and the University of Michigan is comparing student results with those produced ten years ago. Additional research papers and public presentations are available on the project website www.umich.edu/~divdemo. ★

Introduction

Over the last four decades, colleges and universities have undertaken numerous initiatives to both diversify the student body and improve student learning in order to meet economic and social challenges posed by an increasingly diverse society. In the late 1990s, however, a series of court decisions, state voter initiatives, and institutional policy shifts threatened to disrupt institutional progress towards achieving a more racially/ethnically diverse student body. The educational value of creating diverse learning environments in post-secondary education was called into question. The impact of eliminating the use of race as a criterion in admissions and campus programs, altered the racial/ethnic representation of students at institutions and modified programs designed to serve racial/ethnic minority students (Chapa, 1999; Pusser, 1999; Hurtado & Wathington Cade, 2000). It is important to note, however, an important turning point in these challenges. In 2003, social science research evidence played a pivotal role in the Supreme Court's decision on two affirmative action cases at the University of Michigan. The research presented in expert testimony and *amicus* briefs supported the rationale for pursuing diversity as part of the institutional mission of higher education, establishing a link between diversity of the student body, student learning, and preparation for a diverse workplace and a pluralistic democracy (Gurin, Dey, Hurtado, & Gurin, 2002). Such theoretical and empirical links had not been made in previous legal contexts.

Universities "represent the training ground for a large number of the Nation's leaders…the path to leadership must be visibly open to talented and qualified individuals of every race and ethnicity."
Sandra Day O'Connor, 2003

The Supreme Court supported diversity in higher education as a compelling state interest, acknowledging that diversity promotes learning outcomes, provides skills for a global marketplace, creates a diverse officer corps vital to national security, and serves as a path to diverse leadership. In a 5-4 decision in *Grutter v. Bollinger et al.* (123 S.Ct. 2325, 2337-2341), the Court stated:

"… Attaining a diverse student body is at the heart of the Law School's proper institutional mission….. The Law School's claim is further bolstered by numerous expert studies and reports showing that such diversity promotes learning outcomes and better prepares students for an increasingly diverse workforce, for society, and for the legal profession. Major American businesses have made clear that the skills needed in today's increasingly global marketplace can only be developed through exposure to widely diverse people, cultures, ideas, and viewpoints. High-ranking retired officers and

civilian military leaders assert that a highly qualified, racially diverse officer corps is essential to national security. Moreover, because universities, and in particular, law schools, represent the training ground for a large number of the Nation's leaders, Sweatt v. Painter, 339 U.S. 619, 634, the path to leadership must be visibly open to talented and qualified individuals of every race and ethnicity." (pp. 3-4)

The Court also determined, however, that narrow tailoring in the use of race was necessary in practice. Race can be considered one of many criteria used in the review of individuals in admissions and selection for programs. Yet, some campuses are still constrained by the recent adoption of "race neutral" policies. Most campuses remain committed to preparing students to participate in a society where one out of three Americans will be a member of a racial/ethnic minority, and most of the growth in new jobs will require a college degree (Justiz, 1994). This project explored how colleges are managing to create diverse learning communities, build bridges across multiple social divisions in practice, and demonstrate growth in their students' cognitive and social skills, as well as democratic sensibilities.

We were motivated to conduct the study in order to provide additional research-based evidence that will both inform the controversies over diversity in higher education and provide guidance for institutional practice that links the central mission of teaching and learning with diversity in practice. Many campus diversity practices are also consistent with a long-standing public service mission at universities. Without systematic research, however, educators are essentially at a loss to articulate precisely how diversity practices result in important educational outcomes for student learning and democratic citizenship.

Project Activities

This comprehensive project examined the nature of informal student interactions with diverse peers and the impact of campus practices on students' cognitive, social and democratic outcomes. Campuses create diverse learning environments through increasing the structural diversity or representation of various groups on campus and through teaching/learning activities that make use of diversity as tool to enhance learning. Increasing access for a diverse student body is a necessary but not sufficient condition for creating a diverse learning environment. Opportunities for interaction with diverse peers are important to achieving the benefits of diversity in relation to a host of educational outcomes in undergraduate education. We designed a comprehensive, multi-method approach to answer key research questions (see side bar 1). Findings are based on data from the following sources (see Appendix A for detailed methods):

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- A national survey of chief academic officers at four-year institutions to determine mission, policy, and practices as they relate to diversity and civic engagement;

- The involvement of ten public universities in a longitudinal survey of the entering Class of 2000 to assess college diversity experiences and change in student educational outcomes from the time of college entry until the second year of college;

- Two classroom-based studies employing standardized measures of educational outcomes and a specially-designed classroom survey to assess the impact of diversity courses and interactions with diverse peers;

- Student focus groups conducted with separate racial/ethnic groups and engaged student leaders (mixed groups) to understand what and how students learn from diverse peers;

- An inventory of practices at the ten public universities (see Appendix A); and

- Site visits on each of the ten campuses where administrator interviews and campus documents were collected.

Research Questions

How are colleges preparing students to live and work in an increasingly complex and diverse democracy?

What and how do students learn from their interaction with diverse peers in college?

Can the same cognitive, social, and democratic outcomes be achieved through interactions with diverse peers, curricular initiatives, and extra-curricular initiatives designed to increase student engagement with diverse perspectives?

While the national survey provided a backdrop for institutional initiatives and priorities in the area of diversity, learning, and civic engagement, the ten campuses served as specific contexts where we could develop a long term research relationship with campuses to study their undergraduates and engage them in thinking about ways to put the research into practice. Participating campuses in the study included (from east to west) the University of Vermont, University of Massachusetts-Amherst, University of Maryland, Norfolk State University, University of Michigan, University of Minnesota, University of New Mexico, Arizona State University, University of California at Los Angeles, and University of Washington. We hoped that campuses would begin to develop more coherent undergraduate education to prepare students to participate in a diverse democracy. The classroom-based studies were conducted on two of the campuses, and site visits that included 77 administrator interviews and and 71 student focus groups occurred across all of the ten campuses. One of the first tasks we asked campus teams to develop was an inventory of their practices that met the goal of creating diversity learning environments and preparing students accordingly.

Campus teams met annually throughout the years of the project to discuss their campus practices and use of the student data in campus planning.

Theoretical Premises

There are several basic theoretical and empirically-based premises that inform the study. First, drawing from political philosophy, the concept of diversity in a democracy presents a dilemma that individuals and groups must reconcile (Saxonhouse, 1992;Guarasci, Cornwell, & Associates, 1997). Although there is a divergence of opinion about whether diversity enhances our democracy or makes it more difficult to maintain, inevitable demographic changes in America will require citizens who can negotiate social differences to construct a more equitable democracy. The notion of a "differentiated citizenship" underscores the belief that in order to construct a democracy based on equal representation, differences must be recognized, valued, and considered in the context of democratic decision-making (Young, 1989). Yet, perhaps "the greatest challenge facing Americans is to accept and take pride in defining ourselves as a multi-racial democracy" (President's Initiative on Race, 1998). Amy Gutmann (1987, 1989) articulates the role higher education plays in the advancement of democracy: it provides an environment where citizenship development can take place, acquainting students with differing perspectives and experiences. Teaching rational deliberation skills while emphasizing mutual respect for diverse, if not antagonistic ways of life, constitutes intentional production of democratic citizens while also ensuring individual liberty.

A second premise that informs the project is that, according to learning and cognitive and social developmental theories, students learn and acquire skills and dispositions in interaction with others (Piaget, 1975; Selman, 1980). 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 skills (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 that of others (Piaget, 1975). The development of perspective-taking, for example, is facilitated by social interaction because one-sided and one-dimensional perceptions are challenged and must be reexamined in view of the ideas expressed by others. In reconciling the dissonance between one's own perspective and the point of view of others, the individual progresses to see several dimensions of an issue and learns to take another person's point of view. More cognitively complex thinkers, rather than dualistic thinkers, should be able to demonstrate perspective-taking skills, more socio-centric behaviors, and develop in-depth and societal perspectives

about situations and problems (Selman, 1980; Perry, 1970). Adoption of a societal perspective may encompass many things, and although untested, King and Schuford (1996) posit the theory that a multicultural perspective (acquired through interaction and formal course-work) is a more cognitively complex perspective. Other types of dispositions and behaviors also reflect more sociocentric development, including political awareness or concern with general social issues rather than a concern with one's own world and immediate social group Enright, Lapsley, & Shukla, 1979). These perspectives regarding cognitive and social development open the door for examining important outcomes for participation in a pluralistic democracy.

Table 1 shows a matrix of outcomes employed in the longitudinal and classroom-based studies of college students. These involve cognitive measures to capture more complex thinking skills, socio-cognitive measures that imply an understanding of group level processes and social awareness, and democratic sensibilities (e.g. views of conflict in a democracy, tolerance). Students who have the capacity to develop a more complex societal perspective, exhibit perspective-taking skills, and the capacity to evaluate complex social problems are better prepared to take on social roles as decision-makers and negotiators of different perspectives. Theoretically, these students would be capable to participate in a pluralistic democracy that thrives on difference. The current project tests the theoretical link between students' interaction with diverse peers (informal and campus-facilitated) and the development of these cognitive, social and democratic skills.

Research has firmly established that the college peer group is a critical conduit for student learning and development (Astin, 1993; Kuh, 1993; Newcomb, 1943). Interaction with diverse peer communities, in particular, can promote a broad range of skills and dispositions necessary for living in society that is ever more complex and diverse (Hurtado, Milem, Clayton-Pederson, & Allen, 1999; Gurin, Dey, Hurtado, & Gurin, 2002). In a recent study, Gurin et al. (2002) present a clear articulation of the theory linking diversity to learning and democratic outcomes among college students. Their conceptualization is based on Erikson's (1946, 1956) theory that identity develops best when adolescents are afforded a psychosocial moratorium in which they are free to experiment with differing social roles before making permanent social, political, and occupational commitments. Gurin et al. posit that if such a moratorium includes "a confrontation with diversity and complexity," students are more likely to think actively and make informed decisions about their future commitments (p. 334). Researchers, for instance, have shown that discrepancy, discontinuity, and uncertainty are important triggers of cognitive growth (Piaget, 1975/1985; Ruble, 1994). Given that many students today enter college from relatively segregated residential and educational environments (Orfield, 2001), the extent to which

they encounter diversity in college is an important antecedent of future democratic learning. This study provides substantially more information about students' interactions with diverse peers and the effectiveness of institutional practices to maximize learning in diverse student environments.

Following these theoretical premises, analyses were conducted using cross-sectional data on ten of the campuses, and longitudinal data on nine of the campuses with the best response rates (see Appendix A for methods). Results from publications, presentations, and tabulations that summarize major project findings are provided in the next sections. Each campus received data on their undergraduate students for use with a "campus research" team and was encouraged to share information with a "campus practice" team. Several campuses prepared reports for faculty discussion and development activities. Researchers and practitioners on collaborating campuses continue to make public their particular campus-based findings. We continue to analyze the data and disseminate findings to national audiences.★

Table 1. Matrix of Student Outcomes in the Project

Cognitive Outcomes	Socio-Cognitive Outcomes	Democracy Outcomes
Analytical problem-solving skills	Leadership skills	Pluralistic orientation
CA Critical Thinking Dispositions Inventory (CCTDI)	Cultural awareness	Orientation toward public good as opposed to self- interest
CA Critical Thinking Skills Test (CCTST)		
Motivation to Stay in College Will return Fall 2002	Social identity awareness	Attitudes toward race-conscious policies
Reflective Judgment (RCI)	Adoption of a societal perspective/social awareness	Tolerance of different beliefs
Moral Reasoning (DIT-2)	Self-efficacy for creating change in society	Voted in student, state, or federal elections
		Helped members of the community get out to vote
Attributional Complexity	Perceptions of racial and social inequality	Political involvement
	Reduction of intergroup anxiety (discomfort)	Interest in politics
	Perspective-taking skills	Conceptions of conflict in a democracy
	Attitudes toward social inequity	Commonality of values with other racial/ethnic groups
	Attitudes toward institutional diversity and equity	Social action engagement
	Interest in social issues	Importance of civic contributions

Items in "Black" are included on both the longitudinal and classroom-based surveys
Items in "Red" are included on the longitudinal survey only
Items in "Blue" are included on the classroom-based survey only

W e conducted a national institutional survey to assess the various approaches that four-year colleges and universities utilize to achieve their missions related to diversity and public service. Researchers have demonstrated the importance of creating a diverse learning environment in higher education (Hurtado, Milem, Clayton-Pedersen, & Allen, 1999). That is, institutions that want to create a diverse learning environment must demonstrate a commitment through policies, programs, and recruitment and retention of students and faculty of color. In addition, research supports that institutions need to create new social partnerships with society to survive and thrive in the 21st century (Braskamp & Wergin, 1999). Institutions are beginning to re-examine these partnerships due to an increased public scrutiny about their role in society. These pressing issues may create awareness among institutional leaders to set priorities and demonstrate progress to both internal and external publics. In this section of the report, we feature results from three research papers presented at national education conferences. The study of chief academic officers in conjunction with the use of Census 2000 data, and IPEDS enrollment, faculty employment, and finance data provided an excellent backdrop for understanding issues on the ten campuses we studied in more depth (Sections II and III).

In the first study, *Institutional Diversity: The Disparities in Higher Education Goals and Outcomes*, we examined whether institutional mission and practices result in specific diversity outcomes on a campus (e.g. progress relative to peer institutions, the presence of faculty of color). Specifically, the study contributes to discussions of how closely institutional progress on diversity mirrors the institutional mission statements, administrative rhetoric, and formal policies. While a majority of the institutions state their commitment to diversity in their official mission statements and planning documents, it may be that few actually provide programs and practices that result in a diverse learning environment for students.

A selected summary of results show that:

- Despite institutional mission statements and articulated priorities (institutional rhetoric), the main factor determining a diverse student body is the campus' admissions practices. More selective institutions tend to have fewer students of color.

- Campuses that report that core administrative leaders support diversity, have set diversity as an institutional priority, or report that their campus evaluates and rewards diversity, also tend to report they have made substantial progress in creating a diverse learning environment relative to other peer institutions.

- Using independently obtained measures of campus employment data that captures faculty diversity (presence) and tenured minority faculty (commitment) as institutional outcomes, we found that campuses that recruit and retain more minority faculty are places where administrators articulated attaining institutional prestige as a priority and campuses with a relatively high percentage of minority students.

The *Institutional Diversity* study confirmed what we know to be the loosely-coupled nature of academic institutions and some tenets of institutionalism theory. Namely, that diversity is frequently invoked as a symbol at institutions of higher learning, but it is less often realized in terms of actual initiatives or outcomes. This analysis suggests that to achieve a strong commitment to diversity, institutions of all types must reach beyond rhetorical mission statements to actively evaluate and reward diversity practices, cultivate institutional priorities with respect to diversity, demonstrate core leadership support for diversity initiatives, and enact practices that diversify their student bodies and faculty ranks. These findings reveal a close relationship between institutional priorities and institutional positioning relative to its peers, but a more distant one between priorities and structural outcomes (such as the percentage of tenured faculty of color on campus and the recruitment of a diverse student body). This suggests an interesting departure point for the future study of campus practices that result in outcomes that are associated with well-tailored policies, institutional priorities, and mission statements.

In the next study, Women and Faculty of Color on Campus: Campus Diversity and Civic Engagement Initiatives, we examine how organizational demographics contribute to the establishment of curricular and co-curricular initiatives which prepare college students to participate in a diverse democracy. This study underscores the importance of women and faculty of color in the creation of a diverse learning environment.

A selected summary of results show that:

- Academic administrators report more curricular practices and initiatives that focus on diversity and civic engagement at campuses where there is also a greater representation of women and minority faculty.

- Curricular-based diversity and civic engagement initiatives are also identified by academic administrators who reported relatively higher diversity and civic engagement priorities, core leadership support for diversity, faculty involvement in civic engagement, and greater progress relative to peer institutions in creating a diverse learning environment and integrating civic engagement.

- Although the presence of women and faculty of color is not related to extensive extracurricular initiatives as reported by academic administrators, other elements of institutional priorities and progress are key. Administrators identify more diversity co-curricular initiatives on campuses that are making substantial progress relative to peer institutions, evaluating and rewarding diversity, and have substantial core leadership.

The second study establishes that a set of focused priorities in the areas of diversity and civic engagement have a critical impact on the establishment of diversity and civic engagement curricular initiatives across institutional type. Actual practices (curricular and co-curricular initiatives) are also reported by academic administrators that believe they have achieved greater progress relative to peer institutions. It may be that such practices have become a source of pride in their competition with peer institutions. Most importantly, this study underscores the on-going importance of diversifying the faculty by race and gender in order to introduce and establish curricular initiatives that enable institutions to effectively prepare college students to engage in a diverse democracy.

> **Finding**
>
> The informal context for interaction across race is less important that the quality of interactions student have in a variety of settings.

In a third study, *Defining the Engaged Campus,* we explored how institutions were defining themselves as engaged in partnership with communities and committing resources to such initiatives. The consistent finding of less than optimal interactions and relationships between universities and their various communities has led other scholars to analyze the divergence of universities' dual roles as economically-oriented bureaucratic organizations (i.e., an industry) and as social institutions that serve important educational and democratic functions (Gumport, 2000). This study was an attempt at both conceptualizing and empirically assessing the characteristics (and correlates) of the "engaged" campus.

A selected summary of results show that:

- High engagement with a variety of community partners is evident on campuses where administrators articulated core leadership support and institutional priorities for civic engagement. More representative student

bodies of local populations are also associated with the higher levels of community partnership.

Using census data, we found that institutions located near communities with higher percentages of families living at or below the poverty level are also likely to have a relatively high level of engagement with community partners according to the chief academic officer. This is not necessarily the case for institutions located near high concentrations of racial/ethnic minority populations, however.

Private institutions, Historically Black Colleges and Universities (HBCUs), and campuses with dedicated structures (e.g. a central office) spent a relatively larger share of their budget on public service compared to other institutions.

This study makes significant headway in identifying the characteristics of an "engaged campus". It demonstrates that leadership and institutional priorities are crucial in determining the extent to which a campus develops multiple levels of partnership with the local community. Campuses are responsive in building community partnerships in areas of extreme poverty, indicating an ongoing effort to reduce the divide between town and gown. Relationships also thrive at institutions where the demographics of the campus represent the surrounding locality. There may be a gap, however, between institutional rhetoric and resources allocated to public service. Further study is needed on how this affects surrounding communities.

Conclusion

Taken together these studies articulate the need to make a stronger connection between practices and outcomes. They include new measures of assessment of institutional progress in relation to diversity and civic outcomes and articulation of campus priorities, leadership support, and stated mission. Campuses that make diversity and civic engagement central to daily operations are more likely to achieve the goals of preparing students to become full participants in a diverse democracy. ★

SECTION II. Preparing College Students to Participate in a Diverse Democracy: The Longitudinal Study of Student Outcomes

Introduction

Social science evidence held sway in the Supreme Court's 2003 decision in two affirmative action cases at the University of Michigan. Supporting the rationale for diversity in higher education, Justice O'Connor directly quoted the research findings, "… numerous studies show that student body diversity promotes learning outcomes, and 'better prepares students for an increasingly diverse workforce and society, and better prepares them as professionals'" (*Grutter v. Bollinger et al.*,123 S.Ct. 2325, 2337-2341). Both the Michigan Student Study and national data collected at the Higher Education Research Institute at UCLA, which formed the basis of expert testimony, were intended to provide information for educational purposes and were not tailored for use in a legal challenge of diversity. While these studies provided consistent findings about student engagement with diversity in relation to learning and democracy outcomes, they also raised new questions about optimal conditions for diversity and learning and opened new paths for further research. To inform the current policy context and extend our understanding of how diversity works in practice on college campuses, we engaged in a study using many of the measures and constructs represented in these original studies along with several new outcomes. This longitudinal study attempts to replicate the findings on ten public university campuses with a contemporary cohort of students at the beginning of the 21st century and a broad set of educational outcomes. Our goal was to test and extend the findings regarding students' interactions with diverse peers and begin to establish the nature of intentional campus practices that make diversity central to the educational and public service mission of the institution.

We posited a theory that diversity in the student body provides the kind of experience base and discontinuity needed to evince more active thinking processes among students, moving them from their own embedded worldviews to consider those of another (or their diverse peers) (Gurin, et al., 2003). Most developmental theories posit that social interaction is necessary to illicit the disequilibria that spurs growth and development in students (Chickering & Reisser,1991; Piaget, 1975; Muss, 1988; Perry, 1970). Since many students come to campuses from segregated neighborhoods and backgrounds (Orfield, Bachmeier, James, & Eitle, 1997), interaction across race/ethnicity and other social differences vary from individual to individual as well as whether the student is of majority or minority group status on a campus. Thus, the study captures multiple measures of social

interaction across race to establish more concretely differences in frequency, quality, and context that may affect a host of cognitive, social and democratic skills in college. We also documented several intentional educational practices to examine their relationship with a broad set of values, skills, and knowledge necessary to prepare students to participate in a diverse democracy.

Before presenting details of method and summarizing our findings, it is important to note that we are conscious that this is a generation of students that is highly susceptible to what is known in the social science literature as "period effects" (Alwin, Cohen, & Newcomb, 1991). Specifically, in between data collections in the longitudinal study, we experienced the far-reaching effects of the terrorists' attacks of September 11th, the unknown effects of the selection (instead of popular election) of President Bush, and the continuing drama of war and reconstruction in two Middle Eastern countries. These events are bound to affect the outcomes of this generation of American college students. We did our best to capture campus-based activity and participation surrounding September 11th, and note where appropriate how other events may have affected students' belief in the rhetoric and reality of traditional democratic processes. We include a special section on the analyses we conducted regarding the impact of September 11th activities on students cognitive, social, and democratic outcomes.

For summary purposes, the results of three groups of findings are highlighted. First, we examine the nature of student *informal interaction* with racially/ethnically diverse peers in relation to the outcomes in the longitudinal study (controlling for student background, climate issues, participation in campus-facilitated practices, and participation in 9/11 events and activities). Next, we summarize the independent effects of four *campus practices* that intentionally acquaint students with racial/ethnic diversity. Finally, we summarize the findings of the impact of a campus response and student participation in September 11th activities. (Analyses tables are available in a separate report and future publications of the project).

Informal Interaction with Diverse Peers

Table 1 shows the effects of students' informal interaction with diverse peers on the outcomes in the longitudinal study. Most studies document the frequency of interaction with diverse peers, but this study includes scales documenting students' quality of interaction (reports of positive and negative interactions), as well as the specific informal contexts in which interactions occur (e.g. dining, socializing). As a result, we found slightly different results for these measures of student interaction.

Students' analytical problem-solving skills are positively affected by the quality of interaction, while students' complex thinking skills are most affected by positive interactions and the frequency of interactions they have with diverse peers.

Negative interactions across race/ethnicity and informal contexts have negative effects on these cognitive outcomes, respectively, but are marginal in impact.

Students who report *positive* interactions with diverse peers tend to score *higher* on many important outcomes. The strongest significant effects are evident in students' cultural awareness, interest in social issues, self-efficacy for social change, belief in the importance of creating greater social awareness, perspective-taking skills, a pluralistic orientation, interest in poverty issues, concern for the public good, and support for race-based initiatives. Students with positive cross-racial encounters are likely to view racial inequality as a problem and are less likely to accept that some degree of social inequity is acceptable.

In contrast, results in the study show that informal, *negative interactions* with diverse peers result in *lower scores* on many outcomes—including lower self-confidence in leadership, cultural awareness, self-efficacy for social change, perspective-taking, support for institutional diversity practices, development of a pluralistic orientation, belief that conflict enhances democracy, concern for the public good, the importance of civic contributions, support for race-based initiatives, and tolerance of lesbian, gay, and bisexual people. Students reporting mostly negative interactions also think they have fundamental value differences with students from other racial/ethnic groups. Moreover, negative interactions heighten social identity awareness, producing greater identification with others in the same racial category. Overall, negative interactions with diverse peers can reinforce group differences.

The frequency of interaction measure suggests that students have both positive and negative interactions with diverse peers and once quality of interaction is controlled, substantial intergroup contact is significantly associated with several important outcomes. For example, students who report frequent contact with diverse peers have greater attributional complexity, self-confidence in cultural awareness, development of a pluralistic orientation, a belief that conflict enhances democracy, and tend to vote in federal and state elections. They are also less likely to perceive value differences with other racial/ethnic groups. In short, substantial interaction with diverse peers has the effect of providing students with many opportunities to learn how to resolve conflict and practice democratic skills. The only anomaly in the analyses was the result of a suppressor effect. After controlling for quality of interaction, those with frequent interaction were likely to believe that racial inequality is not a problem in society. It may be that frequent contact (independent of quality) means that students see diverse peers often and may start to believe we have actually resolved racial inequality in society.

> **Finding**
>
> Students who report frequent contact with diverse peers have greater cognitive complexity, self-confidence in cultural awareness, development of a pluralistic orientation, believe that conflict enhances democracy, and tend to vote in federal and state elections.

Outcome	Positive Interactions	Negative Interactions	Frequency of Interactions	Informal Context of Interactions
Cognitive				
Analytical Problem-Solving Skills	**	(*)		
Attributional Complexity	***		***	(*) [1]
Retention (returning in Fall 2002)				
Socio-Cognitive				
Leadership Skills	*	(*)	*	***
Cultural Awareness	***	(*)	**	
Interest in Social Issues	***			(**)[1]
Self-efficacy for Social Change[2]	***	(***)		
Importance of Creating Social Awareness	***			
Racial Inequality is Not a Problem in Society	(**)	***	***[1]	
Social Identity Awareness	**	***		
Perspective-taking	***	(***)	*	
Social Inequity Is Ok	(***)	***		
Support for Institutional Diversity and Equity		(***)		
Discomfort with racial/ ethnically diverse peers)	(*)	***		(**)
Democratic Sensibilities				
Pluralistic Orientation	***	(***)	***	**
Interest in Poverty Issues	***		*	(***)
Conflict Enhances Democracy		(**)	***	
Concern for the Public Good	***	(*)		
Importance of Civic Contribution	**	(**)		
Support for Race-based Initiatives	***	(*)	(*)	
Tolerance for LGB People		(*)	*	
Helped Others in the Community Vote	*			
Voted in Federal or State Elections			***	
Voted in Student Government Elections				***
Difference of Values with Other Racial/Ethnic Groups		***	(***)	

Notes: Significance levels of beta coefficients, * p = < .05; ** p = < .01; *** p = < .001. See Appendix for actual beta coefficients. Any relationship greater than .05 is left blank, indicating these were not statistically significant. Asterisks in parentheses indicate negative coefficients. [1] = Suppressor effect, which occurs when another interaction measure affects both the outcome and the indicated measure. 2 = Regression was run predicting low self-efficacy for social change but reversed to ease discussion.

The informal context for interaction across race is less important than the quality of interactions students have in these informal settings—and it may be that many superficial encounters occur in the contexts we attempted to document. Indeed, negative effects of context were evident (once quality was controlled) on attributional complexity, interest in social issues, awareness of social identity, and interest in poverty. On the other hand, students who report multiple social contexts for interaction with diverse peers also tend to report self-confidence in leadership skills, a pluralistic orientation, and that they voted in federal and state elections. This notion of superficiality in specific contexts will be further explored in subsequent analyses of the data.

Campus Practices to Acquaint Students with Diversity

Table 2 shows the independent effects of each of four campus practices on outcomes in the longitudinal study of students, controlling for students' predispositions on each outcome, background characteristics, levels of informal interaction with diverse peers, and participation in 9/11 activities. Curricular initiatives include measures of student participation in service learning, enrolling in integrated diversity courses (courses that include readings on different racial/ethnic groups), and participation in intergroup dialogue. We call the diversity courses integrated because two of the ten campuses do not have a diversity course requirement and instead have undertaken curriculum integration initiatives. Both service learning and intergroup dialogue represent an experiential component that complements course content. The intergroup dialogue is typically a facilitated intensive discussion across two or more social identity groups extending over the course of a term. Many of these dialogues constitute a course component. In addition, we assessed the impact of student participation in campus-facilitated, extra-curricular diversity events and activities (see the last column in Table 2).

It is striking to note that students who have an opportunity to take a diversified curriculum by the second year of college tend to score higher on 19 of 25 outcomes in the study. This finding is evident over and students' initial skills and dispositions because we controlled for students' predispositions on all of the outcomes at first year student orientation. Strongest effects of diversity courses were evident on complex thinking skills (attributional complexity), retention, cultural awareness, interest in social issues, the importance of creating social awareness, and support for institutional diversity initiatives. Students who take an integrated curriculum are also likely to believe that racial inequality is still a problem and less likely to accept that some social inequity is okay in society. These students express more interest in poverty, concern for the public good, making a civic contribution, support for race-based initiatives, and tolerance for lesbian, gay, and bisexual people. Students who took diversity courses are also more likely to vote

in federal or state elections. These results suggest that campus efforts to integrate the curriculum, or adopt a diversity requirement, have far-reaching effects on a host of educational outcomes that prepare students as participants in a diverse democracy.

Extra-curricular diversity events and activities also tend to produce significant effects on 17 of the 25 outcomes, with the most significant effects on socio-cognitive and democratic outcomes. Students who participated in these extra-curricular diversity activities tend to express self-confidence in leadership skills, cultural awareness, self-efficacy for social change, have higher interests in social issues, value creating social awareness, and support institutional diversity initiatives. They are also less likely to believe that racial inequality is not a problem or that some degree of social inequity is okay in society. These campus diversity practices have similar strong effects on many of the same democratic sensibilities as taking a diversity course, with two exceptions: Students who participated in campus facilitated diversity activities were more likely to help members of their community get out to vote and themselves were more likely to vote in student government elections. They were not, however, significantly more likely to vote in federal or state elections than their peers. ★

Table 2. Effects of Campus Practices on Outcomes in the Longitudinal Study

Outcomes	Service Learning	Diversity Courses	Intergroup Dialogue	Extra-Curricular Diversity Events
Cognitive				
Analytical Problem-Solving Skills			*	
Attributional Complexity		***	*	
Retention (returning in Fall 2002)		***		
Socio-Cognitive				
Leadership Skills	***		*	***
Cultural Awareness		***		***
Interest in Social Issues		***	*	***
Self-efficacy for Social Change²		*		***
Importance of Creating Social Awareness		***	*	***
Racial Inequality is Not A Problem in Society		(***)		(***)
Social Identity Awareness		*		
Perspective-taking		**	***	
Social Inequity Is Ok		(***)		(***)
Support for Institutional Diversity and Equity		***		***
Discomfort with racial/ ethnically diverse peers)				
Democratic Sensibilities				
Pluralistic Orientation		*	***	**
Interest in Poverty Issues		***	**	***
Conflict Enhances Democracy		***	**	(*)
Concern for the Public Good	***	***		***
Importance of Civic Contribution	***	***		***
Support for Race-based Initiatives	*	***		***
Tolerance for LGB People		***		
Helped Others in the Community Vote				***
Voted in Federal or State Elections	(*)	***		
Voted in Student Government Elections				***
Difference of Values with Other Racial/Ethnic Groups				

Notes: Significance levels of beta coefficients, * p = < .05; ** p = < .01; *** p = < .001. See Appendix for actual beta coefficients. Any relationship greater than .05 is left blank, indicating these were not statistically significant. Asterisks in parentheses indicate negative coefficients. [1] = Suppressor effect, which occurs when another interaction measure affects both the outcome and the indicated measure. [2] = Regression was run predicting low self-efficacy for social change but reversed to ease discussion.

It is important to note that participation in intergroup dialogue has a focused impact, with the most significant effects on students' perspective-taking skills (or capacity to see the world from someone else's perspective), the development of a pluralistic orientation, and the belief that conflict enhances democracy. The students appear to be engaging in difficult discussions and realizing they have much to learn from their differences—and perhaps are even more confident about dealing with conflict. These outcomes are consistent with the pedagogy and engagement activities of intergroup dialogue practices on four of the campuses that have structured interaction across communities with social differences. More modest effects were evident on students' analytical problem-solving, attributional complexity, leadership, cultural awareness, and value placed on creating greater social awareness.

Similarly, service learning also has a more limited impact on student outcomes, with strong positive effects on students' self-confidence in their leadership skills. As we might expect, participation in service learning contributes to students' democratic skills and sensibilities, including a concern for the public good, and valuing the importance of making civic contributions. It is interesting to note, however, that service learning participants are not more likely to vote in student elections and are somewhat less likely to have voted in state and federal elections. They appear to have chosen to express their citizenship participation outside of the established political process. It may that the 2000 election created disillusionment with the political process, leading students to seek alternative ways of expressing their concern for the public good and citizenship.

The Impact of September 11th on Students

Each campus responded differently to the hijacking of commercial jets and terrorists' attacks on the World Trade Center and Pentagon that occurred on September 11th, 2001. Four of the ten campuses participating in the longitudinal study were located on the East Coast, and those not located near the sites responded in important ways to this national tragedy. In some cases, campuses cancelled classes immediately and organized activities that facilitated discussion and provided some way of expressing support or assistance for those more directly affected. Upon return to classes, some campuses had provided guidelines to facilitate discussion in classrooms among faculty and students. In addition, there were many community-wide events such as campus vigils that required coordination and involved thousands of students, faculty, and administrators, to honor the victims and heroes of the September 11th attacks.

This historic event affected many people and institutions, and as we continue to feel aftermath effects today, college campuses are no exception. Such socio-historical events are known as "period effects" in the social science literature and

are often recorded retrospectively. As both students and institutions were affected in our study, it was impossible to separate societal from college environmental impact on the students in our study. We opted to record events and include information in our 2002 student surveys to study how this socio-historical event may affect the development of this generation of students.

Table 3 shows the student responses on the ten campuses to the events of September 11th. We divided responses according to engagement in *collective behaviors* and *identity awareness/affect*. More than a third of students attended a campus vigil, one in five participated in activities to help others, and 19 percent attended some organized educational program held on campus. While 13 percent reported they donated blood, as it turned out, very little was actually needed from any organized blood drive as a result of the disaster. While two-thirds of students reported feeling more aware of being an American, only 41 percent actually displayed an American flag. A few students reported feeling more aware of their race/ethnicity or Middle Eastern backgrounds, or status as an international student (some of whom faced more scrutiny in the aftermath).

Table 3. Responses to September 11th: Entering Student Cohort of 2000

Collective Behaviors	*Percentage of Students*
Displayed an American flag	41
Attended a campus vigil	35
Participated in activities to help others	21
Attended a class, seminar, campus panel, or workshop about the events	19
Donated blood	13
Identity Awareness/Affect	
Became more aware of being an American	66
Felt more aware of my ethnic minority status or Middle Eastern ethnicity	16
Felt wary of people who appear to be of Middle Eastern descent	14
Felt more aware of my status as an international student	4
Did not participate in any activities related to September 11th	15

Table 4 shows the unique contribution (over and above student background, predispositions, and campus experience measures) of student participation in a range of September 11th events on campus on outcomes in the longitudinal study. Positive effects suggest that engagement in September 11th events were related to a wide range of outcomes including complex thinking, intention to return the following Fall (retention), self-confidence in leadership skills and a pluralistic orientation. After two years of college, students most engaged in

September 11th activities also expressed greater interest in social issues and poverty, social and identity awareness, as well as ability to see the world from another's perspective. These students were also likely to express self-efficacy for social change and less likely to believe that racial inequality is no longer a problem in society.

In terms of democratic outcomes, students who were most engaged in the events surrounding September 11th also express support for institutional diversity and equity, the belief that conflict enhances democracy, a concern for the public good, the importance of making a civic contribution, and tolerance for individuals identified as lesbian, gay, or bisexual people. These students also were more likely than other students to vote in all types of elections and help others in the voting process.

It appears as if this national tragedy sparked new levels of student engagement and identity that subsequently affected student outcomes in the second year of college. In sum, it appears those students most engaged in September 11th activities felt more empowered and acquired an understanding about complexity in the world. It was important that campuses provided a vehicle for expression and concrete ways for students to become engaged in collective behaviors inside and outside of the classroom.

Table 4. The Impact of Student Participation in September 11th – Related Events on Outcomes in the Longitudinal Study

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Positive Effects	**Negative Effects**
Attributional Complexity***	
Likelihood of Returning for Classes in Fall 2002**	Racial Inequality is Not a Problem**
Leadership Skills**	
Pluralistic Orientation***	
Interest in Social Issues***	
Interest in Poverty Issues***	
Importance of Social Awareness***	
Self-efficacy for Social Change***	
Concern for the Public Good***	
Importance of Civic Contribution***	
Voted in Federal/State Elections***	
Voted in Student Elections***	
Helped Others in the Community Vote***	
Support for Institutional Diversity and Equity**	
Conflict Enhances Democracy**	
Social Identity Awareness*	
Perspective-taking*	
Tolerance for LGB Persons*	

Conclusion

The results of these analyses have several important implications. First, this study confirms much of the theory and previous research on changes in student cognitive, social and democratic outcomes that can be attributable to interactions with diverse peers (Gurin, et al., 2002). Although previous research examined some of these outcomes four years after college entry, it is important to note that this research confirms these changes occur even in the first two years of college and that these students are still engaged in their college pursuits. We acknowledge a great deal of variability in student interactions with diverse peers and attempted to extend previous research by identifying the frequency, quality and context for interaction. The study establishes that the quality of student interactions with diverse peers is key (positive and meaningful interaction) in producing a host of important outcomes. However, when left to chance, students are likely to revert to familiar and solidified positions when encountering conflict—a fact supported by our findings of lower scores on many outcomes among students who reported having negative interactions with diverse peers. These students are not only least skilled in intergroup relations, they are also least likely to exhibit the habits of mind that will prepare them for a diverse and global world.

Frequency of interaction with diverse peers on campus provides students with more experience to become accustomed to social difference, hone intergroup skills, and prepare them for diverse workplaces. It should be noted that frequency often depends on having sufficient numbers of diverse peers not only on a campus but also in majors, in classrooms, and in a variety of out of classroom contacts. Although the findings show that the context for interaction appears to be less important than the opportunity for substantial contact. It may be that in many contexts, only superficial encounters occur. Future research will further explore this idea to understand how quality and context of interaction, or quality and frequency of interaction affect the range of outcomes in this study.

Second, this study firmly establishes that many campus efforts to intentionally provide opportunities for students to learn about diverse social groups inside and outside the classroom have an impact on students as early as the second year of college. Specifically, a diversified curriculum has a consistently positive effect, as do campus facilitated extracurricular activities, on most of the outcomes monitored longitudinally in this study. In addition, course-linked experiences such as inter-group dialogue and service learning have significant effects on a specific set of outcomes particularly tailored to their goals and purposes. Overall, the study results imply the need for more work on intentional, structured interactions among diverse communities on campus, facilitated by skillful faculty and admin-istrators, to enhance the learning and preparation of students for citizenship in a diverse democracy. The results of this study makes it more difficult to ignore the

fact that intergroup relations are extremely variable on college campuses and this has implications for the values, skills and knowledge that students eventually acquire in entering a more global, socially complex, and diverse workplace. Diversity in representation on campuses, knowledge production and dissemination, and experience are central to the teaching and learning mission of higher education. As educators we claim that we do not leave learning to chance. Similarly we can longer leave intergroup relations to chance because it plays a central role in ensuring students have the cognitive, social, and democratic skills to participate in a diverse workforce and pluralistic democracy.

Finally, this generation of college students has been affected by the events of September 11th. Those who became engaged in activities in 2001 demonstrated consistently higher cognitive and social skills, and democratic sensibilities by the time of our second survey in 2002. Only future research on another cohort of students will be able to determine whether these changes are unique to these students and heightened as a result of this socio-historical event. We believe that such social influences have an "accentuation effect" that spurs students who are predisposed to do well on many the outcomes in this study. However, students without these dispositions but who were engaged in a collective responses and activities as a result of September 11th may have been propelled into new areas of development. The fact that campuses responded with vehicles for expression and discussion further emphasizes the importance of intentional campus practices if we expect students to become "empowered, informed, and responsible" citizens (AAC&U, 2002).

Higher education plays a central role in shaping the leadership, change agents, and professionals who will take responsibility in closing the gaps and devising creative solutions to contemporary social problems that are both global and local. While some may not agree with all of the outcomes we studied, there is now a more general belief that new social and cognitive skills for student learning are needed in areas important for living and working in a diverse society (AAC&U, 2002; Bikson & Law, 1994). This research provides an additional set of outcomes upon which to judge the educational value of diversity efforts and initiatives, providing a stronger rationale for making such efforts more central to the education of undergraduates. ★

Introduction

The Association of American Colleges and Universities (1995) states that today's college students "must learn, in every part of their educational experience, to live creatively with the multiplicity, ambiguity, and irreducible differences that are the defining conditions of the contemporary world" (p. xxii). One of the important locations of students' engagement with diversity is the college classroom. The classroom environment offers potential opportunities for students to learn to negotiate and communicate across difference, while overcoming the inherent challenges in working with diverse groups. Evidence shows that by introducing diversity into the curriculum, through both content and structured interactions among diverse peers, students are more likely to increase, among other things, the complexity of their thinking and their willingness to confront current social problems (see Gurin, Dey, Hurtado, & Gurin, 2002; Smith, 1997).

An important starting point is the integration of content knowledge about diverse social groups into a range of established courses in the disciplines, known as curriculum integration. In some cases, this includes the development of new courses that acquaint students with diversity in society. In addition to the curriculum integration approach, almost 62% of college campuses have reported developing a diversity requirement in the college curriculum (Humphreys, 2000). This often includes a course or set of courses that are identified to meet the guidelines established for knowledge about diversity before graduation. Furthermore, nearly 50% of colleges and universities have or are in the process of creating ethnic or women's studies programs (Levine & Cureton, 1992).

Purpose of the Classroom-based Studies

The purpose of the classroom-based studies were to 1) assess survey measures in relation to standardized cognitive and social cognitive measures and to 2) assess growth over one term and its link with interactions with diverse peers and communities. This report describes the methods, instruments, and findings from classroom-based studies, including both the initial pilot conducted at one of the universities and the larger study implemented in three classrooms at another of the participating universities.

It is important to monitor a range of outcomes designed to capture several dimensions of cognitive and social development, and democracy outcomes because students' develop along multiple dimensions during college (Chickering & Riesser,1991), and any single college environmental variable of interest (e.g.

programs and curriculum) can affect a variety of student outcomes. In addition, although most college effect sizes are small (Pascarella & Terenzini, 1991), what is most important is the opportunity to observe a pattern of consistent effects across a broad range of outcomes. The classroom-based studies provide an opportunity to assess the value of different types of measures, particularly for standard instruments that are sometimes very difficult to obtain for larger numbers of "highly mobile" college students.

Classroom-based Study I - Student Cognition

Study I was designed to meet our goal of assessing the relationship between our survey of measures and standard measures of cognitive and social cognitive development administered by other nationally-recognized researchers. A total of 289 students were recruited through the Psychology Pool on one of the participating campuses. Students in the pool were drawn from four introductory Psychology course sections. For participating students, it is a course requirement that students complete 5 hours of experiment sessions or an alternate written assignment. Introductory Psychology students are primarily in their first stages of taking college courses, and as it turns out, approximately 87% of the students were in their first or second year at the University. Slightly more than half of the student sample were women (53%) and about 24% identified as students of color (African American, Asian, Latino, or Native American).

As in most introductory courses, students had varying levels of exposure to diversity: Approximately 80% grew up in mostly white neighborhoods and about 68% claimed their friends were mostly white or nearly all white. Approximately 75% had never participated in a diversity program, only 24% had some experiential course dealing with diversity. These results indicate that many students are learning about diversity in college and that a good deal of their exposure may be through specific courses in the curriculum. This learning about diversity is occurring at the same time that students are learning to think, integrate differing points of view, and beginning to question the nature of knowledge.

Study I provides a basis for understanding the relationship between skills and dispositions measured in a variety of instruments. It sets the stage for understanding the link between diversity and learning and achieving more complex thinking skills among students. The project's classroom survey, Student Thinking and Interacting Survey (STIS) was administered along with standard cognitive tests. Results indicate that the standard test of critical thinking skills (CCTST) is not significantly related to students' perspective-taking skills, attributional complexity, or open-mindedness as a subset of the critical thinking dispositions test (CCTDI). The skills test is related to students' need for cognition (or need to understand and make sense of experience), the disposition to think critically, and the CCTDI

subscale of cognitive maturity. In contrast, scores on the Reasoning about Current Issues test (RCI) show students' reasoning skills are significantly correlated with attributional complexity and students' need for cognition. The RCI is somewhat more strongly related to the disposition inventory (students' motivation to be active thinkers), and the subtests of open-mindedness and cognitive maturity than the est of critical thinking (CCTST). This suggests that the actual test of critical thinking is probably better suited to understanding student performance on well-structured problems (involving logic and deduction) and less useful in assessing students' motivation and skill in solving ill-structured, social problems.

The dispositions inventory (CCTDI) had moderate to strong correlations with perspective-taking, attributional complexity and need for cognition (.46-.66 respectively). These results suggest that some of the measures on the STIS could possibly be used in other classroom studies in lieu of some standard tests of disposition to think critically or actual skill tests. We suggest this primarily because faculty typically have limited time for student testing, even though such knowledge would be important for structuring the course with an appropriate set of cognitive tasks or activities. A short instrument could be very useful to capture information about students' thinking skills and dispositions to enable faculty to facilitate the development of college students as complex thinkers. Further analysis and tests are planned on these data.

The information on students' interaction with diverse peers did not reveal significant results for most interaction measures, given students' limited exposure in the first few terms of college and the cross-sectional nature of the data. However, several results are highly suggestive of important relationships. For example, the amount of interaction individuals reported with students of color is positively associated with scores for open-mindedness and inquisitiveness on the dispositions inventory. Frequently discussing racial issues with peers is also positively associated with perspective-taking and attributional complexity. Frequent participation in a sorority/fraternity activity, typically a homogeneous peer environment, is associated with lower scores on the dispositions inventory—including many of the subtests. This finding about sororities and fraternities has been supported by other studies of willingness to be challenged and openness to diversity (Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996). Moreover, results show that students' negative social interactions with diverse peers are negatively associated with the disposition to think critically. Although causality cannot be determined in Study I, it is possible that the lack of student motivation to think critically has resulted in negative social interactions with diverse peers. This has strong implications for managing diversity in the workplace. In contrast, higher cognitive scores are evident across all of the measures among students' who had a strong desire to influence society. These findings are highly suggestive of how both diversity and

civic engagement is linked with cognitive development. These findings will be explored further in the Classroom-based Study II, which employs a pre- and post test design and is described below.

Classroom-based Study II - Social Action Engagement and Moral Reasoning Skills
The purpose of Study II was to assess growth over one term and its link with students' interactions with diverse peers and communities. It is important to note several refinements were conducted in the instruments from Study I to Study II. First, the Student Thinking and Interaction Survey (STIS) was revised for administration at the beginning and the end of one academic term. Democratic dispositions and multicultural competencies were added as items to the survey for pre- and post tests. In addition, questions about the pedagogy used in the course were added to help determine differences between the selected courses in terms of the amount of interaction with peers, content, and style of the instructor.

Second, it was determined that the California Critical Thinking Skills Test (CCTST) was not as well-suited to understanding complex social problems, and yet the dispositions inventory was retained because the capacities were illustrative of those necessary for preparation for a diverse society. Similarly, the RCI was retained because of its relevance to complex social problems. A discussion with the faculty member who led the diversity course included in this project suggested a moral development test (Defining Issues Test-II) that captured some movement from dualistic to more complex thinking (Adams & Zhou, 1994). Having previous data to review was useful in attempting to understand how students might differ in a comparative course framework. The inclusion of the moral development test adds significantly to our understanding of social cognitive development among future citizens in a diverse democracy. All instruments were administered in a pre- and post-test format nearly 83% of all students enrolled in the courses voluntarily filled out at least one of the study instruments.
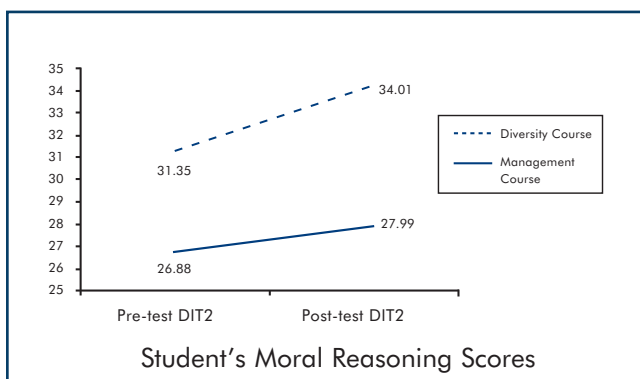
Three different courses were selected at one of the participating campuses most interested in implementing additional classroom-based studies. This campus was also selected because faculty had some experience assessing the impact of diversity courses (though not in a comparative framework). Perhaps more importantly, the faculty had primary control over the enrollment of students in a diversity course (Social Diversity in Education) that meets a campus-wide general education diversity requirement and as a result, the course is designed to have diverse peer interaction. Two other courses were selected

Student's Moral Reasoning Scores

after discussions with instructors. One course had significantly less-structured attention to the diversity of peers in the classroom but had content diversity (Introduction to Women's Studies focused on race, class, and gender) and another course (Principles of Management-Introductory course) had no specific attention to diversity in the classroom (either defined by attention to student enrollment or the content of the class).

Results of Study II

The following section reports findings from two studies that used data collected from the Classroom-based Study II. The first study used structural equation modeling to understand the impact of a diversity course on social action engagement. The second study used path analysis to examine the effects of a diversity course on student's development of moral reasoning.

Social Action Engagement. The results from this study (Laird, Hurtado & Engberg, in press) demonstrate that previous enrollment in diversity courses and enrollment in a diversity course in this study (in comparison with enrollment in an introductory management course) are positive, significant determinants of the quality of students' interactions with diverse peers measured at the end of a term. As such, the particular diversity courses under study are preparing students for the inherent challenges that await them as they enter an increasingly diverse workforce. Bikson and Law (1994), for instance, report that the business community is currently looking for future workers with the skills to work effectively in groups with colleagues of diverse backgrounds. Many diversity courses, including the two in this study, are working to achieve this goal by teaching students skills that translate into more open and meaningful exchanges with diverse peers.

The results show that previous enrollment in diversity courses and enrollment in one of the diversity courses in the study positively influenced students' commitment to social action engagement, an outcome that indicates students' desire to take specific actions in their communities in order to end social injustice. The results also show that the number of previous diversity courses increases the importance students place on social action engagement mediated by the amount of positive quality of interactions students have with diverse peers. That is, diversity content knowledge as well as opportunities for positive interactions with diverse peers work together to produce more socially engaged students. These results seem especially important given the growing public disaffection for civic engagement (Putnam, 2000). Diversity courses can be an appropriate and available educational solution for institutions interested in improving their students' commitment to the larger public good.

Because of the possible self-selection bias, we tested a theory of accentuation of group differences (Feldman and Newcomb, 1969) whereby two possible paths of accentuation of students' predispositions were investigated. The results suggest that enrollment in a diversity course (versus enrollment in a management course) does accentuate the importance students place on social action engagement. In other words, students more committed to social action engagement tended to enroll in a diversity course, which in turn strengthened this predisposition. The results, however, do not support the assertion that enrollment in a diversity course accentuated the amount of positive interactions students report having with diverse peers. Previous experience with positive, diverse peer interactions did not make it more likely that a student would enroll in one of the diversity courses. This suggests that students with relatively little diversity experience who enrolled in the diversity courses were more likely to end the term having experienced positive, interactions with diverse peers. This suggests that faculty who teach these courses managed to create a diverse learning environment conducive to interaction and development, this was explored further in the next study.

Moral Reasoning. Findings from this study (Hurtado, Mayhew, & Engberg, 2003) extend the body of work on the effects of diversity courses and the factors that promote moral reasoning in several important ways. While much work has been conducted on the outcomes of diversity courses, only a few have relied on standard measures of outcomes, and only a few previous studies have included a comparison group. Part of the problem is that it is relatively difficult to get instructors to agree to give up valuable class time unless they believe such tests are relevant and it is difficult to overcome the selection effect, since students are not randomly distributed across the courses they take. We were fortunate in that this campus had instructors who believe these outcomes were important for undergraduates. Our solution to the issue of selection differences was to account for students' predispositions (controlling for moral reasoning scores at Time 1) and modeling student course-taking in order to assess the additional contribution of the courses and their pedagogy. In creating the model, we illustrated how students' predispositions can be accentuated during college as well as how a diversity course can create a sufficient challenge to initiate development. In terms of accentuation, previous diversity courses as well as current enrollment in a diversity course contribute to student moral reasoning skills. While students' who enrolled in a diversity course begin higher on moral reasoning than students in the management course, they also increase moral reasoning capacity over their initial position.

The model also helped to uncover important findings related to challenging students' worldviews. A diversity course, presumably through content that addresses power, oppression, and social justice, can upset student's view of the

status quo and directly affect student moral reasoning. Moreover, students reported an active learning environment was evident in these diversity courses (in contrast to the students in the management class) that had the added benefit of increasing critical thinking dispositions, which in turn, produce higher moral reasoning. These series of direct and indirect paths (controlling for moral reasoning skills at the beginning of the term) helped to establish that taking a diverse course has a direct effect on student moral reasoning and that the pedagogy in such courses increases critical thinking dispositions that also enhances moral reasoning skills. This confirms the findings of Gurin et al. (2002), who emphasized that it was not simply the presence of diverse peers or diversity content, but also opportunities for meaningful interaction that result in important outcomes for students.

Our study also went beyond the standard pre and post assessments used in many moral development studies by accounting for the type of pedagogy and learning that students report was a feature of their course-related experiences. This work opens the door for additional studies that fully explore the contribution of the variety of college experiences that enhance student moral reasoning skills (King & Mayhew, in press). In particular, the question of how much time it takes for undergraduates to show change in their moral reasoning skills has received at least a partial answer. It appears as though change can be evidenced in one term, but this is also dependent on the pedagogy and content that is sufficiently challenging to move students from one stage of development toward another. No doubt, such instances of cognitive disequilibria must be accompanied by a relatively safe educational environment facilitated by a pedagogy that gives attention to student frustration or reversion to familiar positions. Future work should be devoted to understanding some of the standard classroom practices that challenge students toward active thinking and development of moral reasoning skills.

Conclusion

Taken together, these classroom-based studies begin to establish a link between diversity and many of the desirable outcomes typically articulated in the general education literature. Using survey items (many of which can substitute for some standardized tests) as well as widely available instruments for critical thinking and moral development in the classroom provides faculty with additional points of information about where students begin (in terms of cognitive and socio-cognitive skills) and how they develop by the end of the term. Subsequent work derived from the classroom-based studies will refine the survey instrument and develop toolkits for faculty use in the scholarship of teaching.

Perhaps more importantly, these studies highlight the learning and development students acquire through their enrollment in a diversity course. Diversity courses often provide students with a safe space to encounter difference, learn about

diverse social identity groups, and participate in structured opportunities for interaction with diverse peers. Compared to those courses that employ more traditional forms of pedagogical practices, diversity courses seem to accentuate and build upon students' prior attitudes and beliefs concerning the importance of social justice and diversity while continuing the development of important critical thinking and moral reasoning skills. Thus, diversity courses have the potential to develop the leadership and citizenship skills in students that are necessary as they prepare to enter an increasingly diverse and complex work-place and society. ★

SECTION IV. In Their Own Words: What Students Learn Through Interaction with Diverse Peers

Research from the 1930s to the 1990s has firmly established that the college peer group is one of the most important influences on a broad range of outcomes during college. Moreover, such learning from peers is not bounded by the walls of a classroom. Both qualitative and longitudinal studies of college students reveal consistent results. For example, women's attitudes, interest in social issues, and political involvements were shaped by college peers at Bennington College and these dispositions were sustained and reinforced throughout their adult lives (Newcomb, 1943; Newcomb, Koenig, Flacks, & Warwick, 1967; Alwin, Cohen, and Newcomb, 1991). Research on contemporary college students reveals that interactions with peers (and the characteristics of peers in particular colleges), have a significant influence on a wide range of outcomes that include aspirations, beliefs, cultural awareness, and values (Astin, 1993). Both extensive research studies found that the college peer group influenced commitment to civic or political engagement, which is often a precursor to participation in a democracy. A qualitative study of student learning outside the classroom identified a host of outcomes students learned directly from peers, including: Knowledge acquisition (e.g. content, concepts and vocabulary), academic skills (learning how to learn from their peers), self-awareness, confidence, and altruism (Kuh, 1993). Students also often reported learning from and gaining experience with people of different racial, ethnic, and cultural backgrounds.

The purpose of this study was to articulate, in students' own words, what they learned from diverse peers. More than any other part of the project, this approach began to reveal the complexities of interactions that result from diversity in the student body. It quickly became apparent that students of color and white students alike learn a great deal—however, some of the learning can be hindered by both intergroup attitudes, poor pedagogical facilitation, and continuing assumptions that stereotype students in the minority. Still, it is important to note that the learning outcomes that occur as a result of interactions with diverse peers are evidenced in several quantitative studies (Milem, 1994; Hurtado, 2001; Antonio, 2001; Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996). As might be expected, we learned a great deal about students' interactions, issues of campus climate, civic engagement, and views of their institution. In this report, we focused primarily on one broad construct in our coding scheme, *learning with diverse peers*. This report draws on a qualitative database of 77 student focus group discussions across ten campuses,

> ### Work-Related Skills
>
> "I've had people from all over in my groups … They have different ways of looking at stuff, so it helps us focus on the project better or get more outside views of it to better the project."

which offer a broad view of interaction patterns among diverse American college students. The study's findings give depth to our understanding of the vital role diversity plays in creating an extensive range of educational outcomes.

Types of Learning

In this section, we share our findings based on focus group participants' discussion regarding the types of learning, which occur during or because of interaction with diverse peers. We were able to note several types of learning in several areas, categorized as follows:

- Critical Cognitive Skills (cognitive flexibility, socio-historical thinking, critical thinking)
- Personal Growth and Self Awareness
- Content Knowledge
- Interpersonal skills/communication/collaboration

Critical Cognitive Skills

Students offered comments on a variety of practical skills viewed as critical to general functioning, for future career situations or for democratic participation. Prevalent subcategories among these skills are described as cognitive flexibility, communication and critical thinking.

Cognitive flexibility. In our discussions with students, some individuals have volunteered examples of learned adaptive behavior. This sense of openness and cognitive flexibility has served to facilitate interactions with diverse peers. The following passage exemplifies one student's patience with others' learning and cognitive flexibility:

There's certain questions that I guess I didn't even expect [from non-black students]. I don't get mad because I understand that they don't [understand]— you know? …There's certain people that are just ignorant and I guess there's other people that are just crude.…I guess that's the person's judgment on where to make that distinguishing point, and I guess that comes more into play [knowing] where their environment or how they came about that question. But you know, I don't think everybody should take offense at ignorant questions, because they may actually be trying to find an answer. More often than not if somebody asks a question and you personally, or in my case, if somebody asks me a question that I may believe to be an ignorant question. Or you know, something that just should be common sense, if I have the answer, whether they're being rude or not being rude, I'll give them my answer, so in that case they've been enlightened (University of Maryland, Black Students Focus Group, paragraph 407).

Critical thinking. In addition, students' comments offer frequent and varied insights that exhibit aspects of critical thinking. One dimension of critical thinking is the willingness to question perspectives blindly accepted as authoritative, complete, and unbiased. A participant from the University of Massachusetts demonstrated the awakening of this skill with regard to school curricula: "I learned in real life that all the things we've been taught in school aren't right… and that we [Native Americans] are important people…" (UMASS, Native American Students Focus Group, paragraph 75).

Other examples illustrate students' perspective-taking skills which are enhanced through interactions with diverse others: "I've had people from all over in my groups and we don't necessarily get their backgrounds on the perspective of the assignment…but I think we all get along fine, and they contribute like they'll have a different rhyming style or a different idea. They have different ways of looking at stuff, so it helps us focus on the project better or get more outside views of it to better the project."

On a related point, our participants' comments also repeatedly show evidence of meta-cognitive development (students' understanding of learning and their own thought processes) in conjunction with interaction across difference. One student exemplifies a connection between this meta-cognition and the critical thinking she had developed when she questions the portrayal of Native American culture and history in the curriculum. She poignantly states, "it gets real hard to learn things when you're always questioning whether it's true or not" (UMASS, Native American Student Focus Group, paragraph 333).

Socio-historical thinking. Perhaps one of the most salient findings was the ways in which the students we spoke with associated socio-political understanding and knowledge about power relations with their interaction with diverse peers. Students presented this type of learning at several different levels. For example, one student commented on how interactions with diverse peers influenced awareness about systems of oppression:

I think the biggest thing that I've [seen as] the theme from any course where we're discussing racial or ethnic issues is the idea of white privilege and how real that really is…You may think you're aware of it, and you think you know what it means…Every time you take another course where this subject matter is brought up…it's almost uncomfortable in these classes because you sit here and I look like in 20 years I'm going to look like the people who are controlling, causing… all the racial disparities in this country (University of Maryland, White Students Focus Group, paragraph 98).

An example from the University of Mexico is typical of the same type of applied socio-historical thinking shown by participants in our study:

You see it in California right now. [At] Berkeley, man, there's like only one Chicano person in Law School right now. Before [Proposition 209], there was more than that, now it went down to one. There are not enough faculty members in their diversity programs or their ethnic programs anymore. It's like…in California everything [civil rights progress] is regressing right now…They're trying to do that in Seattle right now, in Oregon and in Washington right now—trying to throw out Affirmative Action. They're trying to do that in Chicago right now too…That's why I think that while I was involved in a lot of these cultural programs, promoting culture and identity, I understand that…[the] administration…historically has never wanted us here (University of New Mexico, Native American Student Focus Group, paragraph 431).

Personal Growth and Self-Awareness

The most prevalent themes in the students' discussions on learning from diverse peers included many comments referring to students' personal growth and self-awareness. Students of all backgrounds described learning about their own cultural backgrounds and histories, leading to an increased awareness about how others see them and how their identities operate within historical and current socio-historical systems. While relatively undefined comments such as "I learned about myself" can suggest learning about individual strengths and weaknesses, affective reactions and socialization, more specific commentary offers a glimpse at how students gain knowledge about their own place within broader systems of privilege and oppression.

Identity Awareness

"Learning how to deal with different situations, how to be a Native (American) person in the world and function."

When asked to elaborate on a statement about having learned a great deal from interaction with peers within and outside his ethnic group, one Native American participant explained: "learning how to deal with different situations, how to be a Native person in the world and function and just everything…" (UMASS Native American Student Focus Group, paragraph 93). This statement has something in common with comments, which refer primarily to learning cultural content, and by extension to identity development and growth (i.e., "I learned a lot about being Native American") (UMASS Native American Student Focus Group, paragraph 73). In referring to "dealing with different situations," this passage suggests further that the student gained political and practical navigation skills. Moreover, there appears to be another dimension implicit in the statement about learning "how to be a Native person in the world." In addition to

practical navigation skills, the students might arguably be referring to an increased integration of identity development into everyday interaction.

Another complex example surfaced at the University of Minnesota. A student notes how moving into a predominantly White context foregrounded his racial identity. This experience provided contrast to his pre-college experience, which stressed his gender privilege:

> But up here, I was no longer a boy, I was a Black boy. So I kind of saw how I have reaped the benefits of gender privilege. But when I came up here I no longer reap that, and I was just a Black person, therefore I was on the other side. And so I kind of got both perspectives of [privilege] (UMN Diverse Student Focus Group, paragraph 55).

Students shared experiences that led them to a clearer understanding of how their position in society and concomitant life histories affect their beliefs and perceptions.

> [As a White student], I understand my own history so much better because any time in my family when we've gotten a loan from wherever or bought a house. That's a time when a Black family was denied one (UMASS Active Student Focus Group, paragraph 168).

And from a different point of view a student learns about heterogeneity within their own group as well as walking between two cultures (white and Native American):

> I know I've done a lot of growing and finding out who I am… I think that a lot of issues that I had growing up, like with self-esteem and almost being kind of afraid to…be Native because of ridicule and plus sometimes people not wanting you to be Native because you don't look like the stereotypical Native… I can't say that I've completely overcome them, but I think that I've done a lot of growing and gotten a lot of strength from people… I've learned a lot and about a lot of different cultures… I know my culture that I grew up at home with, but I've also had the experience and opportunities meeting a lot of different people, different native people from different backgrounds (UMASS Native American Student Focus Group, paragraph 75).

Finally, students mentioned developing skills that facilitate self-reflection about their own assumptions and how commonalities can be constructed. This example demonstrates how, as a result of interaction with diverse peers, students re-evaluated their own values and behaviors.

We went to this retreat over the weekend and we did the crossing-the-line [exercise] and we were blown away because we were like, "Oh my God, me and her can relate on this, me and her can relate on that!" because so many of them stepped into that middle. And that made me learn about myself, that I form assumptions. I form assumptions like this (finger snap) about them [White participants in the retreat]. By doing that exercise it cut down a lot of assumptions…and we were able to interact more closely because those assumptions were… cut down" (UMASS Black Student Focus Group, paragraph 321).

Content Knowledge

Student participants repeatedly referred to content knowledge they had gained through interaction with diverse peers. The principal area that presented itself here concerned cultural content (e.g. traditions, music, food, literature). Other areas that emerged include language and a variety of course content—ranging from chemistry to Japanese.

Interaction facilitates broader, more applied learning for all students across the board. Moreover, previously excluded knowledge bases contribute to all students' identity development and ability to function and engage in the world. In this case an African American student in a predominantly white course on diversity begins to realize how little she knows about her own history:

I learned so much, I was so angry that I didn't learn anything in high school. I feel like the whole entire history and all the courses I took were about European history and everybody else's history but mine, and within like one semester, I learned so much (University of Massachusetts Black Students Focus Group, paragraph 339).

Further analysis revealed academic content made real through experiential components of courses:

"[The course included] a service learning program. That gave me the opportunity to be a tutor to elementary-aged children of African American [descent] and this is in South Phoenix. We went to Salvation Amy and [encountered], very low socioeconomic status, almost entirely African American children, staff, teachers—entire community. And to kind of throw yourself into something like that, I've,…I look back on it now, I'd like to say that it was probably the greatest things I've learned here at ASU so far"(Arizona State University, paragraph 113).

Interpersonal Skills/Communication/Collaboration

Students provided various examples of improved communication and language skills due to interactions they had with diverse peers.

> How to communicate, you know, you learn people's different [ways] learning…learning techniques, learning styles, because I'm more of a visual, I need to see it and then need to see you do it and then have to see it again and then I get it. Some people just, right there, so you know, it's kind of like okay, now, slow down guys, I need to…I need to understand. It was a big thing of communication. You learn how to talk to each other and you know how to work with each other (Norfolk State University, Nontraditional Students Focus Group, paragraph 108).

> [Our intergroup interactions are] definitely ethnic and I have to say, "well what does that mean" and they're real good about telling me. You know, they're real good about telling me, and I'll tease some of them, you know, I'll say "you need to write a dictionary. I need a dictionary." So that has been very interesting. It's like learning a new language in a way (Norfolk State University, Nontraditional Students Focus Group, paragraph 259).

Building a Civil Society

"Because our major goal is to build a civil society, we have to learn how to interact with every single person in the dorm whether we like it or not. We still have to interact with them and live with them, and we have built this trust among everyone."

A student leader from the University of New Mexico observed that diversity among team members could be instrumental to collaboration and creativity:

> I think that being [a] diverse [group] and of different races and ethnicities give you a chance to…work in a team, like creative ideas, different approaches, different outlets, so I value that (University of New Mexico, Latino Student Leaders Focus Group, paragraph 32).

This construct must also include interpersonal and life skills resulting from interaction with diverse peers that inform or reform the student's perspectives regarding their personal philosophy about engaging with other people in general.

> I think one of the things that's different about our [residential] program is, because our major goal is to build a civil society, we have to learn how to interact with every single person in the dorm whether we like it or not. We still have to interact with them and live with them, and we have built this trust among everyone in the dorm" (University of Maryland, Civicus Focus Group paragraph 111).

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Context of Learning

The *Context of Learning* refers to the location, environment or space in which learning occurs. Students have indicated that learning occurs in a number of different contexts. Although learning is occurring in various contexts, each of these experiences was placed into two broad categories, one being in the classroom and the other being outside of the classroom. The definitions of what constitutes outside of the classroom are broad whereas the use of classroom is more traditional in its reference, although inclusive of discussions that are a part of a course. The activities students participate in such as organizations and living environments, for example, are viewed as contexts outside of the formal classroom.

Classroom Experience Context

When discussing where learning from interactions with diverse others occurred, students' frequently identified the classroom. Many students cited class discussions (including lecture and supplemental discussion sections led by Teaching Assistants) with diverse peers as a valuable source of learning about other cultures. Such discussions often led students to an appreciation of diverse perspectives and life circumstances with which were previously unfamiliar. On student describes learning from the texts in a Race and Ethnicity course.

> We read these amazing books and like analyzed them and all detail, you know, what these authors were thinking, like their writing style, why did they write the book the way they wrote it, what points they were trying to make. It was a great course. It wasn't preaching at you, it was like you were learning in the class and I was learning in a way I wanted to learn, so I think it does put a different spin on it when you have more of your own choice involved in that. (UVM Student Leaders Focus Group, paragraph 460)

For other students, these discussions proved more educational than the class text itself. For example, according to one student "I didn't learn anything from the reading, but the dialogues themselves…everyone was like wow, that's very insightful why don't you speak more often" (UMASS White Student Focus Group, paragraph 280).

The interracial dialogues were a very important part of the learning that took place in the classrooms. Many students claimed that it was the first time they had been involved in open and honest discussion regarding racial issues. One student recounted a diversity course he had taken:

> I learned a lot about a lot of different people in that class because we hit the issues [issues surrounding race]. We just talked about it straight out. We just

talked about the issue right then and there. And it wasn't like beating around the bush (UMASS, Engaged Student Focus Group, paragraph 134).

Students most often reported these types of discussions occurring in courses with a specific focus on diversity and diversity issues. Because of the variance in types of courses that are listed as diversity courses at colleges and universities, it is difficult to make generalizations about these courses. However, what is clear from students' comments is that courses that have diversity as their core focus have provided students' with the most opportunity to learn about other races and cultures. One student claimed, "The only way I've had a chance to talk about diversity issues in class is if it, the class, is directed at diversity" (UMASS Asian Students Focus Group, paragraph 87).

It is also important to note that when discussing diversity, students rarely mentioned courses that did not have a diversity focus. This is not meant to imply that learning about diverse peers does not occur in courses without a diversity focus, rather that when asked about where they most often learn from diverse peers, students repeatedly mentioned courses with a diversity focus.

Out of classroom experience

Out of classroom learning from diverse peers occurred in various places such as internships and jobs, residence halls, dining halls, student organizations and in casual conversation. However, when discussing significant, life-changing forms of learning, students' most frequently discussed diversity-focused retreats. For most students this was the first time they had been in intense, uncomfortable, discussions about race. A representative comment made by one student recalls his retreat experience.

It was a trip to Memphis and it was a Black group of students and a Jewish group of students so it was supposed to be this intergroup dialogue components of the entire trip and that journey blew my mind. I'm still processing stuff because it was intense (University of Maryland, Black Student Focus Group, paragraph 351).

According to students, in another retreat activity in which the purpose was to put students in a situation where they were treated as people of a specific group (i.e., Black, White, Asian, disabled, LGBT, low-income, etc.). Students were not informed what group they were in and had to perform various tasks. One student described his feelings as he was performing an activity.

We found out that we were homosexual and no one would come near us. And everybody was told to not come near us because we were diseased and something bad was going to happen to them. It was pretty interesting how no one will come near you and you just kind of feel shut out (University of Minnesota, White Students Focus Group, paragraph 128).

Additionally, several students spoke of various activities they were involved in and how this created a context for learning. One student discussed an experience as a student leader.

I actually was President of the Multicultural Council, freshman and sophomore year. I would say for my freshman year I found it was known, and it was primarily attended by African Americans. And I found out that most of the multicultural councils around campus, my freshman year, were also seen as like another African American group rather than a multicultural group, which also includes white people or Caucasians. And my second year, not through my efforts alone at all, but thanks to the students' word of mouth, that the Multicultural Council started to change and become more popular just with a diverse group of people. We had everyone from like European to Indian to Mexican to Puerto Rican, everything, and it was great and I learned a lot from both my years. Since I didn't have any interaction with African Americans for most of my life, until I came here, that was a very big learning experience, and I liked it a lot. (University of Michigan, Asian Pacific American Student Focus Group, paragraph 53)

Many of the students found the activities frustrating, yet enlightening and educational. These activities allowed a lot of students to experience many of the difficulties that other people go through on a daily basis. Several students talked about processing the activity as much as several weeks after the event.

Although a number of students talked at length about diversity retreats, students frequently mentioned the residence halls as a place where students learn about other cultures. Students also mentioned conversations with roommates of different races as important avenues to learn about different groups of people. Many students describe their experience in the residence halls:

Well, especially living in the dorms you learn a lot. You learn just different ways of thinking amongst different ethnicities. Different standards of morals. Every aspect of life you see different from what you have at home or what you're used to. (University of Michigan, Latino Student Focus Group, paragraph 62)

Some students actually express an interest in more interactions in the residence halls, believing that structures for interaction are actually diminished by administrators at times:

"…you will find that students who are Black end up rooming with each other, and they don't know each other…There's no questionnaire we fill out when we're looking for roommates. So we're just assigned people, and students who are like from Arab descent are always put together. So I think maybe somebody—"the man" is out there trying [to prevent interaction]. 'Cause what a great opportunity to live with somebody from a different culture… If it is done on purpose, for somebody [reference to administrators] to have the mindset that it's just gonna end up in a roommate conflict and people are gonna have to move. I think that's really a shame, because that is like a great opportunity. I mean, if it doesn't work out, it doesn't work out. (Arizona State, White Student Focus Group, paragraph 121).

Classroom interactions appear to provide many students with their first exposure to a wide variety of cultures. Many students talked about the importance of diversity courses as an academic vehicle to learn about other races and cultures. An important factor in this learning process was in-class dialogues between students of different racial groups. This is important to note. While the curriculum of these courses may be educational, students overwhelmingly talked about the power of the stories and words of students of various races and ethnicities. This would appear to indicate that having a diverse classroom is as important as offering diversity courses. Barriers to the learning that occurs in classrooms among diverse students were also mentioned, including the lack of opportunity to learn from students of different ethnicities because of the curriculum, class size, or lack of representation of students of color.

While classroom learning appears to give students academically-based exposure to other races and cultures, diversity retreats and activities had a significant impact on how they viewed themselves (individually), their culture, and other's culture. Students mentioned their involvement in student organizations, living in residence halls, participating in cultural or diversity programs and daily interaction with diverse others as contexts where learning occurs about the diversity that exists within each racial/ethnic group and across groups.

Educating Others

While students appear to learn a great deal in diverse environments such as classrooms and retreats, many students of color in our study described feeling a burden to provide the teaching in many of those situations. For many students of color,

this was a tiring and frustrating event that occurred quite frequently. According to one student who felt this frustration, "I'm sorry, it's not my job as a person of color to go out and out and grab a White person and be like, 'Hey, let me teach you about my culture.' I mean it's just not my job" (UMASS, Asian Student Focus Group, paragraph 203). What many students found additionally frustrating was that in classroom environments, some faculty allowed students to teach the class. Many students expressed extreme frustration over this occurrence.

A: Like we're in a class and basically the professor, non-Native usually…will kind of step aside and expect you to teach the class or you're expected to know everything about all Native people or even about your own Native background and I think that that 's not fair, and then if you don't know it, you're kind of looked at like "Oh…"

W: You don't know your own culture.

A: It's like yeah, "well, why are you saying you're Native?" It's like just because I'm Native doesn't mean I know everything, because if you get down to it, I'm sure an Asian person or a European person or whatever, they don't know everything there is to know about their own culture, but I think in identifying as Native, you're supposed to know everything (UMASS, Native Student Focus Group, paragraph 309).

Implicit in this students' statement is the double bind students of color face in being expected to know and talk about their history: because she is Native American she is expected to know all Native American history, yet she is discredited as a Native American if she lacks knowledge to educate others. One student summed up his frustration by stating, "they're asking me to be an expert on [a course] I'm taking, you know? A class that I'm learning about, they're asking me to already know, and that's NOT COOL" (UMASS, Native Student Focus Group, paragraph 291).

An additional frustration expressed by students of color was voiced by a student who discussed having to also serve as educators outside of the class.

So I've been kind of the one they ask questions like 'How do you do your hair? Oh, I like how your hair is' or questions like 'Do you mind if I call you Black or do you prefer being called African American?' And just stuff like that (University of Minnesota, Diverse Student Focus Group, paragraph 324).

Many students benefit from the interracial dialogues that occur in and out of

the classroom. However, continually answering questions and serving as educators often leads to negative feelings about the "expected" responsibility to educate others. One Native American student recounts an incident that occurred during class and how the incident made him uncomfortable.

> I was taking a Native America class my first semester and I was in a discussion and I was the only native Native American person in a room full of the majority more or less, and whenever we got to one of the subjects about massacres or anything like that, everybody turned to me and the teacher would ask the question…oh, how do you feel about that….and it was like everybody was waiting on me to say, okay, I didn't like it (all laughs). Your forefathers killed my people, you know? And it got so sickening I mean, I didn't want to take the class no more, and I stopped going pretty much, and it just got to the point where I felt that much uncomfortable, I just didn't want to go and that's hard for me to say you know, being a guy, that I felt uncomfortable going to a class (UMASS, Native American Focus Group, Paragraph 283-287).

"Aha!" Moments

Finally, it is useful to identify defining moments of student learning. While these moments are rare, they serve to characterize the extreme case of learning that students present as particularly powerful, important and lasting. Learning about diversity with diverse peers who were interested in civil rights came as a surprise to one Black student.

> Even me being a black person in that class, I learned about things that I didn't even know and I was so shocked to be in that class and see half white kids and half black kids, I was like 'what are so many white people doing in the history of the civil rights movement?' And with someone who's a teacher who's involved with the Black Panthers and everything. What are people doing here? I was so shocked to see white people actually very interested in learning. I was like 'whoa'! (UMASS African-American Students Focus Group, paragraph 235).

In the following passage, a White male student recounts a day when he realized that his life experiences had been informed by privilege and had not been universal as he had assumed before college.

> I'd kind of figured that it was all just kind of bullshit and that racism didn't really exist. I was like…whatever, we're all people and we all know that we're all people and I just kind of realized like in the middle of that class, I was like, "Whoa. First of all, I'm a freak. And second of all, the

world sucks." So it was like a rough day (University of Massachusetts, White Students Focus Group, paragraph 478).

Dealing with the disequilibria that learning about diversity causes and coming to a realization about one's own group status or the status of others can be considered a "rough day" or equivalent to what some students described as having "their eyes opened." One group of students on a campus who had "their eyes opened" through participation in intensive,
intergroup dialogue formed a new student organization called Allies. This is a multicultural coalition that works to promote intergroup relations and social justice. In short, the students who have experienced intensive moments of inter-cultural learning are putting their skills to use toward the public good.

Conclusion

Our analysis provides insight into college students' interactions across dimensions of race, ethnicity and social difference. We capture both basic knowledge about patterns of student interaction and insight into how students learn to function in a diverse democracy. For example, of special interest to institutions are key findings on structural opportunities for diverse interaction: these lay foundations for institutions to improve practices that simultaneously promote diversity and learning. As they describe their own interactions, some students gain a sophisticated socio-historical understanding of their own roles in society. Thus, students who interact with diverse peers may be better prepared to enter the 21st century workforce. This study suggests that encounters with diverse peers are not unproblematic and paints a more complex picture of how learning outcomes can result.

Through the voices of diverse students in multiple university contexts across the nation, we begin to understand how important facilitated interaction is to the learning process, and how frequently faculty are ill-prepared or ill-informed about how to maximize the learning that can occur within a diverse classroom. In some respects, extra-curricular contexts were more intentionally structured for diverse student interactions. Finally, results convey how taxing it is for students of color to be in the position of educating others when they are in the minority. It is no wonder that these students often seek safe environments in activities on campus that affirm identity and a sense of self-worth. These findings suggest that faculty development activities that assist them in managing diverse classrooms and conflict are in order. ★

Project Summary and Future Directions

T he current project is a significant attempt to bring empirical evidence to inform the practice of educating a diverse student body, as well as move beyond controversy to provide insights into the types of education that will be necessary for citizenship in a diverse society with a common destiny. During the course of the project, we have presented results to over 30 audiences ranging from college presidents, undergraduate teaching faculty, education scholars, and diversity practitioners. Several campuses have inquired about using our instruments and are willing to try to assess students in their own classrooms and programs. Half of the ten participating campuses have initiated a fourth year survey of the entering Class of 2000 at their own cost. The ten participating campuses have been using the data for faculty development activity and discussion. The project is, therefore, important to revitalizing higher education's mission in preparing a diverse student body, merging research and practice in meeting the campus needs, and assisting campuses in overcoming a student culture of disengagement to cultivate citizenship for the future. It is important to note that those campuses that have eliminated race in admissions procedures are particularly interested in finding new innovations to meet their diversity goals and prepare students as citizens for a diverse democracy.

Results from the study are surprisingly consistent across measures and different methods of analysis. They not only confirm previous research on the value of educating a diversity student body, the results begin to delineate the particular conditions and intentional campus practices that accomplish cognitive, social and democratic skill development among undergraduates. It is the rare student that constantly seeks both intellectual and social challenge. Students generally seek comfort in familiarity, avoid negative interactions, and sometimes avoid the kind of challenge that promotes growth. Those students with poor intergroup relations skills also score lowest on a majority of the outcomes in this study—they are least prepared to enter a diverse workplace and participate in a diverse democracy. As educators interested in preparing empowered, informed and responsible citizens we cannot leave student learning about diversity and intergroup relations to chance. There are many ways the ten campuses are innovating—and the results of their efforts are evident in many of the educational outcomes. However, such initiatives necessitate that institutions adopt a philosophy that makes diversity central to the educational and public service mission of the institution. This appears to be occurring in a visible way on some of the campuses where campus leadership and faculty activity converge.

Future Directions

The next stage of the project will include a book length treatment of findings that will include implications for racial/ethnic minorities as well as white classmates (see Current and Planned Publications). It is clear that students from different groups have distinct experiences at college entry and tend to experience college differently. Work has already begun to tease out these differences by diversity context (campuses with high, medium, and low diversity), by racial/ethnic group (Asians, African Americans, Latinos, Native Americans, and Caucasians), and by subenvironments where exposure to diversity differs in college (e.g. student athletes, student major/discipline). Future presentations and papers will continue to be posted on the project website. More sophisticated analyses (causal modeling and multilevel modeling) are already in the works for additional presentations and papers, and one completed dissertation and at least four dissertations using data from the project are in progress. These are scheduled to be presented at national meetings in the coming years, and will appear in a variety of journals and proceedings.

The liaisons on the ten campuses have agreed to complete an edited book that would help to provide more information about practices that might be more broadly adopted across higher education institutions. Additional research has also begun on several of the key practices that intentionally facilitate student interaction with diverse peers and result in important outcomes. Important links have developed across the ten campuses that also promise more collaborative activity to adopt and implement practices that best achieve the goals of preparing students to participate in a diverse democracy.

Further development of the classroom-based studies is continuing. Specifically, we are exploring the development of faculty "tool kits" for assessment of student interactions and cognitive and social development in a variety of classrooms at four-year and two-year institutions, with additional testing in campus classrooms and diversity programs already scheduled in 2004. This is likely to result in a revised classroom-based survey that can be scanned or taken on the web to assist faculty in determining beginning levels of cognitive and social development and prior experiences with diversity to shape pedagogy and curriculum. There are likely to be many more spin-offs of research and practice ideas in the future to help campuses create authentic, diverse learning environments.

Current and Planned Publications

Published or In Press

Hurtado, S. (in press). Diversity and learning for a pluralistic democracy, in Allen, W.A. (Ed.) *Higher Education in a Global Society: Achieving Diversity, Equity and Excellence.* Oxford, England: Elsevier Publishers.

Gurin, P., Dey, E.L., Gurin, G., and Hurtado, S. (in press). How Does Racial Diversity Promote Education? *Western Journal of Black Studies.*

Laird, T. N., Hurtado, S. and Engberg, M.E. (in press). Modeling accentuation effects: Enrolling in a diversity course and the importance of social action engagement. *Journal of Higher Education.*

Hurtado, S., Dey, E.L., Gurin, P., & Gurin, G. (2003). The college environment, diversity, and student learning. In Smart, J. (Ed.) *Higher Education: Handbook of Theory and Research,* Vol. XVIII, 145-189. Amsterdam: Kluwer Academic Press.

Gurin, P., Dey, E. L., Hurtado, S. & Gurin, G. (Fall, 2002). Diversity and higher education: Theory and impact on educational outcomes, *Harvard Educational Review ,72* (3), 330-366.

_____Reprinted in Howell, A. and Tuitt, F. (2003). *Race and Higher Education: Rethinking Pedagogy in Diverse College Classrooms,* HER Reprint Series, 36. Cambridge, MA: Harvard Education Publishing Group.

Hurtado, S., Engberg, M. E., Ponjuan, L., & Landreman, L. (2002). Students' precollege preparation for participation in a diverse democracy, *Research in Higher Education, 43* (2), 162-186.

Articles In Review or Revision

Hurtado, S., Ponjuan, L., and Smith, G. Women and Faculty of Color: Impact on Curricular and Co-curricular Initiatives. *Research in Higher Education.*

Rowley, L., Hurtado, S., Ponjuan, L., and Mawila, K. Defining the Engaged Campus. *Research in Higher Education.*

Rowley, L., Hurtado, S., and Ponjuan, L. Institutional Diversity: The Disparity Between Higher Education Goals and Outcomes. *American Educational Research Journal.*

Books and Monographs in Preparation

Hurtado, S., *Diverse Democracies: Campus Environments that Facilitate Diversity and Civic Engagement.* Washington, DC: American Council on Education (working title)

Hurtado, S. (Ed.) *Transforming Universities: Research and Practice on Diversity and Civic Engagement in Undergraduate Education.* (working title)

Hurtado, S. *Higher Learning for Citizenship in a Diverse Democracy.* (working title)

Student Dissertations Completed or in Progress

Cook, B. J. *Taking One For the Team: Intercollegiate Athletic Participation and Diversity Outcome.*

Engberg, M. *Educating the Workforce for the 21st Century: The Impact of the Undergraduate Experience on Students' Pluralistic Orientation.*

Meader, E. W. *Students' Support of Institutional Diversity: The Impact of Diverse College Experiences.*

Nelson Laird, Thomas. (2003). *Exploring "Diversity" Courses and Their Effects on Aspects of Students' Identities.* Unpublished dissertation, University of Michigan.

Wathington, H. *In Search of the Beloved Community: Student Interactions Across Racial/Ethnic Communities.*

References

Adams, M., & Zhou-McGovern, Y. (1994, April 4-8, 1994). *The sociomoral development of undergraduates in a "social diversity" course: developmental theory, research, and instructional applications.* Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.

Allison, P.D. (2002). *Missing data.* Thousand Oaks, CA: Sage Publications.

Alwin, D.F., Cohen, R.L., and Newcomb, T.M. (1991). *Political Attitudes Over the Life Span: The Bennington Women after Fifty Years.* Madison, WI: The University of Wisconsin Press.

Antonio, A. L. (2001). The Role of Interracial Interaction in the Development of Leadership Skills and Cultural Knowledge and Understanding. *Research in Higher Education* 42(5), 593-617.

Association of American Colleges and Universities (1995). *Liberal learning and the arts of connection for the new academy.* Washington, DC: Association of American Colleges and Universities.

Association of American Colleges and Universities. (2002, October). *Greater Expectations: A New Vision for Learning as a Nation Goes to College.* Washington, DC: AAC&U.

Astin, A.W. (1993). *What Matters in College: Four Critical Years Revisited.* San Francisco: Jossey-Bass.

Babbie, E. (2001). *The Practice of Social Research.* Belmont, CA: Wadsworth.

Bikson, T.K. & Law, S.A. (1994). *Global preparedness and human resources.* Santa Monica, CA: Rand Institute.

Braskamp, L., & Wergin, J. (1999). Forming New Social Partnerships. In W. Tierney (Ed.), *The Responsive University: Restructuring for High Performance* (pp. 62-91). Baltimore: Johns Hopkins University Press.

Cacioppo, J.T. & Petty, R.E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, 42 (1) 116-131.

Chang, M. (1996) *Racial Diversity in Higher Education: Does a Racially Mixed Student Population Affect Student Outcomes?* Unpublished doctoral dissertation, University of California, Los Angeles.

Chapa, J.(1999). Hopwood Effects and Responses: The Search for Race-Blind Means of Improving Minority Access to Higher Education. Presented at a research conference sponsored by the American Council on Education, January, Washington, DC.

Chickering, A. & Reisser, L. (1991). *Education and Identity.* San Francisco: Jossey-Bass.

Davis, M.H. (1980) A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology*, 10, 85.

Enright, R.D., Lapsley, D.K. & Shukla, D.G. (1979). Adolescent egocentrism in early and late adolescence. Adolescence, 14, 687-695.

Erikson, E. (1946). Ego development and historical change. *Psychoanalytic Study of the Child, 2*, 359-396.

Erikson, E. (1956). The problem of ego identity. *Journal of American Psychoanalytic Association, 4,* 56-121.

Facione, P.A. & Facione, N.C. (1992). *The California Critical Thinking Disposition Inventory.* Millbrae: California Academic Press

Facione, P.A., Facione, N.C. & Giancarlo, C. F. (1996). The motivation to think in working and

learning in setting expectations for student learning. *New Directions for Higher Education, 96 (Winter),* 67-79.

Facione, P. A., Sanchez, C.A., Facione, N.C. & Galnen, J. (1995). The disposition toward critical thinking. *The Journal of General Education, 44 (1),* 1-25.

Feldman, K. and Newcomb, T. (1969). *The Impact of College on Students.* San Francisco: Jossey-Bass.

Fletcher G.J.O. et al, (1986). Attributional Complexity: an Individual differences Measure. *Journal of Personality and Social Psychology,* 51 (4), 875-884.

Gumport, P. J. (2000). Academic restructuring: Organizational change and institutional imperatives. *Higher Education,* 39: 67-91.

Gurin, P., Dey, E. L., Hurtado, S. & Gurin, G. (Fall, 2002). Diversity and higher education: Theory and impact on educational outcomes, *Harvard Educational Review ,72* (3), 330-366.

Humphreys, D. (2000). National survey finds diversity requirement common around the country. *Diversity Digest, 5 (1).* Available at www.diversityweb.org/Digest.

Hurtado, S. (2001). Linking diversity with educational purpose: College outcomes associated with diversity in the faculty and student body. In Orfield, G. (Ed.) *Diversity Challenged.* Cambridge, MA: the Harvard Civil Rights Project, Harvard Publishing Group.

Hurtado, S., Mayhew, M.J. & Engberg, M.E. (2003). Diversity in the classroom and students' moral reasoning. Presented at the annual meeting of the Association for the Study of Higher and Postsecondary Education, Portland, OR.

Hurtado, S., Milem, J., Clayton-Pedersen, A., & Allen, W. (1999). *Enacting Diverse Learning Environments. Improving the Climate for Racial/Ethnic Diversity in Higher Education* (No. V26,8). Washington, D.C.: The George Washington University.

Hurtado, S. & Wathington Cade, H. (2000). "Time for Retreat" or Renewal? The Impact of *Hopwood* on Campus. In Heller, D. (Ed.), *The States and Public Higher Education: Affordability, Access, and Accountability.* Baltimore, MD: Johns Hopkins University Press

Justiz, M (1994). Demographic trends and the challenges of American higher education. In Justiz, M.J. et al. (Eds.), *Minorities in Higher Education.* Phoenix: ACE/Oryx Press.

King, P. M., & Mayhew, M. J. (2002). Moral judgment development in higher education: Insights from the Defining Issues Test. *Journal of Moral Education, 31*(3), 247-270.

King, P.M. & Shuford, B.C. (1996). A multicultural view is a more cognitively complex view. *American Behavioral Scientist,* 40 (2), 153-164.

Kish, L. (1965). *Survey Sampling.* New York: John Wiley & Sons.

Kitchener, K.S., & King, P.M. (1981). Reflective judgment: Concepts of justifications and their relationship to age and education. *Journal of Applied Developmental Psychology,* 2 (2), 89-116.

Kuh, G.D. (1993). In their own words: What students learn outside the classroom. *American Educational Research Journal, 30* (2), 277-304.

Levine, A. & Cureton, J. (1992). The quiet revolution: Eleven facts about multiculturalism and the curriculum. *Change,* 24(1), 25 – 29.

Milem, J.F. (1994). College, students, and racial understanding. *Thought & Action, 9* (2), 51-92.

Miles, M. & Huberman, M. (1994). *Qualitative data analysis: an expanded sourcebook.* Thousand Oaks: Sage Publications

Muss, R.E. (1988). *Theories of Adolescence.* Fifth Edition. New York: Random House.

Nelson Laird, T.F., Engberg, M.E., & Hurtado, S. (in press). Modeling Accentuation Effects: Enrolling in a Diversity Course and the Importance of Social Action Engagement. *The Journal of Higher Education.*

Newcomb, T. (1943). Personality and Social Change: Attitude Formation in a Student Community. New York: Dryden Press.

Newcomb, T., Koenig, K.E., Flacks, R. and Warwick, D.P. (1967). *Persistence and Change: Bennington College and Its Students After 25 years.* New York: John Wiley and Sons.

Orfield, G (Ed.). (2001). *Diversity challenged: Evidence on the impact of affirmative action.* Cambridge, MA: Harvard Education Publishing Group segregation in American public schools: A special report from the Harvard Project on School Desegregation. *Equity & Excellence in Education, 30* (2), 5-24.

Pascarella, E.T., Edison, M., Nora, A., Hagedorn, L.S., & Terenzini, P.T. (1996). Influences on students' openness to diversity and challenge in the first year of college. *Journal of Higher Education, 67* (2), 174-195.

Pascarella, E. T. and Terenzini, P. T. (1991). *How College Affects Students.* San Francisco: Jossey-Bass.

Perry, W. (1970*), Forms of Intellectual and Ethical Development in the College Years: A Scheme.* New York: Holt, Rinehart & Winston.

Piaget, J. (1975). *The equilibration of cognitive structures: The central problem of intellectual development.* Chicago: University of Chicago Press.

Pusser, Brian (2001) "The Contemporary Politics of Access Policy: California after Proposition 209," in Donald E. Heller (ed.) *The States and Public Higher Education: Affordability, Access, and Accountability.* Johns Hopkins Press.

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community.* New York: Simon & Schuster.

Ruble, D. (1994). Developmental changes in achievement evaluation: motivational implications of self-other differences. *Child Development, 65,* 1095-1110.

Selman, R.L. (1980). *The Growth of Interpersonal Understanding: Developmental and Clinical Analyses.* New York: Academic Press.

Slavin, R. (1995). Cooperative learning and intergroup relations. In J.A. Banks & C.A. McGee Banks, *Handbook of Research on Multicultural Education.* New York: Macmillan.

Smith, D. G. & Associates (1997). *Diversity Works: The Emerging Picture of How Students Benefit.* Washington, DC: Association of American College and Universities.

Springer, L., Palmer, B., Terenzini, P.T., Pascarella, E.T., & Nora, A. (1996). Attitudes toward campus diversity: Participation in a racial or cultural awareness workshop. *The Review of Higher Education, 20* (1), 53-68.

Trevino, J.G. (2001). The intergroup relations center at Arizona State University. In Schoem, D. and Hurtado, S. (Eds.). *Intergroup Dialogue: Deliberative Democracy in Schools, Colleges, Workplace and Community.*

Wells, A.S. & Crain, R.L. (1994). Perpetuation theory and the long-term effects of school desegregation. *Review of Educational Research, 64* (4), 531-555.

Wolfe, C.T. & Spencer, S. J. (1996). Stereotypes and prejudice: Their overt and subtle influence in the classroom. *American Behavioral Scientist, 40* (2), 176-185.

Appendix A: Project Methods

National Survey of Chief Academic Officers

Data Source. We conducted a nationwide survey that examined the various approaches that institutions utilize to increase student involvement in civic behaviors and awareness of diverse perspectives. The survey was designed to elicit responses from the chief academic officer at each institution about institutional commitments to civic engagement and diversity initiatives. The postsecondary institutions selected for this report included those that: a) offer of a baccalaureate degree; b) have a substantial undergraduate student body; c) have a comparative institutional makeup that consisted of different types of undergraduate institutions (i.e. Doctoral, Masters, and Bachelors); and d) have a diversity of geographic representation.

The survey was distributed to all four-year colleges and universities identified through the directory of higher education institutions. We mailed 1440 surveys to institutions in all fifty states in the Spring of 2001. A second wave of surveys were sent after four weeks to individuals at institutions who failed to respond, resulting in a return rate of 55%.

The CensusCD 2000 Long form database provided area demographics data for each institution. The database contained community racial/ethnic population demographics, and percentage of families living at or below poverty for a five-mile radius area surrounding each institution.[1] Additional institutional data were obtained from the 2001 Integrated Postsecondary Education Data System (IPEDS) Institutional Characteristics survey (i.e. HBCU status and financial data), Fall Staff data (faculty counts by race/ethnicity), and student enrollment data (by race/ethnicity). A measure of institutional selectivity was obtained from Peterson's online institutional database.[2] The institutional selectivity was based on the percentage of students admitted from the total applicant pool. Data was collected on each institution using these variety of sources and merged with the survey of academic officers.

Sample. Survey respondents for this study included a total of 744 chief academic officers, or their designee, employed at four-year institutions. For this study, the institutions were classified according to the 2000 Carnegie classification system.[3] This system better reflects the diversity of the types of institutions within the higher education system. In this report, Doctoral/Research Universities-Extensive and Intensive represented 11.7%, Master's College and Universities I & II represented 42.2%, and Baccalaureate Colleges-Liberal Arts and General represented 34.5% of the sample. In terms of control of institution, public institutions were more represented than private institutions in the sample (56% Public; 44% private). Over 73% of the institutions are members of the American Council on Education, 69.5% were members of the Association of American Colleges and Universities (AACU), and 76.3% reported they were individual members of the American Association for Higher Education.

Measures. In each research paper we used various theoretical constructs to measure institutional commitment to diversity and civic engagement initiatives. In Appendix B, Table B1 highlights several factor scales that represent these constructs. Each of these factor scales measures academic administrators' perception of their institution's efforts on diversity and civic engagement issues. Specifically, we asked about institutional commitment, priorities, and evaluation and rewards of diversity and civic engagement activities. Other factors measured core leadership support of diversity and civic engagement initiatives.

Exploratory factor analyses were conducted using principal axis factoring and orthogonal rotation methods, in order to reduce the number of measured variables for these analyses. Factor loadings of at least .45 or

1 A five-mile radius was based on the geographic or global positioning coordinates of each institution using data based on census tracts of surrounding communities.
2 Please refer to: http://www.petersons.com
3 Please refer to the Carnegie website for more information: http://www.carnegiefoundation.org/Classification

higher were retained in the creation of the factor scales. The Cronbach's alpha reliabilities for the scales ranged from .73 to .88. We used these factor scales to conduct several regression analyses. Full statistical details and results are available in each paper on the website.

Longitudinal Survey of the Class of 2000

Data Source. The data for this longitudinal study originated from a national research project. Students who participated in the project attended one of ten public universities that varied in geographic location (e.g., Midwest, Northeast, Southwest, Northwest), size (e.g. 5000 to 20,000 undergraduate enrollment), and student enrollment demographics (e.g. 5% to 95% students of color). Institutions were selected based on the following criteria: a) a strong commitment to diversity initiatives as exemplified through curricular and co-curricular programming; b) recent success in diversifying their student enrollment; and c) a commitment to public service and the development of significant partnerships with the local community.

One of the key approaches of the project included a longitudinal survey of students who matriculated during the Fall 2000 academic year. The survey was designed to assess how students' exposure to diversity, through both classroom and informal interactions, influenced their cognitive, social-cognitive, and democratic learning and development. The first-year survey focused primarily on students' precollege socialization experiences whereas the follow-up survey specifically addressed the impact of the college experience. Students were administered the first-year survey during orientation sessions and additional waves were distributed in courses that attracted a large number of first-year students. The follow-up survey was administered to students at the end of their second year of college using multiple waves of both paper and web-based surveys.

One of the participating campuses was dropped from the longitudinal study due to extremely low second-year response rates. For the remaining nine campuses, the return rate for those students who responded to the first-year survey was approximately 36% (n=13,520) and the second-year return rate, based on the first-year respondent pool, was 35% (n=4757). The relatively low return rates reflect the difficulty of conducting longitudinal research at large public universities, especially those that experience student attrition or find it difficult to maintain updated student contact information. In order to correct for the low response rates and generalize our results to the original sample population, statistical weights were created to account for the probability of students responding to both the first- and second-year surveys. The dataset contained 4403 students who completed both the first- and second-year surveys.

Analysis. Statistical weighting techniques were used in order to correct for low survey response rates. The weighting procedure required three steps: a logistic regression analysis to obtain predicted probabilities of responding in year 1 and year 2, post-stratification weighting, and a weight adjustment technique. Researchers employ this weighting technique to adjust the sample upward to the original population, thereby ensuring that low responding groups (e.g., race/ethnic groups) are weighted to reflect the original population (Babbie, 2001; Kish, 1965). The general formula used to develop the weight variable is: Total weight = (1/probability of selection* 1/predicted probability of response* post-stratification weight). The weight variable used for this study accounted for the probability of students responding to both the first- and second-year surveys. In order to ensure that the weighted sample did not produce incorrect standard errors and inflated t-statistics results, due to a larger weighted sample size, an adjusted weight variable was also created (total weight variable / mean of the total weight variable).

Missing data analysis revealed a small range of missing data (1% to 11%) across all variables in the model. In order to maintain statistical power, missing values for all continuous variables were replaced using the EM algorithm. The EM algorithm represents a general method for obtaining maximum likelihood (ML) estimates when a small proportion of the data is missing (Dempster et al., 1997; McLachlan & Krishnan, 1997 as cited in Allison, 2002). The EM algorithm consists of two steps, an expectation step and a maximization step, that are repeated multiple times in an iterative process that eventually converges to the ML

estimates. Unlike conventional regression imputation, in which decisions must be made on which variables to use as predictors, the EM algorithm starts with a full covariance matrix and uses all available variables as predictors for imputing missing data.

Exploratory factor analysis, using principal axis factoring and Varimax rotation, was conducted in order to create scaled indices across different question sets in the two surveys. Items loadings that were higher than .40 were retained and developed into scaled indices. (See Appendix C for factor scales, items and Cronbach's alpha reliability). Factor scales were computed and using in subsequent analyses.

Paired samples t-test were conducted on each first- and second-year dependent measure to determine if there were significant mean differences from Year 1 to Year 2. Next, a blocked linear regression technique was used to investigate the impact of each set of independent measures on the outcomes. The first block included the first-year (pretest) measure of each dependent variable in order to assess change that occurred by the end of year two on each outcome. The next six blocks helped to assess the relative contribution of each set of independent measures: background and demographic characteristics, pre-college socialization, institutional characteristics and climate, college interactions with diverse peers, curricular and co-curricular college context, and societal influences. We also employed tests for the reliability of the regression model, multicollinearity, and hetero-scedasticity.

Classroom-Based Studies I and II

Study I- Student Cognition. Information on cognitive tests were gathered from a range of sources, example questions were reviewed for specific instruments, and time and resources needed for administration were evaluated in the selection of the instruments. Three researchers reviewed all of the materials and met to discuss each instrument in several sessions. Materials were ordered from proprietors who designed and administer the California Critical Thinking Skills Test, California Critical Thinking Dispositions Inventory (CCTDI), and Reasoning About Current Issues (RCI) test. The latter test measures reflective judgment or students' capacity to evaluate issues when confronted with different pieces of evidence.

We were limited by the number of "student hours" we could claim through the Psychology Pool and so we opted for a ninety minute "sit down" administration of four instruments. All students took our survey, the Student Thinking and Interacting Survey (STIS) and the California Critical Thinking Dispositions Inventory (CCTDI), which respectively took approximately 10 and 25 minutes to complete. The student sample was then randomly split, where 147 students took the Reasoning about Current Issues Test (RCI) and another142 students took the California Critical Thinking Skills Test, each of which took 45 minutes to one hour to complete.

Students signed up to appear in a series of administrations that occurred over Winter and Spring term 2000. An instruction script was developed and delivered to each group of students who arrived for the tests. A monitor was in the room during each administration to answer questions, proceed according to established timing, record students who showed up for the tests (to assign course credit), and generally oversee administration. Other than a clear set of instructions, very little guidance was needed.

Measures. Outcomes were developed for the study based on several previous instruments. Specifically, several measures were included on the STIS survey including a measure of Perspective-taking, Attributional Complexity, and Need for Cognition (see Appendix E). The perspective-taking measure was developed from Davis's (1983) empathy studies, in which the measure reflects "a tendency or ability of the respondent to adopt the perspective, or point of view, of other people" (Davis, 1983, p. 4). Attributional complexity measures the level of complexity students' use to explain human behavior. It is subset of the 28-item Attributional Complexity scale developed by Fletcher et al, 1986). A student's need for cognition is measured on a 13-item scale reflecting tendencies of thinkers, specifically their need to understand and make sense of the experiential world (Cacioppo & Petty, 1982).

The CCTDI total score comes from a 75-item instrument consisting of seven subscales: Open-mindedness,

Inquisitiveness, Systematicity, Analyticity, Truth-seeking, Critical thinking self-confidence, and cognitive maturity (Facione & Facione, 1992). In addition, students took the CCST, which also has subscales that measure analytical skills, evaluation, inference, deductive reasoning, and inductive reasoning. The CCST is a test of performance, while the dispositions inventory (CCTDI) provides information about the specific motivation behind individuals' thinking process. The dispositions inventory provides information about a students' capacity for active thinking or motivation to think in work and learning environments, providing more information about the thinking process than can be surmised from right or wrong answers on a skills test (Facione, Facione, & Giancarlo, 1996). Researchers constitute the disposition to think critically (Facione, Sanchez, Facione, & Galnen, 1995).

The RCI instrument is based on the reflective judgment model (RJM) developed by King and Kitchener (1981, 1994). The model consists of seven stages, which fall into three groups indicative of *pre-reflective* thought (Stages 1-3), *quasi- reflective* thought (Stages 4 and 5), and *reflective* thought (Stages 6 and 7). The model is based on Perry's (1970) work on reflective thinking as well as works by a variety of philosophers (e.g., Popper, Lakatos, Dewey), and has undergone further development since the authors' first study of reflective judgment (Kitchener & King, 1981). According to the current model, there is a progression of seven distinct sets of epistemic assumptions about knowledge and how knowledge is acquired; each set has its own logical coherency, and is called a *stage*. Each successive stage is "posited to represent a more complex and effective form of justification, providing more inclusive and better integrated assumptions for evaluating and defending a point of view. The more advanced sets allow greater differentiation between ill-structured and well-structured problems and allow more complex and complete data to be integrated into a solution" (King & Kitchner, 1994, p. 13). Thus, the RCI measures students' thinking across a variety of issues in a series of problem-solving situations in which the nature of knowledge is uncertain – situations similar to many important social problems today..

All of the independent variables in the study were measured on the STIS survey. These included demographic measures; ability; race of the neighborhood, high school, and friends on campus; goals to influence society, seven distinct measures of student interactions with different racial/ethnic groups, and course-related diversity learning. Factor analyses were conducted to develop indices of attributional complexity, perspective-taking, need for cognition, and other constructs. Pearson correlations were conducted to assess the strength of relationships between standardize measures and survey-based measures. Multiple regressions were conducted to predict many of the outcomes.

Classroom Study II—Diversity,
Moral Reasoning and Social Action Engagement

Instructors and students volunteered to participate during the Spring 2001 term. Each faculty member decided to give homework points to encourage participation, but according to Human Subjects' guidelines, participation was considered voluntary. In consultation with instructors and teaching assistants, it was determined that the instruments be distributed during class time but that these would be completed on student's own time. There was a concern that too much valuable class time would be taken up with testing, which each instructor evaluated differently in terms of relevance to the content and course objectives. The instruments were adaptable to administration outside of class with a clear instruction sheet. In fact, at least one instrument has adopted a web-based design for completion. We chose not to use the web-based format, however, so that all of the instruments could be administered in the same format.

All instruments were administered in a pre- and post-test format with slightly varying levels of participation. The project surveys and reflective judgment test (RCI) were administered to students in the 2nd week and again in the 12th week of the term. The critical thinking dispositions (CCTDI) and moral development test (DIT-II) were administered in the 3rd and 13th week of class. All students received test packets and took them home to complete. Table 4 shows the responses by course and administration.

It is important to note that nearly 83% of all students enrolled in the three courses filled out at least one of the study instruments. However, given the focus of the study, fewer students perhaps saw the relevance of the instruments in the management course, and therefore, a much lower response rate was evident for students in that course. This is ironic in that employers are seeking workers with the skills that allow them to operate managerially in a more diverse workplace. Extensive information about student background characteristics on each of the participants allows us to control for initial differences, and the larger sample size of two of the courses allows us to more accurately match the sample of students enrolled in the diversity course.

Table 1: Number of Student Reponses by Course

Responses by Instrument and when it was administered

Course	Number Enrolled	Pre STIS	Pre RCI	Pre CCTDI	Pre DIT-2	Post STIS	Post RCI	Post CCTDI	Post DIT-2
EDUC	68	64	62	59	59	55	54	52	51
response rate		94.1%	91.2%	86.8%	86.8%	80.9%	79.4%	76.5%	75.0%
MGT	345	196	196	167	168	193	191	187	187
response rate		56.8%	56.8%	48.4%	48.7%	55.9%	55.4%	54.2%	54.2%
WOST	295	258	256	229	230	217	213	206	205
response rate		87.5%	86.8%	77.6%	78.0%	73.6%	72.2%	69.8%	69.5%
TOTAL	708	518	514	455	457	465	458	445	443
response rate		73.2%	72.6%	64.3%	64.5%	65.7%	64.7%	62.9%	62.6%

Note: 587 (82.9%) students filled out at least one of the surveys

Analyses. The first study used structural equation modeling to understand the impact of a diversity course on social action engagement. The second study used path analysis to examine the effects of a diversity course on student's development of moral reasoning.